The influence of “sense of place” on the formation of the city image of the riverside historic urban district (Case study of Kampung Bandar, Senapelan, Pekanbaru)

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Abstract. As towns and cities developed, their characteristics manifest as the uniqueness brought by the diversity among them. However, modernization had caused the uniqueness tend to fade and lose its meaning as part of the image of a city. Kampung Bandar, the oldest historic district of Pekanbaru located on the riverside of Siak River, is no longer well-known for its prominent past. There are three historic sites that is potential to be developed as the image of the district, namely Rumah Singgah Tuan Kadi, Istana Hinggap and Rumah Tenun. This paper aims to assess how a sense of place influences the city image in the historic riverside district of Kampung Bandar based on the perceptions of its inhabitants, as well as the role of landmarks as attributes of the sense of place in the formation of the historic urban district’s image. This research used a mixed-method. Qualitative methods involve in-depth interviews with experts and community leaders, whereas quantitative methods scored sites importance according to the local community. The results of the study show that Rumah Singgah Tuan Kadi have the highest sense of place and contribute significantly to the formation of the riverside urban district’s image.

1. Introduction

Towns and cities emerge, develop, and manifest their own characteristics. Consequently, each person will form an image of a physical relationship between one environment with [1] and people with their environment [2]. However, over time, the uniqueness of the city image tends to fade because of developments that directly absorb the architectural forms and urban planning of other cities. In 1960, Kevin Lynch’s “The Image of the City” described how people perceive and represent a city, and the urban artifacts that form the city's image. Lynch analyzed the two qualities of the built environment, i.e., ease and readability. These two aspects deliver a strong and recognizable image of the parts [3]. The image of the city is not formed based on its identity which makes it distinguishable from other cities, but from its characteristic city elements [4].

A place's identity is based on the relationship between "who we are, where we are, and how our local environment is". Fisher in Ernawati [5] stated that the local environment includes geographic location, cultural traditions, and cultural heritage affecting people's lives. The understanding of the culture and characteristics of the region is one of the aspects of consideration so that the occupants feel at home in their environment. As such, the culture of the local community becomes the soul or sense of the city's own character whereas the environmental (physical) aspect is its body. A strong city character will prevent it from being easily influenced by an outside culture. The city's ability to retain
its character and influence its surrounding districts and cities is called local genius [6]. This means that the city image cannot be detached from its cultural traditions and heritage for it to have an identity and become a local genius.

The image of the city is usually formed from its downtown district which typically has historical value supported by the existence of old/ancient buildings [7]. The downtown district must be occupied by inhabitants who have lived there for generations since the city’s formation. Everybody has a desire to “belong” in a particular social or cultural community, a sense of attachment to a particular place (place attachment), and a sense of belonging to something significant in life [5]. Place attachment explains the feelings associated with the place that people have frequented, up to the feeling of ownership of the place [8]. With such feelings instilled in an individual, this will help increase their sense of pride to their environment in which they live (sense of place).

In the past few decades, the concept of sense of place has been explored in architectural and urban design research. Sense of place is a factor that turns space into a place that has the characteristics of that particular district, and the behavior and emotions of each individual [9-12]. The human brain can use spatial information to encode and interpret emotional reactions to meaningful places – places where persons have formed a sense of place. Particular aspects of a physical environment (e.g., landmarks) seem to influence one's construction of cognitive maps. Therefore, studying the experience of a sense of place is practical as it relates to spatial cognition [13]. A sense of place means that a person can orient himself in an environment by using all his senses. The ability to acquire a sense of place depends on the degree of familiarity a person has with the place. Since a sense of place comes from attributing meanings to physical form, places are affected by people and, in return, people are affected by places. As a result, there is interaction with the place rather than merely a response to a place that gives it meaning. This explains why old and historical places have more of a sense of place than newer places [10].

The definition of a sense of place, in general, is the sensations that humans receive in the form of impressions or feelings caused by a place, which, in turn, is then perceived by humans to ascribe a meaning to a place [11]. The concept of a sense of place characterizes the relationship between humans and the environment they encounter [2]. A sense of place is a multidimensional attitude that describes an emotional connection to the physical environment, which also includes values, symbols, and cultural meanings ascribed to the place [14-16]. The element of the sense of place is derived from three aspects, namely activities, the environment (physical), and the meaning [17-18]. Moreover, these three components of the sense of place form the physical attributes of the environment, activities that occur therein, and human conception in the sense of each place [19].

Many studies have discussed the sense of place and image of a district such as this study. However, research that investigates the relationship between the formations of district images through a sense of place, particularly in riverside urban districts, is still limited. Therefore, this study fills a gap in the literature by examining the influence of the sense of place on the formation of the city image of the riverside historic urban district. Furthermore, the role of landmarks that become an attribute of the sense of place and an aspect of image formation of riverbanks should also be researched.

Almost all cities in Indonesia are built near water source, either a lake, a river basin, or the sea. Two groups of communities on the side of the water can be distinguished. First, the communities that traditionally settled and developed on the riverside with a water-based culture. Second, the communities that inhabited the side of the water because of the process of urbanization and its land constraints (e.g., occupying marginal land). The activities that develop in districts with two different types of communities usually have different characteristics. The water culture community has a relatively homogeneous community composition and partakes in aquatic-oriented activities. Examples of such activities are livelihoods, mode of transportation, service activities that utilize the river as a water source, and the form of traditional festivals [20]. While the urban community occupying the public space in a water-edge district, it is relatively more heterogeneous and does not have a culture of water-oriented activities [21].
The characteristic/uniqueness in the water-edge region is divided into two major parts, namely physical and non-physical. Physical characteristics include natural and environmental conditions, imagery, access, buildings, landscape arrangement, the availability of city facilities and infrastructure, as well as technological advances. Meanwhile, the non-physical characteristics include development themes, water utilization, the activities of the community, social-cultural and economic aspects, as well as the regulations and management of the city/region [22]. Historically, people's lives are heavily influenced by the existence of rivers. This is evidenced by the river as a means of transportation in transporting goods between islands. The river was once used for transportation before the development of highways [23]. Therefore, this study uses Kampung Bandar Senapelan as a case study. This settlement is located on the riverside of Sungai Siak and is the oldest district of Pekanbaru. This research is expected to serve as an image of riverside districts that similar areas in other cities can reflect upon.

Pekanbaru was formerly known as "Senapelan" which was governed by the Batin tribe. Senapelan is a district located on the side of Siak River and the origin of the city of Pekanbaru. The development of Senapelan is closely related to the development of the Siak Sri Indrapura Kingdom. The Sultan of Siak Sri Indrapura, Sultan Abdul Jalil Alamudin Syah once settled in Senapelan and built a palace in Kampung Bukit which is located adjacent to the village of Senapelan. The image of Senapelan district currently does not consider local culture. The concept of spatial arrangement in the Kampung Bandar district is the result of direct absorption from other forms of urban arrangement. Consequently, the arrangement of buildings leads to a form of uniformity which affects the uniqueness/character of the region.

The character shift of the district of Senapelan occurred as old buildings were replaced with new ones. This occurred without realizing that most of the new buildings in the city center were established by destroying the old buildings [24]. This process has lasted so long that it changed the character of Pekanbaru City with modern architecture. This transformation is not rooted in local traditions nor with due consideration of the city’s physical condition. Consequently, the existence of old buildings in Pekanbaru City is threatened. This is also the case for other parts of Pekanbaru City. However, the Pekanbaru urban district development plan offers an opportunity to improve this condition. This plan has designated the Senapelan district as a priority area to be developed into a tourist district which helps form the elements of the city image. Therefore, it will provide opportunities for conservation measures in various places in the district of Senapelan.

2. Method
This research uses mixed methods, which is a research approach involving the use of quantitative and qualitative data collection. It combines two forms of data that present different types of information (open data) in qualitative (enclosed data) and quantitative cases [25]. Data collection with a qualitative method is done by in-depth interviews with informants (experts and community members) about the factors which help form a sense of place and the place that best represents Kampung Bandar. Whereas the quantitative method involves scoring the places which are seen as most representative of the district of Kampung Bandar according to informants so it can be used to determine the image of the riverside district.

To explore the perception of the community about the sense of place in Kampung Bandar, this study uses variables based on the factors that make up the sense of place. The elements of the sense of place are derived from three aspects, namely activities, the environment (physical), and the meanings [17-18]. Moreover, the three components that make up the sense of place according to Canter [19] are the physical attributes of the environment, the activities that occur therein, and the conception. From these theories, the authors consider variables – the forming factors of the sense of place in this study are physical and non-physical factors. The factors are the result of an overlap between activities and the conception (the use of) places in Kampung Bandar.
The selection of informants in this research is based on research objectives, i.e., to determine the place with the highest factor of the sense of place that can form the image of the riverside district. The selected informant must have experience and high familiarity with the district. The chosen informants are experts and the members of the community of the district of Kampung Bandar.

3. Results and discussion

The obtained data of several places that have special meaning in Kampung Bandar of this study are shown below. In each place, there are three factors forming a sense of place as demonstrated in the results table from the in-depth interview. Based on the results of the interviews, there are three places that best represent the Kampung Bandar district by considering the factor of the sense of place, namely Rumah Singgah Tuan Kadi, Istana Hinggap, and Rumah Tenun. These three places have the highest sense of place according to the informants. Based on physical attributes, the informants explained that the characteristics of the traditional Malay house located on the riverside can be used as an image for Kampung Bandar. Further, these selected places are based on the interpretation of the place with current activities and their conception as a historical place.
Table 1. The result of in-depth interviews.

| No. | Informant                  | Selected Place      | Sense of Place Factor | Physical Activities          | Non-Physical Conception                                                                 |
|-----|---------------------------|---------------------|-----------------------|------------------------------|-----------------------------------------------------------------------------------------|
| 1   | Cultural Heritage Team    | Rumah Singgah Tuan Kadi | Traditional Malay House | A place for the Sultan to rest | The informant considers that this is a historical relic that is inseparable from the existence of Sultan Siak Sri Inderapura in this region. The Sultan of Siak made both places as places to rest and stay when he visited Pekanbaru city. (Historic Places) |
|     |                           | Istana Hinggap Indies |                       | A place for the Sultan to stay |                                                                                           |
| 2   | Historian                 | Rumah Singgah Tuan Kadi | Traditional Malay House | A place for the Sultan to rest and now used for traditional celebrations | The informant considers these two places as characteristic of traditional Malay houses in Pekanbaru that give character to the riverside district of Kampung Bandar (Traditional Houses). Moreover, both places are considered historical places (Historic places). |
|     |                           | Rumah Tenun          | Traditional Malay House | A place for weaving production |                                                                                           |
| 3   | Community Leader          | Rumah Singgah Tuan Kadi | Traditional Malay House | A place for Sultan to rest and now for traditional celebrations | The informant considers these places that the Sultan Siak uses for resting when visiting the Pekanbaru city. (Historic Place). Moreover, this place is part of the tradition of the Malay community (place to celebrate tradition). |
| 4   | Member of the Community   | Rumah Tenun          | Traditional Malay House | A place for weaving production that generates many visitors | The member of the community works as a tour guide. He considers that the weaving houses are the most representative of the region, which results in a new function for the weaving house. He considers the weaving houses as an attractive place for visitors. (Tourist Attraction). |

3.1 Scoring
The in-depth interviews found three places that best represent the riverside district of Kampung Bandar influenced by the forming factor of the sense of place. Next, the three places will be scored to select the one place that has the highest sense of place which can be used as the image of the riverside city of Kampung Bandar. The scoring is based on variables from various parameters and indicators in accordance with the Law 11/2010 concerning Cultural Heritage Sites and theories on cultural heritage, Sense of Place, District Image, and Riverside.
Table 2. Selected places resulting from in-depth interviews and descriptions.

| Selected place         | Descriptions                                                                                                                                                                                                 |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rumah Singgah Tuan Kadi | This place is located 20 meters from the Siak River. It is built from wood, except for the stairs which are made of concrete. This building is one of the traditional Malay houses that remain in Pekanbaru City. It was constructed in 1895. Senapelan (Pekanbaru) District was once the capital of the kingdom of Siak Sri Indrapura during the time of Sultan Abdul Jalil Alamuddin Syah around the year 1775. Based on various considerations such as economics and politics that flourished in the Riau region at the time, he moved the center of Siak Kingdom from Mempura to Senapelan. Based on information from various informants, this house was a stopover house for Sultan Siak Sri Indrapura when he visited Senapelan (Pekanbaru). According to the community of Kampung Bandar, Senapelan this place is used for the annual traditions of Petang Megang. This tradition/ceremony involves the use of the river and is celebrated to welcome the holy month of Ramadhan. |
| Istana Hinggap         | This House was used when the Sultan of Siak Sri Indrapura visited Senapelan (Pekanbaru). In 1938, this building was used as a hospital. The building was constructed in 1928. Currently, it has a residential function. |
| Rumah Tenun            | This weaving house was built in the year 1887. Its owner is H. Yahya. In the pre-independence period, this house was used as a base for freedom fighters, as logistics warehouse, and as a kitchen. Meanwhile, after independence around 1958, the house was used as the residence of the Indonesian National Army Center in the era of the crackdown on the PRRI rebellion in central Sumatra, especially in Riau province. After that, the house was occupied by the son of H Yahya named Hj Ramnah Yahya and was used as a place for children to do activities such as read the Qur’an, weaving, and Menokat. Until now, the house is used as a weaving house. This weaving house is used as a site for visitors to see the process of weaving typical Riau textiles. |
Table 3. Scoring the three places representing the riverside urban district.

| No. | Theory | Variable | Parameter | Indicator | Pts. | P1 | P2 | P3 |
|-----|--------|----------|-----------|-----------|------|----|----|----|
| 1.  | UU No. 11 Tahun Tentang Cagar Budaya | Age of building | Old | Over 50 years old and have been determined as a cultural heritage building | 3 | √ | √ |   |
|     |       | Rather old | Over 50 years old and but as a cultural heritage building have not been determined | 2 |    | √ |   |
|     |       | Not Old | Less than 50 years old | 1 |    |    |   |
|     |       | Historical value | Worth | Buildings have links and roles in a particular historical period and are very influential on the history of the city. | 3 | √ |   |   |
|     |       | Rather worth | Buildings have links and roles in a particular historical but does not affect on the history of the city. | 2 |    | √ |   |
|     |       | Worthless | Buildings dont have links with a historical period. | 1 |    |    |   |
|     |       | Condition | Good | Buildings that are maintained either by government or private | 3 | √ | √ | √ |
|     |       |            | Pretty good | Buildings that still have some parts of damage | 2 |    |    |   |
|     |       |            | Not good | Buildings not maintained | 1 |    |    |   |
| 2.  | Factor in the forming of the sense of place | Aesthetics | Represented | The original character is retained | 3 |    | √ |   |
|     |       |            | Rather represented | A change has occurred, but does not change the original character | 2 |    | √ |   |
|     |       |            | Not represented | The building is not like the original building | 1 |    |    |   |
|     |       | Activities and functions | Significant | Many other functions and activities | 3 |    |    |   |
|     |       |            | Rather significant | Therenare several functions and activities | 2 |    |    | √ |
|     |       |            | Not significant | Doesn’t have other functions and activities/ just 1 function | 1 |    |    | √ |
| 3.  | Elements Forming the image of the city | Image district | Represented | Buildings are very representative of the district and affect the surrounding environment. | 3 |    |    |   |
|     |       |            | Rather represented | A little representative of the surrounding district | 2 |    |    |   |
|     |       |            | Not represented | The existence of buildings does not represent the image of the region | 1 |    |    | √ |
|     |       | Access | Easy | Located on an easily accessible road | 3 | √ |    |   |
|     |       |            | Quite easy | Located on small alley, but still easily accessible | 2 |    | √ |    |
|     |       |            | Difficult | Getting to the location is very difficult and the road is damaged | 1 | √ |    |    |
| 4.  | Riverside Location | Near | Location of the place is on the riverside | 3 | √ |    |   |
|     |       | Half | Location of the place not too far from riverside | 2 |    |    | √ |
|     |       | Far | Location of the place is far from the riverside | 1 |    |    |   |
|     |       | Environm ent (Image) | Have a characteristic | It has characteristic, but not the whole of physical factors such as landscaping, building, image. | 3 | √ |    |   |
|     |       |            | Have a few characteristic | It has no characteristic representing the region. | 2 |    |    |   |
|     |       |            | Have no characteristic | No river utilization | 1 |    |    | √ |
|     |       | River use | Be used | Utilize the river as part of several functions/activities of a place | 3 |    |    |   |
|     |       |            | Few a used | Utilizing the river as part of a function/activity of a place | 2 |    |    |   |
|     |       |            | Not e used | No river utilization | 1 |    |    | √ |
|     |       | Total | 29 | 20 | 23 |
Based on the scoring of the three places, Rumah Singgah Tuan Kadi obtains the highest score. This means that the measured variables show that Rumah Singgah Tuan Kadi is a place according to the community that can form the image of the riverside district, Kampung Bandar. This is because Rumah Singgah Tuan Kadi has the highest sense of place factor and can be used as an image of the riverside district. This house has traditional Malay architecture characteristics that are unique to the region. The activities in this place are also the place for celebrating an annual tradition of the Malay people, namely the tradition of Petang Megang. Consequently, the informants consider that Rumah Singgah Tuan Kadi can be elevated to the image of the riverside Siak, Kampung Bandar. In order to be able to use the place as an image of the riverside, Rumah Singgah Tuan Kadi should be improved in terms of its main function and supporting functions.

4. Conclusion
The results of the study show that the places that have the highest sense of place are historic places that still have relevant activities nowadays. The activities of the people in the riverside district cannot be separated from the existence of the river. Based on relevant theories, the physical factor is very influential in forming the city image of the historic riverside urban district, but the discussion of all three factors (physical factors, activities, and conception) in this paper is not optimal. Therefore, further research is needed to explore these three factors to ensure the correct selection of a place that can be used as an image of the riverbank district. In addition, the most representative place of the riverbank district needs to be preserved and developed in order to be used as a city image.

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