

The Influence of Legibility on Attachment towards the Shopping Streets of Kuala Lumpur

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ABSTRACT

Research on urban design mainly focuses on legibility of places generated by the physical and visual images, and thus only a few emphasize on its relationship with the psychological sense of place. This study examined legibility and its influence on users' attachment to the shopping places in Kuala Lumpur city centre, Malaysia. The places comprised of the main shopping streets of Jalan Tuanku Abdul Rahman, Jalan Masjid India, Jalan Petaling and Jalan Bukit Bintang. Questionnaire surveys and face-to-face interviews were conducted to identify the respondents' perception of legible elements within the areas. The analysis was supported by evidence gathered from direct observations of the streets' setting and activities. The findings demonstrated that the legibility of the streets is strongly associated with the users' functional attachment, dependence and familiarity with the streets' activities. It is supported by the identifiable activity nodes which make the places vibrant. In contrast, the influence of the physical forms and characteristics on the attachment does not reflect the same level of significance. Improvement of the streetscape and preservation of distinctive features such as old building facade will make places more legible. The findings inform planners and designers of the importance of users' attachment and recognition of meaningful places in managing changes in the physical environment. The ability of places to support diverse activities will reinforce place attachment particularly in the changing context of multi-cultural city of Kuala Lumpur.

Keywords: Legibility, place, attachment, Kuala Lumpur city centre

INTRODUCTION

Legibility is an attribute vital for good and successful places. A legible place is defined by vivid and integrated physical environment that can be identified, organized and navigated by people with ease (Lynch, 1960; PPS, 2001). As a result of the people's identification, association and attachment with the places,

place meanings and place identity are developed. The significance of the places to the lives of the users is reflected in the form, pattern and degree of attachment. The ability of the physical spaces to stimulate senses and evoke a sense of attachment is important for gaining the sense of place. It is assumed that if legibility of a place is increased, attachment to that particular place is also deepened.

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Place attachment is associated with the development of affective connection between people or individuals and specific places (Hidalgo & Hernandez, 2001; Moore & Graefe, 1994) which is expressed through “interplay of affects and emotions, knowledge and beliefs, and behaviours and actions” (Altman & Low, 1992). Place attachment is also reflected in the functional connection between people and places (Stokol & Shumaker, 1981). This is developed when a place is able to “provide condition to fulfil the functional needs of the people and support their behavioural goals” (Williams *et al.*, 1995).

One of the urban design issues of Kuala Lumpur is the lack of legibility and the loss of historical character due to development interventions which are not sympathetic to the existing context (DBKL, 2004). This contributes to the lack of identifiable places (JBPD, 2006) which is reflected in the homogeneity of buildings’ scales and appearances. This also affects the legibility of the cities due to the disappearance of legible and familiar objects, buildings, spaces, as well as socio-cultural activities. These transformations have influenced how users experience and feel about places. The weakening of a place’s identity could result in the loss of meaning and disrupts emotional attachment to place (Arefi, 1999).

In addition, the physical attributes play an important role in supporting the sense of place. The physical and the social characteristics of Malaysian cities are more complex due to the mixture of cultural (ethnic) rootedness, languages, lifestyles and religion. The users’ identification on the salient qualities of place and attachment of the main socio-cultural groups define place legibility.

This paper examines the concept of legibility in the context of the major shopping streets in Kuala Lumpur and its influence on place attachment. It is presumed that the physical elements influence place legibility, and therefore, reinforce place attachment.

Concept of Place, Attachment and Legibility

Places are constituted by the physical form, activity and meaning (Canter, 1977; Montgomery, 1998). Meaning is associated with individual’s internal psychological and social processes (Relph, 1976; Steadman, 2003) that generate perception. It is the point where the physical and cultural characteristics of a setting meld with the individual’s affective perceptions and functional needs (Bott *et al.*, 2003). In urban design research, much has been discussed on the influence of physical elements and activity in making places legible; however, the effects of legibility on people’s attachment have not been brought to adequate attention.

Legibility allows users to form a clear and accurate image of a place, while visibility and appearance help to orientate themselves within the cityscape. Thus, legibility affects how people are able to understand the structure of the place and the types of opportunities offered (Bentley *et al.*, 1985). Meanwhile, paths, edges, districts, nodes and landmark form how people structure a city image (Lynch, 1960), whereas signage, symbols, streetscape and landscape features function as informative reference to the users. Hence, the physical setting is significant in the construction of place meanings (Steadman, 2003; Relph, 1976). This is reflected in the way the physical features and appearance significantly influence the sense of place by “providing images so that topophilia (the love of a place) has a concrete object of attachment” (Tuan, 1974). In this regards, Lynch (1960) relates the function of a clear image of the urban elements towards emotional function (comfort, sense of orientation and sense of security) and symbolic function (symbols and strong association). In this study, the streets are viewed as ‘places’ which provide psychological as well as functional meanings to the users’ lives. Here, legibility is regarded as a positive element that can contribute to stronger attachment to places.

Meaning and attachment affect the way people are identified with their environment and they are influenced by culture and past experiences (Rapoport, 1977). They also

influence individual's and group's identities. The changing nature of a place and its meanings (Altman & Low, 1992), as a result of globalized culture and built forms, it is imperative that the psychological aspects of the urban experience, such as place attachment be analysed as indicators for place quality.

METHODS

Three shopping places in the city centre of Kuala Lumpur were selected; they comprised of the main shopping streets, namely; Jalan Masjid India (JMI) and Jalan Tuanku Abdul Rahman (JTAR), Jalan Petaling (JP) and Jalan Bukit Bintang (JBB). JMI-TAR has been synonymous to Indian Muslim, Indian and Malay population. A place known as "Chinatown" which comprises Jalan Petaling (JP) is one of the early urban streets inhabiting the Chinese trading community, while Bukit Bintang shopping area is defined by Jalan Bukit Bintang (JBB) which is characterized by modern and international image. Dedicated for urban revitalisation initiatives (DBKL, 2004), the places receive highest concentration of pedestrian, shoppers and visitors with inherent socio-cultural stronghold.

In this study, a questionnaire survey and an in-depth interview were conducted to examine the legibility of the selected places and their influence on the users' attachment. Meanwhile, direct observations provide recorded evidence of how the legible elements support different types of activities. 330 respondents were clustered to represent the main users of the places, namely; shop owners, shopkeepers, vendors, office workers, residents, shoppers and visitors. They were randomly selected from those who were in the streets and open spaces at the time of the survey, while others were in the shopping premises. The sample size drawn for this survey was generated based on the calculation made by De Vaus (1991). It was based on 5.5% sampling error at 95% confidence level and the smallest sub-group should have at least 50-100 cases. The 15-20 minute survey with 40-minute time interval between the surveys sets were concurrently conducted in all places.

In addition, face-to-face interviews using a semi-structured format were conducted with 36 samples (JMI-TAR: 12, JP: 12, JBB: 12), taking into consideration the length of engagement, ethnicity, frequency of visit and familiarity with the places. Hence, structured questions were prepared as a framework for questioning. The researcher took into account the respondents' experiences of particular place and time, together with the feeling and emotion attached to it. Probing questions are necessary to get a clear explanation of specific response that can reveal the actual factors influencing the respondents' attachment. The interviews were tape-recorded and noted following the users' convenience.

Majority of the respondents in the survey were within the age range of 18 to 24 and 25 to 49 years old, with almost 60% of them being female. They have between 10 to 30 years length of engagement, are familiar with the places and were being there mainly for trading, shopping, working and visiting. The respondents who participated in the interviews are in the age range between 27 to 69 years old. Majority of them aged between 40-55 years old and had been working and making a living on a daily basis for a period between 5 to 50 years; hence, they are very familiar with the streets. The respondents represented the main ethnic population occupying the streets, namely; Malays, Indian Muslims, Chinese and Indian.

The scale items used in the survey include the functional attachment (engagement, familiarity, dependence satisfaction and comfort) and the physical characteristics (layout, signage, greenery, views, landscape features and landmarks). Based on some previous research, William and Roggenbuck (1989) developed a series of Likert-scaled statements which was designed to measure theoretical dimensions of place attachment. Others also use similar technique in measuring related construct, such as place identity and place dependence (William *et al.*, 1992; Jorgensen & Steadman, 2001; Hidalgo & Hernandez, 2001). 4 Likert-scale statements were structured with the open-ended items to gather the respondents' identification of the legibility characteristics of the places.

Systematic and periodic observation, photographic (visual) survey using a digital camera and field notes were used to document the physical characteristics and the types of users and activities. The observations were scheduled on weekdays and weekends, as well as during festive seasons (morning, lunchtime, evening and night) to understand the atmosphere of the places.

The findings were based on the triangulation of data from the quantitative and qualitative methods. The results from the questionnaire surveys determining the functional attachment were cross-analysed with the users' perceptions of the physical characteristics of the place. The interview results were then analysed to identify patterns matching (through recurring themes or categories), clustering (grouping responses with similar characteristics and meanings), relating variables (identifying the relationship between two or more variables) and relating the finding to the theoretical framework of the study (Groat, 2002; Miles & Huberman, 1994). The results were also cross-tabulated to compare the variables.

RESULTS AND DISCUSSION

Legibility of the Physical Elements and Attachment

The results of the respondents' identification of legibility of the physical elements shown in Table 1 are slightly above average. The scales of 2.51(JMI-TAR), 2.67(JP) and 2.75 (JBB) from the scale of 4.0 suggest that the places are moderately legible to the respondents. The mean difference is not significant. Even though respondents identified quite strongly with the structure and signage of the streets, the identification of the quality of the physical elements which support legibility did not reflect the same level of significance. This is caused by the lack of greenery, less attractive views and landscape features to be able to be identified as distinctive features of the streets.

It was observed that the JBB has more direct physical and visual accessibility, connectivity and more identifiable physical images, such

as its distinctive landscape elements and street furniture. This finding supports the functional attachment and users' preference for shopping location. It was also observed that the streets' legibility is strongly associated with activity than the physical and visual appearances of the buildings and open spaces.

The results from the interviews indicated that the respondents' identification of recognisable nodes and place markers gave them a sense of direction. The mixture of old and new buildings, historic building façade and the traditional shop houses characterise the more traditional streets of JMI-TAR and JP. However, majority of the respondents identified more positively with the legibility of the contemporary place such as JBB. They perceive this place as being more attractive in terms of views and landscape, having more popular buildings and larger shopping complexes, and are therefore considered more legible. This is reflected in the attractive design of the pedestrian walkway of "Bintang Walk" and popular shopping places and entertainment spots which people use to associate with the place.

It was observed that buildings and open spaces become the nodes and landmarks of the places. Popular buildings, historic structures, new roof structure, street vendors, transport nodes, pedestrian walkways, public facilities, high-rise buildings, shopping malls and distinctive restaurants are the elements that make the place legible. Some of the most usable spaces outside buildings which allow social interactions and communication to take place include building corridors, building entrances, pocket spaces, transport nodes, street vendor area and spaces in between buildings. Nevertheless, these spaces mainly serve as pedestrian linkages rather than spaces to sit, communicate and observe. It was observed that JMI-TAR and JP lack attractive visual qualities which could easily be identified due to the unclear signage and direction, as well as poor quality of the public open spaces. Further improvement of the physical elements, such as detailed design treatment of the pedestrian path, should contribute to the street's legibility.

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TABLE 1
The characteristics associated with the legibility of the physical elements in JMI-TAR,
JP and JBB

Components	Statements / characteristics	Mean Value		
		JMI-TAR	JP	JBB
Physical elements	01 Very clear layout-easy to move	2.86	2.74	2.92
	02 Very clear signage and direction	2.75	2.38	2.90
	03 A lot more greenery /beautiful trees	2.24	1.98	2.34
	04 A lot of very exciting views	2.22	2.17	2.64
	05 Unique and exciting landscape features	2.25	2.29	2.59
	06 Very attractive building facades/old buildings	2.40	2.70	2.55
	07 A lot more popular buildings as place markers	2.56	2.60	2.85
	08 A lot more modern shopping complexes	2.74	2.58	3.20
		2.51	2.67	2.75

Source: Field survey

It was noticed that the streets intersections are the most identifiable nodes supporting constant and high pedestrian movement and crossing particularly at peak hours. Small open spaces around the corner of the intersection provide spaces for meeting points and waiting areas. Meanwhile, the ongoing flow of pedestrian across the intersection creates a sense of life to place, making the place visible. Based on the interviews, it was found that even though the users felt that the elements support their knowledge of the streets and a sense of direction, continued attachment is mainly associated with high level of accessibility to familiar activities and legibility of the locations which they are able to participate and fulfil their purposes of being in the place. Hence, familiarity to objects such as buildings and activities provides a higher degree of comfort and ease of use. Moreover, majority of the respondents mentioned that they knew the place very well due to length of engagement and frequent visits. Familiarity is also reflected in the respondents' knowledge of the physical elements and changes in the area, as stated by one of the respondents below:

“Pakcik memang sangat biasa dengan setiap inci tanah di kawasan ini. Nama jalan banyak berubah., bangunan paling lama Colesium, Masjid asalnya

separuh kayu, JTAR asalnya Batu Road dan Robinson di Jalan Tun Perak asalnya pusat membeli belah yang terawal disini...” “I am ('Uncle') very familiar with every inch of the area, the names of streets has been changing, the oldest structure are Colesium, the mosque used to be partly made of wood, JTAR was originally Batu Road and Robinson in Jalan Tun Perak was originally the earliest shopping complex here...” (Respondent 3: Shop owner, 25 years of engagement) JTAR

The shoppers also associated their familiarity with the locations of shopping attraction and their particular needs found in the area. The following responses describe this connection:

“I frequently come here, at least once a month for shopping. I can find all the necessities for my family. The best is clothing and textile especially tudung.” (Respondent 3: Shopper, 10 years of engagement) JMI

The shop owners associated familiarity with the length of engagement with the place, as described in the following statement:

"I am familiar with the place; I know this area very well. I have been here for 25 years, I can tell you the names of the roads here, but this road is the most familiar because I run my business here." (Respondent 3: Shop owner, 25 years of engagement) JP

"I prefer to stay here after retired. I am used to this place and had been working here for 30 years..." (Respondent 9: Resident, 37 years of stay) JBB

It was found that the respondents associated familiarity with the places which they frequently visited and the shops and spaces that they engaged with. It was noted that the respondents also stated the streets as a whole as spots which they were familiar with, while others indicated specific buildings/commercial complex well-known and popular to shoppers and visitors.

The respondents were also asked to identify the elements which had influenced their attachment to the streets. The shopping complexes were strongly identified in users' choice of shopping locations; however, the street vendors, department stores and typical traditional shop houses are popular in attracting users from related ethnic groups along the traditional streets of JP and JMI-TAR.

The scales of 2.72 (JMI-TAR), 2.57 (JP) and 2.67 (JBB) from the scale of 4.0, as summarised in Table 2, suggest that the respondents have a moderate functional attachment towards the shopping streets. Nonetheless, the mean difference is not significant. In the case of JMI-TAR, the scale of 2.72 for JMI-TAR indicates that the attachment to the place is stronger than that of JP (2.57) and JBB (2.67). However, the responses for statement 01 ('this area is the best place for what I would like to do') informs the study that the degree of functional attachment is fairly strong (JMI-TAR: 3.00; JP: 2.69; JBB: 2.88). The respondents also agreed that the shopping streets are the best place for their activities, felt comfortable being there than any other places and satisfied with the improvement of the areas.

On the other hand, the results from the interviews shown in Table 3 indicate that the functional attachment is strong, as expressed by the length of engagement, level of familiarity, degree of dependency, degree of satisfaction and sense of comfort. There is a similarity in all cases (JMI-TAR, JP and JBB), indicating dependency for regular income, business opportunities and involvement during festive events and occasions. Meanwhile, satisfaction was expressed through availability and diversity of goods, public facilities, streetscape improvement and intensity

TABLE 2
Degree of functional attachment to JMI-TAR, JP and JBB

Component	Attachment Items	Mean values		
		JMI-TAR	JP	JBB
FUNCTIONAL ATTACHMENT N=330	01 This area is the best place for what I like to do	3.00	2.69	2.88
	02 I feel comfortable being here than any other place	2.77	2.45	2.75
	03 No other place can compare to this place	2.47	2.44	2.38
	04 I am happy with the improvement done to this place	2.68	2.73	2.91
	05 This place is very important to me	2.68	2.53	2.45
		Mean value	2.72	2.57
Response format 1= Strongly disagree 4= Strongly agree				2.67

Source: Field surveys

of shoppers and visitors. The physical and environmental comfort was reflected in the degree of convenience in terms of accessibility, public facilities and protection from weathering condition.

The legibility of these places was enhanced by the transparency of the trading activities at these places through the intense use of the arcade walkways and the streets themselves to display the merchandise. The presence of various shading devices employed, such as the construction of the opaque roofs over certain parts of the JMI and JP, have increased the comfort level as well as its legibility. On the other hand, JBB has many tensile structure pavilions along the street which make the place conducive for shoppers and more visible to the passers-by. Hence, there is a strong relationship observed between the elements which contribute to the sense of comfort and legibility. This supports the users' daily engagement.

The respondents seemed to relate their knowledge and familiarity with the places to the frequency and period of engagement. This is shown in the following responses:

“Hari-hari pakcik datang sini dari dulu lagi. Jumpa kawan-kawan sama-sama pencen. Kita berbual pasal macam-macam benda,, pasal hidup, kenangan dulu-dulu, pasal tempat ni. Kita dah rapat, kenal semua macam dah jadi satu group...” I come here everyday . I am meeting my pensioner friends. We talk about a lot of things, about life, memories and about this place, we are very close, knowing each other as one group... ” (Respondent 7: Visitor, 8 years of engagement) JMI

“I shop here because I have been shopping here since 25-30 years ago. I only come sometimes when I have time or when I crave certain food here (bakery, noodles, fruits from China)... It is special because it had been here for so long...” (Respondent 9: Shopper, 30 years of engagement) JP

The functional attachment was expressed in the form of association with the place. This type of attachment was embodied in the physical (functional) characteristics of the places. It was observed that a group of pensioners were frequently gathered in one of the pocket spaces in JMI known as Medan Bunus. They felt attached to the place because the open space is shaded by the existing trees, whereas the popular spots for street entertainment by the blind musicians influence their preference to gather there. The respondents also associated the attachment with leisure activities and the quality of the physical environment for social interaction. In terms of improvement, the respondents strongly agreed that the streets are the best place for their purposes of being there and they are also happy with the improvement of the areas. It is evident that the users' engagement is influenced by the physical quality of the places and their legibility.

The Influence of Buildings and Public Open Spaces on Functional Attachment

JMI-TAR and JP are characterised by the traditional shop houses with arcaded walkways and interspersed modern buildings. Despite portraying the modern city image, the history of JBB as among the older streets in Kuala Lumpur is reflected in a few of the remaining old buildings.

The results from the survey also suggest that the users have identified JP as having very attractive street frontage and building façade, compared to JMI-TAR and JBB. This adds to the legibility of the street, despite the dilapidated building and illegible facades. Nevertheless, the Indian Mosque (Masjid India) which was built in 1863 has been regarded as the most identifiable historic building due to its distinctive architectural features. The area was developed for commercial uses at the beginning of 1930's and it still remains as one of the most favourite streets in the city centre for shoppers.

Table 4 illustrates the comparison between the legibility of the places with the respondents' functional attachment. The significance of the layout of the streets, as the element which

TABLE 3
Functional attachment indicators

Indicators	PLACE			Keywords (Freq.)
	JMI-TAR	JP	JBB	
Engagement	Engagement from morning to night time	Engagement from morning to night time	Engagement from morning to midnight	Frequent (3), social, ownership, association, familiarity, traders office hours, leisure, entertainment food, relax
	Strong social connection and bonding due to activity and cultural group	Attached to the place due to long period of engagement and association	Attached with office hours	Leisure and entertainment Window shopping
	Strong sense of ownership and bonding due to longer period of engagement	Constant visit particularly during Chinese New Year Very close with other traders and recognise them by sight	Attraction to food and specialised eateries	Relaxing in outdoor eating spaces
	Committed to the daily routines	Attached to trading and vending activities		
Familiarity	Very familiar with the place	Very familiar with the place	Very familiar with the place	Imageability (2), changes, street vendors (2), changes, shop owners regular customer, frequent (2), events
	Able to describe the area very well, highly imageable	Able to describe changes of the physical settings in details	Very familiar with the regular customer	
	Able to describe changes of the physical settings in details	Very familiar and constantly engaged with frequently visited shops	Frequent shopping and visiting during special / familiar events	
	Know most of the other vendors	Know most of the other traders and vendors	Familiar with night scene of Bintang walk	
		Close relationship with the adjacent shop owners		

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Table 3 (continued)

Dependence	Dependence on the main centre of attraction (shopping complexes)	Has greater control over space due to length of engagement	Attached to the place because it is easy to gain money and provide better life	Shopping complex, suitability, control (2), people, business-income (7)
	The main source of income	Attached to the place due to the business opportunity	Attachment due to business gain	
	Choose the place because of its economic potential and suitability	Choose the place because of the business and the people	Frequently use the rail transport	
	Has control over space due to length of engagement The place where they can afford to pay rent for businesses			
Satisfaction	Satisfied with the variety of shops	Happy with the new roof shelter for protection	Satisfied with the place because it attracts a lot of people to shop	Variety (3), sustain life (2), price (3), roof shelter, people (2), changes, transportation, facilities
	Suitable place to sustain life and daily needs	Satisfy with variety of things offered at lower prices		Satisfy with variety of things offered
	Satisfy with variety of goods offered at lower prices	Satisfy with variety of shops		Satisfied with transportation and facilities
	Satisfied with the current improvement	Satisfied with the street as people's attraction Satisfied with the changes and suggested not to destroy the street character	Attracted to the entertainment activities	
		Special choice of traditional food		

Table 3 (continued)

Comfort	Comfortable place to work and shop Comfortable with familiar shopping spots	Comfortable and happy living in the area where things are accessible	Happy and comfortable with the place to shop and relax	Facilities, roof shelter (2) cleaner, convenient, eating, shopping, access, walking
	Convenient facilities (LRT)	Comfortable to work under roof shelter	Convenient and happy with the place and its facilities	
	Mosque within walking distance	Cleaner environment	Easy to get places to eat and to do shopping , to get necessities	
	Roof shelter offers protection		Comfort of access and walking	
	More organised vending spaces			

(Source: Interviews)

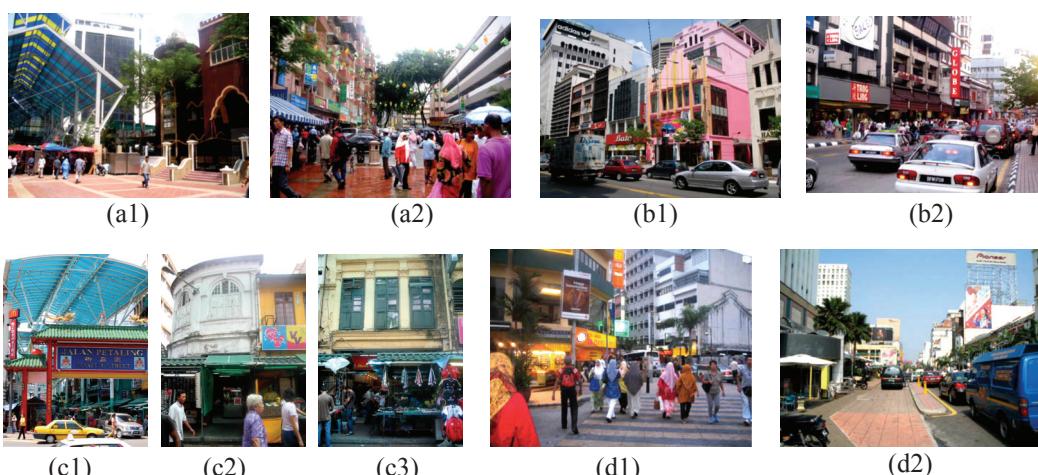


Fig. 1: Old and new buildings defining the legibility of JMI (a1, a2), JTAR (b1, b2), JP (c1, c2, c3) and JBB (d1, d2)

contributes to the respondents' perception, is reflected in the results of the survey. More than 70% of the respondents strongly agreed that the streets have very clear layout that facilitates easy movement as well as a stronger functional attachment. In the case of JBB, the majority of the users perceived that the presence of many modern shopping complexes shows the ability of the place to establish its popularity as a shopping

and leisure attraction, and thus, drawing users and visitors to the location.

The streets were seen to be among the most vibrant spaces in the city centre and they provided places for shopping activities. The congruence between the physical characteristics (through buildings, place markers, open spaces and landscape) and the associated activities have created places which users can easily identify

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TABLE 4
The percentage showing a comparison between legibility and functional attachment

Place	Attachment	Legibility (Physical elements)							N=330
		layout	signage	greenery	view	landscape	building	Place markers	
JMI-TAR	Best place	78.0	62.7	36.1	36.6	39.8	53.0	57.3	67.1
JP	Best place	70.8	44.6	26.2	33.8	38.5	58.5	56.9	54.7
JBB	Best place	78.0	74.4	37.8	63.4	61.0	60.5	75.6	90.1

Best place: Based on the statement, ‘this is the best place for what I would like to do’

(Source: Field surveys)

with. This influences the users’ engagement to the places. In the midst of change, the significance of the historical place markers is evident from the following statements made by a local newspaper:

“While most of the colonial buildings have undergone some form of transformation, the 82 year-old Coliseum Café & Hotel in Jalan Tuanku Abdul Rahman has remained virtually unchanged. Built in 1921 it was a popular hangout for colonial planters, miners and traders. We can safely say that everything is unchanged here” (Colesium Assistant Manager – Richard K: The Star, Sat. Aug 10, 2002, p. 2-3).

“Another landmark, the intriguing three-storey Seng Kee coffee shop at the corner of Petaling Street and Jalan Cheng Lok was demolished in the late 1990s and rebuilt as a bland four storey block. As a ‘tribute’ to our heritage, no doubt, a ground floor now houses, of all things, a McDonald” (The Star, Sat. Feb 3, 2001, p.3).

The findings suggest that the physical attributes and characteristics have significant influences on the attachment. The majority of the users who identified JMI-TAR, JP and JBB as strategically located and highly accessible also agreed that the streets are the best place for their

intentions of being there. Here, legibility plays an important role in increasing the capability of the streets to function as shopping and working places. These further support the notion that the physical features and appearance play an important role in influencing the sense of place and contributes to place attachment (Steadman, 2003; Relph, 1976). In more specific, they provide appropriate structure and images to support the development of place attachment (Tuan, 1974), and therefore, the objects should be easily identifiable and legible to the observers.

CONCLUSION

The study on the physical legibility and attachment to shopping places in Kuala Lumpur city centre indicates the need for more identifiable elements to secure the physical and functional characteristics of these places. The clarity of the urban physical structure, as well as the distinctiveness of buildings and landscape, influences how people use spaces to sustain attachment. Since these streets are among the oldest streets in Kuala Lumpur, the physical significance and perceived image of the streets have reinforced place attachment which is influenced by the length of engagement and familiarity. The sense of place is developed not only through the ability of the physical elements to stimulate the human senses but also the form and degree of attachment as a result of a strong identification of urban elements and continuous engagement in activities. Therefore, it is concluded that the legibility of the physical

elements, contributed by the nodes, landmarks (place markers) and associated characteristics, has a significant function in making distinctive and meaningful places as urban designers aim at creating more responsive places for people to stay, to work and to play.

REFERENCES

- Altman, I., & Low, S. M. (1992). *Place attachment*. New York: Plenum Press.
- Arefi, M. (1999). Non-place and Placelessness as Narratives of Loss: Rethinking the Notion of Place. *Journal of Urban Design*, 4(2), 179-193.
- Bott, S., Cantrill, J. G., & Myers, O. E. (2003). Place and the Promise of Conservation Psychology. *Human Ecology*, 10(2), 100-112.
- Canter, D. (1977). *The Psychology of Place*. London: The Architectural Press Ltd.
- Chow How, B. (2001, Feb 3). Chinatown Traders Want Cultural Identity Retained. *The Star*, p. 3.
- DBKL (2004). *Draft Kuala Lumpur Structure Plan 2020*. Kuala Lumpur: City Hall of Kuala Lumpur.
- De Vaus, D. (1991). *Surveys in Social Research*, Routledge.
- De Vaus, D. A. (1991). *Surveys in social research* (3rd ed.). London North Sydney, NSW, Australia: UCL Press; Allen & Unwin.
- Groat, L. N., & Wang, D. (2002). *Architectural research methods*. New York: J. Wiley.
- Hidalgo, M. C., & Hernandez, B. (2001). Place Attachment: Conceptual and Empirical Questions. *Journal of Environmental Psychology*, 21(3), 273-281.
- JBDP (2006). *National Urbanisation Policy, Federal Department of Town and Country Planning (JBDP), Peninsular Malaysia, Malaysia*. Retrieved from http://www.townplan.gov.my/new_web/english/download/service/NUP.pdf
- Jorgenson, B. R., & Steadman, R. C. (2006). A Comparative Analysis of Predictors of Sense of Place Dimensions: Attachment to, Dependence on, and Identification with Lakeshore Properties. *Journal of Environmental Management*, 79(3), 316-327.
- Lynch, K. (1960). *The image of the city*. Cambridge Mass.: Technology Press.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis : an expanded sourcebook* (2nd ed.). Thousand Oaks: Sage Publications.
- Montgomery, J. (1998). Making a city: Urbanity, vitality and urban design. *Journal of Urban Design*, 3(1), 93-116.
- Moore, R. L., & Graefe, A. R. (1994). Attachments to recreation settings: The case of rail-trail users. *Leisure Sciences*, 16(1), 17-31.
- PPS (2001). *Projects for Public Spaces*. Retrieved from <http://www.pps.org>.
- Rapoport, A. (1977). *Human aspects of urban form : towards a man-environment approach to urban form and design*. Oxford ; New York: Pergamon Press.
- Ralph, E. (1976). *Place and Placelessness*. London: Pion.
- Richard, K. (2002, August 10). Architectural Heritage a Statement of History. *The Star*, p. 2-3.
- Stedman, R. C. (2003). Is It Really Just a Social Construction?: The Contribution of the Physical Environment to Sense of Place. *Society & Natural Resources*, 16(8), 671-685.
- Stokols, D., & Shumaker, S. A. (1981). People In Places: A Transactional View Of Settings. In Harvey, J. H. (Ed.). *Cognition Social Behaviour and the Environment*. (pp. 441-488) Hillsdale, NJ: Lawrence Erlbaum Assoc.
- Tuan, Y. F. (1974). *Topophilia: A Study of Environmental Perception, Attitudes and Values*. New Jersey: Prentice-Hall Inc.
- Williams, D. R., Anderson, B. S., McDonald, C. D., & Patterson, M. E. (1995). *Measuring Place Attachment: More Preliminary Results*. Paper presented at the 1995 Leisure Research Symposium, NRPA Congress, San Antonio.