

The Vitality of a Pedestrian Street in Johor Bahru City

Amir Ghahramanpouri¹, Sepideh Sedaghatnia², Hasanuddin Lamit³, Ahmad Saifuddin Abdullah⁴, Mohd Hisyam Rasidi⁵, and Muhamad Solehin Fitry Rosley⁶

^{1, 2, 5, 6} Faculty of Built Environment, Universiti Teknologi Malaysia (UTM), Johor Bahru, Malaysia,

Email: ¹amir_ghahramanpouri@yahoo.com, ²sepideh_ft10@yahoo.com, ⁵b-hisham@utm.my, ⁶solzfitry@gmail.com

^{3, 4} Center for Study of Built Environment in the Malay World (KALAM), Faculty of Built Environment, Universiti Teknologi Malaysia (UTM), Johor Bahru, Malaysia, *Email: ³b-hasanuddin@utm.my, ⁴cyfu2002@yahoo.co.uk*

In Malaysia, similar to other parts of the world, majority of urban development occurs along the streets. On the other hand, streets involve much of public life in each city and creating successful streets has been always desired, since socially activating streets are crucial for the users and the sustainability of the cities, they belong. Considering the recent improvements of the physical contexts in a traditional street of Malaysia, this study aims to investigate the social vitality status of Meldrum Walk, in which the priority is given to non-motorised users. The main focus of the study is on the current users, the ways they participate and the activities they involve, together with the purposes of their involvement in that street. Structured behavioral observation and questionnaire survey are the two methods applied for this study.

Keywords: Static User; Mobile User; Street Vitality; Pedestrian Street

Introduction

Malaysia is among the fast-growing nations in Asia and its cities are experiencing rapid urban growth together with changing their physical features. It is declared that the creation of successful and friendly cities is the most important concern while developing existing city spaces or designing new city parts, and political leaders highly suggest consideration and promotion of their sustainability (Porta and Renne, 2005). In this regards, streets are arenas, witnesses, products, and even victims of urban growth, since majority of urban development occurs along it streets (Hartanti, Martokusumo, 2012).

Streets are among important urban elements that involve much of public life in each city. It is believed that socially activating street is crucial for people- who use such spaces, and the sustainability of cities as well (Sivam and Karuppannan, 2013). Among the previous studies, which focused on the sustainability aspect of streets,

those with mere concentration on social aspects (e.g. Porta and Renne, 2005) are rare and social sustainability of these significant small scale urban units, has been remained as an existing gap in the literature (Secher, 2014; Ghahramanpouri et al., 2013).

On the other hand, successful streets have been always desired in cities and considered “as much of an art today as it was in the 1960s” (Porta and Renne, 2005). From an urban design perspective, there are many emphases on giving the priority to the pedestrians rather than motor vehicles in streets. Therefore, some cities have recently adopted the idea of pedestrianisation to give more priority to the pedestrians and non-motorised users, while developing their existing or new streets.

This study is undertaken with the aim of examining the vitality (from a social perspective) of Meldrum Walk- as a successful traditional street that has recently experienced physical improvements, through which the priority is given to non-motorised users. For this purpose, the main focus is on the characteristics of activities occur, also the street users (pedestrians and those who participate in the activities) together with their purposes of their attendance.

Background

Asian street encompasses diverse societal roles. It is a stage for gathering and meeting family and friends, public expression and participation in political and religious discourses, a place for commerce and exchange, also an area for extension of living areas. Current literature shows that Asian people are social entities who do not prefer to go out alone. They have tendency to do activities in groups rather than individually. Hence, streets are key destinations of their social activities, and considered as places of meeting, relaxing, eating, shopping, etc. (Mateo-Babiano and Ieda, 2007).

Sense of life and vibrancy of a street are majorly resulted from presence of street users and their participations in a variety of activities as well as social interaction and various uses of the street spaces (Shamsuddin, 2011; Robertson, 1993). In his work on determining the environmental characteristics for supporting social behaviors, Vikas Mehta (2006) has utilized and clarified the concept of “lively street”.

Human activities play important roles in street vitality, while they attract other people (Gehl, 1987). According to Montgomery (1998), they would make the area vibrant and enhance diversity of the place. Shamsuddin (2011) also defined human activity as specific behavioral manifestation of man’s response to the environment and hence is affected by cultural, social, economic and climatic factors.

Despite different categorizations that have been suggested for street users, this

research categorizes them into two groups- i.e. static and mobile (Ujang, 2012). Related to the common assumption through which, pedestrians are moving entities, the first group includes mobile users (e.g. walking pedestrians/ visitors) who were moving at the time of data collection. Second group contains static users, who linger in the area or have stationary activities (e.g. watching, standing, sitting, or reading) there. For the purpose of this study, those who involve in strolling are put under sustained category.

Methodology

Researchers suggest systematic observation method for identifying cultural differences in uses of public spaces as well as determining the human activities that are distinctive to a specific place. Hence, in order to establish the routines of local people over the course of a day from early morning until night and to discriminate pattern of activities, observation (direct observation) was utilized as the main data collection method for this study. It includes observing what activities people are engaged in, where, when, how and with whom they are doing the activities (Shamsuddin, 2011). For this purpose, two types of surveys have been performed for (during days and nights of three different days) and their results have been described. They include a) Counting pedestrian traffic; used for mobile users and b) Walk-by-observation of stationary activities (behavioral mapping); used for static ones. During each observation, one of the researchers walked slowly in the study area and recorded the total number of stationary and sustained activities, the people involved in them, their locations. Furthermore, a questionnaire survey was conducted among the users of Meldrum Walk, to get a clearer picture about pedestrians' activities, uses and purposes there.

Study Areas

Meldrum Walk (Jalan Meldrum) was designed as a pedestrian mall, which provides an attractively landscaped passage for the benefit of both locals and tourists. Pedestrianisation of this street occurred in 2005. The recent development of Meldrum Walk includes the narrowing of this two-way street into a single-lane street with an accompanying pedestrian mall and outdoor cafes. For the purpose of this research, selected section of Meldrum walk that is located between Jalan Siew Nam and Jalan Siew Chin, was studied (Figure 1). It has mixed land use including hotels, offices, shops, restaurants/food courts and entertainment places among others. This street is accessible in a variety of modes- walking, cycling, riding and driving (Ghahramanpouri, et al., 2012).



Figure1: Meldrum Walk (map and views)

Results

a) Walking, the most popular activity

Among the total number of 2410 recorded movement activities, walking (75% of all cases) was the most popular mode of transportation in Meldrum Walk. As it is expected for streets in which the priority is given to non- motorised movement, pedestrians patronized the study area more than the other categories (cars and motorcycles).

b) Users in motion

As cafes' tables and chairs occupied the whole walkway at East sidewalk, two third of walking activities happen at the opposite side, which is less friendly for their walking (Figure 2).



Figure 2: East sidewalk; place for cafes' tables rather than walking.

Applying various changes in the sidewalk width that is very narrow in some parts, the existence of obstacles, and lack of amenities for people to stay, rest or sit are among the main issues highlighted by pedestrians in the survey forms (Figure 3).



Figure 3: West side of the Meldrum Street.

Comparing (day vs. night) averages of pedestrian density shows that the area is averagely more vibrant during evening time (Table 1).

Table 1: pedestrian density comparison

	Peak walking density (pedestrian/sq. m)
Day-time	0.058
Night-time	0.085

Based on the observations, during the weekends, this street experiences about 40% more pedestrians rather than Fridays and other weekdays. It is because the street acts as a recreation and leisure hub for users (Refer to Figure 4).

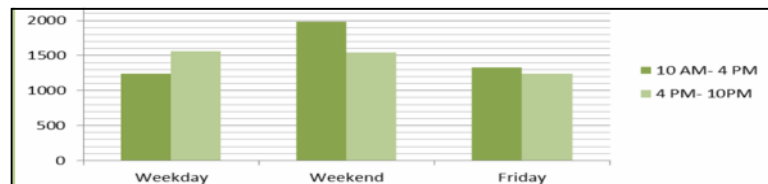


Figure 4: number of walking users during day vs. evening

As this street has a North-South orientation, the comparison of these two directions could show the directional flow. The comparison shows during weekdays, almost the same numbers of pedestrians pass by the street from each direction. However, during the Fridays and weekends, pedestrians walking towards North are almost 25% more than the South direction. It shows that the South of this street has inadvertently acquired the attribute of an entrance.

Table 2: Estimation of pedestrian frequency and flow in Meldrum Walk during 12 hours

Directions	Weekday	Weekend	Friday
Towards South	2710 (49%)	3330 (45%)	2300 (44%)
Towards North	2790 (51%)	4130 (55%)	2900 (56%)
Total frequency	5500	7460	5200

c) Stationary Activities of static users

In brief, the results show that eating/drinking, talking and watching other people are the most observed (89%) activities in Meldrum Walk. Sitting is the popular posture (78%), followed by in compare to standing and lying (Figure 5). There is a high degree of socializing in Meldrum Walk because people spend more time on leisure and social activities while participating in groups rather being alone.



Figure 5: Various stationary activities in Meldrum Walk

d) Static users

Of the total 2311 observed persons involving stationary activities during three days, males constituted the majority of users (83%) in Meldrum Street. This street does not fairly represent various age groups, and a substantial proportion of pedestrians were related to young people (36.8%). Children have the lowest proportion among all groups. In terms of racial background, Chinese constituted the majority of pedestrians (63%) while others including Malay, Indian and other ethnics are distributed fairly.

In Meldrum Walk, the majority of stationary pedestrians were observed on weekends. Density- as an indicator of crowdedness and activeness consists of the average presence of people per square meter. The average density in this street is 0.05 persons per square meter (Table 3). As people have more free time during weekends and majority of activities, they involve have leisure characteristics, the area is livelier on weekends in comparison with other weekdays.

Table 3: Distribution of stationary pedestrians in Meldrum Walk

Total area (m2)	Number of observed people					
	Friday		weekend		weekday	
	Fr.	Density	Fr.	Density	Fr.	Density
2413	749	0.05	938	0.06	638	0.05

The recorded data shows that during weekdays, from morning until night, the number of people, doing stationary activities in the area, regularly increased. During weekends' morning time the street is very popular and the number of visitors is at

least 60% more in comparison with weekdays and Friday. As shown in Table 4, Fridays and weekends, the total number of people participating in stationary activities during the daytime was half of what this amount was recorded for the evening time.

Table 4: comparison of average number of users engaged in stationary activities.

Time	Day		Evening		Total
	frequency	Avg.	frequency	Avg.	
Friday	244 (33%)	81	505 (67%)	168	749
Weekend	392 (42%)	131	546 (58%)	182	938
Weekday	217 (34%)	72	421 (66%)	140	638

e) Purpose of visit

In order to classify the reasons, for which users may participate in that street, the questionnaire survey was utilized and the results are presented in this section. From the total 75 users whose questionnaire forms returned, four main groups identified and majority (66%) of users visited this street with various non-working purposes. So the stated reasons for the presence of this group are shown in Table 5.

Table 5: Main categories of visiting purpose

Purpose of visit	Frequency	Valid Percent
Working	24	33.8
Recreation and Leisure	18	25.4
Shopping	14	19.7
Travel	5	7.0
Others	10	14.1

While describing their visit, they mostly reported, accompanying “with their friend(s)” (42%) and “alone” (41%), and about the purpose (non-working) of their visit, “recreation and leisure” (25%) was the highest. Respondents use terms such as “meet friends”, “relaxing/refreshment and chatting with friends”, “hang out”, “watching football with friends” “betting” or even “meet strangers and find new probable friends” and so on which meant they spend time with certain people there. Such kind of explanations about such street could define specific spaces and premises that represent the concept of Oldenburg’s “Third Place” (Mehta and Bosson, 2010), which was defined by as a place of “refuge” other than the home or workplace.

Reviewing the respondents’ answers on describing businesses of their interest and reasons, “eating and drinking” was a major reason among those that can define “third place” and other similar businesses. In this regard, restaurants especially with extended premises and more working hours (e.g. “Mamak” 24-hour Indian Muslim restaurant in Lot 11) or other big-scaled premises with a variety of food and drinks

were named as their favorites.

Some old street patrons stated that they usually go there to chat or play chess and other games with their friends and sometimes they need to spend time or wait for the announcement of the betting results.

Discussion and Conclusion

This study was an attempt to examine the vitality of Meldrum Walk in which priority has been given to pedestrians and other non- motorized users. Since a more vibrant and livelier traditional street offers greater opportunities for optional and social activities, conscious attempts to elaborate the requirements for a more successful and socially activating street through promoting the socio- physical conditions are required.

Malaysian streets, similar to their Asian counterparts, have unique spatial and socio-cultural characteristics that are rooted in its geographical, climatic and cultural conditions of this region. Their distinctiveness is relevant to existence of the compact and dense urban spaces (huge number of users), diverse and seemingly disorder spaces (influence of forest environment), popularity of vending (i.e. small-scale economy) and street food culture to name a few, temporal use of space (vertical space use) (Mateo-Babiano and Ieda, 2007).

Similar to what Rapoport (1977) declared, human activities are highly varied in terms of location, time and who is included or excluded. Culture and climatic conditions are among the most imperative factors of such variety of human activities. Climate also plays a significant role in influencing behavior patterns. Accordingly, the townscape that responds to the climate will elicit unique behavioral responses and exhibit unique design features (Shamsuddin, 2011).

Focusing mainly on pedestrian, street in which the priority is given to pedestrians, can serve places of cultural and entertainment events through supporting walking (Prokai, 1999). Cities in Southeast Asia introduced pedestrian priority streets such as Meldrum Walk, which offer various purposes by different users at different times (vertical quality of spaces).

Walking as the preliminary goal of a street is also observed as main traffic mode in this case. In addition to making the walking enjoyable, ease of movement and stipulation of amenities and other prerequisites for people to stay or rest on the street, especially the way people traditionally/ culturally feel friendly with, should be considered as well.

In the context of Malaysia as people who generally like to chat and meet other familiar or sometimes even new people while having their food or drink, so places that

provide food such as restaurants, food shops and even stalls, are places they prefer to gather and socialize including chatting, meeting relatives and friends, and even watching live football matches.

Similar to other Asian and Malaysian cases, a sense of vitality through the existence of human activities and temporal segregation of activities on the street are the key reasons of the uniqueness of historic townscapes in comparison with newer centres.

Acknowledgement

The authors acknowledge the financial support provided by Research Management Center, under grant vote number 01K10, and “Center of Built Environment in Malay World” (KALAM), Universiti Teknologi Malaysia.

References

- Francis, M. (1991). The Making of Democratic Streets. In A. Vernez-Moudon (Ed.), Public Streets for Public Use (pp. 23-39). New York: Columbia University Press.
- Ghahramanpouri, A., Lamit, H. and Sedaghatnia, S., 2013. Urban Social Sustainability Trends in Research Literature. Asian Social Science, 9(4), pp.185–193.
- Ghahramanpouri, A, Lamit H and Sedaghatnia S. (2012), Behavioral Observation of human Stationary and Sustained activities in pedestrian priority Streets of Johor Bahru. Journal of Construction in Developing Countries. Vol. 17 (2): 101–112.
- Gehl, J. (1987). Life Between Buildings. New York: Van Nostrand Reinhold.
- Hartanti, N. B., and Martokusumo, W. (2012). Streetscape Connectivity and the Making of Urban Identity. Paper presented at the Arte-Polis 4 International Conference- Creative Connectivity and the Making of Place: Living Smart by Design
- Ja'afar, N.H., Sulaiman, A.B. and Shamsuddin, S., (2012). The Contribution of Landscape Features on Traditional Streets in Malaysia. Procedia- Social and Behavioral Sciences, 50(July), pp.643–656.
- Lynch, K. (1960). The Image of the City. Cambridge: MIT Press.
- Mateo-Babiano, and Hitoshi IEDA, D. (2007). Street space sustainability in Asia: The role of the Asian pedestrian and street culture. Journal of the Eastern Asia Society for Transportation Studies, 7.
- Mehta, V. (2006). Lively Street: Exploring the Relationship Between Built Environment and Social Behaviour, Doctor Philosophy. University of Maryland.
- Mehta, V., and Bosson, J. K. (2010). Third Places and the Social Life of Streets. Environment and Behavior, 42(6).

- Montgomery, J. (1998). Making a city: Urbanity, vitality and urban design. *Journal of Urban Design*, 3(1), 93-116: Routledge, Taylor & Francis Group.
- Prokai, T. (1999). Understanding impacts of pedestrian friendly streets in urban retail areas. University of Guelph.
- Porta, S., and Renne, J. L. (2005). Linking urban design to sustainability: formal indicators of social urban sustainability field research in Perth, Western Australia. *Urban Design International*, 10(1), 51-64.
- Rapoport, A. (1977). *Human Aspects of Urban Form*. Oxford: Pergamon Press.
- Robertson, K. A. (1993). Pedestrianization strategies for downtown planners: Skywalks versus pedestrian malls. *American Planning Association*, 59(3): 361–370.
- Shamsuddin, S. and Ujang, N., (2008). Making places: The role of attachment in creating the sense of place for traditional streets in Malaysia. *Habitat International*, 32(3), pp.399–409.
- Shamsuddin, S. (2011). *Townscape Revisited: Unravelling the character of the historic townscape in Malaysia*. Universiti Teknologi Malaysia.
- Sivam, A., and Karuppannan, S. (2013). The role of streets within placemaking in cross-cultural contexts: Case studies from Adelaide, Australia and Georgetown, Malaysia.
- Ujang, N. (2012). Place attachment and continuity of urban place identity. *Procedia-Social and Behavioral Sciences*, 49, 156-167.