



A STUDY ON MENTAL MAPPING: CASE OF GOVERNMENT BUILDINGS, GEORGE TOWN, PENANG

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ABSTRACT

George Town urban layout affected by the British military administration that still exists today. The urban design element of the government buildings in George Town creates an ideal environment for their purpose and relation from space to another space. This study carries out by approaches every detail of urban design element and their purpose by referring British administration concept model theory with historical background through observation and urban mapping by using geographic information system (GIS). A configuration of administration town is influenced by the seaside development and trading community through divide and rule ideology that introduced by British Administration. Isolation of community in Penang during that times have pro and contra, which affected urban design planning in George Town, Penang. This study shows that British administration concept model has influenced the urban design and eventually affected the economy and social pattern of surrounding community in George Town, Penang and somehow created its attraction by fulfilling Kevin Lynch Urban Design Elements which are the path, nodes, edges, district, and landmarks. By having this pattern, designer or urban planner could understand a better the community behaviours and movements in the area.

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1. INTRODUCTION

The British possession on Penang in 1786, which ended the Kedah Sultanate control over Penang, had started a colonial pattern of urban design. The government district in George Town as the case study is the best example of the pattern created by the British Administration back in 1786. Design elements that to be identified are the path, edge, district, node and landmark based on Kevin Lynch Theory of Urban Design Elements. The study is to identify the concept that used by British Administration and how they had created design element to achieve their purpose in Penang Island during that days. George Town Government buildings coordinate all activities and form order to

this island that becomes world trade hotspot during that times. The study discovers that most of the urban design formed by gridiron because of military administration familiar which grid-like formation in their war operation strategies. This gridiron concept has formed a special district to administrate the island both for commercial trade with a military base. Paths are connecting space to other functional spaces. British Administration also introduced "divide and rules" principle to monitor and organise various ethnic backgrounds in George Town governing their area independently. This principle creates these districts with a unique character within the town itself. A fortress becomes the popular landmark for the town.

2. LITERATURE REVIEW

2.1 URBAN DESIGN ELEMENTS

Understanding five design elements from Kevin Lynch's urban design study is necessary before conducting the research methodology and analysis. These urban elements are as the followings (Lynch, 1960):

Paths are the elements where people get to experience in the urban area when driving, walking, boating, driving and cycling. Special, unique or attractive building, rare elements of natural or artificial structures, all of these will strengthen the image of a specific path. Firstly, a path must be identifiable, and then have its continuity and usually connecting a functional space toward another functional space for a purpose. Moreover, paths with famous origins and locale have stronger identities and support to tie the city together. After the directional qualities are determined, the next step is to highlight is the scale characters and hierarchy of paths. Few nodes and landmarks are the easiest way to obtain it.

Edges are separation lines or boundaries of two or more different urban areas (Lynch, 1960). The continuous flow and clear images are essential, but edges also play it roles in urban design. Many edges should be described as unity than becoming separately barrier, and too far from another barrier, frequently paths like arterial road and seas always become the most effective orientation elements as well. Districts are specific urban areas sharing similar physical characteristics that can be visually and logically determined. This similarity can be the height, size, type or colour of the buildings, culture or activity of the urban area (Lynch, 1960). Various components and elements are visually recognized in a specific characteristic cluster that forming a strong contra effect. Furthermore, a particular series of clues are required to produce an image of a whole district.

Nodes are a particular character of urban space, which the people always recall and mark as a place of activity in an urban area. Junctions of a path with a distinctive character for a concentration of activities commonly becomes nodes recognised by the observers. Nodes become places with a particular character of the specific urban area as value added places marking speciality of attraction to the place (Lynch, 1960). Observers commonly use landmarks as their point of interests for identifying a physical character of specific urban areas (Lynch, 1960). Landmarks are particular physical objects easily identified the important form of the place in comparison to the surrounding common and uniform character.

2.2 BACKGROUND OF CASE STUDY

The study takes place in the Administrative Building Area, George Town. It is located at the north and tip of Penang (Figure 1). The city had been ruled by British Administration back in 1786. The colonial building is revitalised by a local council to maintain its history and earned UNESCO Heritage site. It was a hotspot for global tourism. The British Military Administration give enormous impact toward this urban town through gridiron concept and "divide and rules" principle. The urban design elements formed continuously through both approaches by the British Military Administration.



Figure 1: Key Plan of George Town (Re-edit the site location from Google Maps ®)

The range of the study will cover Lebuh Pantai (Beach Street) up to Jalan Sultan Ahmad Shah. The site (Figure 2) can be accessible by any land transportation. The site has a design of colonial buildings that give a sense of vintage and nostalgic old times. Since it becomes a tourism hotspot, various commercial are established at there from food, product and services. The site is lively and frequently has the event held out by Government and Non-government Organization (NGO) across the country.



Figure 2: Boundary of the Case Study on Government Buildings, George Town, Penang.

Locale (5.420941°N, 100.344860°E), (5.416560°N, 100.341300°E), (5.421053°N, 100.333343°E), (5.42332°N, 100.333148°E) covered up formed a boundary of cased study referring figure above. The study area is under commercial zone and green spaces based on the master plan. Government Building, George Town is surrounded by seas, creating a majestic view and harmony toward the site. The commercial is operated in beautiful colonial buildings, and the green space as Padang Kota and Friendship Park become a place of gathering for the pedestrian.

3. METHODOLOGY

The research carries out qualitative method referred from Kevin Lynch study who also used the same qualitative method in his research study. He acquired knowledge and study on the urban design elements in three American cities, i.e. Los Angeles, Boston and Jersey City (Lynch, 1960). This survey will acquire data through the ideal method surveying area and urban-mapping of the case study area. This research aims to get as much information and content of Government Buildings, George Town wholly and later on get a crystal clear understanding of all urban design elements consists of paths, nodes, edges, district and landmarks of the case study. The study has conducted a field survey and conducted at the site by identifying crucial point and social behaviour toward urban design. Visual understanding and verbal communication required for the specific unexpected behaviour of local or foreign visitors. The study takes up by foot and motorcycle during research carried out. The study also conducts an academic literature review on a previous successful author and their findings toward urban design elements. The study takes part in a library and public talk by a professional academician. It also consults with another researcher to strengthen the findings.

4. ANALYSIS OF URBAN DESIGN ELEMENTS IN GOVERNMENT BUILDINGS, GEORGE TOWN, PENANG



Figure 3: The site paths



(a) Lebuah Pantai



(b) Lebuah Light



(c) Lebuah Farquhar

Figure 4: Primary road paths

4.1 PATHS

Major paths of the site consist of Lebuah Light, Jalan Sultan Ahmad Shah and Lebuah Pantai (Figures 3 and 4). The minor paths are Jalan Muntri, and Penang St. From Penang Bridge, the site

can be accessible from Pengkalan Weld originally from Dr Lim Chong Eu Expressway. Furthermore, from Gurney, the site can be accessible by Jalan Sultan Ahmad Shah. There a lot of subsidiary road in the site that connecting functional space one to another. Most of the paths are linear and grid-like designed by the British Administration. It also divided section in the urban city. Pedestrian walks can be identified along Jalan Sultan Ahmad Shah and Lebu Light. The primary paths encounter with images and landmarks. However, a secondary road is quite cramping and hard to support by surrounding images due to the width of roads against the height of the surrounding buildings. The road quiet narrow while the building is very high and broad in scale compared to the road. Besides, not many landmarks consist of the secondary road.

4.2 DISTRICTS

Four districts are identified in the site that can be differentiated by it building the spatial arrangement (Figure 5). The building design and arrangement were different because the timeline when it was constructed and its function may vary. The district has the iron grid design indicated by red colour zone, which functions as a business area among the race that rule by British divide and rule policy. The second is the administrative building that for British officer rule Penang and acts as the military base located Fort Cornwallis. The third district also a colonial design building that also acts as the warehouse since Penang one of the main ports in that era. The last district is an educational hub, which consists of St. Xavier School and Convent Light Street.

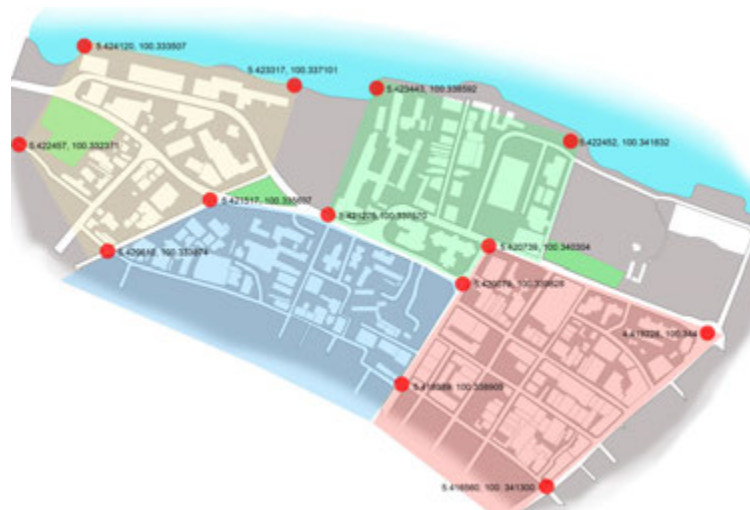


Figure 5: The site district.

4.3 NODES

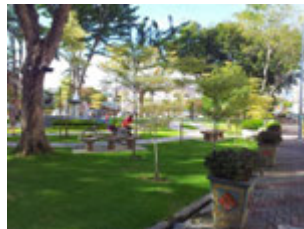
There are many nodes of the site, and they are located at the area around the roundabout at the end of Weld Quay road, a seaside area near Padang Kota, space between Church and Friendship park near E&O Hotel (Figures 6 and 7). Most of the nodes are the place that collects people cause it comfortable spot and have excellent and unique characteristic. These nodes become social interaction as the pedestrian gathering as well rest their feet travelling around the heritage site. The nodes consist of open space, park and some landmarks. People gather here conducting different activities such as enjoying the landscape, photography, having snacks and some might playing some games at the nodes. Locals also take this advantage to sell snacks and drinks. Some provide services such as trishaw, and massage.



Figure 6: The site nodes



(a) St. George Church



(b) Friendship Park



(c) Padang Kota Lama

Figure 7: Important nodes

4.4 LANDMARKS

The site has vast of landmarks, which are Queen Victoria Memorial Clock Tower at the entrance of the site from Weld Quay expressway and followed by Fort Cornwallis nearby the sea and Padang Kota beside it (Figures 8 and 9). Series of landmark followed through the road, which are Penang Town Hall, State Council and State Art Museum. Next, the landmark is the Penang High Court, which has a majestic colonial façade. Furthermore, to upward of the site there Eastern and Oriental Hotel, which also has a colonial design that catches the attention of local and international tourist. The area around the landmark is usually lively because of its strong image toward the path and sometimes functions as nodes for the pedestrian.

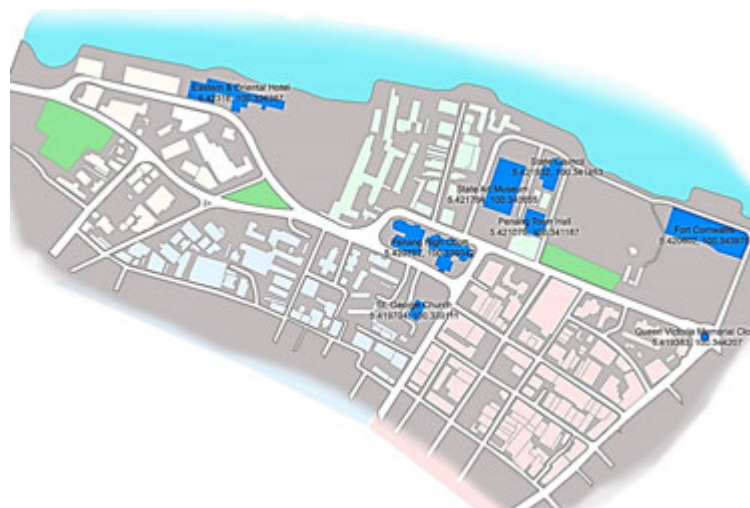


Figure 8: Site's landmarks



Penang High Court



Queen Victoria Clock Tower



Fort Cornwallis

Figure 9: Important landmarks

4.5 EDGES

George Town located at Penang Island's tip with the sea surrounding acts as natural edges while Beach Street divides the area from the seafront and port area as artificial edges. For other area, roads become the edges from a specific district to another district (Figure 16). The divide and rule system governed by 'kapitan' (captain) of each ethnic background of the trading community during the British era clarifies the boundary between district and edges.



Figure 10: Site edges

5. DISCUSSION

The site around the government building, George Town is still changing and evolved for tourism and local comfort. Even the pathway keep amending to make the circulation less congested and convenient to visit.

5.1 PATH

The roads are designed with proper hierarchy. Some path already changed from two ways into one lane for example Jalan Tun Syed Barakbah beside Padang Kota Lama. Some lanes in Lebuhraya Light also make some amendment from two ways into one way. The construction still going on to enlarge the road. The Jalan Sultan Ahmad Shah has well identified leading toward an upper side of the island. There are a few landmarks along the path.

5.2 EDGES

The site is with surrounding by sea (natural edges) and road along the port (artificial edges). The edges are continuous and well-formed. The edges start at (5.423321°N, 100.333148°E) until (5.416580°N, 100.341300°E).

5.3 DISTRICT

There are five districts in the case study area which forms a division of uniform road and building type. One can visually observe that there are many similar road paths in this trading community areas but with different cultural contexts due to district particular ethnic background and religion. The district also has differentiation on the building function such as rice mill, Islamic centre, temples, and government building.

5.4 NODES

There are a series of nodes located along the hotspot nearby the sea and landmarks. There are several open spaces at the site. These nodes have many hawkers and trishaw cyclists mingling in these urban spaces.

5.5 LANDMARKS

George Town has landmarks that attract local and foreign tourist. There are landmarks at the site namely Queen Victoria Memorial Clock Tower, Fort Cornwallis, Dewan Sri Pinang, Penang Art Gallery, as well as St. George Church. Many landmarks are nearby the sea rather than at the inner part of the site.

6. CONCLUSION

The study area on a mental mapping of the Government Buildings concludes that the area has moderately well planned. However, nowadays, the municipal authority has improved the urban path element. The authority also has revitalised the landmarks to make this place lively again. As years go by the layout plan of the study area for path and circulation needs to suit the latest technology and transport system. For the edges, the edges are well identified and continuous as attractive urban spaces by local and foreign tourists while travelling through the road. Districts are well-formed. However, modernisation makes it similar to one and another. The different elements of every district are fading, and the unique culture among the communities already mingles together. They seem like one big community not more like old time which only specific ethnic background in every district. Series of nodes along the hotspot provide quality urban spaces to people who are gathering and having activities, boosting the local economy with appearances of visitors and tourists. The landmarks are under proper maintenance in a restored condition able to serve attraction for people to come.

7. ACKNOWLEDGEMENT

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