

THE PHYSICAL REDEVELOPMENT OF
KUCHING DOWNTOWN. SARAWAK.
MALAYSIA: An Urban Design Approach

by

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To My Father and Late Mother

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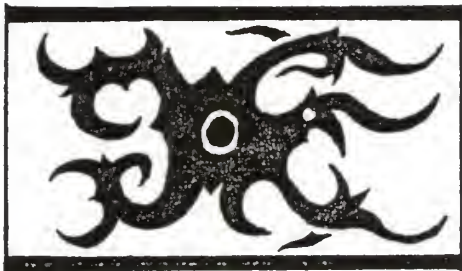
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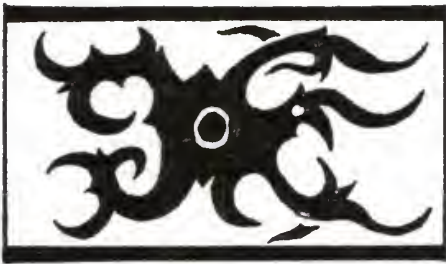


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PREFACE

Preface

My interest in urban design evolved during my undergraduate program. Common design problem included urban environment, the function, massing and circulation of individual building. Sometimes existing buildings on the site are neglected or overlooked when designing a new building (We designers often present new structures out of context, embellished with landscape and blue sky). What about the relationship between a single structure and its urban environment, fabrics, and site?

Urban design in developing countries is almost non-existent if we judge through their public policies. In Sarawak the town council and LCDA (Land Custody Development Authority) work directly with the government and private bodies in their projects. If they would produce guidelines and policies for new developments, especially on environmental concerns and on the integrity of the project with the built and natural amenities, slowly the concept would be absorbed by the public.

In developing countries good architects are evaluated through their design of a single structure which is usually monumental, unique, or a shiny glass box building; whereas the site development or the contribution of the building to the site context is often overlooked. As a result

the new structure is alienated in space, bordered with chainlink fence, or juxtaposed in its rear facade to the next building. My point is not to seek a solution to the urban design problems in the developing countries, but to explore the collaborative efforts in a small town like Kuching which can benefit the public and the environment, and acts as a role model to the other states in Malaysia.

Its setting isolates Kuching town* from 'outside' influence, yet even conservative estimate suggest that its nature and related natural amenities could be a great asset to the public and the state. The Sarawak river, adjacent to the downtown contributes greatly to the Kuching town economy.

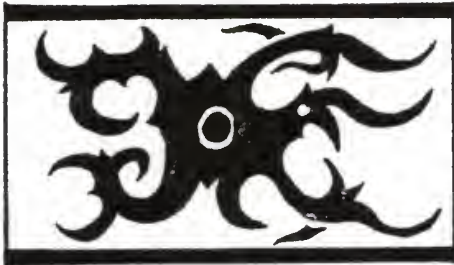
The physical development of the downtown** (refer fig. 8) and the riverfront not only help to enhance the town but to make government officials the aware environmental issues such as timber logging, quarry operating, clearing of the equatorial forest and wildlife within the Kuching themselves so as to contribute to nation-building by ensuring that development projects do not preclude the chance of

Kuching town* - covers the whole area of Kuching Municipal Council i.e. approximately seven and three quarter (7 3/4) square miles.

Kuching downtown** - the area bounded by Java Lane, Gambir Road, Barrack Road, Courthouse Road, Mosque Road, and Market Street.

survival for the future generation. (1) The lesson is clear today in the Great Lakes where the technology of the western world could not find the immediate cure for the water pollution caused by a hundred years of human intervention. (2) Thus, urban design is not tied or restricted to the aesthetics of the town or city; it can be a tool to educate the public and to control changes in the natural as well as the built environment. I believe the people in Kuching could be directed towards civic consciousness because of the values and their social organization they have held for decades. The concept of close family structure is reflected in the spirit of the community. On the other hand, the government departments could play a major in encouraging such cooperation by implementing guidelines and policies and strictly enforcing them.

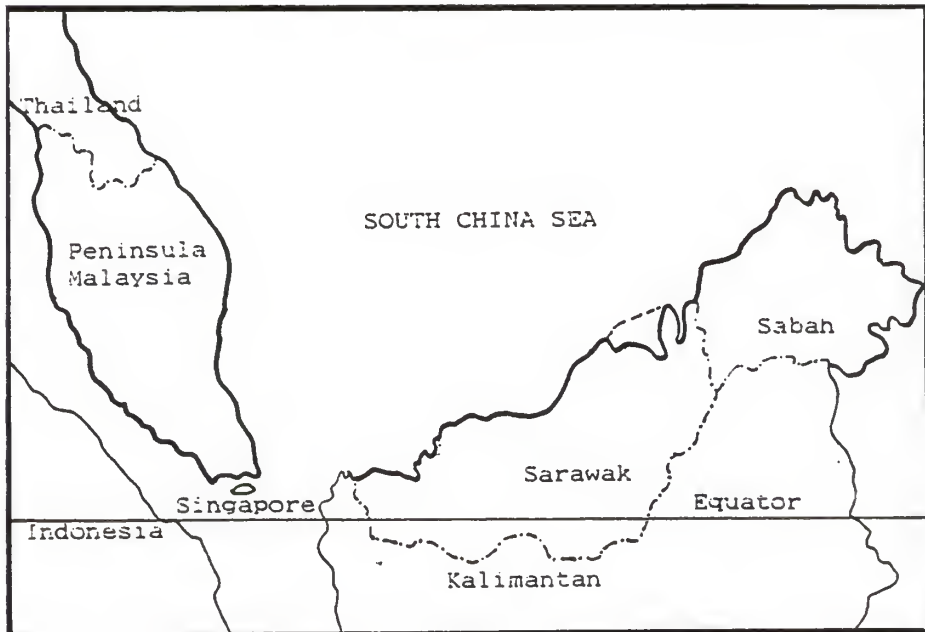
Kuching Municipal Council controls the welfare of the downtown, and with this advantage, could advise developers on the aesthetic and physical improvement of the downtown. It is their job to prepare and administer the zoning ordinance, subdivision control, developmental plans, and so on.



CHAPTER ONE
Orientation

Geographical Orientation

MAP OF SOUTH EAST ASIA

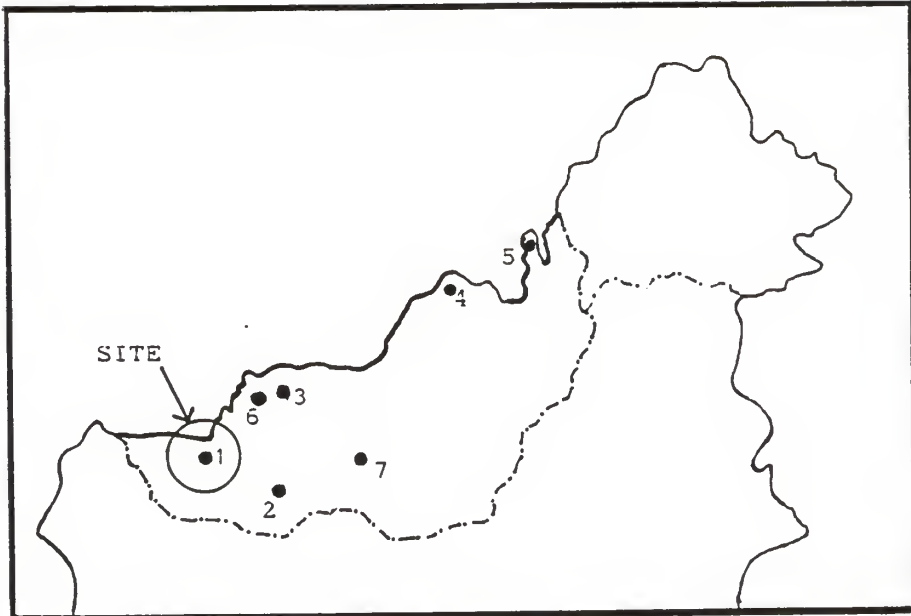


Map 1 (source 4)

Malaysia covers an area of about 336,700 square kilometers (130,000 sq. miles) and comprises the Peninsula Malaysia (eleven states), Sabah, and Sarawak. The Peninsula Malaysia is situated south of Thailand, and across the South China Sea from Sabah and Sarawak in north-western Borneo.

Singapore, situated at the southern tip of Peninsula Malaysia, is not in the Federation of Malaysia. Singapore withdrew from Malaysia in 1965 to become an independent republic within the commonwealth. (3)

MAP OF SARAWAK



Map 2 (Source 4)

- | | | | |
|--------------------|---------|------------|----------|
| 1. Kuching | 3. Sibu | 5. Limbang | 7. Kapit |
| 2. Bandar Sri Aman | 4. Miri | 6. Sarikei | |

Sarawak, the largest of Malaysia's thirteen states, is located along the northwest coastal strip on the island of Borneo. It covers an area of 124,967 square kilometers with a population of one million.

The climate of Sarawak is warm and humid with an average daily temperature of 85 degrees Fahrenheit and annual rainfall of 120" - 200".

The state of Sarawak is divided into seven administrative districts, namely Kuching, Bandar Sri Aman, Sibu, Miri, Limbang, Sarikei, and Kapit.

Kuching, the site of my project (Map 2), contains 947 sq. miles with a population of 1/4 (one-quarter) million (census 1983).

In Sarawak, the governor (The Yang Di Pertua Negeri) is the head of the state, appointed by the King of Malaysia (The Yang Di Pertuan Agung). Sarawak's economy relies on the export earning from timber, crude oil, and agricultural product. (3)

The people of Sarawak which include the Chinese, Malays, Iban, Bidayuh, Melanaus, Kayan, Kenyah, and other indigenous groups, display an intricate tapestry of cultures and lifestyles.

Historical Orientation

Sarawak was part of a protected British colonial state from 1839 until her independence in 1963 (except during the Japanese occupation from 1941-1945) and joined Malaysia in August 1963. (3) From the early stages of colonial rule, and before Sarawak became an integral state, Kuching was an important base for the British for spreading their influence and power.

The early settlement in Kuching was established along the Sarawak river because of its accessibility to navigable waters. The movement of materials, products, and people was primarily dependent upon water transportation, which strongly contributed to the growth of Kuching town. As a result, Kuching flourished as a trading place within its vicinity and also overseas. (3)

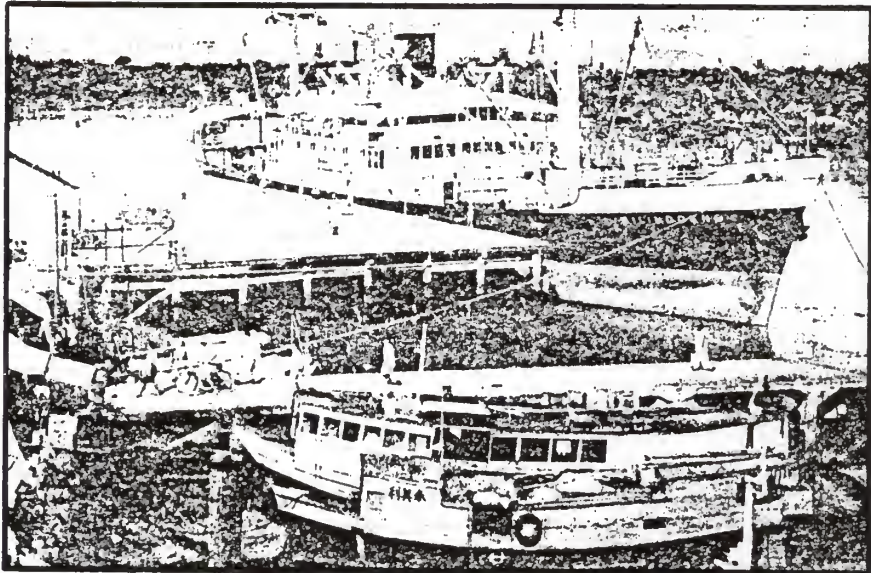


Figure 1: Ban Hock Wharf (Source 5)

Even though Sarawak is an agrarian state, its economy is highly dependent on foreign trade. Several wharfs and other port facilities were developed in order to meet the needs of the international trade. The development of Ban Hock, Lonna Doone, and Steamship wharfs adjacent to the downtown contributes to the physical and economic development in the downtown. The early town took shape at the perimeter of the waterways and wharfs. Only recently were the major international shipping facilities moved to Tanah Puteh (approximately four miles east of the town) which can accommodate ships up to 350 feet long and is capable of handling more than 650,000 ton of cargo a year. (3) But the existing wharfs at the downtown are still important for general commerce and domestic trade within the state of Sarawak.

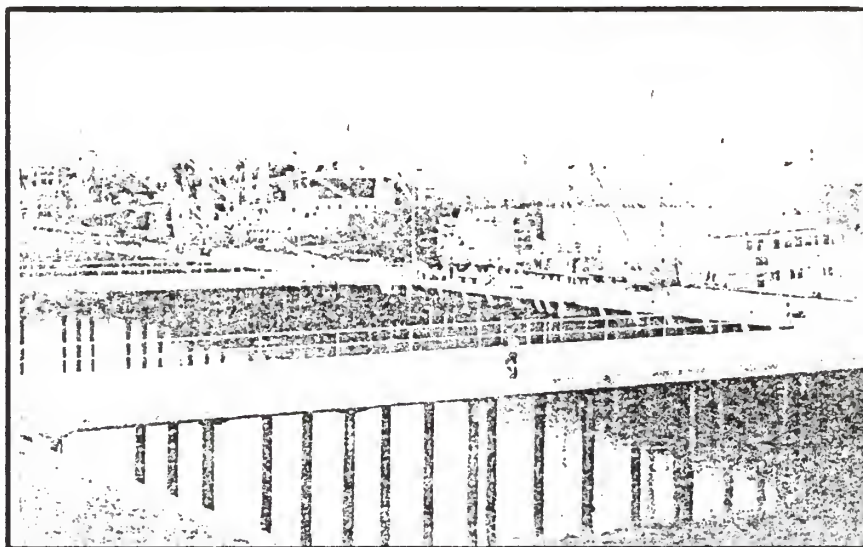
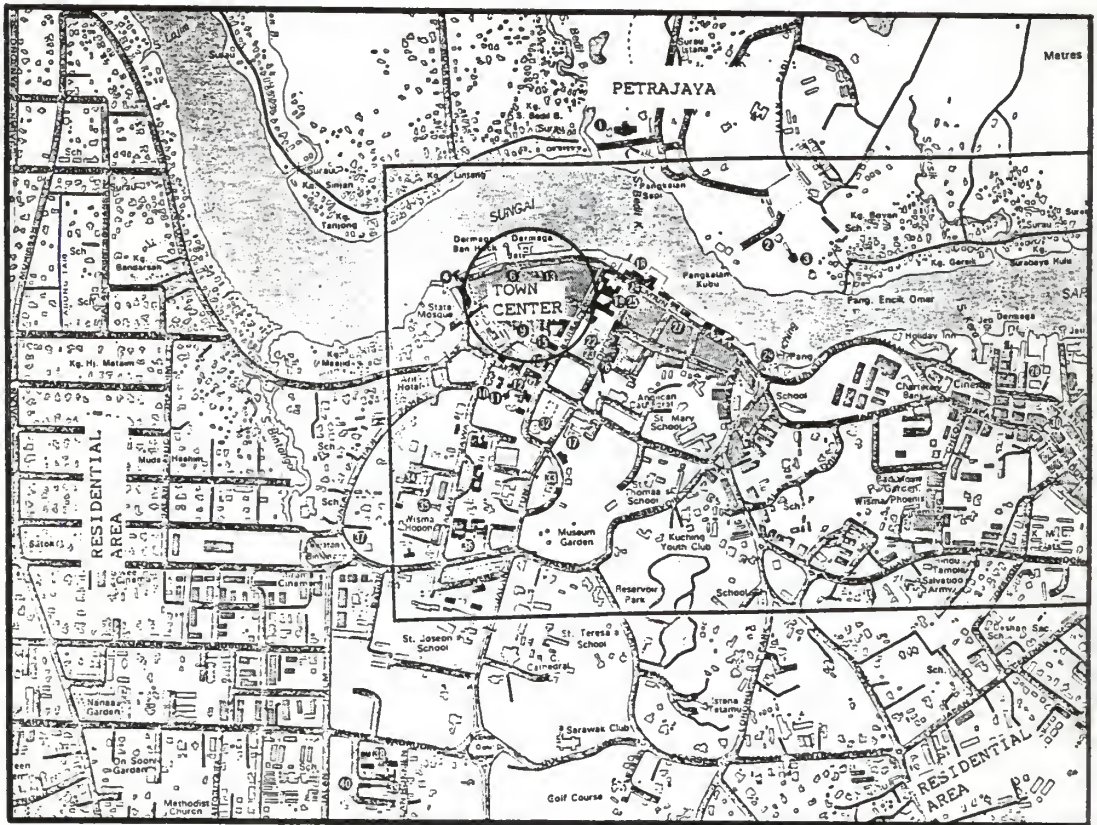


Figure 2: The New Port of Kuching (Source 5)

With its strategic and historic location, Kuching, the capital of Sarawak, is the main gateway to the state both by sea and air. The face of Kuching town changed tremendously but the center of Kuching downtown did not show any physical changes from 1963-1987. A few major housing and commercial projects and industries developed along its outskirts. Kuching International Airport is only seven miles south of the downtown. (3) The housing projects sprang up like mushrooms to solve housing shortage for the growing population.

The growth of Petrajaya across the river helped to



Map 3 : Kuching Downtown and its Vicinity (Source 7)
(6)

reduce the major population concentration in the town without changing its activity. Several areas such as Central Kuching, Petrajaya, Tabuan, Sungai Maong, and Matang are in different phases of development. Each housing complex is well connected to the town center by public transit.

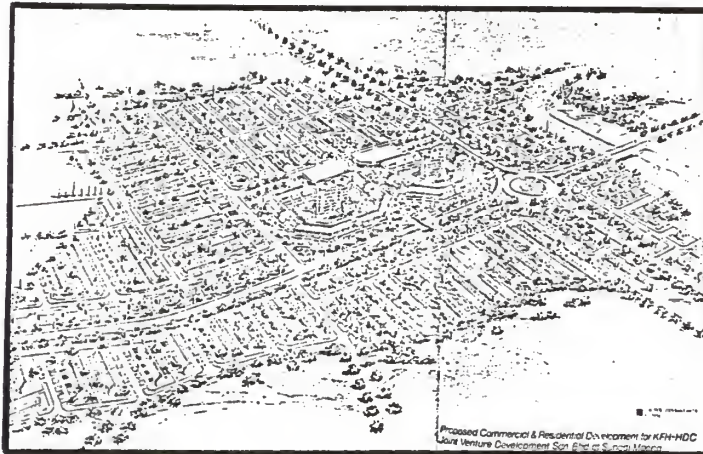


Figure 3 : Proposed Commercial and Residential Development Sungai Maong (Source 6)

Kuching has become increasingly important in the country's tourist industry. Both internal and external tourists are attracted to the scenic beauty of the area's natural landscape, the hospitality of its people. The establishment of hotels and resorts facilities have attracted more international visitors to Kuching.

Light and domestic industries have long been practised in the state. Processing agricultural products such as palm oil, cocoa, rubber, and lumber continues to be an important

source of employment to the locals. The stable political situation of Malaysia has encouraged foreign investment in all industries.

Evolution of the downtown

The Central Business District/Kuching downtown started at the riverfront, and it evolved and expanded inland as the economy and population grew. It is fortunate that the strip of land along the riverfront was not developed by the early pioneers or private enterprise.

Architecturally, the central business district is not dynamic. The buildings reflect the emergence and subsequent recession of popular period designs. The streets and lots were designed around the existing buildings and thus were not planned and designed.* Iron grid pattern did not prove to be the best solution and thus was not developed. The architectural style of the early shophouses remains intact although a few changes were applied to several units to suit the current fashion. As a result of 'artificial beautification', there were various elements, such as aluminium siding found on the facade.

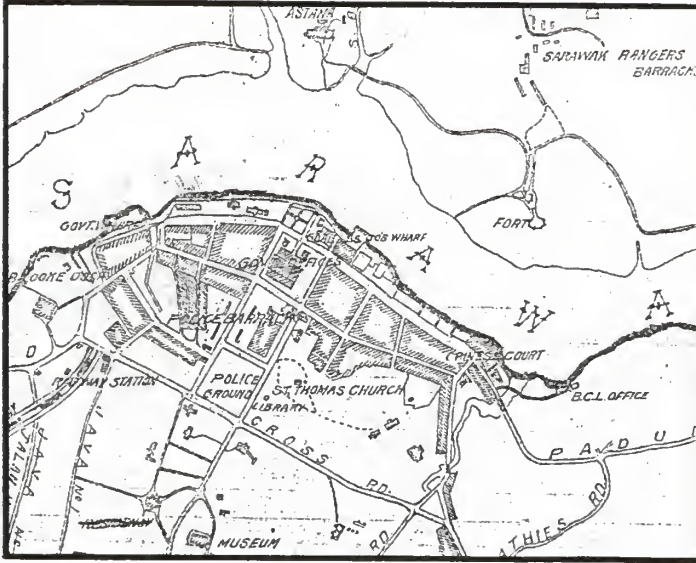
The shophouse blocks are short, creating frequent corners which help to draw pedestrians to the secondary streets. A map of the town (see fig. 8) reveals the slow development in the downtown. The streets and the pattern of vehicular circulation show few changes. Addition of a new unit to the block depends on the availability of land. Based

*There are no comprehensive plans to create harmony and rationality in use, built up space, height, and length of buildings. Shops were built on the irregular leftover land, each with different material color, texture, and even height.

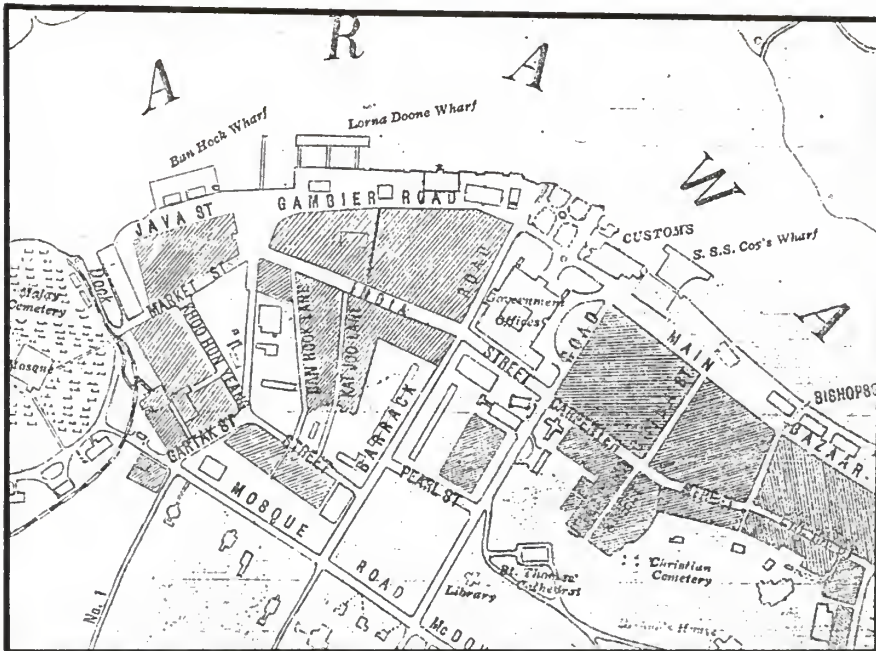
on this pattern of development the development remained stagnant in the sixties, seventies, and eighties. (5)



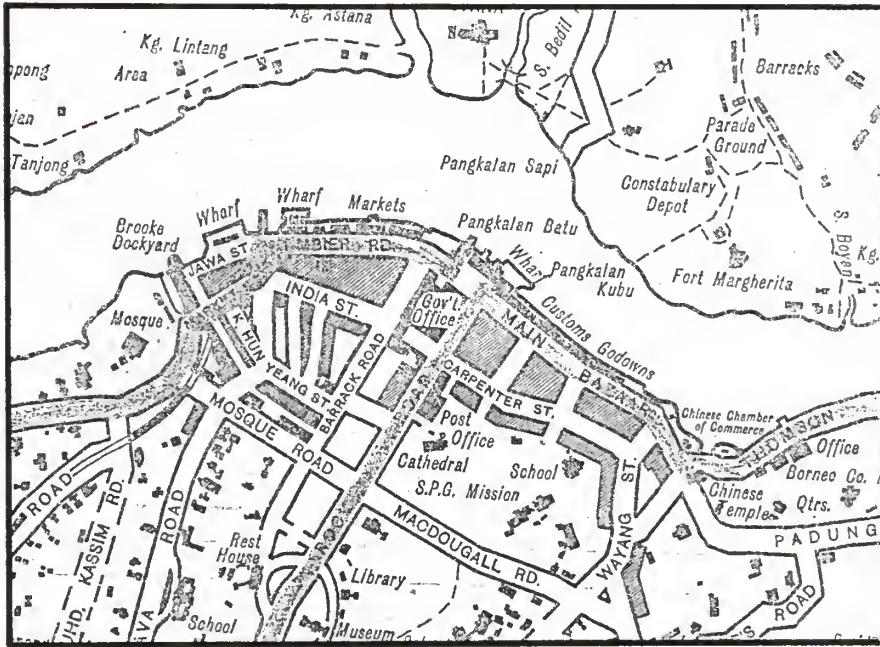
Figure 4 : Shophouses at Gambir Road



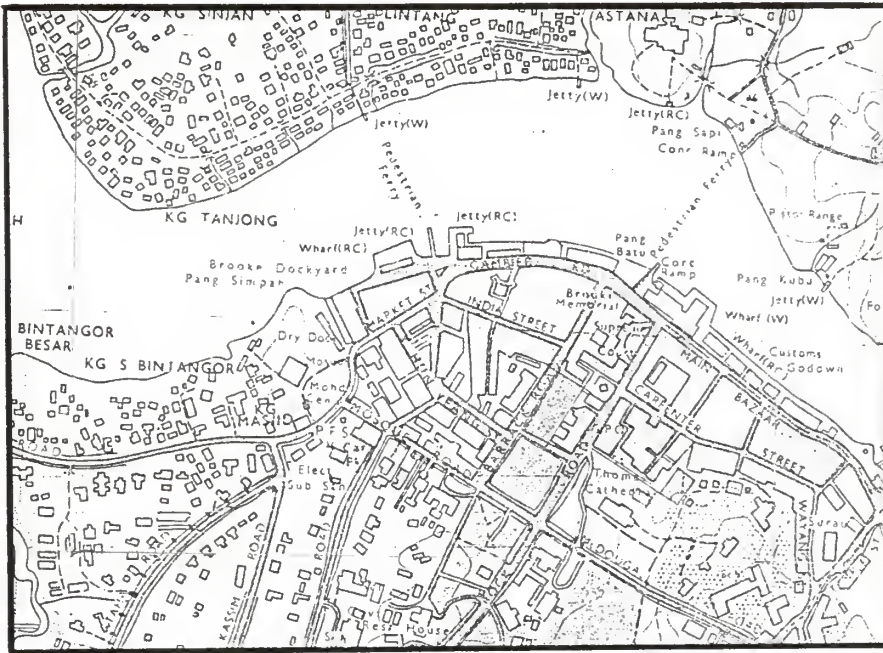
Map 4 : Map of Kuching 1922 (Source 8)



Map 5 : Map of Kuching 1930 (Source 8)
(11)



Map 6 : Map of Kuching 1951 (Source B)



Map 7 : Map of Kuching 1966 (Source B)
(12)

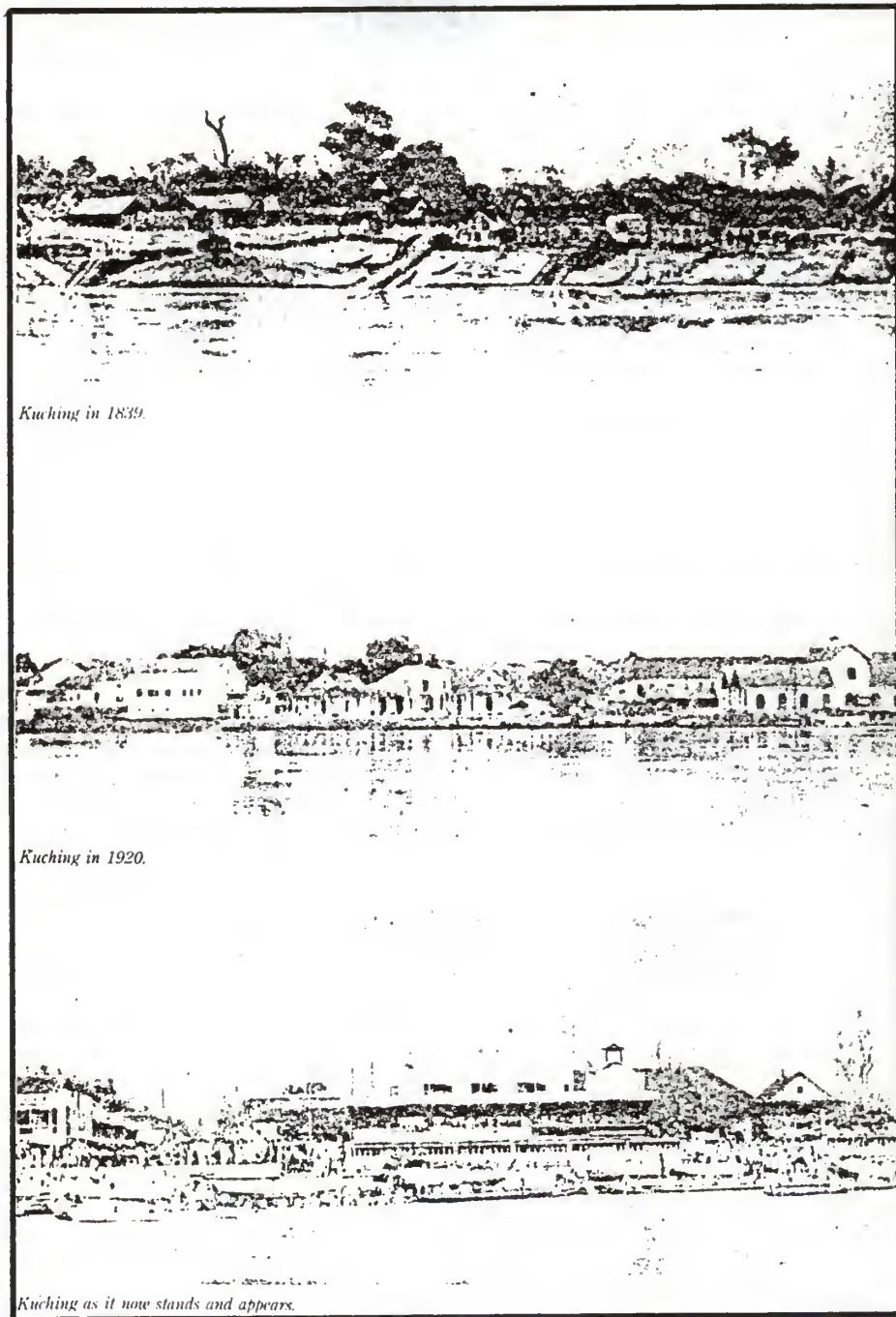


Figure 5 : Evolution of the downtown
(Scene from the river) (Source 5)

Problem Statement

Kuching town has long been a center for trade, commerce, culture, and administration. With a better standard of living, people are beginning to value and use their free time more extensively. Recreation and the quality of life are more frequently discussed. The residents of Kuching town are experiencing the behavioral insideness* of their area, but have not noticed the degradation of its physical appearance and environment. The center of Kuching downtown is not dying or decaying economically but it needs developments, proper guidelines, and policies for its physical changes and urban design. Without such attention, the downtown is degrading physically even though it is alive in other ways. Who should be responsible to keep the good image of the downtown?

There are no slums** or squatters*** in Kuching downtown. Squatters do exist in Kuching town because of rapid migration from rural areas. The popular squatter settlements are along the outskirts of Kuching town such as Sungai Apong

*Behavioral insideness consists of being in a place and seeing it as a set of objects, views, and activities arranged in certain ways and having certain observable qualities. (13)

**slums - implies overcrowding in dilapidated buildings, lack of urban services, privacy, and high rates of social deviation. (14)

***squatters - occupation of land or space without the consent of the owner. (14)

area, Semerah Padi, Bintawa, and Ulu Singan river. (16)

The major concentration of high density population surrounds the Central Business District. The central business district has existed for decades and does not have any space for expansion. Major developments have taken place in new areas due to political pressure and availability of land.

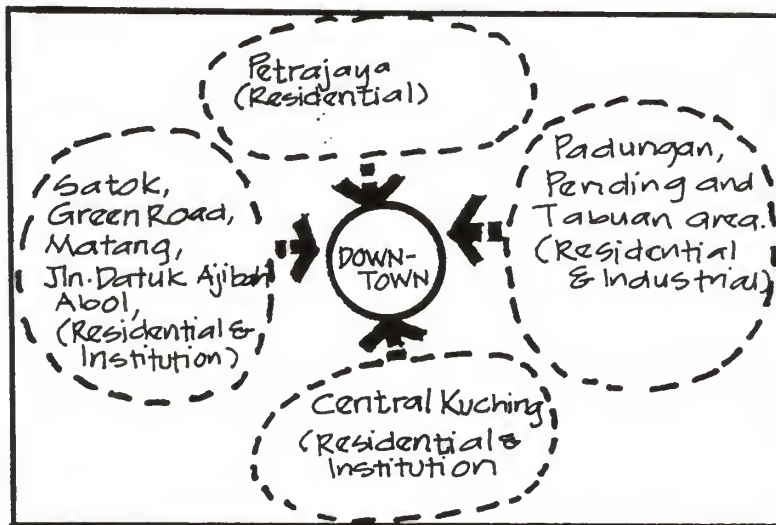


Figure 6 : Downtown Relationship to Sub-areas

As a result of this, economic and social development has spread to other areas such as Petrajaya and East Kuching. Petrajaya, just across the river, grew quickly from a stilt house settlement into a mass housing complex, highrise office building, and government center. Schools and institutions also started to emerge in these areas. A good road system links Petrajaya to rural areas but the economic interest

still concentrates in the Kuching downtown. Visually Petrajaya and Kuching are well connected and provide an interesting profile from the riverine. Unfortunately the physical deterioration of the downtown was not a focus in the development of new areas.

The east and west of downtown are the sites of the next stage of development. The Sarawak river provides a great advantage for the downtown redevelopment. The riverfront stretches from Java Lane to the east side of the town. The establishment of Holiday Inn, east of the river, opened the door for the riverfront development. The hotel's location not only took advantage of the natural amenities but it also integrated with the urban design elements of the east side along Tunku Abdul Rahman Road.

The development of the commercial and office complex for WAB (Wan Abu Bakar) Holdings Co. Ltd. of Kuching, between Satok Road and Kulas Road by joint venture LCDA (Land Custody Development Authority) and WAB Holdings Co. Ltd., also shows the need for the downtown redevelopment. (15) The development area of the east and west will subsequently meet at the downtown center which is well connected physically and visually by road, pedestrian path, and other facilities.

The south of the downtown has long been the focus for cultural development: located here are such facilities as the Sarawak Museum, the Sarawak Broadcasting Station, Tun Abdul Razak Hall, Sarawak Botanical Garden (Adjoined by the



The Sarawak Museum



Rock Road (showing part of the New Secretariat Building)

Figure 7 : Southern Sector of the Downtown
(17)

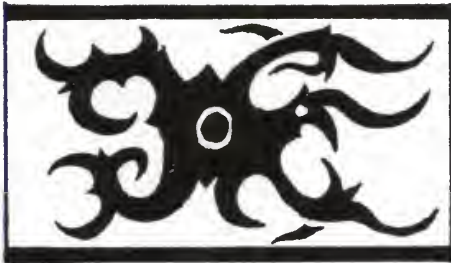
Reservoir Park), schools, and other government departments offices. (see fig.7)

The development on each quadrant of the downtown will later have a strong impact on the image of the downtown. The locational relationship of these areas to the downtown provides opportunities for development. Radical Urban Renewal* or Urban Revitalization** will jeopardize the activity and life of the downtown. That is why I am looking for moderate changes.

Kuching downtown has a strong and diversified activity (refer p.35). After decades of physical stagnation, the downtown needs development. The downtown is a good location for recreation and a place for people to gather. Its location near the river could be a great advantage for non commercial water-borne activity. A radical development is not the answer to this area. Any physical redevelopment of the downtown will substantially rely on the elements of urban design which could be executed phase by phase.

*urban renewal - Local authorities were granted the use of eminent domain to condemn the acquired properties in blighted areas, demolish existing structures, and provide new streets and utilities. Cleared land was then sold to developers at a reduced price for future development. (18)

**urban revitalization - to give a new life to the declining areas. (18)



CHAPTER TWO

Project
Methodology

Description of the project

Purpose

The purpose of the project is to establish development criteria for the physical redevelopment of Kuching downtown, Sarawak, Malaysia. This program will limit its study to physical elements which directly pertain to the interest of the area and the benefit of the neighborhoods.

It is not the intention of the designer to focus on the detailed planning of social, economic, administrative, and fiscal matters in this program; instead, the program will concentrate its study on such architectural matters as utilization of existing natural amenities, unity, character, scale, spatial relationship, and location of buildings.

Scope

The project will cover the context area (downtown) bounded by Java lane, Gambir Road, Barrack Road, Courthouse road, Mosque Road, and Market Street (Fig.8).

The major focus of the project will be the riverfront redevelopment (Fig. 28). The project consists of four parts i.e.

1. Survey of existing conditions
2. analysis of existing conditions
3. Proposal/policy
4. Urban Design Plan

The physical redevelopment/development of Kuching

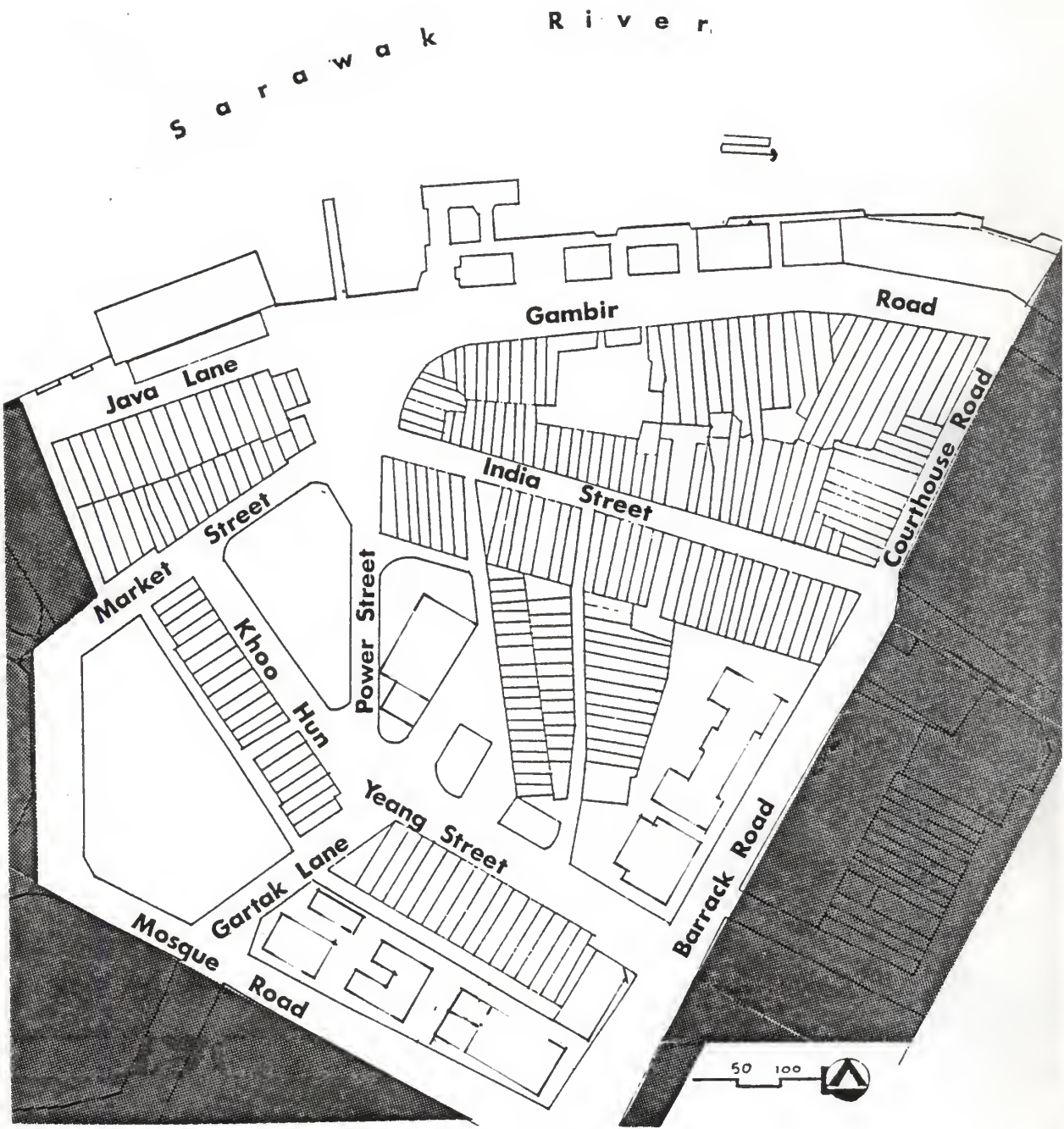


Figure 8 : Study Area

downtown must address physical planning and aesthetics in order to improve the quality of the environment and to enhance the activity of the downtown. Instead of studying the social, financial, and cultural framework in this program, the concept of urban design elements(24) is applied. It includes:-

- Land use
- Building form and massing
- circulation and parking
- open space
- pedestrian ways
- activity support
- signage
- preservation

After surveying and analyzing these elements in the project area, redevelopment proposals were based on the urban design needs of the area and the physical relationship with the existing environment.

In light of the above, the program will be a fundamental guide for the physical redevelopment of Kuching downtown, to be shown in the design plan.

In developing a program leading to a design thesis for my project, I applied a straight forward method that is commonly used in a normal design studio. Since the site of my project is located in Kuching, Sarawak, Malaysia, there is no information that could be obtained in the Kansas State Library or other nearby sources.

The data are categorized into two parts.

- 1) Field research(12)
- 2) Secondary data

The field research was done in Kuching, Sarawak, while the secondary data came from the knowledge of the designer or the architectural and planning literature where concepts and principles could direct the success of the project.

In the process of executing the project, the methodology can be summarized as follows:

1. data collecting
2. reviewing and analyzing the data
3. gathering responses to the need of the project area.
4. developing a concept and proposal for the project.
5. producing a design plan for the study area.

Field Research

Data was collected during the field research which focused primarily on the architectural aspect of the downtown. The depth study on culture, and social and economic issues is not strongly encompassed in this field research.

The field research was carried out in Kuching, Sarawak, Malaysia, in Summer 1987. Originally from Kuching, Sarawak, I left the town for almost ten years ago to pursue my education. Returning, I encountered several physical changes in the town and the people. Field research was carried out by myself with the assistance of my brother, Mohd. Hamdan (a mathematics graduate) and my friend Misli Leri (teacher).

Since my stay in Kuching was very short, I had to collect as much informations as possible so that I could develop my program successfully.

In the field research, I developed the following procedure to simplify my records and to avoid repetition of the information.

Orientation

Visual survey (for other analysis and to gain an overall perspective.)

Research

Observation

Interview

The above factors were not the sole principles followed because my familiarity with the area facilitated my data collection.

Orientation

The people of Kuching are comprised of various ethnic groups but a single common language, 'Bahasa Sarawak' (Sarawak language), is used in business transactions and

daily communications among the different races. My ability to communicate in the language was useful for collecting verbal information.

Kuching downtown has a unique shape due to the pattern of the streets which follows the progress of the blocks. The blocks are short and any destination within the downtown can be reached by foot.

Visual Survey

Even though I did not have any problems in the site orientation, I still needed a map in order to have a two dimensional image of the town. I bought a road map at the Sarawak Art Shop in Tun Abdul Razak Hall, which is normally used by tourists, and two other survey maps(6), no. M43-6-4-2 and M43-6-4 with an approximate scale of 1" = 60' - 0" and 1" = 200' - 0", respectively, from the survey department at Badruddin Road.

The maps were distributed to my assistants in order to make a quick survey. With the map, I was also able to record the contextual analysis which included the hard* and soft** data of the site. (The hard and soft data are usually

*Hard data are related to physical site factors and site location, dimension, contours, on site features, and climate. (15)

**Soft data may involve some value judgement on our part in conducting the contextual analysis, e.g. the sensory and human aspects of the site that are not quantitative and which require an opinion about existence and positive or negative character of certain site qualities. (15)

used in site analysis in design studio.)

The visual information on the street was recorded. I instructed my assistants (Mohd. Hamdan and Misli) to collect the simple visual information such as the use of the shops or the services offered by the shop unit that coincided with the map. In this way I could record the land-use (see fig.11) in the area and other physical features on the street because at present Kuching does not have a land-use or zoning plan.

The pattern of pedestrian flow and vehicular circulation was recorded on the map and the condition of the streets and paths was identified. (see fig. 21)

The most efficient method I used in the visual survey is the photography process. (9) As I proceeded with my survey I photographed the streetscene, the exterior space, and the people's activities. Since the intention of the thesis is not to do a measured drawing of the buildings, I used a sequence method in capturing the facade of the shophouse blocks. The horizontal length of the shophouse blocks are indicated in the map and the vertical dimensions can be judged from the photograph. In this method, I allowed my friend whose height is 5' - 6" to stand in front of the facade. (9) Later, the height of the building could be judged from his height. In common practice, a ranging pole (with

one foot interval marked on the pole) or a rope dropped from the roof top (if the roof is flat) can be used as a marker in the photograph for later use. (9) The main reasons I did not use these method was:

- i) time
- ii) crowded street
- iii) the owner is not cooperative (furthermore I am not sure of the condition of the roof structure).

In the visual survey, the photographs could give the accurate image of the town and its vicinity, time of day, archetypal and street facilities. To gain the overall perspective of the downtown, I went to the highest point, i.e on top of Electra House (eight storeys) and the minaret of the State Mosque (permission was granted by the person in charge

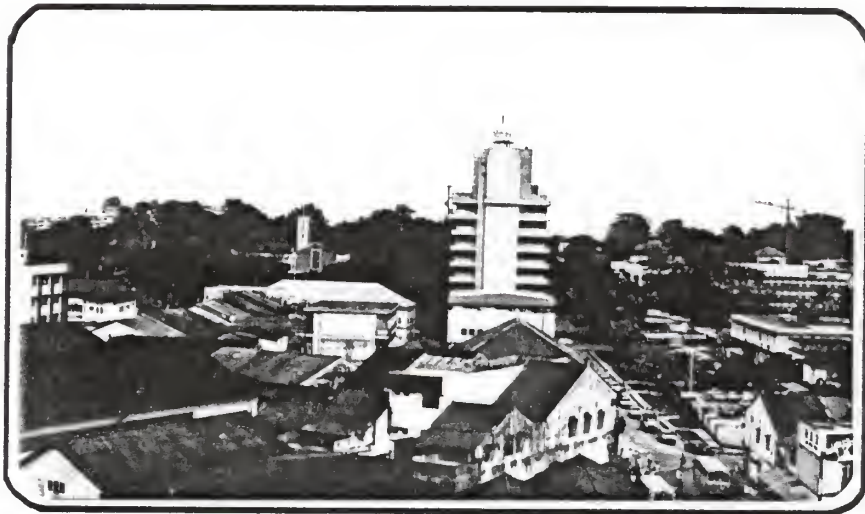


Figure 9 : View from the minaret
(26)



Khoo Hun Yeang Street



Gambir Road

Figure 10 : Archytypal Study

of the building). These locations provided access to a 360 degrees view of Kuching town and allowed me to photograph the aerial view of the building blocks. (At the same time I had the opportunity to study the roof patterns).

According to my survey, most of the building blocks in the downtown are two to three storeys shophouse units with a retail establishment on the first floor and residence on the second. The typical layout of the interior (entering the front of the shop) was recorded by a quick sketch. (see fig. 20) The shop owner generally did not allow any visitors to go upstairs but I had a chance to do a few sketches of the living quarters. The living quarters are all similar, raising the question: were they designed by the same 'architect' or mass produced?

Observation

The life of a town is highly dependent on its inhabitants. The daily activity in downtown Kuching starts as early as 5:30 a.m. or even earlier especially for the fishermen from coastal areas who unload their catch at the market during the high morning tide. Most of the people in Kuching downtown are white collar workers hired by the government and private companies while the remainder do general work and services. (10) The shopowners and stall operators are the permanent inhabitants of the downtown.

School children can be seen in the town between 6:30 a.m. and 8:00 a.m. (latest) for the morning session which

lasts from 8:00 a.m. - 1:30 p.m.; and between 11:00 a.m. until 2:00 p.m. for the afternoon session which lasts from 2:00 - 6:30 p.m. Office working hours are 8:00 a.m. until 12:45 p.m.; 2:00 p.m. until 4:15 p.m.; and Saturday, 8:00 a.m. until 12:45 p.m. As a result of this the downtown is inhabited by its occupants at different times.

Traffic pattern in Kuching is non-traditional if we judge from the circulation (visual survey). The flow of traffic varies at different hours; the heaviest is along Gambir Road, Khoo Hun Yeang, Market, Mosque, and Barrack Road. All these streets intersect with other secondary roads within the downtown.

Pedestrians are concentrated at the first floor of Electra House, near the bus terminal, and at the nearby stalls. The people are shy but helpful (especially when asked about road directions).

Eating out at night is a common practise for the people in Kuching. Stalls and food vendors are located a bit further from the downtown center such as Satok Road, Batu Lintang, and Pending area. (Some of these areas are used as parking spaces during daytime.) There are no proper places to dine in the downtown area except for the coffee house and restaurant. The riverfront is a common area for the local fruit lovers to gather, especially during fruit season. The activity at night fades as it gets late, and by around 10:00 p.m. the pedestrian traffic decreases.

The downtown does not have any open green areas or parks and plaza that is accessible for the people to sit or rest.

The people from Petrajaya enter the town at three different locations in the study area. Most of the people take a bus rather than a taxi. The taxi fare is expensive and so people refuse to take a taxi except during an emergency.

On Fridays, the Muslims from all parts of Kuching go to the mosques to pray. Two distinctive mosques, the State Mosque and the Kuching Mosque (Masjid India), are located in the downtown. After the praying hours, the pedestrian and vehicular traffic in the downtown increases. The presence of these people benefits the business in the downtown too, because they usually eat and shop at the downtown following prayers.

Culturally, the people in Kuching observes the public and national holidays. During the National Holiday or Governor's Birthday, (11) festivities such as floats and regatta are often held at the Sarawak river, and other cultural show are presented at the Central field (adjacent to Barrack Road). All activities contribute to the downtown economy.

Research

No direct relevant materials have been written on the Kuching Downtown Redevelopment. While in Kuching I went

to the Sarawak Museum Library where the State Information and Archives are kept. The related materials on the downtown history are available in the form of pictures and maps from early 1900s until recent survey. These materials gave me a clear visual perception of the downtown evolution and development. There are several other articles and thesis written by local graduates from West Malaysian Institution on traffic networks, squatters problem around Kuching town, and artworks of the natives which could be used as references. Even though all these materials were not used, certain information concerning the squatters in Kuching, the craft works, and traffic network gave the writer useful background for the design program. Other related materials that have a close association with the site are the yearly report from the Sarawak Housing, LCDA annual report, and local newspapers.

Although not directly influenced by western development, my project was directed by the concepts and theories I learned from coursework, sources from architecture, and planning literature.

Interview

Interviews were used basically to gather background information for the goal development in the project. Two interviewing methods were tried, one using prepared questions and the other using informal conversation.

Because of the town's age, it was impossible for me to

interview anyone who could describe the growth of the town, why the town exists, or how it was built. Instead my questions were addressed to people who are involved in the progress and future development of the town and its vicinity. My questions did not seek their solutions for the problems, but their views and perceptions of the present situation.

Prepared questions were asked to the officials who have direct or indirect involvement with the future development in or around the downtown. These people include LCDA, KMC, and Sarawak Housing Commission officials.

Even though these officials have a direct contact or authority in the downtown, many of their answers were uncertain. The question on public utilities and infrastructure was addressed to the KMC valuer due to his knowledge about the situation. (The KMC architect and engineer were out of town when I was in Kuching.) According to him, Kuching does not have a land use and zoning plan, but one will be developed in the future. The KMC closely watches the downtown but has paid little attention to urban design or architectural matters.

To evaluate the activity and the needs of the study area, questions were addressed to the people on the street who spent most of their time in the downtown; such people were the food vendors, stall operators, shopowners, and laymen on the street. I interviewed about ten operators (age 20 - 55) at different locations along the Dock Lane, Gambir Road

(in study area), and Satok Road (adjacent to the study area).

The interview would begin by showing them pictures of the streets at different locations. Informal questions which could lead to further conversation were used instead of prepared questions. The major issues discussed involved image, parking, utilities (associated to the stalls) and recreational ground.

The people at Petrajaya (age 15 - 35) also contributed different answers than the people of Kuching town to the questions about Kuching downtown. For instance, they were more concerned about change, and the need for more opportunity for all ethnic groups to participate in the downtown businesses.

With the help of the photographs, the people could distinguish the streets and identify the places correctly. From here I could record their favorite spots and their negative remarks about the downtown.

The answers to these informal questions were recorded and considered. I could not rely entirely on these answers because of the prejudice and personal judgement made by the people are not necessarily the views of all the public; instead they contributed to the assessment of the needs and development of the study area.

Some of the officials could not give me direct answers to the questions related to the downtown future development. The Sarawak Housing Commission does not have any

future development of the downtown, but their projects around the outskirts of Kuching town and Petrajaya showed good progress in the Kuching town image. These can be seen at the Matang area, Sici Kanan, Sungai Maong, and other areas.

The LCDA is now concentrating on the new development at Satok and Kulas Road and they also made a feasibility study of the lower sector at the Jalan Tunku Abdul Rahman area which is very close to the downtown. They do not have any news on downtown development yet and when asked about the possibility of improving the downtown shophouses, they could not give a positive answer. (It is not possible to apply eminent domain in these areas because the properties were inherited from the shopowners' ancestors and their social organization does not welcome radical development.)



CHAPTER THREE

Character of
the Downtown

THE CENTRAL BUSINESS DISTRICT

The location of Kuching downtown (the central business district) at a central activity pocket of Kuching town and also at the center for primary* and secondary** uses between Petra Jaya and Kuching town help to create a diversity of uses.

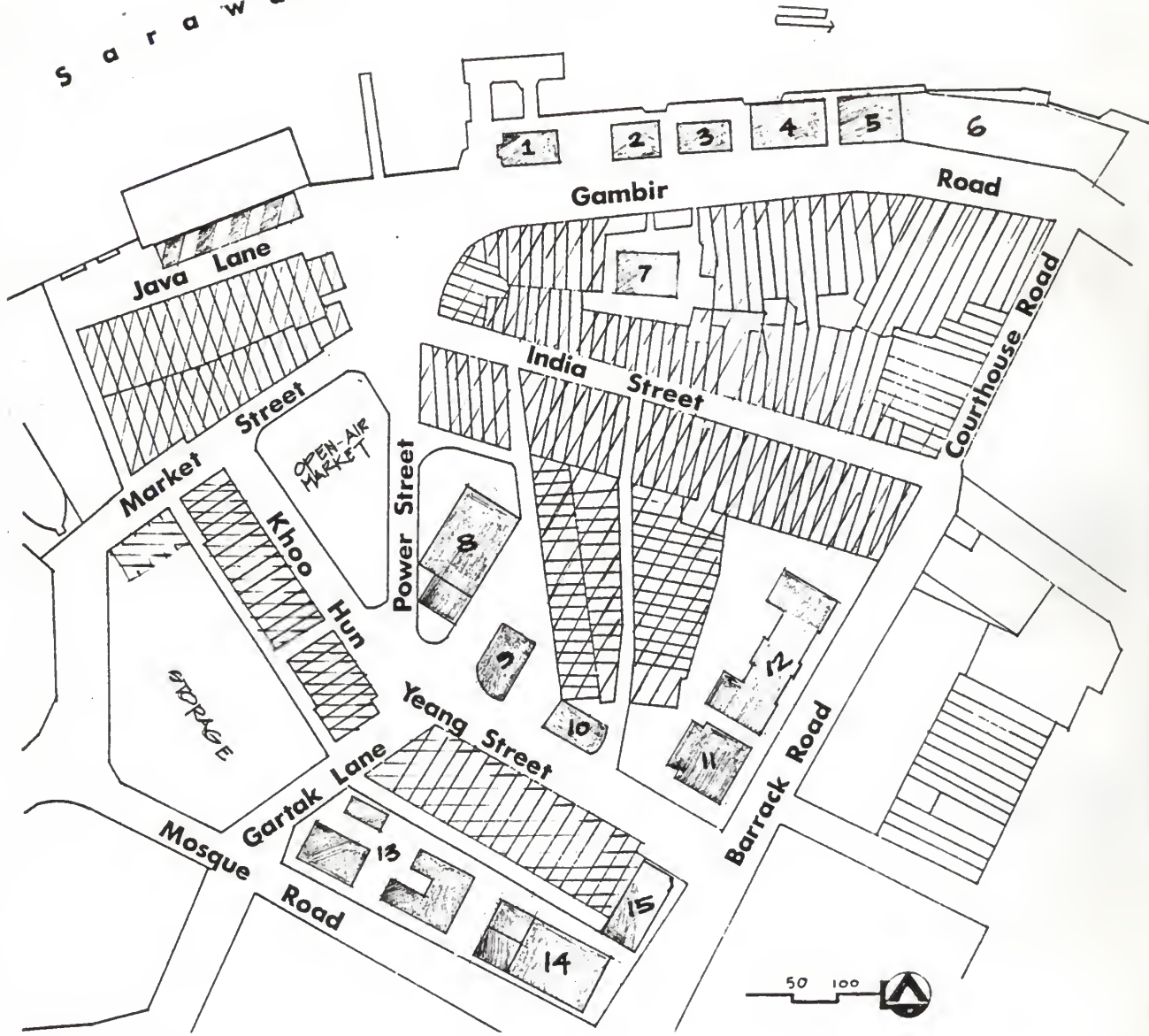
The existing buildings on the site are mostly two and three storey shophouses with retail on the first floor and residence on the second. The only exceptions are the Lanka Building (four storeys), OCBC Building (four storeys), Police Station (two storeys), Treasury Building (two storeys), the New Secretariat (eleven stories), KRDC Building (four storeys) and the Electra House (seven storeys). (Fig. 19)

The shophouse blocks are not in good physical condition according to the building code, although they bring 'life' to the town. The shophouse blocks along the Java Lane cater sundries, general merchandise, coffee shops, and barber shops; while India Street and Khoo Hun Yeang Street specialize in general merchandise and services, coffee shops, clothing, and offices. The Electra House, a prominent landmark in the project area, is a center for shopping on three floors, and the remaining four floors are used for

*primary - those which in themselves bring people to a specific place because they are anchorages. e.g. offices, place to work, entertainment, institution, etc. (19)

**secondary - enterprise in response to the presence of primary uses. (19)

Sarawak River



2-3 SHOPHOUSES

- 1 GOV'T. WAREHOUSE (3 STOREYS)
- 2 POULTRY MARKET (1 STOREY)
- 3 INFORMATION BLDG (2 STOREYS)
- 4 PORK MARKET (1 STOREY)
- 5 FISH MARKET (1 STOREY)
- 6 VEGETABLE MARKET
- 7 KUCHING TOWN MOSQUE
- 8 ELECTICA HOUSE (7 STOREYS)
- 9 OBC BLDG. (4 STOREYS)
- 10 LANKA BLDG. (4 STOREYS)
- 11 POLICE STATION (2 STOREYS)
- 12 TREASURY BLDG. (3 STOREYS)
- 13 KRDC OFFICE BLDG. (2-4 STOREYS)
- 14 NEW SECRETARIAT BLDG. (11 STOREYS)
- 15 KMC BUILDING (2 STOREYS)

BAD CONDITION
 FAIR-GOOD CONDITION
 GOOD CONDITION

Figure 11 : The Physical Form (36)

office space.

Competition between the suburban shopping center and the downtown does not exist in Kuching town because of diversified services available in the downtown. The major activity areas in the downtown and its vicinity are the Bus Terminal, Central Market, mosque, church, temple, jetties, schools, and government and private offices.

Residents of all parts of Kuching town use these areas, even if they don't live in the downtown area itself. The Sarawak river divides the town into two parts, residential on one side and commercial on the other. The other side of the river, better known as Petrajaya, is linked to Kuching by a bridge at the end of the town center. The people of Petrajaya are accustomed to crossing the river by boat, a trip which takes seven to ten minutes. These residents provide major continuing patronage for the business of Kuching town. Obviously the daily activities begin here and interweave with each other and thus creating a street ballet. (19)

Mixed Use

Kuching downtown serves as a major activity area for the people of Kuching. Early in the morning, especially along the Java Lane, Market Street, Gambir Road, and India Street, people go to work and to the market, and children go to schools. The uniqueness of Kuching downtown does not lie

in the monumental building or architectural character of the area, but the 'life' in the town.

The concentration of people is necessary for diversity. Jacobs in her book, *The Death and Life of Great American Cities*, 1961, looked at diversity based on the interweaving of primary and secondary uses. The activity and concentration of people depend on the diversity and mixtures of the uses at the Kuching downtown.

Sidewalk

Kuching downtown has long been pedestrian-oriented. The increasing number of vehicles, has caused conflict between the pedestrian and vehicular circulation, especially where the only pedestrian way is the arcade in front of the shops. The school children use the same path to the bus terminal and to schools nearby (St. Marys, St. Thomas, St. Joseph, St. Theresa, and St. Bernadettes). There is no sidewalk which is conveniently used by the pedestrian. Even though the street is safe and no serious crimes have been recorded in the area, special care should be taken so that vehicle will not dominate the street. (19)

Pedestrians would be delighted to use the street if it is safe and pleasant. The safest sidewalk or street is when there is overlap of activities and when it is heavily used. The safety of the streets are based on trust and the trust of the streets cannot be institutionalized. It develops its own time in its own way. (19)

The upper storeys of the shophouses in the downtown

are occupied by the owners. The idea of residence above the shops is very much desired by Jacobs. She believes that concentration of people generate exuberant diversity especially when the street is heavily used at different times of day. A successful street is where people must appear at different times. (19)

The active street has three main qualities. (19)

- a) Clear demarcation of public and private space. (Since people will protect what they feel is their responsibility, they must have a sense of what belongs to them and what they are responsible for.)
- b) Eyes on street - 'natural proprietors' - buildings must look out on street, not turn their backs to it.
- c) frequent users
 - 1) adds to effective eyes
 - 2) provide a field of activity for walking

Jacobs' notion of the people in the street being the eye for the safety of the street is very much true in Kuching downtown. The presence of the people, especially the pedestrians, is important. The pedestrian in the downtown tend to 'know' each other after a series of usual encounter. As a result of this, each one is not a 'stranger'. The street also is inhabited by the people at all time especially on the India, Gambir, Barrack, Khoo Hun Yeang, and Mosque roads. These are the primary roads which draw hundreds of people every hour. The existence of the secondary roads, such as the Kai Joo Lane, Dock Lane, Bar

Hock Lane and an alley to the Kuching town mosque, also provide a convenient and safe route to the pedestrian. Again, the continuous flow of people and the presence of diverse services and retail shops also encourage the 'life' in the downtown. Preserving the activity and the old building in the downtown will ensure the spirit of the neighborhoods continues.

VISUAL ANALYSIS

The constant activity and the physical setting contribute to the security that is felt in the downtown area : it is perceived as a safe and pleasant place to work and shop.

Path

As will be discussed later (see p.53) the pattern of the circulation is very much influenced by the street development and the blocks. The path is clearly defined to the pedestrian, motorist, or bus commuters. Visitors are attracted by the district's activity, rather than any aesthetic or

The pedestrian path along the shop arcade and street is inadequate, inconvenient, and aesthetically unpleasant. Nonetheless the orientation of the downtown is not confusing to the stranger or the visitor because each path leads to a point of interest or major activity area.

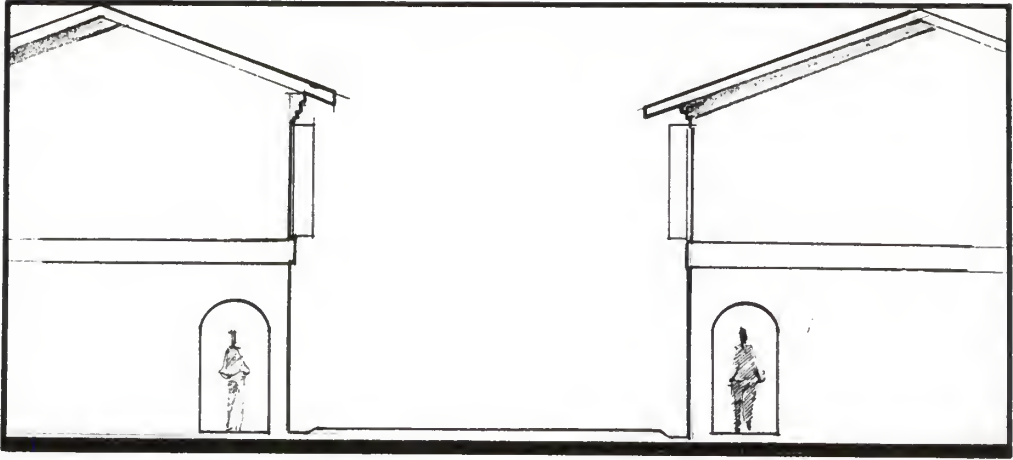


Figure 12. Path

Edge

The Sarawak river in the north and the hill of the State Mosque in the west form a strong edge to the downtown. The development of the downtown spreads inland as a result of this limitation. Standing at the end of Power Street and Barrack Road, an observer can see the vast air space indicating the river. The edge unconsciously pulls the observer's attention to this location.

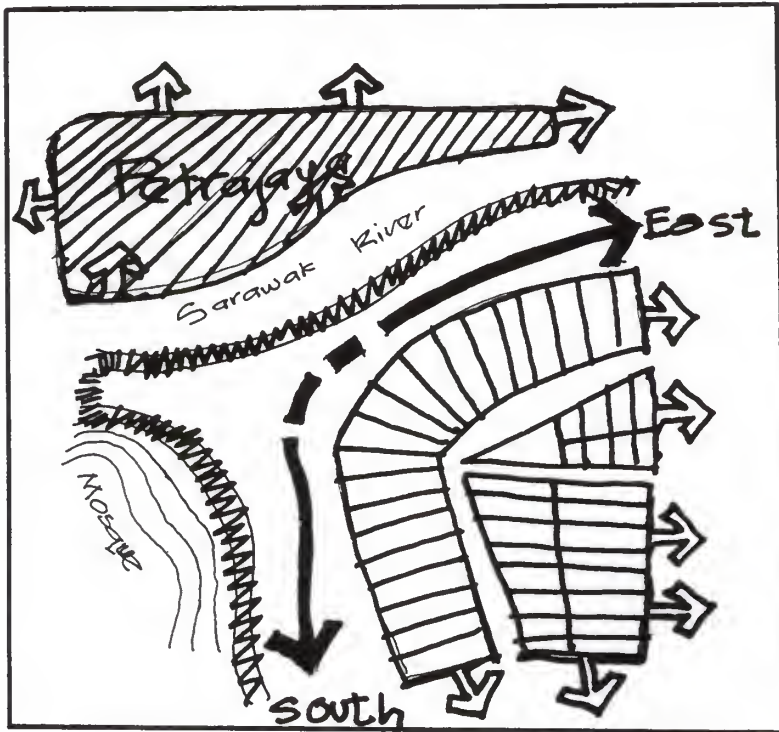


Figure 13. Edge

Landmarks

During the interview and conversations with the local inhabitants on the street (July 1987), the State Mosque and the Electra House were most commonly mentioned as the landmark of the town.

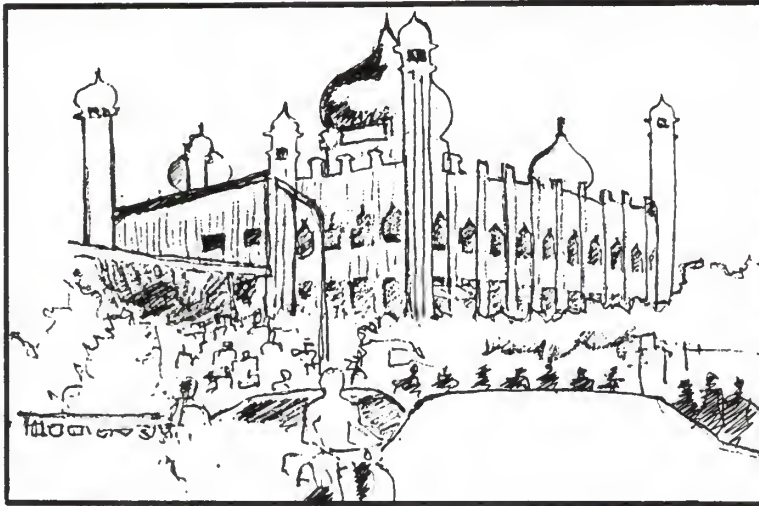


Figure 14 : The State Mosque

The mosque's prominent location on the hill also enables the observer to distinguish it. The massive form of the mosque can only be seen clearly at Market Street, India Street, and Mosque Road; apart from that the observer is obstructed by the shophouse blocks. The Electra House, therefore can be said to be the most notable landmark due to its location, height and bulk among the downtown buildings. Another prominent landmark that many would not consider is the river, which also acts as a point of orientation. Without a doubt a river is an important symbol in the downtown, image and elements.

Nodes

Nodes* are the most important element in urban image. The riverfront along Java Lane and Gambier Road contains both primary (terminal) and secondary (activity) nodes for the pedestrian from across the river and the commuters from Sarawak Transport Co. bus terminal. The area in front of the Electra House and India Street has a similar function for the pedestrian from the Pangkalan Batu, east Kuching, and Central Kuching.

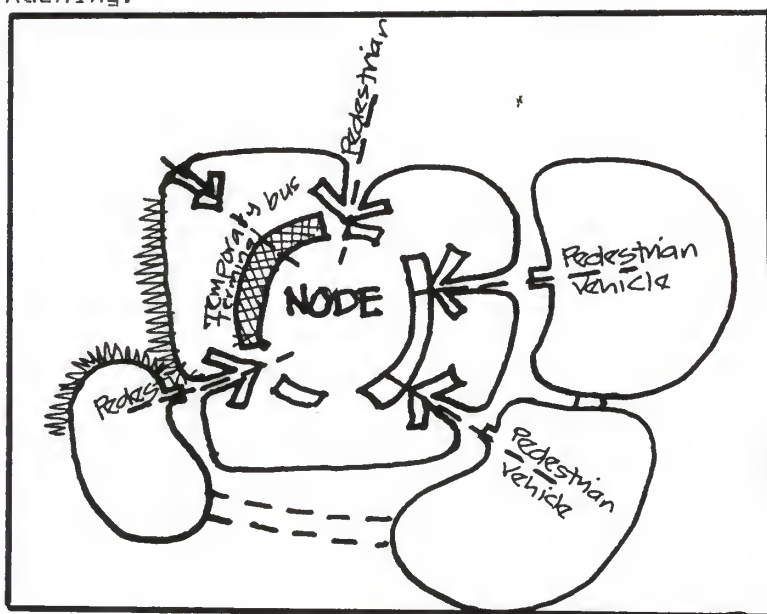


Figure 15 : Node

*Nodes - center of pedestrian activity or points of concentration. (22)

- The strategic spots in a town/city into which an observer can enter; a place of a break in transportation, crossing of paths, moments of shift from one structure to another. (22)

District

The Kuching downtown became a sub-district; this is because entering into this area from the Central Field or from other areas by bus, an observer can identify distinct elements of the area. The physical characteristic that determines districts is thematic continuity which consists of an endless variety of components: texture, space, form, detail, symbol, building type, use, activity, inhabitants, etc. (22)

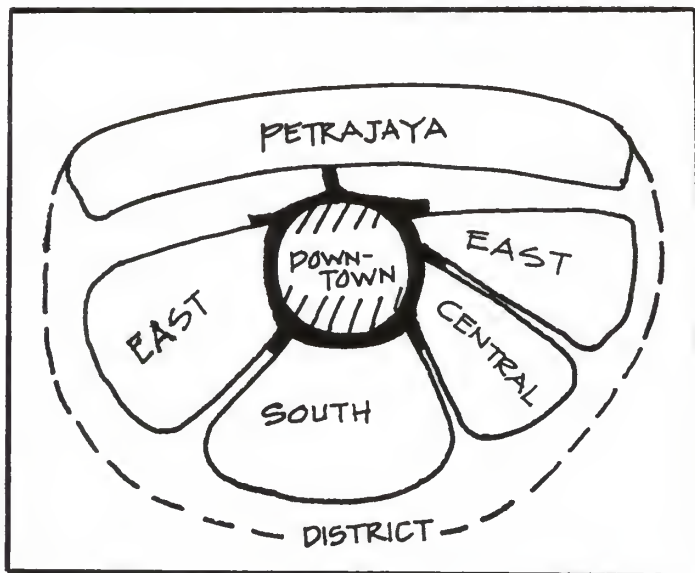


Figure 16 : District

Entrance

The three major entrances to the downtown 'district' are :-

1. From the riverside, i.e the Pangkalan Simpo, Pangkalan Panjang, and Pangkalan Batu. The commuters from Petra-
jaya uses these three major entrances to the town

daily. (The other Pangkalans are not included since they are located outside the study area.) The observers (commuters) from the river experience a vast air space of the river and the strong edge of the breakwater; indirectly it creates a contrast between a natural and man-made environment. The rearside of shanty stalls along the river repel a visitor to the downtown, but the strong pedestrian/street network and activities draw the patron to the downtown.

2. Jalan Datu Ajibah Abol/Street is a major entrance for those from the residential areas and from the eastside, including the motorist from Petrajaya who takes the bridge route. This is the most unattractive opening to the study area. As we proceed to the downtown either from Java Street or Jalan Datu Ajibah Abol, few sights contribute to the downtown image except the State Mosque. The cemetery on the left and the storage area adjacent to Gartak Lane are not healthy contribution to the urban environment.
3. Mosque/Barrack Road is used by the commuter buses and motorists from central Kuching and other areas as far as Serian or Bandar Sri Aman. Here, the strong image of entrance creates a sense of continuity to the downtown. The continuous healthy landscaping starts from gyratory at the Badruddin Road, continues the

Sarawak Museum Garden and Radio Malaysia Sarawak until the Central Padang create a strong harmony of natural and man-made environment. As an observer proceeds to the downtown, a chaotic environment starts to create a senseless experience.

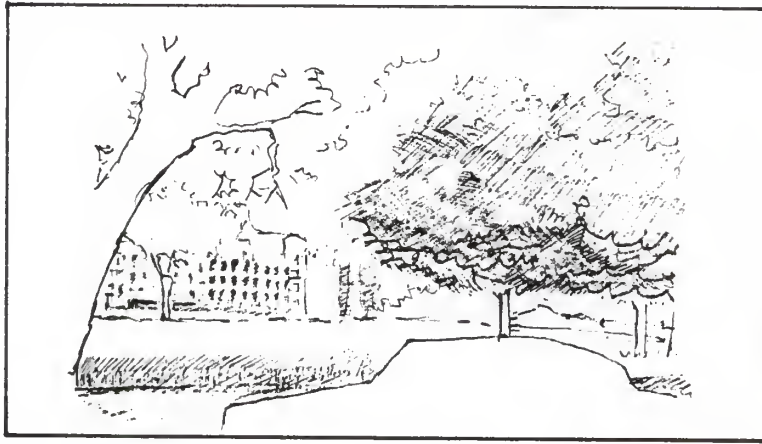


Figure 17. Central Field

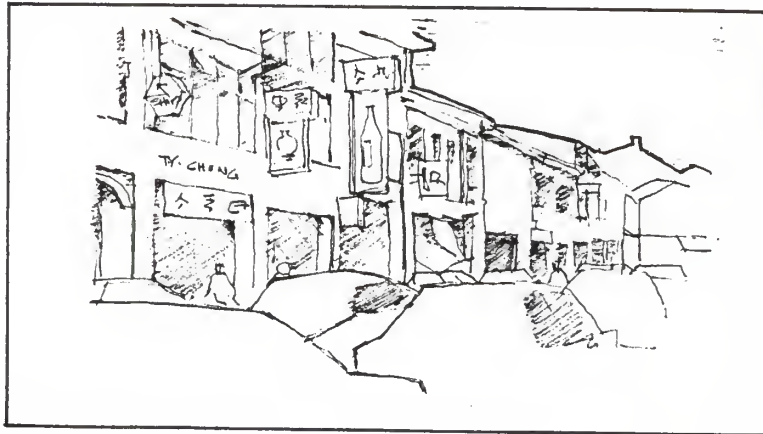


Figure 18: Streetscape
(47)

BUILDING FORM AND MASSING

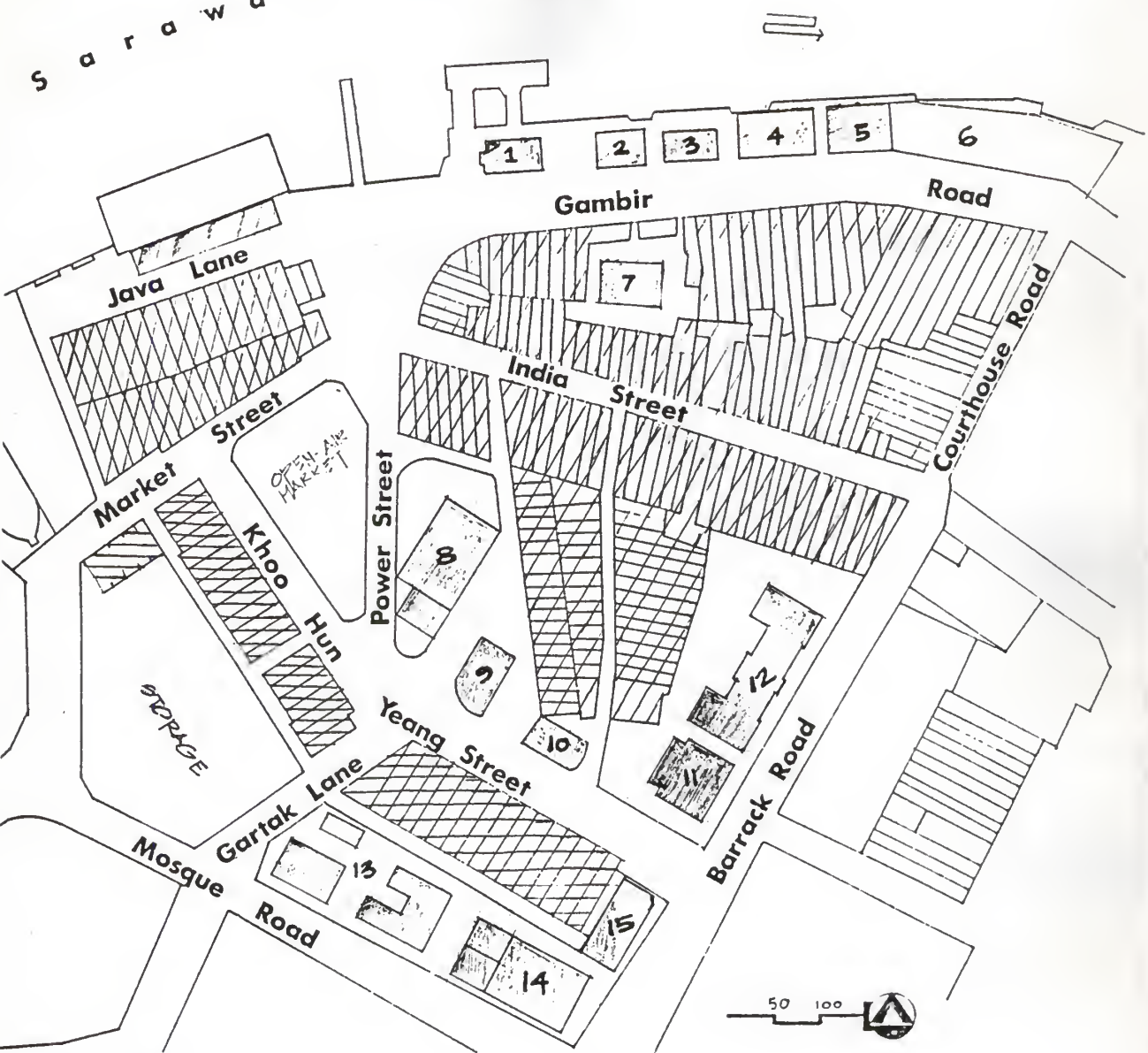
The Existing Building

The form shape of the downtown evolved from the early trading post along the river and spread inland. The internal structures of the buildings - retail on the ground floor and residence on the top - is simple and was developed as a result of cultural heritage of the occupants, the material available to them, and also sensitivity to the natural environment. The facade of the storefront faces the street, and the rear of the store faces the rear of the building behind it. A service alley is not developed in between the blocks. Built primarily in the early fifties, most of the buildings have started to deteriorate and some have become obsolete. (see fig. 4)

The Electra House (eight storeys) and the New Secretariat Building (eleven storeys) are the two dominant buildings in the area because of their comparative height. Architecturally both of these buildings are incompatible in scale and location with the neighborhood.

The KMC office building located at the Barrack/Khoo Hun Yeang Street and the Central Police Station adjacent to it show an intimate scale and colonial architectural character within the area. The Central Market and the information service building along the Gambier Road also reflect

Sarawak River




- | | | | |
|--|--------------------------------|---------------------------------------|-------------------------------|
|  2-3 SHOPHOUSES | 1 GOV'T. WAREHOUSE (3 STOREYS) | 6 VEGETABLE MARKET | 11 POLICE STATION (2 STOREYS) |
| 2 POULTRY MARKET (1 STOREY) | 7 KUCHING TOWN MOSQUE | 12 TREASURY BLDG. (2 STOREYS) | |
| 3 INFORMATION BLDG. (2 STOREYS) | 8 ELECTRA HOUSE (7 STOREYS) | 13 KRDC OFFICE BLDG. (2-4 STOREYS) | |
| 4 PORK MARKET (1 STOREY) | 9 DEPC. PLTZ. (4 STOREYS) | 14 NEW SECRETARIAT BLDG. (11 STOREYS) | |
| 5 FISH MARKET (1 STOREY) | 10 LANKA BLDG. (4 STOREYS) | 15 KINC BUILDING. (2 STOREYS) | |

Figure 19: Existing Building

the colonial architectural character. These buildings are still utilized and in good condition.

TYPICAL SHOPHOUSE UNIT

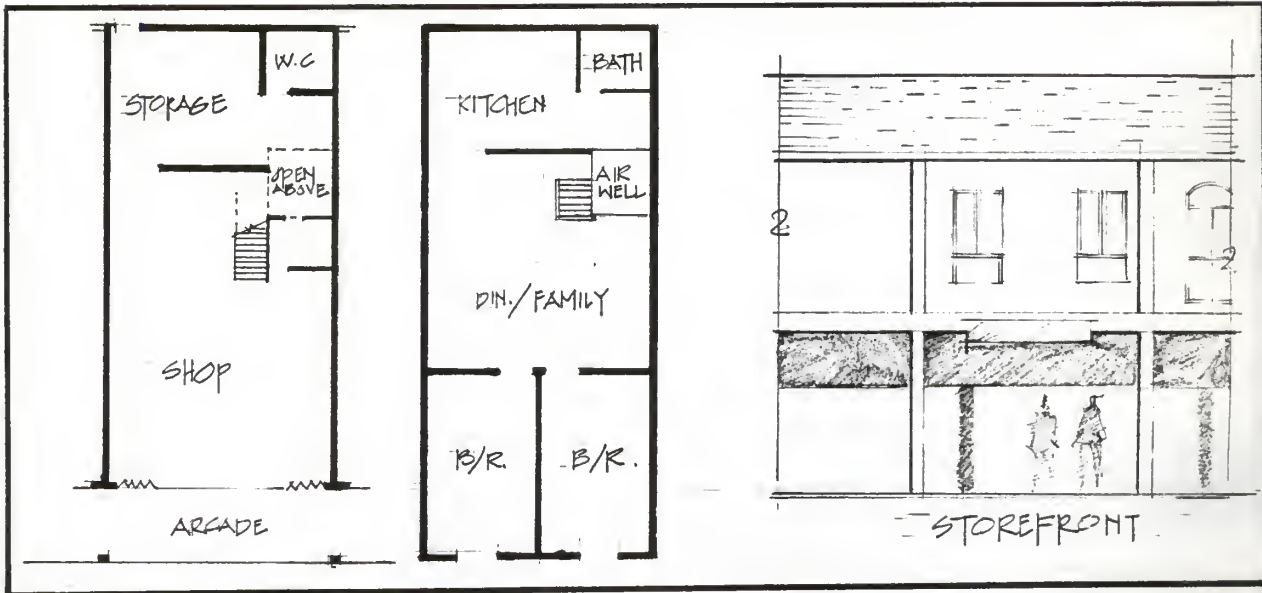


Figure 20 : Typical Shophouse Unit

The ground floor is utilized as a shop-unit for either sundry goods, services, or coffee shops, while the second floor is used as living quarters for the owner or attendants. It cannot be said that the unit is overcrowded; many of the inhabitants occupy the unit for security whereas most of the owners* have a second house elsewhere.

*the shop owners have one or two other residential units outside the CBD. (interview)

CIRCULATION

Kuching's downtown road network was inherited from the pre-motor era. The town evolved from a simple barter trade center into a growing town like other towns in the Third World. As a result of growth in population and expansion of the town, the number of motor vehicles increased.

The traffic in Kuching downtown mostly consists of private cars, taxis, small trucks, motorcycles, bicycles, bus transit, and other service vehicles. The traffic flow varies in the morning and at noon, although the volume of traffic at Khoo Hun Yeang Street, Market Street, and Gambir Road is heavy all day long.

Major Vehicular Streets

Market Street (one way street) - traffics from residential area, Petrajaya etc.

Mosque Road (one way street) - central Kuching

Barrack Road (one way street) - central Kuching

Gambier Road (two way street) - all parts (central markets, shops - everyday needs)

Khoo Hun Yeang (one way/two way [from Power Street])

- short cut

Delivery and service circulation are not clearly defined in Kuching downtown. The only service and delivery access is at the front of the shops, which is also the parking space for the customers. Most of the shop units have only one entry and exit; i.e. the front of the shop.

Public Transportation

Public Bus Service is very efficient in Malaysia. Even though the road system in Sarawak is less developed due to its topography, a trunk road has been constructed to link several major towns and the densely populated areas.

TABLE 1

LIST OF BUS COMPANIES IN KUCHING
DECEMBER 12, 1983

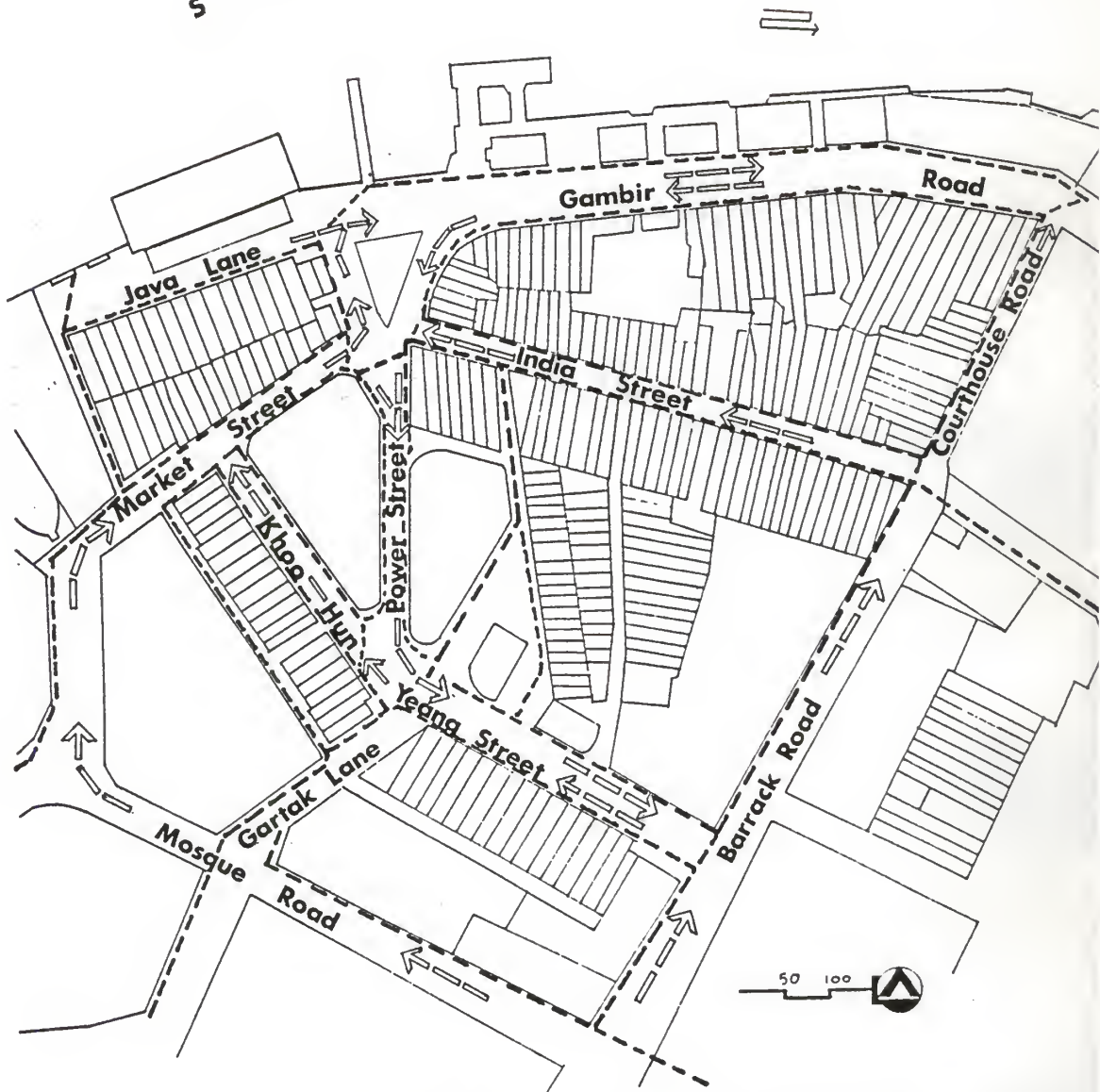
No.	Road Service Permit Holders	No. of Buses
1.	Sarawak Transport Company Bhd. Kuching	213
2.	Chin Lian Long Motor Vehicle Company Bhd.	92
3.	Kuching Matang Transport Company	25
4.	Syarikat Kenderaan Sri Tebakang	11
5.	Syarikat Bus Khalyubi	6
	Total	347

(Source 10)

Previously, the central bus terminals near Electra House at Power Street served the Matang Transport Company and Chin Liang Long Motor Co. Ltd., but now the terminals have been moved to other places. The Sarawak Transport Company is located at Java Lane.

The Chairman of the Kuching Municipal Council Standing Committee for Traffic and Works said that the existing bus route designed thirty years ago will be revised to respond to

Sarawak River



← → VEHICULAR CIRCULATION

--- PEDESTRIANWAYS

Figure 21: Circulation

growth in population, location of businesses, and the dispersion of industrial centers to the outskirts. (26)

Within the downtown, there are three bus stopping bays; i.e. along the Barrack Road, Gartak Lane, and along the Central Market area. The location of these bus-stops is not appropriate because commercial activities and congested streets create a dangerous situation. In addition the commuters rush while the buses are in motion in order to occupy seats. Because the routes are not displayed at each bus stop for the commuters, this adds to the chaos of the situation.

Pedestrian Circulation

Kuching downtown was actually a pedestrian oriented business district. The business blocks are close to each other and can be reached on foot. Furthermore public transit (bus system) in the town is efficient despite its improper location. There are no sidewalks which enable the pedestrian traffic to flow smoothly. Pedestrians walk along the narrow arcade of the shops, also occupied by the street cafes, stalls, and display merchandise. The arcade is only 5' - 0" (five feet) wide. The pedestrian and vehicular traffic always conflict due to the narrow street and lack of sidewalk. The major pedestrian routes are along Java Lane, Gambier Road, India Street, Courthouse Road, Power Street, Khoo Hun Yeang Street, Gartak Lane, and Market Street.

The pedestrians do not have a clear access to the

riverfront except at the Pangkalan Panjang jetty and Pangkalan Simpo or Pangkalan Batu, and yet these are the access to the water taxi (tambang). The riverfront crowded with stalls prevents pedestrian circulation and eliminates interesting attractions.

Water Taxi (Tambang)

Since the Sarawak river is a physical barrier between Petrajaya and Kuching town, the commuters must use either the bridge that links the town at the west-end of the town center, or a water taxi. Most people find the water taxi more convenient because it is cheaper and faster, even though the boat is operated both manually and by slow powered engine.

There are three major jetties (in the project area) for the commuters from Petrajaya to town. When this report was written, the condition of the landing platform for these jetties had still not improved, especially at the Pangkalan Simpo and Panjang.

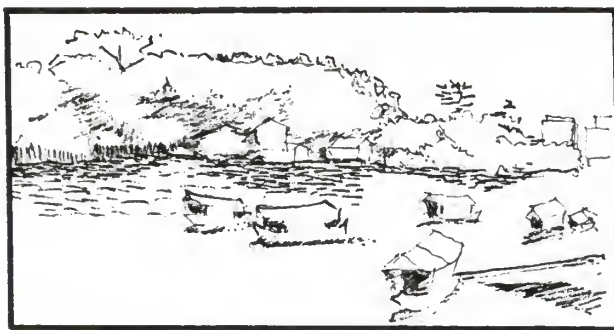


Figure 22 : Water Taxi

Structurally, the jetties are not safe in this location especially during low tide. At Pangkalan Panjang the steps are steep and the hand railing are rusty, while at Pangkalan Simpo the platform has hardly been improved.

SIGNS

Vertical and horizontal billboards are common along the streets of Kuching downtown. At India Street large signs are not necessary because the pedestrian on the opposite street - only 20 feet - can see the sign clearly. Venetian blinds on the windows serve a dual function: they protect from the glare of the street while delivering an advertising message. Individual units along the India Street and Khoo Hun Yeang Street sometimes serve two businesses and thus individual signs are needed for the business to be identified. Most of the signs are inappropriate. For instance, the sign lettering is primarily in Chinese manuscript, which cannot be read by other ethnic groups. Too often signs are not graphically emphasized design or color. The height, size and scale of the signs should not disrupt the facade of the buildings. In addition, the signs are not maintained properly.



Figure 23 : Shops Signs
(58)

PARKING

Surface parking is almost the only type of parking in the area. All the vehicles are located along the streets and available parking spaces. The parking facilities are inadequate if we judge from the number of motorists and the availability of parking spaces. The only elevated parking structure is located at the fourth floor of Electra House. It provides adequate parking facilities for its patrons despite the inconvenient exit and access to the parking space. (One Signal light operates for both the same entry and exit, located at a major pedestrian route.)

Handicapped parking is not available in Kuching downtown and Sarawak in general. The parking areas are not landscaped and are very obscured. Motorists park close to their nearest destination or wherever other vehicles are present. As a result of this, parking violations are frequent.

The automobile era has started to conquer the town, even though the cost of new cars ranges from eighteen to thirty thousand, and three to seventeen thousand for used cars (depending on the year and make). Vehicles have become a common sight in the town and they create a problem in the downtown.

PRESERVATION

In urban design, preservation refers to the protection of existing neighborhoods and urban places (squares, plaza, shopping areas, and the like) as well as historical buildings, places, and activities.

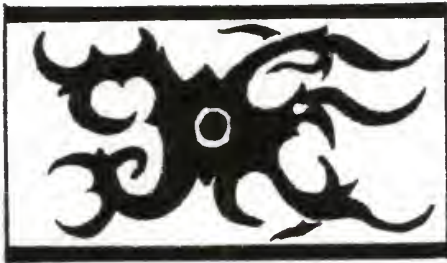
Emphasis on historic preservation brings a great deal of benefit to the community - cultural, economic, social, and planning. (22) The activities in the downtown need to be preserved because its 'life' is entirely dependent on the diversified daily uses. The activity could not work without the presence of existing building blocks, and the flow of people between Petrajaya and Kuching town itself. As a result of this, a proper urban design must respond both to the existing condition and future development. The area needs to combine urban design elements with the intrinsic qualities of the environment.

RESULT OF INTERVIEW

Generally it is a kind of professional ethic for government servants in Malaysia to respond to situation as they occur rather seeking out problems to solve. As in the case with the KMC, they could be a mediator for the citizen involvement in the downtown urban redevelopment if certain aggressive moves were taken by the officials.

My interpretation of the local situation in Kuching is simple: the hierarchy of the beaurocrats in government department do not encourage the innovative ideas of any one

person. According to the interviews, some officials were not aware of the present situation such as the future development in or around their controlled area.



CHAPTER FOUR

Existing
Physical
Limitation,
Goal, and
Design

PHYSICAL LIMITATIONS

Edge

The edge of riverfront does not allow further expansion for the development due to limited land. The existing water-wall clearly defines the riverfront. To reclaim the land and extend the development is not only complex but also costly and, if not properly financed and undertaken, will jeopardize the whole project.

The state mosque occupies a vast area to the west of the downtown area. Its topography and the location of a cemetery adjacent to the street hinder the expansion of the downtown.

Use

Land use and zoning plans have not been developed, although the existing use of the area has shown a potential for the development. Accordingly a continuous use plan should be carried out, keeping in mind that it is the responsibility of the designer to conserve the nature of the area.

Multiple public uses such as marinas, ramps, and grand public plaza are not part of the development. Unlike the riverfront development in the United States, this project merely deals in the redesign and upgrading of the existing facilities.

Residential or condominium complexes near the river are not included in this area because of space limitation and so as not to obstruct view access from the downtown. Furthermore

these proposal are not suitable at this location because high rise buildings would interfere with the views and land use of the downtown.

The existing features on the site such as the market, warehouse, and shophouses, should not be removed because of their historical importance. As a result of this the development is restricted to the related use of the present facilities.

GOALS

- To take advantage of the existing activity and the economic prosperity of the present Kuching downtown.
- To improve the image and to enhance the environmental quality of the downtown.
- To establish the development area as a focal point for cultural, commercial, and business use.
- To recapture the sense of neighborhood in the new development and to promote the national theme of harmony and solidarity among the different races through the project. (23)
- To demonstrate how the unique character of the area can be maintained or preserved with respect to urban design element in the development area.
- To provide guidelines to the owners for future remodelling of

their shophouse units.

- To activate the public to share the same concern for the environmental issues in the state. (24)

DESIGN CRITERIA

- The success and failure of the urban space entirely depend on the people. Traditionally, Kuching downtown is a major activity area for the people in Kuching and Petrajaya. The proposed development on the site would not change the activity; instead it improves and integrates the man-made and natural environment.
- The space in front of the Electra House, i.e. between Power, Khoo Hun Yeang, and Market Streets, is an appropriate area for an urban park/plaza. It is located at a major concentration of people. According to Whyte the best locations for a park or plaza are:
 - (i) along streets or street corners with heavy pedestrian flow. (31)
 - (ii) near shopping areas and restaurants (31)
- The bus company operating in the downtown does not have a central terminal. The location of the terminals at various location confuses the commuters and wastes their time. A new central terminal needs to be established and site analysis proposals should include bus access, pedes-

trian flow, and people concentration. The storage area in front of the state mosque could be a good site for this facility.

- The use of local materials and craftworks in the design of any new building could reduce the initial cost while maintaining identity with the development area. Mascary, wood, and 'belian' (hardwood) shingle are the common materials used in the neighborhood.
- The western idea of saving the "street" could be a good reference to us before any negative image starts to show, causing a shift of activity to other areas.
- The urban design elements, including the building facade, street furniture, and landscaping, should reflect the native architectural character which should be considered in giving design or aesthetic quality to urban space.

Design Elements and Street Furniture

The furnishings for the urban design elements in Kuching cannot be selected from the catalogues available or commonly used while in school (in the United States). What can be applied to these areas are the commonly available materials which are inexpensive, local, and can be executed by local craftsmen.

Paving

The common type of paving available and commonly used in the urban design elements are concrete, brick, stone, and asphalt. Each of these materials has its own scale, pattern, color, texture, and other characteristics. (22)

TABLE 2

Paving Material Selection²²

Material	Many size and shape	Texture	Maintenance	Traffic	Other Description
Concrete Pavers		little		auto- mobiles and buses	- cast in place. - place on sand above crushed stone base.
Brick		little		auto- mobiles	- can be arranged in many different patterns - joined by cement mortar.
Stone		little		minor traffic	- used for sealing, fountain, and sculp- ture too.
Asphalt	no variety				- no reflect- ion
Tree Grating may become part of the paving material					- to give wider expanse to walk area and to allow air and water to reach the tree root.

Lighting

Lighting provides safety and security, and adds interest by accentuating plants, fountains, sculptures, buildings, graphics, and other features in the urban context. Several factors to be considered for proper night lighting in the urban areas are:

illumination - Adequate brightness is necessary because excessing brightness can cause glare which interferes with vision.

Each of these light sources has a range of wattage, life span, and cost.

Street lighting - Some cities have lighting levels from ten to twenty foot candles in core areas. The Illuminating Engineering Society calls for a minimum of 1.2 foot candles* on collector streets in commercial areas.

GRAPHIC DESIGN

Signs

Signs are part of the overall graphic design for a city. They should be consistent in shape, color, and location, and they should be easily recognizable in the urban context. The authority concerned should establish compatibility, lessen negative visual impact, and at the same

*A foot candle is defined as the illumination on one square foot over which one lumen is evenly distributed. One lumen is defined as the rate at which the light falls on a one square foot (1 sq. ft.) surface area. (22)

time reduce confusion and competition with necessary public and traffic signs. (22)

Sculpture

Sculpture and other three dimensional art work are important elements in improving the quality of the urban environment. These elements enhance the sensory quality of an area and help create an atmosphere where people wish to be. Architecturally, the selection and placement of the sculpture should be appropriate in terms of its form, mass, and scale of the sculpture to the background. The image should be viewed at different angles and distances to the background. (22)

Fountain

Water has a unique and strong quality when used in a fountain. The sound of water, its cooling effect, and its reflective qualities provide the design with a wide range of creative possibilities. Water works well with sculptured elements and it needs careful execution. The choice of appropriate materials for the fountains, its design, water mechanical system, and water effects need proper coordination with the whole design. (22)

Bollards

Bollards act as a barrier in certain areas where vehicular traffic is not desired. The bollards need to increase interest by setting rhythm, and providing scale, (69)

texture, and color. (22)

Seating

Benches made of wood, metal, concrete, or stone are commonly used. The top of planters can be designed as a seating area too. In hot climate countries, shaded sitting areas, especially benches with backs, can be a good element located at the pedestrian street and separated from major circulation. (22)

Tree planters and pots

Trees in urban areas are no longer used solely for aesthetic purposes but for climatic control, environmental engineering, and architectural use. (22)

- movable pots come in various sizes and makes such as wood, concrete stone, plastic, or stone. Planters are available for both trees and flowers.
- mature trees may transpire as much as 100 (one hundred) gallons of water per day. This provides the cooling effect of five 10,000 - British thermal unit air conditioners working twenty hours per day.
- in the air temperature of 84 degrees Fahrenheit, the surface temperature of a concrete street is 108 degrees Fahrenheit. On streets where trees are planted, surface temperature drops by 20 degrees Fahrenheit.
- plants control wind by forming barriers or obstructions, and by providing guidance, deflection, and filtration.

- plants help to control the amount of precipitation reaching the ground.
- trees absorb sound waves through their leaves, branches, and twigs which can curb the noise problem in urban areas.

Telephones

- coin operated public telephones, enclosed for sound control and durable to vandalism and weather, are suitable in urban areas. The design of the booth can be related to the theme of the whole design. (22)

Kiosks

- There can be a focal point if carefully treated with colors, lighting, and form. They can be used for bulletin boards, street directories, display cases, and information booths. (22)

Shelter

- Pedestrians should be provided with sitting areas and other shelter well protected from sun, wind, and precipitation. The architectural features of the shelter need to reflect to the climate of the area. (22)

Drinking Fountain

- Another functional element in pedestrian areas is drinking fountains. These are made of many materials, such as precast concrete, metal, stone, or masonry. (22)

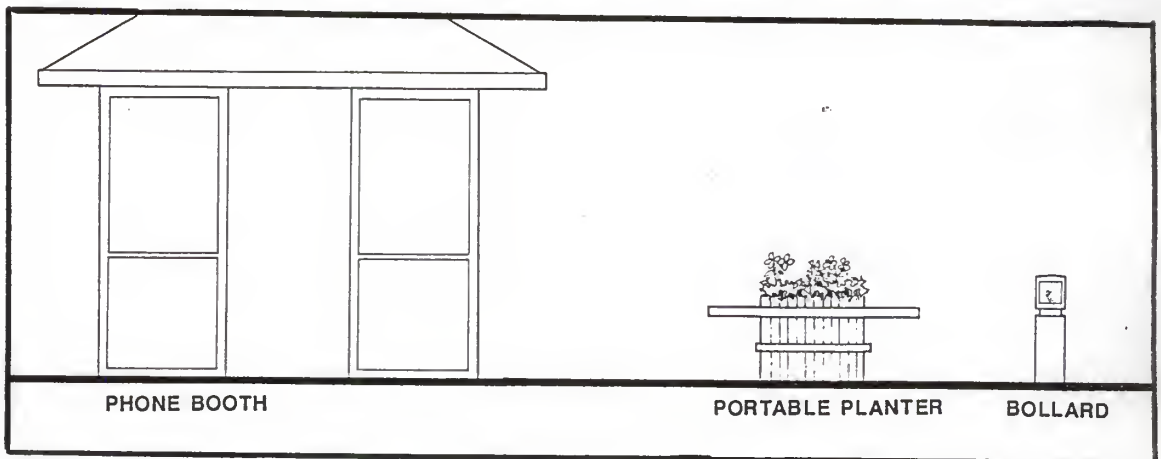
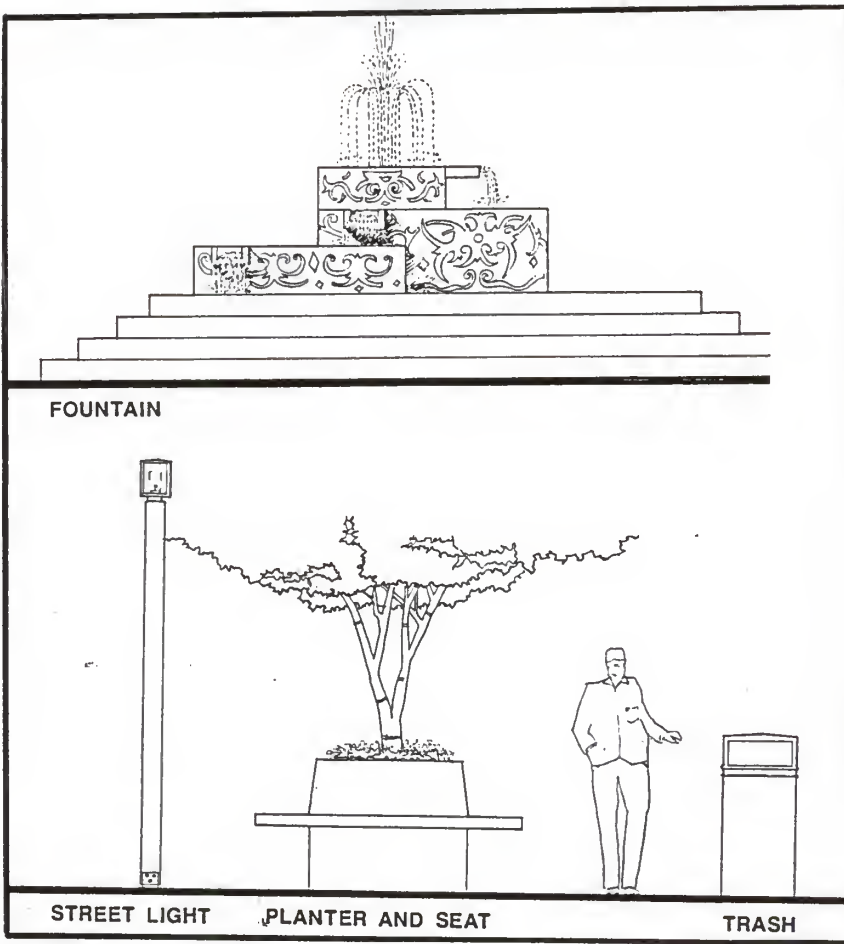


Figure 24 : Street Furniture
(72)

Design Elements

Each of the above elements has a strong effect on the urban environment, and will contribute to the characteristic of the urban space. An observer will notice how these elements integrate to form his sense of the "place". As a result of this several factors should be considered in each design aspect, such as continuity, sequence, repetition, rhythm, size, scale, shape, proportion, hierarchy, texture, direction, and time. The architect, urban designer, or environmental designer involved in the urban design needs to consult the local authorities because each city has its own guidelines and policies in urban design.



CHAPTER FIVE

Development
Alternatives

AREAS IN NEED OF DEVELOPMENT

The Open Air-Market

The open air market at the center of the downtown should be relocated in other areas where deliveries, access, and disposal could be well integrated to it. The existing location of the stalls not only causes a garbage problem and traffic congestion; it creates an unsightly character to the downtown area.

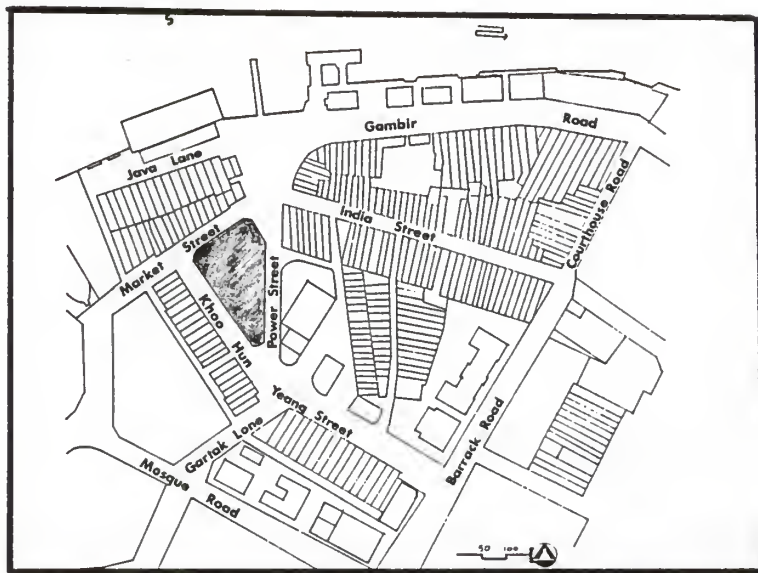


Figure 25: Kuching Downtown : Open Air Market

Potential

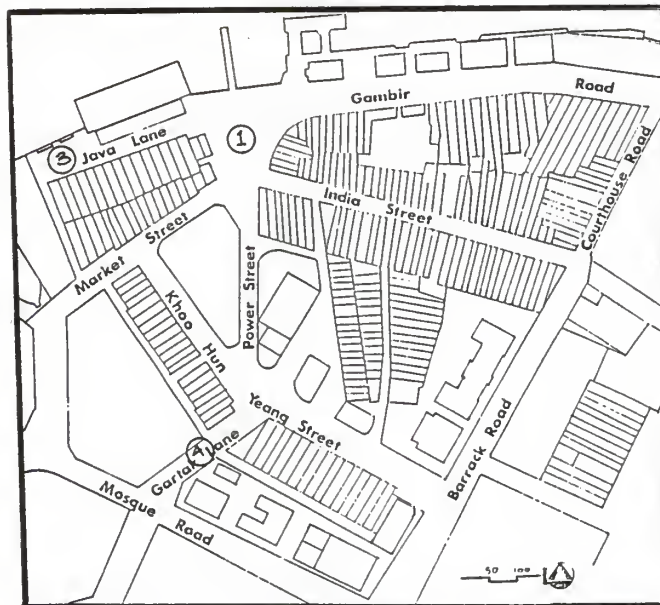
An important feature of this area is its central location at major pedestrian ways and through traffic from Market Street and Gambir Road along Power Street. It is located at a regular meeting place - along the street (India

Street, Electra House, and Khoo Hun Yeang Street) on street corner with heavy pedestrian flow and near the shopping and major service shops. Its central location at an appropriate sociable place makes it a good prospect for the development of urban park.

Bus Terminal

Kuching town serves as an inland transport exchange area for urban and rural areas. Thus, there is a need to restudy the road network and traffic circulation in the study area and its vicinity. Traffic congestion has become a new problem to the public.

At present, there are four major companies operating in Kuching, and yet the taxi and bus service still occupy a temporary location to pick-up passengers. The location for the taxi and bus stations are not obvious to the public and several improvement should be considered.



1. Taxi Station
2. Chin Lian Long, Bau, and Matang Bus Co. Ltd.
3. Sarawak Transport Co.

Figure 26 : Kuching Downtown : Bus Terminals

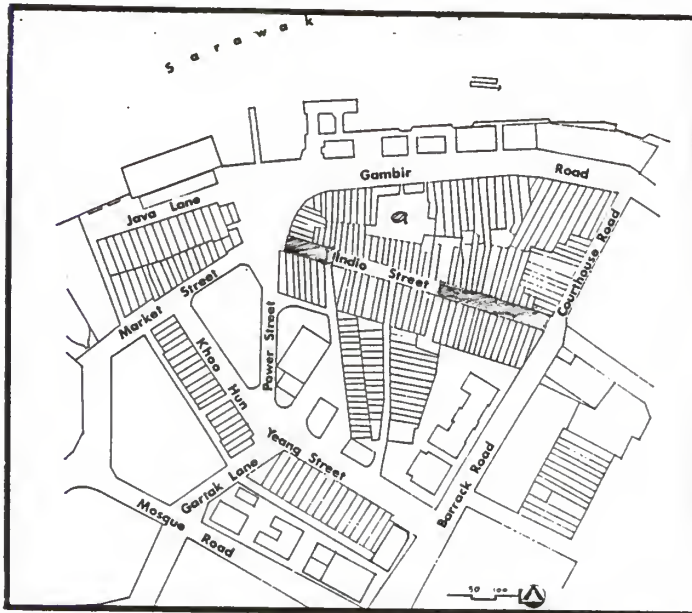
Potential

The importance of Kuching as an inland exchange center for bus service should no longer be ignored. A central bus/public transportation terminal should be established in order to provide a better location for the buses and greater convenience for the passengers. As a matter of fact, this proposal could increase access to and improve the potential for other developments in the downtown area.

India Street

India Street is one of the most important shopping streets in the town, especially during the festival season.

The street acts as a secondary street from Barrack Road to Power Street. The shophouses on both sides of the 30' - 0" wide street are two and three storey structures with vernacular architecture and conventional facade style. The street is heavily used by pedestrians as a through route to other destinations. The Kuching town mosque (Indian Muslim Mosque) is also located at this area, and as a result the street is heavily used every day.



a. Kuching Town Mosque

Figure 27 : Kuching Downtown : India Street

Potential

The shophouses along the street provide various services ranging from restaurant, retail, barber shops, general merchandise, and sundry goods. It is a good place to develop as a major pedestrian mall to create a healthier environment.

Riverfront Development

The major focus of the project will concentrate on the riverfront redevelopment. (fig. 28)

Sarawak river not only defines the edge of the town, it is also a point of orientation. In the early days, the river was the trail for the first settlements. As the town spread inland, the riverfront became neglected and not utilized.

The Sarawak River is not only scenic, navigable, and resourceful, it is also a major transportation route for the people and local produce from coastal areas and the nearby town. The commuters from Petrajaya use three separate jetties, i.e. the Pangkalan Simpo, Panjang, and Batu, to reach the town by water taxi every fifteen minutes from 6:00 a.m. until midnight.

Along the riverside dozens of food vendors and hawkers squeeze into limited space. Trucks and service vans also occupy the same crowded area to load and unload the local produce from the incoming schooners at the jetty.

The existing buildings along the riverfront (stretching from Java Lane to Gambir Road) such as Government Warehouse, Information Building, and the markets, are of considerable importance for the downtown's diversified use especially in conjunction with the shophouses on the opposite street.

In the past, Pangkalan Panjang jetty has played a

R i v e r,

S a r a w a k

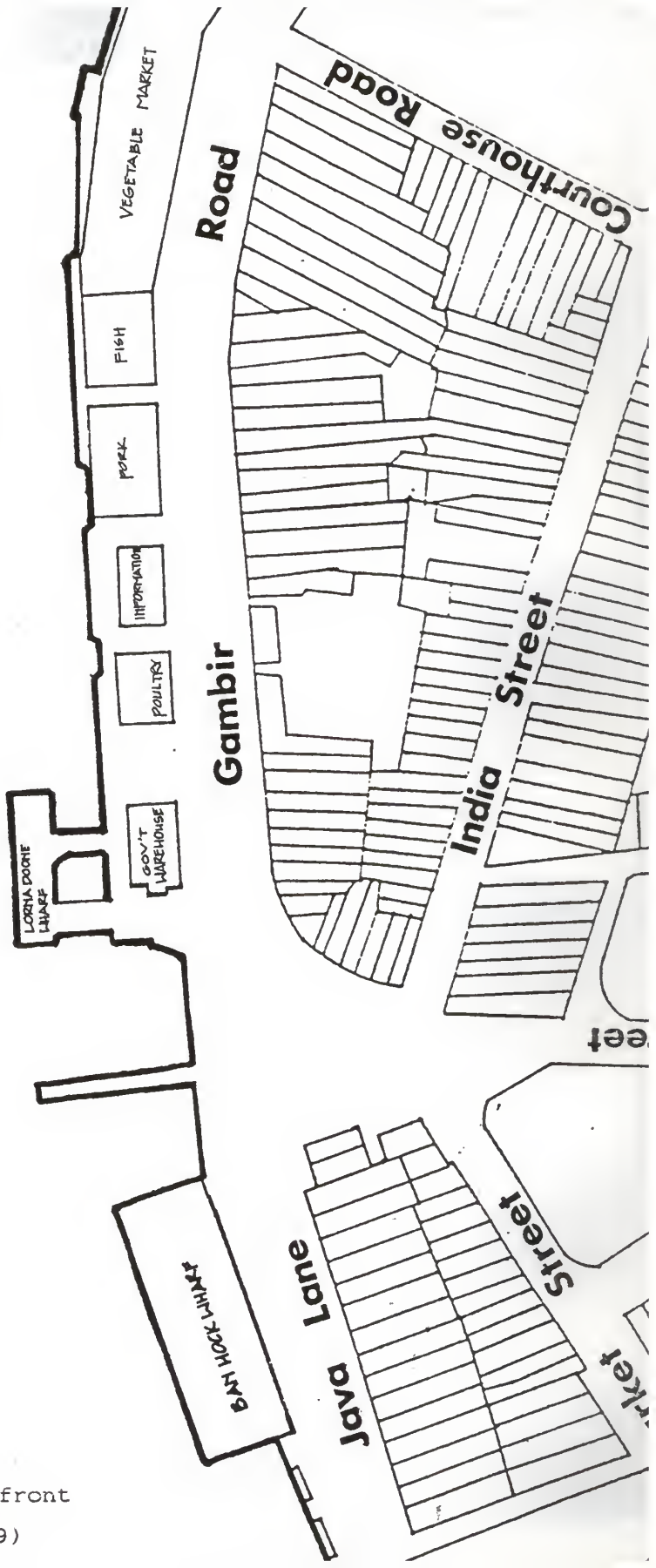


Figure 28: Riverfront

major role for water expressways to the resort areas such as Santubong (forty miles from Kuching) and Bako National Park (forty to fifty miles from Kuching). But the recent road development at Petrajaya linking the rural area to Kuching town caused the service to decline sharply.

The importance of the riverfront of Kuching town will remain constant as long as the activities of the downtown remained unchanged. During the National or State holiday, the cultural events such as regatta, water floats, or other water festivities demonstrate the locational relationship between the riverfront and the downtown. As a result of these events the downtown has become a major focus for visitors from as far as the Miri district.

The riverfront development should focus on the following needs:

such factors.

- 1) to relocate the stalls to a centralized location; the previous areas could be used for future development.
- 2) to focus attention on riverfront and associate the natural amenities to the urban environment.
- 3) to upgrade the waterborne facilities in the area such as the landing platform for boats, dingies, and water taxis.
- 4) to stir the spirit of environmental concern among the citizens.

Potential

The Sarawak Riverfront which stretches from Java Lane until the Pangkalan Batu is the most important site of Kuching downtown. (fig. 28)

The riverfront offers unlimited development or redevelopment opportunities from an architectural resource point of view. By removing incompatible uses along the riverfront, the community is more likely to realize the potential of urban riverfront redevelopment. Once the area has been cleared, redevelopment should proceed in a comprehensive way, freeing it from transportation barriers and illegal stalls* in order to realize their environmental value. Thus, the physical redevelopment of the riverfront does not include expanding the area but designing and upgrading the functional use of the existing area.

DEVELOPMENT CONSIDERATIONS

Public Recreation

The population of Kuching town is made up of various ethnic and age groups. With a better living condition, people have begun to value and use their free time more productivity.

* - illegal stalls are unlicensed operators who occupy any space especially at the major pedestrian concentration areas to sell their goods. In fact the presence of these stalls will create garbage problem and obstruct pedestrian ways.

Recreation and the quality of life issues are more frequently discussed.

Even though the daily activities are already focused at the riverfront, improved facilities would enhance its quality.

Recreational activities such as relaxing, strolling, fishing or boating along the riverfront could help integrate the urban life to the natural amenities of the environment.

From the designer's point of view, a redevelopment along the river could help enhance the activity and also improve the quality of the urban design in the downtown.

The Concourse Complex

The majority of food vendors would prefer a more permanent place to do business. According to their interview responses, there is a need for a concourse complex which is more convenient both to the visitors and the vendor operators for the sales of services, utilities, and activities.

Since the river has a great attraction for the local and incoming people, it is desirable to consider locating of the concourse complex at the riverside, most preferably at the Ban Hock Wharf area. Relocate all the stalls to this concourse would allow the area to be cleared and used for other developments. The concourse complex which consists of two or two and a half storeys can help ease the demand for small business enterprises and food vendors. In this way,

the door is opened to Bumiputras (son of the soil) to participate in the downtown business. The businesses in the concourse complex would not be restricted to food and clothing merchandise; the arts and crafts of the local inhabitants would be encouraged which not only to attract tourists but to improve the socio-economy of the people in the rural areas. (Most of the arts and crafts are done by the people living outside Kuching town.) With the improvement of the riverfront, the local people will start to value the natural amenities of their environment and believe the town council has done something for their interest.

Pedestrian Ways

The walks or promenades help unify the development to the concourse complex both physically and economically. The walks also help create a recreational ground for visitors and commuters from Petrajaya in particular.

Since the pedestrian circulation in the downtown has long been established, the only way to improve the image of downtown is to upgrade the sidewalks from other street connections, and to landscape the area with trees and street furniture.

Access to the river

The existing buildings on the riverfront are the government warehouse, the poultry, pork, vegetable, and fish market, and the Information Center. Since the land along the

riverfront is owned by the government, access is not restricted to the public. The function of Lorna Doone wharf as an embarkation platform for the small vessels from nearby towns encourages service trucks to the wharf and other private car to the nearby area. At present the food vendors block the view and access to the river from the downtown, a problem which could be alleviated if the vendors were relocated to other areas.

Landing platform for the water-taxis and dingies

It is a tradition for the people from Petrajaya to enter downtown by boat (water taxi). The boat ride which is not only inexpensive and time saving, it also creates continuous activity on the river.

The three major jetties, i.e. Pangkalan Simpo, Panjang, and Batu, link the downtown to Petrajaya visually and physically rather than terminating it at the river's edge. Of the three platforms, only Pangkalan Batu is in satisfactorily safe condition. Improvements are required at the two jetties at Pangkalan Simpo and Panjang where the landing platforms need to be well utilized by the commuters during the low and high tide.

Government Warehouse

The three storey structure of government warehouse which faces the Lorna Doone wharf is still in good condition. At present the building is underutilized. The total area of

9,000 square feet can be converted into retail activities in order to meet the demand for small business operators. The sound structure of the building does not require any major renovation but there is a need to check the fire exit and also the interior wiring system. The building itself has a good location for the major pedestrian route and good access from Gambir Road.

The moderate colonial character of the building is worth preserving especially among the neighboring markets and the information building which resembles it.

Water level

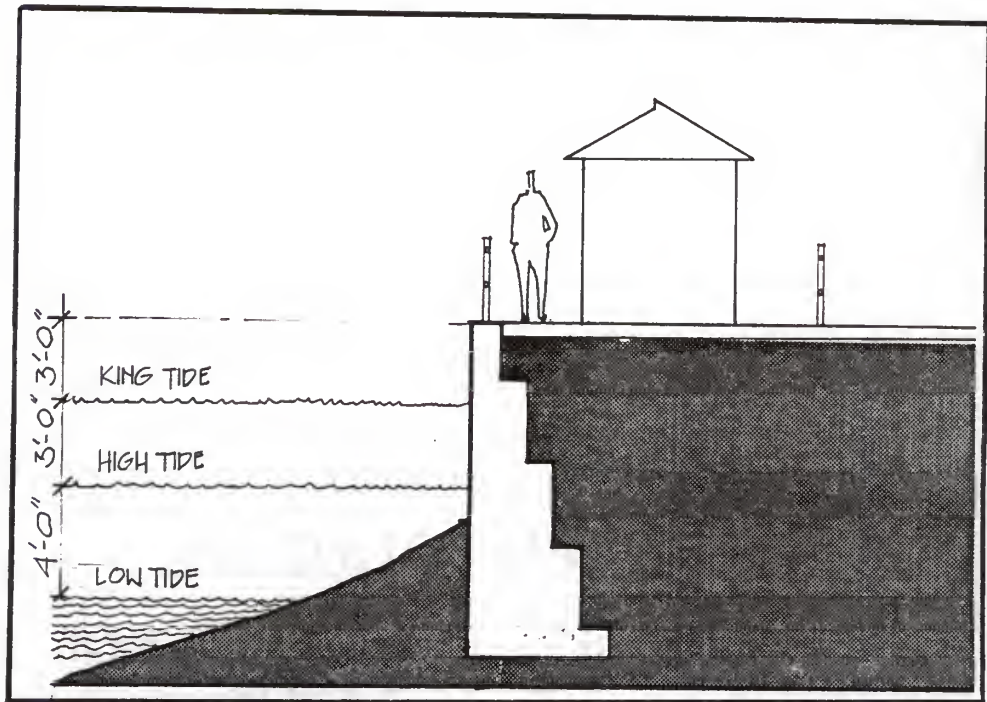


Figure 29 : Water Level (Source 11)

Although the water level varies according to the tide, the surface water do not have excessive tidal action. Without the presence of motor launches or schooners on the river, the water is calm. The existing riverwall does not show any defect and the new development at the riverfront will take advantage of the existing amenity. In normal cases, the riverwall has been used as a moorage for the schooners and dingies from the coastal area, while the adjacent space was used as loading platforms.

Eventhough Sarawak experiences extensive rainfall,

there has been no serious flood problem since 1963. The dredging of the downstream and at the confluence for port facilities use has greatly reduced the potential of flooding.

Western sector of the riverfront: (Java Lane)

Java Lane is the dead end of Gambir Road which borders the river. The shophouses along this street cater to commuters from Petrajaya and also from the residential area beyond the State Mosque. At present, the Sarawak Transport Company uses the area as a temporary terminal. The narrow street at Dock Lane is heavily occupied with stalls and food vendors and would be accessible to Market Street if the stalls were cleared. Pangkalan Simpa jetty is also located here and in a way creates another node which is well related to the riverfront.

The Ban Hock Wharf is still utilized but it needs proper service access from and exit to the riverfront area. The abandoned government storehouse in front of the wharf can be cleared (at present the building is ransacked and not utilized), and the remaining area could be related to the streetscape. Push cart/stalls can be located here to meet the demand of stall operators during nighttime. Indirectly it will help to strengthen the activity area.

Needs

Life styles of the people keep on changing and so does the town's life. In the past, office workers could commute to and from their home in Petrajaya during lunch hour. But the increase hustle of life in the downtown has caused them to change these habits. Now people in the downtown and nearby areas often will spend their time during the lunch hour in a restful and convenient way. Providing a better facility for food vendors/stalls in the downtown has increased potential. Better facilities not only would guarantee the hygienic conditions, but would reflect the change in the downtown character.

The residents of Petrajaya come daily to the downtown to work, to school, to shop, and so forth. The patrons from Petrajaya not only contribute to the downtown economy but also help activate the life in the downtown. The landing platform for the water taxis from Petrajaya have been allowed to deteriorate: as described earlier. Pangkalan Simpo and Panjang do not have a sound landing platforms during low tide. As part of the riverfront, these facilities should be improved especially since they affect the safety of individuals.

In this redevelopment project we introduce conservation which is an asset to planning, especially when the area has long been the central interaction for the people.

"Water is a source of pleasure, the river's fluid movement, sense of coolness, reflective quality, and the array of water borne activities it support, all evoke a feeling of relaxation and light heartedness." (30) The Kuching downtown riverfront has excellent economic and visual potential, but the present uses make inadequate use of this a potentially fine environment.

The riverfront could be a landmark to the Kuchingites and visitors if the access, appearance, and other facilities were upgraded and townscape approaches were introduced to the new development.

Even though the Sarawak River is navigable and resourceful, the cleanliness of its water is not guaranteed. Recently there has been a decrease in the harvest of local prawn and local fish. (Is it due to overharvesting or a sign of pollution?) The river has been used as a dumping ground for trash, surface drain, and even sewage; and if strong measures are not imposed by the authorities further damage will make it costly to clean the river. It is hoped that the physical development could help encourage the public to appreciate their fine environment, and environmental laws could be passed in order to conserve the natural resources.

Goal

- To physically redevelop the riverfront not by expanding the area but by redesigning and upgrading the functional uses of the existing area.
 - To take advantage of the natural amenity of the riverfront and the active life of the downtown.
 - To achieve better riverfront use which is suitable for additional water-oriented and tourist oriented uses.
 - To provide a continuous activity at the riverfront and to integrate it to the diversified activities in the downtown.
 - To respond to the development in the downtown which will benefit both sides in a chain-link connection.
 - To attract people to the area to stroll, sit, fish, and look at the view. (Indirectly these activities will help to develop the spirit of environmental concern and civic consciousness among the local inhabitant.)
 - To introduce the townscape approach in order to enhance the environmental quality between man-made and the natural amenities. (Use vegetation to influence the visual character of urban riverfront: plants soften the hard appearance of the shoreline structures.)
 - To provide access and preserve views. (Thus will not only
- (90)

modify the site but also serve to link Kuching to Petrajaya, rather than to terminate it at the river edge.

Physical

- It is vital that a special desirable environment be created and maintained. The existing facilities at the Ban Hock wharf and Lorna Doone wharf need to be maintained, and integrated with the new development.
- The fish, pork, vegetables, and poultry market will remain at its location but the service facilities will be improved and clearly defined, especially the service road and alleys.
- The pedestrian access to the riverfront will also need to be improved. Pedestrian path to the market from Java Lane, Gambir Road, and the residential areas beyond the mosque need to be developed in character with the theme of the development.
- The existing stalls at the riverfront will be removed and relocated to the new concourse complex. The remaining area could be used for the riverfront promenade and pedestrian ways.
- The entry park between Market Street, Power Street, and Gambir Road helps to tie the promenade and pedestrian path from the proposed downtown park with the incoming pedestrian path from the south. It also acts as an

entrance to the riverfront from the downtown.

- The public parking and service access to the riverside are to be increased and developed.
- The jetty at Pangkalan Simpo will be improved with an extended landing platform which is accessible both during the low and high tide. The jetty at Pangkalan Panjang will be integrated with the concourse complex.
- Pangkalan Batu's jetty is still in good condition and the open area at its premises will be integrated with the streetscape of the new development.
- Public toilets will be accommodated in the development area and well screened with trees.
- The abandoned government warehouse in front of the Ban Hock wharf will be emptied and the adjoining area will be developed at the riverfront. Push-stalls will be allowed at the area after 6:00 p.m. (This will increase the activity at nighttime at the riverfront.)
- Other public uses, such as moorage for the dingies and schooners from coastal areas, will be included in the riverfront facilities.
- Prohibition of waste dumping on the riverfront should be strictly enforced. Notices should be posted at all locations.

Guidelines

- The concourse complex on the riverfront will be part of the urban fabric and not isolated from the buildings neighboring the development areas. This idea will help the town dwellers and visitors maintain a sense of place and continuity, thus improving the image of the development.
- The design should reflect the image of the town and help to unify the riverfront amenities to the downtown businesses.
- The stalls in the concourse will be distributed to the previous owners who had been evacuated from the open air market, or from along the dock lane and India Street.
- The facades of the existing buildings at the riverside need to be cleaned and streetscape at the adjacent space needs to be developed and improved.
- The urban design elements of the riverfront should be compatible with those downtown development (as was discussed on page 65).

Issues

Urban design

- pedestrian circulation patterns
- vehicular circulation patterns
- open space
- parking (visitors)
- respect the existing urban fabric in the project area
- water borne activity

Building

- structural
- vertical (interior) circulation
- life safety
- space planning
- zoning
 - public
 - private
 - service space
- daylighting

Design Criteria

- Urban design issues at the riverfront need to comply with the proposed guidelines in the downtown project. It is the intention of the project to integrate the riverfront to the downtown activity both visually and physically.
- The character of the concourse complex needs to respond and be compatible with existing buildings. The scale and proportion of the building needs to reflect the neighboring architectural quality and contribute to the neighborhood.
- Kuching experiences hot-wet equatorial climate with excessive rain, sun, and equal hours of daylight and night all year round. Facilities must be built to respond to these climatic condition.

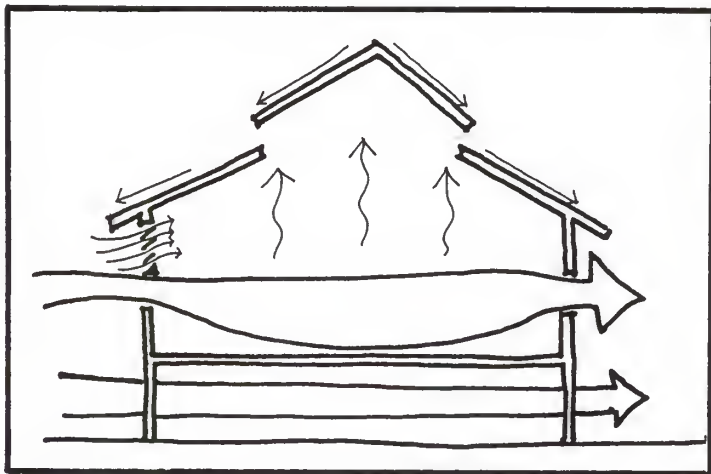
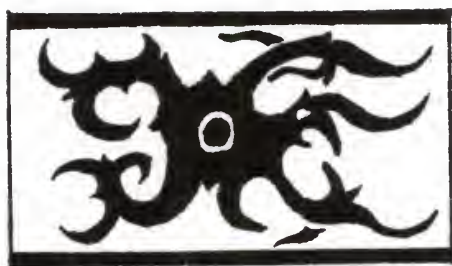


Figure 30 : Traditional Malay House (Source 27)
(95)

- A combination of masonry and timber is commonly used in buildings. The craftsmanship of the Kuching people, such as the dayak (native of Sarawak) totem pole, and abstract flora and Fauna design, will be used in the theme of the design.
- The building orientation faces north and south to minimize direct incident of solar radiation. Each elevation is then provided with special solar shading devices which are carefully designed with respect to particular orientation.
- Natural ventilation through operable windows or other means of constructions in partitions which enable cross ventilation between the spaces is also applied.



CHAPTER SIX

The Plan:
Proposals and
Policies

Design Proposals

- The existing buildings on the site need to be rehabilitated or renovated in order to avoid any further deterioration.
- It is important to consider the situation at India Street which serves as a secondary route for automobiles from Barrack Road. The area should be converted into a pedestrian mall where automobiles are not allowed, creating a traffic-free space for bicycle, pedestrian, street cafes, and urban greenways. This place would attract people to the street at night-time, too.
- The storage area at Gartak Lane and Market Street (in front of the state mosque) should be cleared and used for other facilities which will benefit the downtown. This plot of land can be developed into a three-storied structure for bus and taxi terminals on the ground floor, while the second and third floors can be used as shops and car parking space respectively.
- Signs - The Kuching Municipal Council has the right to give assistance or impose a standard sign ordinance for local merchants and sign manufacturers. Competing signs not only have made orientation difficult but have created a chaotic streetscape element in the downtown blocks. (24)

The signs should be visually compatible and not conflicting with the character of the street. Signs projecting over public right-of-way should be avoided since they are visually unappealing and hazardous. The size, shape, color, height, and lettering should be appropriate.

- Since Bahasa Malaysia is the National Language, and understood by all races, it is the appropriate medium for all signs and billboards. The second language which is either Chinese, Iban, or English can be placed below it. (28) Blinds and shades can be used to carry advertisement messages provided that they do not obstruct the pedestrian. Awnings should be installed, judging from the climate. They will serve as a canopy to the pedestrian and can be used to carry signs too.
 - The wide street at Gambir Road can be narrowed, allowing the leftover space to be used for parking, or landscaped and improved for pedestrians.
 - The downtown needs an urban park. The urban park is the generator of urban form. (24) The space in front of Electra House, i.e. between Power, Khoo Hun Yeang, and Market Streets, is an appropriate sociable place. (It is located at a regular meeting place - along the street or street corners with heavy pedestrian flow and near the
- (98)

Sarawak River

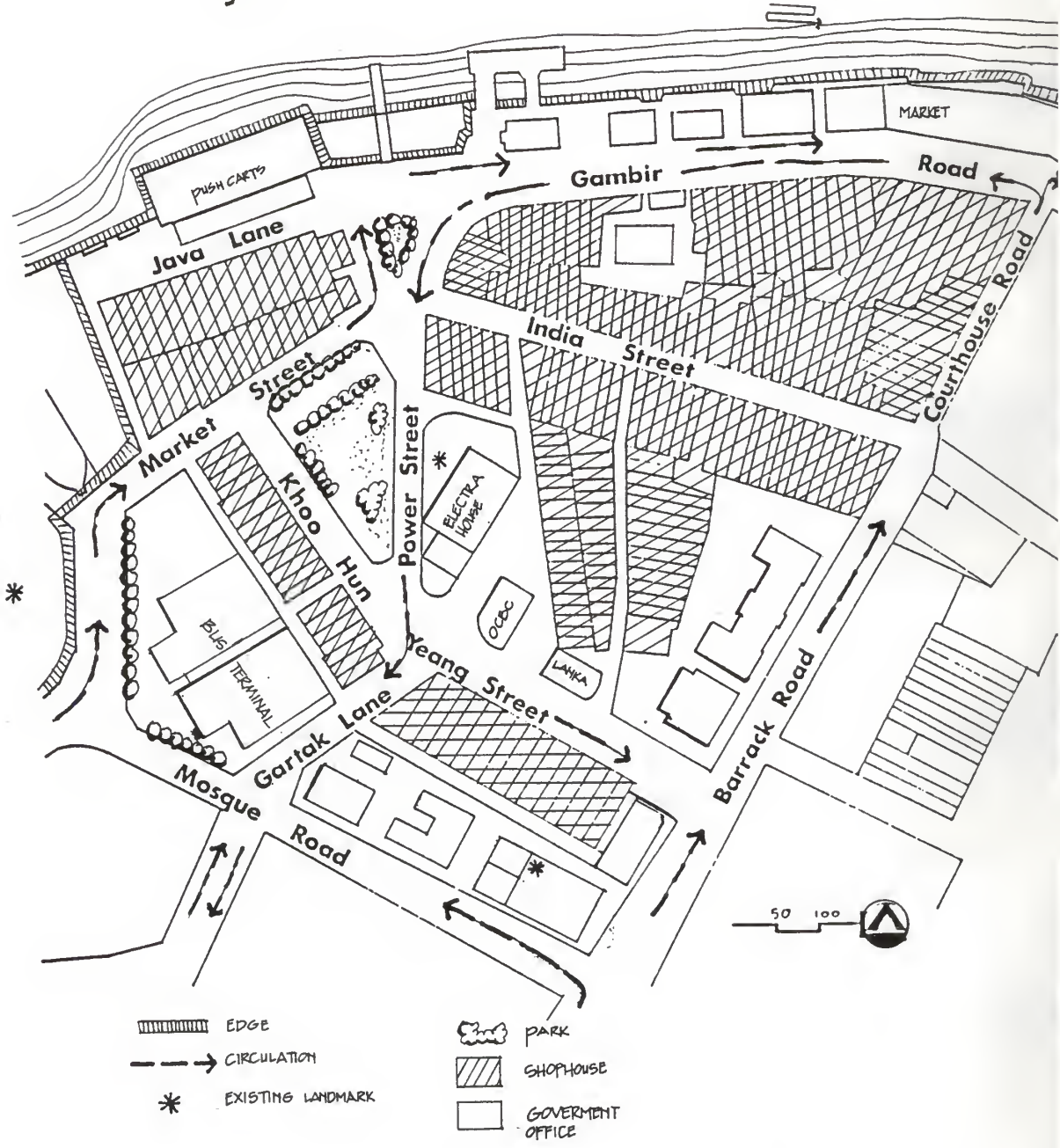


Figure 31. Proposed Overall Physical Organization

shopping and major service shops(31) - India Street, Electra House, and shophouses at Khoo Hun Yeang Street.) The area is accessible to pedestrians and motorists from all directions. Its development will help to reduce traffic congestion to the river.

- The unsightly open-air market will be cleared and relocated at the concourse complex at the riverfront. (see Riverfront Redevelopment.)

Aesthetic

- The townscape approach is a more effective effort than the renovation of a single outstanding property for conserving an area. Concentrating on environmental amenities adds aesthetic value to an entire area. (and indirectly, increases the potential for private investments.) It also stimulates the renovation of individual property. (25)
- Street improvement provide immediate changes that attract and promote pedestrian use and enjoyment. The streetscape and urban design element will strongly enhance the image and appearance of the downtown.22 (The KMC should develop a guideline to keep new development in character, with regard to such things as height, bulk, setback, use, open space, parking, landscaping, materials, and details.)

Guidelines

- The new building or remodelling in the downtown should continue the established proportion, scale, rhythm, and the architectural character of the downtown, similar to the guidelines passed by the town council. (22)
- The storefront owner and proprietor are encouraged to relate improvements of their storefront to the streetscapes, pedestrian activities, and other elements of the downtown. (25)
- The traffic flow in the secondary street such as Khoo Hun Yeang Street (from Power/Barrack Road) could be diverted to major streets, to avoid congestion during peak hours.
- The parking facilities need to be improved both in the number of spaces and landscape features. The regulation should be clarified. (e.g., allow 30 - 45 minutes free parking - then the charges could be continued.)
- Concept and recommendation of successful project from Western countries could be a good reference, especially, the concept and issues on environmental quality. There are various example of good urban design where natural amenities were fully utilized and integrated with man-made features, e.g. the New Orleans Riverfront project and the Main Street program in the United States.

The speed limit in the downtown should be enforced and traffic signs should be posted according to the road and transportation rules and regulations.

Controlled crossing with a self-activated pedestrian signal which should not allow more than a twenty second delay is necessary in heavy traffic areas. (29)

'Drive-in' business should not be encouraged in the downtown, to avoid people's reliance on automobiles and to ease traffic problem. (29)

Historical landmarks and buildings in the study area, as well as the neighboring areas need to be considered as part of the integrated plan. The buildings during Japanese occupation and the British-rule (outside the study area) provide historical landmarks and have a distinctive character. The successful development between the old and new can create everlasting aesthetic value.

Proposed Land-use

The existing land-use in the downtown should remain as it is. Nevertheless the KMC needs to verify zoning ordinances which are appropriate to the mass, bulk, and height of the buildings in the area, so that the urban design guideline can be maintained and regulated.

Residential apartments or highrise offices are not suitable in this area due to its congestion: there is no more space to expand or to expedite a new structure for private interest or enterprise.

Petrajaya is a good area for expansion and it needs a careful planning and zoning ordinance too. To encourage racial harmony, equal opportunities should be a part in all practises, such as the distribution of new housing units.

The industrial developments in the Petrajaya and Pending area need careful study so that the ecological impact on the environment can be checked.



CHAPTER SEVEN

Concluding
Remark

Conclusion

The concourse complex will be a strong landmark on the riverside, especially since it will integrate with the design elements of the riverfront.

It is the intention of the project to provide a sanctuary at the riverfront due to its location by the water. (Psychologically water encourages meditation and calm). The physical and visual connection from Power Street which has long attracted the pedestrian will benefit the riverfront. The collective stalls on the concourse complex provide a variety of selective items and services to the local people and visitors. The complex will not only reflect the level of socio-economy of the new retailers, but it will also promote the national theme of harmony and solidarity among the different races. Consequently, these developments will help to instill the spirit of concern among the public and the neighborhood: they will recognize to realize the beauty of their environment and become more civic conscious for the growth of the state and nation in the future.

Changes in surrounding land uses could greatly influence the future character of the downtown. Each development in or around the downtown area has an impact on the downtown either to strengthen the power of attraction or to depreciate the integration between the man-made and natural environment. Thus, effort should be made to provide feasible improvements in our existing environment.

Literally, the physical development should not create additional sources of stress to the people in the town or city.

The graphics illustration (p. 109-118) shows the difference between the existing and the proposed physical plan. The sidewalks and pedestrian walks leading to the east (on the left side of Gambir Road) enable a safe (well secured from the traffic) and convenient pedestrian path as well as providing a platform for the viewers of regattas and floats during festivals. As a result of this, the activity in the downtown becomes more diversified and strongly organized.

The rhythm, sequence, scale, and form of the design in the riverfront development as shown in the graphic illustrations, provide opportunities for other developments in the adjacent area, especially the Pangkalan Batu area to coordinate with the guidelines. In the future the development at the eastside of the town where Holiday Inn, Hilton, and other commercial developments are being built, will help to consolidate the integrity of the downtown development. A good reason to acknowledge the situation at this time is so that the guidelines of the project will integrate with the present and future development on the east and west of the downtown. It is hoped that the downtown development could be a model for other related developments in the state of Sarawak.

The downtown has long been an active place which has a close location to the Sarawak river in the north, government

offices, institutions and residential in the south, residential in the east and commercial related activities in the west. With the presence of these activities, the economic importance of the downtown became a contributing factor for the future physical development at the downtown area. By preserving the activity and enhancing the quality of the environment without changing the elements of its characters, the downtown becomes a prospective area for the physical development.

Rules can be a good tool for launching a certain project in Sarawak. Even though the shop owners do not welcome radical changes, moderate improvement can be adopted if the Kuching Municipality Council can persuade them to cooperate in improving their shop houses while respecting the urban environment. The improvement of the street and the remodelling (structurally sound for their shop houses) of the shop houses will benefit the shop owners because the improvement will draw more people and indirectly will increase their retail sales.

Public awareness can be cultivated especially when the rules and regulations are strictly imposed. The improved environment also encourages individuals to be more cautious such as about littering or causing nuisance to the public property.

The downtown has long been the center for cultivating the spirit of harmony and solidarity among the different

ethnic groups of Sarawak. At present the downtown business is controlled by one race, but there is no animosity with the other races. The development of the new concourse complex, improved new retail building (formerly the government store) and the push cart stall areas will give the opportunity to other races to participate in the downtown business. And it is hoped that in the near future, a good relationship will be developed and maintained.

The downtown does not have green areas or developed landscape features. The new urban park and other development facilities will integrate with the existing downtown features and indirectly strengthen the importance of the downtown as a cultural, commercial and business area.

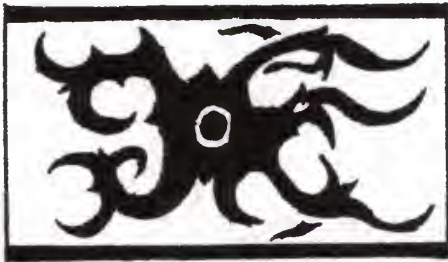
The improvement of the jetty at all locations (in the study area) will provide a clear access to the riverfront while encouraging more people from Petrajaya to take the boat taxi instead of driving their cars across the bridge. The improvements of the downtown facilities will positively affect the public's view the government of Sarawak, since it will be obvious that the government has done something for their downtown.

Maintenance

The management activities associated with the riverfront project are not crucial consensus. The concept of working together (gotong royong basis) has been a common practice in the country. In actual cases (as being practiced

in other areas in Malaysia) the stall operators normally organize a special committee among themselves to do general cleaning and to take care of their premises. The concourse complex will be provided with central dumpster on the ground with an easy access to the service truck. Each stall operator needs to maintain the hygienic condition of his own stall and be responsible for its cleanliness. Furthermore the basic operating service in the concourse complex and the riverwalk is also not a major problem.

Since the riverfront is part of the Kuching Municipal Council area, the trash, street management, and cleaning can be handled by the town council. Service labor in Kuching is inexpensive and the presence of a new facility will give employment opportunities to the local inhabitants.



CHAPTER EIGHT

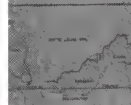
Proposed
Physical Plan
(Graphical
Illustration)

MASTER PLAN FOR THE PHYSICAL REDEVELOPMENT OF KUCHING TOWNTOWN, SARAWAK, MALAYSIA:

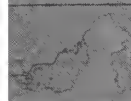
URBAN DESIGN APPROACH BY JULIAN B. WAHID

Committee
 Ray Bradley Wesenburger (Major Advisor)
 Dr. Lyn Norris Baker
 Dr. Eleferios Pavlides

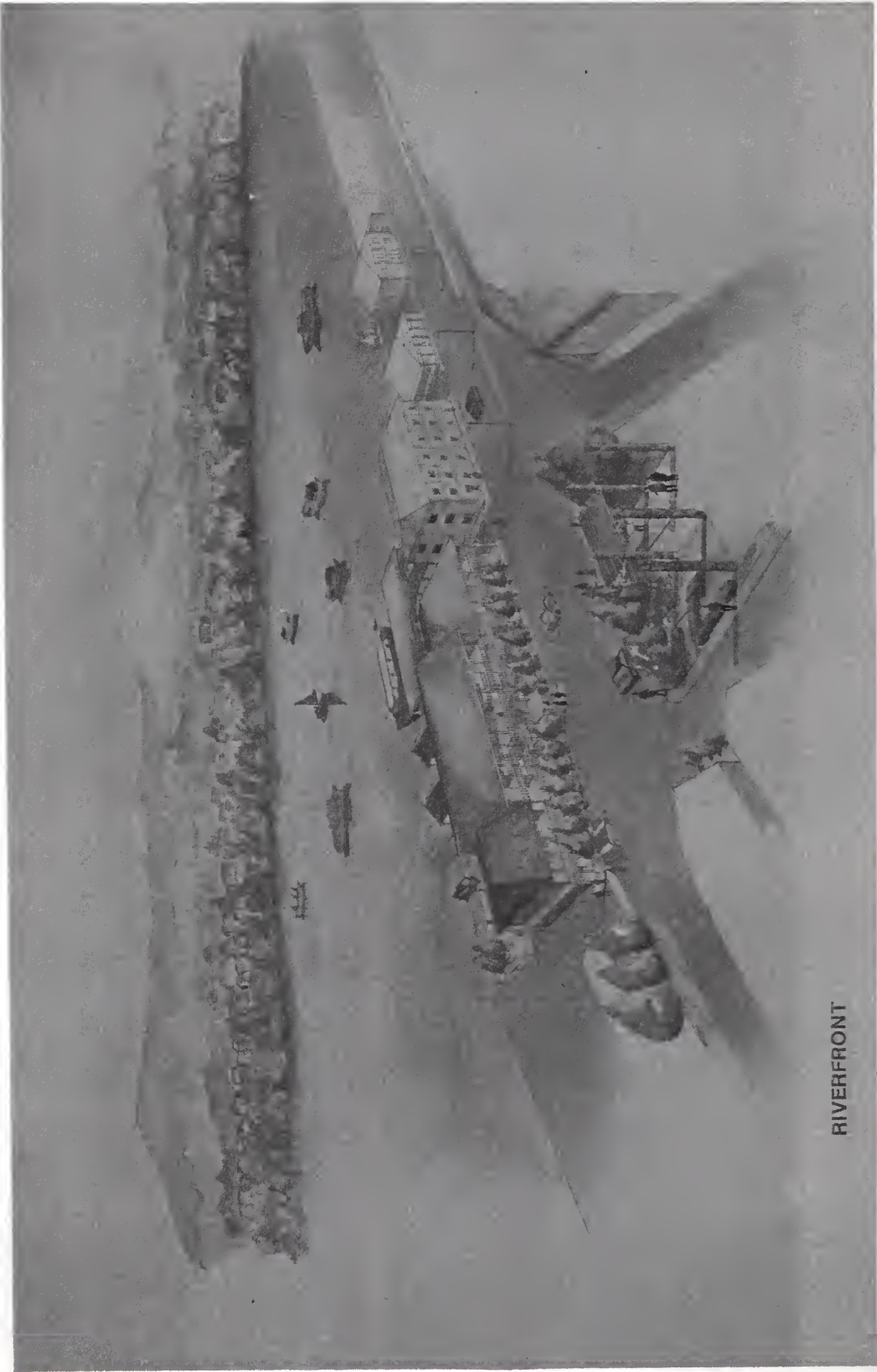
Map of South East Asia



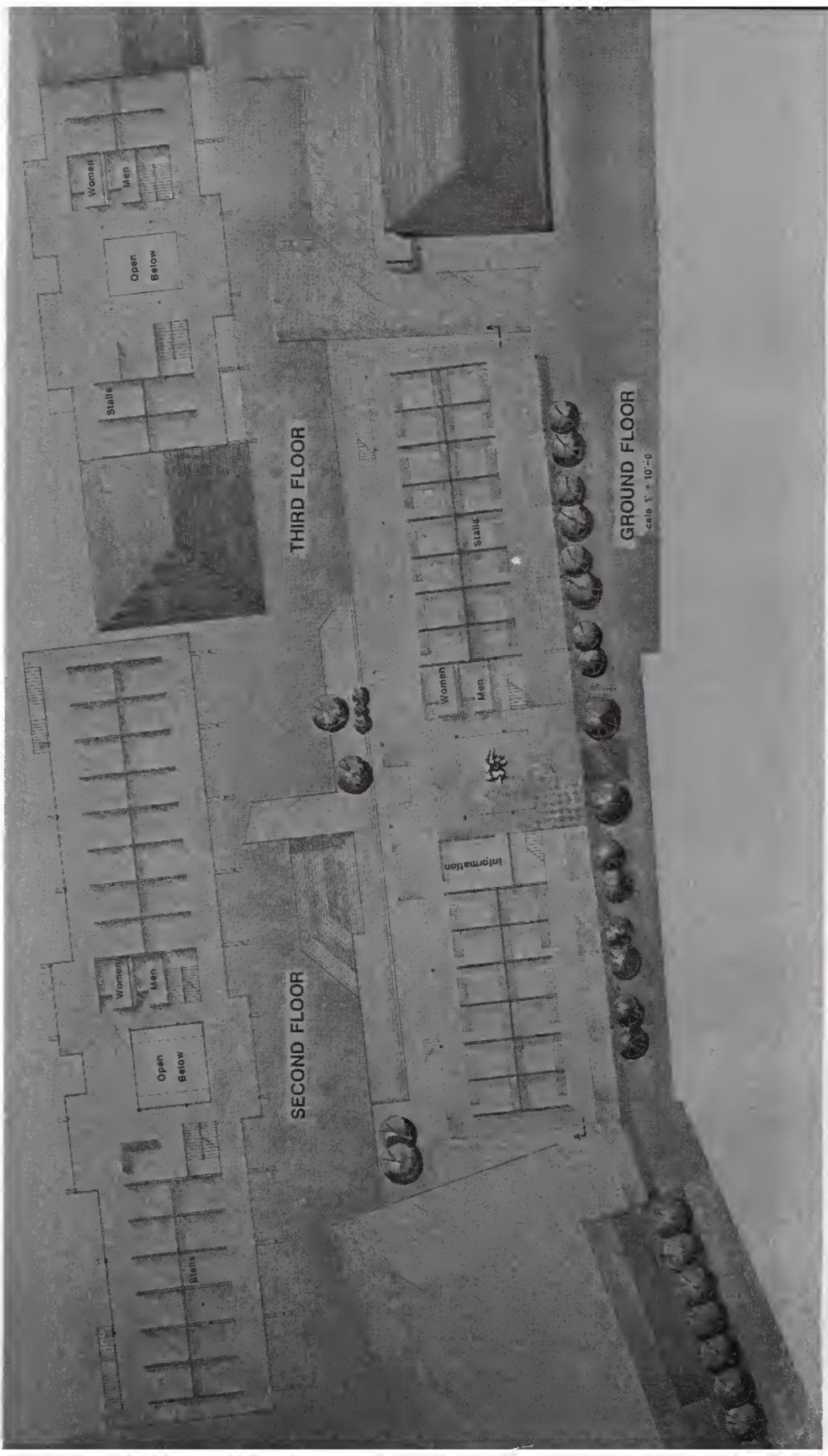
Map of Sarawak



MASTER PLAN
 1" = 400'

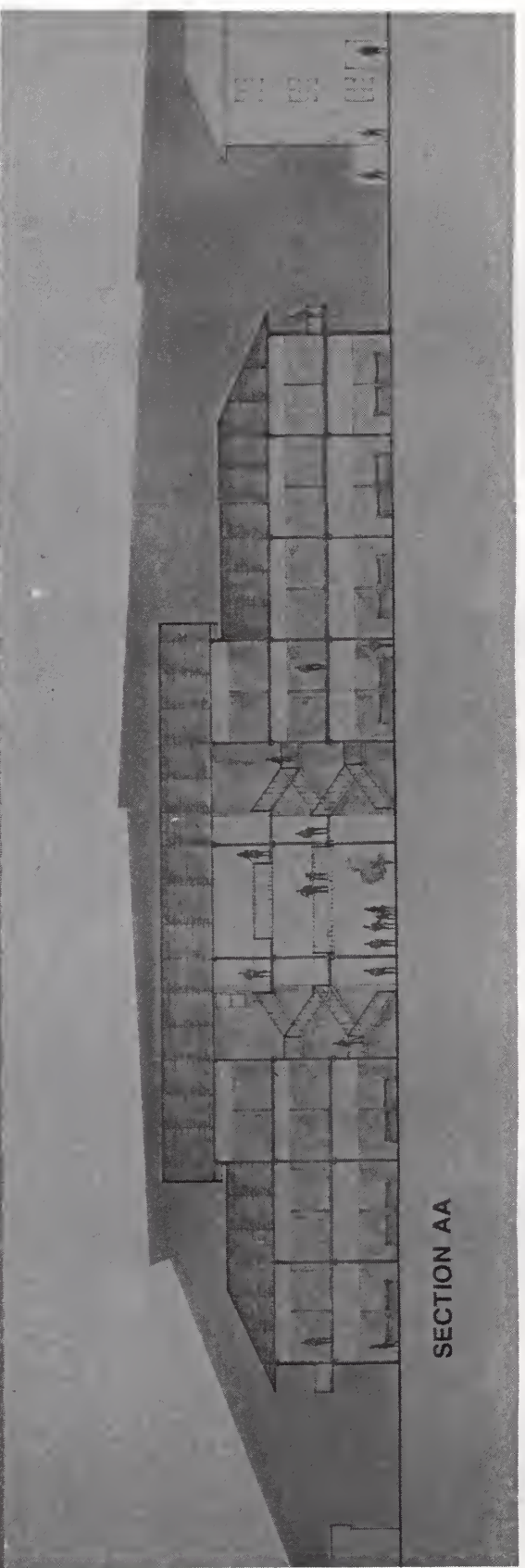


RIVERFRONT





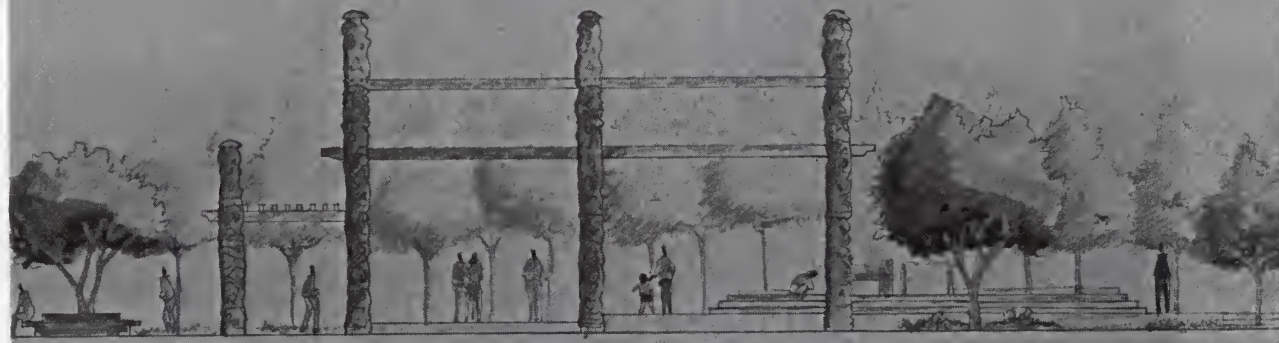
NORTH ELEVATION



SECTION AA



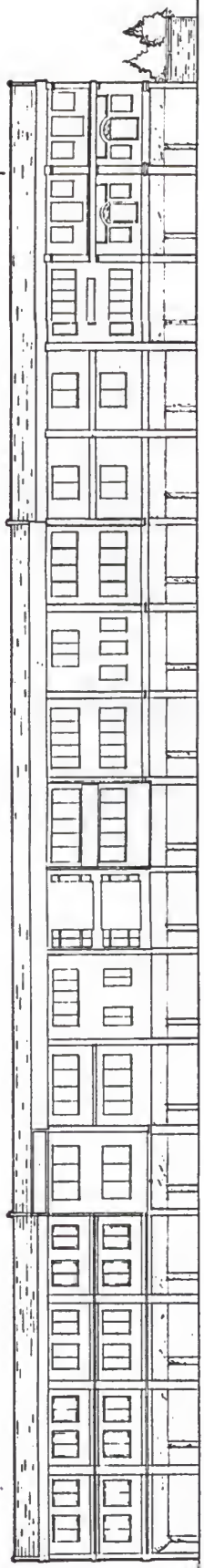
GAMBIR ROAD Entrance to Kuching Town Mosque



SECTION BB

FACADE STUDY

IN ANY CASE, NEW ADDITIONS ARE TO BE EFFECTED, KEEP NEW ADDITIONS TO A MINIMUM AND MAKE THEM COMPATIBLE IN SCALE, BUILDING MATERIALS, AND TEXTURE

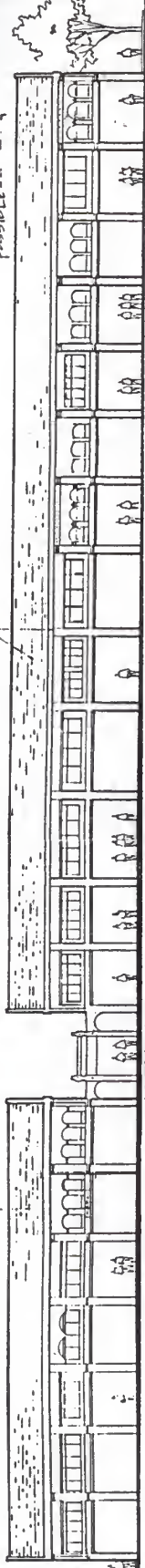


MARKET STREET

- TRY TO RETAIN THE OLD FACADE WHEREVER POSSIBLE
- CLEAN MASONRY WHERE NECESSARY
- TO MAINTAIN VISUAL CONTINUITY
- RETAIN THE ORIGINAL COLOR AND TEXTURE WHEREVER POSSIBLE

- RETAIN ROOF SHAPE AND MATERIAL
- MAINTAIN VISUAL CONTINUITY OF MODERNIZATIONS
- PROVIDE PARAPET AS FACIA FOR CONSISTENCY

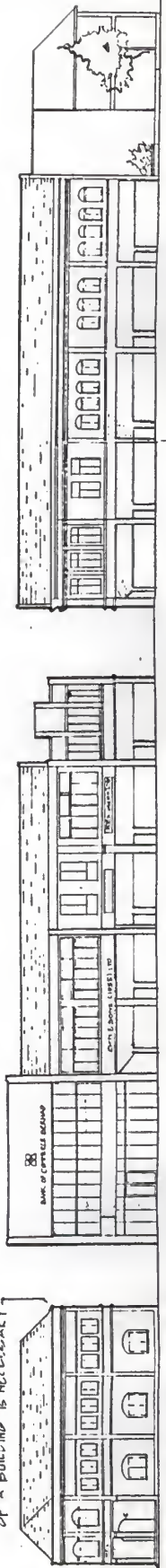
- MAINTAINED APPROPRIATE SIGN SIZE, SHAPE, COLOR HEIGHT, AND SCALE
- THE SIGN WAS TO BE VISUALLY COMPATIBLE & SUBSTRUCTURED TO FLD
- USE HORIZONTAL SIGNS ABOVE THE ARCADE



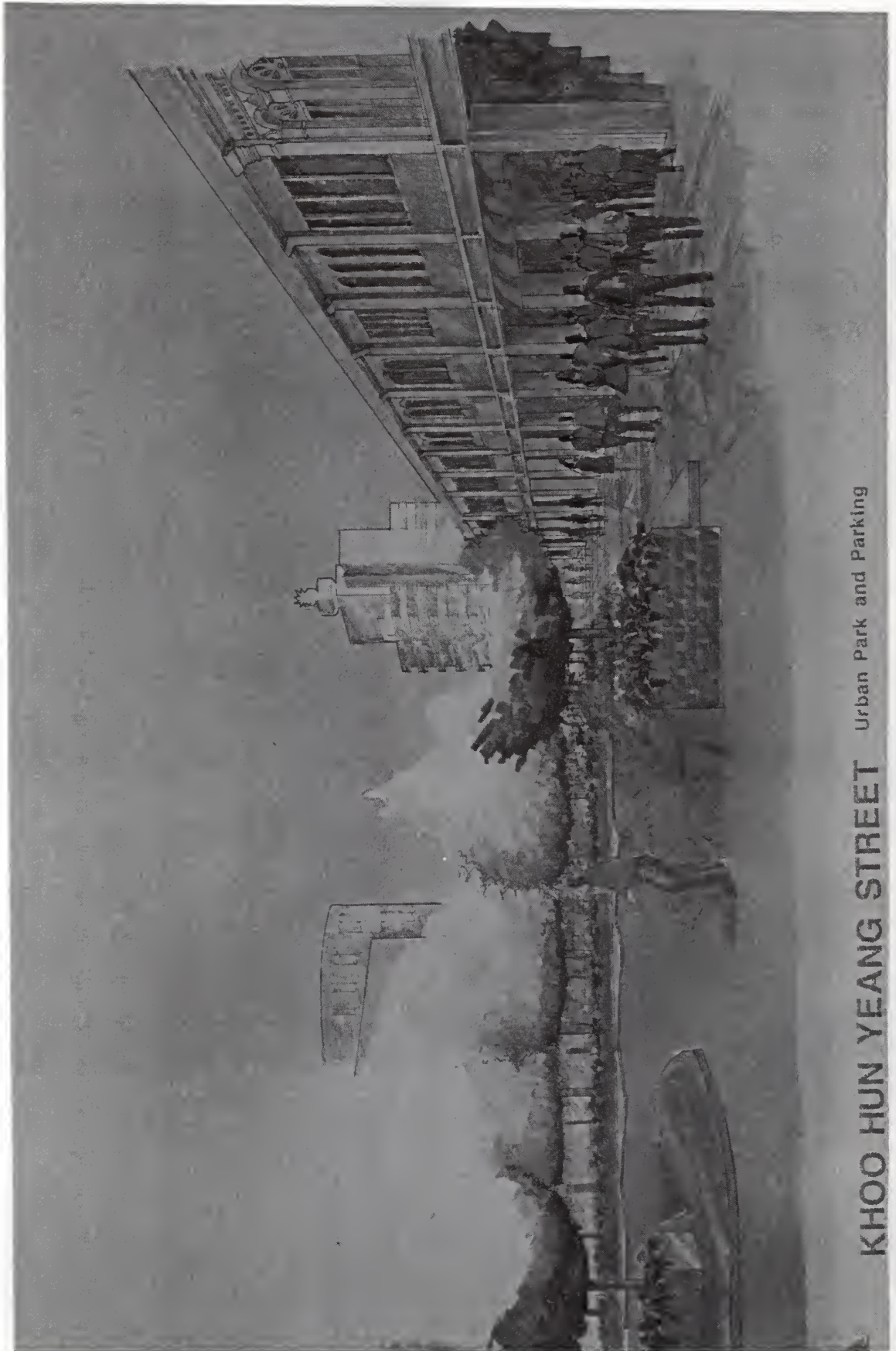
KHOO HIN YANG STREET

ENTRANCE TO THE BUILDING FROM URBAN PLAZA

- RMG BUILDING SHOWS AN EXAMPLE OF COLONIAL ARCHITECTURE
- REGULAR AND APPROPRIATE CARE OF A BUILDING IS NECESSARY

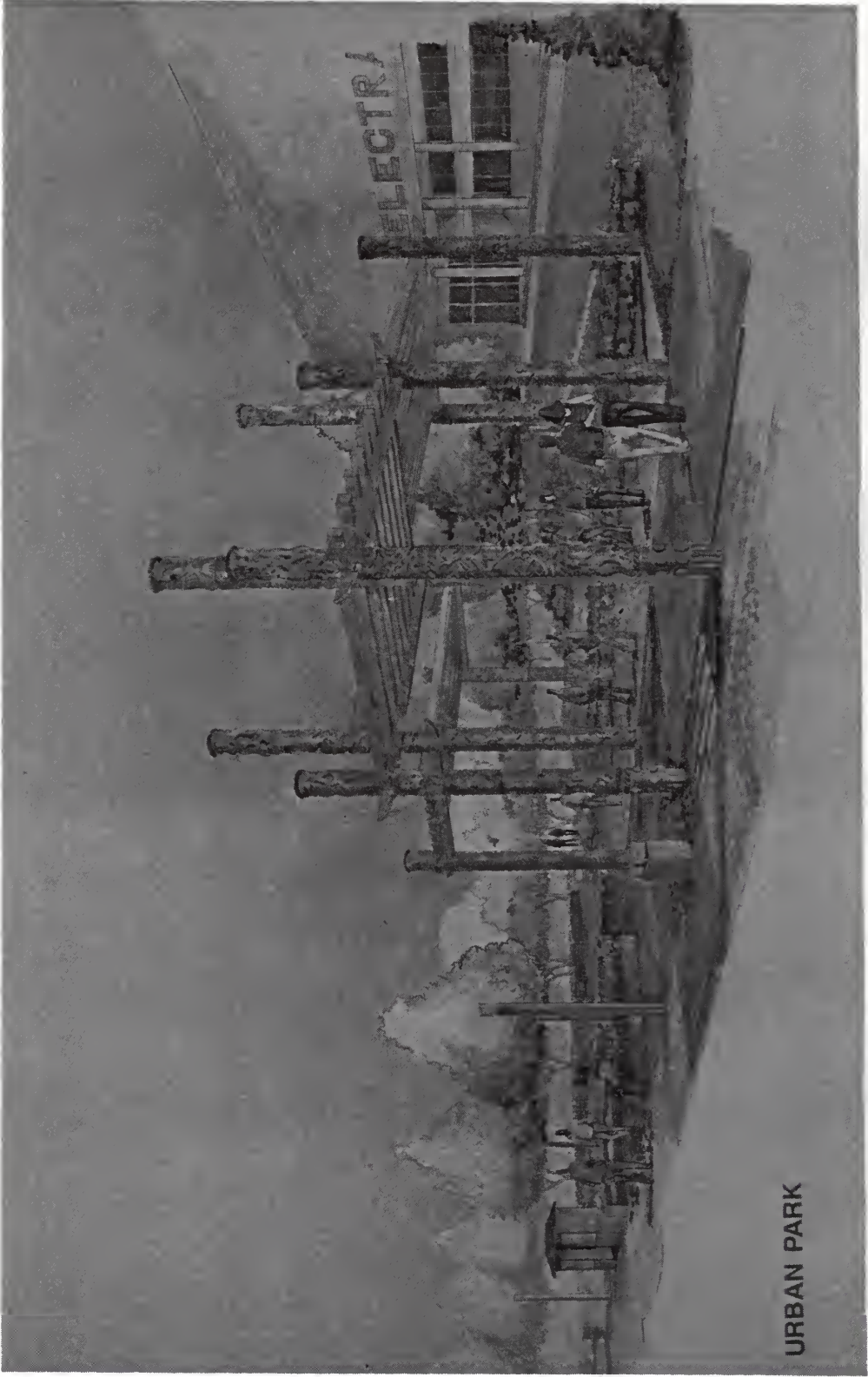


KHOO HIN YANG STREET

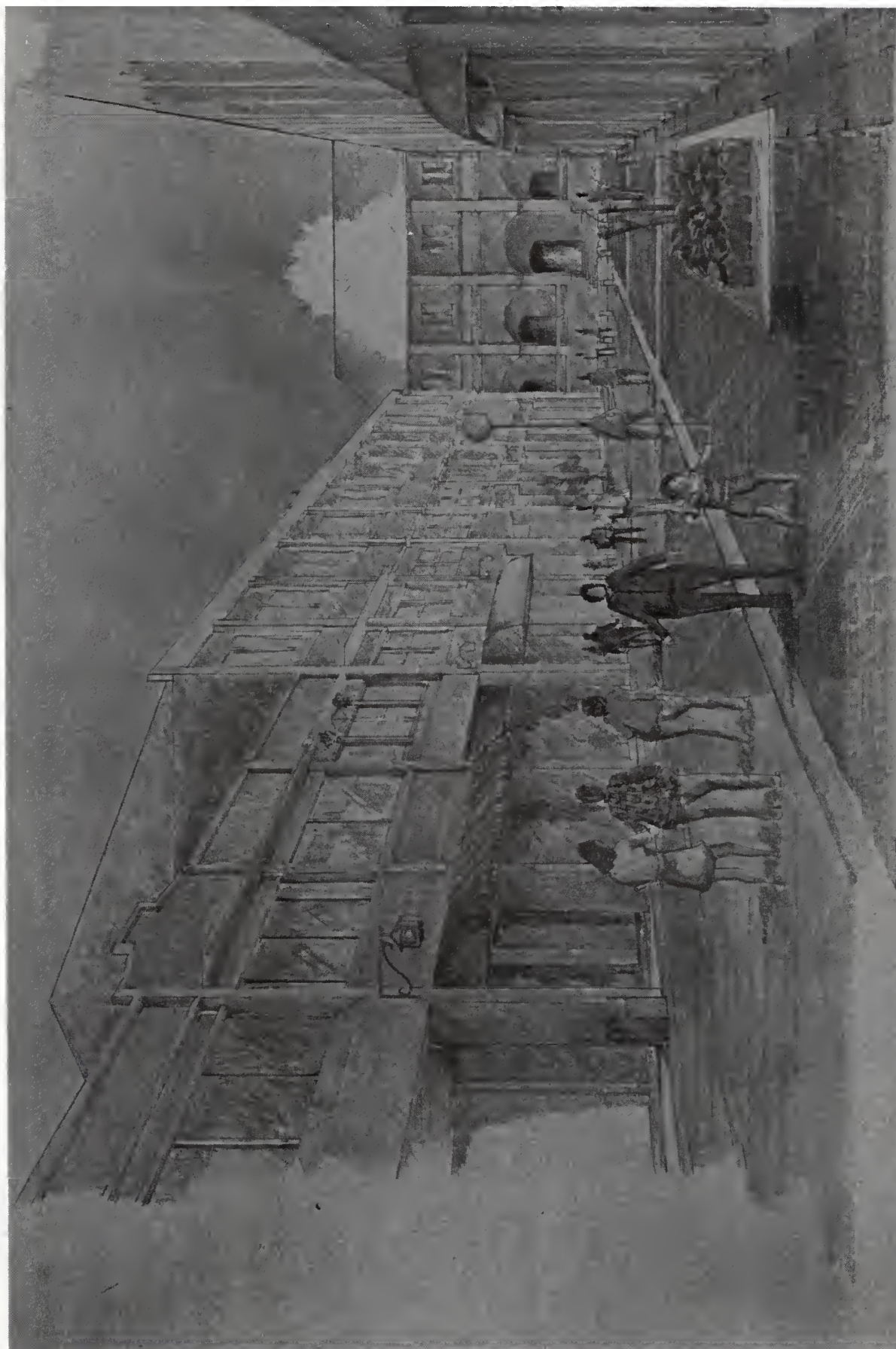


Urban Park and Parking

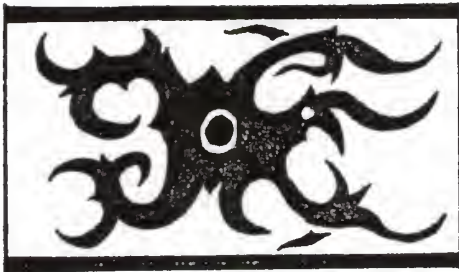
KHOO HUN YEANG STREET



URBAN PARK



INDIA STREET Pedestrian Mall



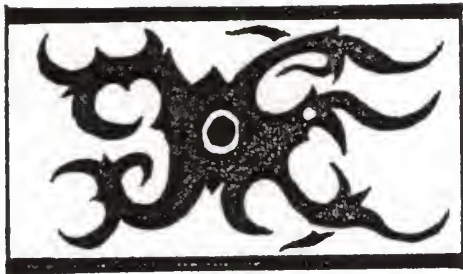
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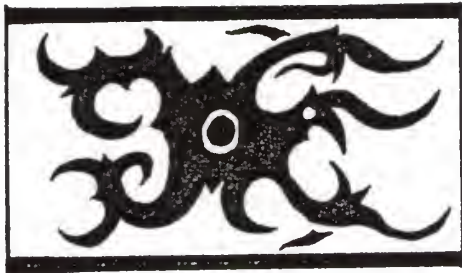
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ABSTRACT

The Physical Redevelopment
of Kuching Downtown:
An Urban Design Approach.

by

Julaihi Bin Wahid

B. Sc. in Architectural Studies, Washington State University,
May, 1985.

B. Arch., Washington State University
May, 1986.

An Abstract of a Master's thesis

Submitted in partial fulfillment of the
requirements for the degree

Master of Architecture
(Community/Urban Design)

Department of Architecture
Kansas State University
Manhattan, Kansas.
1988.

The downtown business district of Kuching is an active place on a Malaysian waterfront in a hot-wet equatorial climate. Due to development pressures in the nineteen fifties (1950's) and nineteen sixties (1960's) it is not an attractive place and, hence, does not serve to draw tourists or serve as a point of civic pride.

The purpose of this thesis is to develop a document which can guide the future physical development and re-development of the Kuching downtown to enhance its environmental quality without destroying the elements of character which make this place different from all others.

To accomplish this, the author, a Malaysian intending to return to Kuching, traveled to the city during the Summer of 1987 to undertake a survey of the downtown and to conduct interviews with community officials and citizens. The survey material was analysed before the author returned to the United States in order to allow for opportunity to conduct further surveys and interviews to accumulate information which had been missed.

The goals of downtown redevelopment were also prepared before leaving Kuching. This made it possible to meet with community officials to discuss the goal statements and their emphasis. The program guiding the plan and the plan were prepared after returning to the United States.

Kuching downtown is unique, developing from interchange of the cultural and economic forces of the nineteen fifties (1950's) and nineteen sixties (1960's).

Development from that period was accomplished without a great deal of concern for the built environment.

Fortunately the downtown is still economically viable even though it does not look good or attract as many tourists as other areas in Malaysia. Among the least attractive areas are the shophouses along Java Lane, Market Street, India Street, and Khoo Hun Yeang Street.

Radical redevelopment in the downtown area guarantees change in physical design issues but not in economic vitality. Therefore, it appears that a gradual redevelopment with modest changes negotiated between the owner and the policy maker, the KMC, is an approach that should be investigated and is studied in this thesis.

Radical changes in other parts of the city or region could affect the Kuching downtown dramatically. Therefore, this study, while focusing on the downtown, recommend the development of a comprehensive land use and zoning plan for Kuching town and Petrajaya. This plan should encourage balanced development.

It is not too late to emerse the citizens of Malaysia, a newly born nation, in the spirit of environmental concern and careful planning. Natural amenities, while damaged, have not been destroyed. If the spirit of environmental concern displayed in this report can be cultivated, it follows that it is possible to encourage citizens to support efforts to integrate the built and the natural environment. At that point life in the town, city, or metropolitan area will

always be "human" and new development will not be allowed to
destroy the "living" environment.