

# PLACE ATTACHMENT TOWARDS WATERFRONT IN KANGAR, PERLIS, MALAYSIA

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**Eliani Aziana Abu Bakar<sup>1</sup>, Norsidah Ujang\*<sup>2</sup> and Faziawati Abdul Aziz<sup>2</sup>**

<sup>1</sup>Institute of Sustainable Agrotechnology, Agrotechnology Research Station,  
Universiti Malaysia Perlis

<sup>2</sup>Department of Landscape Architecture, Faculty of Design and Architecture,  
Universiti Putra Malaysia, Malaysia

\*Corresponding author:  
norsidah@upm.edu.my

## ABSTRACT

*This paper discusses place attachment to Kangar Waterfront in the state of Perlis, Malaysia. A questionnaire survey was conducted with users of the water front to identify the level of attachment, form of engagement and factors that influence the attachment to the waterfront. Field observation was carried out before the survey to examine the physical features of the waterfront and public activities. The study indicates that the level of attachment towards the waterfront is at the lower range. However, the physical features and activities within the waterfront were considered as the attraction of the place that may have encouraged users' engagement including healthy recreational activities such as exercising and walking. Users had a weaker attachment to the physical elements such as walkway and plants due to accessibility issues and poor image of the place. Improvement regarding safety, comfort and easy circulation for pedestrians could increase the attraction and the frequency of visits to the place, thus positive to the development of stronger attachment. A psychological understanding of a place could develop a new perspective for urban planners and designers in making places, such as the waterfront more attractive and meaningful to the users.*

*Keywords: place attachment, sense of place, waterfront, landscape features*

## 1. INTRODUCTION

For decades, studies regarding the people perceptions and attitudes towards places are essential to understanding the nature of their relationships to place. Place attachment is the main concept of environmental psychology that is associated with the person-place bonding. Place attachment is regarded as an emotional bond between people and place (Altman & Low, 1992). In cities, place attachment increases because certain places satisfy physical needs, offer protection, sense of security and the resources that are provided by the environment.

Historically, cities were originated along the waterfront whether it was a river, sea or straits. It is along the river that the first street of the cities was built to accommodate the obvious trend in the growth of these cities. These streets were later filled with buildings, and many of these buildings were economically and socially important, such as the market, shop, houses, and warehouses. Kangar Waterfront was located in the center of Perlis and among the recreation nodes of Perlis River. Flowing right through the city, Perlis River is the main public attraction. It is estimated that 10,000 of local peoples and visitors use the river and the surrounding areas in a month (JPS, 2010). Urbanization has transformed land uses, including the river front areas to meet the needs of economic development, social facilities, and infrastructures. One of the major projects was the development of Kangar Waterfront. Completed in 2008, the waterfront was developed as a recreation node in the town center. However, based on general observation of the area, Kangar Waterfront fails to function as social and recreational places because of its degrading condition. Poor water quality, flooding, pollution, erosion and vandalism are some of the problems observed. These problems affect the way people use and engage with the waterfront.

This paper explores place attachment dimension in understanding the relationship between the users and the Kangar Waterfront. How do the users regard the waterfront? What influence does the waterfront have on the users' experience of the place? Do users psychologically attached to the waterfront as a major node in the town center? The objectives of the study are to examine users' attachment to Kangar waterfront and its influencing factors. The level of attachment can be used as an indicator of the individual's feeling and experience towards the waterfront and the meaning and significance of the place to their daily activities. Factors that give an impact to the attachment could be defined to improve the condition of the place as attractive and engaging public space.

## 2. LITERATURE REVIEW

### 2.1 Sense of Place

Urbanization and globalization are two major phenomena that affect physical environment, socio-cultural and, economic conditions. The major global concern that has arisen from urbanization is the sustainability of the environment and continuity of urban identity. Current studies on the sustainability of urban environments mainly focus on the physical and environmental components which include water, air, energy, and transport. However, exploration on the social and psychological component of sustainability such as place attachment, place identity and meaning receives less attention. This paper argues that the weakening of a sense of place could be linked to the loss of place meanings due to places become insignificant and abandoned. Therefore this study has approached the issues from the psychological point of view.

A place is constructed by people's relationship with physical settings, individual and group activities and meanings (Najafiet al., 2011). The concept of 'Sense of Place', 'Place Attachment' and 'Place Identity' could describe the quality of people's connections with a place. In addition to physical features, places include message and meanings that people perceive based on their roles, experiences, expectation and motivations in a particular setting (White et al., 2008).

Psychologically, sense of place is as a multidimensional concept that defines identity (beliefs about the relationship between person and place), attachment (emotional association to the place) and dependence; or the degree to which the place in relation to other places is perceived to strengthen behaviour (Jorgensen & Stedman, 2001). A place is not only essential in developing

and maintaining self-identity, but also has a significant effect on human well-being and behavior (Ujang & Shuhana, 2012). While the place influences self-identity; people also tend to create, change or maintain their physical surroundings in the way which reflect themselves. Hence, the physical environment is a reflection of the identity of its users. One of the key attributes of a successful place is the ability of the place to encourage social interaction. This provides human with a feeling of belonging to the environment, instead of just passing through it. A strong sense of place is indicated by its identity and character that are acknowledged directly by visitors and appreciated deeply by residents.

The physical and spiritual environment plays an important role in the development of culture through behavioral pattern. It allows people to have a uniqueness, individuality or identity and avoid monotonous culture in this globalised world. A sense of place is a combination of characteristics that makes a place special and unique. It involves the human experience in a landscape, the local knowledge and traditional stories about the places. It is important to allow a person to have a connection to their past to give them a strong sense, comfort and meaning to their environment. Therefore, place contributes to better use, satisfaction and attachment and an important factor in maintaining the quality of life and environment. The sense of place of a waterfront is linked to its significant role as an origin and lifeline of the city. A city that historically grows by the water will lose its character if the water body is not preserved and development along the waterfront is unable to address its presence.

Therefore, well-integrated developments in urban rivers are seen as an important aspect that can contribute to the development of place attachment due to its attractive environment. However, the design of waterfront area mainly focused on the existing structure but had not given enough thought to the scenic view, public access to the water's edge and other ecologically sensitive areas (Shamsuddin et al., 2013). Well-designed, well-located and well-maintained facilities are required to enable people to enjoy while ensuring that the waterfront is adequately protected from ad hoc and unrestrained development. The need is to provide usable, meaningful and attractive waterfront for people to engage in its activities.

### 2.2 Place Attachment Dimensions

Place attachment is a symbolic relationship with a place which is formed by giving emotional meanings and common sense to a particular place and influenced by personal experience of that place (Altman & Low, 1992; Ujang & Zakariya, 2015). It is a positive dimension of total place sensitivity

and emotional attachment that individually develops for a place (Stedman, 2003), showing his positive belief and emotion and attributing meaning to it (Rubinstein & Parmelee, 1992). The strength of place attachment is directly connected to place interest where the more attached an individual is to a place the more he cares about it (Mesh & Monar, 1998). This is shown in his activities, feelings, knowledge, beliefs and behaviours concerning that place (Relph, 1976; Proshansky et al., 1983).

In environmental psychology research, many agree that the development of emotional bonds with places is an essential for psychological balance. Place identity is the main dimension of social and cultural life and strongly linked to place dependence and sense of belonging. A sense of belonging is necessary for physiological well-being which is developed by relationships with environments through the feeling of safety and sense of community. Hence, the identity of a place is reflected in more than just the physical form, but also involves a social and symbolic meaning for individual and the community (see Figure 1).

Table 1. Operational definitions of the four proposed dimensions of place attachment (Raymond et al., 2010)

Role	Construct	Definition	Authors
Personal	Place Identity	These dimensions of self, such as the mixture of feelings about specific physical settings and symbolic connections to place, that define who we are	Proshansky <i>et al.</i> , 1983; Williams <i>et al.</i> , 1992; Williams & Vaske, 2003.
	Place Dependence	Functional connection based specifically on the individual physical connection to a setting; for example, it reflects the degree to which the physical setting provides conditions to support an intended use	Schreyer <i>et al.</i> , 1981; Williams <i>et al.</i> , 1992; Williams & Vaske, 2003.
Community	Social Bonding	Feelings of belongingness or membership to a group people, such as friends and family, as well as the emotional connections based on shared history, interests or concerns	Kasarda & Janowitz, 1974; Hay 1998a; Perkins & Long, 2002; Hidalgo & Hernandez, 2001; Stedman <i>et al.</i> , 2004; Kyle & Chick, 2007; Sampson & Goodrich, 2009; Trenteman, 2009.
Environment	Nature Bonding	Implicit or explicit connection to some part of the non-human natural environment, based on history, emotional response or cognitive representation (eg. Knowledge generation)	Kals <i>et al.</i> , 1999; Clayton, 2003; Schultz, 2001; Schultz <i>et al.</i> , 2004

Figure 1 indicates dimensions of place attachment which include the personal context, community context, and natural environment context (Raymond et al., 2010). The strength of the individual or personal attachments to the place is constructed by place identity and place dependence (Bricker & Kerstetter, 2000; Kyle et al., 2003; Moore & Graefe, 1994). Although place identity and place dependence are highly correlated, different relationships have been found between these constructs and dependent variable such as recreation skill level, experience use history, landscape values and visitors' spending preferences (White et al., 2008).

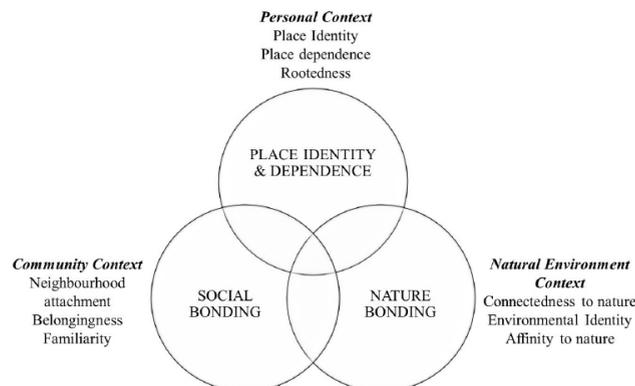


Figure 1. Dimensions of Place Attachment  
Source: Raymond et al. (2010)

Another area of place scholarship highlights the importance of human connections with the natural environments. Nature bonding has been operationalized in a variety of ways including environmental identity, emotional affinity towards nature, and connectedness to nature. Environmental identity theory (Clayton, 2003) describes people's experiences with nature as integral to one's sense of self (Bragg, 1996; Fox, 1990; Nash, 1990; Zimmerman et al., 1993). Emotional affinity towards nature focuses on individual emotional connections to nature, such as a 'love of nature'.

Place attachment is influenced by physical, social, cultural, time, memories and experiences, place satisfaction, interaction and activity features (Hashimet al, 2013). The positive relationship between a physical place and personal satisfaction is related to social communications and meanings attached to it. Thus, place attachment based on people participation, social engagement and cultural interactions is essential in place making. In this regards, interaction and social compatibility in place are related to the development of social attachment.

To create a better public realm at the waterfront areas, urban design with contextual integration is considered as one of its main tools (Hoyle, 2001). An effective integration between the river and its water body allows the public to enjoy the existence of river in their city. The functional aspects of the contextual integration are measured by: 1) the diversity of use and activity in the area that can encourage the user to stay longer at the water edge; 2) continuity of activity at the building along a waterfront.

A case study of Singapore River indicated that waterfront redevelopment had rendered certain activities, people and place memories invisible, to be placed by other landscape elements and their associative identities (Chang, 2005). The waterfront's transformation is evident in three areas; it's built environment ('builtsapes'), activities and event ('eventsapes') and displays of public arts ('artsapes'). The complex textures of an urban landscape – its edible mix of places, people and activities are a rich source of memory for the local and visitors. With new activities and people at the river, new social memories will be created.

### 2.3 Physical features and activity

The physical features, activities, and meanings are considered as the main constructs of a place as illustrated in Figure 2 (Najafi & Syarif, 2012). The importance of physical features and conditions of a place is supported in the creation of place attachment (Lewicka, 2010; Scanell & Gifford, 2010). The physical attributes do not create the sense of place directly but affect the symbolic meanings of the environment which are in turn related to evaluation on the strength of place attachment (Najafi & Syarif, 2012). In this regard, the physical characteristics strengthen both place attachment and satisfaction.

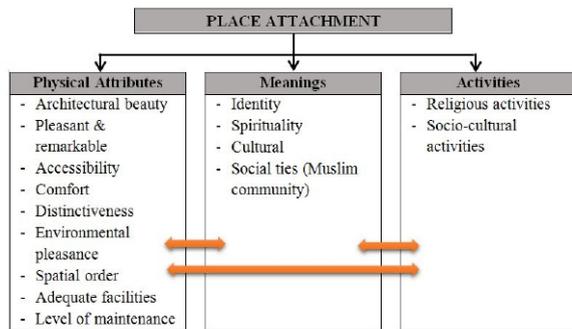


Figure 2. Components of place attachment as a quality for leveraging people's environmental experience (Najafi&Syarif, 2012).

### 2.4 The Study Area

The state capital of Perlis, Kangar has an estimated population about 50,000. Located at the northern point of Peninsular, the capital is situated by Perlis River. Perlis is the smallest town in Malaysia and most of the residents are either civil servants or farmers. The state capital is the major business and commercial district with inhabitants trading rice, sugar, herbs and seafood. There is a mixture of old and new shop houses in downtown Kangar.

The ethnic composition for the year 2000 in Perlis was 79.74% Malay, 9.6% Chinese, 1.21% Indian and others are 9.45%. Within 2010, the population of Perlis is 87.9% Muslim, 10.0% Buddhist, 0.8% Hindu, 0.6% Christian, 0.2% Taoist or Chinese religion followers, 0.3% followers of other religions, and 0.2% non-religious (www.wikipedia.com).

Historically, Kangar City was presence since 350 years ago, namely in 1653 when the Sena City was built as the seat of government was initially occupied by the Sultan of Kedah 14th Sultan Mansor Shah Muhyiddin. At that moment, Kangar was an inland port where boats and barges anchored channeled by a river which flows through the town of Kangar and continues to Kuala Perlis. Located at the base of these traders buy and sell, a tall shade tree which is witness to these transactions named "Tree Kangar". Apart from that, there are also other assumptions that say that the origin of the name is taken from Kangar City bittern sound of the eagles "Kangor". In the early days of the existence of Kangar City, there are many eagles Kangor flying in this area. However, by the 20th century the "Harbor Tree Kangar" is transformed where transport and traffic patterns changing from the water transport turned to land transport where many roads start. Perlis River is one of ten major rivers in Perlis which the water flows naturally to the edge of the city.

The length of rivers from Kangar to Kuala Perlis is over 11 km has encouraged community involvement for socializing and recreational activities. In conjunction to promote the river as a major focus in the new development, the Department of Drainage and Irrigation of Perlis had introduced guidelines for the riverfront development concept. Within their development strategies, all development plans, (without taking the situation of the land status within 50 meters of river reserve) should follow the riverside development guidelines to ensure issustainability. Meanwhile, the development concept focuses more on the beautification works besides to increase the water quality of the river. Therefore, any development must make sure that it does not cause the pollution and disturb the water flow into the river. Besides, the building and infrastructure development that will be built within the development should face the river so that the people can appreciate the aesthetic value of the water

front. This study was carried out at Kangar Waterfront which is situated in the center of Kangar. This site is chosen because it is the only waterfront that the river flows through the edge of the city. Along the river, Kangar Waterfront had been developed as one of recreation nodes in the center of Kangar. The Kangar waterfront construction is over 330 meters on the left and 370 meters on the right banks of the river. The development of waterfront includes the river corridor, which is surrounding by the Municipal Council Kangar, Telecom Malaysia Tower and the Kangar Wet Market (refer to Figure 3.).



Figure 3. Location of Kangar Waterfront, Perlis, Malaysia (Google Earth, 2015)

The construction of Kangar Waterfront involved three phases to complete. The construction began from December 2005 to May 2008. The first phase involved the construction of a pedestrian structure, bridge, gazebos and landscaping. While, the second phase involved constructing the facilities for pedestrians, Zig Zag bridge, water feature, public toilets, gazebo, lighting and landscaping. Finally, the third phase covered the construction of railing for walkways, rotunda, food stalls and arch bridge that connect walkways and Dato Sheikh Ahmad Square. Kangar Waterfront has an elevated bridge that connects both sides of the pedestrian routes and wireless internet line in the plain area for the convenience of the public user. The waterfront has attracted the attention of locals and visitors because the location is along the main route that connects people from the town center to the nearby areas.

### 3. METHODS

By the above mentioned objectives, the study adopted quantitative and qualitative inquiries to understand users' attachment to Kangar Waterfront

and the influencing factors. The methods are questionnaire survey and field observation. The area was observed to understand the pattern of activities at the waterfront by photo recording and notes of landscape elements and human activities along the Kangar Waterfront.

100 respondents were participated in the survey and distributed fairly among male and female. The respondents represented the users who were present in the study area and willingly participated at the time of the survey. The respondents were predominantly young with the majority of them were aged between 18 and 65 years old from the main ethnic groups existing in the city- Malay, Chinese and Indian.

#### 3.1 Questionnaire Design

The questionnaire consists of four parts. Those include demographic information (8 items), familiarity and durations of engagement (9 items), place attachment, place identity, place dependence and sense of belonging (3 items). The questionnaire was designed using the closed-ended items with and also multiple choice formats. The 5 point Likert- scale from "strongly disagree" to "strongly agree" was used in the measurement. The last part consists of 2 items relating to the physical features and the activities at the Kangar Waterfront.

The scale was used to evaluate the respondents' engagement and familiarity to Kangar Waterfront. It consists of seven items concerning their familiarity, observed changes, frequent of visit, duration of visit, visiting pattern and place interesting at the Kangar Waterfront. The respondents were also asked to indicate if they had ever visited the area and how frequent is the visits. Respondents also rated their familiarity with the area on a 3 point scale (1 = very familiar to 3 = not familiar) and whether the place was a special area for them (1 = Yes and 2 = No).

There were 14 items on this scale which is used to directly predict respondents' attachment to Kangar Waterfront (refer to Table 2). The variable measures place identity, the place dependence and the sense of belonging towards Kangar Waterfront. Reference was made to the design and the scale developed by Williams (1995), who used the Likert scale format to measure place attachment to a recreational setting. Items were presented in a 5-point "strongly disagree" (1) to "strongly agree" (5) format with a neutral point of 3.

There were 3 items in this scale which are used to predict the respondents' identifications of the activities, physical features and elements need to be improved at the waterfront.

Table 2. Scale Items for place attachments  
(William, 1992; Ujang, 2008)

Factor	Item Description
Place identity	No other place can compare to this area
	I get more satisfaction out of visiting this place than from visiting any other
	Doing what I do here is more important to me than from visiting any other
Place dependence	This is the best place for what I like to do
	I feel like this place is a part of me
	This place means a lot to me
	I identify strongly with this place
	I think a lot about coming here
Sense of belonging	This place is very special to me
	I am proud of this place
	I feel belonged to this place
	I feel part of the people in this place
	I would donate my money to improve this place
	I am sad if the character of this place is destroyed

The conducted statistical analysis on the results of the questionnaire survey and further discussions on the interpretations provided the adequate basis for final conclusions. Data was collected individually and IBM SPSS® v20 was used for statistical analysis to get the basic descriptive statistics (mean and standard deviations) and examination of Variance Analysis (ANOVA).

## 4. RESULTS AND DISCUSSION

### 4.1 The Respondents

Table 3 demonstrates the complexity of the respondents' backgrounds. The respondents participated in the survey were predominantly young to middle age group majority (44%) of them were aged between 18-24 years old. Almost 53% of them are male compared to 47% female. Regarding ethnicity distribution, 77% of them are Malay, 13% Chinese and 10% are Indian. The majority (77%) of them are Muslim, 11% Buddhist, 8% Hindu and only 4% Christian. Most of the respondents are from the public sector (36%) and unemployment (30%), while 19% are self-employment and 15% engage in the private sector. Respondents from low monthly income with less than RM1000 are 45% and the lowest percentages (5% of the respondents) obtain above RM6000 monthly income.

Place attachment is influenced by many factors such as socio-demographic characteristics, environmental factors (the type of involvement, familiarity

to a place, activities in a place), past experiences, culture, psychological factors, biological factors, and place itself. From the finding, we can assume that people, who develop positive meanings and emotions to a place, tend to protect and care for that particular place.

Table 3. Respondents' Demographic Information (N=100)

Components	Variables	Frequency	Percentage (%)
Age	18 - 24 years old	44	44
	25 - 49 years old	41	41
	50 - 64 years old	17	17
	65 or older	3	3
Gender	Male	53	53
	Female	47	47
Marital Status	Single	62	62
	Married	34	34
	Divorced	3	3
	Others	1	1
Ethnicity	Malay	77	77
	Chinese	13	13
	Indian	10	10
Religion	Islam	77	77
	Buddha	11	11
	Hindu	8	8
	Christian	4	4
Employment	Public Sector	36	36
	Private Sector	15	15
	Self-Employment	19	19
	Unemployment	30	30
Monthly Income	Below RM1000	45	45
	RM1000-RM3000	34	34
	RM3000-RM6000	16	16
	Above RM6000	5	5

### 4.2 Place Attachment

Place attachment is defined as an individual's emotional affective ties to a place thought to be the result of a long-term connection with a place (Altman & Low, 1992). Place attachment has been discussed in various disciplines based on its key dimensions- functional attachment, emotional attachment and social attachment. Attachment is influenced by users, the activities and the features of the place. This paper will focus on the functional and emotional dimensions of place attachment.

Referring to Table 4, the items that measure the sense of belonging, “I am sad if the character of this place is destroyed” has the highest mean, ( $m = 3.46$ ) while the items indicating place identity “no other place can compare to this area” has the lowest the mean value ( $m = 2.68$ ). The results of the survey indicate that respondents did not strongly consider that place as special and attractive however they were unhappy if the place is destroyed. We could infer that users have an emotional connection with the river, somehow they did not strongly felt that the place has interesting, unique identity and character from existing site compare to other places that they could identify with. This response could be as a result of the inability of a place to reflect distinctiveness and memory. However, the place could offer them a place for social activities. Functional attachment prevails stronger than emotional attachment in that sense. Loss of place meanings may have negative implications for individuals and collective identity, memory and history together with the psychological well-being (Gieryn, 2000).

Table 4. Mean Value for Place Identity, Place Dependence and Sense of Belonging

Components N=100	Attachment Items	Mean Value
Place Identity	I get more satisfaction out of visiting this place than from visiting any other place	2.79
	This is the best place for what I like to do	2.77
	Doing what I do here is more important to me than visiting any other place	2.72
	No other place can compare to this area	2.68
Place Dependence	I identify strongly with this place	3.35
	This place means a lot to me	2.95
	I think a lot about coming here	2.93
	I feel like this place is a part of me	2.87
	This place is very special to me	2.80
Sense of Belonging	I am proud of this place	3.17
	I am sad if the character of this place is destroyed	3.46
	I would donate my money to improve this place	3.07
	I feel part of the people in this place	2.82
	I feel belonged to this place	2.71

As shown in Table 5, it was found that place attachment that is defined by the sense of belonging and place dependence is fairly strong. However, the place identity construct has a slightly lower mean score ( $m=2.74$ ). The mean value for the place attachment was  $m = 2.9220$ ,  $SD = 0.63032$ . In summary, the mean scores are ranging from  $m = 2.74$  to  $m = 3.05$  which suggests that the respondents had a low to medium level of attachment to Kangar Waterfront. The respondents did not strongly identify the waterfront as a strong node in terms of function and image therefore it may not effectively function in fulfilling the recreational needs of the users. Poor contextual integration is one of the major factors that affect how people engage in the area considering

the waterfront should have a close relationship with the waterbody and as the center of the city. Private properties that are built up to the edge of the river, limited public access to the water, lacking in diversity of use and vitality, traffic congestion along the waterfront and poor water quality are some of the factors that may influence the results.

Table 5. Mean Value for Place Identity, Place Dependence and Sense of Belonging based on construct

Components	Mean	SD
Place Identity	2.74	0.81721
Place Dependence	2.98	0.79519
Sense of Belonging	3.05	0.67501
<b>Total</b>	<b>2.92</b>	<b>0.63032</b>

All results are significant at  $p < 0.05$

As observed during the field observation, the poor condition of the existing site with lack of cleanliness, safety, comfort and accessibility might have influenced the users' attachment to the waterfront (refer to Figure 4). Furthermore, vandalism and lack of maintenance to the area resulted in a poor image that affects the community engagement at the waterfront. It can be concluded that the low level of attachment to the waterfront could be linked to the users' perception that the area was not strongly considered as an important place in term of personal, community and natural environment context.



Figure 4. Poor condition of facilities, safety, vandalism and lack of maintenance along the waterfront

This study found that there was a significant difference of place identity at the  $p < 0.05$  for the place dependence [ $F(14, 85) = 5.380$ ,  $p = .000$ ] and sense of belonging [ $F(14, 85) = 3.020$ ,  $p = .001$ ]. The result revealed that there was a significant relationship between place identity, place dependence and sense of belonging towards the waterfront. From the previous reading, place identity

and place dependence are included in the same personal context because they are related to highly personalized connections to a place which are either symbolic (identity) or functional (dependence) in nature (Raymond et al., 2010). They may form through memories, experiences or events which are unrelated to the wider community and to the natural environment.

In the urban design context, place identity is reflected in the attributes of physical forms and activity that influence people's perception of a place. Those include the characteristics of being distinctive, different, unique, dominant, memorable, and identifiable by the people and easily recognizable (Lynch, 1960; Shamsuddin & Sulaiman, 2002). In this regards, people and activity are the key components that generate the sense of belonging and the spirit of the local communities while constant involvement in activities develops familiarity, dependency and socio-cultural attachments.

Familiarity has an influence on place attachment in terms of frequency of visit, duration of visit, locational knowledge and visual recognition (Ujang, 2010; Hasanuddin, 2003; Minardi et al., 1990). In this regards, Figure 5 indicates that the respondents (65%) are familiar with the place. This result is reflected in the ability of the respondents to recognize the place and often spend times or just passing by the waterfront. While 24% of the respondents are very familiar with the place indicating their knowledge of the exact location of the waterfront and frequently engage in the recreational activities. Only 11% of the respondents noted that they are not familiar with the place.

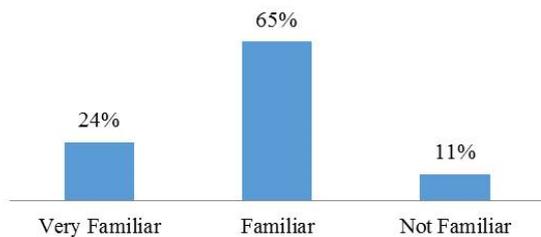


Figure 5. Respondents' Familiarity with Kangar Waterfront

Familiarity can be influenced by the demographic factor that gives impact on the frequency of visits and pattern of engagement. Demographic factors such as age, gender, ethnic and employment status play an important role in prescribing one's attachment and ability to remember of certain things or events (Othman et al., 2013). Kangar plays roles as the administrative and business center for the development of Perlis and it's located nearby the waterfront. Based on the observation, the waterfront is the main nodes for

circulation and transactions for the people to move around the surrounding area. People who work in the city and connect with the waterfront on a daily basis are very familiar with the waterfronts.

Based on the results, there was no significant difference in mean score between familiarity and place attachment. Previous research indicates that time and familiarity influence attachment towards a place (Ujang, 2014) but contradicts to the results; familiarity does not significantly link to place attachment. However, the time it takes for someone to attach to a place can vary from individual to individual and will depend on how they adapt to change. Even in an unfamiliar environment people can develop the sense of place through the aesthetics and usability of the environment as well as through shared moments.

The most familiar places are those who are frequently used or visited (Ujang & Dola, 2010). As shown in Figure 6, that majority (23%) of the respondents visited the waterfront 2 or 3 times a month followed by 21% of respondents spent several times a week while 20% of the respondents only spent their time there once a year. From this result, we could infer that the waterfront is functioning as a public space but not frequently used and remain as an optional place for social activities. People use the environment and take actions, perform behaviors that give them a sense of place, even if there is no emotional attachment to that place. The key issue to positive aspects of attachment is whether they provide an aesthetically pleasing image and fully functional to benefit the communities. The level of attachment based not just on the functional ability of the place as a social space but on their psychological attachment (meaning) attached to the experience of the place.

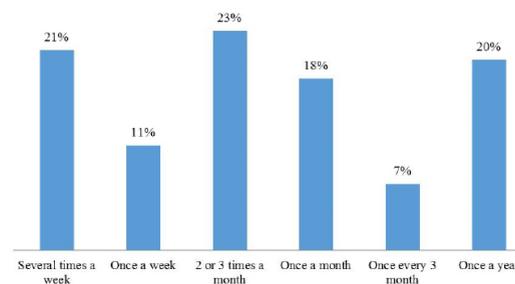


Figure 6. Frequency of Visit to Kangar Waterfront

Figure 7 shows that the majority of the respondents (40%) spent less than 1 hour at the waterfront and the lowest percentage of the duration of visit (14%) spent more than 4 hours at the waterfront. Based on the results, we

could conclude that the length of association with the place reflect the level of attachment. Presently, the only significant problem observed at the waterfront is the lack of recreational facilities offered. The users were concerned about the poor image of the waterfront that makes the place unattractive for visitors.

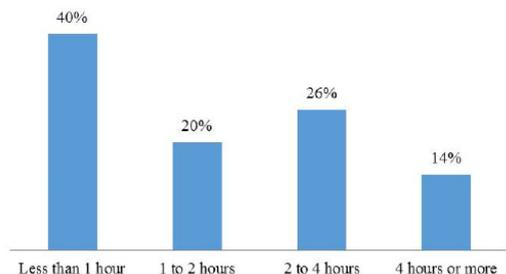


Figure 7. Duration of Visit toKangar Waterfront

The findings also revealed that there is no significant difference between familiarities, the frequencies of visit and the duration of visit with the level of attachment to the waterfront. In other words, those who visit this place for the first time shared similar feelings as those who had frequent visits to the place. The poor condition of the waterfront, unattractive design and lack of engagement in outdoor activities reflect the unencouraging pattern of use of the waterfront. Insufficient sitting and relaxing spots, low quality public facilities, lack of cleanliness, lack of greenery and trees influence the low level of attachment to the waterfront. This condition may have resulted in the lack of ability of the place to evoke users' emotions while experiencing the waterfront.

### 4.3 Influence of physicals features and activities

The physical features, the activity and the perceptual image form place identity and character that influence attachment (Ujang, 2010). It is evident that attachment to the Kangar waterfront could be linked to the importance of the places in satisfying individual's needs as well as providing conditions that support the desired activities. Based on the observation as shown in Figure 8, the space intersections are the most identifiable nodes indicating contrast in the pattern of use with high pedestrian movement and crossing particularly at peak hours. But these spaces mainly serve as pedestrian linkages rather than spaces to sit, communicate and observe.



Figure 8. People utilize the multipurpose pathway for walking and cycling (left) and Kangar Waterfront as connecting nodes for pedestrian movement to other places (right)  
Source: Authors

Results shown in Figure 9 indicate that majority (31%) of the respondents spent their time for health related activity such as exercising and jogging. Some were there for walking (30%) while 29% of the respondents were just passing by the waterfront. Some of the respondents were engaged in some activities in the area using the public facilities. However, some of them were there without having specific purposes.

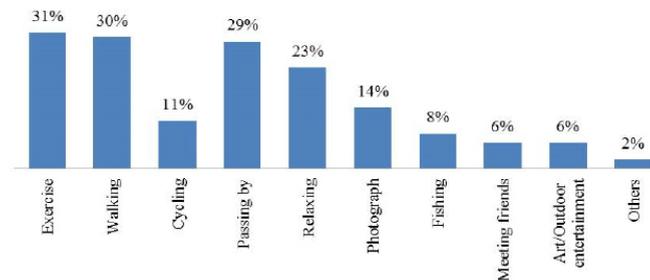


Figure 9. Respondents' activities at Kangar Waterfront

This study also examined the respondents' identifications of the physical features of the waterfront in relation to their social and activity needs. Figure 10 indicates that the physical features that facilitated activities at the waterfront influenced the way users engaged in the area. Based on the result, the landscape element that strongly influenced the activities was walkways

(42%) and the plants (41%). These elements are significant to support the recreational activities in terms of accessibility and visual quality. For the walkway, elements associated with exercising, walking and connecting users from one place to another were strongly identified by the respondents.

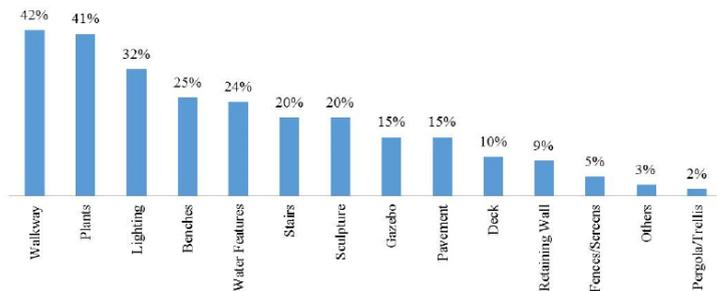


Figure 10. Physical elements that influence users' engagement

To encourage frequent and stronger engagement to the waterfront, a well maintained public space is important for longevity, movement and leisure activities. The findings suggest that the urban landscape elements should be improved to increase attachment towards Kangar Waterfront. As shown in Figure 11, majority of the respondents (49%) concern about the footpath and the need is to provide comfort and safety while doing recreational activities along the waterfront. Attractive visual elements should also be integrated that users can easily be identified with. The problems linked to the unclear signage and direction and poor quality of public open spaces. Further improvement of the physical elements such as the treatment of the pedestrian path should contribute to enhancing the legibility and visual image of the waterfront.

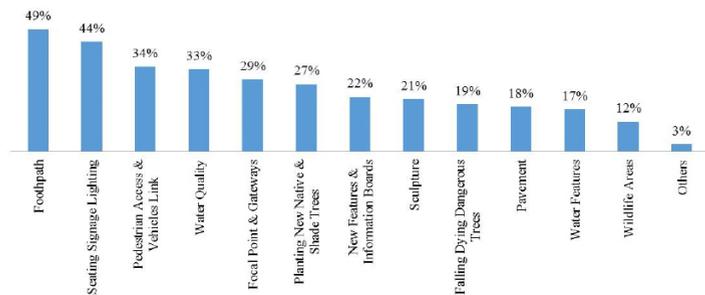


Figure 11. Landscape elements that need to be improved at Kangar Waterfront

In enhancing the social activities, it is better to consider the existing surrounding activity to ensure that the new construction of the urban waterfront

would be compatible the existing use of the surrounding and acceptable to the locals. The urban planners should integrate the river with human activities by connecting the social and cultural attraction along the river and the waterfront. By having an attractive and lively urban river; the need for the people to travel outside the city for recreation and fresh air will be reduced.

## 5. CONCLUSION

Development of cities that disregard the role of rivers has impacted the quality of urban life. In many cases, rivers were abandoned thus became the back alley of the city and lost their functions. Riverfront turn into lost space and unmanaged. Hence, management and conservation of urban rivers have become an important agenda in urban design and planning practice. A river as a place has a strong relationship with the growth of the city and the livelihood of the people. The current condition does not support this relationship which resulted in the loss of attachment to rivers as a source of meaning and sustenance.

Place attachment has a significant contribution to the sense of place. With the lack of attachment to the waterfront, improvement of the landscape elements could make the place more attractive and more legible to visitors thus encourage visits and social interactions along the waterfront. In this regards, the attachment people have with the Kangar river is important because of the personal, social and environmental context of the Kangar Waterfront. The river should be made more significant to locals and visitors by integrating the waterfront with the center of the town. Improvement of the physical elements and image of the place could attract visitors to the area and engage in the activities. The historical significance and meaning of the river should be revived to support the attraction of the waterfront. However, the meaning of the place may have influenced by the emotions generated by the people experience, which could not be felt that strongly in the waterfront. Owing to the importance of livable places in cities, the findings could be useful for planners and urban designers in making future waterfront redevelopment projects more meaningful, attractive and functional thus fulfill the social and psychological needs of the users.

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