

ARCHITECTURE DEPARTMENT

CHINESE UNIVERSITY OF HONG KONG

MASTER OF ARCHITECTURE PROGRAMME 1997-98

DESIGN REPORT

CITY EXCURSION - A CROSS HARBOUR URBAN LINK

KO Shan

April 1998



CITY EXCURSION

A CROSS HARBOUR URBAN LINK

*Development of
Hong Kong Visitor's Center
at Star Ferry Terminals*



**ARCHITECTURAL DEPARTMENT
CHINESE UNIVERSITY OF HONG KONG**

1997/98
Master Degree Program
Final Year Project Design Report

by Ko Shan

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1. I N T R O D U C T I O N

1.1. PROLOGUE

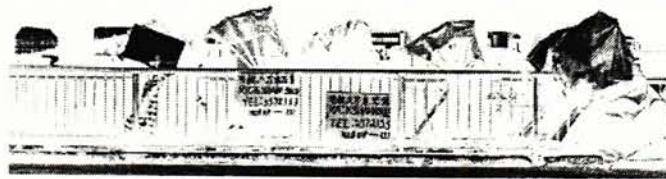
Contemporary tourism is an act of mass consumption of social and cultural activities with the purpose of pleasure seeking. Tourists collect signs, goods and events to fulfill their anticipation of the city, which is usually constructed from daydreams and fantasy. The relationship between the visitors and the host is built up upon a need to understand the city, and a need to overcome the fear of strangeness.

The project is aimed to look at the role of architecture as a device to converge events and to convey information, which is in related to the fast and transitional quality of modern tourism. The site is an interaction point for people of different cultures. The building will be agent representing the city to extend welcome to her visitors. It will also act as the mediator between the guest and the host, the local and the district, the present and the past.

The project will first focus on the contextual issues of the site, study the physical relationship between this particular urban spot and the rest of the city to see how this affects its position as a visitor's center. This in turn determines the activities and functional programs that the site will carry.

Second part of the projects is to do a planning proposal for the site. In this stage, possibilities in accommodating new activities and re-organizing the old functions will be studied. One of which will be selected for further investigation.

Finally stage is the manifestation of actual construction possibility of the proposed site elements. This will include studies on selection of different kinds of building systems and detail connection of building parts.



HONG KONG = TOURIST CITY



1. I N T R O D U C T I O N

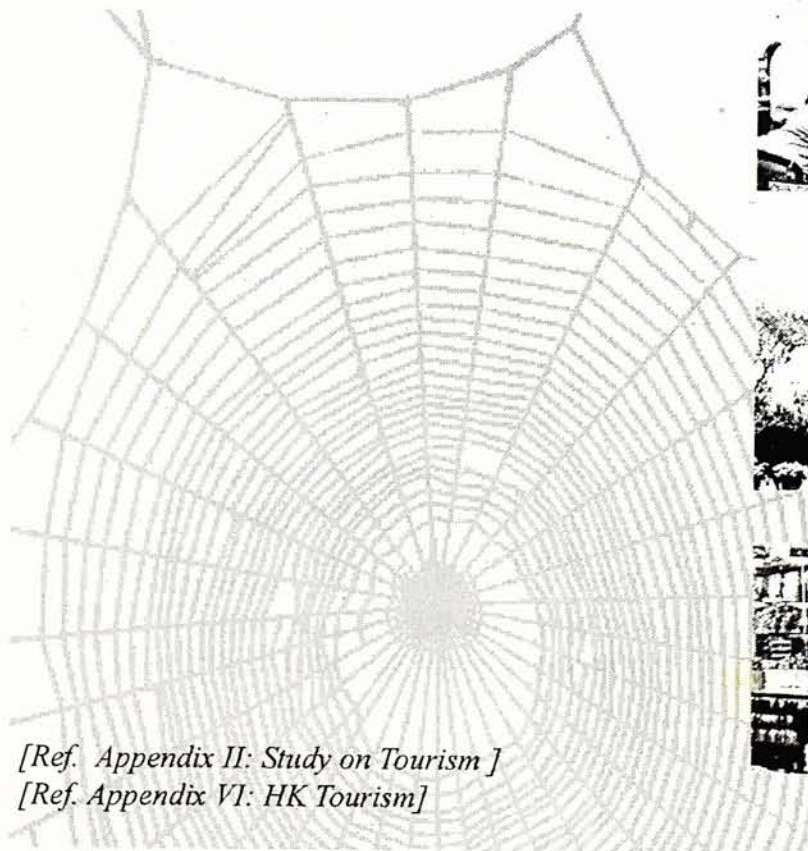
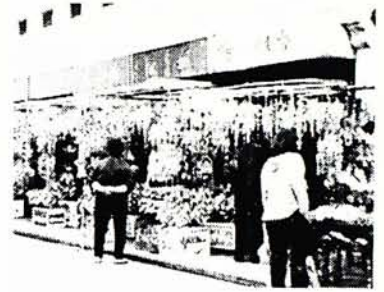
1.2. POINT OF DEPARTURE

1.2.1 The Web

The *Hong Kong Tourist System* in form of an urban web which is identified and abstracted from the existing urban matrix.

It is to

1. Protect, enhance and better use of existing facilities and attractions, to ensure that the urban core continuous to function successfully as a major tourist attraction area;
2. develop new tourism nodes in response to the city's future development plan.
3. create an information network which can enhance the movement of tourists through the city in a self explorative way.

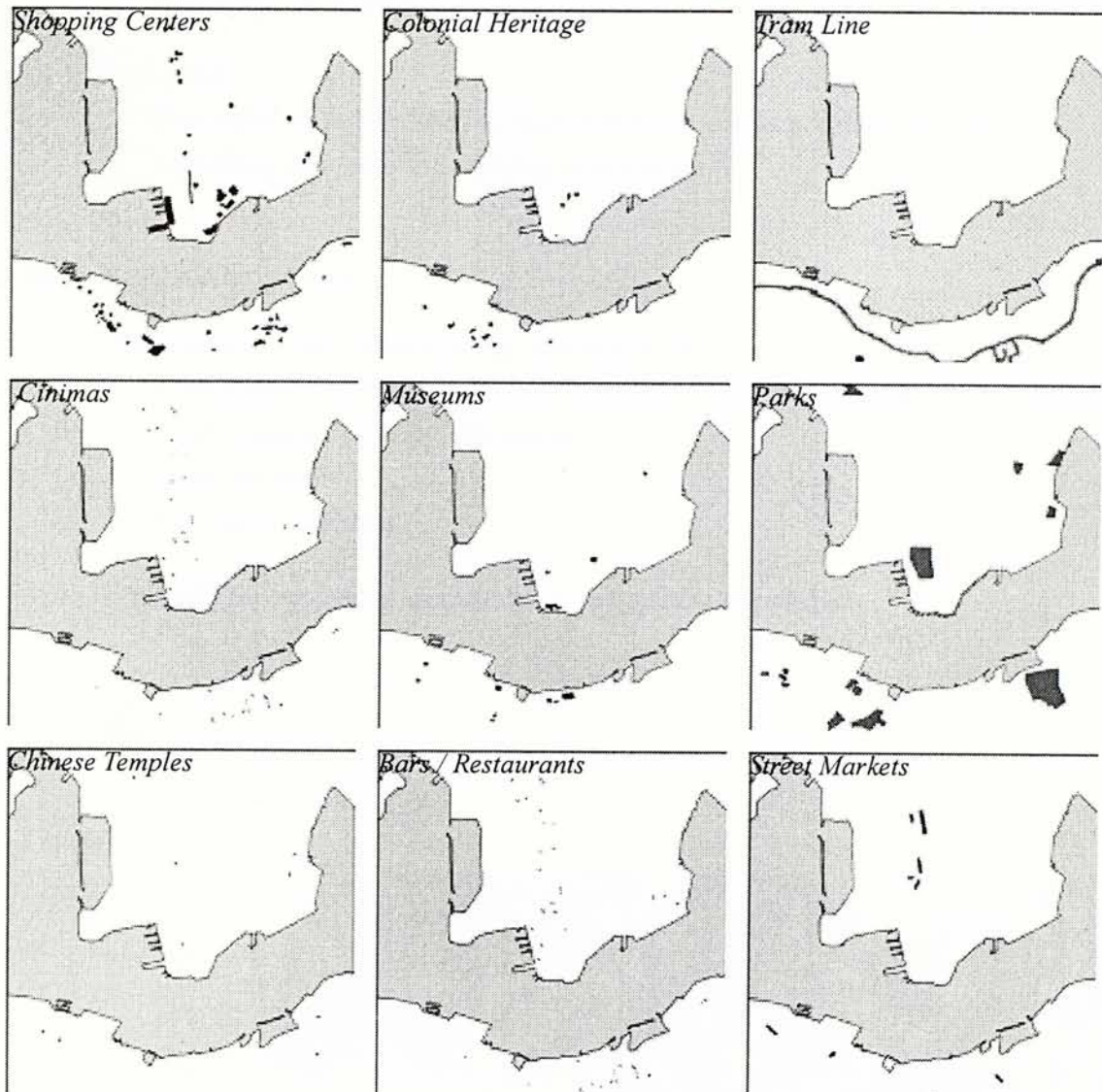


[Ref. Appendix II: Study on Tourism]

[Ref. Appendix VI: HK Tourism]

1. INTRODUCTION

Main Location of Tourist Activities in Urban Center



1.2.2. The Three elements

Movement

- Public transportation
- Information transfer

Function:

- Allow foreign visitors to move through the city conveniently
 - Provide linkage between the nodes
-

1. I N T R O D U C T I O N

Nodes

- Attractions, signs and events
- Buildings, landmarks

Function:

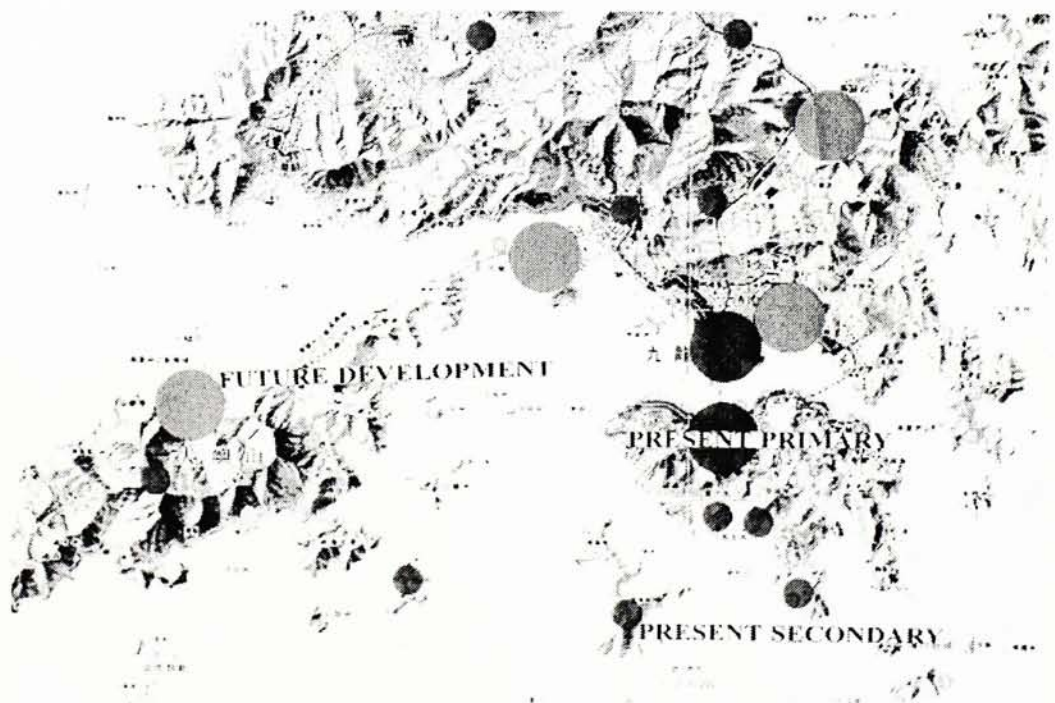
- The nodes were identified at each district as access points to the city.
- Extending welcome and offering information

Hong Kong visitor's Center

The Center of the tourist system, which acts as:

- A landmark symbolizing the development of the tourist industry in Hong Kong
- A reference point in the city center
- An urban oasis
- A focus of activities

This will be the central element to be designed in the project.



Major Tourist Spots in the Territory: Present and Planned

2. PROJECT DESCRIPTION

2.1. DESIGN OBJECTIVE

The Visitor's Center will be an intervention in the urban center.

It will:

- be the heart of HK as tourist city
- be a convergent point of information and activities
- provide related services with sufficient range and quality
- provide proper space for special events held by the industry
- be a point of transition to direct visitors to other parts of the city
- a landmark in the city center as reference point

2.2. PROJECT POSSIBILITIES - City Packaging

2.2.1 *Theme Park*

- A simulation and abstraction of the city through the reconstructed "classical HK"
- The reproduced cultural museum

2.2.2 *Staged authenticity*

- Conservation of an old district and remodel it into a tourist spot.
- Choose time, choose site, and choose cultural

2.2.3. *The Agent*

- Architecture as a neutral agent which does not intend to carry any 'Cultural meaning'.
- A prototype which is applicable to other contexts



2. PROJECT DESCRIPTION

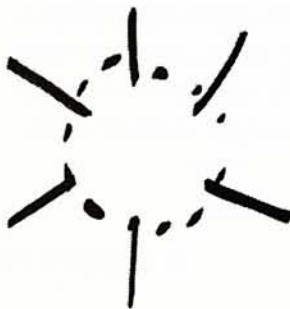
2.3. SITE SELECTION

The center will be located at the Star Ferry Terminal in Tsim Sha Tsui and Central in form of a bipolar system.

Site Characteristic

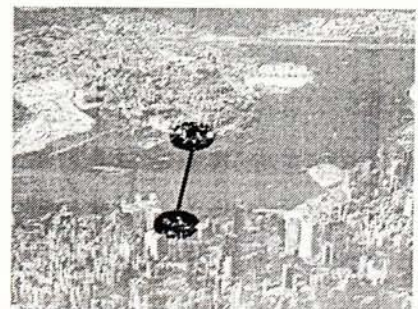
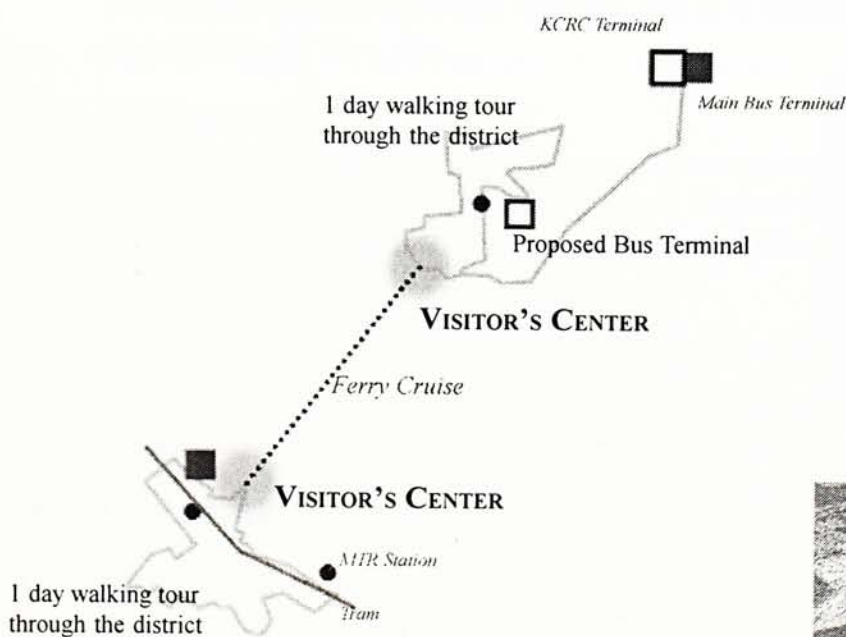


Tsim Sha Tsui - Chaotic
- An urban focus
- Destination of several major road



Central - Confusion
- lack of indication
- a missing link of the Elevated walkway system

Linkage between the center and the city



[Ref. Appendix V: Site Analysis]

[Ref. Appendix VI: Ferry Terminal Analysis]

2. PROJECT DESCRIPTION

2.4. CLIENT'S PROFILE

The project will be a joint venture by HKTA and the Star Ferry company.

2.4.1. Hong Kong Tourist Association

The HK Tourist Association (HKTA) was established by the Government in 1957 to develop the territory's tourism industry. The chairman and members for the HKTA board of management were appointed by the Governor. Its main function is to further the development of HK as a tourist destination by :

1. promote the improvement of visitor facilities;
2. secure overseas publicity for the territory's attractions;
3. coordinates the activities of the tourism industry; and
4. advise the government on industry-related matters.

2.4.2. Hong Kong "Star" Ferry Company Limited

As Hong Kong's first form of mass transport, the "Star" Ferry Company Limited started providing steam launch ferry Service since 1898. It was used to be one of the major public transports to cross the harbor. Today, when the land transports are carrying most of the passengers, the seven minute ferry ride are still popular for city wanderers because of the thrilling harbor view and the cheap fare. The company also offers Victoria Harbor cruises at central and Tsimshatsui terminal.

[Ref. Appendix IV: History of Star Ferry]

2.5. USER'S PROFILE

2.5.1. Pedestrians

The sites are urban open spaces which have a large amount of pedestrian flowing through each day. Their activities includes shopping, sight seeing, passing-by, resting and temporary gathering. Major concerns will be to accommodate activities of different speed within the same site.

2.5.2. Ferry passengers

Boarding and departure is one of the main event happening in the sites at present state. Passengers includes different kinds of people. Most of them need an efficient circulation path connecting to the pier. This will still be a major issue to be concerned in the future state.

2.5.3. Staffs - including ferry staffs, shop keepers and transport terminal supervisor, etc.

Though they only occupied a small amount of spaces, they required well controlled working environment and highest degrees of privacy.

2.6. SCOPE OF WORK

- Addition and alteration of the existing pier;
 - Construction of a new tourist information center;
 - Re-organize of existing facilities in the site to make them a more united whole;
 - Improvement of the open area to make it a more enticing urban plaza as a continuation of the waterfront promenade.
-

2. PROJECT DESCRIPTION

2.7. FACILITY PROGRAM

2.7.1 Galleries

- *The Star Ferry Gallery*
gallery to introduce the history of Star Ferry with multi-media devices, including pictures, models and videos
- *HK Pictorial Gallery*
present HK background information to visitors through visual images

2.7.2. Exhibition

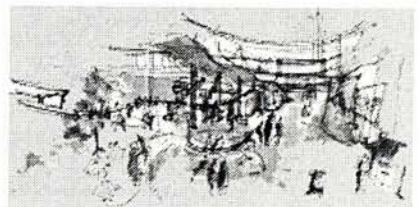
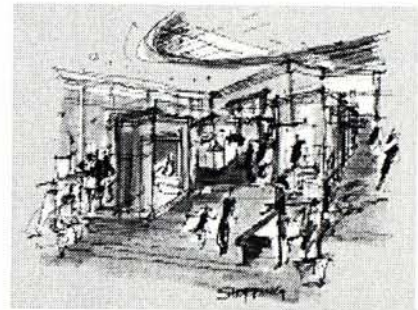
- *Sidewalk exhibition*
outdoor exhibition area with fixed stands for informal presentations organized by public organizations.
- *Expo' plaza*
open urban plaza supporting large scale outdoor exhibitions organized by tourist related industries

2.7.3. Retail

- souvenir shops
- Cafe
- Tea house
- Book store
- magazine booth

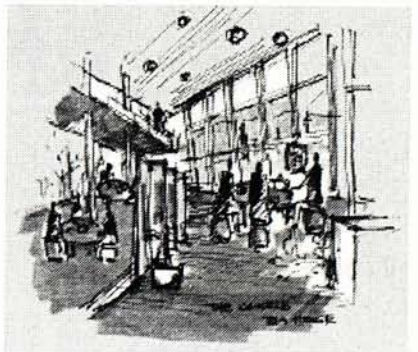
2.7.4. Information center

- information counter
- rest area
- gift counter
- exhibition counter for travel agents
- office
- Storage



2.7.5. Transport stops - for bus, tour bus, mini bus and taxi

- Loading area
- Boarding area
- waiting area



2.7.6. Ferry Terminal

- Boarding and Departure
- Office
- Control Room
- Ticket booth
- Lobby



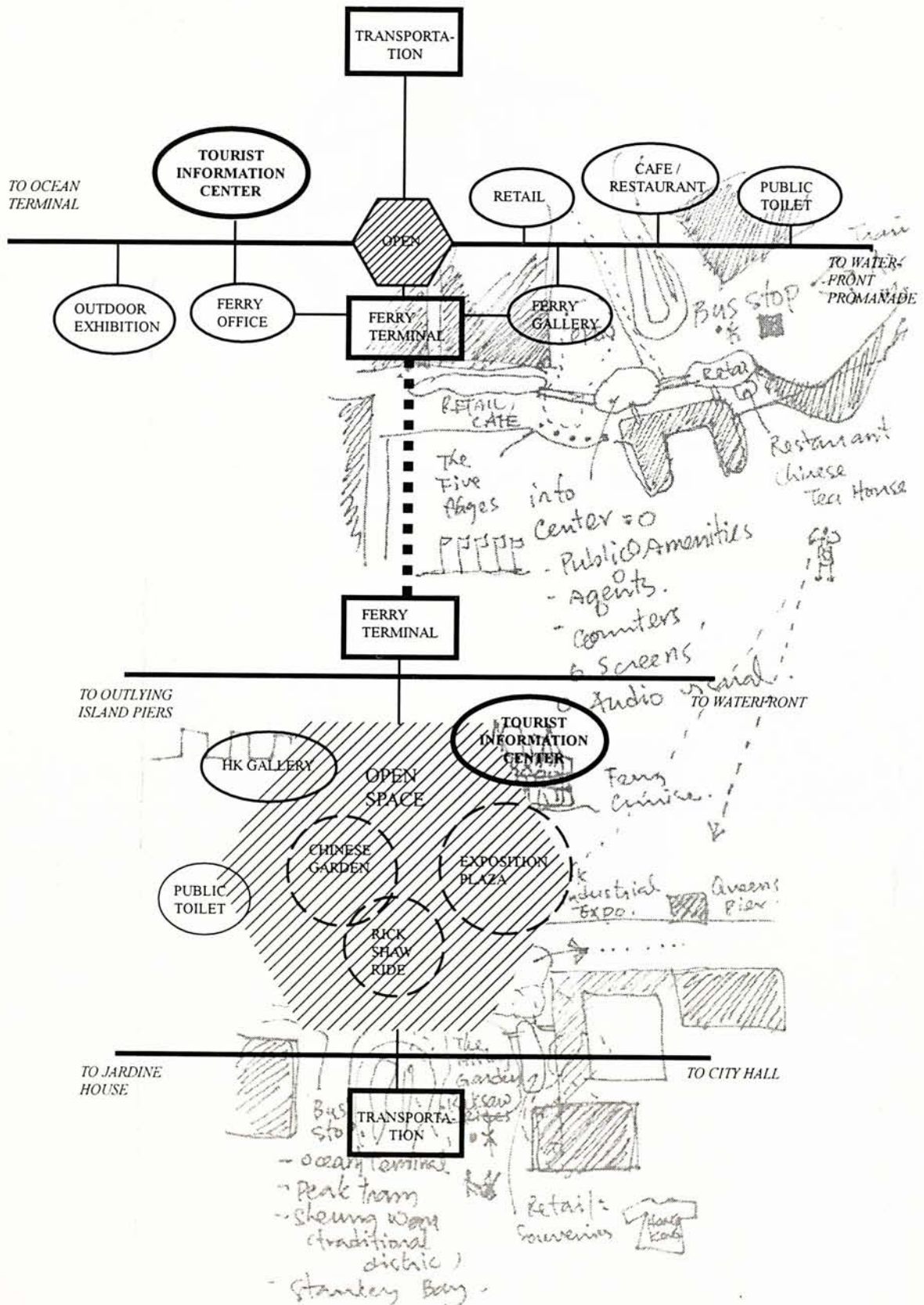
2.7.7. Public services

- Public sanitary
- Post office
- Police office
- Security guard
- Public Park
- Rick Shaw Ride

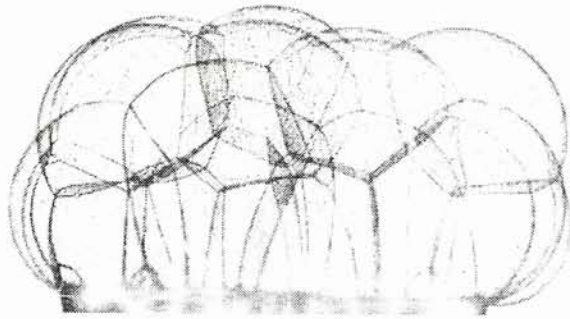
2. PROJECT DESCRIPTION

2.8. ZONING

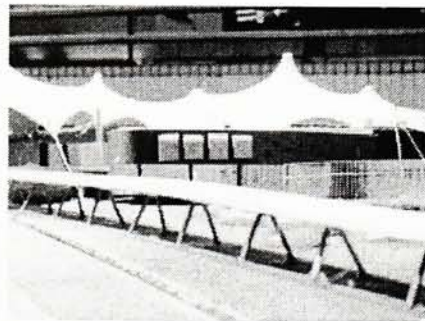
In response to the physical characteristic of the the site in Tsim Sha Tsui, the building will be organized along the waterfront as continuation of the promenade. Large scale functional areas will be located at Central because the site is more spacious and rectilinear. The public functions can also be extended to the open space in front of the City Hall when needed.



3 . S I T E P L A N N I N G

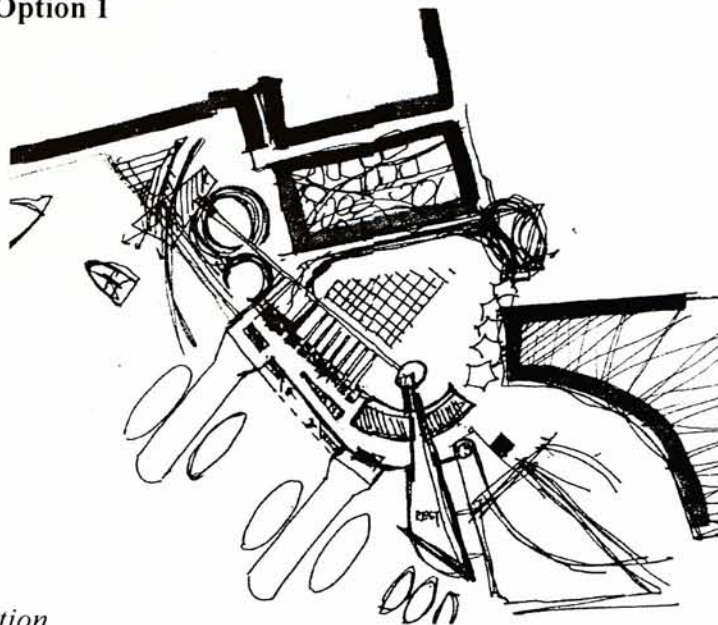


MAKING
OF
THE
ENVIRONMENTAL BUBBLE



3.1. PRELIMINARY OPTIONS - Tsim Sha Tsui

3.1.1. Option 1

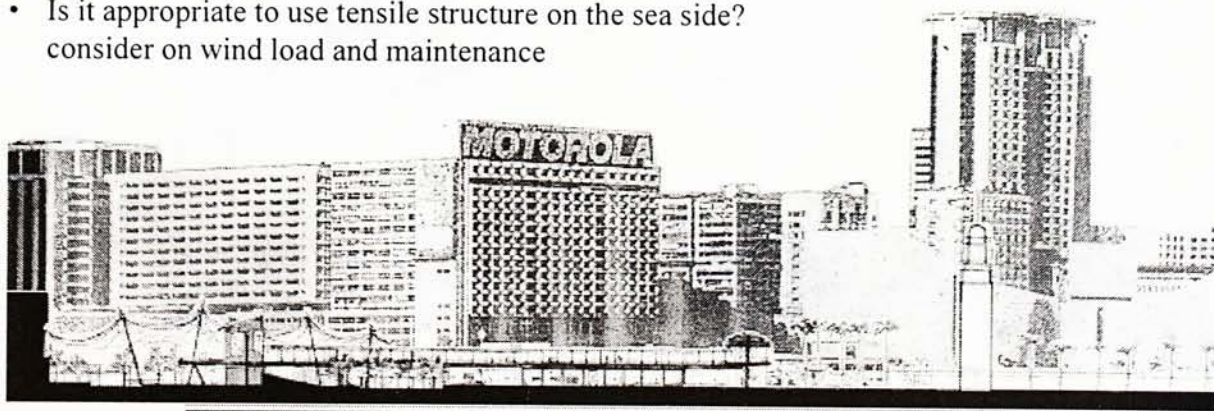
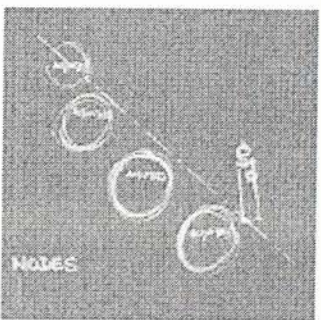
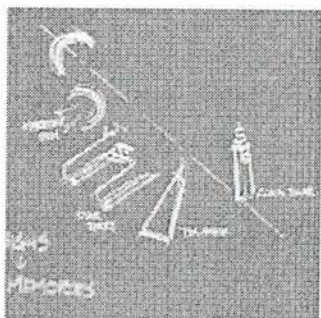
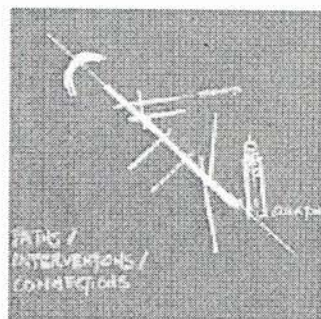
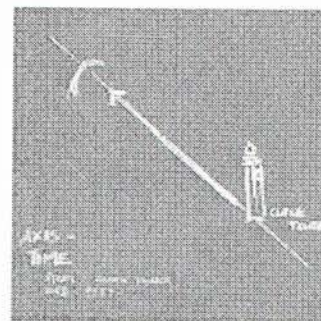


Description

- Identified the tower as a site focus
- Continue the axis from water promenade from open space outside the cultural center through the tower.
- The axis take form as an elevated walkway from the tower to Ocean Terminal
- The axis act as the main organizer to connect all the elements in the site
- Along the walkway, nodes of activities were identified.
- The walkway ended in front of the ocean terminal with an open plaza.
- Bus terminal is retained, shelters redesigned to give a clean and more unified image
- The pier front is opened up for public usage, with visual access to the harbour.

Evaluation

- Fragmented site elements will further confuses the site situation
- Additions do not responses to the pier at all
- The axis blocks view to the tower
- Is it appropriate to use tensile structure on the sea side?
consider on wind load and maintenance

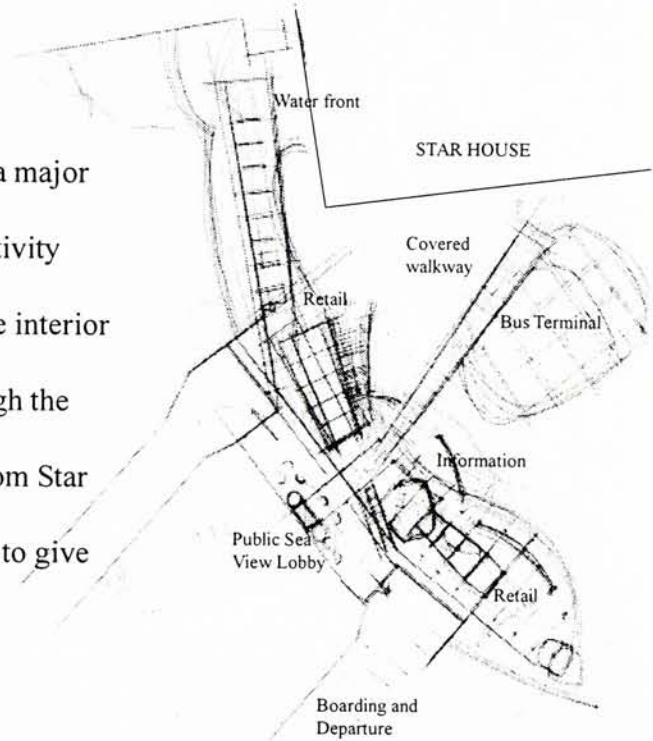


3 . S I T E P L A N N I N G

3.1.2. Option 2

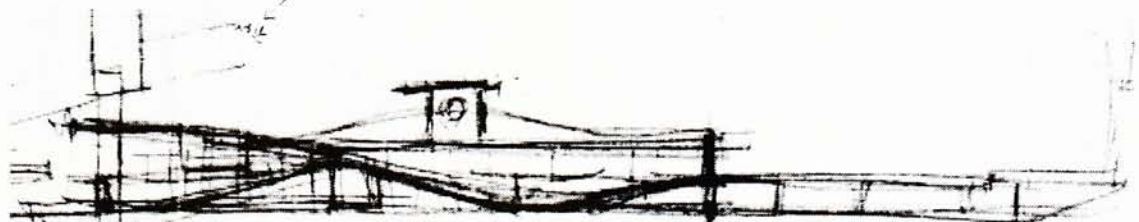
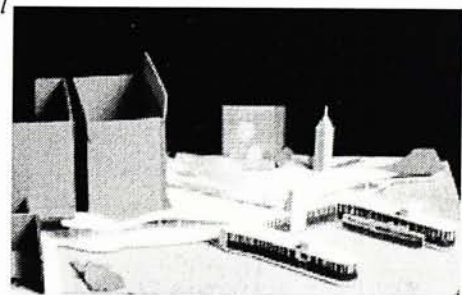
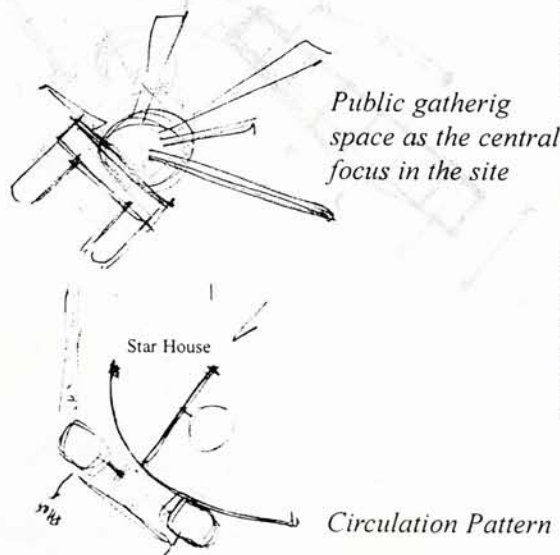
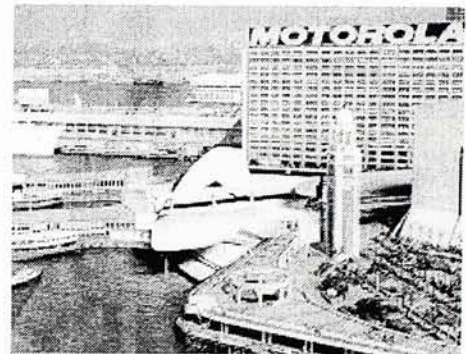
Description

- The mega-structure approach
- Enclosing all site elements within a major enclosure
- Create multiple levels of public activity
- Elevated urban landscape
- Curved building form to diffuse the interior and exterior space
- A natural flow of circulation through the building
- An alternative route is provided from Star House to the pier as a short cut
- Size of the bus terminal is reduced to give more space to the pedestrians



Evaluation

- Easier to give a central control of the interior environment
- A clear image as a destination
- Completely shield off the pier
- Building form does not harmonizes with the pier structure
- The additional covered walkway can reduce congestion outside of Star House

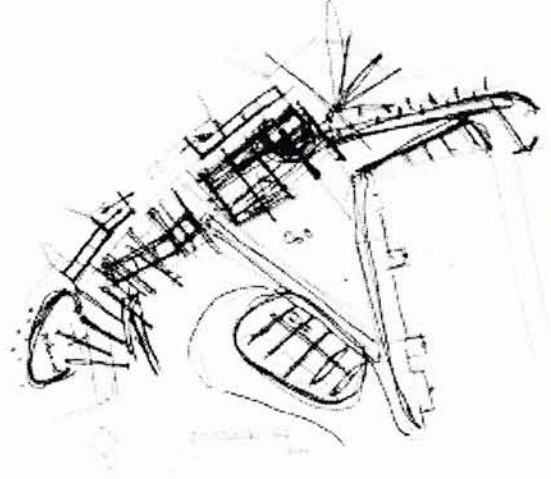


Elevation View From Bus terminal

3.1.3. Option 3

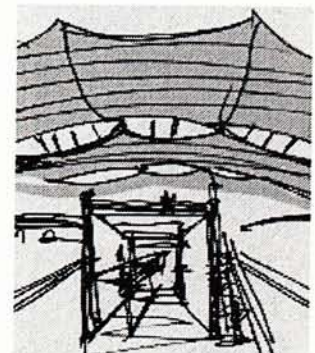
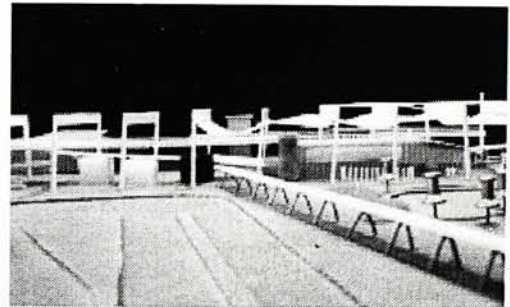
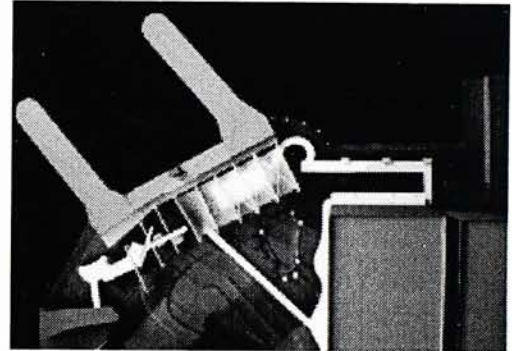
Description

- The enclosure is replaced with a series of rigid frames to define the semi open space.
- The roof is made of fabrics hanging from the frame with cables, to achieve a light weight shelter
- The functional spaces are accommodated with small kiosks of different profiles to achieve a vivid, casual atmosphere in the site.
- All the structures are connected with the elevated walkway
- The shelter and kiosks are in independent structural system



Evaluation

- The frame form refers to the pier's structure
- Rectilinear organization of the frame gives a order to the site. It regulates and unifies the randomly scattered kiosks
- The junction between the frame and the pier is not resolved
- The form of the space under the frames are very controlled, which does not integrates with the site well

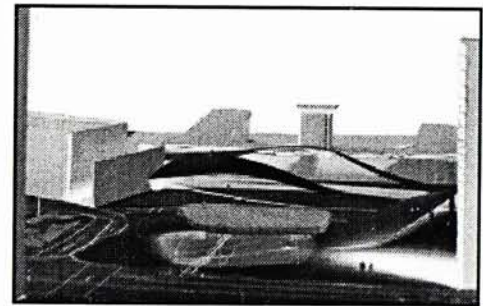
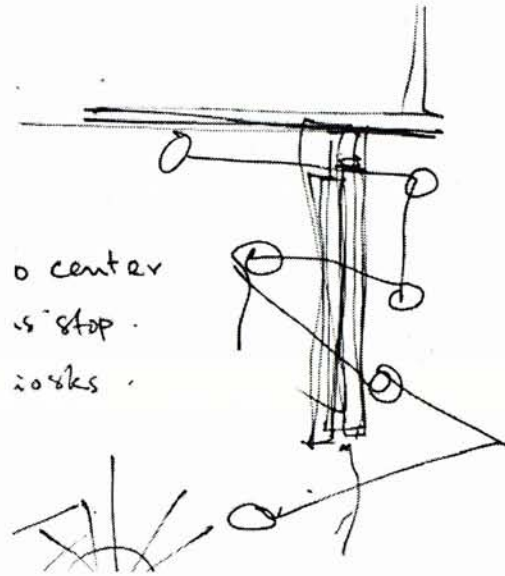


3 . S I T E P L A N N I N G

3.2. PRELIMINARY OPTION - Central

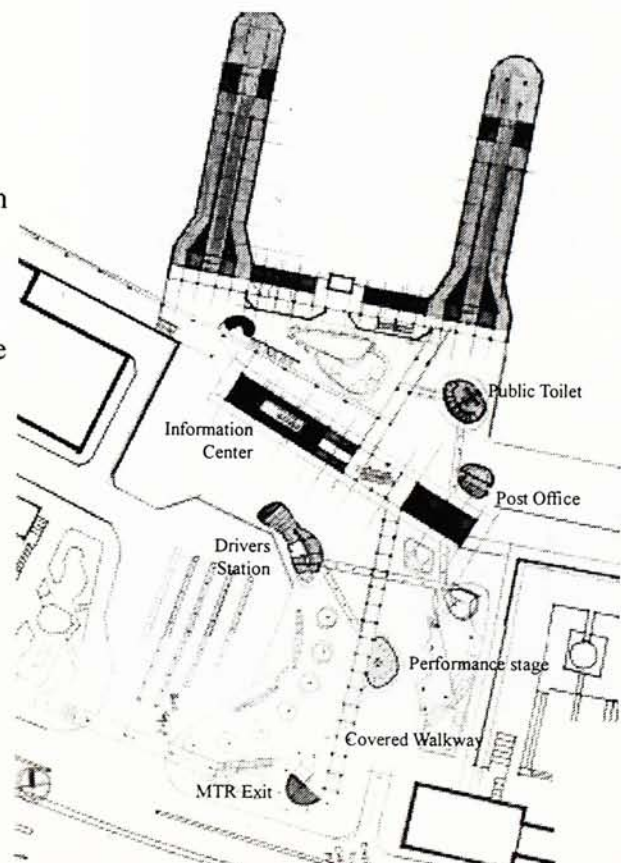
Description

- Try to capture the two contrasting characteristic in the site:
- Tourist - temporal, dynamic, floating
- Public - Static, permanent, background
- Create activity nodes linked by paths of different characters by introducing small structures scattered at different locations
- Move the car park underground to free up the ground level
- Retain the white frame structure of the car park as symbol of memory
- Provide elevated walkway connecting the post office and City Hall - to fill up the lost link in Central walkway system
- Main structure as part of the walkway system, in form of elongated glass box to maximize the view and transparency
- Main structure elevated to retain visual access to the pier
- Create courtyard space for people to seat and rest



Evaluation

- The walkway should in a better integration with the pier
- The main structure is tilt in a angle which is arbitrary
- Should response to the exist of urban axis started from Hong Kong Bank
- The building is blocking the view to the pier, which is in contrast to the main theme of the projects taking the pier as important icon in the site.

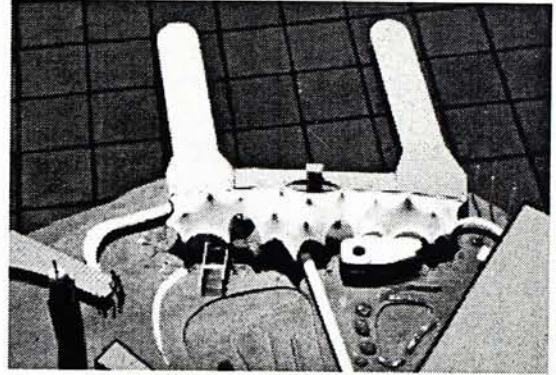


3 . S I T E P L A N N I N G

3.3. FINAL OPTION

3.3.1. Tsim Sha Tsui

In the last option, the idea of scattered kiosks enclosed within a major envelope is retained. Tent structure is proposed for the shelter.

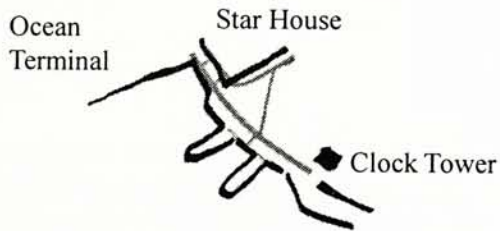
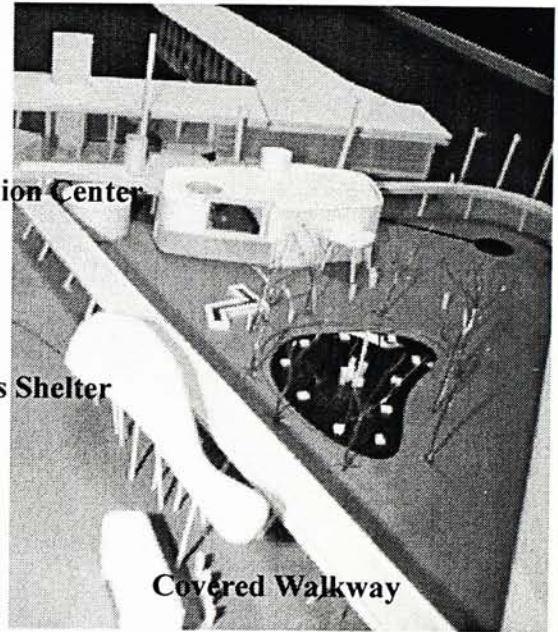


Water Garden surrounded by the covered walkway, information center and Star House

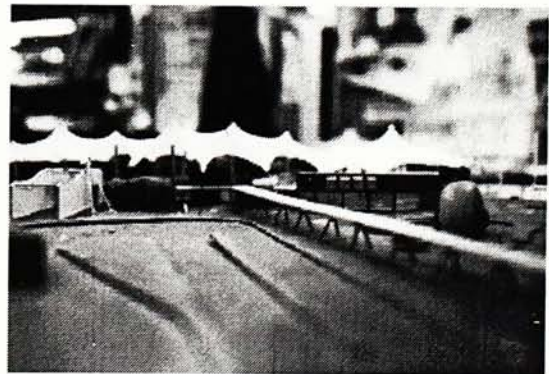
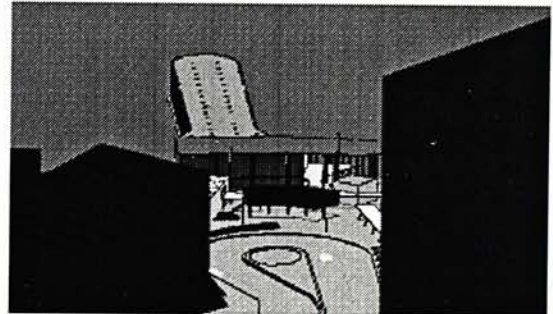
Information Center

Bus Shelter

Covered Walkway



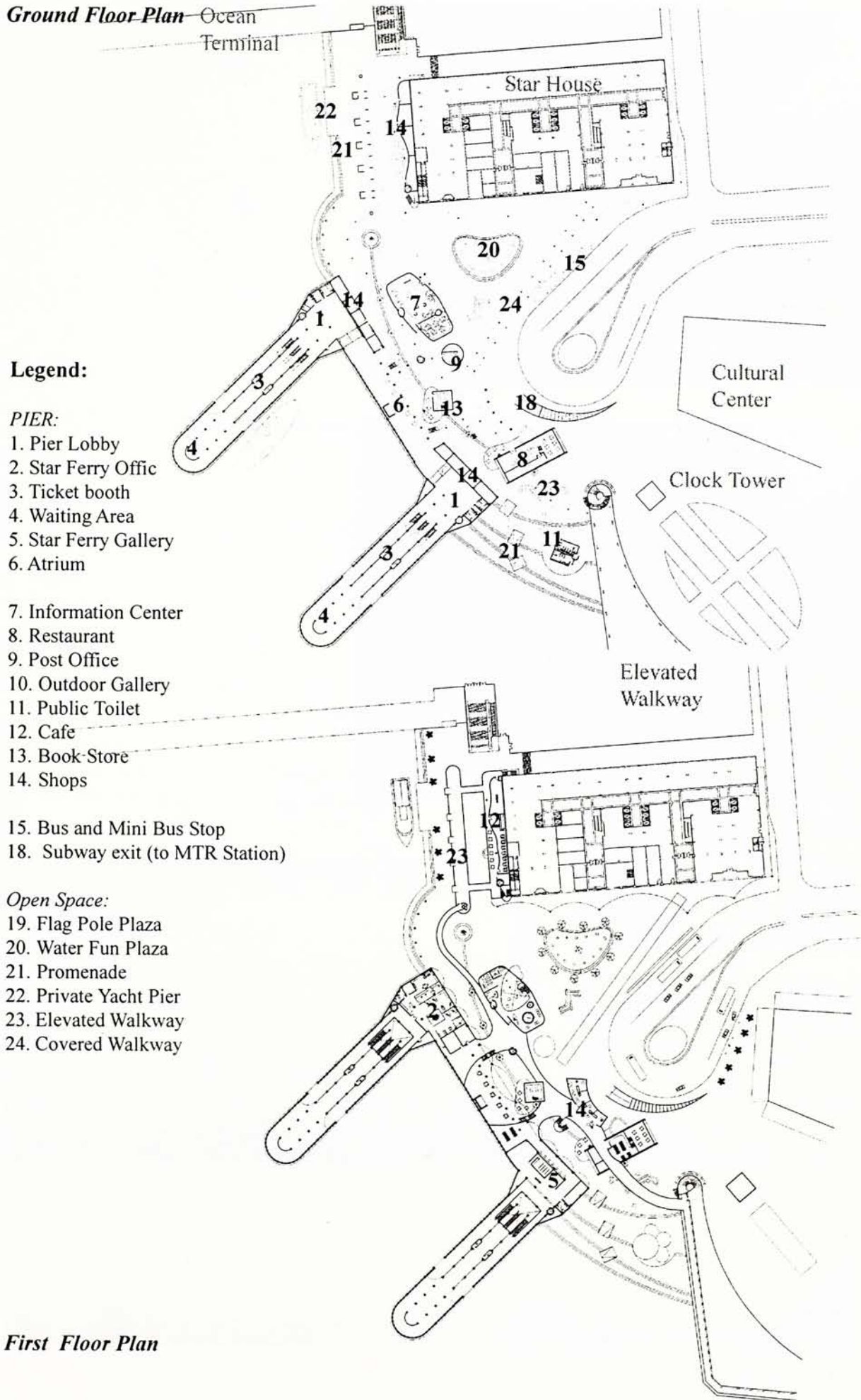
Circulation pattern in the site



Aerial view of the site, all elements are unified by the tent

3 . S I T E P L A N N I N G

Ground Floor Plan



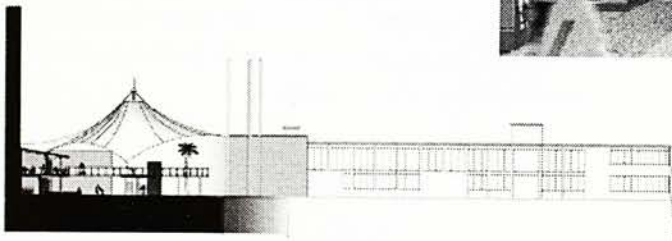
First Floor Plan

3 . S I T E P L A N N I N G

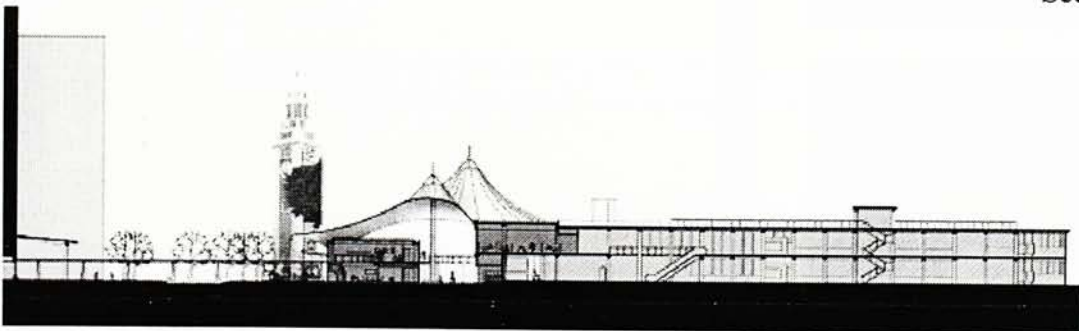
*Approaching the piers
from Ocean Terminal*



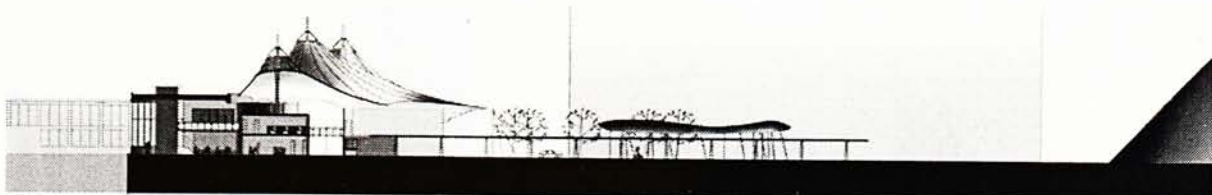
Space under the tent



Section A-A'



Section B-B'

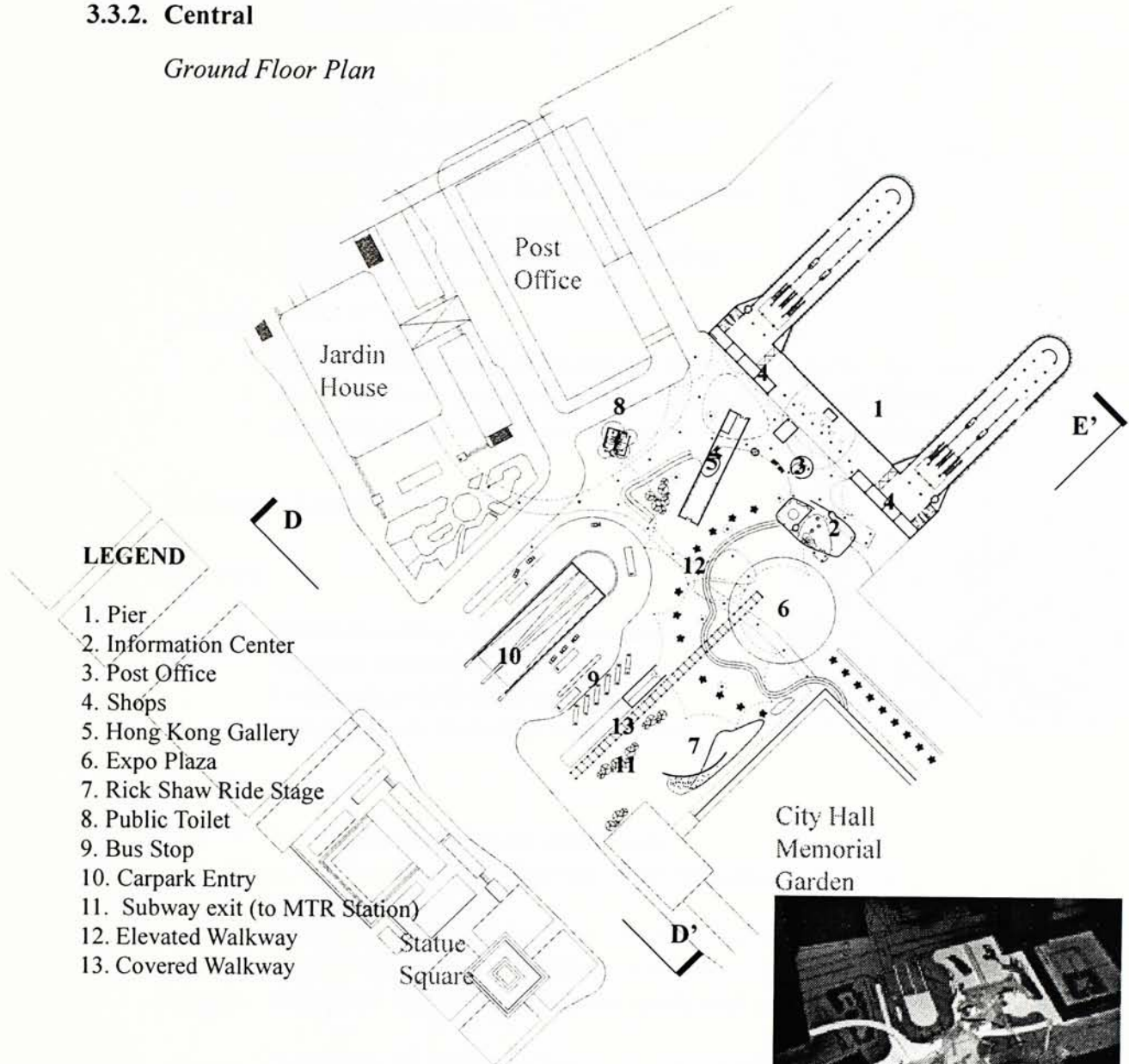


Section C-C'

3 . S I T E P L A N N I N G

3.3.2. Central

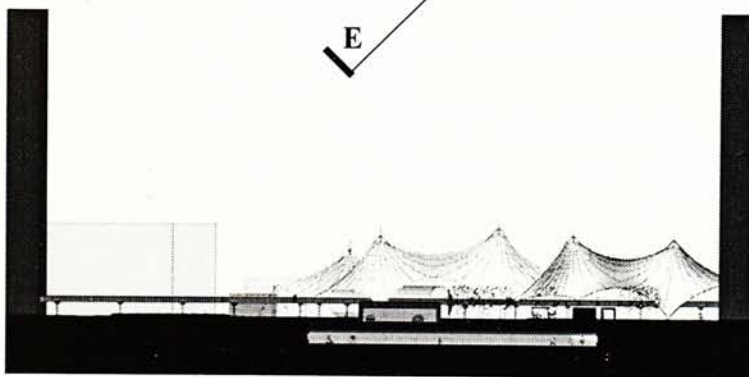
Ground Floor Plan



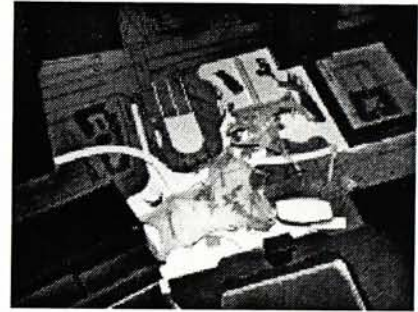
LEGEND

1. Pier
2. Information Center
3. Post Office
4. Shops
5. Hong Kong Gallery
6. Expo Plaza
7. Rick Shaw Ride Stage
8. Public Toilet
9. Bus Stop
10. Carpark Entry
11. Subway exit (to MTR Station)
12. Elevated Walkway
13. Covered Walkway

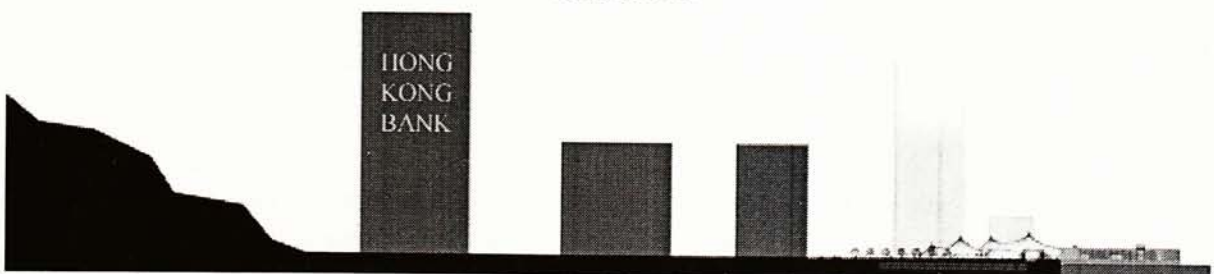
City Hall
Memorial
Garden



Section D-D'



Study Model



Section E-E'

3.4. DESIGN ISSUES AND CONCEPTS

3.4.1. Cross Harbor Linkage

Objective:

- dialogue between the two sides of the harbor
- retain the unity of the visitor's center
- guiding visitors from one site to the other

Concept:

- The pier is preserved as a symbolic image in the harbor for visual reference.
- The water front is opened up for public to allow visual linkage
- Repeated elements from one site to the other as reference images

3.4.2. Pedestrian Circulation

Objective:

- Introduce a clear circulation pattern to the site
- Integrate circulation with activities
- Linkage to neighboring buildings
- Retain view to the harbor and the tower

Concept:

- Provided more space for cross-roads
- A continuation of the elevated walkway system
- Alternative routes
- Elevated walkway
- Subway leads to rail stations
- Undefined zone for spontaneous events and movements

3.4.3. Vehicular Circulation

Objective:

- Minimize disturbance to the pedestrian zone
- Provide a convenient and efficient transport interchange point

Concept:

- Group public transportation together to minimize space occupied
- Provide sheltered waiting area

Tsim Sha Tsui

The star ferry has become more like a leisure cruise tool instead of the major harbor crossing transportation as it used to be, it is proposed that the bus terminal can be removed, with linkage to terminals at Hung Hum rail terminal and the future west rail terminal.

Central

- Tour bus stop and by pass bus stop will be keep at the site
 - The car park structure is move underground so the site can be fully utilized
-

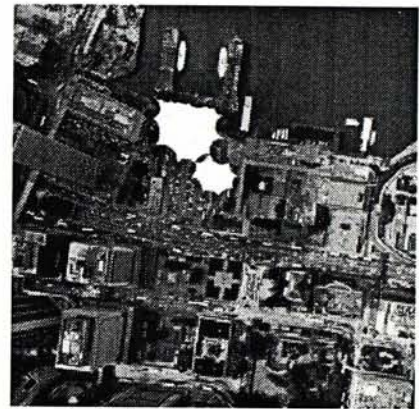
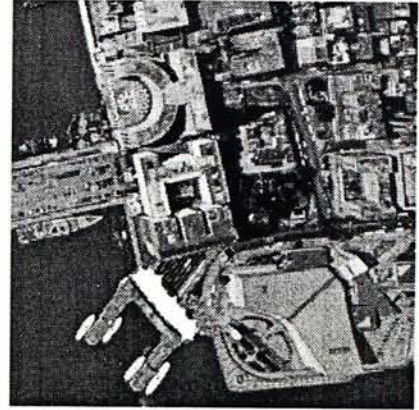
3.4.4. Contextual Integration

Objective:

- Harmonizing with neighboring buildings
- create a focusing point in the city

Concept:

- the organic shape of the tensile structure can fit into the irregular site geometry
- nature of material and forms stands out among rectilinear buildings



3.4.5. Activities

Objective:

- provide well protected area to enhance outdoor activities
- visual linkage between different activities

Concept:

- Using a major shelter to create semi-protected zones in the site. It also act as a transition between the pier to the open area
- Site furniture provided to give a more intimate scale and give place for people to rest or play.
- Highly transparent building envelops to enhance interaction between the interior and exterior.

3.4.6. Landscaping

Concept:

- Soften the landscape in the urban context
 - site features as marks to identify activity zones
 - water features and sunken plaza for fun
 - steps along waterfront for people to sit
 - green area as a continuation of the statue square and memorial garden
-

3.4.7. Image

Objective:

- a vivid, festival place to meet the atmosphere of tourism
- to enhance a leisure and easy movement through the site

Concept:

- use of tensile structure, which is usually relates with entertainment functions
- introduce colorful site structure
- buildings in organic form with varieties in form

3.4.8. Spatial Subdivision

Objective:

- Flexibility
- clearly organized
- interaction between spaces
- Sufficient privacy for office spaces

Concept:

- space within space approach
- functional programs enclosed in small structures with structures independent from the tent
- buildings are linked by elevated walkway

3.4.9. Fire Protection

Concept:

- to ensure safety of users in case of fire
- All the small buildings are single volume structures, with space limited not exceeding safety limit, therefore no sprinkle system is needed.
- Exits are provided at ground level and first level
- Sprinkle system only provided at the pier.
- space outside of the structure is assumed to have no fire risks

3.4.10. Ventilation

Objective:

- Fully utilizes of natural ventilation in public areas
- Air conditioning only provided in enclosed buildings

Concept:

- Spaces roofed with tensile structures has no vertical enclosure
 - Clear segregation of activities
-

3.4.11. Lighting

Objective:

- Fully utilize natural sunlight as the main illuminant source in daytime
- Using light to define boundaries and enhance characteristic of architectural elements
- A good integration between light sources and structures
- Good integration between daylight and artificial light to create a soft but balance environment

Concept:

- Use of translucent envelope for enclosure can allow more sunlight to penetrate into sheltered spaces
- Skylight provided at main activity zones
- Skylight introduced at junction between different architectural elements
- Separated light source to illuminate the tent and lower part of the space
- Light source hidden in the elevated walkway
- Supplementry direct light to balance the glare produced by translucent roof in bright days.

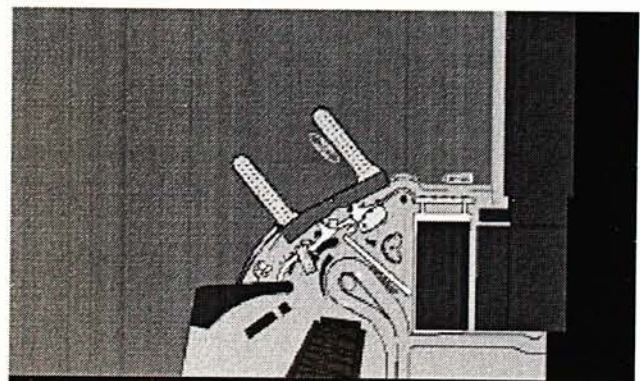
3.4.12. Structure

Objective:

- A clear and effective structural system
- Use structure to define zones
- Structural members intergrates with activities
- The expression of different structural system

Concept:

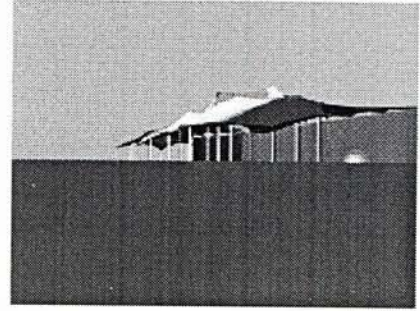
- Independent structural system for different parts
- Seating at the foot of main columns



4.1. MAIN SHELTER - The Tent

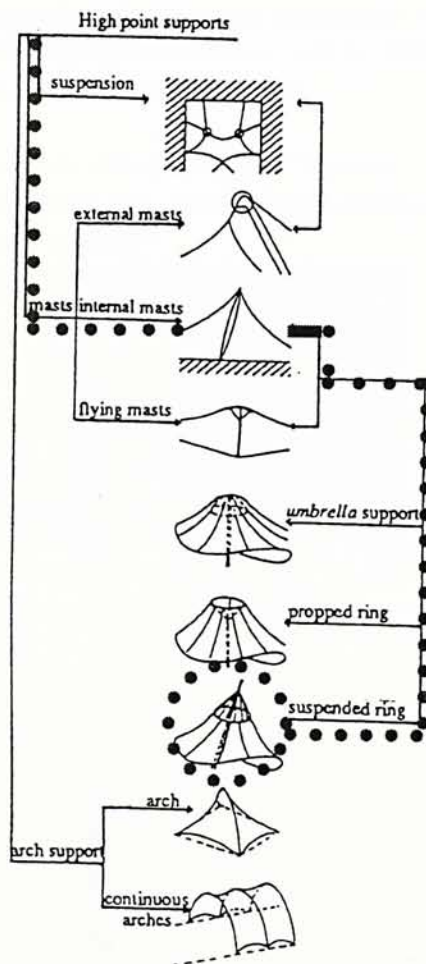
The idea of a major covering over the site is aimed to:

- unified the scattered site elements
- give a strong image to the site
- provide weather protected open spaces to encourage happening of events
- as a visual hint to connect two sides of the harbour

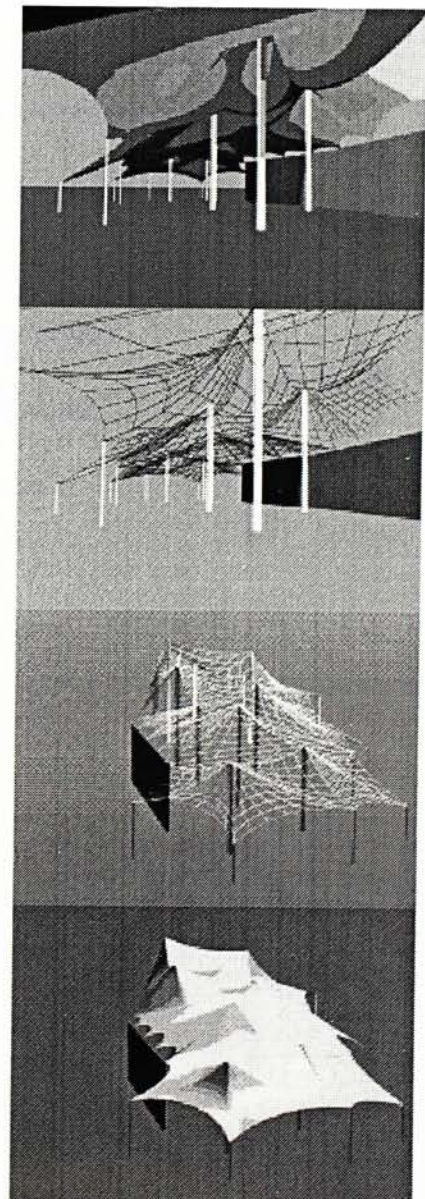


4.1.1. Structure

Suspended ring supported by internal masts

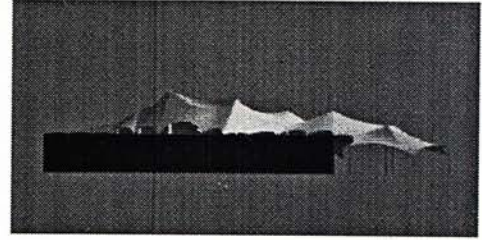


- Different main masts height to create dynamic form
- Edge supported by secondary masts to maintain a minimum height of 5m, to retain the openness of the internal space
- Cables tied to ground to stabilize the structure



4.1.2. Fabric

1mm thick translucent PTFE - coated woven tensile membrane
Membrane edge is finished with cables to increase strength



4.1.3. Lighting

Quantity:

translucent of the material allows large amount of light penetrating the enclosure. Thus the sheltered space can have a higher level of illumination in day time than space under conventional roof structure.

Quality:

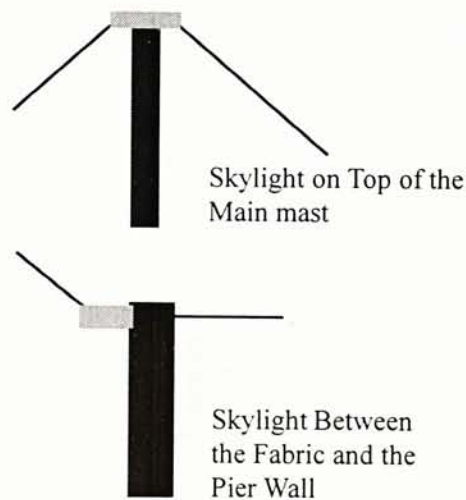
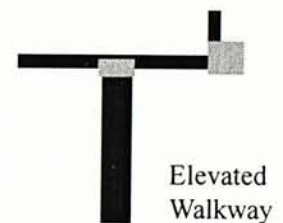
- the internal environment is constantly varies in responses to external condition.
- light through the membrane will be diffused. Dark shadows can be avoided to resulted in a soft environment.

Supplementary directional light sources

- Balance glare as a result of over diffusion of light on membrane surface during bright days.
- Support readability of the roof form.

Location of Direct light source

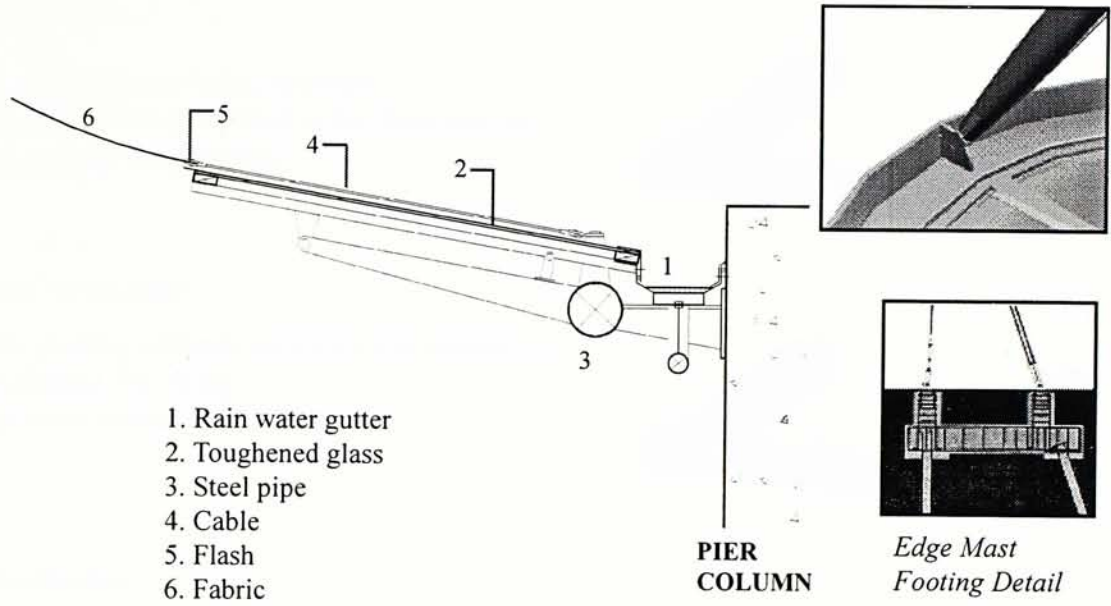
- Supplementary light source to lit the tent is evenly distributed along the walkway
- Light source to illuminant lower level space is located under the elevated walkway
- Edge of the tent is high enough for natural light to come in
- Water features helps to reflect light into the tent
- Skylights



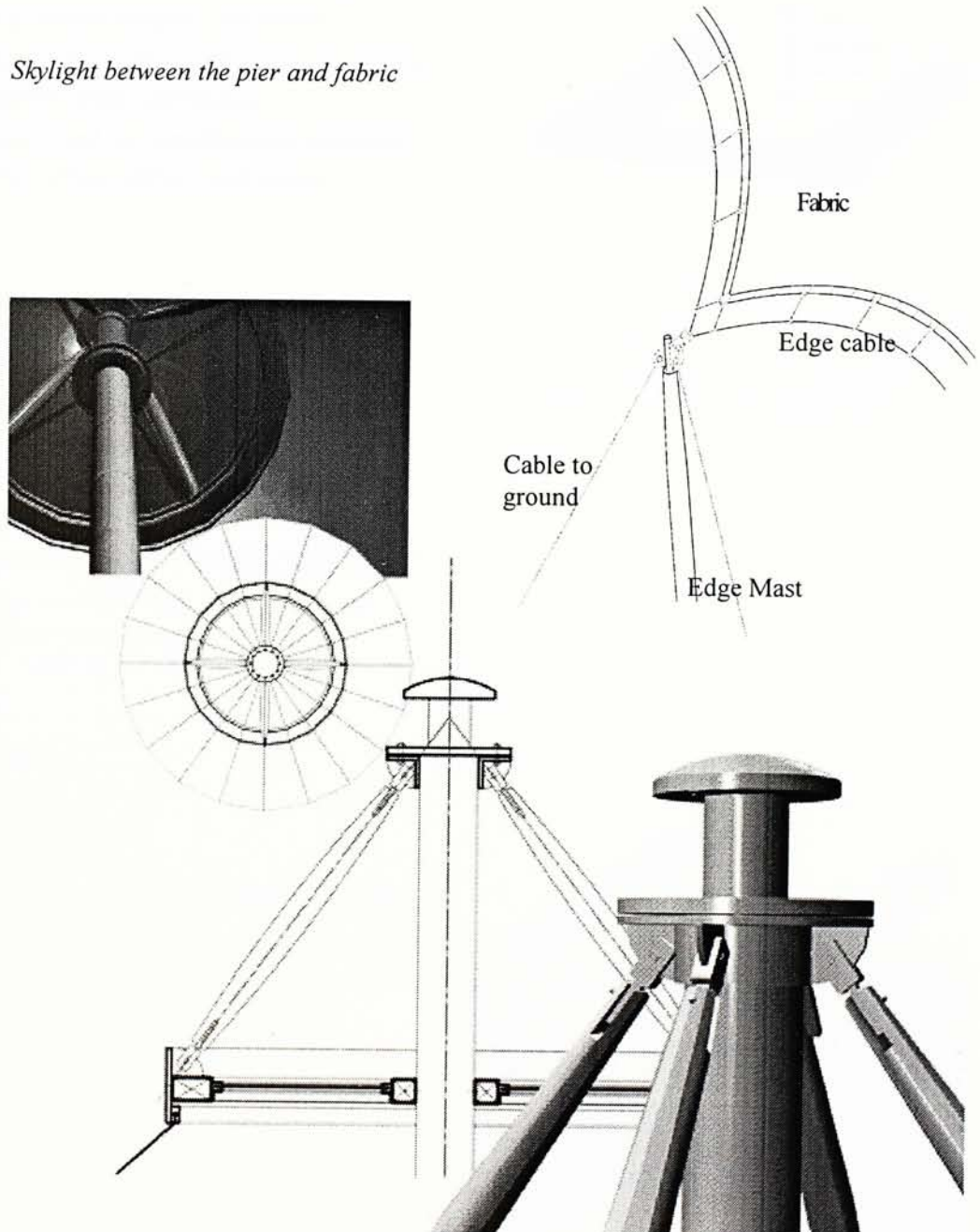
Top of the main masts

4 . B U I L D I N G

4.1.4. Construction Details



Skylight between the pier and fabric

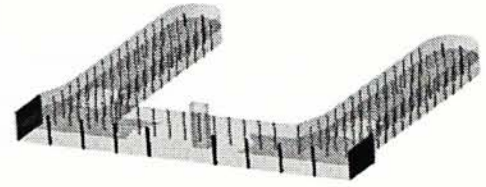


Detail of Top of the Main Mast with Skylight

4 . B U I L D I N G

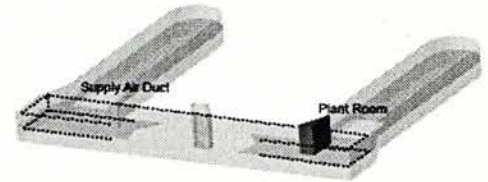
4.2.4. Structure

- Retain the existing structure
- new structures added at the front part to support the additions



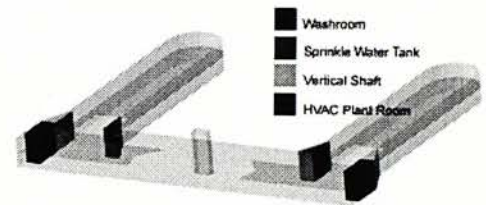
4.2.5. Fire protection

the existing concrete structure can support sufficient fire rating
sprinkle system is provided



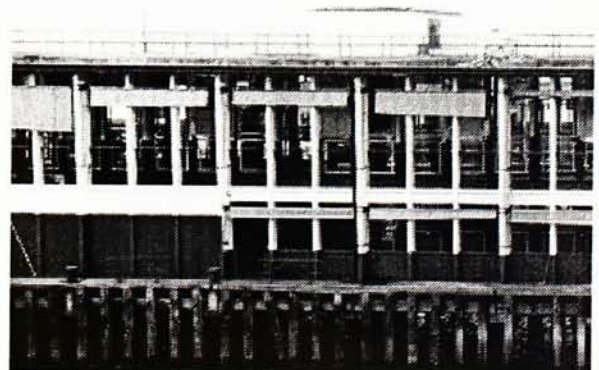
4.2.6. Ventilation

- Fully utilize natural ventilation
- Most parts of the public area is open to enhance cross ventilation
- Centralized air conditioning provided in the office, gallery and shops.



4.2.7. Ventilation

- daylight is preferred
- different lighting quality to enhance different spatial character
- skylight provided to highlight the public lobby
- Adjustable shading device is installed on the external wall of the piers for weather protection



4.2. PIER

4.2.1 Alteration

Objective

- retain the existing character of the pier
- enhance the pier as a symbolic image in the harbor
- modify the interior for better environment
- enhance the openness of the structure

Concept

- Preserve the external envelope and main structure
- remove toilets at the end of the existing pier to open up the harbor view
- provide a larger waiting area

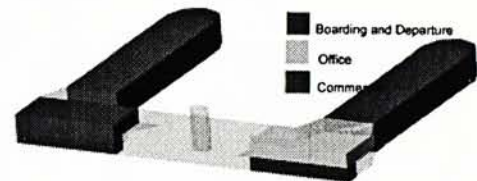
4.2.2. Zoning

Objective

- maximize the chance for public entry without intruding to the paid area
- sufficient privacy for the office area

Concept

- provide a open lobby in the central front part of the pier for public gathering where the visitors can enjoy the sea view
- centralize all the functions other than boarding and departure in the front part for easy access



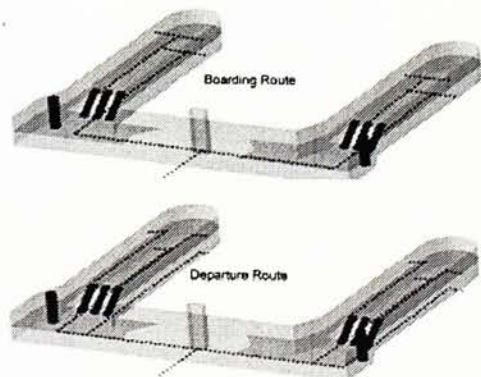
4.2.3. Circulation

Objective

- Provide a clear and efficient circulation

Concept

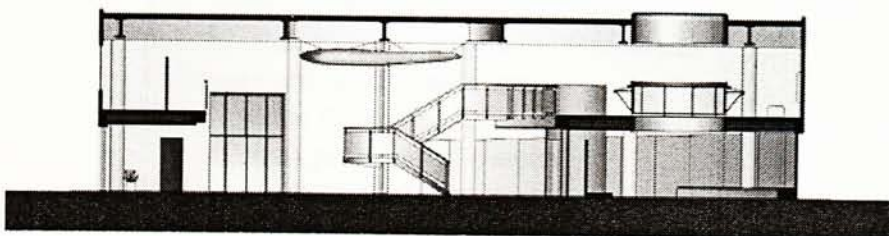
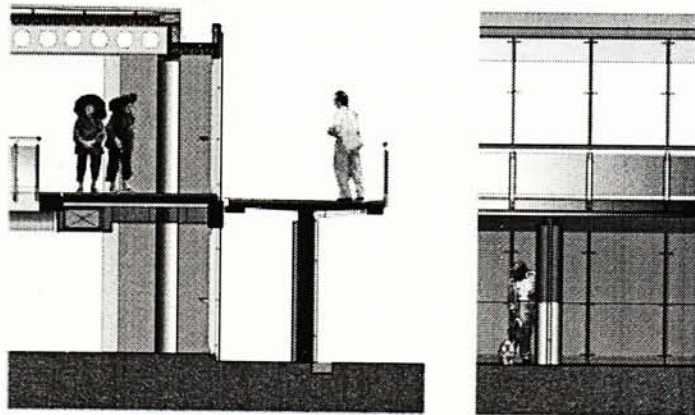
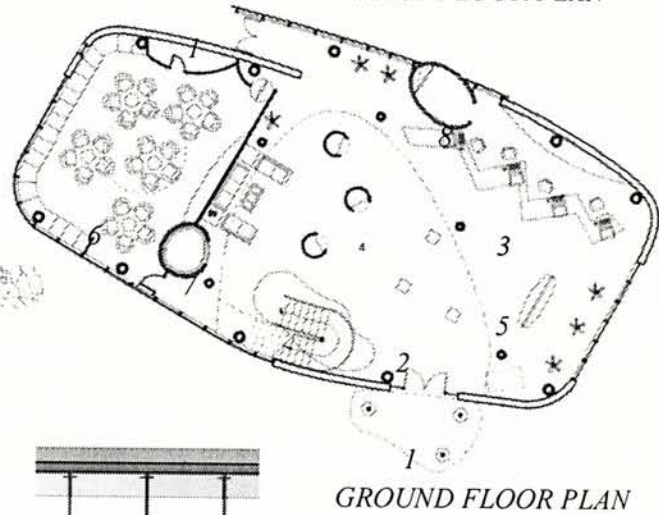
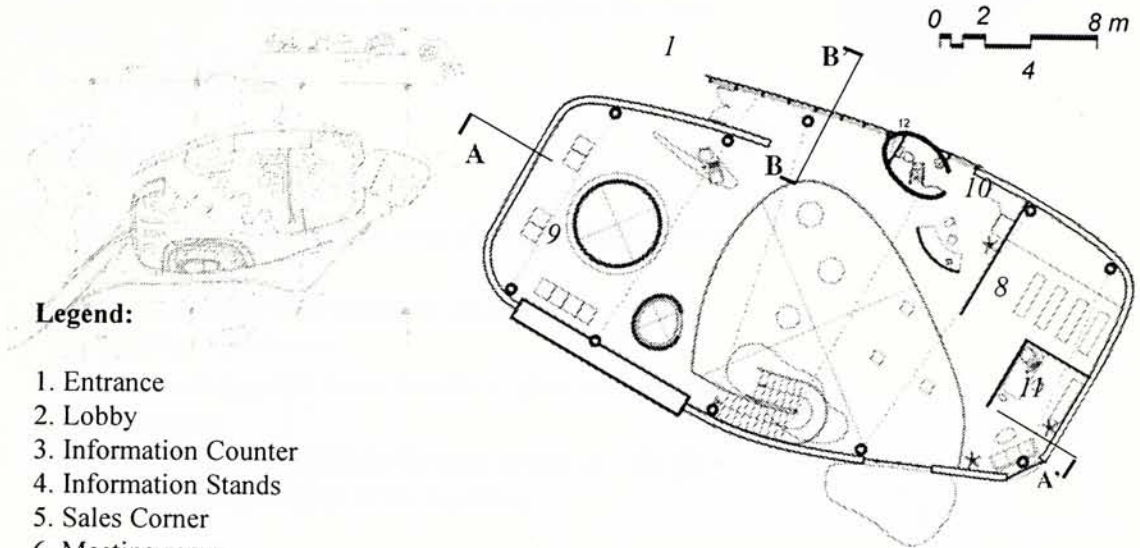
- one entrance for all passengers
- provide lifts and escalators for handicapped access
- a clear separation between boarding / departure and other functions
- advertising and video along the circulation path to add interest to the route



4 . B U I L D I N G

4.3 Information Center - the PROTOTYPE

The information Center is the access terminals of HKTA's tourist information system. The structure will be constructed over the city at various tourist nodes. The distinctive profile of the structure marks the points of attraction. It is also an iconic symbol of the tourist industry.



4.3.1. Design Issues

Structure

- steel post enclosed in concrete as main column
- steel pipe as secondary column to support the floor slab.
- perforated I- beam



envelope

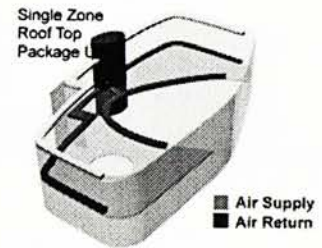
- external wall: corrugated steel sheet prefabricated in desired curves
- roof: double layer corrugated steel roofing with insulation in between
- video screen on the front facade to give information to passer-by
- Transparent glass wall for facade facing inward to increase transparency of the building.

Lighting

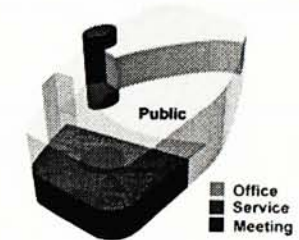
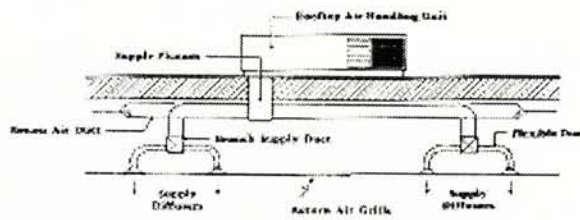
- skylight provided for main spaces
- sculptural lighting fixture in the center of the room as main focus

HVAC

- roof top packaged unite
- Building Service
- Mainly Enclosed within vertical core

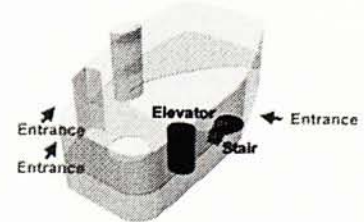


Zoning



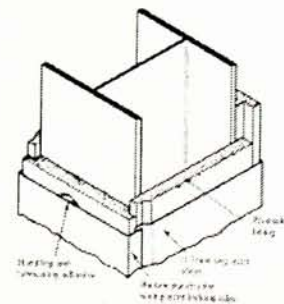
Circulation

Rooftop Single Zone Air Conditioning System
Typical Rooftop Air Handling System

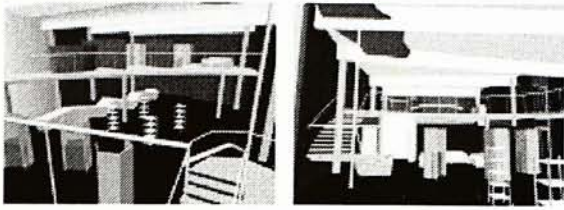


Fire Protection

- The building is a small single volume structures, it is possible that no sprinkle system is required.
- Exits are provided at both level
- Hand operate fire extinguishes are provided
- The columns protected in concrete
- Beams sprayed with fire protected insulation



5 . D E T A I L S T U D Y

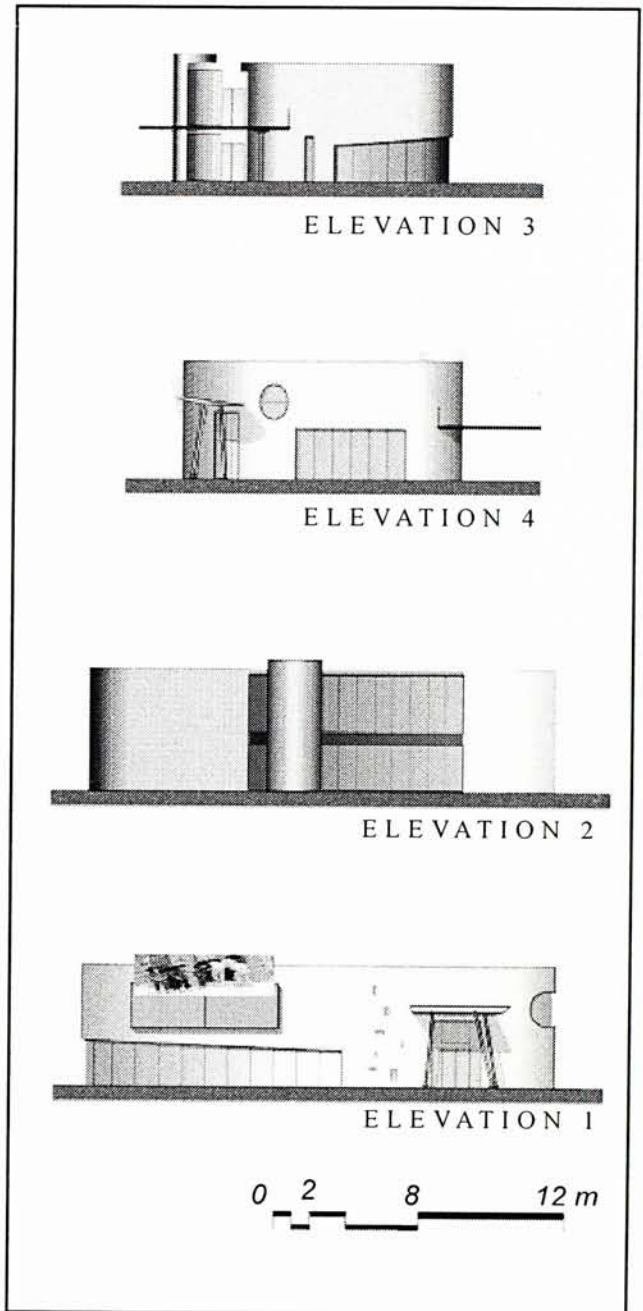
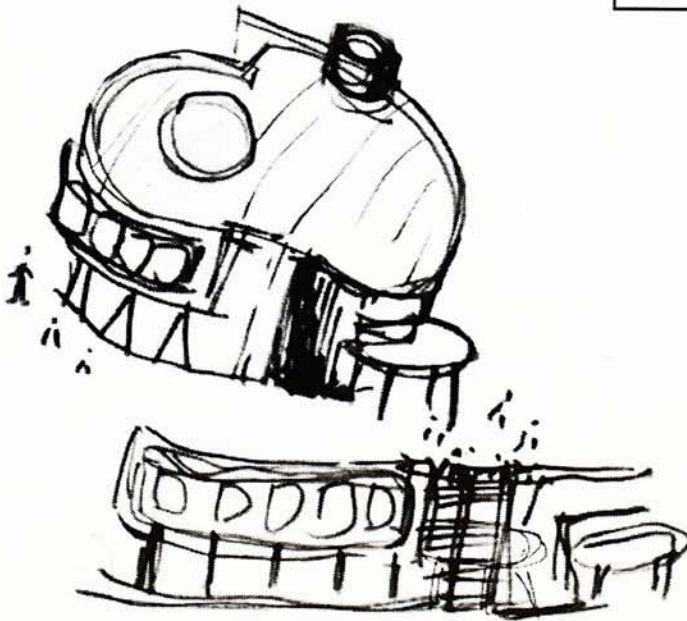
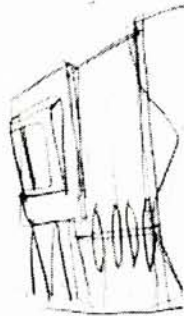


Interior Views

Entry



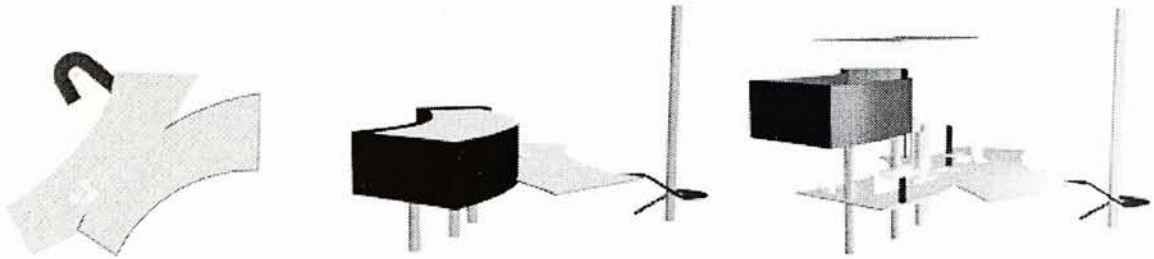
Screen Facade



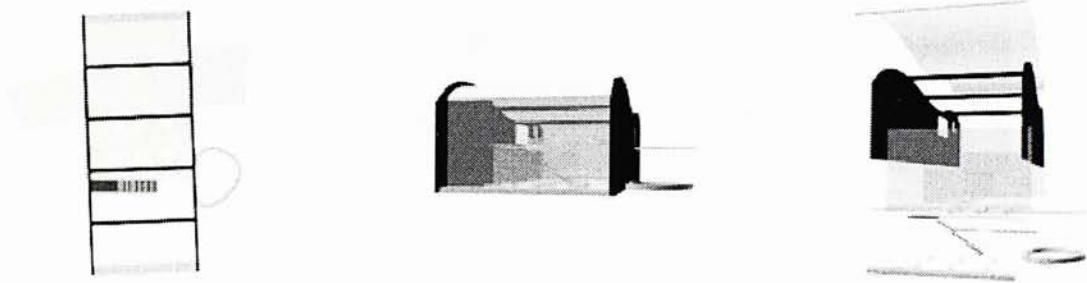
Preliminary Elevation Study

4.3 SOME OTHER BUILDINGS

4.3.1. Shop A



4.3.2. Restaurant



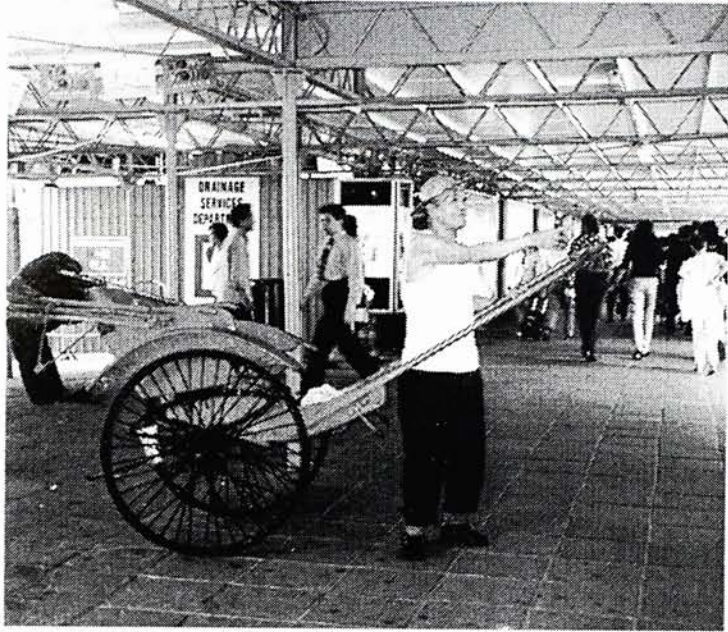
4.3.3. Bookstore



plan

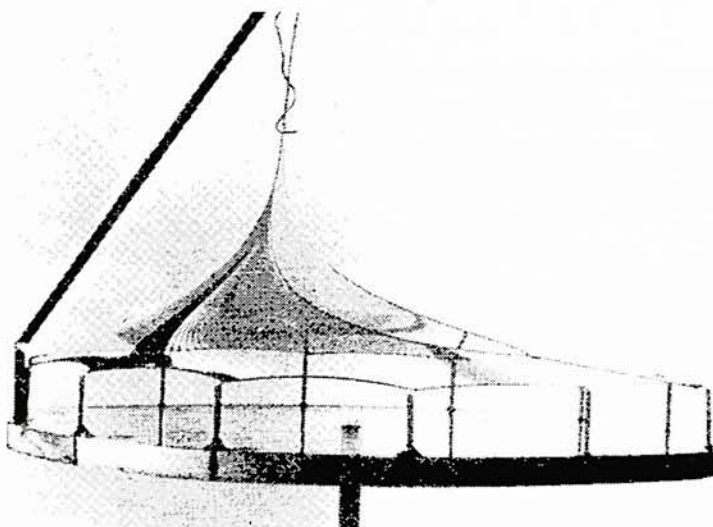
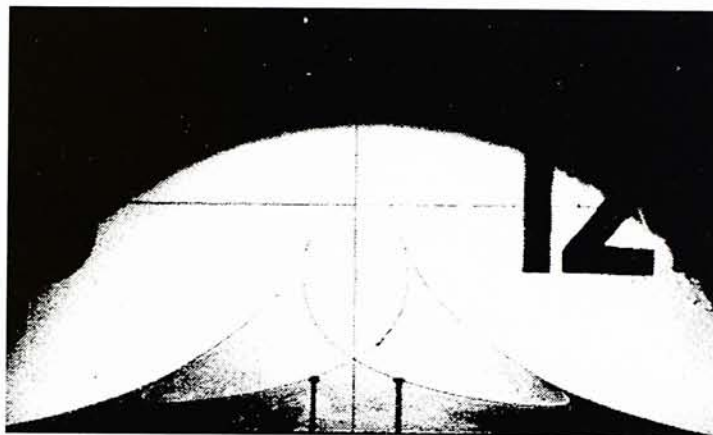
3-D

Exploded



A P P E N D I X

APPENDIX I: Tent Architecture



F O R M F I N D I N G

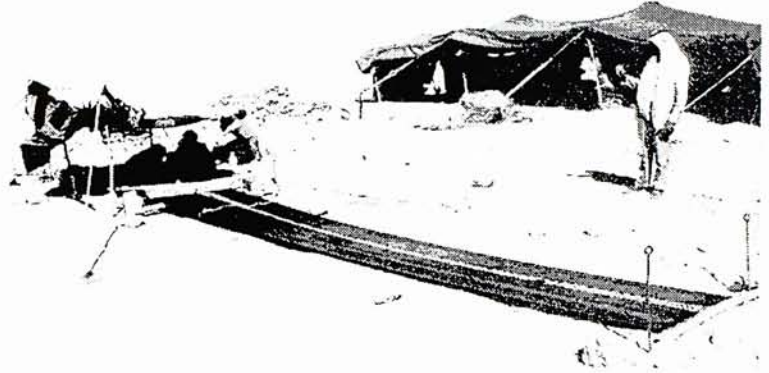


APPENDIX I: Tent Architecture

1. INTRODUCTION

"To examine things and allow them to discover their own images...if we try to discover the 'true' organic form, rather than to impose an extraneous form, we act in accord with nature,"

By Hugo Haring, European Expressionist, 1992.

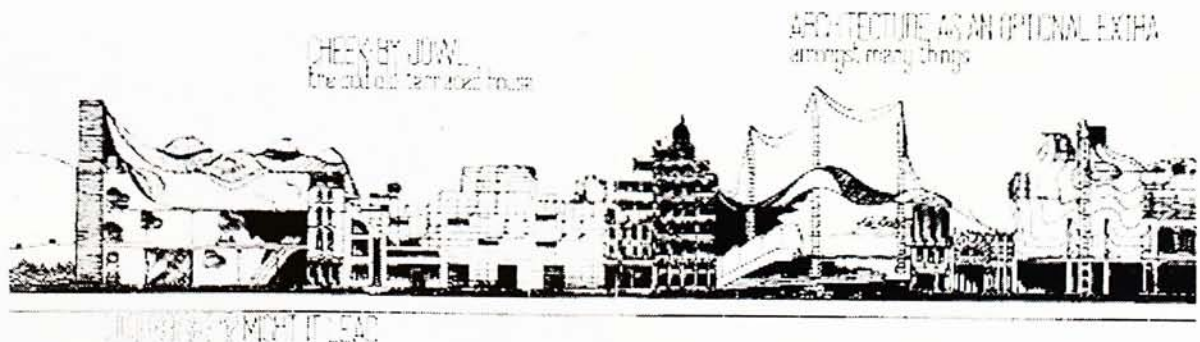


Tensile structure can be seen as the manifesto of an organic possibility of architectural form. It is typified by complex curved surfaces, flat sweeping profiles, dominant hovering roofs and the suppression of walls. The form completely integrates with their structure: the shape of the building is determined by the physical characteristics that maintain its strength, and that strength is achieved almost exclusively with tension forces.

Traditional tensile architecture is usually connected with nomadic cultures. This buildings type contrasts with architecture produced by 'civilization': they are light instead of heavy, transient instead of permanent, portable instead of static, demountable instead of immutable. They have therefore primarily been used in situations where portability or speed of erection has been a requirement, such as mobile dwellings, military shelters and circus and other entertainment venues.

The emergence of modern tensile architecture in the early 1950s focused attention on tensile structure as the antithesis of compression loaded vaults and domes. It quickly acquired a reputation as being entirely new and appropriate to the 'modern age'. Architects usually approach tensile buildings in terms of its novelty and large span capability, but it is also characterized for its adaptability and minimal use of material.

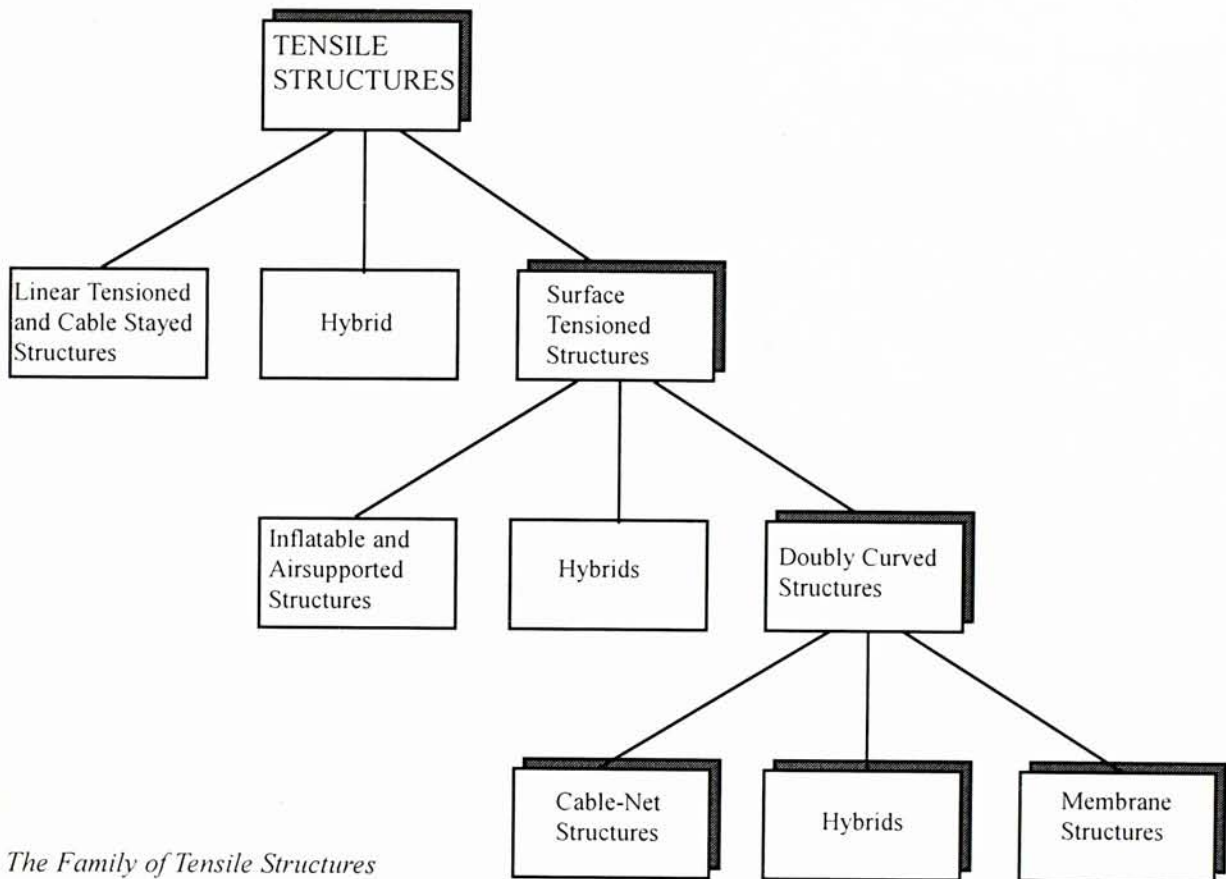
With the development of the technology and the improvement of the material, the application of tensile structure as permanent and fully enclosed building has become more frequent.



The Archigram's proposal for a new mode of living

2. PRINCIPLE FEATURE

- Structure with a minimum volume and minimum surface area
- Material of maximum allowable stress
- Building space that truly integrates interior and exterior with a minimum division between inside and outside.
- Fabric structures are simultaneously: Supporting structure and building envelope, lighting system and acoustic environment, environmental sculpture and architectural space



The Family of Tensile Structures



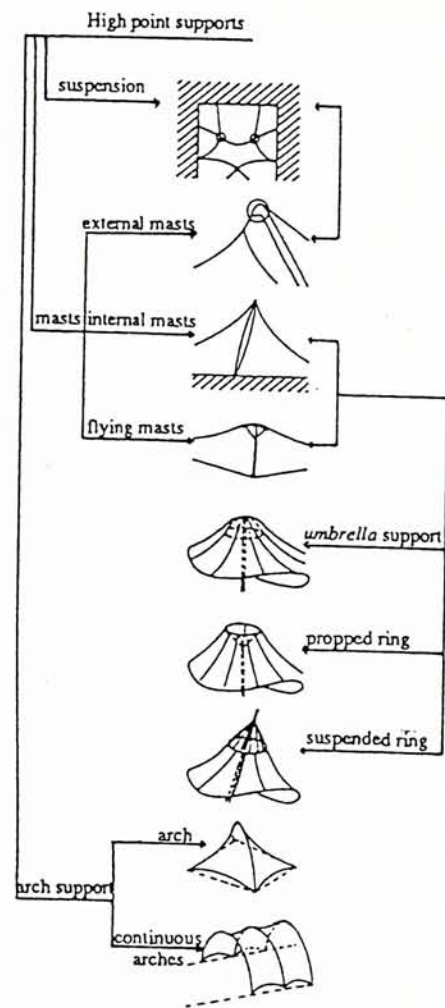
Roof for the 20th Olympic Games at Munich, Germany, 1972

3. STRUCTURE

- The structural system for tensile structures is based on the ability to accommodate pre-stressed loads through air-support with stiff-compression members, sometimes combined with cables.
- structural load is relatively small part of its total load, which is primarily made up of imposed loads
- The material is stretched until taut to impart additional strength to the structure
- A double curvature in mutually opposite direction at every point of the surface of the membrane is required to achieve a stable structure



The stability of an anticlastic surface depends on the fact that every point on the surface is located by four vectors consisting of two pairs in mutually perpendicular planes, extending in opposite directions



Types of High Point supports

4. FABRIC

3.1. Developments

- The simplest, traditional tensile buildings are made of animal skin or cloth fabricated out of animal hair.
- More efficient materials manufactured from plant fibers such as cotton or hemp woven into duck or canvas fabrics have been available for thousands of years.
- In the twentieth century, synthetic fibers such as nylon, polyester, fiberglass and most recently have been utilized. Each of these fabrics has their own specific characteristics that make them suitable for different applications.

3.2. Quality Requirements

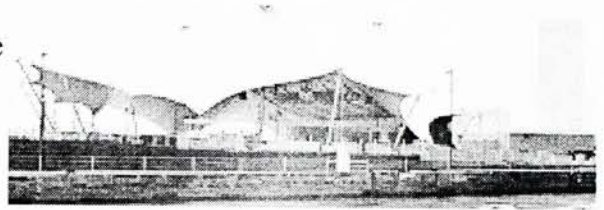
- Strength
- Non-combustibility
- Durability
- Low heat absorption
- Translucence (from high light permeability to completely opaque)
- Resistance to dirt and easy cleaning
- The characteristics of different coatings such as Teflon and silicone play a large part in determining these qualities.

5. FORM

Traditional urban situations usually consist of rectilinear blocks. Orthogonality is the pattern that developed throughout history and proved to be suitable for everyday life. By the very nature of their materials and extraordinary form, when tensile structures are used among conventional architecture they are outstanding.

5.1. Free standing tensile structure

Geometrically difference allows the building be of an outstanding character. The curvilinearity of the boundary and the double curvature of the surface could be allowed to follow their own structural logic without having to adapt to the surrounding buildings.



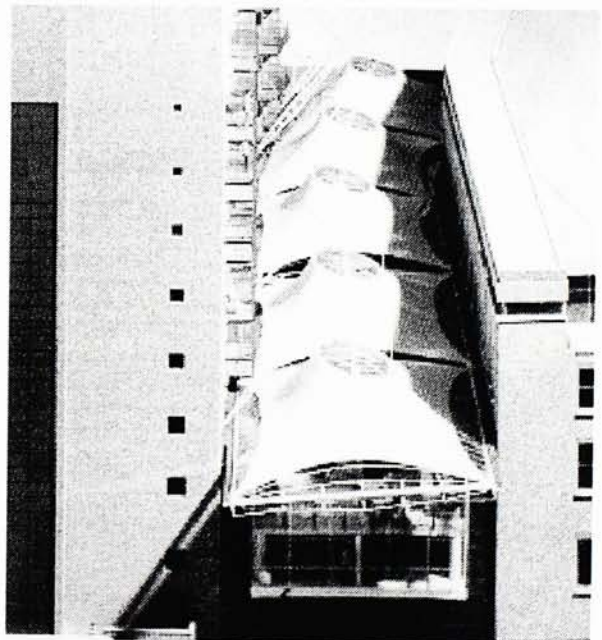
5.2. Continue an existing urban pattern

The new building has to adapt geometrically in order to harmonize with the ordinary. At the boundaries where the rectilinear and curvilinear forms meet a zone of adaptation will be need. That is, an area where the boundaries of either the rectilinear structures or the curvilinear structure become manipulated in such a way that they can meet the shapes of the other.

Another option is to design a mediating element to fill the gap between the two.

Stamford Wharf, London
Architect: Lifschutz Davidson

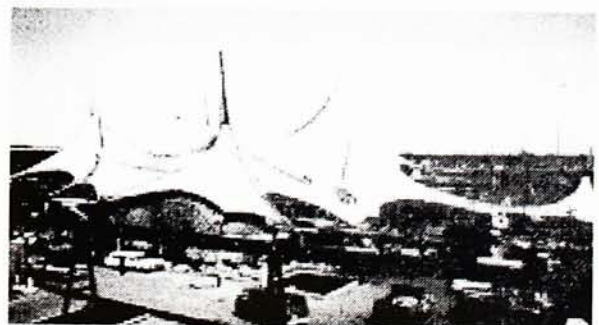
*Example of Glass as mediating element
between tent and wall*



5.3. Diffusing the Boundary

Tensile structures with their scalloped edges can be used to achieve a strong appearance of connecting the inside with the outside of a building.

German pavilion, World Expositio, 1967



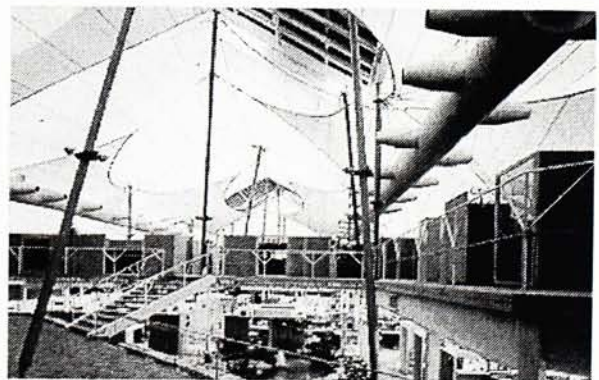
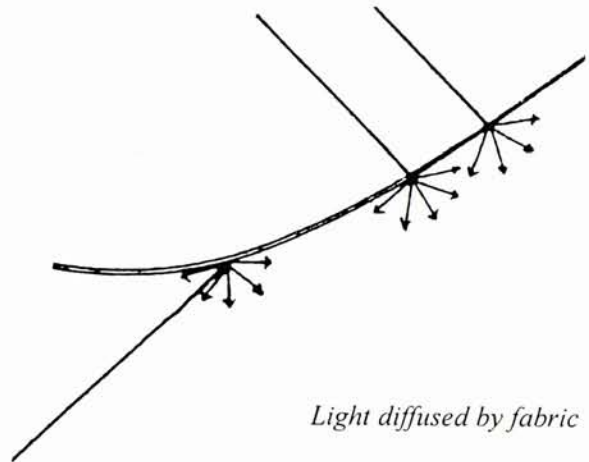
6. LIGHTING

6.1. Quantity

Membrane structures often allow daylight to penetrate into the space in much larger quantities than with conventional solutions due to the translucency of the material. However, excessive translucency of the roof enclosure will cause the lower part of the space appear dark and gloomy, the problem can be resolved by use light color on the lower part of the walls and floor or lit by additional light sources.

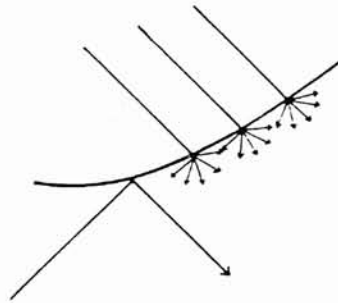
6.2. Diffused Light

Light transmitted into membrane covered spaces is highly diffused due to the properties of the membrane and the splayed reflection off the double curved membrane surface. This can reduce hard shadows and results in a soft environment. However, lack of shadow will cause difficulties for users to perceive the space. Therefore, when the level of diffused light is too high, supplementary direct light sources will be needed to create soft but visible shadows.

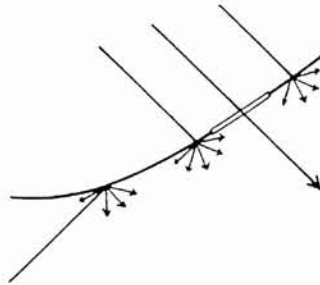


6.3. Readability of Tent Form

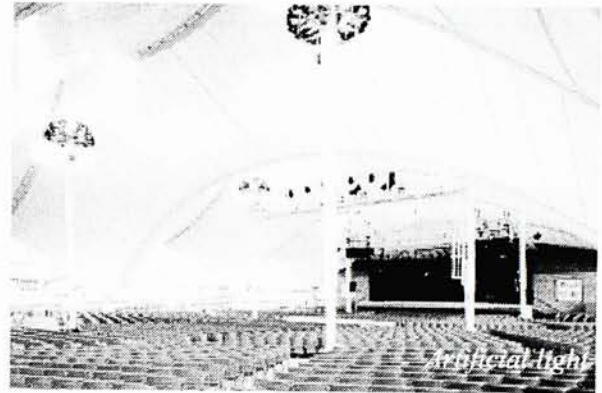
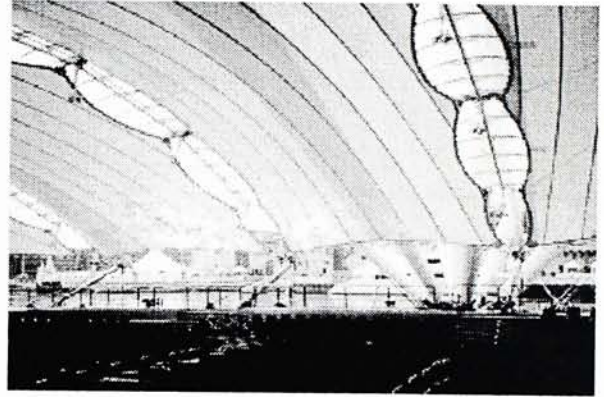
The membrane shape can completely lost its readability due to the highly diffused light through the membrane. Supplementary direct-light sources projected toward the ceiling can leave bright patches on the surface. In the case, the shape of the membrane becomes more apparent due to enhanced surface contours.



Indirect light



Sky light



6.3. Lighting at Night

Internally lit membrane structures become outstanding glowing lanterns at night. However, due to the translucency of the fabric, the use of uplighters is not very efficient as a means of illuminating interior spaces. Therefore, separated light will be needed for lower level activities.

7. Thermal Control

- Membrane structures are environmentally very sensitive. They respond to changes in external air temperature almost instantaneously.
- Transparent and translucent fabric with a low-emissivity coating that reflects long wave radiation lead to excessive heat gain as a result of green house effect. Therefore it should be avoided in hot climate districts.
- Stack effect can be utilized by making use of the natural form of a membrane structure by opening up the high point.
- Internal shading device can be added to the membrane surface as additional heat filter.

7. Spatial Subdivision

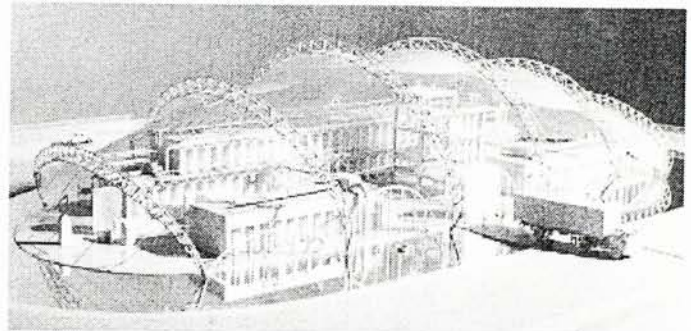
7.1. Visual Subdivision

- Open plan spatial arrangement with only barriers to retain visual privacy.
- Can create a feeling of openness and fluidity of space.
- Avoid the problem of achieving volumetric subdivision.
- Highly flexible, enable frequent changes in space arrangements
- Limited usage, excludes functions which requires privacy or special security measure.

7.2. Space-within-space

- Use of fully enclosed 'functional boxes' cluster within a tensile structure
- Membrane as an exterior weather skin
- Avoid the problem of joining the flexible, three-dimensional roof with straight-edged, rigid planes.
- Easier to achieve more efficient interior environmental control
- Suitable for where large semi-conditioned volumes are needed, with only some fully serviceable spaces

Example: M&G Research building in Vanafro, Italy



7.3. Combined with conventional structures

It is very difficult to connect walls to the undulating roof, since a continuously flowing tensile roof does not offer defined and static lines to which to attach rigid planar materials with static upper boundaries.

A closing flap is need between the roof and the wall to seal off one space from the other. The three ways:

- Adaptation of tensile roof to conventional wall.
 - Adaptation of upper edge of partition wall to roof.
 - Additional element to join the two system.
-

APPENDIX II: STUDY ON TOURISM

1. BASIC CHARACTERISTICS OF TOURISM

Motivation

It is a leisure activity which presupposes of breaking away from daily regulated and organized work. The tourists are directed to features which separate them off from everyday experience.

Though the motivation of holiday making varies among different people, most of them fall under the following categories,

- Wish fulfillment
- Shopping
- Desire to escape from a mundane environment
- The pursuit of relaxation and recuperation functions
- An opportunity for play
- the strengthening of family bonds
- Prestige, since different destination can enable one to gain social enhancement among peers
- Social interaction
- Education Opportunities

Movement

It arises from a movement of people to, and their stay in various destinations. The journey and stay are temporary, with a clear intention to return home. The destinations are outside the normal places of residence and work.

Destination Selection

Tourists attractions are chosen because there is an anticipation, especially through daydreaming and fantasy, of intense pleasures. Such anticipation is constructed and sustained through a variety of non-tourist practices, such as film, TV, literature, magazines, records and videos, which construct and reinforce that gaze.

Site Viewing

The viewing of tourists sights often involves different forms of social patterning, with a much greater sensitivity to visual elements that is normally found in everyday life.

2. URBAN TOURISM¹

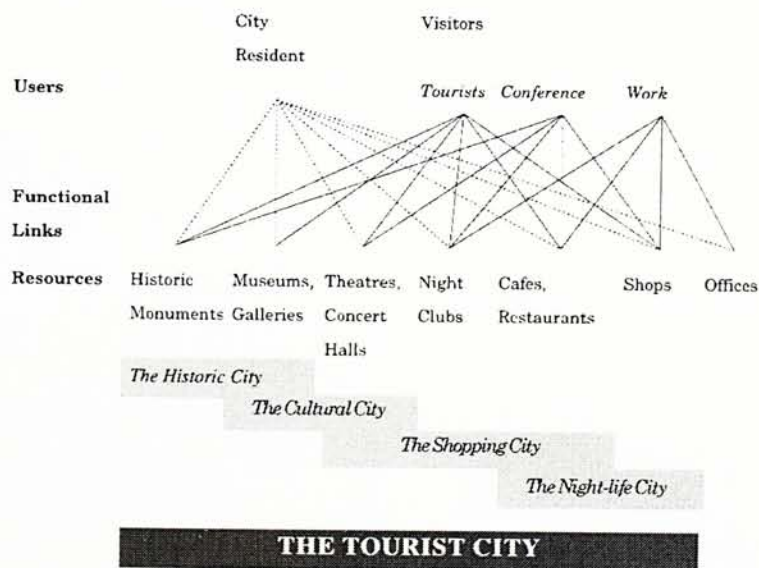
Towns and cities are places where population concentrates in a defined area, and economic activities located in the same area to provide the opportunity for the production and consumption of goods and services. Therefore they can also be the focal point for diverse cultural and social activities which the population engage in, offering opportunities for entertainment, tourism and leisure activities as well as comprising meeting places, airports and conference centers which the travelers and tourist require.

2.1. Reasons for tourists to seek urban tourist destinations

- Cities are places of high population density, with the result that there is a high propensity to visit friends and relatives
- Urban areas are often the focal point of tourist-transport interchanges and termini.
- The concentration of commercial, financial, industrial and producer services in urban areas act as a focus for different people to visit cities for employment-related purposes such as conferences, exhibitions, business travel, etc.
- Cities provide a wide range of cultural, artistic and recreational experiences.

2.2. Functional Cities

City visitors are motivated by a wide range of factors, with different purposes. There are also a high population of city residents who has distinct uses for the city. Therefore, urban tourists are just one set of users in the multifunctional city which comprises the “historic city”, the “culture city”, the “night-life city”, the “shopping city”,... while the “tourist city” embraces many of the other functional cities and their resources.



Functional areas in the tourist city

¹Page, Stephen, Urban Tourism, London, Routledge, (1995), p.xv

3. PLACE-IMAGERY - Tourist Signs¹

Each city has a complex array of features and facilities, which means that it is only possible for a tourist to get in touch with a small component of the destination. As a result, a tourist's view of the district he visits and facilities in the "tourist city" is determined by the significant objects he finds in the tourism environment. Three types of signs can be identified :

- **Iconic signs** - icons which represent features of the place such as Big Ben and Tower Bridge to represent London.
-
- **Indexical signs** - features which imply a casual relationship to the receiver such as traffic sound suggest a busy street scene.
-
- **Symbolic signs**-where objects may illustrate a wide range of activities by association with a state of mind or particular lifestyle. For example, overseas visitors are attracted to UK to experience the pageantry and heritage associated with the monarchy

The practice of tourism involves a lot in the collection of signs. As Culler states: 'the tourist is interested in everything as a sign of itself...All over the world the unsung armies of semioticians, the tourists, are fanning out in search of the signs of Frenchness, typical Italian behavior, exemplary Oriental scenes, typical American thruways, traditional English ous'.²

The sights are then normally visually objectified or captured through photographs, post-cards, films, models and so on.

¹ Page, Stephen, *Urban Tourism*, London, Routledge, (1995)

² Urry, John, *The Tourist Gaze - Leisure and Travel in Contemporary Societies*, England, SAGE Publication, (1990)

APPENDIX II: STUDY ON TOURISM

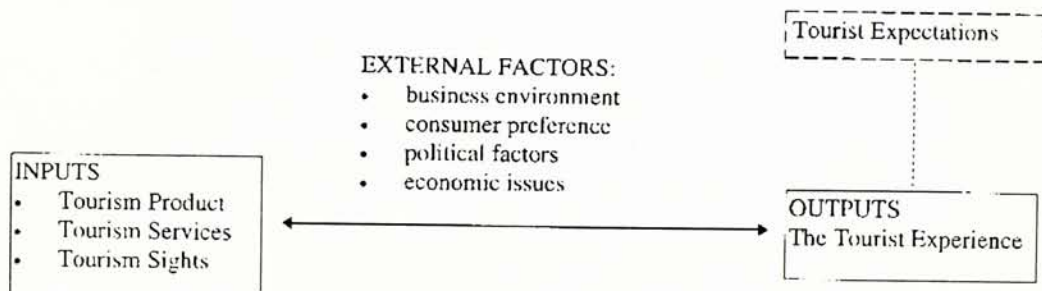
4. TOURIST PRODUCT

Tourism is an act which consumes a wide range of products. The tourist product includes every physical thing that the tourist purchases, sees, experiences, and feels from the time he / she leaves home until he / she returns. It also includes services provided by related industry to facilitate the tourist experience. It can be considered as comprising three major elements:

1. Access to the destination: transportation
2. Attractions at the destination, e.g. sites and events
3. Amenities at the destination, e.g. accommodation, transportation, retail services, catering, etc.

5. THE TOURIST EXPERIENCE

The "tourist experience" is a mixtures of factors which shape the tourist's feelings and attitudes towards his or her visits. It can be influenced by individual, environmental, situational and personality related conditions as well as the degree of communication with other persons¹. Degree of satisfaction a tourist can gain through the tourist experience is mainly determined by the extent to which their expectations associated with their perceptions in actual patterns of activity are matched in reality.



Key Features of a Tourism System

¹ Page, Stephen, Urban Tourism, London, Routledge, (1995), p.24

**South China
Morning Post**

SATURDAY, NOVEMBER 15, 1997

十一月十五日

**MAJOR
BID TO
WIN BACK
TOURISTS**

1. HK TOURISM DEVELOPMENT

1.1. History

The promotion of tourism in Hong Kong began in 1957 with the creation of the Hong Kong Tourist Association (HKTA).

In that year, 50,000 visitors came to Hong Kong, mostly from the United States of America and Western Europe. They came to experience the exotic and fascinating Oriental lifestyle of the territory.

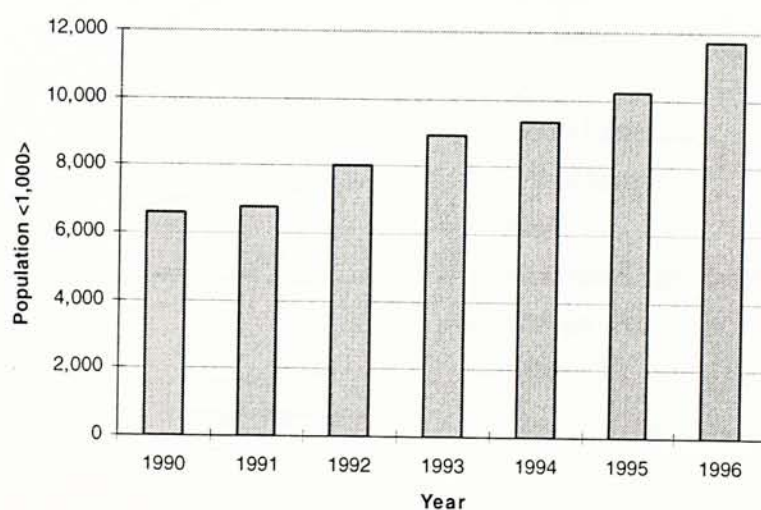
Over the years, Hong Kong has become an increasingly-popular travel destination for visitors from all parts of the world. By 1961, total visitor arrivals reached 221 000, a 34.2 per cent increase in less than five years and, by 1972, arrivals passed the one-million mark. The market mix has also changed, with some 70 per cent of visitors coming from within Asia.

1.2. Current Situation

Tourism is now the territory's second-largest earner of foreign exchange. Hong Kong had a record 11.7 million visitors in 1996, an increase of 11.5 per cent over the previous year. Visitor spending, amounted to \$82 billion, was 11.3 per cent higher than 1995 and represented a contribution of some six per cent to Hong Kong's gross domestic product.

Hong Kong is Asia's most popular travel destination. Apart from China, which provided 22 per cent of visitors, the largest increase in visitor arrivals in recent years has been from neighboring areas in the Asian region, notably Taiwan.

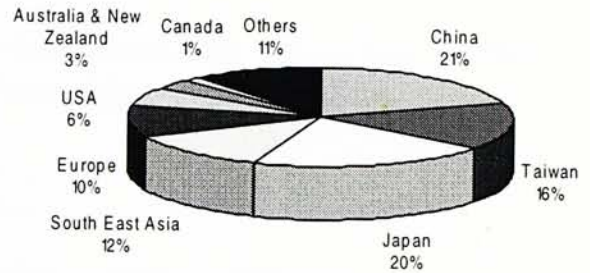
Increase in Visitor Arrivals, 90-96



APPENDIX III: HK TOURISM

1.3 Market Change

Visitors by Country/Territory of Residence, 1996

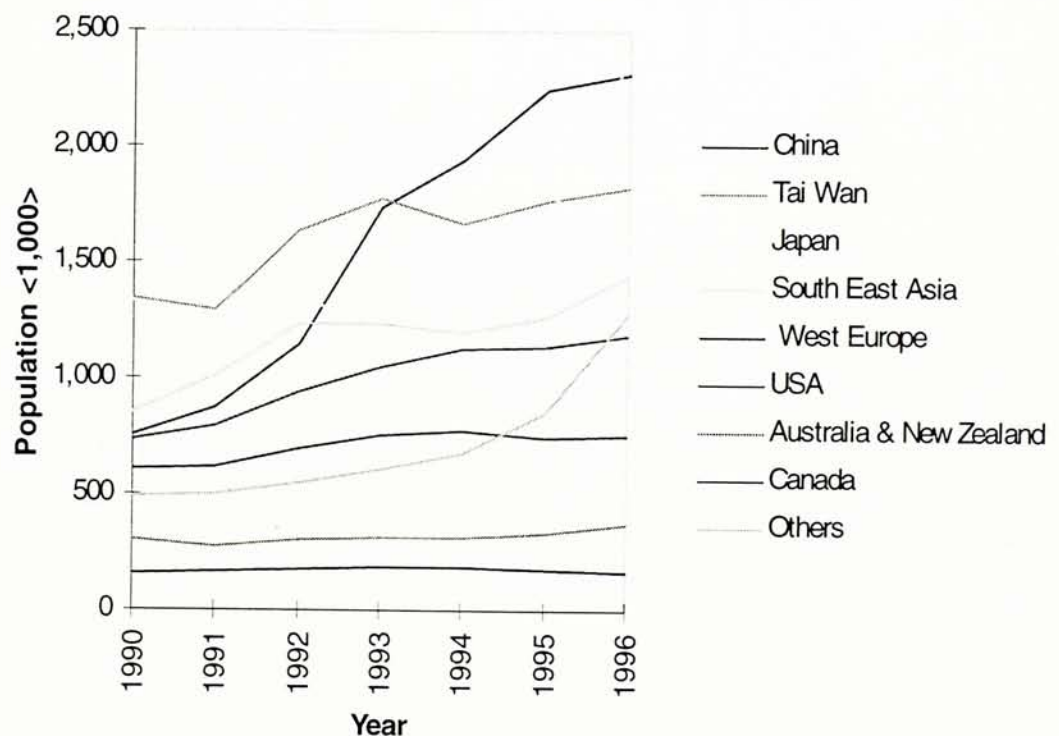


Not only there is a rapid growth in visiting tourists, the composition of visitors to Hong Kong has also changed. There is an increasing proportion of visitors come from the China and other parts of South East and East Asia. A more complex market segmentation is emerging.

The dramatic growth in visitors from the PRC in recent years suggests the possible scale of the PRC as a source market in future (particularly after 1997). Under such circumstances, Hong Kong will develop a domestic tourism market as well as international tourism.

As this occurs, the international city dimension of Hong Kong will become particularly important. Hong Kong will increasingly become a window on the west for visitors from China rather than a window on the east for international visitors as she used to be.

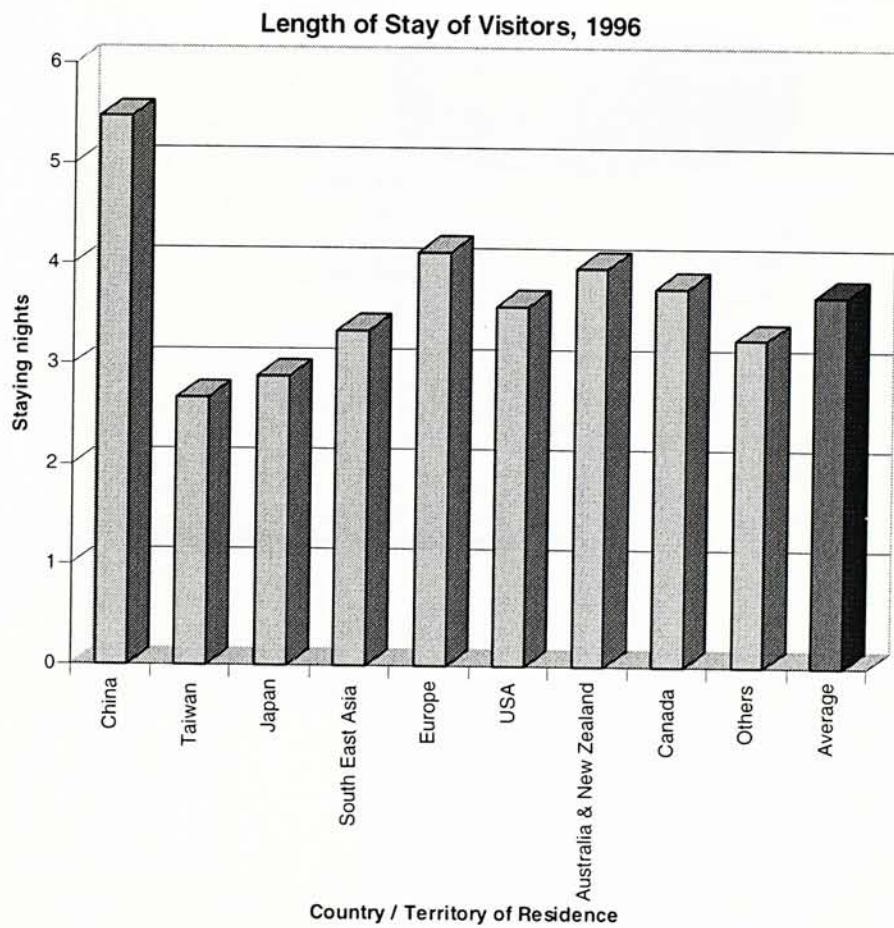
Visitor arrivals by Country of Residence, 90-96



2. TOURIST ACTIVITIES

2.1. Staying Period

The average length of stay of all visitors in 1994 was 3.9 nights but, visitors from the PRC stayed longer than average (6.1 nights). International visitors stayed 3.3 nights.



2.2. Purpose of Staying

Visitors come to HK for a variety of purpose, including:

- Vacation
- Visiting friends and relations
- conferences / exhibitions / meetings
- general business

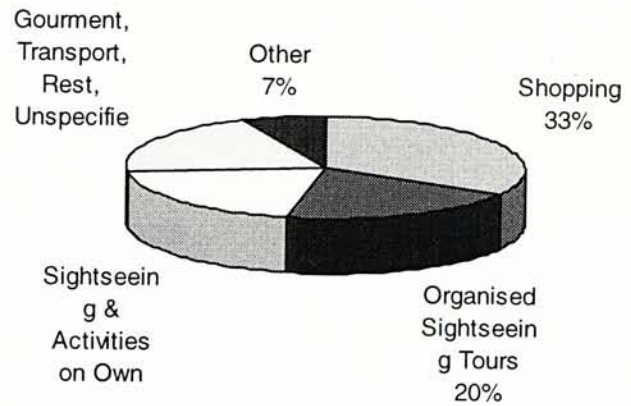
The most common reason for visiting HK is for vacation (54% in 1994). Business and meeting accounted for 19% of visitors in 1994.

APPENDIX III: HK TOURISM

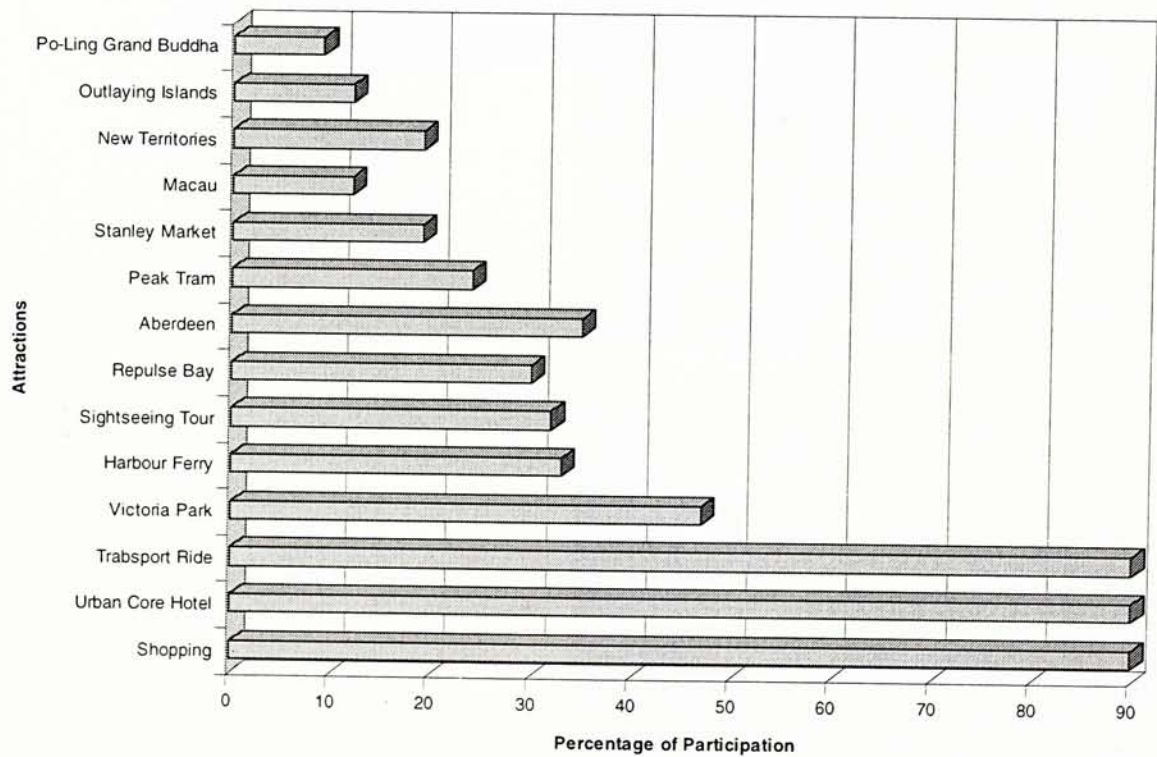
2.3. Popular Activities

The most popular activities undertaken by visitors are shopping and organized sightseeing tours. These two activities take up almost half the typical visitor's time in Hong Kong.

Visitor's Time Budget, 1994

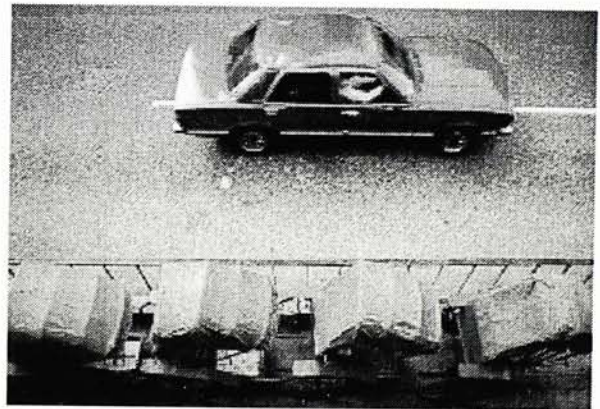


Popular Tourist Activities, 1994

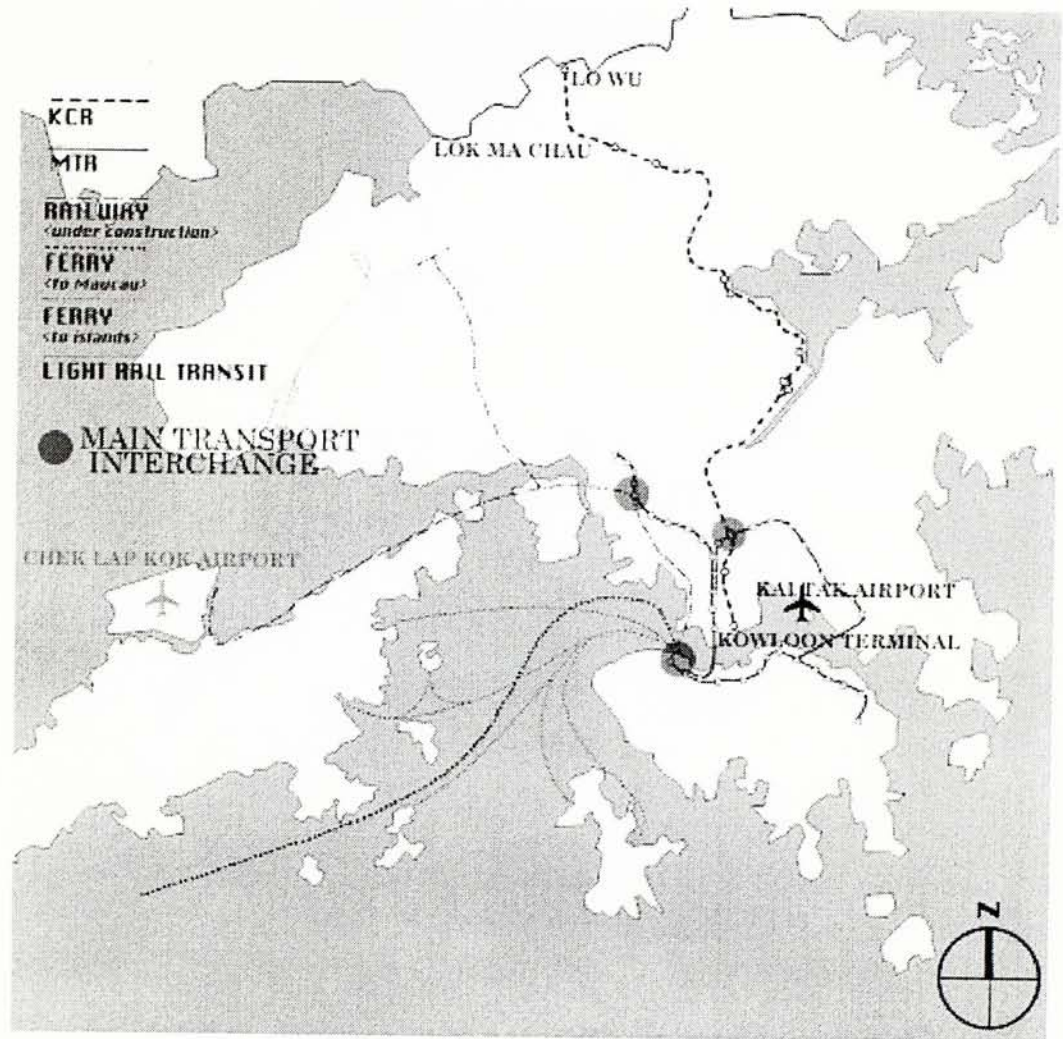


3. EXISTING FACILITIES

Most of the facilities, attractions, services, events and other infrastructure in HK are provided in the main for local residents. There relatively few facilities, few events, and almost no infrastructures that is provided primarily for visitors. Only services, such as those provided by HKTA and private tour operators tend to be dominantly for visitors. The tourism industry is therefore intrinsically bound to local resident's business and leisure activities.



3.1 Transportation



Entry/Exit Facilities

- Airport
- Cruise / Ferry Terminal
- Rail / Road Border Crossing

After the new Chek Lap Kok airport opens, there will be a clear shift of visitor's flow from the west. It is estimated that amount of passengers arrived by air will also increase. The opening of direct train to PRC will encourage more tourists enter HK from Hung Hom station.

Local transport

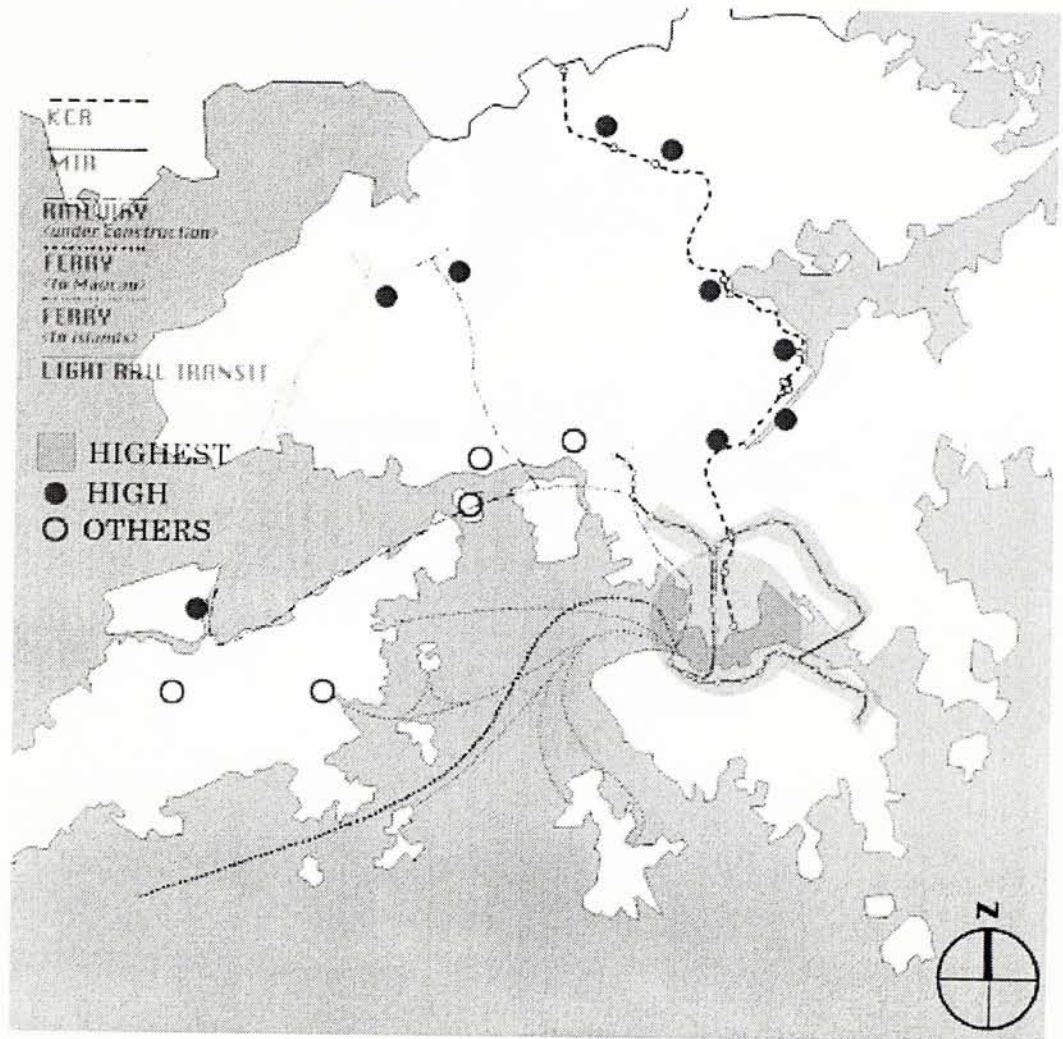
Ordinary public transport

- Bus
- Light Bus
- MTR
- KCRC
- Taxi, etc.

Special form of transport with visitor appeal

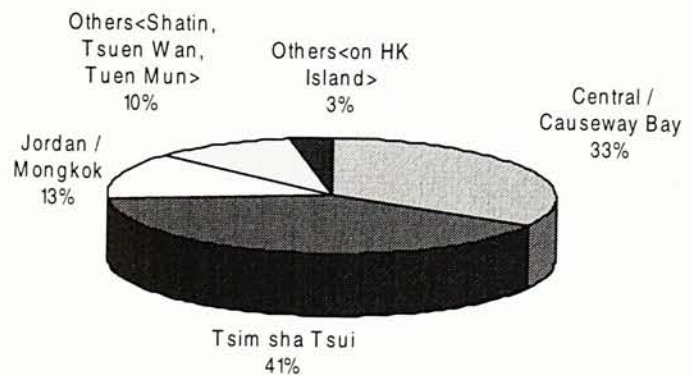
- Tram
- Star Ferry
- Peak Tram, etc.

3.2 Accommodation



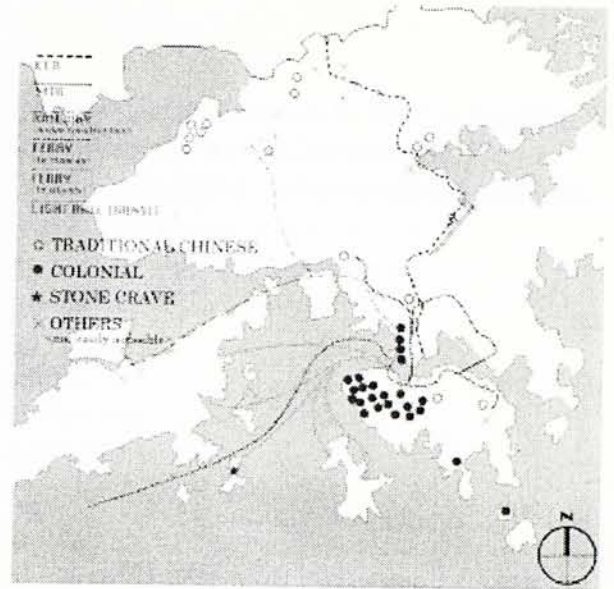
Adequate provision of hotel rooms is a pre-requisite for the development and growth of tourism. Currently, over 50% of the hotel rooms are located within the urban center, near Tsim Sha Tsui and Causeway Bay. In response to the general urban development strategy, the Government is encouraging hotel developments at Western Kowloon along the airport rail, and in NT.

Distribution of Hotel Rooms, 1994

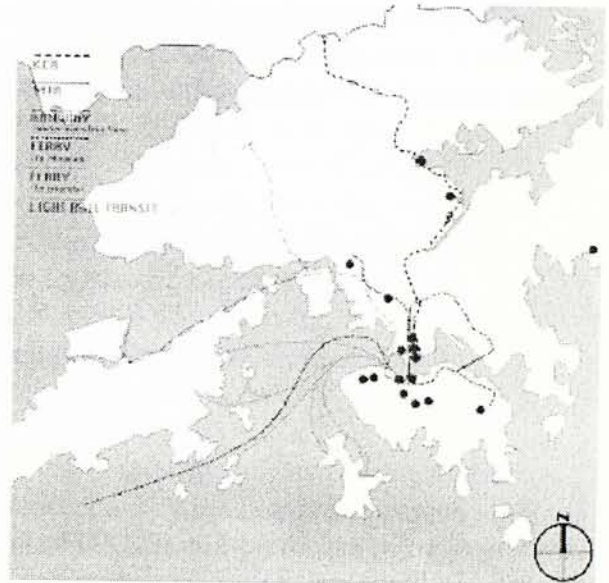


APPENDIX III: HK TOURISM

Heritages



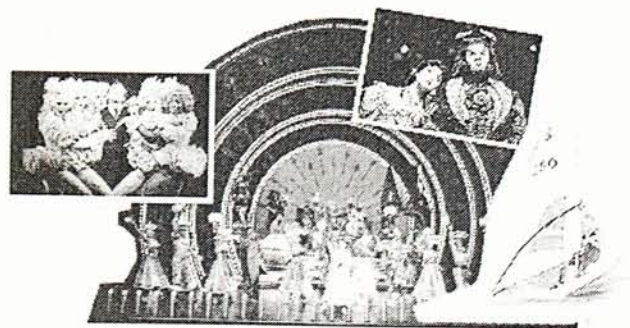
Museums



3.4 Events

Every year HK put on a wide range of events to attract and entertain visitors. Most events are promoted by private sectors. Some however, are promoted in order to:

- attract visitors to HK, particularly in the low seasons
- entertain visitors while they are here
- promote HK as a tourist destination.



4. HONG KONG TOURIST ASSOCIATION

The HK Tourist Association (HKTA) was established by the Government in 1957 to develop the territory's tourism industry. The chairman and members for the HKTA board of management were appointed by the Governor. Its main function is to further the development of HK as a tourist destination by :

1. promote the improvement of visitor facilities;
2. secure overseas publicity for the territory's attractions;
3. coordinates the activities of the tourism industry; and
4. advise the government on industry-related matters.

Visitor and Tourism Study for Hong Kong

In order to facilitate the continual growth of tourism industry under the increasingly external competition from other Asian cities, in March 1994 the HKTA in conjunction with the Planning Department commissioned consultants to undertake the "VISTOUR study". The objective of the study is to formulate a tourism strategy for medium and long term. It will adjust the range of facilities, attractions, services, events and infrastructures to meet the future change in HK tourism.

The priority is to:

1. Protect, enhance and better use of existing facilities and attractions, to ensure that the urban core continues to function successfully as a major tourist attraction area;
2. establish new facilities, attractions and events;
3. develop new tourism nodes in response to the city's future development plan.

A Tourism Development Fund is recommended to fund feasibility studies relating to the strategy proposals. This recommendation has been accepted by the Financial Secretary who announced in the 196 Budget Speech the allocation of HK\$50 million for the setting up of the Tourism Development Fund

1. History of Star Ferry

As Hong Kong's first form of mass transport, the "Star" Ferry Company Limited started providing steam launch ferry Service since 1898. It was used to be one of the major public transports to cross the harbor. Today, when the land transports are carrying most of the passengers, the seven minute ferry ride are still popular for city wanderers because of the thrilling harbor view and the cheap fare.

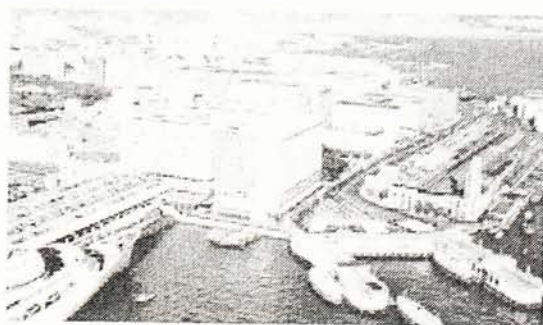
The "Star" Ferry has a fleet of 12 vessels. Each boat was named after a star: Morning, Evening, Silver, Shining,... There are several routes, the most popular one connect Central to Tsimshatsui. Other routes go between Wanchai Ferry Pier and Tsimshatsui, Central and Hung Hom. The company also offers Victoria Harbor cruises at central and Tsimshatsui terminal. The double-decked green and white ferries now in service make 420 trips each day, carrying 100,000 passengers to travel between Hong Kong Island and Kowloon.

Recently, the pre-handover Legislative Council passed a motion requiring that all public transport franchise to be put out to tender. In a bid to keep its franchise which is up for renewal in March 1998, the 'Star' Ferry company said that they will improve the facilities and services. The company also see this as a chance to celebrate the company's century next year.

The company commissioned an independent passenger survey to find passenger satisfactory with the Star Ferry's services. The survey shows that 94 per cent of respondents were satisfied with the fees and services and 99 per cent said the service should continue. It is also believed that with the development going on Canton Road, the central reclamation, events at the extension of the convention center, and the development at Hung Hom, the passenger levels will rise in the future.



The Victoria Harbour, 1900s



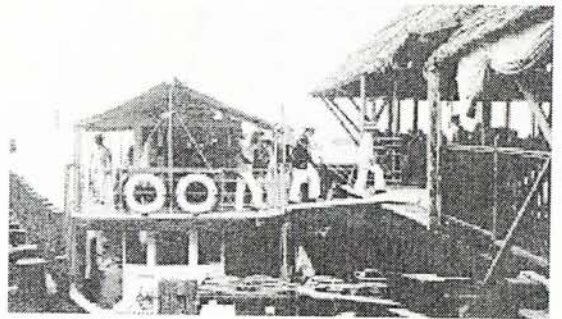
Star Ferry Pier, Tsimshatsui, 1970s

APPENDIX IV: STAR FERRY

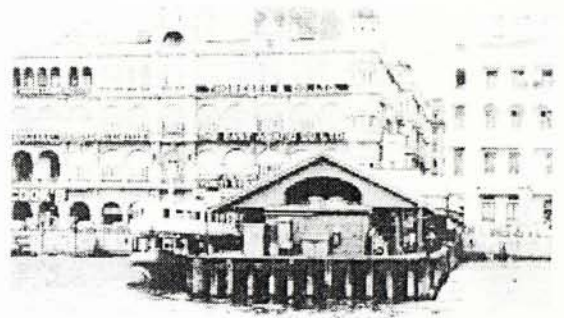
Star Ferry Pier, Central, 1950s



Star Ferry Pier, Central, 1900s



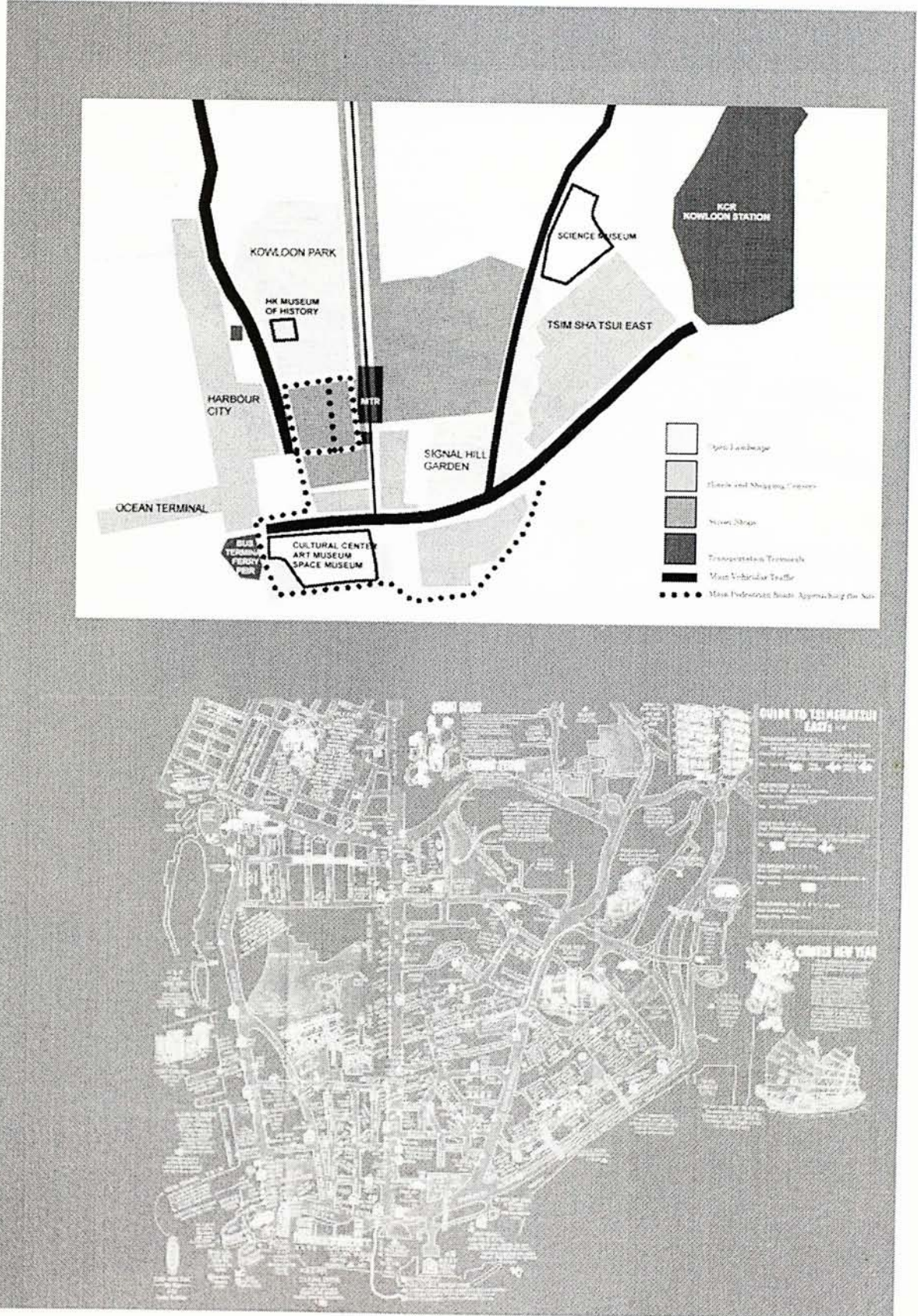
Star Ferry Pier, Central, 1950s



APPENDIX V: SITE ANALYSIS

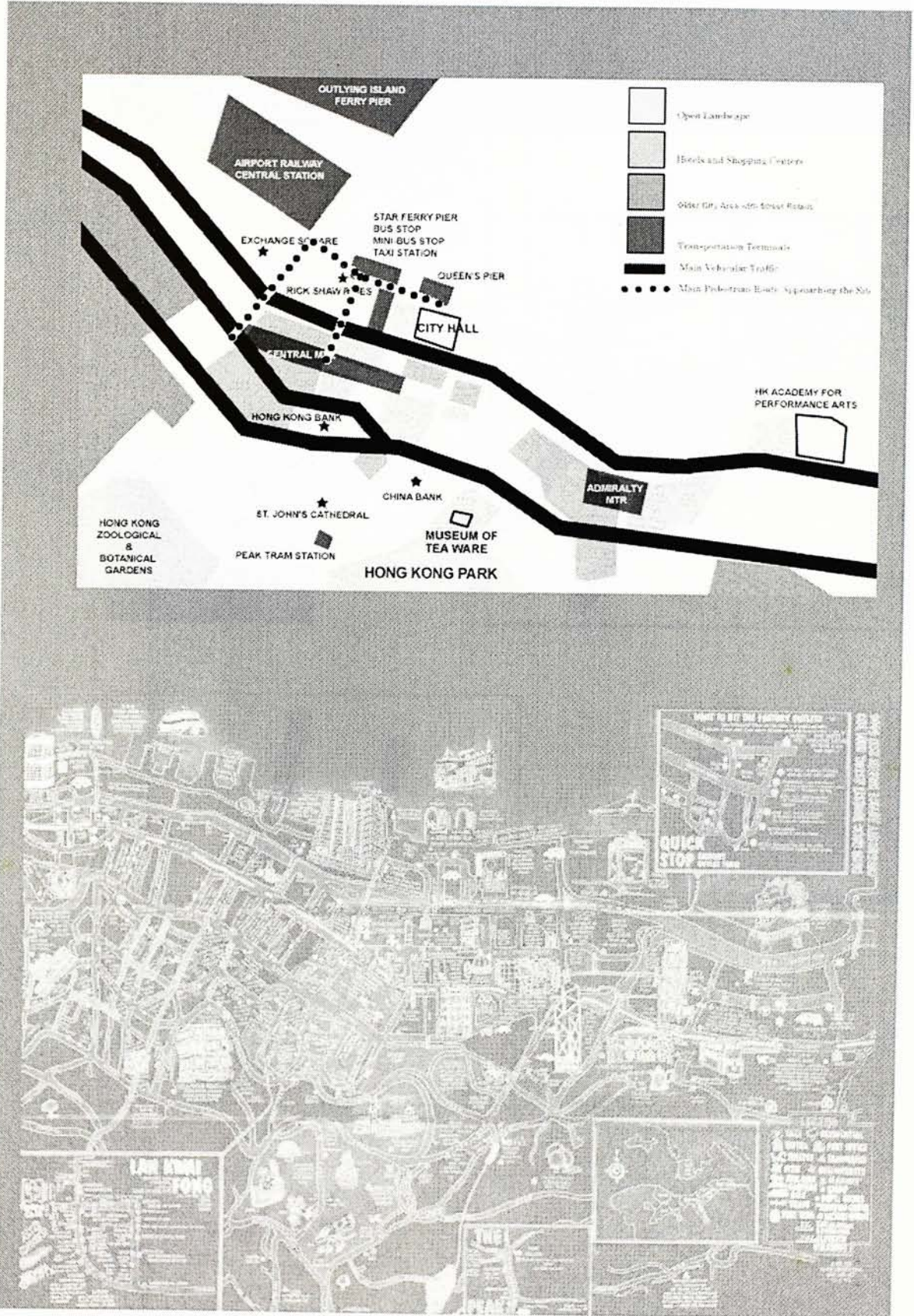
1. DISTRICT ANALYSIS

1.1. Tsim Sha Tsui



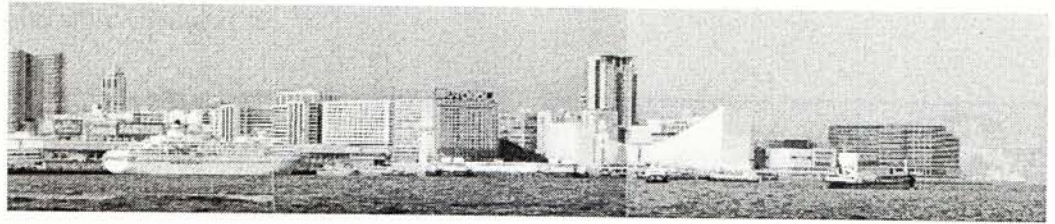
APPENDIX V: SITE ANALYSIS

1.2. Central

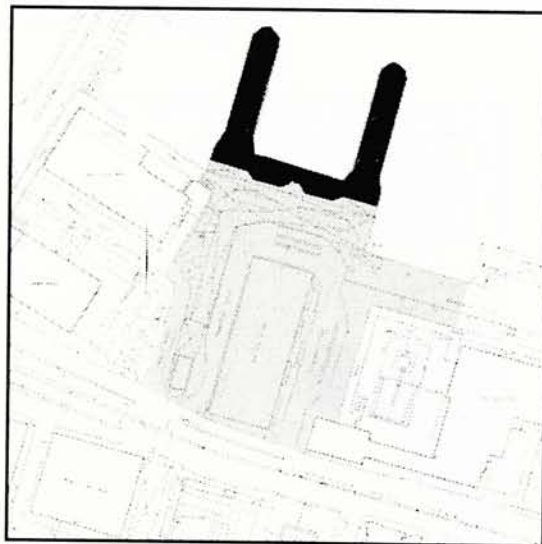
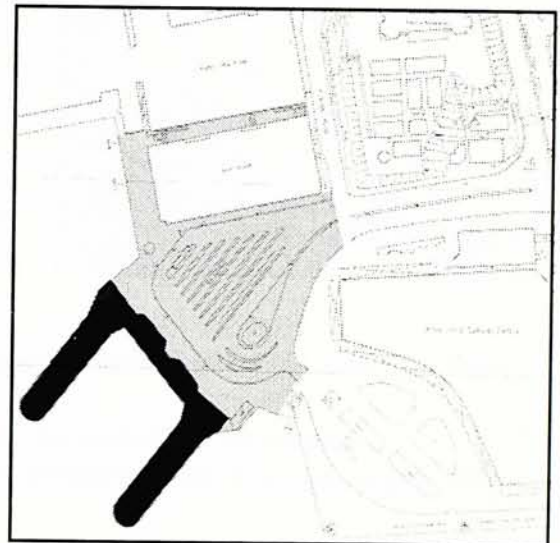


APPENDIX V: SITE ANALYSIS

2. SITE ANALYSIS



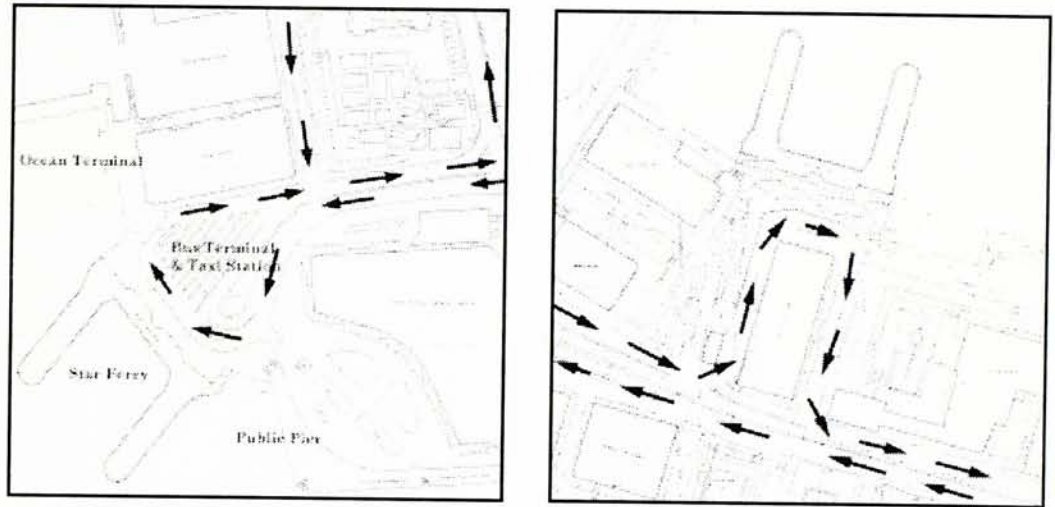
Tsim Sha Tsui



Central



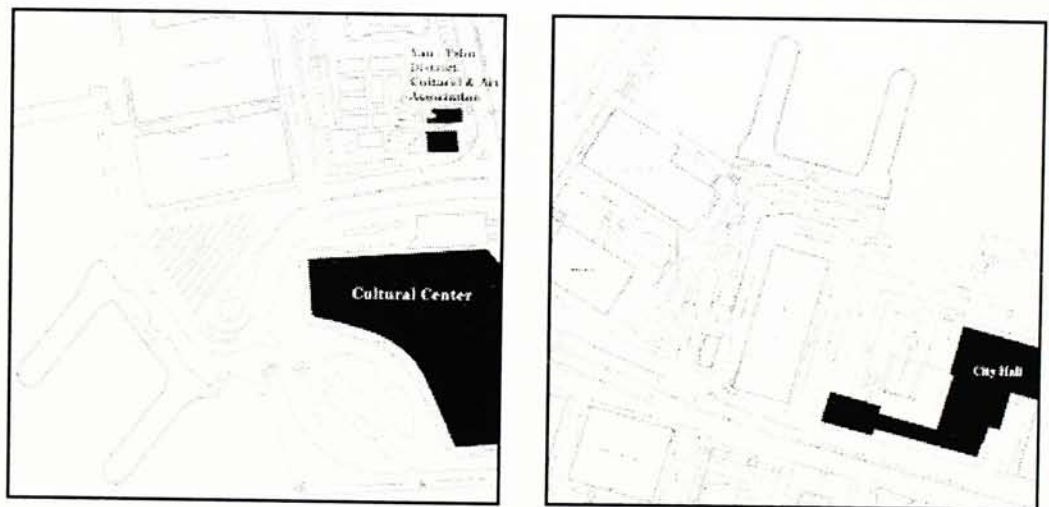
2.1. Vehicular Circulation



Problems:

1. The vehicular facilities, such as the bus terminal, car park, take up a large portion of site area.
2. The vehicular traffic interferes with the pedestrian movement.
3. The dominate vehicular movement isolates the pier from the neighboring buildings.

2.2. Cultural buildings

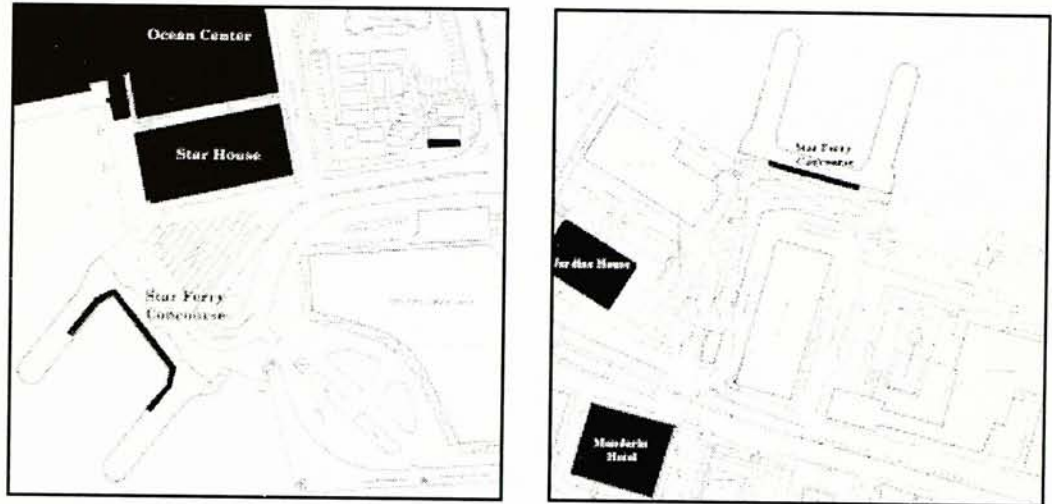


There are important cultural buildings situated next to both sites, Cultural Center at Tsim Sha Tsui and City hall at Central.

Opportunities:

1. These two popular public buildings attract people to the site
2. The cultural event can continues at the sites.

2.3. Shopping Centers

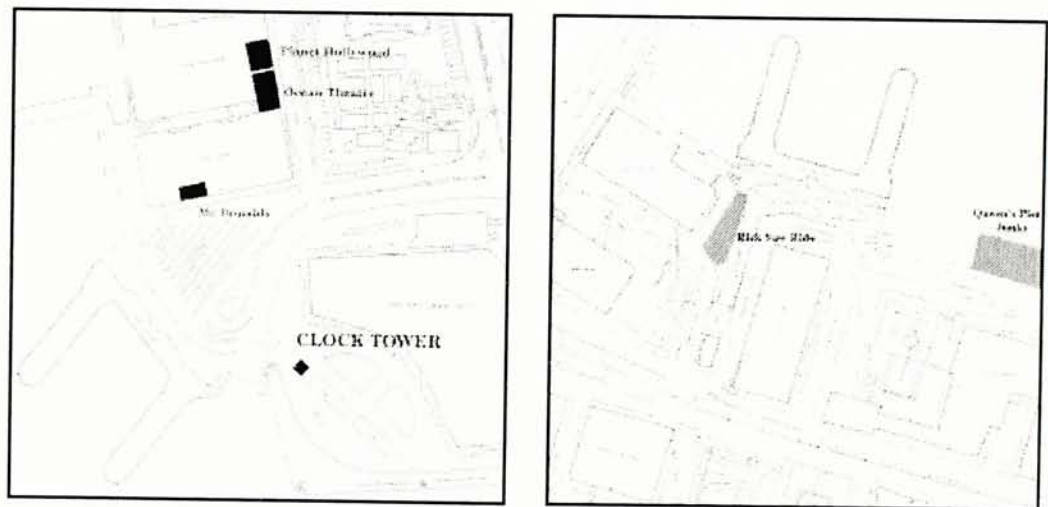


- There are many Travel Agent offices in the Star House.
- The existing piers have shops selling souvenirs, but some of them are located inside the concourse so are not accessible by the public.

Opportunities:

1. The pier can provide information counters for the travel agents.

2.4. Attractions

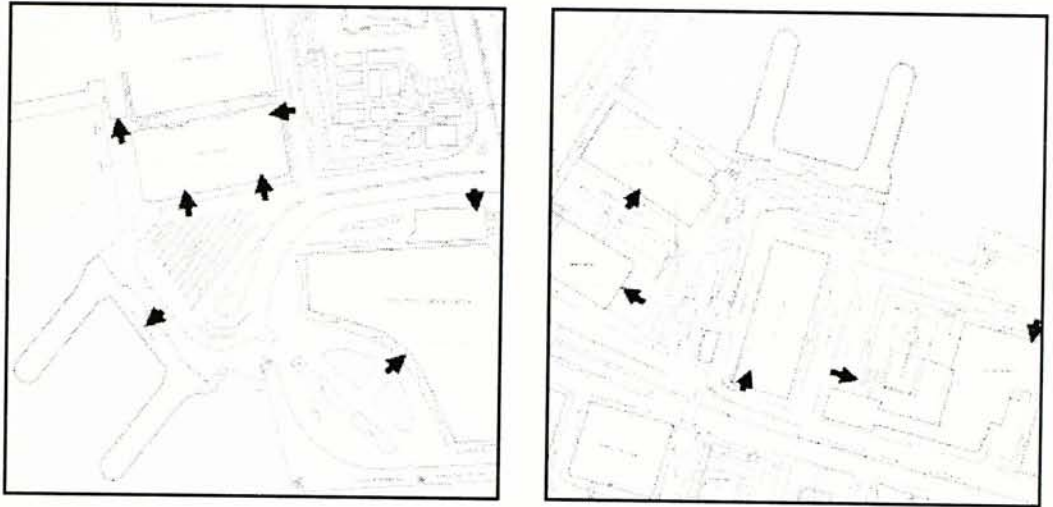


- The harbour view is the most important attraction.
- The Clock Tower is an important landmark of the district.

Opportunities

1. The buildings should provide chance for people to see the attractions.
2. The existing attractions are potential focus points in the site.

2.5. Entry to Neighboring Buildings

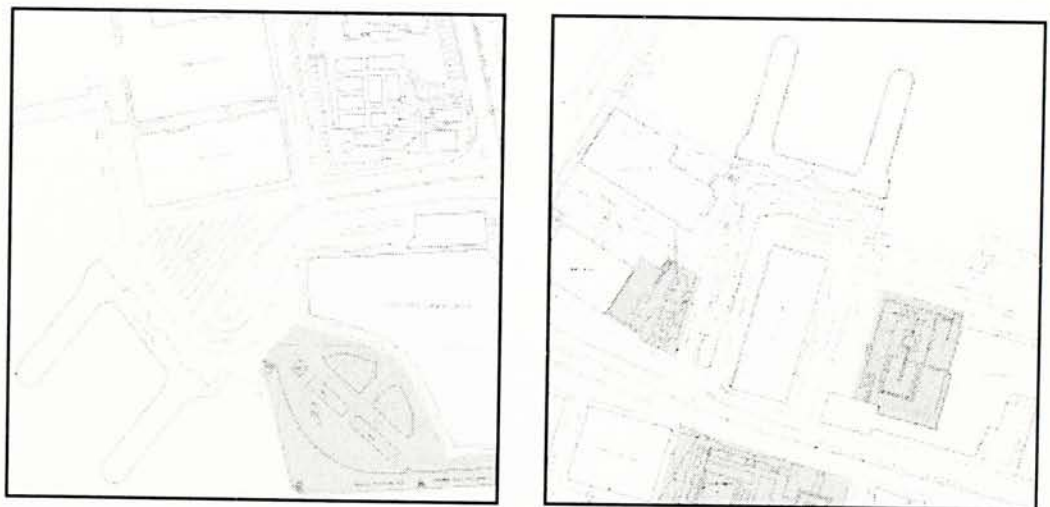


At Tsim Sha Tsui, the entry to Ocean Terminal and Star House are directly from the site.

Opportunities

The new facilities is a potential linkage for the buildings.

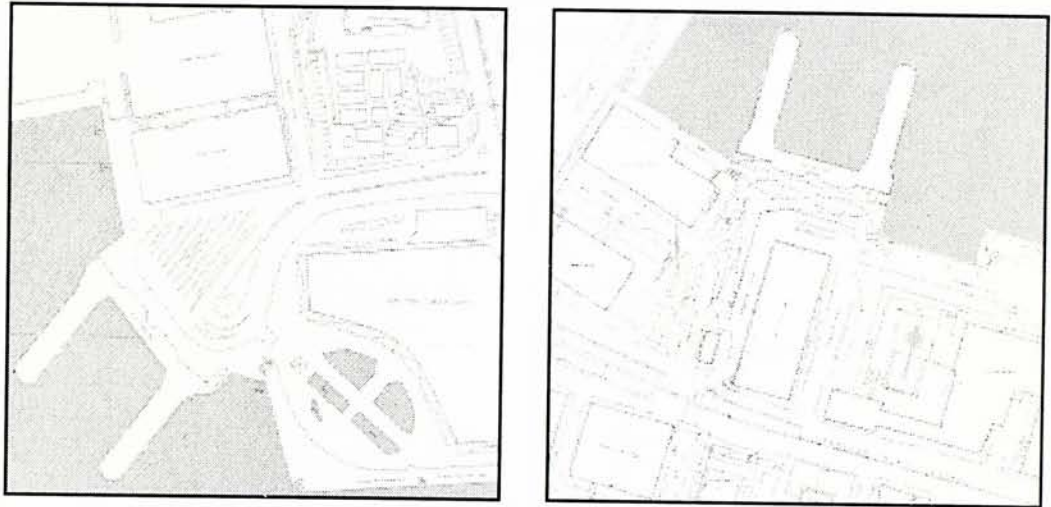
2.6. Open Spaces



Opportunities

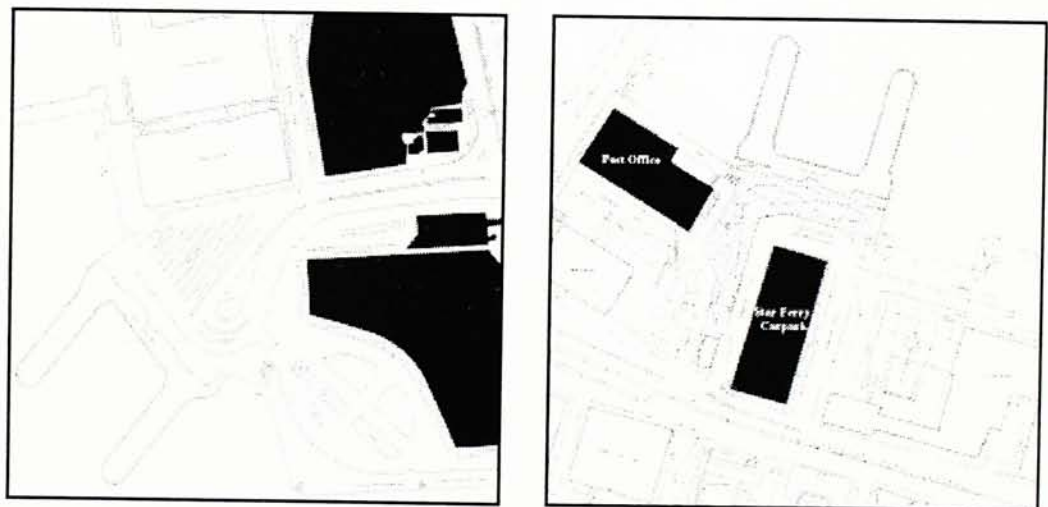
1. Both sites are adjacent to public open spaces. The new facilities can be take as a continuation of the urban parks.
2. There are few green areas in Tsim Sha Tsui. The new development can be a chance to provide a more natural environment.

2.7. Water



The site is closely related to the harbor. Design of the new facilities can also consider integrating with water features.

2.8. Site Obstacles



Tsim Sha Tsui

It is visually and physically blocked by the cultural center and the little mount.

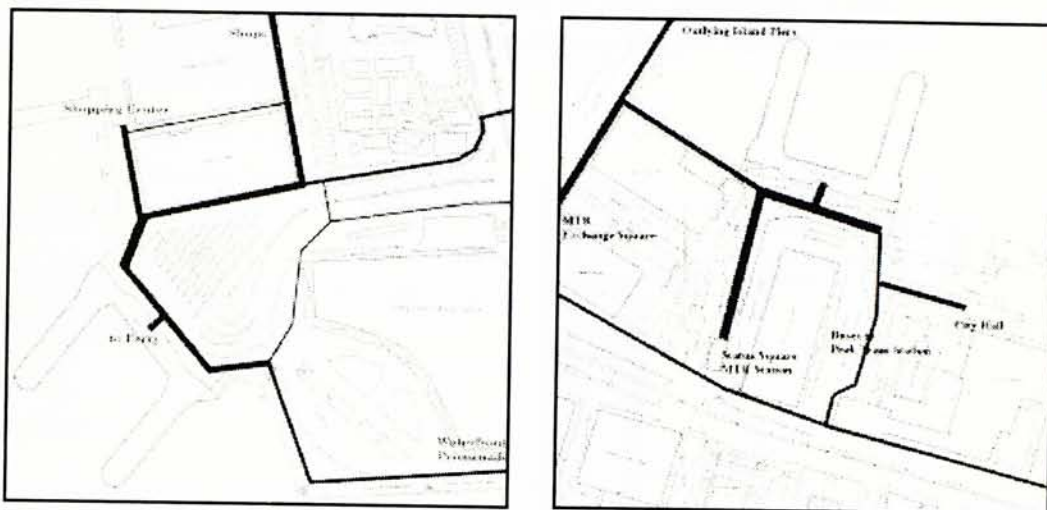
Central

The linkage from the post office is poor. The car park blocks out the view to Statutes Square.

Opportunities

Underground parking can be provided for the site. So the existing parking structure can be demolished and the site be used for an urban park.

2.9. Pedestrian Circulation



Tsim Sha Tsui

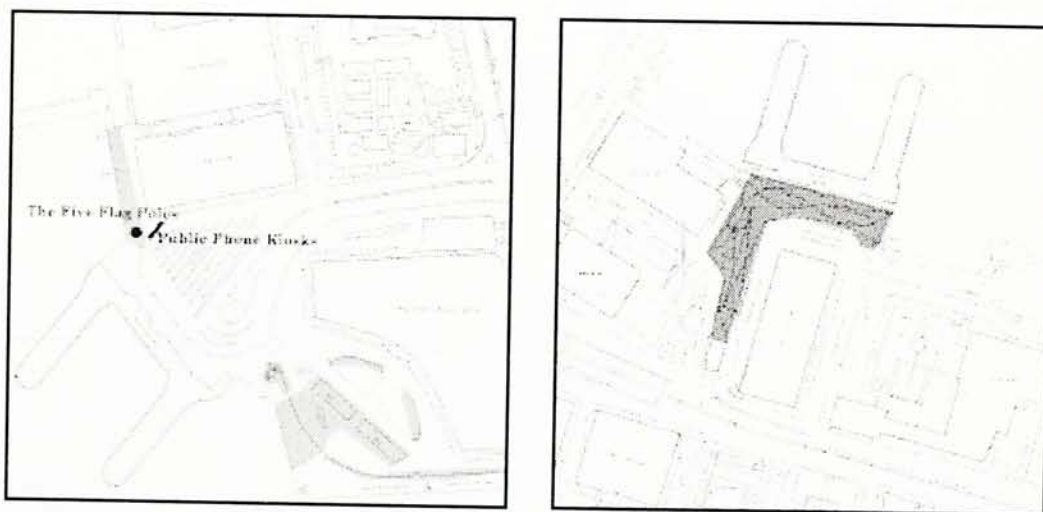
The site is the hinge point to connect the waterfront and the other side of the Salisbury Road.

People chose routes with lots of shops to approach the site.

Central

People approaches the site through the elevated walkway and the subway.

2.10. Crowd Zone



Tsim Sha Tsui

The five flag poles are popular people waiting spot.

People gathers at the covered walkway leading to Ocean Terminal to see the harbor sunset.

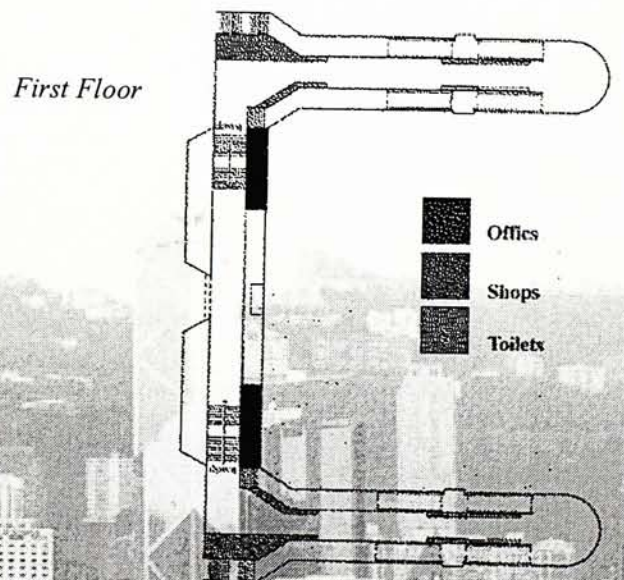
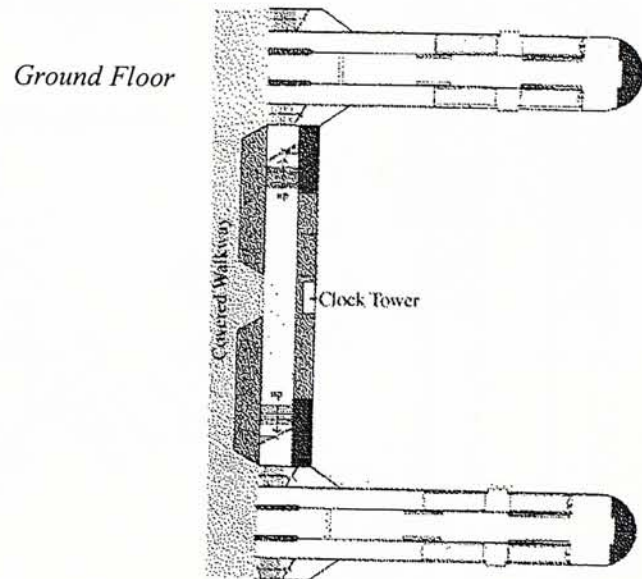
APPENDIX VI: STAR FERRY TERMINAL

1. Star Ferry Terminal

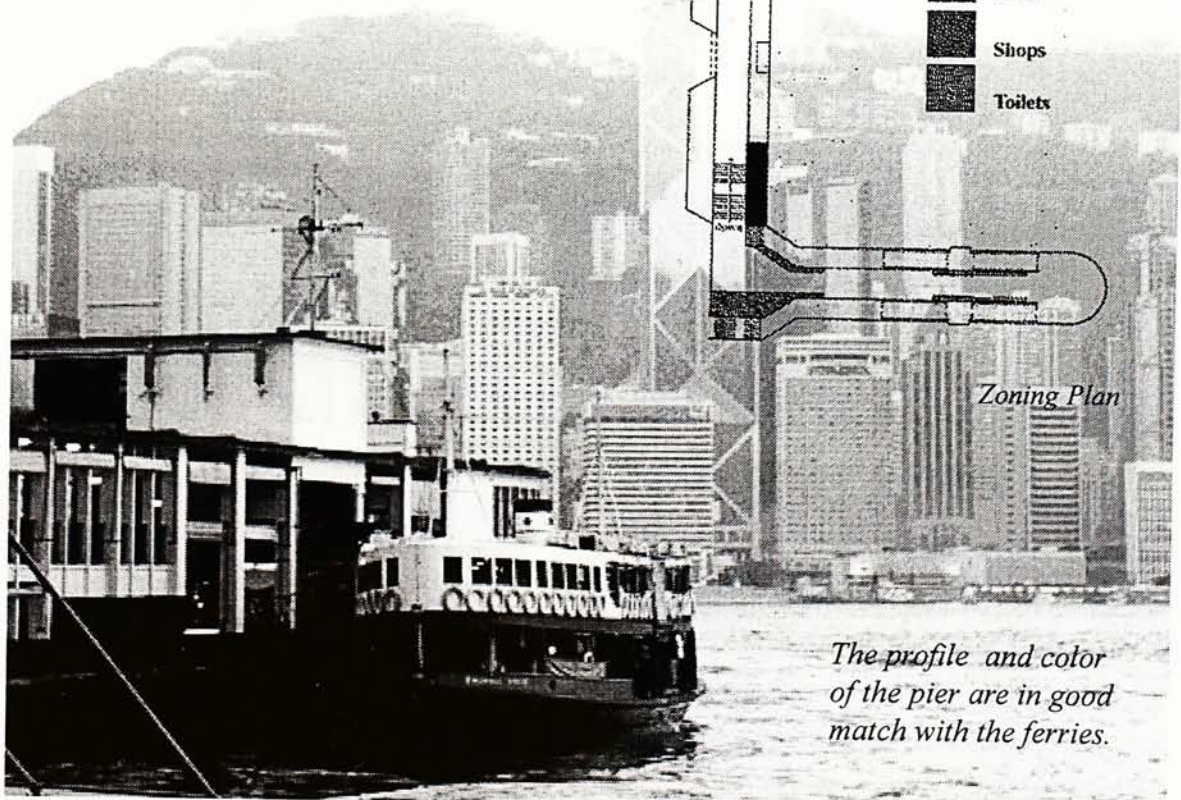
The ferry pier in Tsim Sha Tsui and Central are basically identical structures. The double story high buildings serve for the arrival and departure of ferry passengers. It also accommodates a number of retail stores where passengers can get different kinds of souvenirs and tourist information.

1.1. Functions

- Entry gateway
- Ticket office
- Waiting room
- Control room
- Boarding area
- Office
- Shops
- Washroom



Zoning Plan

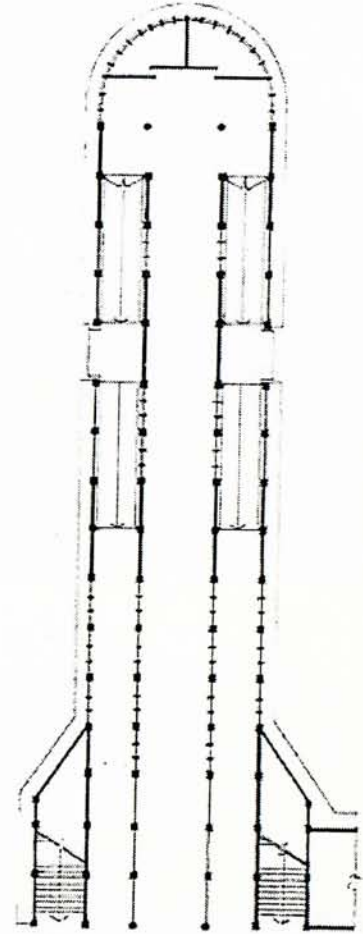


The profile and color of the pier are in good match with the ferries.

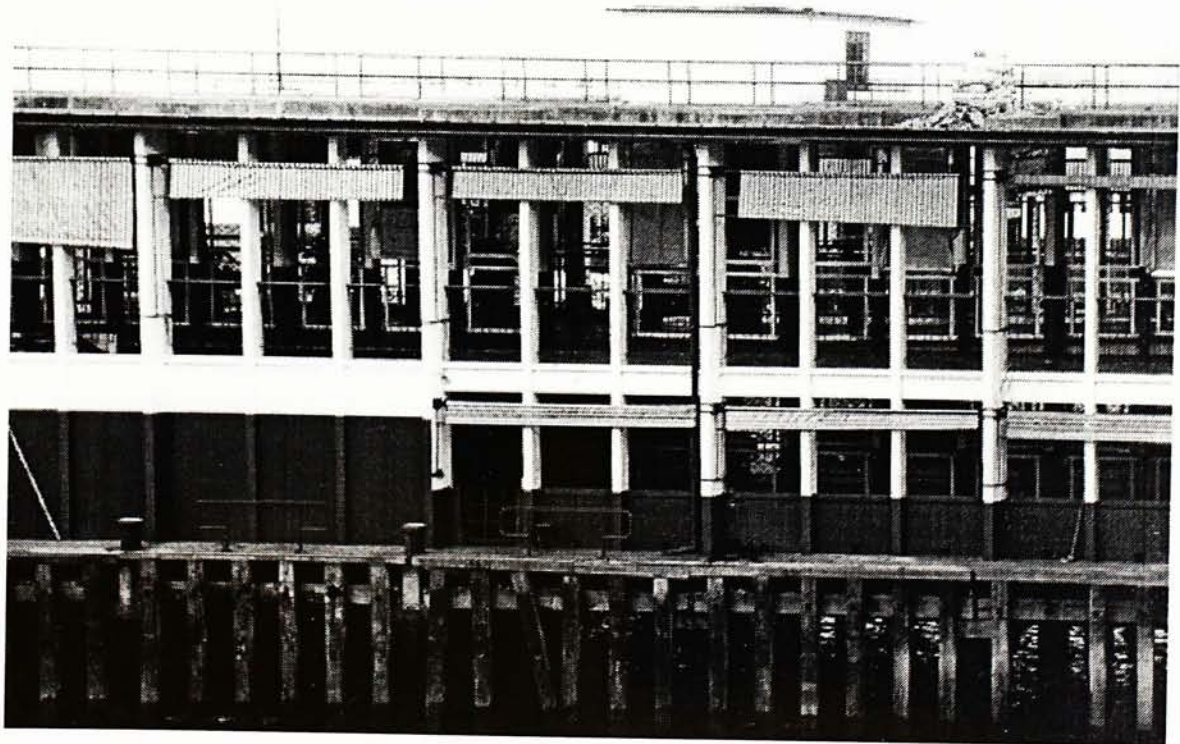
APPENDIX VI: STAR FERRY TERMINAL

1.2. Construction

- The terminal is built with concrete column and beam system with a very simple and functional approach. Concrete has a steady performance with sea water, and it is economic.
- Passenger ramps and the cantilever platform of decks are constructed in steel, which light weight and fast constructed.
- wooden boards surface of the ramp prevents floor gets slippery when wetted.



Structure plan



APPENDIX VI: STAR FERRY TERMINAL

1.3. Circulation

The arrangement of the ferry terminal is in the form of an one way passage. After passengers pass the gateway at the entry, they pass through a corridor with shops at both sides and stop at the waiting area at the end of the pier.

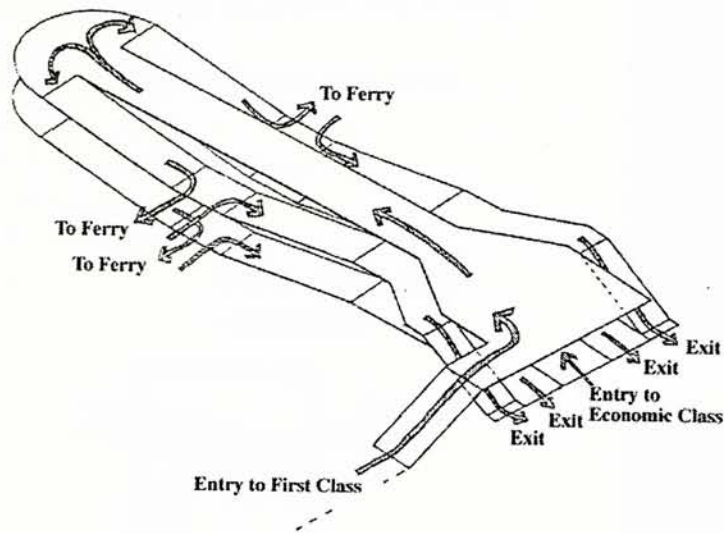


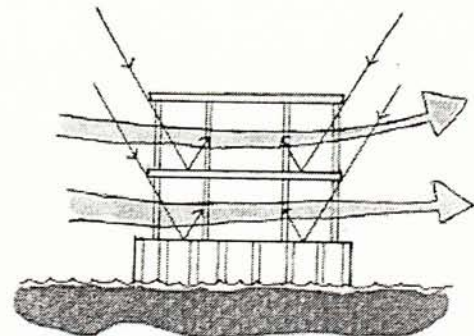
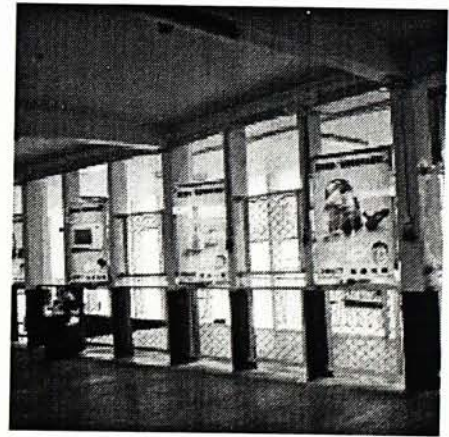
Diagram of circulation Route



Entry to Economic Class

1.4. Opening and shading

- The passages to the pier have large openings to let passengers enjoy the sea view.
- The interior is well illuminated by natural lighting.
- Adjustable shading devices built of canvas is cheap and efficient.

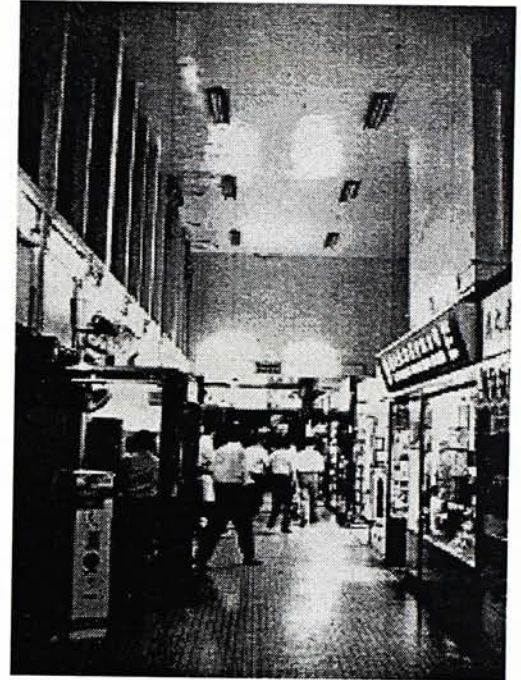


Post and beam structure allow natural ventilation and lighting

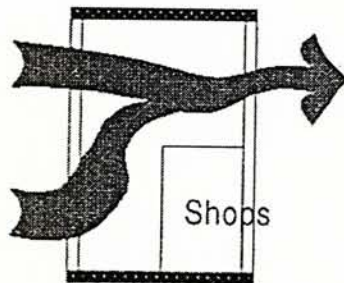
APPENDIX VI: STAR FERRY TERMINAL

1.5. Lobby

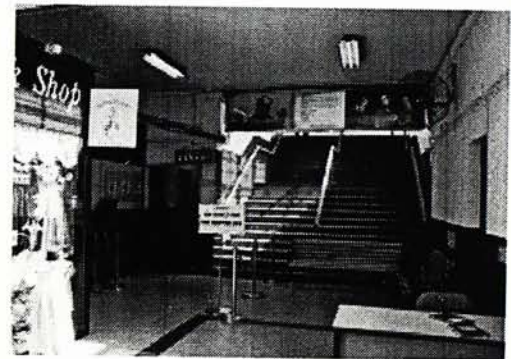
- The entrance lobby is only for the use of first class passenger.
- It is an elongated, double story high space, with shops lining on one side.
- The narrow space does not encourage staying. There is no space for people stop to shop.
- It gets very crowd during peak hours.



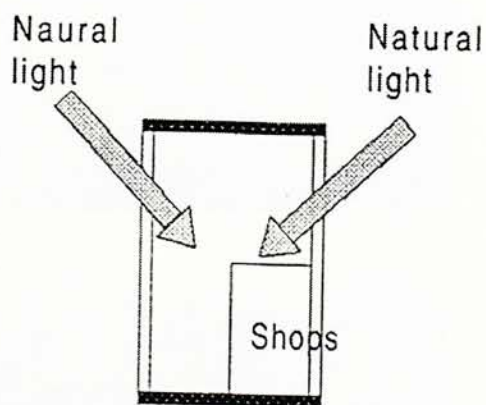
Cross and stack ventilation



Lobby area ventilation



Stair leading to first class boarding



Lobby area lighting

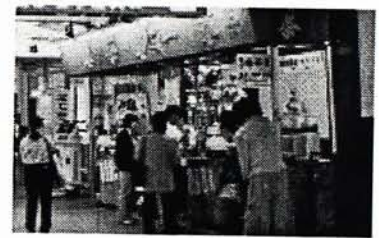
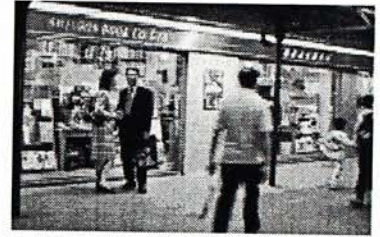
The narrow space allows for good natural ventilation and deep penetration of sunlight. There is no air conditioning for all public spaces inside the structure, only electric fan is provided.

APPENDIX VI: STAR FERRY TERMINAL

1.6. Stores

Different kinds of shops can be found in the pier, both inside and outside the gate. They are located along the passenger's circulation paths. The shops are usually very small, some with only a counter and a staff sitting behind. The shops include,

- Book / Magazine store
- Money Exchange kiosks
- Souvenir shops
- Mrs. Fields Cookies
- Cafe
- Maxim's Fast Food (Central)
- Travel Agent
- HKTA Tourist Information Center (Tsim Sha Tsui), etc.



Stores



Shops outside the gate



Shops inside the gate

APPENDIX VI: STAR FERRY TERMINAL

1.7. Boarding / Waiting Area

- Two sides of the passage leading to boarding area has lots of advertisements and posters in display.
- Two rows of chairs at the end of the passage which makes the waiting area.
- For the ground floor, the end of the passages are blocked by the washrooms, which makes the place much stuffy and crowd. In the upper floor, the large windows at the end provides good harbor view for the passengers.
- Video display for advertisement can be found at the end of the waiting area. A free entertainment for passengers during waiting period.

Waiting Area



Windows at the end of the first class boarding



Problems and Opportunities

- The renovation should retain the distinct feature of the pier.
 - The transparency of the building should be maintained with better protection from the weather.
 - The internal circulation is very efficient, but more space should be provide at the lobby and waiting area for a comfortable environment, and avoid interferences.
 - It is necessary to improve the handicapped facilities.
 - Some of the shops may be relocated to make them more accessible by the public.
-

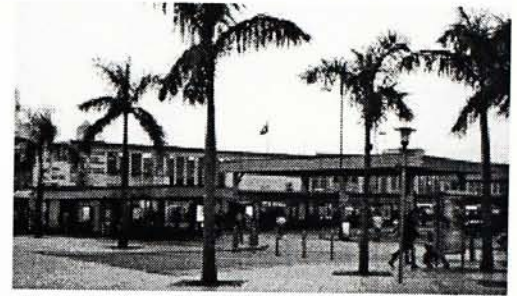
APPENDIX VI: STAR FERRY TERMINAL

2. THE COVERED WALKWAY

The covered walkway benefits the public by providing a sheltered public space, which encourages gathering and staying. It defines the main entrance by providing a transition zone between the front gateway and the public street.

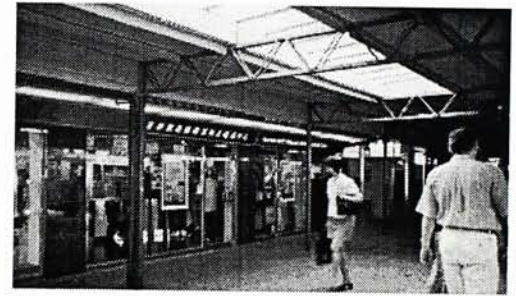
2.1. Construction

The shelter is crudely constructed as a temporary structure. It is structurally separated from the main pier. The steel trusses are supported by steel columns, and roofed with corrugated metal sheet. It is then sealed with coal tar for water proof.



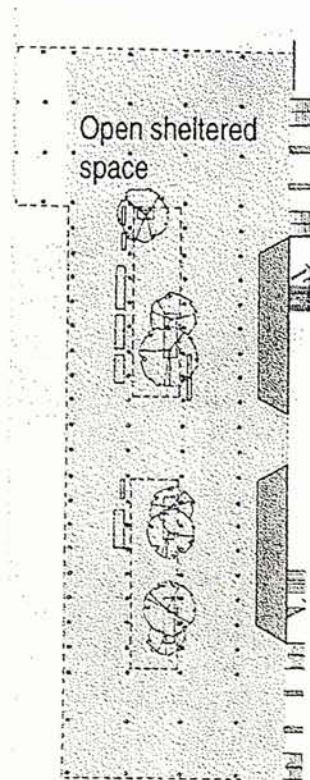
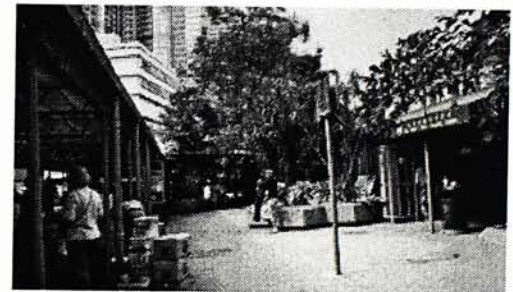
2.2. Lighting

In Tsim Sha Tsui, the sheltered area is quite dark. Though skylights are provided in front of the shops, the effect is not very clear.

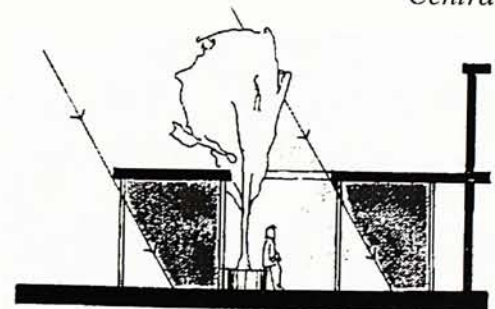


Tsim Sha Tsui

In central, the roof opened up at the center to form an courtyard. The covered zone is well illuminated because of the reduced depth.



Central



The Covered Walkway in Central

APPENDIX VI: STAR FERRY TERMINAL

3. ACTIVITIES / FACILITIES

Different kinds of activities and public facilities can be found near the covered walkway. However, most of the functions aren't well organized and resulted in a confused and chaotic situation.



3.1. Central Site

Sitting



Cycling



Passing & Eating

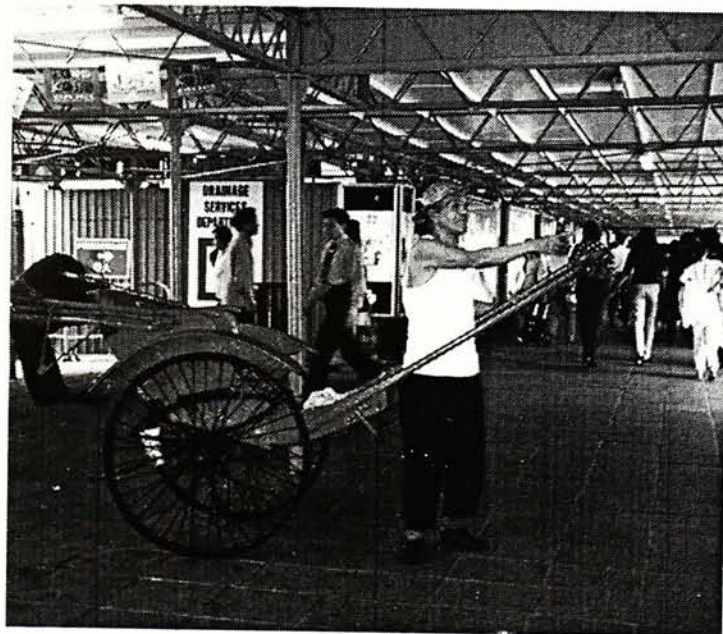


APPENDIX VI: STAR FERRY TERMINAL

Phoning & Chatting



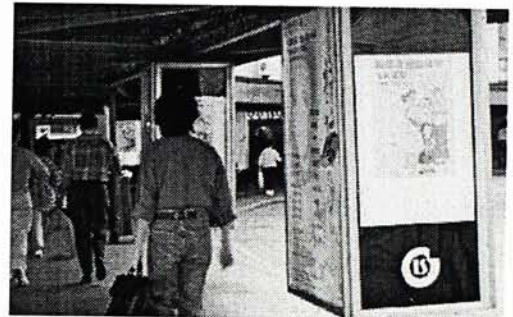
Hawker stalls - Newspaper



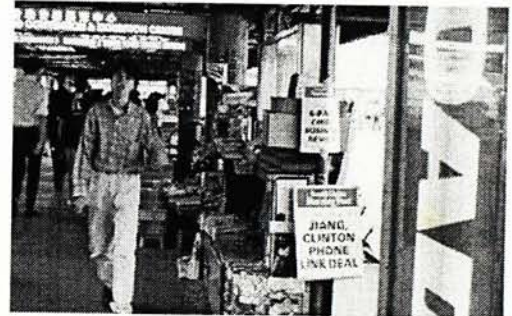
Ricksaw
Pay for a ride or for a photo

APPENDIX VI: STAR FERRY TERMINAL

3.2. Tsim Sha Tsui Site



Advertisements along the passage.



Hawker stalls - Newspaper



Waiting at the 5 flag poles

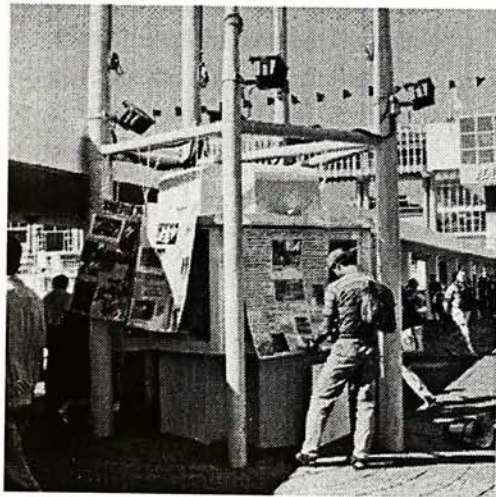
APPENDIX VI: STAR FERRY TERMINAL

3.3. Special Events

Situating at the cross road location,, there are a lot of people flowing through the site each day. HKTA and other social / political organizations would carry out special events and displays at the site to attract the passerby.



The "Wonder Never Cease" Performance Stage, with displays exhibiting Hong Kong attractions. A special function organized by HKTA to promote HK tourism during the handover.



Exhibition organized by a political party.



There are also post box, police station, and bank (w/ ATM machine in each site)

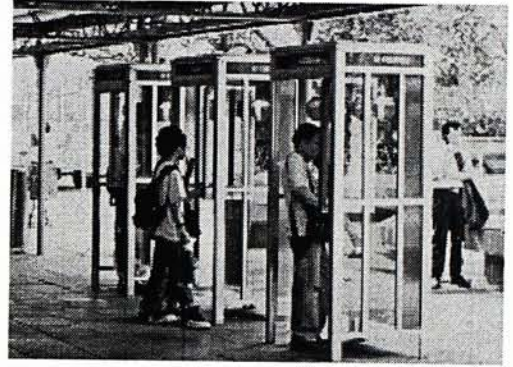
APPENDIX VI: STAR FERRY TERMINAL

3.4. Public Phone

There are a lot of public phones which are highly used at both site. In central it is a favourable place for philipinos to call back home, especially during weekends.

Problems and opportunities:

- The phones are convenient for the visitors, but they should be arranged in a better way so people lining for the phone would not interfere with the circulation
- The kiosks in Tsim Sha Tsiu terminal are should be sheltered and connect to the covered walkway.
- Phone stands instead of phone kiosks can be considered to save space.
- The phones in central scattered around the site. It may be better to locate them in a more organized way.



APPENDIX VI: STAR FERRY TERMINAL

Problems and Opportunities

- Provide better indication of orientations through architectural designs, so less signages can be used for directory.

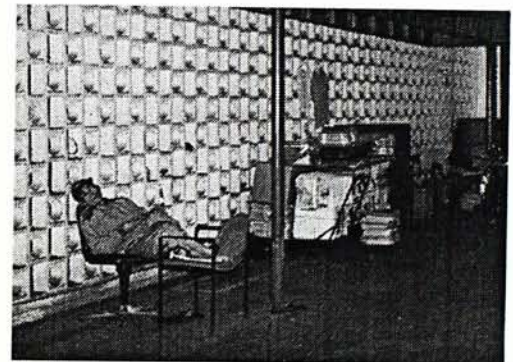


Lots of signs are used for wayfinding in the existing terminal

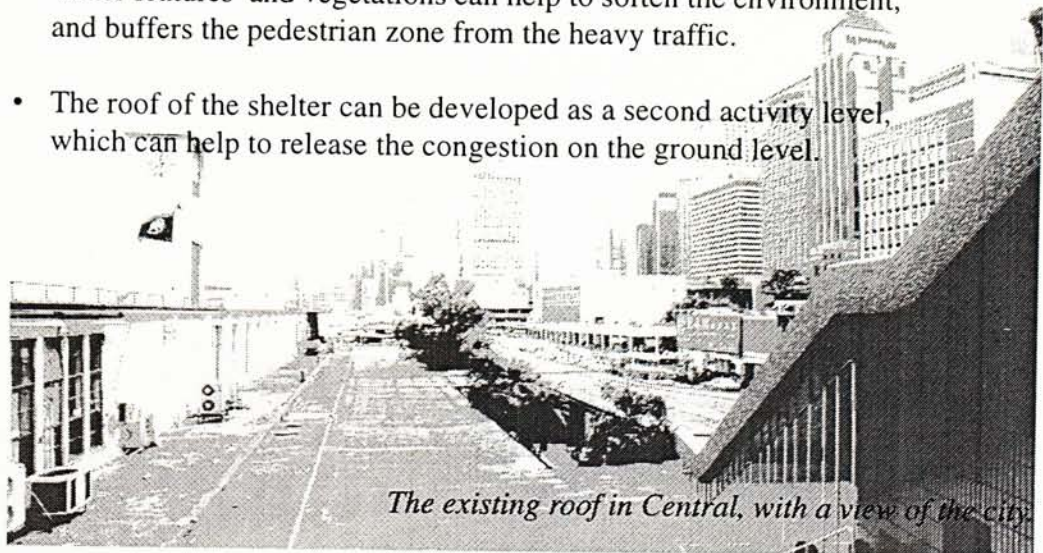


- Better lighting should be provided for spaces under the shelter.
- The facilities under the shelter should be rearranged to achieve a more pleasant environment.

In the existing sites, some locations are heavily over congested, while some corners are occupied by street sleepers and storage



- Public circulation and gathering spaces should be well defined to avoid conflicts.
- Water features and vegetations can help to soften the environment, and buffers the pedestrian zone from the heavy traffic.
- The roof of the shelter can be developed as a second activity level, which can help to release the congestion on the ground level.



The existing roof in Central, with a view of the city

APPENDIX VI: STAR FERRY TERMINAL

4. TRANSPORTATION

4.1. Tsim Sha Tsui

There is a major public transport terminal in front of the pier.

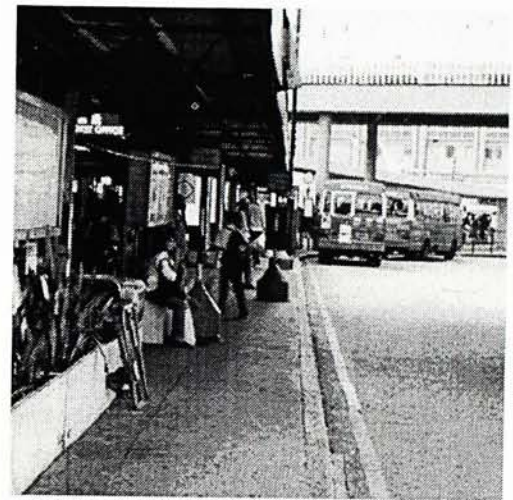
- 14 bus routes to other parts of Kowloon Peninsula.
- Mini-bus
- Taxi
- Airbus

Bus driver's cafe and storage kiosks



Problems and Opportunities

- The bus terminal is an important transport interchange node in the city, which brings people to the site.
- The traffic should be properly screened, with buffer zone provided to minimize its disturbance to the pedestrians.
- It is dangerous to go to the bus stop, because no proper cross road is provided.
- When pedestrians approach the site from the city, the first thing they encounter is the bus stop. Therefore it is important to redesign the bus terminal to give a more united, clear image of the site.
- The terminal is quite large and is paced up with vehicles of different sizes. It blocks most of the waterfront. By providing a second level activity zone, the public will be able to gain a better view of the harbor.



Bus stop by the road side. It is separated from the pedestrian zone by some planters and signage board. The space is narrow, unpleasant and dangerous.



APPENDIX VI: STAR FERRY TERMINAL

4.2. Central

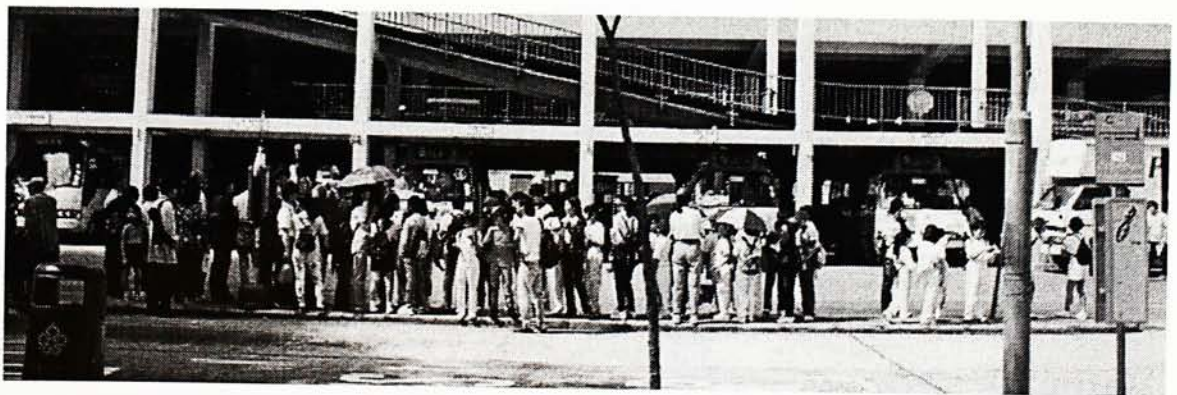
The site is well linked by different kinds of public transports, including bus, minibus, taxi. There are also special buses going to important tourist destinations in Hong Kong Island, such as the Ocean Park, the Peak Tram Station, and Stanley Bay.

The transport stations scattered around the site. Each transport company set up their own stops, with different signs. There is no shelters provides for the passengers.

City Bus going to Ocean Park



Waiting for the bus



APPENDIX VI: STAR FERRY TERMINAL

5. CAR PARK

Three levels, including parking on the roof.
Total: 320 parking lots.

Public toilet in the
carpark is frequently used
by the public.

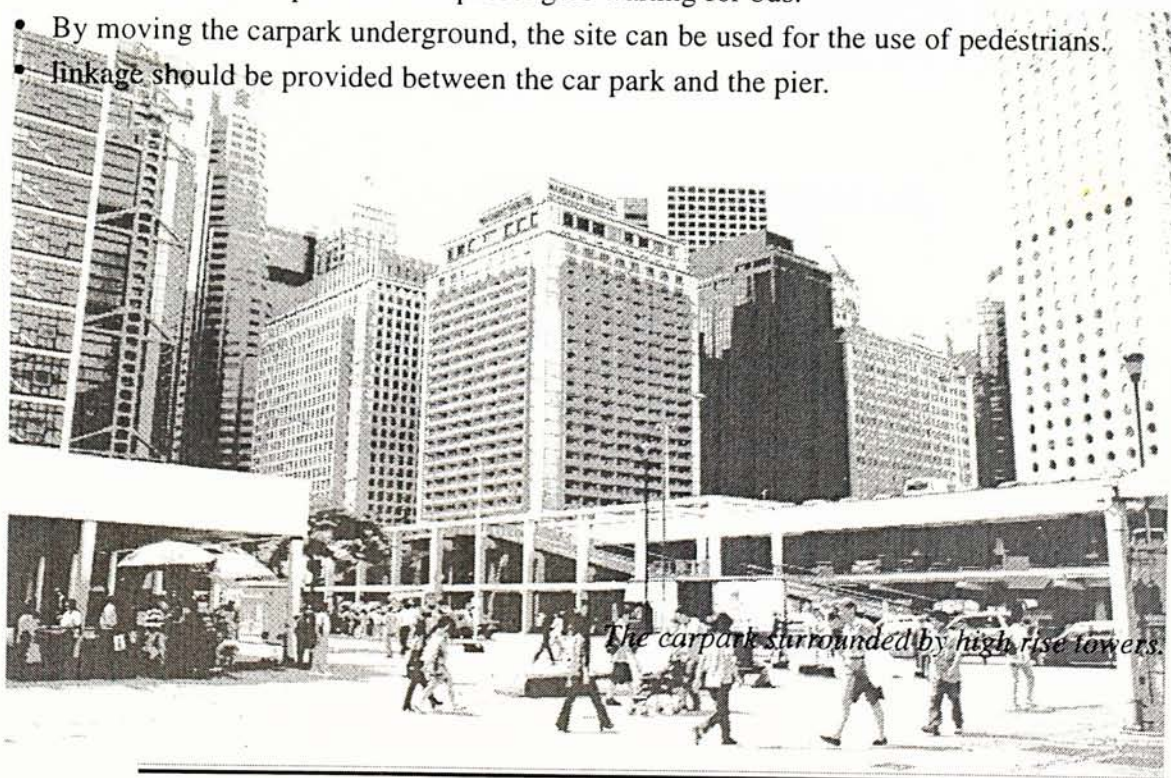


*View from the North, pier
at the end of the road.*



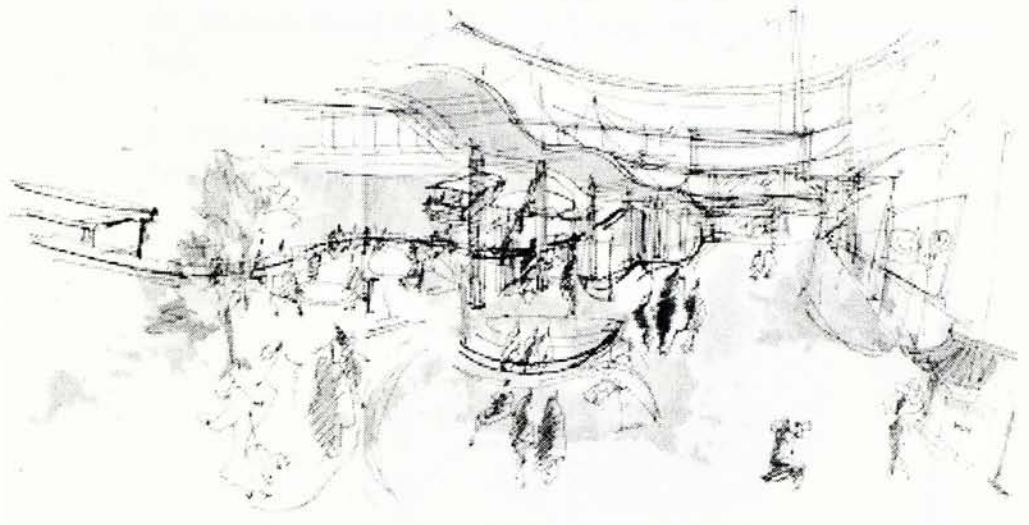
Problems and Opportunities

- Similar to the situation in Tsim Sha Tsui, there are also transport terminals in front of the site in Central. But the bus stops scattered round the car park. They should be re organized to make a more unified environment.
- Shelters should be provided for passengers waiting for bus.
- By moving the carpark underground, the site can be used for the use of pedestrians.
- linkage should be provided between the car park and the pier.



APPENDIX VII: DESIGN ISSUES

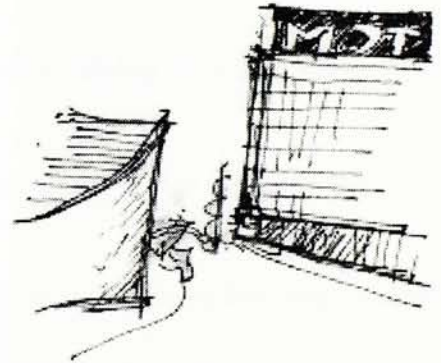
1. IMAGE



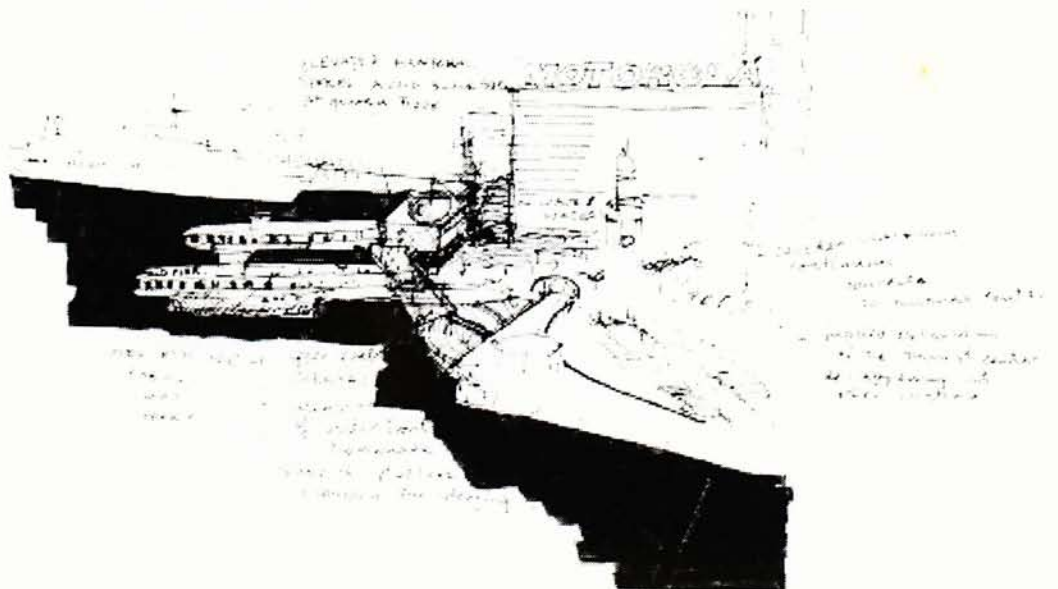
Goal-1: The facility should clearly promote a vivid, welcoming image of HK as a host city.

PR: The new structures should be a recognizable landmark in the district.

1. Use of bright colors
2. Dynamic building form
3. Easily identified figures in contrast with the context.



Viewing from Salisbury Road

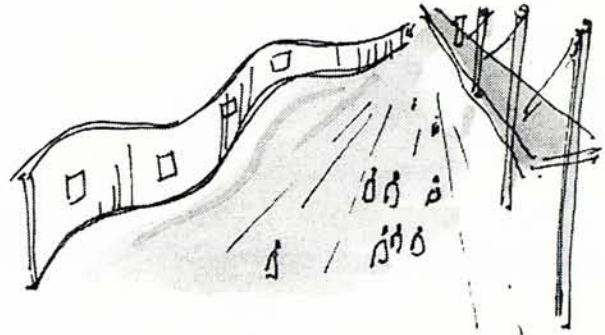


APPENDIX VII: DESIGN ISSUES

Goal-2: The new constructions should improve the overall sense of unification of the context.

PR: Provide visual and physical linkage between the existing buildings.

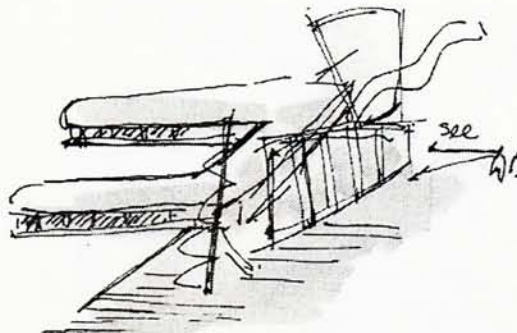
1. Provide physical linkages between the buildings: shelters, walls, fences, plants, paths



2. Define entry to neighboring buildings by visually attractive elements.

PR: Good integration with the old piers which will be the central element in the center.

1. Using elements from the pier: color, paving, furniture, door, windows, in the new structure.
2. Contrast of building profile between the two to highlight the unique character of the old pier.
3. Avoid sudden change in circulation and function between the old and the new structures.
4. Retain / enhance visual access to the pier so people can appreciate its beauty.

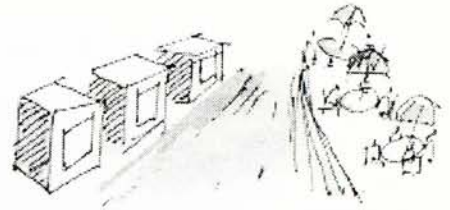


APPENDIX VII: DESIGN ISSUES

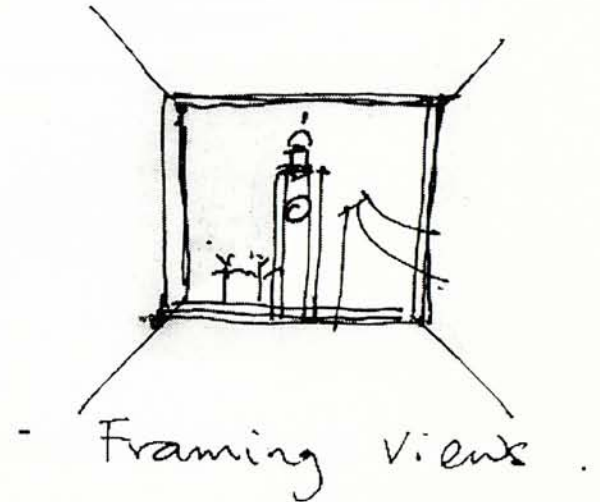
Goal-3: The facilities should reflect cultural identity of Hong Kong as a advanced prosperous modern city with traditional Chinese essence.

PR: Display of HK history and characterizing images of the city

1. Exhibitions in galleries and along pedestrian walkways.



2. Framing of important landmarks and attractions in the context..



3. Shops and restaurants related to traditional life, such as handicraft shop, Chinese tea house, etc.



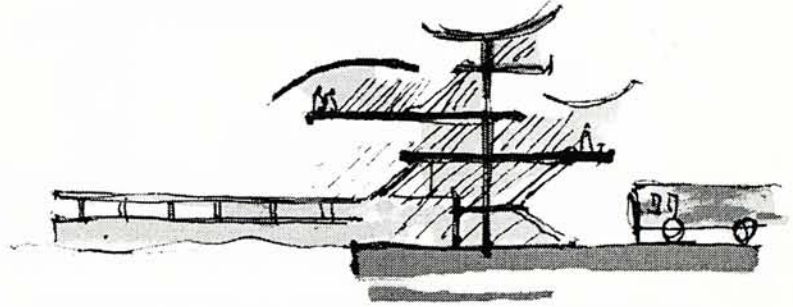
APPENDIX VII: DESIGN ISSUES

2. ISSUE: CIRCULATION

Goal -1: The new facilities should resolve the congestion problem of the existing site.

PR: Provide more room for public activities and circulation.

1. Provide multi-level public realm



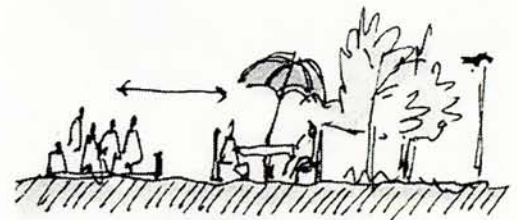
2. Moving coastal line outward to gain more open space

PR: Introduce alternative passages

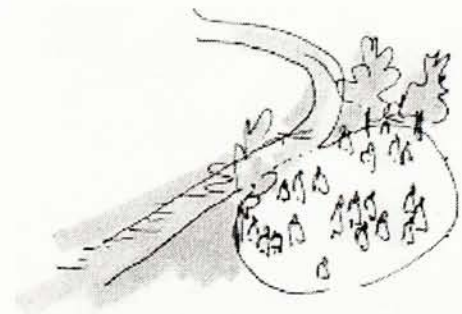
1. Enhance under-used lanes
2. New connection

PR: clearly define gathering spaces from main circulation to avoid interference

1. level changes
2. physical separation



3. change in paving pattern

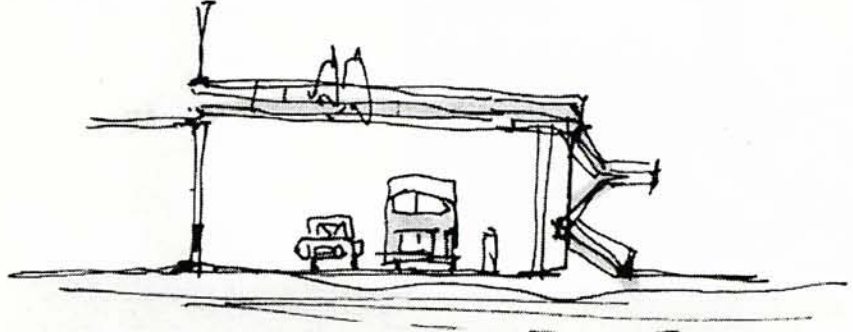


APPENDIX VII: DESIGN ISSUES

Goal-2: Passengers should be able to access, and move through the site in a safe and easy way

PR: clear separation between vehicular traffic and pedestrian passage

1. Pedestrian cross over

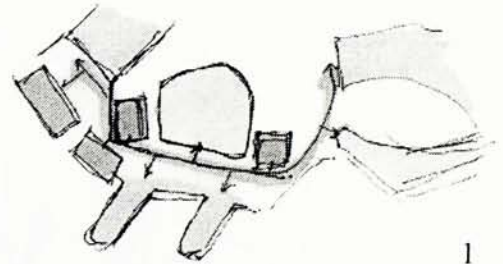


2. Screening of heavy traffic with walls or vegetations.

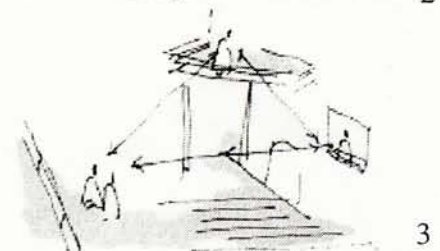


Goal-3: The facility should provide a clear, simple and exciting circulation system for visitors

PR: Circulation system should be self-explanatory for first time visitors and should provide for its user a clear sense of orientation



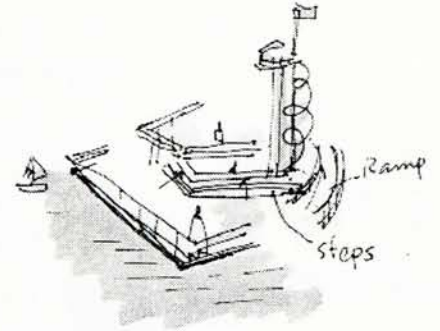
1. central spine
2. Readily identified elements: icon, vegetation, signage
3. Visual connection between different activity zone



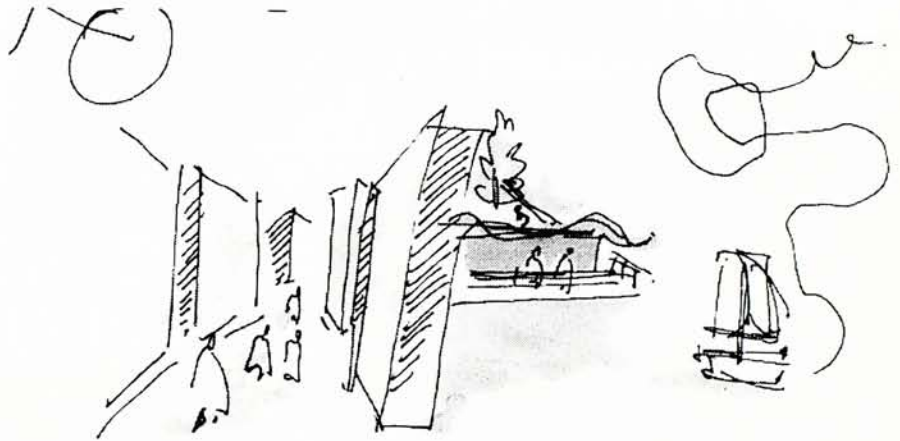
APPENDIX VII: DESIGN ISSUES

PR: All major circulation should be pleasant and visual stimulating

1. Variety of ways to move through



2. Change in direction and views



3. shops, activities, display cases along the path



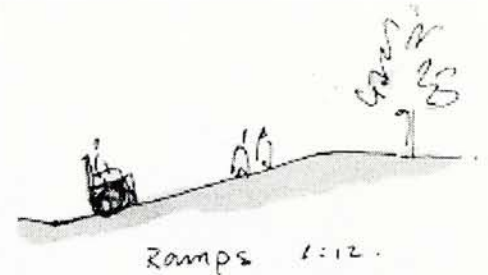
Shops, activities, display

APPENDIX VII: DESIGN ISSUES

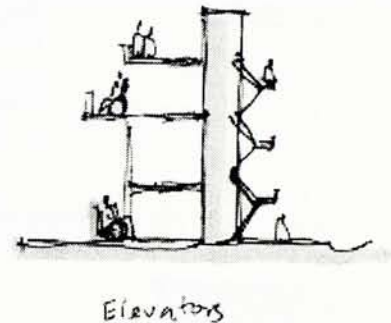
Goal-4: *the facilities should easily accommodate the handicapped and minor mobility difficulties*

PR: sufficient facility for handicapped to access all major zones

1. Ramps with maximum gradient of 1:12



2. path should be wide enough for wheelchair to pass through



3. elevator provided for locations where ramp is not possible



PR: the facilities for physically impaired should be designed to avoid causing embarrassment to the users.

1. the facilities integrate with other building parts to serve the majority.
 2. they can be used easily in a casual way
 3. they are not visually distinctive as facilities for special functions in the site
-

3. **ISSUE: COMFORT**

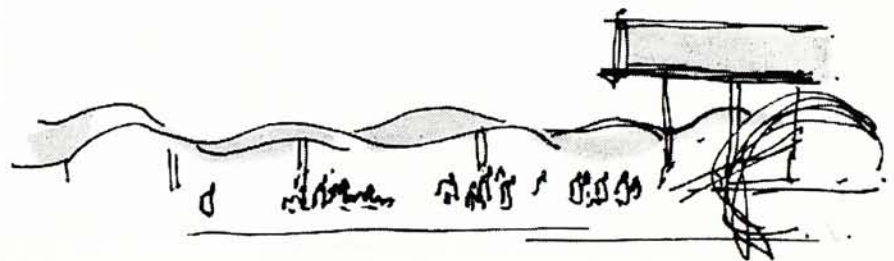
Goal-1: the facilities should provide physical and psychological comfort to encourage staying of visitors.

PR: The facilities should meet the human scale to be user friendly

1. Provide street furniture at activity nodes for people to stay and rest.

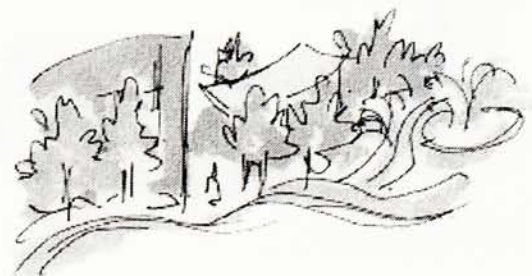


2. shelters for shading and to create a human scale environment



PR: the facility should respond to energy and climatic factors

1. Sufficient shading to reduce energy consumption for cooling.
2. Corresponding openings to enhance natural ventilation
3. Taking advantage of inter block shading
4. Integration of soft landscape and trees



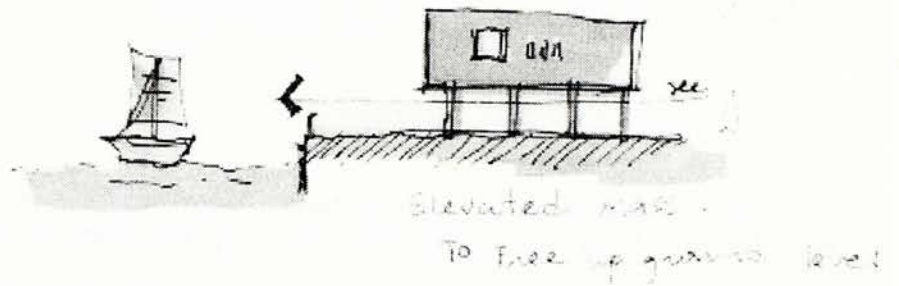
APPENDIX VII: DESIGN ISSUES

4. ISSUE: VIEW

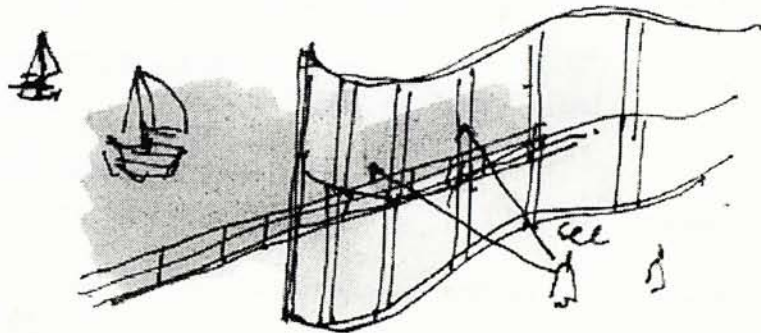
Goal-1: The new facility should be designed to maximize the view of the harbour and the city.

PR: Avoid further blocking of the waterfront.

1. Elevated the building mass to retain openness on ground level.

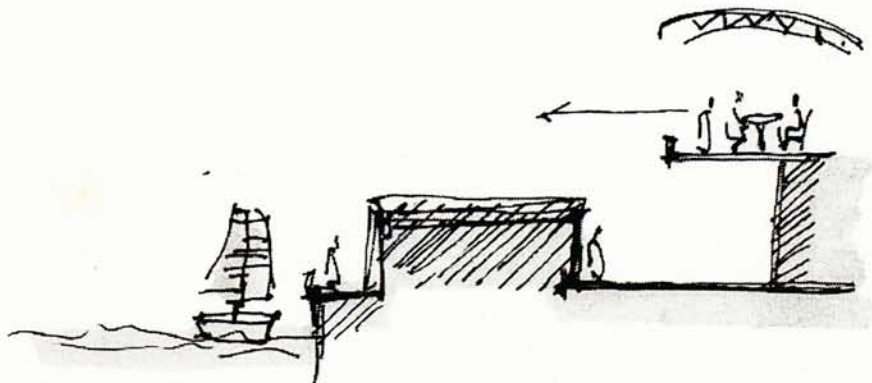


2. Large openings and transparent walls,



PR: Provided new viewing locations.

1. Roof terrace for public.



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