

UTILIZATION OF OPEN SPACE – TALE OF TWO CITIES

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ABSTRACT

People's experience is a significant factor in the development of urban activities in the city. The provisions of open space are considered as a "lung" of the city whilst the urban structure as the nerve. The integration of these two factors can give "life" to the city. The city council maintained the idea of extending the open spaces by implementing designing principles in the new development. However, do the location and the provisions of the urban street furniture really fit the need of the urbanites? By taking examples from two cities i.e. Medan, Indonesia and Georgetown, Penang, this paper emphasize on the aspects of space utilization and analyzed the passive or active activities taken place here. The city of Medan was the product of the Dutch whilst Georgetown was the remnants of the British. The urban design of the cities resembles that of the Western principles. The size and location of these open spaces were suitable to the past requirements during the early period. The paper also delineates the potentials and problems of the linkage in the city. It is believed that the success and failure of the open space in the city is very much related to the primary and secondary intertwine of usage in the city.

Keywords: open space, primary and secondary use, urban linkage, urban structure

1.0 Introduction

The structure of the urban space consists of positive and negative space according to its hierarchical order built through time. Each of this space regulates the historical precedent according to the era. The open space in the city also experienced the past and future development either positive or negative. The characteristic of the public open space has its own identity. This identity is readable through its situation context which include the background, physical, social, cultural, and perception of the public. Open space in the city is defined as an area allocated by the city council which consists of a greenery area of the city equipped with street furniture or public arts for the advantage of city dwellers. The built urban space is defined according to the territorial boundary which is termed as enclosure of planes or the elements that surround it, whilst open space are the green area which act as lungs as an urban filter.

We try to understand the urban phenomena through its fabrics especially the user of the urban space who dwell these areas daily. Most commonly its functions depended on the elements of enclosure which determine the space and from here the usage is identified but (personal) place is usually associated to the emotional bond to the environment that is attached to a person based on certain ties. This is because the human experienced as the crux of phenomenology in urban space which is seen as one of the significant factor to enliven the urban place. However, the elements of phenomenology cannot be outlined objectively to explain the case of phenomena itself. Although there are some studies carried out in this field however, it focuses on the fragmentation of the elements in urban areas, not on the integration of activities. It is understood that the diverse characteristics of the city gave a spectre ambience, the security and the life of the urban areas. It should be noted that there is no two places may be similar.

Each individual has a close a reaction of experience with the physical environment in the city that he or she observed. This relationship between human and his or her environment are evident in the cognitive interpretation. Through this process the human being often attempt to achieve comfort to suit his situation within the environment. The integral correlation encouraged the image creation of the place. This character also contributes to the image of the area. The image of a place is not represented by a significant landmark but the established process of the community in the area that has developed a place into an important landmark. On the other hand, not all the development can guarantee the life of the urban space without giving a serious attention to the activities so that the linkage can be understood. Another factor that needs to be understood is the phenomenological aspect of the urban environment. This phenomenon is only developed by the city dwellers that inhabit the area according to their understanding of the man-environment relationship.

2.0 Open Space as a Public Space

Carr (1992) defined public spaces as open, publicly accessible for group or communal activities. Public open space has various names such as plazas, malls and playgrounds; they all shared some common ingredients. Public places generally contain public amenities such as walkways, benches, and water features; physical and visual elements, such as paving or lawn, and vegetation that support activities. Whether planned or not, they are usually open and accessible to the public. Some of these spaces also become a lost space (Trancik, 1987). This is due to its locations, disconnected by major city linkages, and lack of visibility. Public urban space became an interesting elements of urban design and has been discussed by the academics from various perspectives. However, not all the spaces can fulfill the human needs in the urban areas. Most of these space will be utilized by the urbanites according to their needs and some will be left idle. This space will become a place of interest if the quality can be improved with hard scape and soft scape so that the integration between the internal space and external space can fuse together.

The various open space that function as public spaces cover many aspects of human functioning. They include the physical comforts which give relief from the present of unwanted elements, a place to rest, and relaxed. Relaxation is distinguished from comfort by the level of release it describes. Comfort is a basic need, the need for food, drink, shelter from the elements, or a place to rest when tired all require some degree of comfort to be satisfied. A sense of psychological comfort may be prerequisite of relaxation – a lifting of physical strains, moving the person to a sense of repose. Passive engagement with the environment could lead to a sense of relaxation but it differs in that it involves the need for encounter with the setting, albeit without becoming actively involved. This category includes the frequently observed interest and enjoyment the people derive from watching the passing scene. Active engagement represents a more direct experience with a place and the people within it. Discovery is another reason for the people presence in public spaces and represents the desire for stimulation and the delight we all have in new, pleasurable experiences. Social needs address the stimulation surrounding the people, i.e escape from the urban stress, and protection from the threats of others. People need to relax, to enjoy the free time that can be offered by the public places and having opportunities to enjoy natural elements with public places functioning as oases.

Carr (1992) again contested that there are three primary values that guide the public space development, where the public places should be responsive, democratic, and meaningful. Responsive spaces are those that are designed and managed to serve the needs of their user. Democratic spaces protect the rights of user groups and accessible for peoples whilst the meaningful spaces are those that allow people to make a strong connections between the places, their personal lives, and the larger world. However, five types of reasons seem to account for people's needs in public spaces: comfort, relaxation, passive engagement with environment, active engagement with the environment, and discovery. The boundaries of social space are, however, more intricately weaved into the customs as opposed to the physical space. The customs manifest themselves into a variety of physical space - true - but its basis in social rules as opposed to a rigid physical demarcation had allowed the culture to adapt given the changing environment that the people have had to live with. Thus similar spatial structure can be found in the urban that has been developed by the urbanites. The significance of that particular place derives from the importance of its function and how well it can contribute to the surrounding (Hillier and Hanson 1984).

3.0 Public Park

The existence of the park allows for green open space through the structure of the city which is portrayed by the solid and void of the figure ground of each city map. The border between the road network and commercial activities uplift the value of humanity in relation to various activities offered. The beauty of the open spaces known as *taman* which means "garden" as translate from the English word carries a subtle definition in the local context. Most of the open space is a known place according as a ratio proportionate to the area of the development. Besides, most public park in Asian countries were located at the corner of the city edge. Public open space was given due attention since the era of Industrial Revolution. The phenomenon of the gruesome sight of the city and the inefficient of the building services during the industrial revolution also encourage the people to seek alternative spaces outside the home environments. During this period a proper planning principles were not extended and developed yet by the social philanthropies. The focus on urban park became predominantly important where long working hours in the factory for the working class while the upper class society established the clubhouse for recreation. The public parks are used for circus and public performances (Kostof 2003). During the same era most European cities allocate open space for the recreation, picnic and relaxation (to breathe fresh air). However, the characteristics of the landscapes are oriented towards the Greek civilisation emphasizing on the hard scape with the building of axis such as obelisk, water fountain and statue. A similar concept of public park design repeatedly applied in the designing of the grand open space for the new nation such as United States of America, Australia and even Argentina. The designing of the city such as Washington D.C by L' Enfant also took a macro scale of axial orientation and boulevard pathways as promenade to establish vista. Urban Park was planned to decorate the urban space with landscapes and street furniture. These open spaces are negative spaces left over by the buildings, however some of these open space are not maintained and left idle. The size also varies accordingly, sometimes the size of the urban park are quite small and only 20' 0" x 20' 0" or less (Figure 1.0). Subsequently, the size is not a problem but the function is very important. Plants and ground cover are the major elements to decorate the public open space. The variety of ornamental

plants and rare species of plants signifies the character of the public open space. On the other hand, vegetation can mitigate urban heat islands directly by shading heat-absorbing surfaces, and indirectly through evapo-transpirational (ET) cooling. Meier (1991) reported that vegetation consistently lowered wall surface temperature by about seventeen degrees Celsius and reduced air-conditioning costs by 25 to 80 percent. In most circumstances, the impact of one or several trees on ambient temperatures and cooling load are small compared to the shading effect. Cool air produced in the tree crown is dissipated by the much larger volume of air moving through the tree. However, large numbers of trees and expansive green spaces can reduce local air temperatures by one to five degrees Celsius, and the advection of this cool air can lower the demand for air conditioning (Oke 1989).



Foto 1.0 Urban Parks in Georgetown: (Source: Author 2006)

4.0 Methodology

Two public open spaces were observed namely the *Taman Ahmad Yani in Medan, Indonesia* and *Youth Park (Taman Belia) in Georgetown, Penang* according to the objective of inquiry. The argument of the paper is that the public open space are the most important land use in the urban areas. Two types of data collection were used by the author to establish the inquiry. The secondary data from the reports and printed materials both in Medan and In Penang were used to examine the relationship of he phenomenon in both areas although of different context. The main aim is not to compare but to examine the importance of the open space in different place. The questionnaires were distributed to the visitors of the park according to the purposive sample survey technique. The study tried to understand the context of the public open space with respect to the pressure of the development in urban areas as well as the role of the public in relation to the lack of services and public utilities available in the park. The rapid development in urban areas there should be awareness among the public to conserve the open space as a recreational space in order to restore greenery as a lung for urbanites. The public open space also helps to balance the smoke from the automobile and the hassle of the city. The public open space act as a lung and

absorb carbon dioxide from the vehicular traffics. Green open space also has an intrinsic value.

5.0 Case Study

Penang and Medan has a long business relationship. The city of Medan although located in the island of Sumatra, Indonesia, has a similar characteristic as that of its counterpart of Penang and Malacca. The two storeys Chinese shop houses between the two cities has a resemblances of rows of shop houses in the straits settlements. According to Sinar (2002) traders from Penang who were mainly Chinese also have relatives and businesses in Medan. The assimilation of architectural form through copying or influenced may occur. The end of 19th century the city of Medan experienced rapid transformation. The implications of economic development and its strategic location, at the crossroad of IMT-GT had benefited it to develop into a more highly concentrated city in the island of Sumatra. With the changes in lifestyle and development of the city, life became more complex and provides a variety of choices.

Penang is only forty five minutes by air from Medan and the city of Georgetown is flourishing as an entre-port for the ship passing the Straits of Malacca. The economic, social and educational development of Penang was due to its location at the Northern corridor of the Peninsula Malaysia. It helps to enable it to take advantage of the overall development programme of Malaysia in all sectors. Architecturally Penang has a long history of Western, Oriental and Middle-Eastern influence. The evident of Moorish and Chinese influences are shown on architectural elements of the building in Georgetown.

Two examples of the public open space were examined to see the context of the situation i.e Ahmad Yani Park in Medan and Youth Park in Penang. Ahmad Yani Park was located as part of the open space for the Polonia area which was dominated by the Dutch Residential area. After the period of urbanisation the function of Ahmad Yani Park does not emerge as intended by the politician as conflicted with the wish of the society with regards to the present usage of the open space.



Figure 2.0 Ahmad Yani Park : (Bhakti 2008)

Ahmad Yani Park is located at the crossroad of various urban activities and at the intersection of multiple landuse such as: commercial, institutional, and residential (Figure 2.0). Hence Ahmad Yani Park has a prominent location at the junction of the primary road of the city. The situation of open space in Medan cannot be literally compared with the open space in Penang because the place has a significant character of its own (Schulz 1980). The prominent location of the park at the centre of the Central Business District enables it to be utilised by all walks of life. Although the

initial location is not intended to be the urban land use as gazetted by the Dutch colonial period but the expansion of the city perimeter over the period of time force it to be at the centre of all city activities. Concomitantly, Ahmad Yani Park is the most strategic open space in the city. The location of the park as provided by the Dutch colonial era is now in the centre of the city. Today the city of Medan has total inhabitants of 2 million people, with a density of 2.328 people per hectare. However the total area of the urban space which functions as 'urban green space' is about 744, 67 hectare, with only about 2.8% from the total area of town centre. The proportion of the green space with respect to the total area of the city is rather small as compared to WHO standard. According to WHO, the production of oxygen in the urban area requires about 20 - 30% of green space from the total urban area about 10 square meters per people. However, the importance of the open space is beyond that. In Medan, the public open space is well furnished with ;-

- child playground
- Street furniture
- Sculpture
- Gazebo as well as all the elements of the garden as it was first intended by the Dutch as a recreational ground for the urbanites.

The Youth Park of Penang was established in 1972 and also served as the recreational ground for the Penangites. The park also provides an arena for roller blade, multi-purpose field, open theatre, arena for takraw, badminton, fish pond, children playground, tracking, picnic area and canteen and many more. All these facilities contributes to the urban design of Georgetown. The conservation of the land use planning in Penang is restricted according to the structure plan (Table 2.0). Hence, the community open space is maintained and to avoid a continuous physical structure dominated the urban landscape.

Table 2.0 The Present Development Corridor of Penang

Pulau Pinang	Component / Main Development
1. Corridor Tanjung Tokong – Batu Feringgi – Telok Bahang	Commercial - Tourism
2. Corridor Georgetown – Ayer Itam – Paya Terubong	Residential - Commercial
3. Corridor Georgetown – Bayan Baru – Teluk Kumbar	Residential - Commercial – Industrial
4. Corridor Balik Pulau – Genting Seberang Perai	Residential - Commercial
5. Corridor Kepala Batas – Bertam	Residential – Commercial
6. Corridor Butterworth – Telok Air Tawar	Residential - Commercial
7. Corridor Butterworth – Bukit Mertajam	Industrial – Commercial – Residential
8. Corridor Butterworth – Nibong Tebal	Industrial - Residential

Source : Pelan Spatial Negeri Pulau Pinang, 2000

The public amenities in the Youth Park are excellent (Figure 3.0). All the category of active and passive activities is available here. Since the park is rather isolated from the city centre, the security is manned by frequent security guards. Good signages help to guide the visitors to the area. The flora and fauna of the Youth Park reflects that of the tropical collections of native plants of Malaysia such as Rainbow Tree (*Pracaena Magnata*), Mangosteen (*Garcinia Mangostana*), Golden Tree (*Dicksonia Fibros*) and Dwaf Date Palm (*Phoenix Roebelenii*) which is labelled on the tree itself for educational purposes. The rich colour of the hard scape and natural landscape is

enhanced with colourful street furniture of the park. The Youth Park has a character of its own which is in equilibrium with the standard of living of the Malaysian.



Figure 3.0 Public pool at the Youth Park, Penang : (Source: Ang Tok Meng et al 2006)

6.0 Discussions

Although there are few urban park that has been revived and developed into a more recreational value for the urbanites, however some of these areas are under utilise due to it linkage and location and also its direct exposure to the sun (Figure 1.0). Some areas were once the dumping ground for trash and unused tools. However, the awareness in the city cleanliness geared by the City Council of Penang encouraged the improvement of quality and amenities in the urban areas of Georgetown. However, most public park is not known by the tourist except the urban park which is located in the city centre and also along the pedestrian route to the main primary and secondary use, for example the Hyde Park di London, Central Park in New York, Museum Garden in Kuching, Ahmad Yani Park in Medan, Botanical Garden in Bogor, Tasik Perdana Park in Kuala Lumpur, or Taiping Lake Garden. All these parks became the major elements of the urban areas and it delineate the character of the downtown as well as the main attraction for the visitors. Urban Park also guaranteed the leisure, accessibility, peace and tranquillity as well as the freedom of movement (which involve walking, jogging and physical exercise). The Youth Park in Penang is patronized by the public by a group of people at the age of 35 and above. These groups are health cautious although there are youngsters at the age of 26-35 who came here for meeting friends which form 50% of the respondents while during the weekdays the number decrease tremendously. Parents with kids (age around 2-5 years old) prefers to come to the park due to ample space for their kids to play and run around the greens while the parents take advantage to exercise and have a brisk walking. The location of this park is rather isolated and 65% of the visitors came here by private transport. Furthermore the park itself is far from the location of the bus stop if the visitors were to come by bus. The distant from the main road is about 300 meters where the public transport only passes the main road and travelling at certain interval. The public park is utilized by the senior citizen for a longer relaxation and conversation especially in the evening. Generally the open space in the city is used as an integration of physical planning layout. It creates as a form of beautification for the city. To the urban dweller the open space is a venue for recreational and interaction of the society. According to the survey only 30% of the visitors are outside the Penang Island and majority are local Penangite who usually used the space for exercise and recreational activities.

According to the study carried out by Sembiring (2005) the standard of the open space in the city of Medan is not to the level required by the city council i.e. 20% of the size of the city. The public open space sometimes located at the middle of nowhere, albeit out the unused corner of the city. The accessibility to the public open space such as Ahmad Yani Park in Medan and Youth Park, in Penang are not friendly. Both of the place is not conducive to pedestrian from the city. As the case of Ahmad Yani Park, it is the 'island form' of the city.

Nowadays, the planning of the open space is inclined towards the economic aspect of the city as compared to the ecological aspect of the green lung of the open space. The image of the city is not portrayed by a huge monument or the statue as a landmark, however the activities of the urbanites criss-cross between the masses of the urban fabrics needed the void of open spaces to breath. The characteristics of the urban form also contribute systematically in the unique eco-system and this will create an image of its own.

The open space in the city is also determined by various factors.

- convenience
- location/accessibility
- safety
- freedom of activity

The public open space is rather loose in its function for the public action is not predetermined. Sometimes, it is used as a private recreational area, sport activities, sitting, walking, and also for contemplation. The socialisation of the society in the open space became equilibrium of public and private activities in the open spaces.

Each individual has a close a reaction of experience with the physical environment in the city that he or she observed. This relationship between human and his/her environment are evident in the cognitive interpretation. Through their process the human being often attempt to achieve comfort to suit his situation within the environment. The integral correlation encourages the image creation of the place. The situation of open space in Medan cannot be literally compared with the open space in Penang because the place has a significant character of its on (Schulz 1980). This character also contributes to the image of the area.

7.0 Summary

The expansion of the land use in Polonia caused the commercial area to encroach the border of Ahmad Yani Park and now it is only separated by the road kerb or dividers. Due to that aspect the perimeter of the park became more defined and the linkage became more established. In the past, the Ahmad Yani Park was located at the secluded area of the Dutch official bungalows, but today it is at the entire route of the city centre. Ahmad Yani Park became a low budget recreational activity for the family members because it does charge any entrance fees.

According to the studies carried out by Budiani (2006) going to the park is the family recreation as an alternative to the shopping mall or other activities. Budiardjo (2004) commented that the size of open space in Medan is decreasing and does not function as a public open space. This is due to the rapid expansion of the city and the physical development also encroach the land use as categorize. Medan has 131 public

park and 19 of which is well furnished with sculpture and water fountain. The total open space is 124, 664 m², however the most common visited open public park in Medan are:

Ahmad Yani Park
Beringin Park
Gajah Mada Park
Teladan Park

Ahmad Yani Park has a good collection of tree species. There are about 193 matured trees with 20 different types of rare species found in the area. An average tree has a diameter of the crown of up to 50 meters. The various types of trees came from tropical zone that suits the geography and climate of Medan. This appropriate condition result in a minimal maintenance, i.e. with no usage of fertilizer and watering of trees. However the existences of trees can reduce the environmental impact and gives positive contributions in urban area, such as:

- a. Turning CO₂ to O₂.
- b. Reduce gaseous and dust concentrations.
- c. Reduce air pollution.
- d. Reduce micro-climate temperature as a result of evapo-transpiration.
- e. Cooling the trees surroundings by their shade.
- f. Providing a valuable habitat for wildlife, a sanctuary for birds and butterflies.
- g. Mitigate wind-tunnel effects.

The above observations show that the Youth Park of Penang fulfilled these functions:

- Giving character to the city services
- Recreational place for communal interaction
- Distinguish the separation of the roadways and activities from city hassle
- To create a balance between the built and natural environment
- The lung of the city

However, the location of the Youth Park is not visible to the city dwellers and visitors. It became the playground and exercise space for those living in the vicinity. Hence, it is monopolise by the local few. Nevertheless, the open space in Penang will increase mathematically due to the planning principle of the City Council required all the new development to contribute 10% of the open space. Unfortunately the open space in Medan, is decreasing due to less restriction on the encroachment of the land use by the developer.

REFERENCES

- Budiardjo, E., (2004), Tata Ruang Perkotaan di Indonesia, Bandung. PT Alumini.
- Budiani, I.T., (2006), Kajian Taman Kota Alternatif Tempat Rekreasi Keluarga Di Kota Medan, Tesis Magister, Architecture Dept. Univ Sumatera Utara, Indonesia.
- Carr, S., et al., (1992), *Public Space*, New York: Cambridge University Press.
- Hillier, B. and Hanson, J., (1984). *The Social Logic of Space*: Cambridge University Press.
- Kostof, S., (1999), *The City Shapes: Urban Pattern and Meanings Through History*, Thames and Hudson, England.
- Meier, A. K., (1991), Measured cooling savings from vegetative landscaping. In *Energy Efficiency and the Environment: Forging the link*, Washington: American Council for an Energy Efficient Economy.
- Oke, T.R., (1982), The energetic basis of the urban heat island. *Quarterly Journal of The*

- Royal Meteorological Society 188 (455):1-24.*
- Trancik, Roger (1986), *Finding Lost Space*, New York: Van Nostrand Reinhold Company
- Schulz, C.N., (1980), *Genius Loci*, Rizzoli International Publishing, Incorporated,
New York, U.S.A
- Sembiring, I. (2005), Analisis Tentang Fungsi Ruang Terbuka Hijau, Tesis Magister,
Architecture Dept. Univ Sumatera Utara, Indonesia.
- Sinar, Tengku Luckman (2002), *The History of MEDAN in the Olden Times*, Perwira Press,
Medan.
- Wahid, J (2006), Placemaking in Unused Urban Space, A Research Report Submitted to
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