Street as Public Space - Measuring Street Life of Kuala Lumpur

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Abstract: Kuala Lumpur has envisioning in becoming World Class City by the year 2020. Essential elements of form and function of the urban environment are streets. Streets showcase the community and connect people. It's one of the most comfortable social environment that provides aesthetical and interaction pleasure for everyone. Classified as main shopping streets in the local Kuala Lumpur urban design guidelines, Jalan Masjid India (JMI) has its uniqueness of shopping experience and social interaction. This conceptual paper will study the physical and cultural characteristics of the street that will generate the street character by mapping its original characters. The findings will focus on strengthening the methodology applied to promote improvements in evaluating it as a great public space. Results will also contribute to understanding the overall site context, the street connectivity, and urban dynamics. This paper is part of a larger study that addresses on transforming the sociability of public space.

1. Introduction
The evolution of urban public space had multiple functions, themes, and meanings, which have been repeated through history and are still relevant today. The aim of this study is to provide evidence of physical character and patterns of use of the street that shapes the public space quality. The study will synthesize the overall site context, the street connectivity, and urban dynamics changing the use of public space. The findings will focus on strengthening the methodology applied to promote improvements in evaluating the street as a great public space. This paper is organized into five sections. The subsequent section contains the literature review of the study. The third section provides the methodology, followed by the study area, results and discussion section. The final section offers the conclusion and implications of the results.

2. Literature Review
2.1 Streets as Public Space
Streets are defined as linear three-dimensional spaces enclosed on opposite sides of the building. Essential elements of form and function of the urban environment are streets. In comparison to roads, streets, boulevards and avenue implies design elements that sets where it’s primary purpose of being a thoroughfare for vehicular traffic. A form of streets can be analysed in terms of its qualities which gives scope for great diversity, visually dynamic or visually static, enclosed or open, long or short, wide or narrow and straight or curved [1, 2] states that the main public spaces of a city, are the most vital organs. It acts as multifunctional space and its role is understood from various perspectives. This concludes street as physical space, a channel of movement and a public realm and lastly, as a place.
2.2 Streets as social space

Streets showcase the community and connect people. They also act as a channel of efficient movement and as visual elements. Many commentators believe that rediscovering streets as both a social space and as connectors emphasizes the quality of public life. It's one of the most comfortable social environment that provides aesthetic and interaction pleasure for everyone. Many cities around the world are changing the character of their urban roads [1]. For example, Toronto has changed its arterial roads to boulevards. Whereby, Birmingham is the first city to dismantle its flyover and underpass to replace free-flow intersections with light controlled crossroads and to reinstate pedestrian flows at street level.

2.3 Street as Place

In traditional urban space, the urban fabric is relatively dense, and buildings are typically built adjacent to one another and flush with the street. Buildings are generalized as highly connected mass, which defines streets and squares, a small-scale, finely meshed street grid. Building facades thus provide the "walls" of open spaces. Through the concept of shared spaces, careful design reconciles and integrate the needs and demands of different forms of movement, protecting social space from the impacts of cars and creating areas that, while accessible by cars, are pedestrian dominant. The experience that people have on the street will determine the success of that street as a place and movement corridor. The street typology is defined through a detailed study of existing functions and activities, movement patterns, uses, physical and visual linkages.

2.4 Tangible Qualities

Public spaces that stimulate senses, visually but also by sound, touch and smell, places that are distinctive and compelling, building on local character, places free of clutter is important qualities to users as confirmed by [3]. Among other tangible qualities, findings include interconnectivity of spaces, disposition of elements within space and their detailed design. Project for public space (PPS) in its great public space framework listed the four essential qualities that make great public space include access and linkage, uses and activities, comfort and image and sociability.

An access and linkage quality is evaluated by the connections of one area to the surrounding both visually and physically. Space must be easy to get to and get through and visible from a distance and up close. Most importantly, it is convenient to public transit and has real connection between space and adjacent buildings with good signs to lead people to and from other spaces.

For a good image and comfort, PPS emphasized that a space must be comfortable. Although it appears to be subjective, the users' perception of comfort includes the space being safe, clean and safe to be utilized by any gender and without discrimination.

Uses and activities are evaluated based on having something to do and a reason for users to come to a place and return. When a place foster more activities and allows people a chance to participate in it, it is definitely and enjoyable and great place to be at.

Sociability in a public space is when people look forward to meeting and see their friends or even interacting with strangers. Indirectly, this gives the space a stronger sense of place, especially within a community. People will foster different types of social activities making the space more vibrant and safe for everyone to utilize.

3. Methodology

3.1 Observations - Walk-By Observation and Behavioural Mapping. According to Mehta [4], the mapping of stationary and lingering activity of people is an effective method to understand preferred location of where people gather and the kind of activities they are engaged in. In capturing the social activities around Jalan Masjid India, the researcher use walk-by direct observations to record stationary and social activities and this location. The walk-by observation was done in small groups of five completing the length of JMI. Symbols were standardized and used in recording walk-by observations data, and this method was used in both structured and unstructured manner. Duration of stay and engaging in social activities was recorded. The walk-by observation will provide a glimpse of the behaviour of the section of the street at various times from morning to evening.

3.2 Observations - Direct Observation and Place evaluation. Place evaluation was carried out to study the physical aspects and patterns of use at JMI. The onsite observation evaluation was done in small
groups of five. The groups began by looking, listening and walking around the spaces and evaluation from the observation was done according to four criteria – access and linkage, comfort and image, sociability, and uses and activities.

4. Study Area: Jalan Masjid India (JMI).
The majority of roads around Kuala Lumpur were formed during the British rule, and most of its name were in English. Known as the Dickson Street before the Malaya's independence in 1957, JMI currently named after a local mosque, Masjid India built in 1893. The Indian Muslim community started their business activity around Jalan Tuanku Abdul Rahman and Jalan Tun Perak and nearby areas and was the primary contributor to the development of the mosque, and the wooden structure was torn down in 1963 and replaced with a proper 3-storey building. For more than 136 years, this mosque activity grew and became the central mosque for the Indian Muslim community. It slowly gets involvement from the public with activities lead by the mosque that shows the early changes of social composition of the area. The mosque again undergone a significant change with more facilities to cater activities of the community in late 1999 and final facelift was done in the year 2002.

Classified as main shopping streets in the local Kuala Lumpur urban design guidelines, JMI has its uniqueness of shopping experience, and social interaction is rich in heritage culture. The business activities within the vicinity started since hundreds of years ago and never stop ever since and the same activity is still visible carried out by the Indian Muslim people. During the festive season, the street becomes a bazaar, and the shopping activities become more vibrant during this season.

5. Findings and Discussion
In most Malaysian town, streets play an important role as settings for activities, especially within the tropical weather. Our activities are drawn to be outdoor and more active in the evening [5]. The physical character of a street is also very much influenced by the activities taking place on it as well as within the buildings flanking it. The direct observation and place evaluation was used to evaluate both physical characteristics using the core and intangible attributes of the place. The results of the findings are summarized in Table 1.

5.1 Place evaluation intangible attributes

5.1.1 Access and Linkages and Comfort and Safety. The physical condition of the place shows that JMI sidewalks are provided explicitly for users to use and in satisfactory conditions for walking. Thus, it can be meaningful to indicate that sidewalks are comfortable enough to link users to and from adjacent places. The evaluation indicates that the sidewalks are wide and comfort enough to accommodate high numbers of users with minimal clashes. The sidewalk as well is functional for people with disabilities, and from the observation, it is highly used by groups of blind people walking from place to place at JMI. The study area is evaluated and understood that it is well connected and easily access. However, in some days especially weekends and peak hour during weekdays, conflicts between pedestrian and vehicles seems visible due to the activities that simultaneously takes place. Under the tropical weather, even without visible design landscape in the street but the observation concludes that users will still continue walking despite the weather affecting them. This clearly shows that the study illustrates that the street is functional and its physical characteristics act as a mode of movement for users. The findings show that the street is safe with security present. However, a small group of users walking experience appears to be unpleasant during the observation period.

5.1.2 Uses and Activity JMI appears to be unique and extraordinary to the locals and the tourist. The evaluation of this quality indicates that the study areas appear to be lively with activities that are distinctive in its way. Lots of activities take places along, and within the streets simultaneously that gives users a welcoming feeling and leaves with special feelings. The activities are visible throughout the day, and users enjoy the character of this street and everyday life that takes place in between the buildings and its atmosphere. The activity pattern appears to be very vibrant with
its strong sense of place, where people tend to meet, bring friends and family and to interact with one another even by the 5-foot walkway.

Table 1: Physical characteristics findings for Jalan Masjid India

| Attributes                        | Components                                              | Evaluation   |
|-----------------------------------|---------------------------------------------------------|--------------|
| Access and Linkage & Comfort and Images | Condition of sidewalk                              | Satisfactory |
|                                   | Sidewalk leads to and from adjacent areas              | Very Good    |
|                                   | Enough room to walk                                    | Good         |
|                                   | Pleasant walk                                          | Fair         |
|                                   | Condition of streets                                   | Satisfactory |
|                                   | Pedestrian conflict with vehicular movements           | Very likely  |
|                                   | Accessible by various mode of transportation           | Very Good    |
|                                   | Space function for people with special needs           | Good         |
|                                   | Are there enough places to sit                         | Poor         |
|                                   | Do vehicles dominates pedestrian use of space          | Very likely  |
|                                   | Is there security present                              | Extremely Likely |
| Uses and Activity : Uniqueness    | Space is suitable for public performance (i.e.: flash mobs, busking) | Very Likely |
|                                   | Welcoming feeling                                      | Very Likely  |
|                                   | Space appears special                                  | Satisfactory |
|                                   | Space is used throughout the day                       | Very Likely  |
|                                   | Space is used by people of different ages              | Extremely Likely |
|                                   | Many types of different activities occurring at the same time | Extremely Likely |
| Sociability : Diversity           | Allows social interaction                              | Very Likely  |
|                                   | Place is a good meeting point                          | Very Likely  |
|                                   | Place is favourable for celebration                    | Good         |
|                                   | People bring friends and family to the place           | Very Likely  |
|                                   | Takes picture around the place                         | Neutral      |
|                                   | Chit chatting at the place                             | Very Likely  |
|                                   | Do people sleep at the place                           | Neutral      |

Evaluation format: 1= Not at all, 2= Unlikely, 3=Neutral, 4=Very Likely, 5=Extremely Likely
Evaluation format: 2= Very Poor, 2= Poor, 3=Satisfactory, 4= Good, 5= Very Good
Table 2: Observed activities for Jalan Masjid India

| Observed Activity                                                                 | Activity Details                                           |
|----------------------------------------------------------------------------------|------------------------------------------------------------|
| Opening roller shutter of shops                                                 | People sitting in-front of shop and waiting                |
| Transporting goods using trolley                                                 | Blind people walking                                       |
| Transporting goods on shoulder                                                   | Blind people sitting in-front of shops                     |
| Delivering items to shops                                                        | People watching activities on the street                   |
| Sweeping five-foot walkway                                                       | People chit chatting while walking in groups of 3          |
| Stall operator setting up stalls                                                 | People chatting while walking in groups of 4               |
| Arranging display items                                                          | School kids walking                                        |
| Shoe maker setting up workspace                                                  | Pregnant ladies walking                                    |
| Single people walking                                                            | Couples walking holding hands                              |
| People chatting on the phone                                                     | Blind people setting up for busking on the street          |
| People chatting and sitting                                                      | Auxiliary police patrolling                                |
| Sleeping on five-foot walkway                                                    | Local authority personal patrolling                         |
| People watching                                                                  | Haggling for buying                                        |
| User gathering to get food                                                       | People stop and talking with friends at street junction    |
| Lorry delivering goods                                                           | Family walking with kids                                   |
| People window shopping for items                                                 | Family with stroller – strolling and window shopping      |
| People moving from one shop to another                                           | People standing and waiting with purchased goods          |
| User drinking and sitting at five-foot walkway                                   | People sitting near shaded areas                           |

5.1.3 Diversity. For the main attributes sociability, the evaluation focuses on the diversity variable within the street. The observation finds that users in the areas engaged themselves in passive and active activities such as sitting, listening, chatting, singing, people watching and sleeping. Most of these activities are seen done in a small and medium group of people, and it's very meaningful to see users participate in activities in this area with friends, a family with a happy smile and proud feeling. JMI apparently allows social interaction to takes place at every inch of the street and the observation favours that it's a good place for public gatherings such as festive bazaars and celebration and it attracts a larger crowd to be at this place. The activities considered during the observation were stationary and lingering activities relating to the use of the street and its environment as a public space. Figure 1 shows simplified activities that reflect on the quality and character of JMI.

![Figure 1. Activities of Jalan Masjid India](image)
services and different people to occupy the street and feel comfortable at the different time of the day [2, 7]. The necessary activities are more frequent during the daytime, and it changes to social activities during the evening time. Malaysia's early settlements begin with 'main streets' that activities foster social interactions within crowds engaging with selling and buying activities [6, 8-11]. Again social activities observed occurs more during the evening and are located around the restaurant and local food parlours.

Figure 2. Behavioural Mapping of Section 1 of Jalan Masjid India (Length: 100m)

Figure 3. Behavioural Mapping of Section 2 of Jalan Masjid India (Length: 100m)

Figure 4. Behavioural Mapping of Section 3 of Jalan Masjid India (Length: 100m)
6. Conclusion
Findings from the study area of JMI suggest that the street physical characteristics and quality have great influenced on the social interactions observed. The intangibles attributes relating to the physical characteristics of the place shows that the street design affects how the street functions as public space. The study area has more potentials to be great if it focuses on the end users using street design and soft landscape. However, the street now reflects its physical characteristics quality due to the businesses that are going well along JMI. Most of the social interaction within the study area takes place at the entrances, five-foot walkway, corners, intersections and business location of mixed uses. The outcome of the mapping shows the overall physical qualities of the street appears to be good to fosters social interactions. Based on the study findings, the methodology used can be applied using both quantitative and qualitative indicators to investigate factors in transforming public space sociability.

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