



Kuala Lumpur Waterfront: A Public Place for All?

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ABSTRACT

As one of the efforts to improve the quality of living environment in the city centre, revitalisation of the Kuala Lumpur waterfront was announced as one of the nine Entry Point Projects in the Economic Transformation Programme. This is an opportunity to revive the public place that used to be a trading post. When the function of the river changes from being the life line for the city to the city's backyard, the use of this waterfront space was affected. This paper aims to examine the user's perception on the accessibility of the Kuala Lumpur waterfront. Using the qualitative approach, the focus group technique was employed. The findings suggested that poor access to the waterfront has affected the use of the waterfront. The research inferred the importance to consider public access at the waterfront by future decision makers in reviving this priceless public place for all.

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1 Public's accessibility at the waterfront

In ancient times, cities usually have a strong relationship with their waterfront due to water being the main mode of transportation. This eventually brings in port activities, commercial activities and cultural concentration (Hayuth, 1988; Mann, 1988; Pinder and

Rosing, 1988; Hoyle, 1992; May, 2006). These phenomena are common in North America, European countries and also many Asian and Middle Eastern countries (Rafferty and Holst, 2004; Hoyle, 2001 and Morris, 1994). Due to the immediacy to the water since ancient times, many cities use waterfront as ports and also their 'window on the world' and the city's 'front door' in the competition for commerce and trading (Hoyle, 2000, p.397).

The waterfront also acted as a node in many western cities and is also the place where the community socialises. This is obvious when those who are not involved with fishing or the port industry set up commercial areas such as offices, shops, warehouses and hotels in the area (Rafferty and Holst, 2004). In some European cities such as Venice and Amsterdam the relationship to the waters are manifest through the reliance on the rivers and canal as 'main streets'. The street, which fronts the canal or other houses, is an extension of the building space just like a large room that belongs to all the communities in the area. It is here where they 'played, sat in or worked on it' (Morris, 1994, p.141). However, in many western cities the link between the cities and the water was totally changed due to the industrial revolution, technological changes, introduction of another mode of transportation systems (i.e. rail, motor, air) aside the water transportation. These situations led to the dilapidation of the waterfront, which also occurred in certain Asian (Jinnai, 2001) and African cities during this same period (Hoyle, 2001). Kenyon added that due to the incredibly hazardous work of industrialisation at the waterfront, people started to retreat from this area. According to Jinnai (2001, p.61) this area that had once been regarded as a highly active social area had transformed to become sociably unacceptable and unfortunately unsightly for many communities.

For many years, the prospect of the abandoned waterfront had looked grim and, according to West (1989) and Pidwill (1993), the adaptive reuse of these potentially very valuable waterfront properties did not take place.. According to Breen and Rigby (1996, p.8), only in the 1960s did the 'resurgence of the urban waterfront begun'. Hagerman (2007) argued, that in trying to relate the waterfront redevelopment to the environmental concern, many of them had done little to enhance it, and, most of the time, further damaged the integration of the natural system in the urban area. This suggests that access to nature is acknowledged to have an important contribution to the community well-being (de Vries in Wakefield, 2007, p.5). The insertion of 'nature' in the urban planning or the waterfront is not

aligned with the needs of the locality (Cowell and Thomas, 2002).

As Kotval and Mullin (2001) mentioned in their book, the 'Redevelopment of the downtown of America', it is lucky for those cities that have water in their city because they can always exploit it for the benefit of the community. That is the difference in waterfront development compared to any other development in the city centre. A study done by the Department of Environment (DoE)(1994) showed that having a good environment can also stimulate a better working and living environment. Therefore, the opportunity of having a water body near the cities should be taken advantage of to create a better environment for the city community (Kotval and Mullin, 2001). According to Petrillo (1985), designer's who designed waterfront areas before this concentrated on the structure and the component part but gave insufficient thought to the scenic view, the access for the public to the waters' edge and the ecologically sensitive areas. Recently, realizing these issues, many cities have introduced guidelines or design parameters to control the situation from becoming worse. More and more of the recent redevelopments of urban waterfronts have sought to 'capture the magic' in integrating the waters with the development (Petrillo, 1985, p.21).

In doing so, urban design factors that are taken into consideration in many cities becomes a tool to create a better public realm at the waterfront areas in terms of sustainable development (Hoyle, 2001). There is growing interest in urban design from many quarters due to various concerns 'in making places and improving the quality of the urban environment' in the public realm (Cuthbert in Carmona and Tiesdell, 2007 p.22). According to Manley (1998, p.153), in the quest to achieve a quality environment, the agenda of urban design has increasingly shifted from the 'traditional concentration on the visual and functional aspects of design, to a position which reflects a concern for the social and environmental consequences of design decision'. Buchanan (1988) stated that urban design was 'essentially about place making, where places are not just specific space, but all activities and events that make it possible'. It is about having a good sense of place so that the users are encouraged to stay longer and are able to enjoy the water.

One of the most vital urban design principle to achieve this is the principle of legibility that relates to the public accessibility to the waterfront (Lynch, 1960). This is a huge issue brought forward by the public for the purpose of preservation and also recreation at the

waterfront's open space (Wakefield, 2007; Desfor and Jorgensen, 2004; Hoyle, 2000; Meyer, 1999; Hoyle, 1994; Fainstein, 2001; Hayuth, 1988). This is due to the private development that has taken place at the waterfront area, which has denied both direct and visual access. This is also consistent with the study conducted by Buit (in Knaap and Pinder, 1992, p.165), which analysed the impact of twenty-eight major renewal developments throughout Europe that include waterfront projects. He found that there were more disappointments compared to those that had a positive impact. One major factor that is apparent, is the lack of consideration concerning the accessibility of the residential environment with the river.

Tibbalds (1992) highlighted that in making a particular place responsive for activities to happen it must allow clarity in the accessibility to the area, event or facilities. According to Boyd (1985, p.39), and agreed by Laidley (2007), in many cities the public accessibility to the water's edge has succumbed to the value of the land that is exclusive for private development due to the waterfront locations. Boyd opined that there would be no impact in the process of design review if the public access is provided just to fulfil the requirement set legally and that can be satisfied with any 'uninviting' pathway without giving it sufficient thoughts.

Based on the research of three main waterfront transformation phases that most waterfront cities experience [a) phase one: waterfront establishment; b) phase two: the decline of waterfront and c) phase three: waterfront awareness], there are four main attributes that can be related to the public accessibility to the waterfront. These are i) direct access to water ii) continuous linkage along the water iii) link waterfront to the city and iv) visual accessibility.

2 The Kuala Lumpur research

2.1 Aims

Although this is a widely discussed and debated issue globally, studies at the local level cannot be ignored because the issue has to be treated on a case by case and locality basis (Riley and Shumer-Smith, 1988). This study is imperative for the urban development of Kuala Lumpur, which is the largest city in Malaysia and has the longest waterfront area (along urban rivers) within the city centre. As mentioned by Worskett (1969), the essence and character of the other smaller towns can usually be found in the city centre (Worpole, 1992 in Shamsuddin, 1999). The magnitude of the problems involved in the city centre of a capital

city may also be larger compared to other towns. Therefore, it is hoped that by studying the city centre of the capital city, the findings can be of relevance for the future study of smaller towns in Malaysia

In 2004, the importance of attracting people to return and live in the city was highlighted in the Kuala Lumpur Structure Plan 2020 (KLCH, 2004a), and the waterfront was seen as a potential public area in making the city a better quality living environment. In August 2008, the Kuala Lumpur Draft Local Plan (KLCH, 2008), which was displayed for public comment, underlined the guidelines for waterfront development of Kuala Lumpur city centre. Even with all the policies and guidelines in place all these years, the water quality index in the Klang River is still Class III- polluted (Table 1) and not safe for people to access. The previous Prime Minister of Malaysia made the following comment in 2006 concerning the river: *"God gave us such a beautiful gift. Why are we destroying it?"* Citing the Gombak-Klang river as another example, he said *"Malaysia is fortunate to have a river that ran through the city as it was a beautiful sight. He said, however, the river was now too polluted. "If you throw a crocodile into the river, the crocodile will die."* (Anon., 2006)

According to the Anon. (2003a) most of the residents of Kuala Lumpur perceived it as just another monsoon drain and some did not even realize its existence. *"MENTION that we have two rivers flowing through the heart of Kuala Lumpur and most people would, after some thoughts, reply: "Oh, you mean those huge monsoon drains."* (Anon., 2003a)

Because of these concerns, this study is vital and urgent to evaluate the Kuala Lumpur waterfront. With the lack of local literature concerning this area, this research is designed to make available the insights gained from the vantage point of the international perspectives in the local context. It is hoped that the findings will be useful for the local authorities in developing policies, as well as in helping developers and other professionals in developing the urban waterfront in the future. The paper draws on a qualitative approach in which the views of the user on the accessibility of Kuala Lumpur waterfront were collected through focus groups.

2.2 Method

According to Morgan (1988), focus groups are useful to supplement the quantitative and

qualitative method or as self-contained data. There are arguments concerning focus groups or other qualitative methods as being a preliminary research tool that have to be supported by quantitative data, especially in the marketing area. Morgan (1988, p.11) argued that the validity concerning this type of argument depends on the purpose and aim of the researcher for his/her research. He further argued that this narrow type of argument is not limited to the social sciences research and there is 'no a priori reason to assume that focus groups or any other qualitative techniques, require supplementation or validation with quantitative techniques'.

It is one of the most useful tools to know 'why people feel the way they do' as well as gathering their interpretations of results from any earlier studies (Morgan, 1988, p.11; Krueger, 1994). This technique is opted for obtaining information from the public rather than in-depth interviews because of the nature of the tools, which allow for dynamic interaction between the participants and is able to stimulate discussion through the sharing of information and creating a bond with the place (Carr et al., 1992). Through this the meaning of a place can be understood better (Carr et al., 1992). The research aims to evaluate the view on public access at the waterfront rather than the volume of ideas needed from each individual (see Fern in Morgan, 1988, p.13). The main advantage of focus groups is the ability to have a dynamic interaction between the participants on a particular topic within a certain time limit, which is controlled by an observer. The controlled situation is also the only major disadvantage because the settings of these sessions are not in their natural conditions (Morgan, 1988). Nevertheless, group discussions and hearing others giving their own opinion are more realistic (Krueger, 1994). According to Krueger (1994, p.14), 'focus groups techniques are valid if they are used carefully for a problem that is suitable for focus group inquiry' and very much depend on the procedures and context.

2.2.1 Data Collection Phase IV: Focus Group

i. The source of participants, number and size of groups

The participants were gathered from the willing public who had experience of the waterfront area throughout the city centre. To have the right person who has experience of the topic to be discussed is important (Morgan, 1988) to ensure that the outcome of the research objective can be achieved. It was quite difficult to obtain the numbers because most of the public were not willing to participate. There were only twelve members of the public who

were willing to participate in the focus group interview. According to Greenbaum (1998), it is better to have a homogeneous group or of similar status and values because the participants may be able to relate to each other better, and the quality of the inputs they provide will be higher. Knodel (1984) and Krueger (1994) also mentioned that the similarity is important because if the topic of discussion concerns sensitive issues, they would be able to facilitate each other and perceive the situation as perspective sharing. According to Morgan (1988), the number of groups has to be more than one. Two would be safer especially if they are highly similar. The size of the group usually implemented is between 6 to 10 people (Morgan, 1988; Krueger, 1994; Greenbaum, 1998; Knodel, 1984) to allow each participant the opportunity to give their opinion. Therefore, for this research the groups were divided into two according to the gender to allow the similar status and values to be shared. Each of the groups consisted of six participants with ages ranging between twenty and thirty years old (Table 1).

Table 1: Respondents divided into two groups.

Respondents Group 1 (Female)	Code	Age
Interviewee 1	F1	24
Interviewee 2	F2	23
Interviewee 3	F3	29
Interviewee 4	F4	25
Interviewee 5	F5	27
Interviewee 6	F6	24
<hr/>		
Respondents Group 2 (Male)		
Interviewee 7	M1	29
Interviewee 8	M2	26
Interviewee 9	M3	23
Interviewee 10	M4	24
Interviewee 11	M5	24
Interviewee 12	M6	25
TOTAL	12	

ii. Background of respondents

The qualifications of all the participants are diploma holder or higher (Table 2).

Table 2: Respondent's qualification.

QUALIFICATION	Number	Percentage
Diploma	6	50%
Bachelor's Degree	6	50%
Master's Degree	0	0%
PhD	0	0%
TOTAL	12	100%

iii. The procedure

The procedure is divided into three main parts – pre-session, during session and after the session. Based on the earlier argument that the participants in focus groups are not in the natural environment, this research took the approach to allow the agreed participants to go through a pre-session before the focus group session was conducted. Although the participants comprised those with experience in the areas in the zones studied, the pre-session was conducted to allow the participants to go and experience the whole waterfront area in the city center a day before the session was conducted. This enabled the participants to have a stronger memory of some of the places along the waterfront that they might have not been to for a while. During the pre-session, they were not briefed on the purpose of the research so that they could experience the waterfront with an open mind.

Before the session, a note taker was appointed and briefed on the running of the sessions and the author acted as the moderator. The focus group session was done the day after the pre-session with two separate sessions. The session in the morning was for the ladies, while the session for the men's group took place in the afternoon. Before the sessions, the participants were briefed on how the session would be conducted. Each of the participants was seated on chairs arranged in a U shape, which were tagged in alphabetical order (A-F). The tags and the easel were arranged to be facing the note taker so that it was easier for her to identify who said what and what had been written on the easel. A tape recorder was used to record the whole session. A power point presentation with maps (Figure 2) and pictures of the zones were projected on the wall throughout to allow participants to refer to in the discussion or when stating their opinion. The sessions were conducted using topics of discussion related to the five attributes. The discussion was followed using probing techniques. After each session, a debriefing session was held between the note-taker and the moderator to capture the first impressions on the main highlights or contrasts between the two focus groups. Then the data gathered were transcribed and analysed.

iv. Data analysis of focus group

The data were analyzed using content analysis, which used a coding and categorizing process. The findings were compared between the two groups to identify the similarities and differences in patterns. According to Krueger (1994, p.133), if the patterns are clearly identifiable, when minimal differences exist within and across groups', analysis can be

‘simple and straightforward’. The most important aspect of the focus group is to capture the overall sense of the group concerning the discussed idea but not the opinion of the individuals (Greenbaum, 1998, p.15). However, in some cases there are no unifying views from the participants and the absence of pattern may also be an interesting discovery (Krueger, 1994).

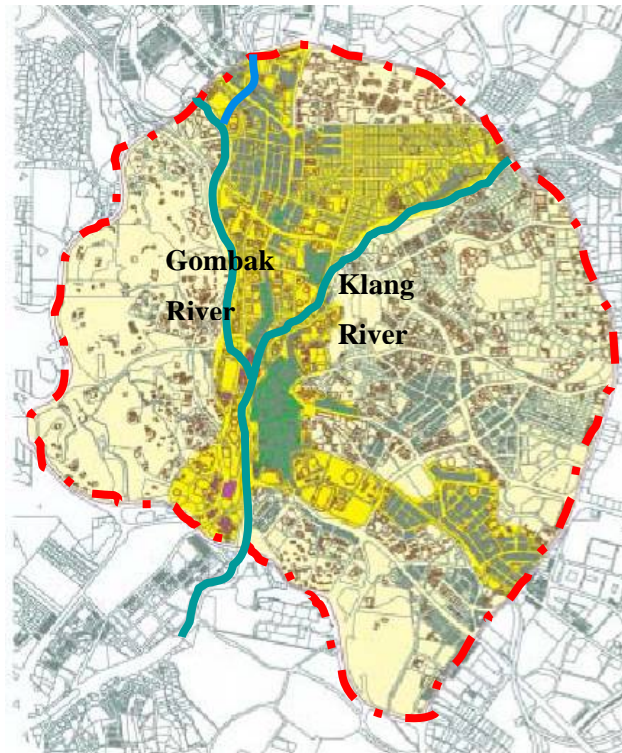


Figure 1: Showing the two main rivers crossing through the city centre. (Source: adapted from KLCH, 2004a)

2.3 Study Area

The research area focused in Kuala Lumpur City Centre vicinity. The condition of the urban development in Kuala Lumpur is very dense which is within the fifty metres distance limit that one can view (Breen and Rigby, 1994) the river. For the purpose of this research, which is conducted in Kuala Lumpur City Centre, the definition used by the DID (‘within 50m from the edge of both riverbanks or within two lots from the river's edge throughout the city Centre area) is found to be the most suitable to be employed. This is because the definition by DID corresponds with the situation in Kuala Lumpur, which has buildings at the waterfront very close to the river. The definition concentrates more on the spatial aspect and view rather than its function. Meandering through the city centre are two major rivers, which are the Klang and Gombak rivers. The two rivers, which traverse the City Centre, comprise a

total length of 9km (Figure 1). The Klang River, which starts to the north of Kuala Lumpur is 120km in total length and is joined by eleven other main tributaries towards Port Klang. The rivers run through eight different authorities including KLCH. Its river basin is the most populated in the country with over 3.6 million and experiences five percent growth annually (Anon.,2008).



Figure 2: Demarcation of zone for fieldwork. (Source: Abdul Latip, 2011)

3 Perception on public access at Kuala Lumpur waterfront

3.1 Direct access to water

Direct access to water is an attribute that is important for integrating the waterfront with the water in many western countries. Is this the same in the context of Kuala Lumpur? When asked about the access to the water's edge, a female respondent pointed out: *'Very difficult... we do not see any access to the water except for the one behind the Sultan Abdul Samad building. But, as it looks so uninviting, we do not go in.'* (F1)

The statement may indicate that the location and the characteristics of the access – safe and comfortable – are important to them. It was also observed that most of the waterfront has railings. What is their view concerning this? Some respondents perceived it as an obstacle to reaching the water's edge: *'The only place we feel we can get to the water is the Kondo Bistari area (Zone 1b). The rest of the areas they have railings throughout. I cannot see any access to the water.'* (F2)

This implies that they may prefer direct access to the water's edge without any obstacle that might reduce the use of the urban river. It was observed that some people climbed the railings and the high concrete wall to gain access to the water for fishing or just relaxing at the water's edge. This may suggest that some people are willing to risk their life to get close to nature and that the closest resource they have is the urban river.

The findings show that none of the banks in the evaluated zones have more than one access and that they are isolated and not visible to the public, which may make it difficult for the public to gain access to the water's edge. It was also viewed that known dangerous areas are purposely avoided. A male respondent who works in Zone 4 highlighted: *'There is one more access at Masjid Jamek (Zone 4). But I do not feel like going down at all because it feels weird – no one actually uses the route other than the drug addicts who frequent the area.'*(F4).

This implies that safety reasons are still the main concern even when there is access in the area. The presence of the drug addicts may also influence the use of the area. Many are also well aware that the water can rise very fast within the river channel during rainy days and avoid the area because of the inherent danger. These situations may also reduce the use of the urban river.

3.2 Link the Waterfront to the City

The importance of the 'link the waterfront to the city' attribute ensures that people will be able to get to the waterside from the city. Many waterfronts have not worked well because they are not adequately linked to their city (Malone, 1996). Is it easy to access the waterfront from the city in the Kuala Lumpur context? In relation to this attribute, one male respondent pointed out (and supported by a few): *'Some of the areas are difficult to get to if you are not*

familiar with the area because of the limited entry.'

This statement may imply that some of the areas of the waterfront cannot be accessed easily from the city. It was observed that the zones in this category are quite isolated from the main road and some are inaccessible, even by car. One example of this can be seen in Zone 1a (left bank), which provides a new eating area. It only has one access for pedestrians, which is by a bridge. Regarding this matter, two of the respondents replied:

'The bridge is out of the way. I'd rather buy food, which is available along the road on this side of the river.' (M1)

'We eat here everyday (hawker area) and do not go to the new food court in the other bank. The only access is the bridge and it is so far and cannot be seen directly from the station.' (M3)

This statement may indicate that the bridge is not convenient for the user to cross over from the nodes at the bus station (on the right bank) because it is not located strategically within the nodes and it is also the only access to the food court. This may reduce the concentration of public on the left bank.

Furthermore, some of these places do not have proper signage leading to the waterfront. A female participant highlighted: *'Although there is a road leading to the area, I wish there was signage for people to get to the area. It is difficult to get to this place for first timers.'* (F6)

This may indicate that although there is provision of access, proper signage is still needed to direct people that are not familiar with the area. Based on these findings it shows that the importance of providing clarity concerning accessibility to make a particular place responsive to activities, as mentioned by Tibbalds (1988), is also applicable in the context of the Kuala Lumpur waterfront.

3.3 Continuous Pedestrian Linkages

Lynch and Hack (1984, p.205) highlighted the importance of the continuity of pedestrian linkages to allow the user to experience 'the sequence of space and form'. This allows them to

understand the order clearly and at the same time enables them to compose the functional and natural expressive image of the site. It was mentioned by participants from both focus groups that this attribute is very important for them to enjoy the waterfront without any interruptions or obstacles. They find it quite easy to walk along the waterfront most of the time except in some of the areas. One respondent who passed along the waterfront everyday on the way to work pointed out: *'I do not have a problem walking continuously along the waterfront...it is only when I try crossing the Sultan Ismail by-pass from Zone 2 to Zone 3a. It is almost impossible and dangerous because it is a very busy road and there are dividers in the middle of the road.'* (M1)

This was also agreed by a few other participants. This statement may indicate that there is a good continuous pedestrian linkage along the river. However, they also highlighted the difficulty of crossing into certain areas such as in Zones: 2 (left and right bank), 3a (left bank), 3b (left bank), 3c (left bank) and 7 (left and right bank). Why is this so? This may be due to the roads/highways that are built right up to the river's edge without any provision of pedestrian crossing (such as traffic lights or zebra crossings). For example from Zone 1b to Zone 2, the number of cars in 24 hours is about 17,924 vehicles and the number of cars at 12 noon is about 676 vehicles (KLCH, 2009). This road is categorized as a heavily trafficked road, especially during peak hours. This indicates that the traffic may become a barrier for them to get to the other zone.

Importantly, they highlighted that pedestrian traffic lights in Zones 4a, 4b, 6a, 6b help them cross the busy road, however, they claimed that, unfortunately, the zebra crossing alone without the pedestrian traffic light, such as in Zone 4a-Pasar Road, cannot be relied upon. Why do they feel that way? They claimed that not all drivers gave priority to pedestrians. This may indicate that the zebra crossing alone is not sufficient and that if this situation is not controlled it may become worse in the future. As highlighted by Appleyard and Lintell (1972) the impact of traffic hazard/barrier to the community can be detrimental if not controlled and managed. It seems that highways are not the only obstacle for them. Another respondent added:

'At the Masjid Jamek LRT station and Masjid India, we cannot walk by the river anymore...' (F1)

A female respondent cited (supported by a few) another obstacle:

'Some of the areas we have to walk away from the water's edge due to the buildings. I do not know where the river has gone when I walk from the Masjid Jamek Station to the Amanah Raya Building.' (F5)

The area mentioned is where a few fenced private properties are located. This may indicate that private properties that are fenced up to the edge of the riverbank also prevent continuous pedestrian linkage and reduce the use and awareness of the river. According to Francis (1991), an area that is fenced along the waterfront cannot be considered as open space due to the prohibition of public entry. Whereas the waterfront is a place for the public to enjoy (Burton and Mitchell, 2006; Moughtin, 2003; Moudon, 1987). This shows that having walled properties right up to the river's edge may deny the public's right to access the urban river.

3.4 Visual Accessibility

Development that allows the public to have a direct view of the water is always the preferred situation (Stefanovic, 2002). Clear direct access with visual accessibility of the water is one of the key attributes in allowing the integration between the waterfront and the urban river. It was observed that most of the zones (21 out of 23 banks in the 11 zones) have concrete railings along the river. Is this really an obstacle for the user? In contrast, the focus groups generally perceived that the river is visually accessible at most of the waterfront. The concrete railings are only an obstacle to them to view the river if they are walking quite a distance from the edge of the river, which they rarely do because the pedestrian walkways are mostly available near to the water's edge.

However, both groups highlighted various factors that made them feel that the river is no longer in sight and that the presence of the river is not felt. This includes Zone 6a-right bank. Why is this so? In this zone it has buildings built abutting the river. This implies that when the building is built without allowing the public to go to the edge of the river, it may totally block their view of it and may reduce their awareness of the urban river.

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their view of it and may reduce their awareness of the urban river. In addition, Zones 3c and 6b were also mentioned. These zones have buildings/ development that backs onto or above the river. This includes building/ development backing onto the river that does not have any back lane for the public use or which has a back lane between the building and the river that is not/or rarely used by the public. This situation may also block their view. This is supported by the observation, which did not record any static activities here. An example of this situation was observed in the Periuk Kera Plaza (3c-right bank) area and the shop lots at Zone 6b-right bank. One respondent highlighted: *'We cannot see the river from the Periuk Kera Plaza (Zone 3c-right bank) and we do not know where the river is.'* (M5)

This situation demonstrated that although there is a pathway along the river if it is behind a development or building that backs onto the river the pathway may be rarely used. Passersby might not be aware of the river. They may also choose the route that more people use, which might be in front of the building. Without being able to see the river, this situation may also reduce their awareness of the river. Another respondent pointed out (and supported by few): *'I do not actually know where the river goes if I walk from Masjid Jamek Station towards Masjid India Road (Zone 6a). Suddenly it is not visible anymore.'* (F3)

Why this area? This statement reveals another factor that may block the visual accessibility. The area mentioned is at the LRT station in Zone 6a. Here, the LRT was built directly above the river at road level. From the statement it suggests that this may have blocked their view of the river. Compared to Zone 2, the building (LRT station) was also built over the river but it was elevated as high as the viaduct. Although it created an obstacle, it may still allow people to view the river between the columns and not block it totally. They also highlighted another area. One of the respondents stated: *'In fact, if you walk along Jalan Melaka, you do not feel the river even though the river is just behind the buildings.'*

Why this area? Jalan Melaka is where private properties fence to the edge of the river. This statement may indicate that the respondents have difficulty in viewing the river because it is blocked by these private properties. They are not able to walk close to the river, and, consequently, it may also affect their awareness and use of the river. Another respondent stated:

'If we disembark from the LRT at the Sultan Ismail Station (Zone 3a) we do not know

where the river is. When we go from the PWTC Station (Zone 2) to the Sultan Ismail Station, from above we can see the river on our left side but as we get down we do not feel the presence of the river anymore.'

From the statement, as they disembark they cannot feel the presence of the river. This may be because that is where the Sultan Ismail-Kuching bypass is located. The bypass seems to block the view of the river. This is also the case in some parts of Zone 7 on the left and right bank where the Ampang-Kuala Lumpur elevated highway (AKLEH) totally blocks the visual accessibility of the urban river. This may also reduce their awareness of the river. Finally, one of the respondents pointed out another aspect that blocked the view of the river: *'I only use the Hang Kasturi Road when crossing at the Central Market. There are more people in the area and I love to see people selling and sitting along the road. I did not know there were a river and a walkway next to the river.'* (M4)

Central Market and Hang Kasturi Road form one of the most vibrant public places in the city centre next to the river. From the statement, the respondents are not even aware that the river is close by. The Central Market used to have a double frontage and addressed both the road (Hang Kasturi Road) and the urban river. However, in 1998, the LRT viaduct, which descended into the tunnel system, was constructed. Pedestrian pathway is provided between the descending tunnel wall and the river as an alternative for people to view the river. In contrast, many of the focus groups highlighted that they did not realise the presence of this pathway. This may be due to the tunnel wall, which blocks their view and makes the walkway become isolated. The wall of the tunnel is located between the Central Market and the Klang River. Although less than 50% of the length of the area (Zone 4b) is blocked by the tunnel wall, the statement indicates that the wall may obstruct the opportunity to link one of the most vibrant areas in the city to the river.

4 Conclusion

While the research reported here was small scale within certain limitations, it had shed some light on the notion of public access in the waterfront area. First, in the provision of access, the location and characteristic of the access such as safe and comfortable are important to the public. Without studying the appropriate location such as certain nodes to position a bridge or pathway may not be able to bring public to the waterfront. Lack of safety at the

access may further reduce the meaning of the place because it is directly related to the poor use of the area. It may prevent people from staying long or coming to the waterfront, which eventually distances people from the urban river. This may also indicate that safety issues are one of the concerns of the waterfront user. These findings support Carr et al. (1992) who highlighted that one of the most important aspects of a positively meaningful place is a sense of safety. Second, as mentioned by Carr et al. (1992) in the earlier discussion, the legibility factors, which include clear visual accessibility, are crucial in order for people to feel connected to the place and for it to be meaningful to them. This includes the provision of signage in providing a legible environment for the user.

Table 3: The factors that affect the public access and use of the waterfront.

	Principle/ Attributes	The factors that affect the access to the waterfront and the water	The users' responses			
				Legibility	The factors	The responses
1	Direct access to water	Only one access	Difficult to access Unclear character of access Uninviting/ hostile – avoided area			
		No direct access to water's edge in the rest of the zones along the waterfront	Dangerous – avoided area			
2	Link waterfront to the city	One entry point without any alternative access going to the area from the city	Limited access			
		No entry point to waterfront area	Private property fenced till the edge of the river bank. The Highway Buildings built abutting the river edge			
3	Continuous pedestrian linkage	Private property fenced up to the edge of the river bank.	Difficult to connect to river			
		Buildings built abutting the river edge	Difficult to move from one zone to the other – worry of fast vehicle			
		The highway				
4	Visual Access to water body	Private property fenced up to the edge of the river bank.	Do not feel the presence of river			
		highway.	No view of the river			
		Building built abutting the river edge and backing onto the river.				
		Building built over the river.				
		Building which has back lane that is rarely use by public				

Third, it can be inferred that there are three main factors that contribute to the poor access and eventually poor use of the area (Table 3) i) the highway/heavy traffic roadways; ii) buildings built abutting the river, and iii) fenced private property up to the edge of the river bank. This may indicate the severity of the impact of these factors on the accessibility of the waterfront. Fourth, Boyd (1985) stressed that if the goal is about maximizing the 'public access to and along the coast', preservation of the physical and visual accessibility have to become the site planning principle. At the moment, neither the physical (direct access, link the

waterfront to the city, continuity of pedestrian linkages along the waterfront) nor the visual accessibility in some areas in the zones highlighted above were preserved for this purpose. Therefore, this research suggests that it would be imperative for future waterfront development to give due consideration on legibility factors to allow the waterfront to be more accessible for the public to benefit from it.

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