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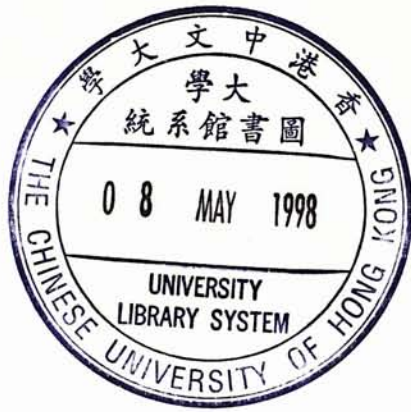
DESIGN REPORT



REFRESHING THE VICTORIA

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April 1997



YB

Design Report:

Refreshing the Victoria

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I am indebted to Prof. Tunney Lee, Department Head of Architecture, Mr. Alfred Yeung, my studio instructor, Prof. Gunis Plesum, my second tutor and Prof. Steven Lombardi, my programming lecturer, for their invaluable advice, encouragement and above all patience in my preparation of this research, programming and design report.

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We therefore wish to acknowledge the following people:

- Ms. Winnie Ho
(Architect, Architectural Services Department)
- Mr. Edwin Wong
(Architect, Architectural Services Department)
- Mr. Chiu Yuen-ying
(Manager, Victoria Park Management Office, Urban Services Department)
- Mr. Ng Ping-shum, Benson
(Staff Officer, Urban Services Department)

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1. Background

1.1 Client & Needs

Victoria Park has become a very popular park since it was opened in 1957. Thanks to its convenient location, easy accessibility by public transport and large area, Victoria Park is now not just a district park for Causeway Bay and Tin Hau, but also functions as a city park for Hong Kong where large-scale entertainment events and community gatherings are held.

The site of Victoria Park is a Crown Land of Hong Kong Government. Urban Council, being the clients, deals with all kind of matters concerning hygiene, leisure, culture and recreation for the public in the urban districts. Urban Services Department, a department works under Urban Council has a special team managing the landscape and parks in Hong Kong.

Due to the traditional planning and out-dated facilities in Victoria Park, it will no longer meet the public satisfaction. With the increasing number of events held in Victoria Park such as the weekly Public Forum, celebration ceremony, a improvement programme for integrated amenity facilities is considered necessary.

Currently, Urban Council had an idea to redevelop Victoria Park and a Redevelopment Committee of Urban Council was formed. The scope of this thesis will thus form part of the Redevelopment program.

1.2 Design Objectives

Mission

To enrich the city by offering energy and characters to Victoria Park with the help of advanced technology of park architecture.

Goals

- To response to and blend with the existing landscape to form an integrated entity with the amenity facilities;
- To enhance the collective identity of Victoria Park by creating an innovative image;
- To maintain and enhance the existing leisure, recreational activities by addressing the diversified open space requirements of different type of activities for different groups at different times;
- As far as the environmental point of view is concerned, to preserve the existing vegetation as far as possible although there is freedom to modify the existing landscape in the reclaimed land;
- To facilitate the circulation paths within the park and improve the accessibility of the park with the urban fabrics.

Design criteria

- A coherent townscape and skyline to be kept with the immediate area;
- The amenity facilities to be integrated to link up the existing dispersed functions;
- Flexibility to be allowed for special events and entertainment functions;
- Supporting services should be self-equipped within the amenity facilities.

1.3 Planning (statutory) constraints

Ownership

It is a piece of Crown Land of Hong Kong Government.

Zoning conditions

Victoria Park is zoned "O" on the North Point Outline Zoning Plan No. S/H8/5.

Lease restrictions

According to Buildings Ordinance section 41(1)(a), the building shall be exempt from the provisions of the Building Ordinance.

Site area

19.32 hectares (the whole Victoria Park).

Class of site

Class C site.

1.4 Site Selection

In this thesis, considering the diversity of functions and facilities in the Victoria Park, a zone of focus was selected for development.

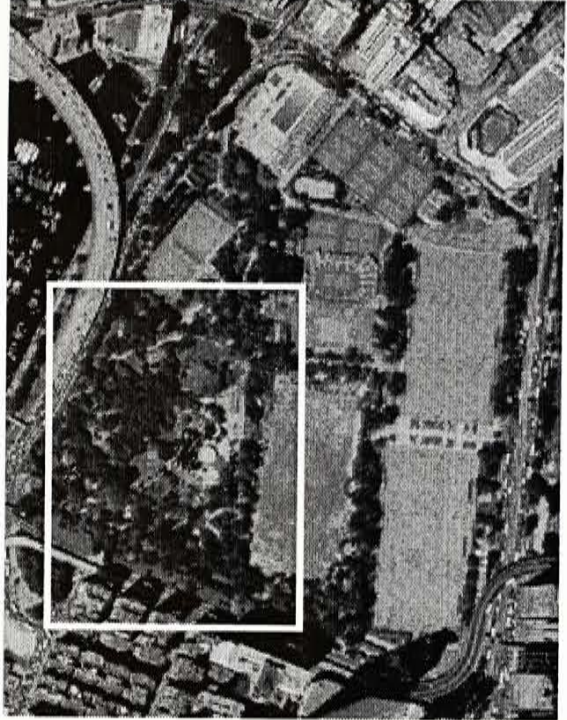


photo 1.4.1 Aerial photo showing the zone of focus

The zone of focus was selected because

- The zone of focus is easily accessible from the main entrances from Causeway Bay, Tin Hau and the south.
- The slope of the zone of focus provides a backdrop for the amenity gallery and potential for the grand stand of the amphitheatre.
- The zone of focus contains area from public zone to private zone, which forms a linkage to the civic zone on the south and a gradation from public to private up the slope.
- There is a variety of facilities and activities in this zone. The model boat pool provides a water element for extensions and the band stand is an important landmark in the park.

1.5 Site Context

Site characteristics

- Since the Victoria Park is basically flat, the northern part of the zone of focus is the only raised level in the park. The slope of the zone of interest ranges from +4.5m to +12.5m above sea level.
- It is highly wooded at the slope and at the perimeter of the promenade but the area around the existing band stand is less vegetated.
- The zone of focus is easily accessible from the Western main entrance and it faces to the primary circulation routes, making it is easily reached from Causeway Bay, Tin Hau and the south.
- In terms of privacy, there is a gradation from public to private up the slope.

Existing facilities

There is a variety of facilities in the zone of focus.

- However, their location are dispersed and there is no strong spatial linkage in the zone of focus. The existing facilities include:
 - **The cafeteria** (photo 1.5.2)
The cafeteria provides snacks and drinks in the park.
 - **The model boat pool** (photo 1.5.3)
The model boat pool offers space for teenagers to play model boat pool in holiday and attract a crowd of audience.
 - **The band stand** (photo 1.5.4)
It does not only serve as a pavilion, but also the venue for the weekly Public Forum organised by RTHK. During the Forum, mobile supporting facilities are parked nearby. (photo 1.5.5) Besides, it is also regarded as a symbol of democracy and freedom of speech.
 - **The pavilion near the flags and poles** (photo 1.5.6)
It is located at the northern slope for old people gathering.

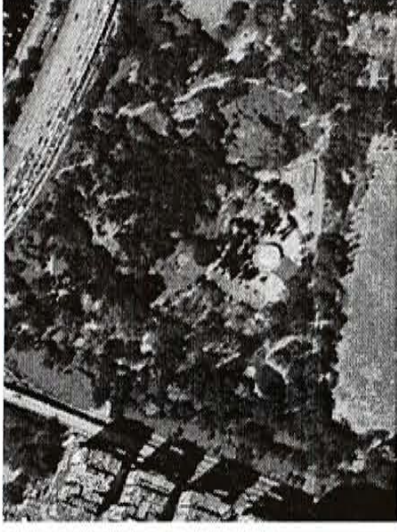


photo 1.5.1 The zone of focus

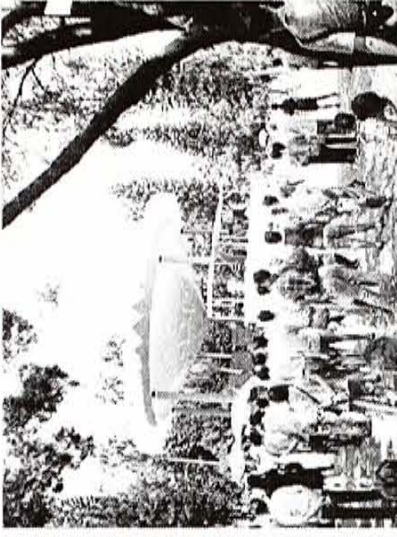


photo 1.5.4 The band stand

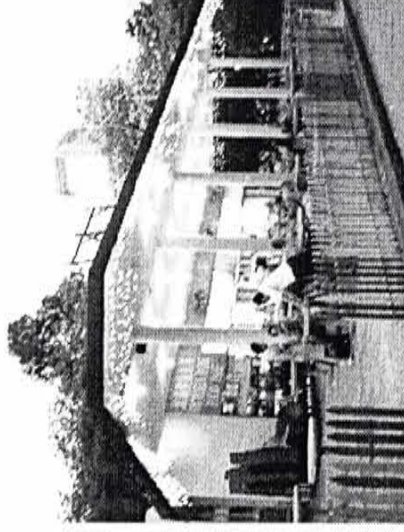


photo 1.5.2 The cafeteria

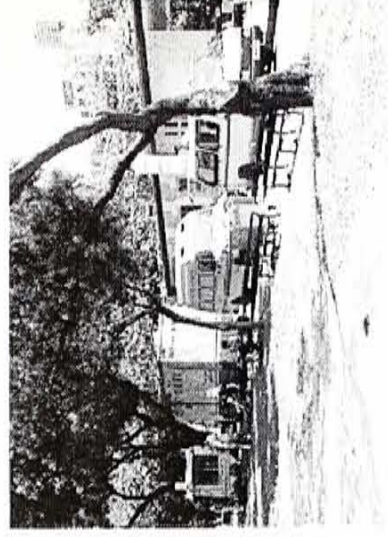


photo 1.5.5 The supporting crew for Public Forum

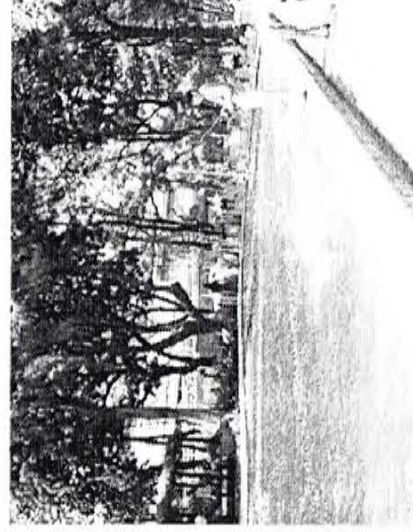


photo 1.5.3 The model boat pool



photo 1.5.6 The area near flags and cannons

1.6 Programme

Scope of development

The scope of development includes:

- The detail development of an amenity gallery which integrate the existing dispersed cafeteria, Park Management Office and incorporate a multi-functional display area and supporting rooms for an amphitheatre.
- The detail development of an amphitheatre which take place of the existing band stand where performances and public forum are held.
- Special study on the retraction mechanism of the roof of the amphitheatre.
- The overall landscaping strategy including the employment of water elements, addition of vegetation as well as relocation of amenity facilities.
- Provision of landscaped walkways and circulation routes which facilitate the accessibility to the amenity gallery and amphitheatre from different entrances.
- The design of the selected zone of focus and its impact will constitute a possible proposal of future master layout plan in diagrammatic form.

2. Planning Strategy

2.1 Phasing of Development

Owing to the large-scale of the redevelopment and land availability, the Victoria Park Redevelopment will be divided into several parts which falls into two phases with the focus of thesis being the first. Detail of the phasing of development is shown in photo 2.1.1 and fig.2.1.1.

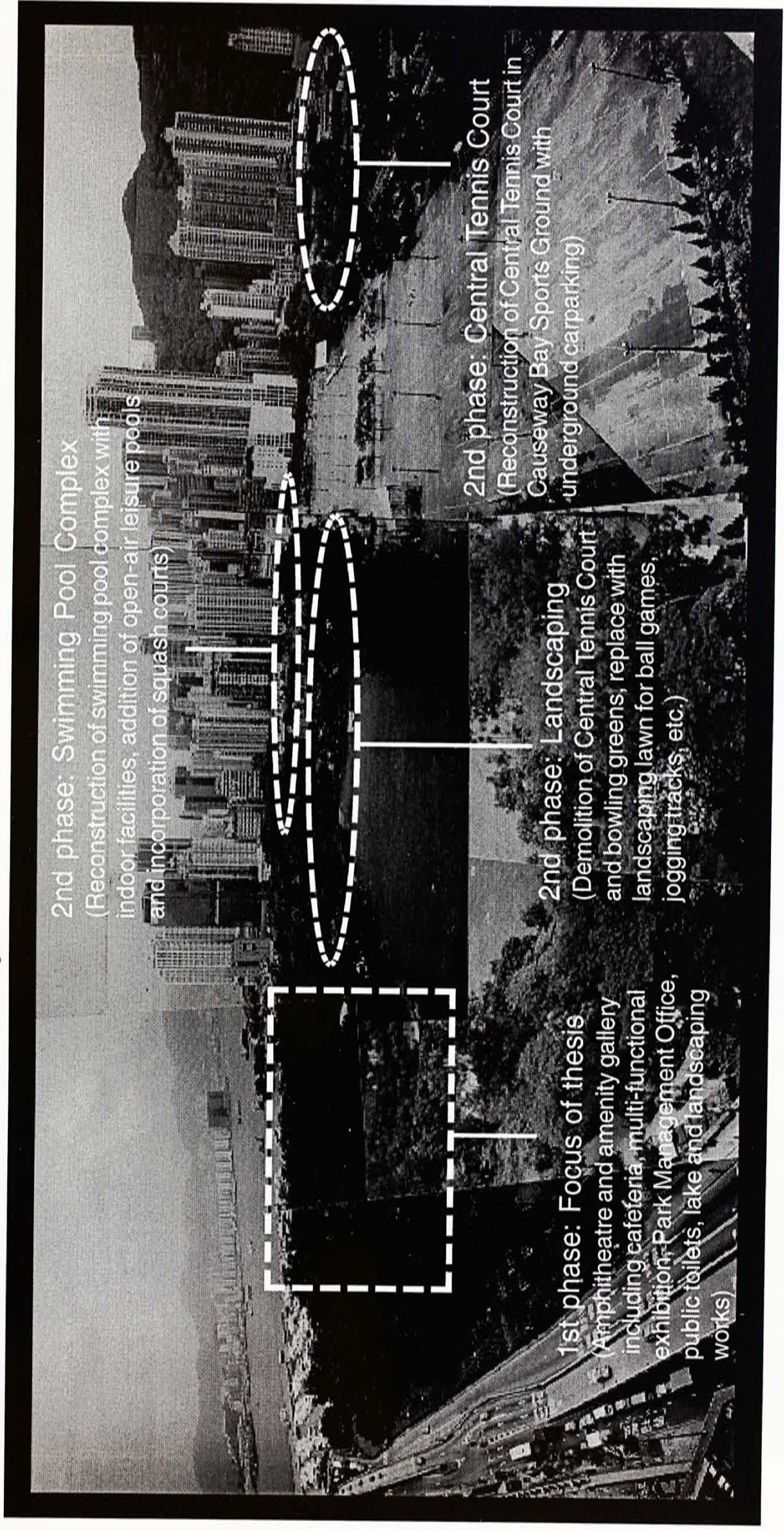


photo 2.1.1 Overview of development

- ① 1st phase: Focus of thesis
 - a. Amenity gallery
 - b. Public toilet
 - c. Amphitheatre
 - d. Lake
 - e. Footbridge
- ② 2nd phase: Landscaping
 - f. Bowling greens to be deleted
 - g. Central tennis court to be relocated to Causeway Bay Sports Ground
 - h. Handball court to be relocated to hard-surfaced football pitch no.6
- ③ 2nd phase: Swimming pool Complex
 - i. Swimming pool with indoor facilities to be reconstructed
 - j. Tennis courts to be relocated to Causeway Bay Sports Ground; original land to be converted to open-air leisure pool
 - k. Squash court to be reconstructed in the swimming pool complex
- ④ 2nd phase: Central Tennis Court
 - l. Central tennis court and underground carpark to be constructed in Causeway Bay Sports Ground
- ⑤ 2nd phase: Others
 - m. Widening of Eastern entrance
 - n. Aviary to be deleted
 - o. Temporary nursery and staff hostel to be relocated to north of the park
 - p. Widening of Sugar St. entrance
 - q. Pavilion to be reconstructed
 - r. Widening of Hing Fat St. entrance
 - s. Football pitch no.6 converted to handball and basketball courts

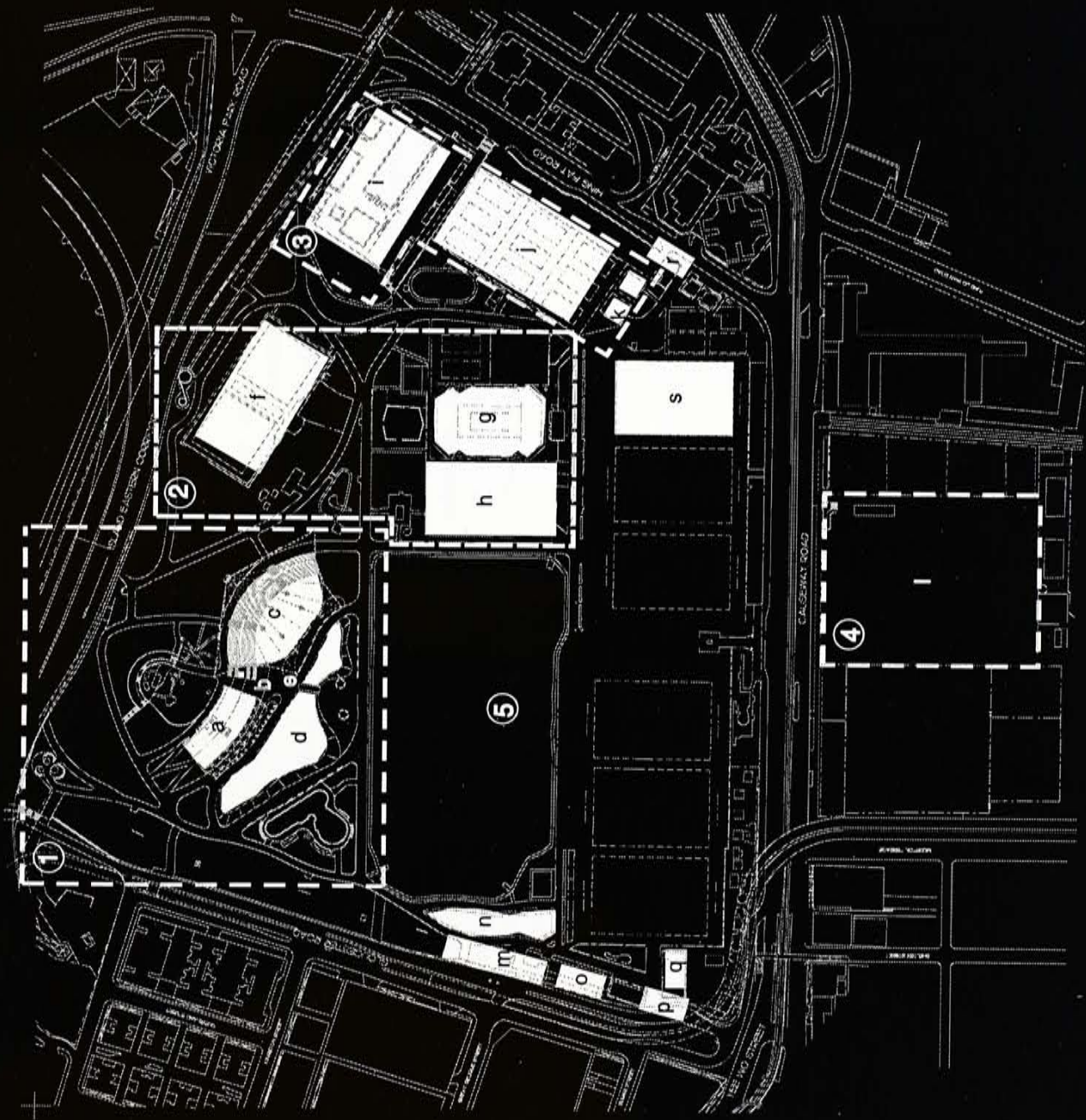


fig.2.1.1 Phasing of development

2.2 Design Philosophy

Changeable Structure

- Considering the diversified open space requirements in various time, changeable structure for performance and leisure to be designed.
- Convertible roof can provide shelter regardless of the rainy weather and, in the meantime, create an open-air atmosphere.
- Dynamics of the changeable structure has a symbolic meaning and always attract attentions. The convertible roof of the amphitheatre will definitely forms a landmark in the park. When the roof retracts, it preludes the beginning of a special function.
- As reference to the natural world, movement is a rule, in which trees, flowers assume ever-changing shapes. The changeable structure can thus be regarded as fragments of a new landscape.

Lakes and Causeway

- The design will blend well with the natural environment of the park, one can have delightful views of the lakes.
- The lakes, which form the central feature of the park, are divided into two parts by a footbridge crossing above, creating a continuously rippling and moving surface underneath.
- An existing line of tall, mature trees is retained and additional trees are planted along the lakes.
- Footpaths meander in and out of these trees to give visitors constantly changing visual experience along the causeway.

Unique quality of light

- In daytime, harmful UV light are filtered off whilst full-spectrum of sunlight is softened and transmitted to form open-sky feeling.
- In nighttime, the highly reflected surface of the membrane is perfect for indirect lighting to create diffuse luminance.
- At night, sufficient artificial light passing through the membrane dramatize its wonderful sculptural form, making the structure an explosion of light and, as a result, forms a strong statement in the park.
- Control of light is intrinsic to membrane structure. The tensioned membrane surfaces are excellent for reflection. Light and sound take the same path around the interior, therefore making form, structure, functions, lighting and acoustics in an entity.

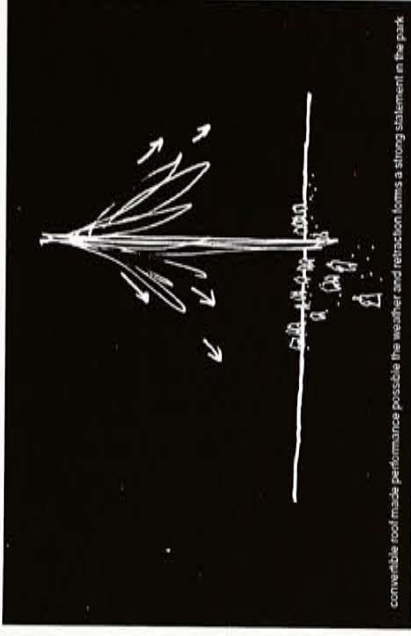


fig. 2.2.1 Changeable Structure



fig. 2.2.2 Lakes and Causeway

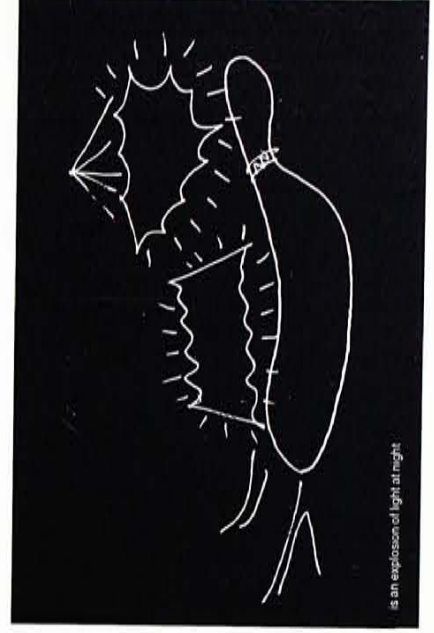


fig. 2.2.3 Unique quality of light

2.3 Design Development

Organic-shaped courtyard

- Amphitheatre with a convertible roof is designed facing to a lake. (photo 2.3.1)
- An organic-shaped courtyard links up the amenity facilities including the cafeteria, multi-use display area as well as the park management office.
- The relations of the courtyard with surrounding landscape should be emphasized.

Stage on the water

- A convex shaped amphitheatre faces to a covered stage on the water. All the amenity and supporting facilities are placed under the grand stand. (photo 2.3.2)
- The convex shaped amphitheatre is not efficient in terms of sightlines and acoustics.
- Light penetration and environmental concerns are critical in the design.

Curved form complex

- In response to the slope at the north, a curved form complex of amphitheatre and amenity gallery radiate out. (photo 2.3.3)
- Introduction of the lake forms an extension of the existing model boat pool, contrasting with the amenity facilities and creating a circulation loop around.
- Circulation is not well-resolved and the area around the existing model boat pool is a bit congested.
- The metal louvered roof of the amenity gallery does not match with the movable panels of the amphitheatre.

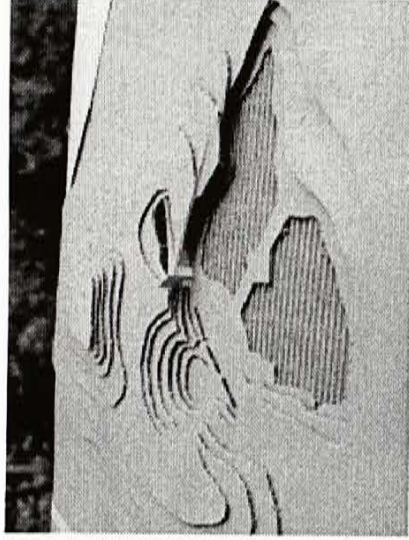


photo 2.3.1 Organic-shaped courtyard

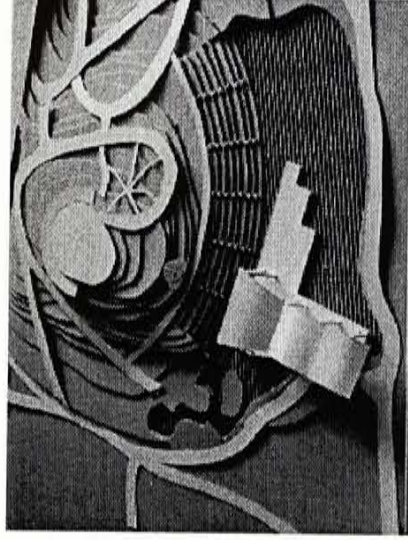


photo 2.3.2 Stage on the water

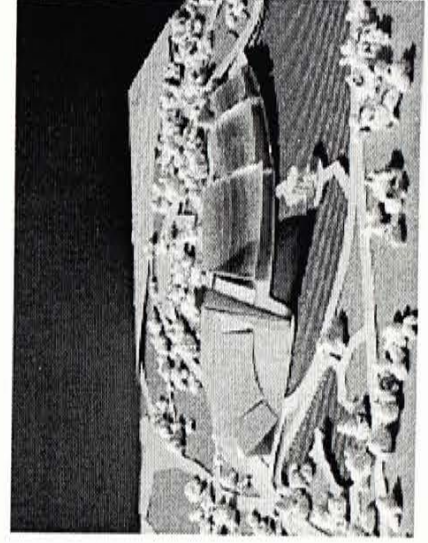


photo 2.3.3 Curved form complex

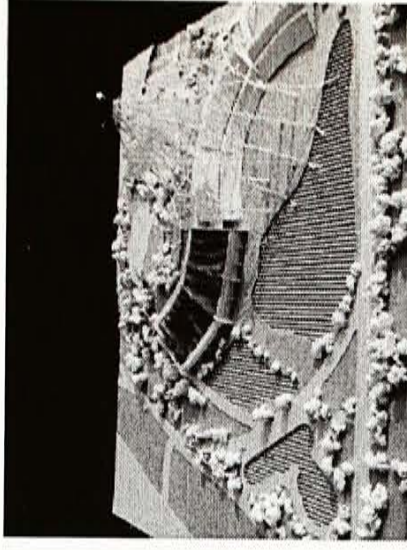


photo 2.3.4 Unified membrane structure

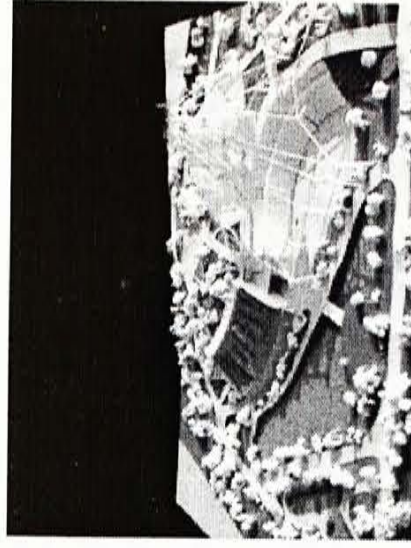


photo 2.3.5 Coherent landscape



photo 2.3.6 Final scheme

2.4 Zoning

Unity in fragmentation

- The existing cafeteria, park management office, the additional display area and supporting rooms are grouped within an amenity gallery.
- The amphitheatre and the amenity gallery are linked at the first floor level.
- The lakes, as a central feature of the park, not only forms an extension of the existing model boat pool, but also tie up the fragmented elements in the park and provide picturesque view for the visitors.

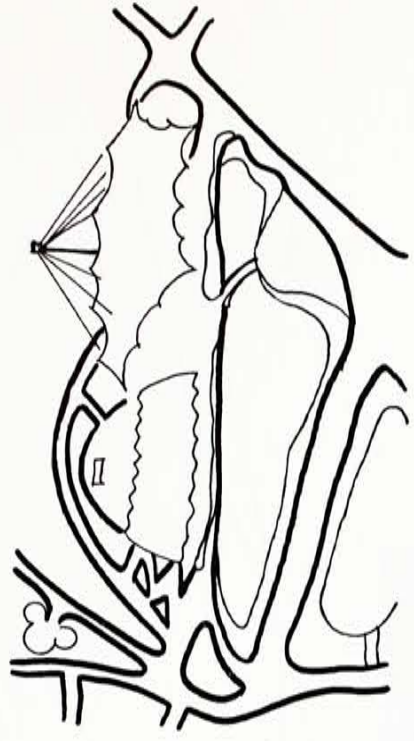


fig. 2.4.1 Unity in fragmentation

Concentrations and ring of green

- Existing line of tall, mature trees is retained and more trees are vegetated along the lakes to enhance the concentrations and ring of green of the naturalistic park. It will become a green oasis within "the jungle of concrete" surroundings devoid of greenery.
- The park will provide a variety of visual, spatial experience along the tree-lined promenade with lakes on one side and amenity facilities and seatings on the other.
- Substantial new planting is introduced to this zone to soften the construction of the amenity gallery and the amphitheatre, and, at the same time, blend in with the lakes and model boat pool to convert this zone to a more natural settings.



fig. 2.4.2 Concentrations and ring of green

Scene by night

- The glow of light through the membrane structure dramatize the park at night.
- The light from the membranes are reflected off by the lakes.
- Park lighting are introduced at intervals along the footpath, creating a delightful rhythm to the sightview.

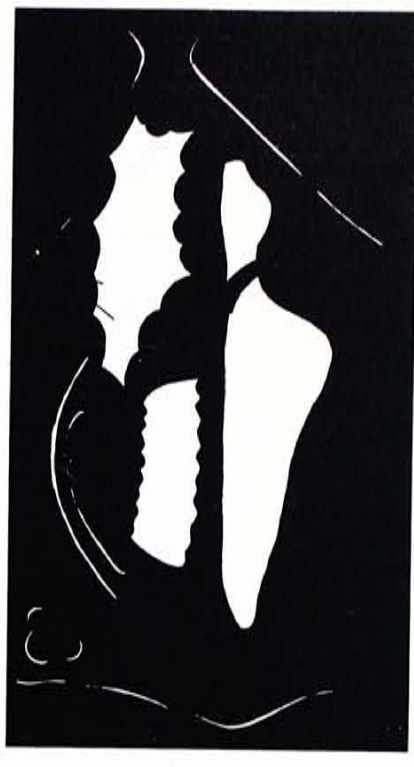


fig. 2.4.3 Scene by night

Unified membrane structure

- Location of amenity gallery and amphitheatre are switched to solve circulation problems. (photo 2.3.4)
- Escalators are included inside the amenity gallery to link with the area up the slope.
- Suspension Membrane structure of the amenity gallery is designed to unify with the centrally bunched moving membrane structure.
- The circulation route inside the amenity gallery is not well-resolved and geometry of the lake is awkward.

Coherent landscape

- The geometry of the lake is improved with main circulation at area between the amenity gallery and amphitheatre.. (photo 2.3.5)
- Stepped observation terrace and sloped path are designed on the two side of the amenity gallery, which links up the area up the slope.

Final scheme

- In the final scheme, the amenity gallery, amphitheatre are designed in harmony with the surrounding areas with heavy vegetation around the lakes and bridges crossing over. (photo 2.3.6)

2.5 Site Planning

Townscape and skyline

- In the North-South direction, the grand stand on the slope forms a backdrop screening off the dusty traffic from the Island Eastern Corridor on the North. The mast of the convertible roof for the amphitheatre is kept at the level in harmony with the adjacent building. (fig.2.5.1)
- In the West-East direction, the park is sandwiched by the commercial area in Causeway Bay and Tin Hau residential area. A continuity is created from the Causeway Bay side. The water elements and the light-weight structure wash off the hustle and bustle of the city and, eventually ends with a gentle slope, forming an integral part of cohesion with the city fabrics. (fig.2.5.2)

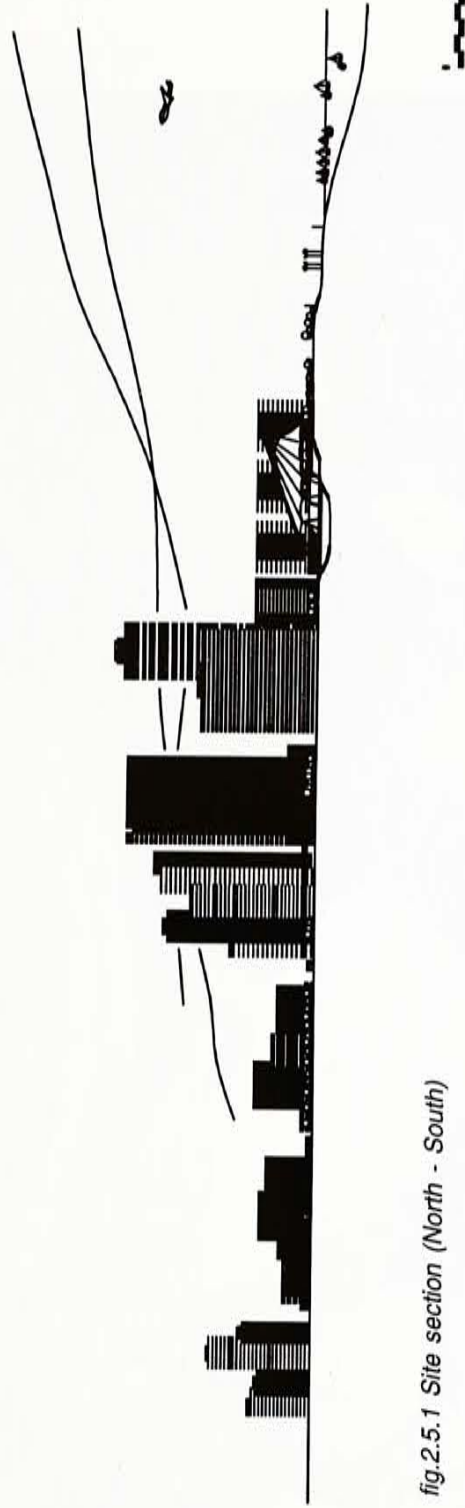


fig.2.5.1 Site section (North - South)

Transport and management

- Being a park for the city, numerous means of transport can reach the Victoria Park such as MTR, bus, mini-bus, tram, etc. (fig.2.5.3)
- Vehicular access is mainly from the Hing Fat Street. A carpark is also located at the Hing Fat Street.
- Patrol golf cars can drive from the carpark in between the amenity gallery and amphitheatre to every corner to keep the law and order in the park.
- Garbage collection is located at Tsing Fung Street.

Access and circulation

- Emergency Vehicular Access (EVA) is located along the access road around the lakes. (fig.2.5.4)
- Occupants' escape route is located on the first floor level which opens to the slope and terrace respectively.
- Visitors can approach to the site from Gloucester Rd., Western Entrance and Tin Hau / North Point side.

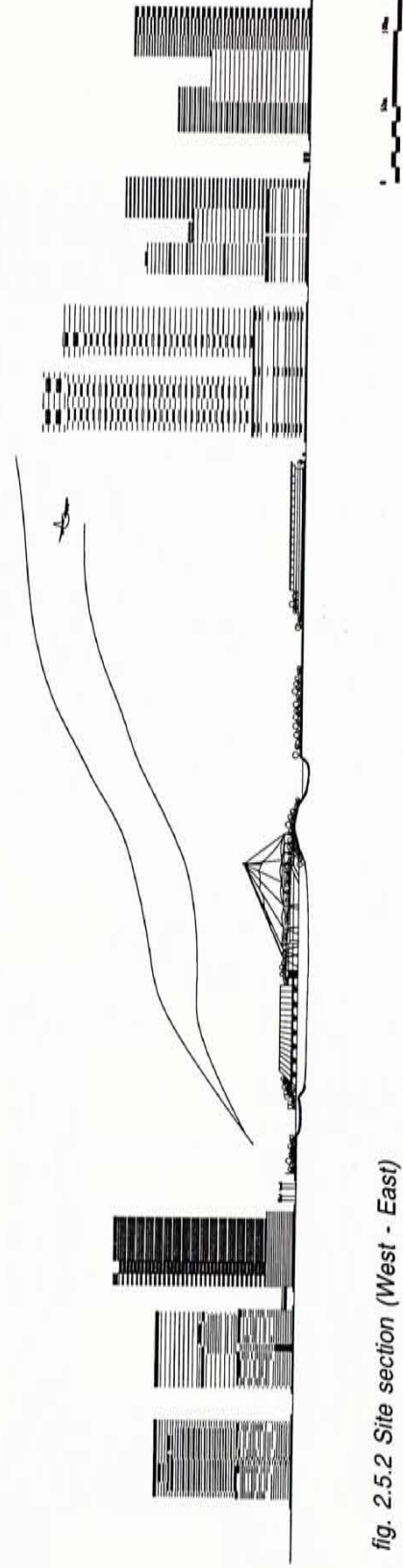


fig. 2.5.2 Site section (West - East)

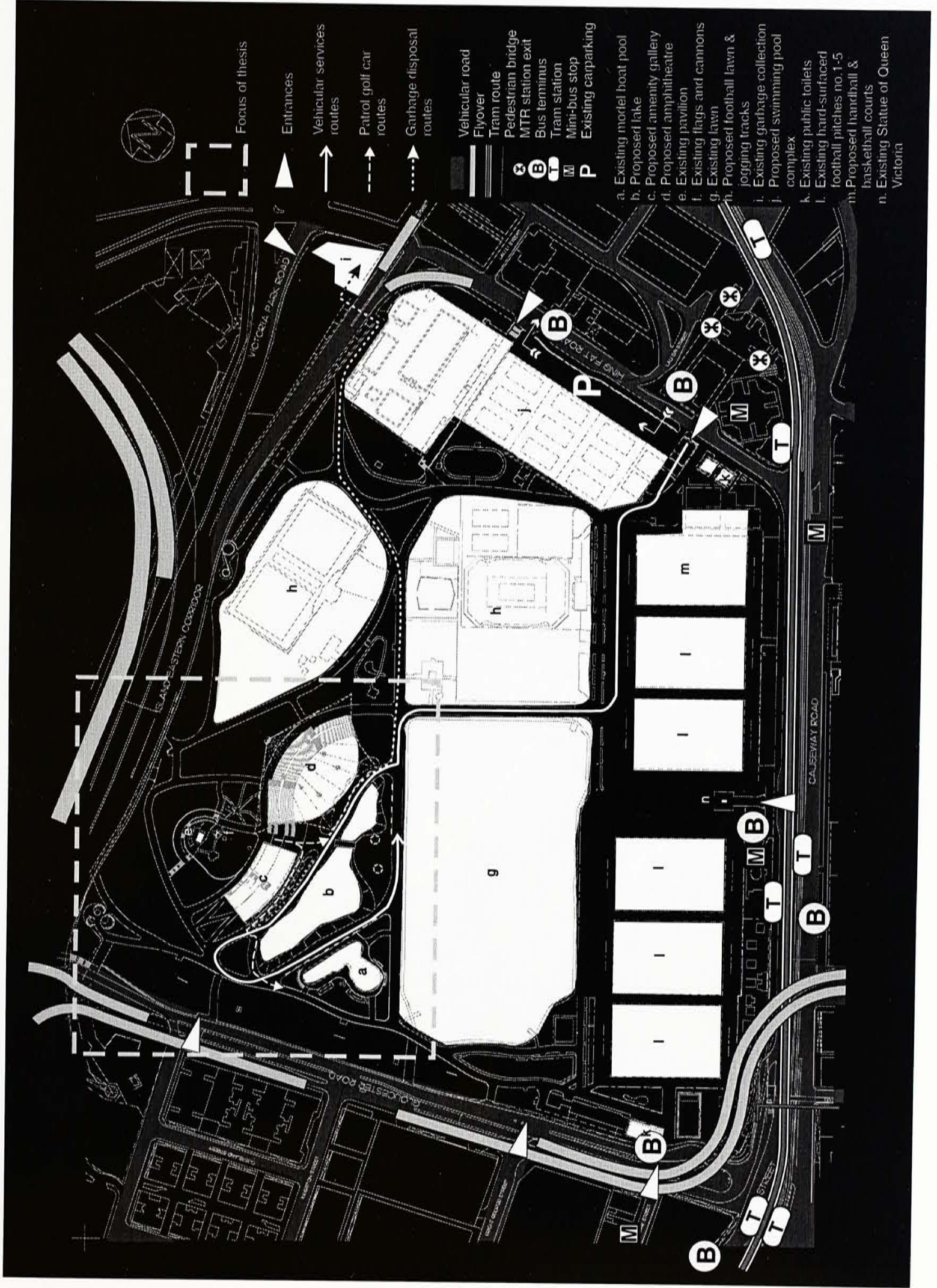


fig.2.5.3 Transport & management

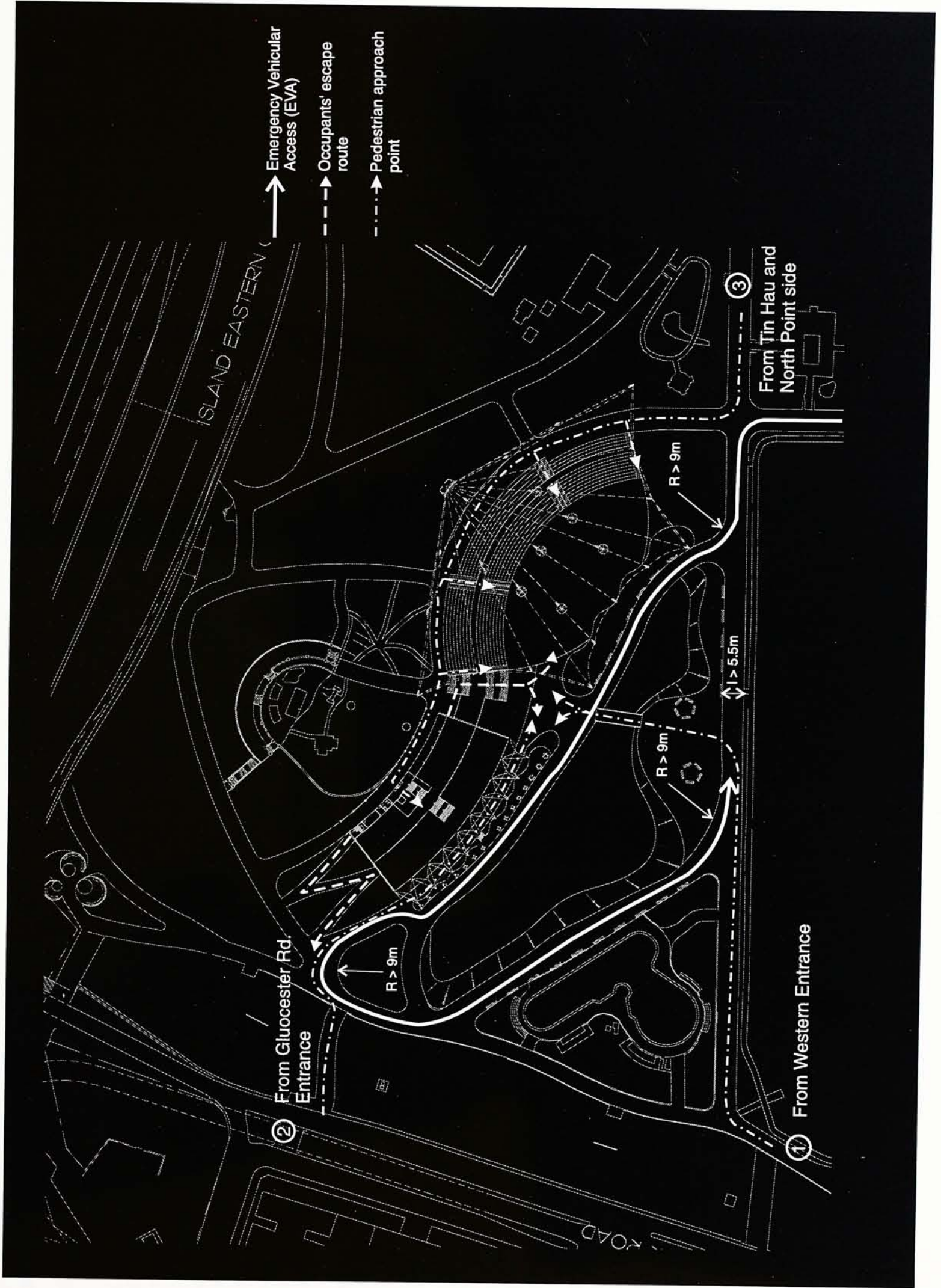


fig.2.5.4 Access & circulation

2.6 Functional Relations

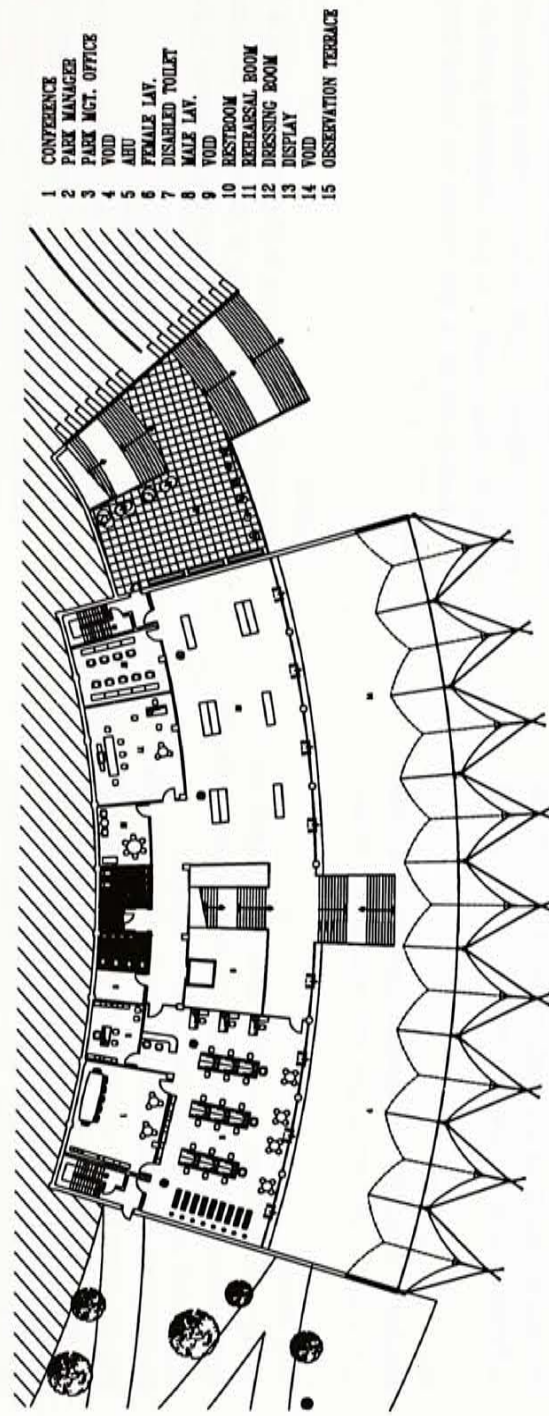
Schedule of accommodation

Amenity gallery

- **Park diners, amenity gallery (385m²)**

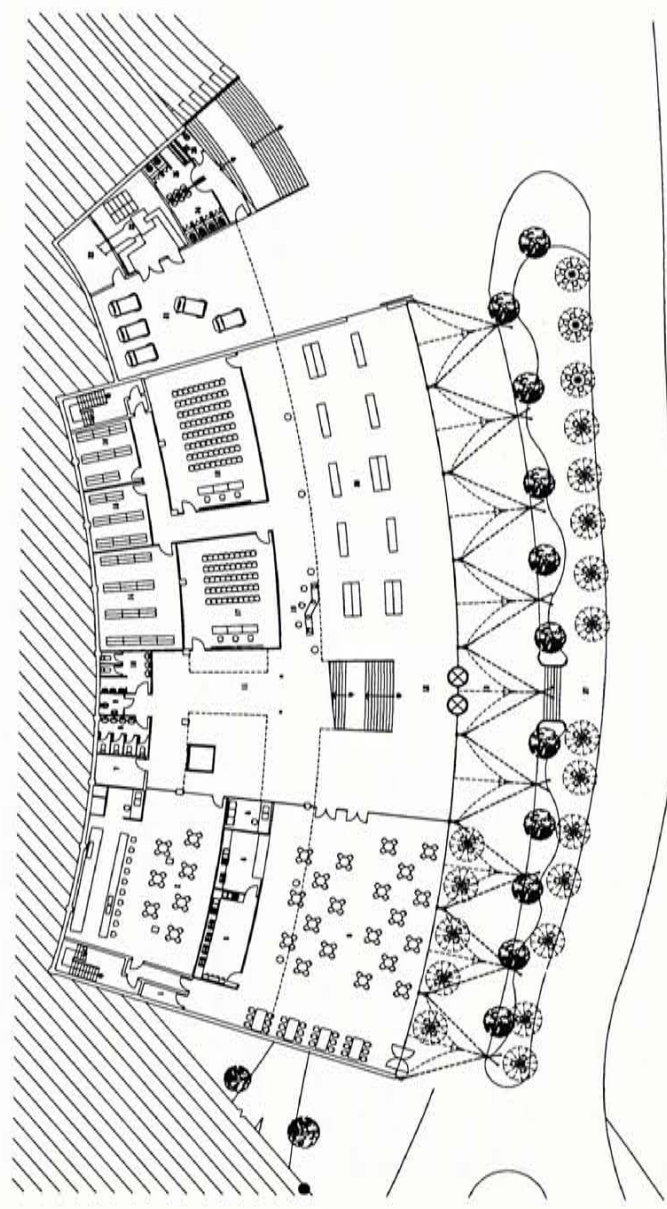
The park diners comprise of:

- A cafeteria of 255m² on the ground floor which includes a kitchen of 48m². As a diner in a park, the cafeteria serves the public mainly with snacks and fast-food in an informal way. Free seatings are provided and there is no waiters/waitress serving. A food serving counter is available;
- A lounge of 130m² on the ground floor which serves the public in a more formal way. Breakfast, lunch, tea as well as dinners are provided. Waiters/waitress serving;
- Outdoor diners which locates outside the cafeteria and abut on the walkway along the lake. It provides a outdoor space for the public to enjoy their meals whilst at the meantime, have picturesque scene of the park.
- **Park Management Office, amenity gallery (230m²)**
The park Management Office on the first floor comprise of:
 - Conference room / multi-purpose function room for organizers and press release;
 - A Park Manager's room;
 - A open office for about 60 staff;
 - A carpark for the patrol (golf) car.



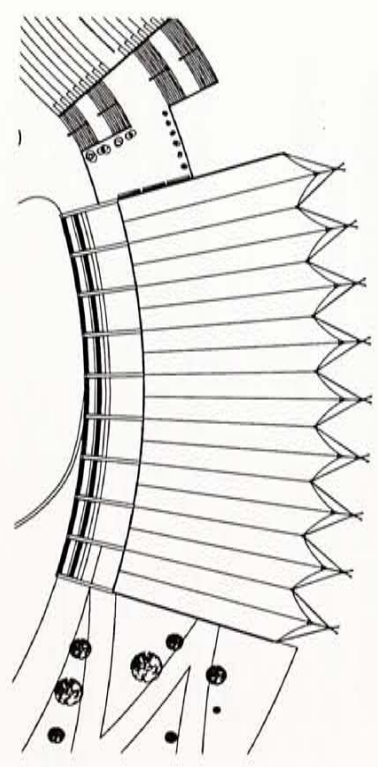
AMENITY GALLERY
FIRST FLOOR PLAN (LEVEL +6.5)

- 1 CONFERENCE
- 2 PARK MGT. OFFICE
- 3 PARK MGT. OFFICE
- 4 VOID
- 5 AHU
- 6 FEMALE LAV.
- 7 DISABLED TOILET
- 8 MALE LAV.
- 9 VOID
- 10 RESTROOM
- 11 REHEARSAL ROOM
- 12 DRESSING ROOM
- 13 DISPLAY
- 14 VOID
- 15 OBSERVATION TERRACE

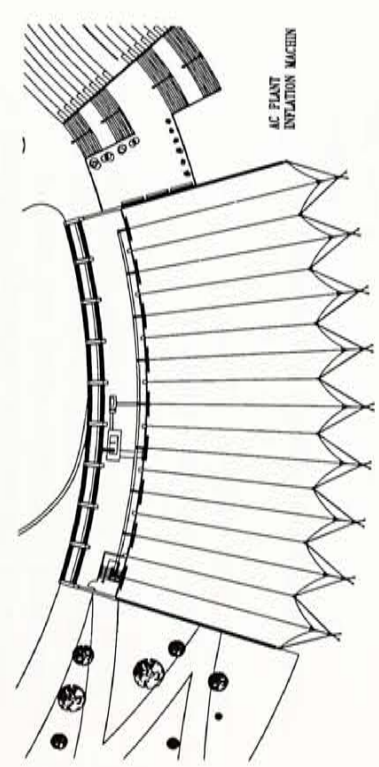


AMENITY GALLERY
GROUND FLOOR PLAN (LEVEL +3.0)

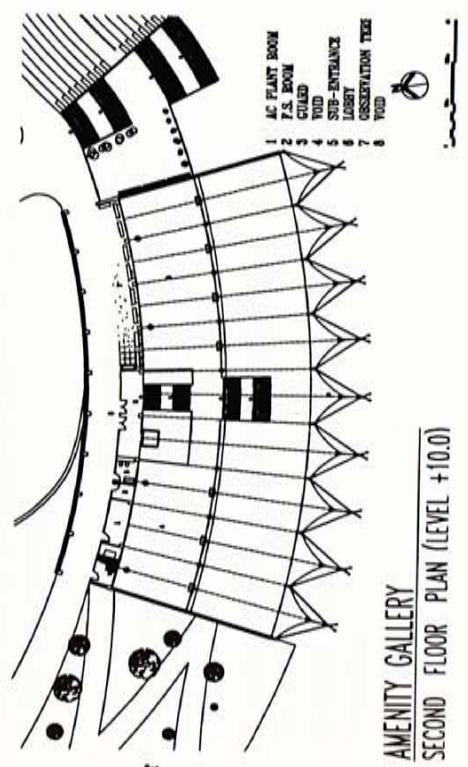
- 1 JANITOR
- 2 LOUNGE
- 3 KITCHEN
- 4 FOOD SERVING
- 5 CASHIER
- 6 CAFETERIA
- 7 AHU
- 8 FEMALE LAV.
- 9 DISABLED TOILET
- 10 MALE LAV.
- 11 DISPLAY
- 12 LOBBY
- 13 ENTRANCE
- 14 STORAGE
- 15 STORAGE
- 16 STORAGE
- 17 LECTURE ROOM
- 18 LECTURE ROOM
- 19 RECEPTION
- 20 DISPLAY
- 21 PATROL CAR PARK
- 22 SWITCH ROOM
- 23 TRANSFORMER
- 24 PUBLIC FEMALE TOILET
- 25 PUBLIC MALE TOILET
- 26 DISABLED TOILET
- 27 OUTDOOR DINER



AMENITY GALLERY
ROOF PLAN



AMENITY GALLERY
THIRD FLOOR PLAN (LEVEL +12.5)



AMENITY GALLERY
SECOND FLOOR PLAN (LEVEL +10.0)

- **Multi-functional display, amenity gallery (700m²)**
Both single-storey-high and double-storey-high display area for versatile exhibit purposes are available on the ground and first floor. Very often, it will be hired by the Government Departments for promotions and carrying out campaign, such as "Cleaning Hong Kong" and "Against AIDS". Alternatively, it will be used by other organisations for charity functions as well as shows advocating art and culture.

The exhibits will be in the forms of board shows, sculpture display, suspending objects and video/audio shows, etc.

In general, these functions will be related to the current activities in the amphitheatre so that the public can visit the exhibitions shows before or after the functions in the amphitheatre.

- **Lecture rooms, amenity gallery (130m²)**
Two lecture rooms on the ground floor are available for seminars on various topics proposed by the organisers.

- **Storage, amenity gallery (90m²)**
Three storage rooms on the ground floor are used to store the exhibits before and after the functions in the multi-functional display area temporarily.

- **Supporting rooms for amphitheatre, amenity gallery (90m²)**
Restroom, Rehearsal room and dressing room are located on the first floor which links to the amphitheatre so that it forms a back-of-house for preparation and breaks during the performance in the amphitheatre.

- **Toilets, amenity gallery (75m²)**
Toilets with disabled facilities are available both on the first floor and ground floor. Public toilets with disabled facilities are located in between the amphitheatre and amenity gallery.

- **Ancillary facilities, amenity gallery (85m²)**
Ancillary facilities includes AHU, switch room, transformer room, A.C. plant room, F.S. room and guard room are located on the ground floor, first floor and the second floor..
- **Patrol golf carpark, amenity gallery (75m²)**
A patrol golf carpark is located in between the amenity gallery and amphitheatre on the ground floor.

Amphitheatre

The amphitheatre is the venue for public performance which is often related to the functions held in the amenity gallery. The original public forum will be held over here with supporting facilities connecting to the supporting rooms in the amenity gallery, taking place the role of the band stand. The amphitheatre is composed of a convertible roof, a stage and a grand stand.

- **The convertible roof (4000m²)**
The convertible roof covers both the stage and the band stand. It make open-air performances possible independent of the weather, fulfil the multi-functions purpose and gives energy to the park.
- **The grand stand (1250m²)**
Based on the planning allowances of 0.65m² per seat, the grand stand can accommodate approximately 2,000 audience.

Statutory calculation

Amenity gallery

• **Minimum area for kitchen**

Since the cafeteria and the lounge is going to serve limited range of food items, the requirements for this type of restaurant are less stringent than those for general restaurants.

According to Appendix II, list of Approved Food Items for Light Refreshment Restaurants, both the cafeteria and the lounge fall into Group C (Western Snacks).

The total area of the cafeteria and lounge is 385m². According to the requirement for Light Refreshment Restaurants, minimum total area of kitchen, food preparation room and scullery accommodation for Gross floor area of 186m² or over is 9% of gross floor area or 28m² whichever is more.

∴ the minimum area for kitchen is
385m² x 9% = 34.65m² > 28m²

The actual area provided for the kitchen = 40m²
> 34.65m²
> min. reqt.

• **Sanitary Fitments**

For the cafeteria and lounge, the number of customers to be accommodated is calculated at 1.5m² per person.

∴ there are 385/1.5 or 257 customers. The minimum requirement for sanitary fitments for 201-300 customers are:

2 water closets, 1 hand washing basin and 1 urinals for males; and
2 water closets and 1 hand washing basin for females.

The actual fitments provided on the ground floor are:
2 water closets, 3 hand washing basin and 3 urinals for males, and
4 water closets and 4 hand washing basin for females.

∴ the actual number of fitments provided exceeds the minimum requirement.

The total usable floor area for the amenity gallery is 1300m².(approx.) In accordance with Table 1 of Code of Practice for the Provision of Means of Escape in case of Fire 1996, factor of 2m² per person for museums, exhibition halls, trademarts and display areas.

∴ there are 1300/2 or 650 occupants.

As the amenity gallery is classified as the places of public entertainment, the minimum requirements of sanitary fitments for

male:

Watercloset fitments

650	
- 400	5
<u>250</u>	1
	<u>6</u>

Urinals

650 / 50 = 13

Lavatory basins

650 / 100 = 6.5 ∴ 7

female:

Watercloset fitments

650	
- 200	5
<u>450</u>	
500	5
	<u>10</u>

Lavatory basins

650 / 100 = 6.5 ∴ 7

The actual fitments provided for male:

6 watercloset fitments, 6 urinal, 1 urinal trough and 9 lavatory basins.

for female:

12 watercloset fitments and 11 lavatory basins.

∴ the actual number of fitments provided meets the minimum requirement.

3. Environmental Issue

3.1 Climatic control

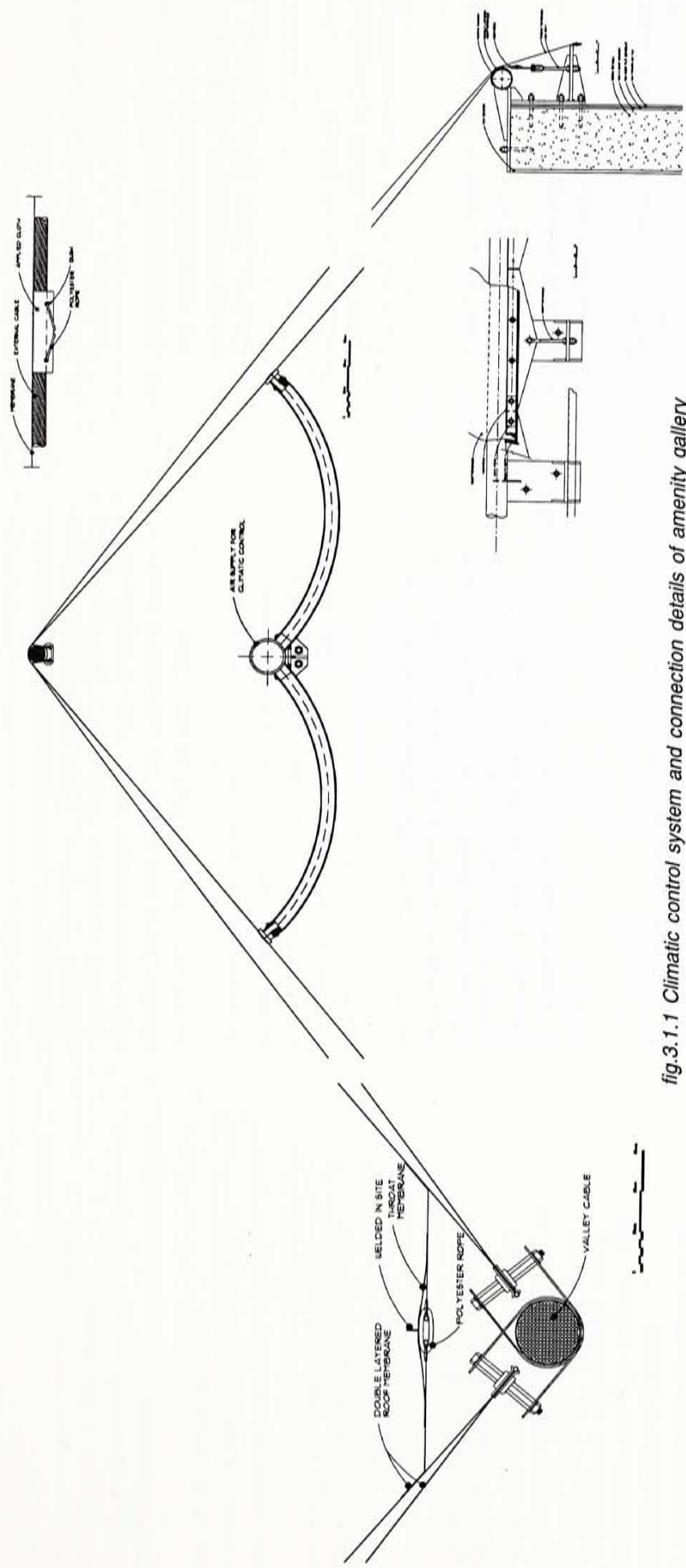


fig.3.1.1 Climatic control system and connection details of amenity gallery

Skin

Amenity gallery

- The structure is a fan-shaped membrane roof with a folded plate configuration of a shell form adopting the suspension membrane structure.
- Air connected with the air-conditioning system supply cool air for the inflated cushions.(fig.3.1.1)
- The double-layered membrane are kept apart by air, it thus forms a good thermal insulators.
- The highly reflective surface reflect solar radiation out.

- The skin transmits certain amount of daylight inside, reducing the use of artificial light which produce more heat than light.
- Translucency of the membrane roof permits heat discharge at night, thus reducing the load on air-conditioning.

Amphitheatre

- The convertible roof retracts during the sunny days to provide shade for the performance underneath. It makes performance possible regardless of both the hot sunny and rainy weather.

Material technology

- Membrane is now becoming an efficient structure which incorporate materials of the newest technology that erect, mechanically service, maintain, and repair themselves..
- Apart from the design of connections and components, the choice of the materials itself also dictates the climatic performance of the skin.
- As membrane technology has improved rapidly, there is a diversity of choices of membranes with various characteristics. (fig. 3.1.2)

Amenity gallery

- For the amenity gallery, Teflon coated fiberglass PTFE is one of the good choice for the roof membrane. PTFE is very common since it was developed in 1973. It can be easily heat-welded on site and they are highly resistant to abrasion and chemically inert. It possesses Class A fire rating, relatively cheap and absorb little light as heat. The only shortfall is that it is brittle and need considerable care and accurately fabricated for its little elastic forgiveness.
- Silicone-coated fiberglass also has potential but it is a material that keep improving.

- ETFE foil is also preferable to the roof materials for the amenity gallery. It is the newest membrane material which is usually formed into inflated foil cushions.
- Foil cushions are thermal insulators, especially when formed into double cushions with three layers of foil.

The seams are heat-welded to make airtight and clamped into frames. There are two types of frame supports have been developed: a rigid frame like a replacement window and a cable-strengthened flexible frame that allows the cushions to move under wind load and thermal expansion.

A prominent example of rigid frame foil system is applied in the atrium roof of the Westminster Chelsea Hospital. Continuous air pressure is supplied to the air cushions through the aluminum frames. (photo 3.1.1)

Another example of the cable-net frame is the Lion House at Hellabrunn Zoo in Munich, in which the inflated double layered cushions act like double glazing mechanism except the two membranes are kept apart by air, dried, filtered and heated to eliminate problems of condensation and dirt. (photo 3.1.2)

Amphitheatre

- Teflon coated fiberglass PTFE or PVC coated polyester is preferable to the convertible roof. PVC coated polyester takes advantages of its high elasticity and assorted variety of colors. However, it needs post-stressing maintenance as it stretches over time.
- PTFE benefits for its stable performance but it should be carefully patterned during construction.
- PVC coated polyester takes advantages of its high elasticity and assorted variety of colors. However, it needs post-stressing maintenance as it stretches over time.

Energy conservation

- In summer, the inflated cushions act a good thermal insulator.
- In winter, hot air rises up. The heat accumulated at the top is drawn down by a fan to human level for energy conservation. (fig.3.1.3) An example is the California State Office Buildings. (photo 3.1.3).

Air-conditioning system

- Otherwise the climate of the amenity gallery is regulated by central air-conditioning system. (fig.3.1.4)
- Fresh air is drawn in from the openings in between the folded plate membrane roof.
- Exhaust air is extracted from the loured openings on the north side.
- Both supply and return air is traditionally through the ceiling for the cafeteria and lecture rooms on the ground floor.
- For the atrium, nozzle projects air downwards to regulate local climate.

	Teflon coated fiberglass PTFE (polytetrafluorethylene)	Silicone-coated fiberglass	PVC coated polyester	ETFE foil (film sheet made of a copolymer of linked monomer units of ethylene and tetrafluorethylene)
Installation	<ul style="list-style-type: none"> Heat-welding on site (making flaps over mechanically joined seams) 	<ul style="list-style-type: none"> chemically bonded (heat accelerated) 	<ul style="list-style-type: none"> heat-welding at a lower temperature soften at 70°C 	<ul style="list-style-type: none"> Heat-welding 2 types of support: <ol style="list-style-type: none"> Rigid frame Cable-strengthened flexible frame
Cleaning	<ul style="list-style-type: none"> chemically inert self-cleaning by rain resistant to abrasion 	<ul style="list-style-type: none"> self-cleaning properties once-a-year cleaning recommended 	<ul style="list-style-type: none"> further coating for dirt resistance 	<ul style="list-style-type: none"> impervious to water and chemical pollutants high resistance to tear
Light transmission	<ul style="list-style-type: none"> 10-18% 	<ul style="list-style-type: none"> <25% (architectural membrane) <90% (thin liner) 	<ul style="list-style-type: none"> similar to PTFE 	<ul style="list-style-type: none"> 20-95%
Fire resistance	<ul style="list-style-type: none"> Class A rating (BS 5867) Non-combustible and non-inflammable 	<ul style="list-style-type: none"> Class A rating (BS 5867) more benign fumes than Teflon upon burning 	<ul style="list-style-type: none"> Class B rating (BS5867) melts in presence of flame 	<ul style="list-style-type: none"> Pass fire code test in UK and Germany flame resistant does not form hot droplets when melts
Available size	<ul style="list-style-type: none"> coating can be applied in widths of 3.8m, reducing the no. of panels and seams 		<ul style="list-style-type: none"> widths of 2-3m, thus more seams and panels 	<ul style="list-style-type: none"> widths of 3.6m length > 15m
Cost	<ul style="list-style-type: none"> US\$5.50 per ft² 	<ul style="list-style-type: none"> 20% cheaper than PTFE (because coating processes are done at much lower temperature) 	<ul style="list-style-type: none"> cheaper than other membranes on rolls 	<ul style="list-style-type: none"> claimed to be low cost
Advantages	<ul style="list-style-type: none"> widely used material highly reflective absorb little light as heat heat-welding saves installation cost 	<ul style="list-style-type: none"> more flexible than Teflon less likely to be damaged 25% reduction in prices within 1 or 2 years due to improvement in design of connections and components 	<ul style="list-style-type: none"> high elasticity not easily damaged variety of colors 	<ul style="list-style-type: none"> latest invention act as thermal insulator when applied in inflated cushion pigment can be applied during manufacture dot pattern can be painted after made
Disadvantages	<ul style="list-style-type: none"> brittle considerable care for packing, shipment and installation accurately patterned for its little elastic forgiveness 	<ul style="list-style-type: none"> material keep improving 	<ul style="list-style-type: none"> generally used for temporary structures post-stressing maintenance needed as it stretch over time 	<ul style="list-style-type: none"> lose strength at 60°C

fig. 3.1.2 Characteristics of different membrane material

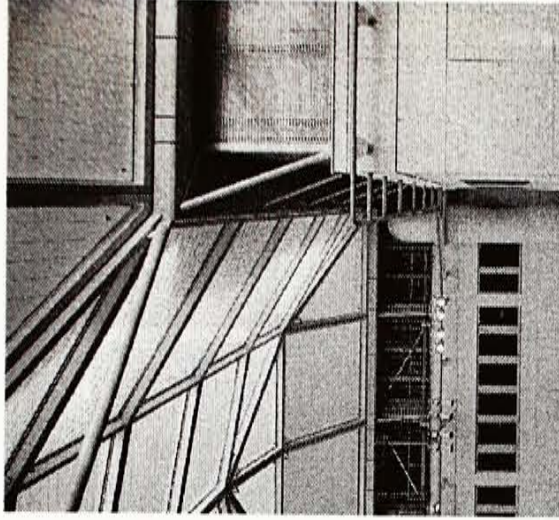


photo 3.1.1 ETFE foil of Chelsea & Westminster Hospital, United Kingdom

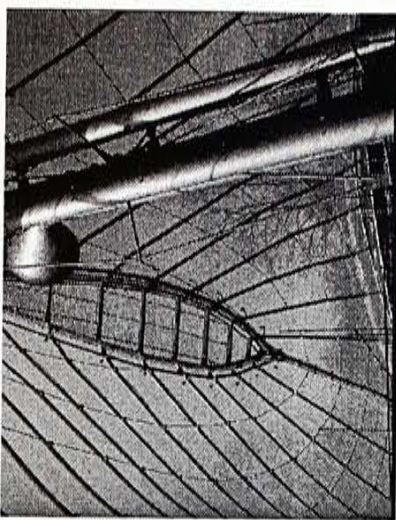


photo 3.1.2 Lion House, Helabrunn Zoo, Munich

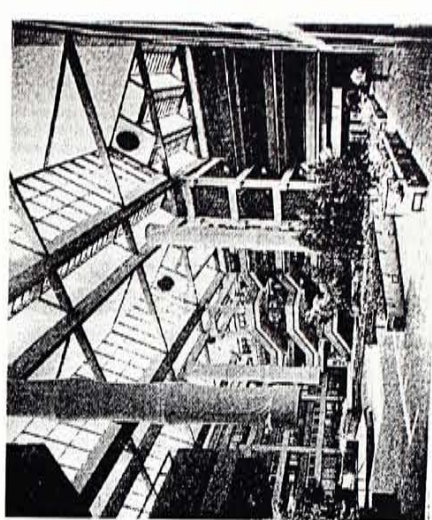


photo 3.1.3 California State Office Buildings

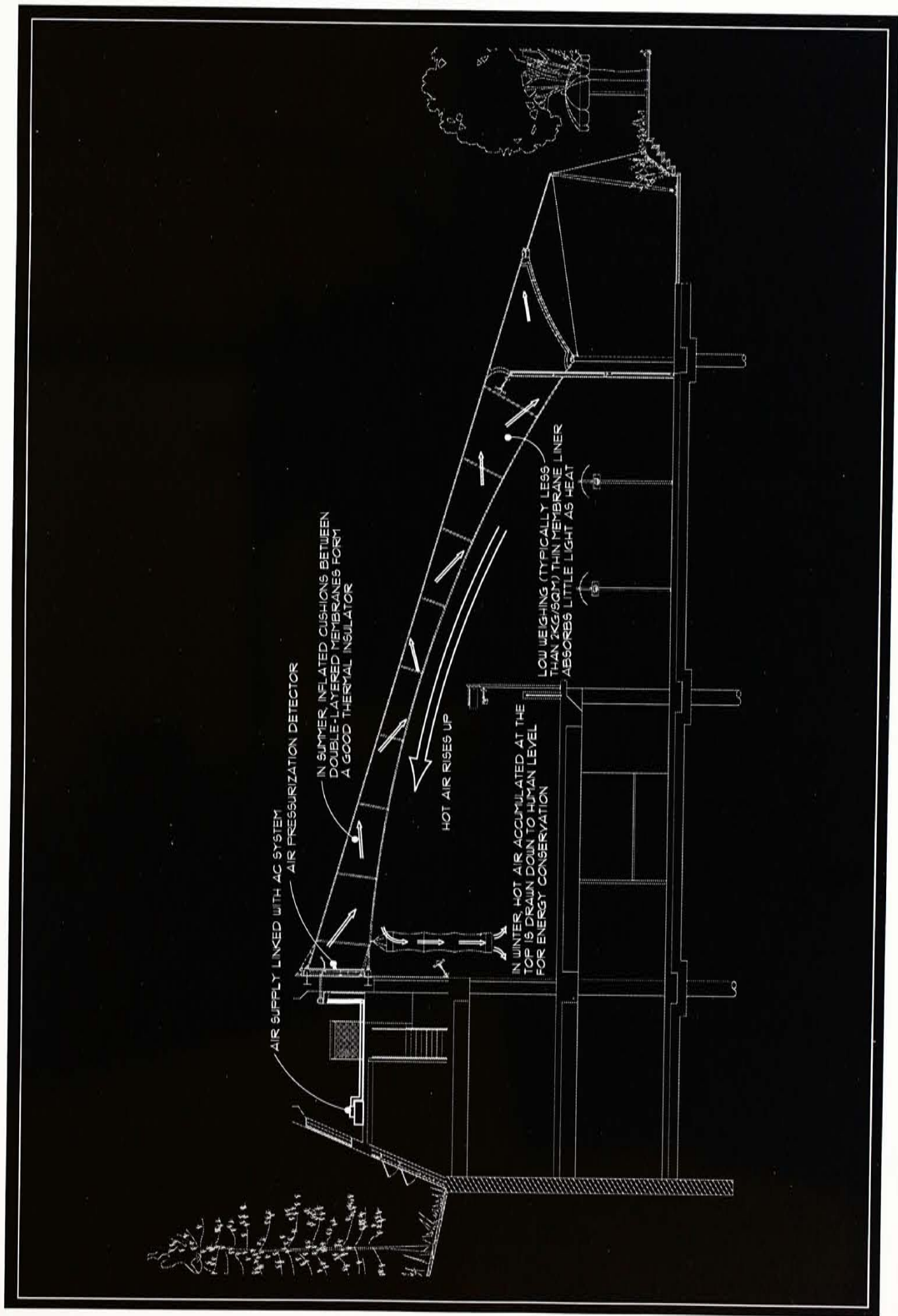


fig.3.1.3 Climatic control

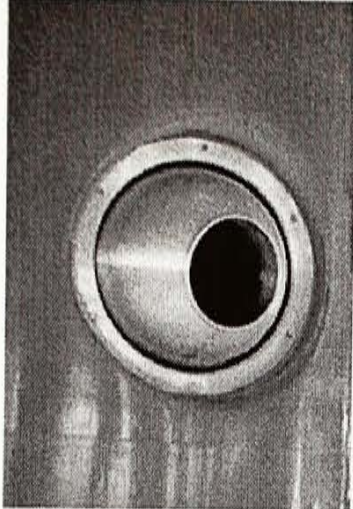


photo 3.1.4 Nozzle in Kansai International Airport, Japan

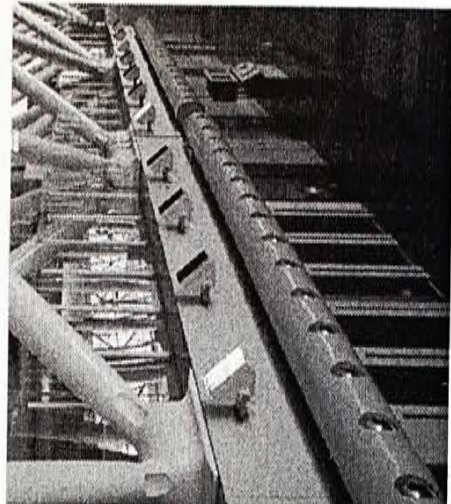


photo 3.1.5 Series of air outlets in Kansai International Airport, Japan

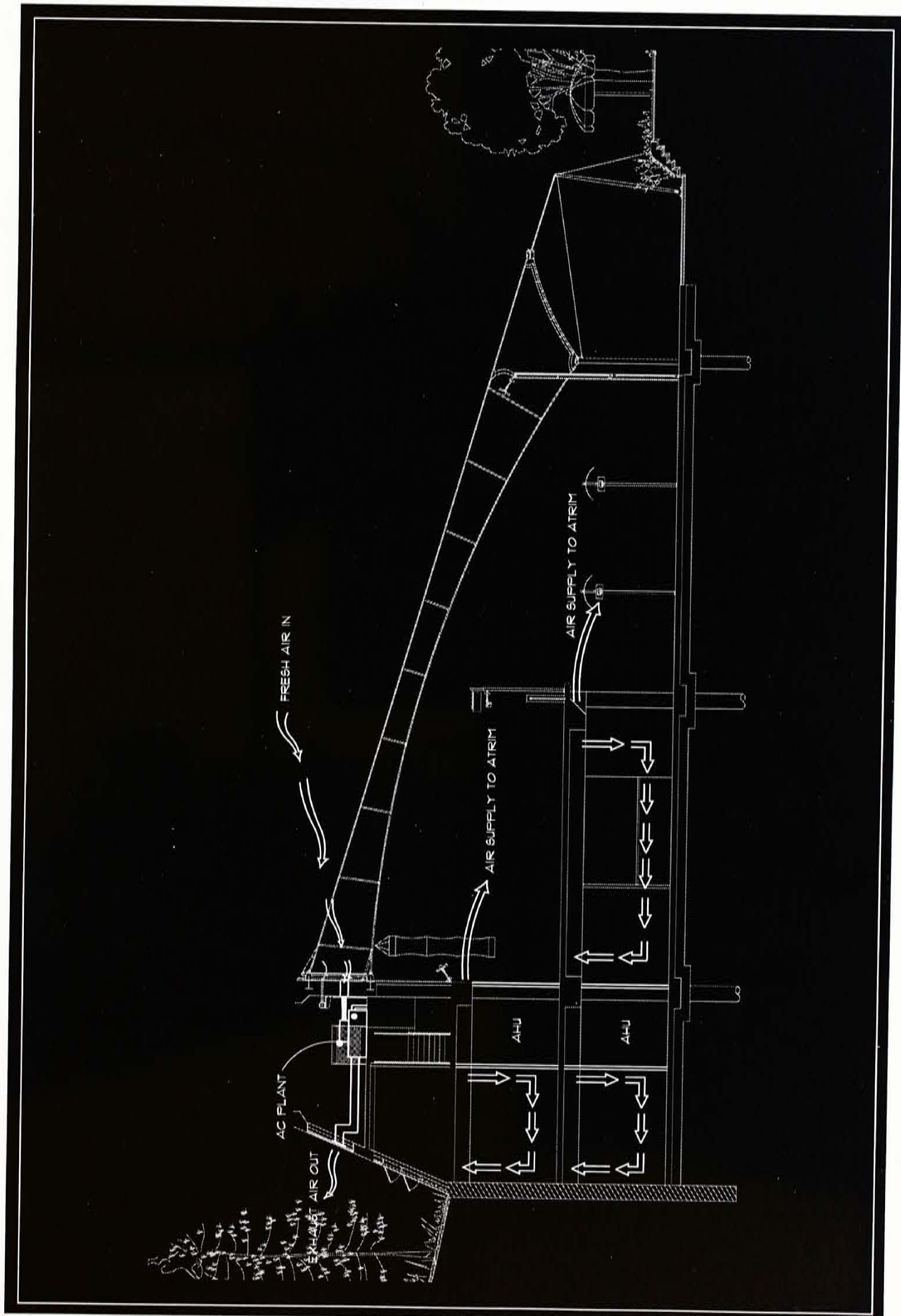


fig. 3.1.4 Air-conditioning system

3.2 Lighting Strategy

Daylighting

Amenity gallery

- Teflon-coated fiberglass transmits the full spectrum of visible light, cutting only infra-red and ultraviolet ends of the spectrum. (fig.3.2.1)
- Light is diffused without sharp highlights or glare and, as a result, the eye can adjust to low light level.
- The diffused sunlight through the membrane roof can give the unmistakable feeling of lightness, of being outside while inside.

Amphitheatre

- In the early morning and late afternoon, the warm and soft sunlight comforts the people doing morning exercise and relaxing underneath.
- At noon and in the afternoon, the convertible roof retracts to filter off the infra-red and ultraviolet ends of the spectrum.
- The retracted roof membrane transmits certain amount of visible light to create open sky feeling.

Artificial Lighting

Amenity gallery

- When the external lighting level varies, the light sensor mounted near the roof surface detects the light penetration and adjusts the interior lighting system. (fig.3.2.2)
- The membrane roof surface acts as a reflector for the artificial lights. Uplighters are mounted at high level to project spotlight to the roof and to be reflected to create diffuse luminance.
- At night, sufficient artificial light through the membrane dramatizes the fan-shaped folded plate configuration, making it a landmark of focus.
- Local area is supplemented by task lighting of the light poles.

Amphitheatre

- During performance, spotlighting is mounted at the top of the supporting post to be reflected by the retracted roof surface to create diffuse luminance at night. (fig.3.2.3)
- At night, the glow of the light through the membrane enliven the profile of the roof. It not only forms a spot of attention but also signifies a special function underneath.
- Downward spotlights hung on the bracing cables are used as a supplement for the performance.

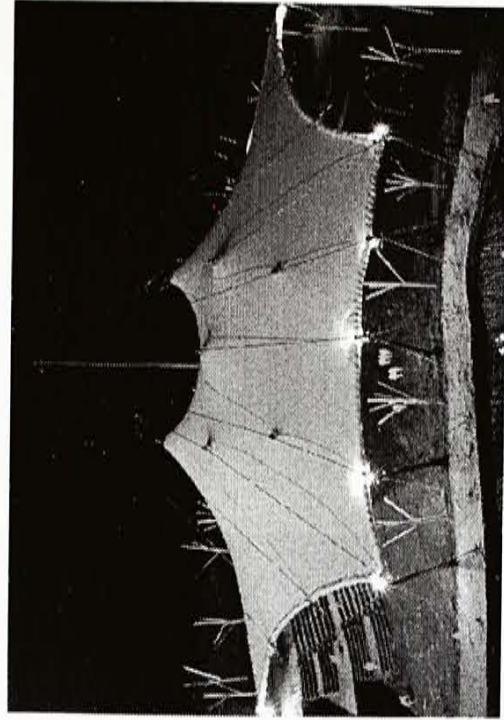


photo 3.2.1 Lighting effect of the model

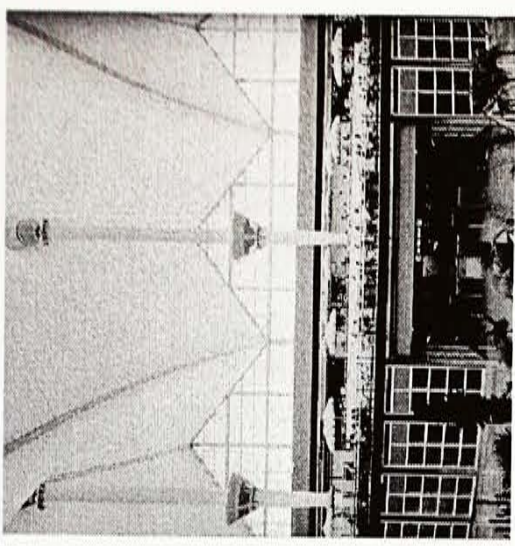
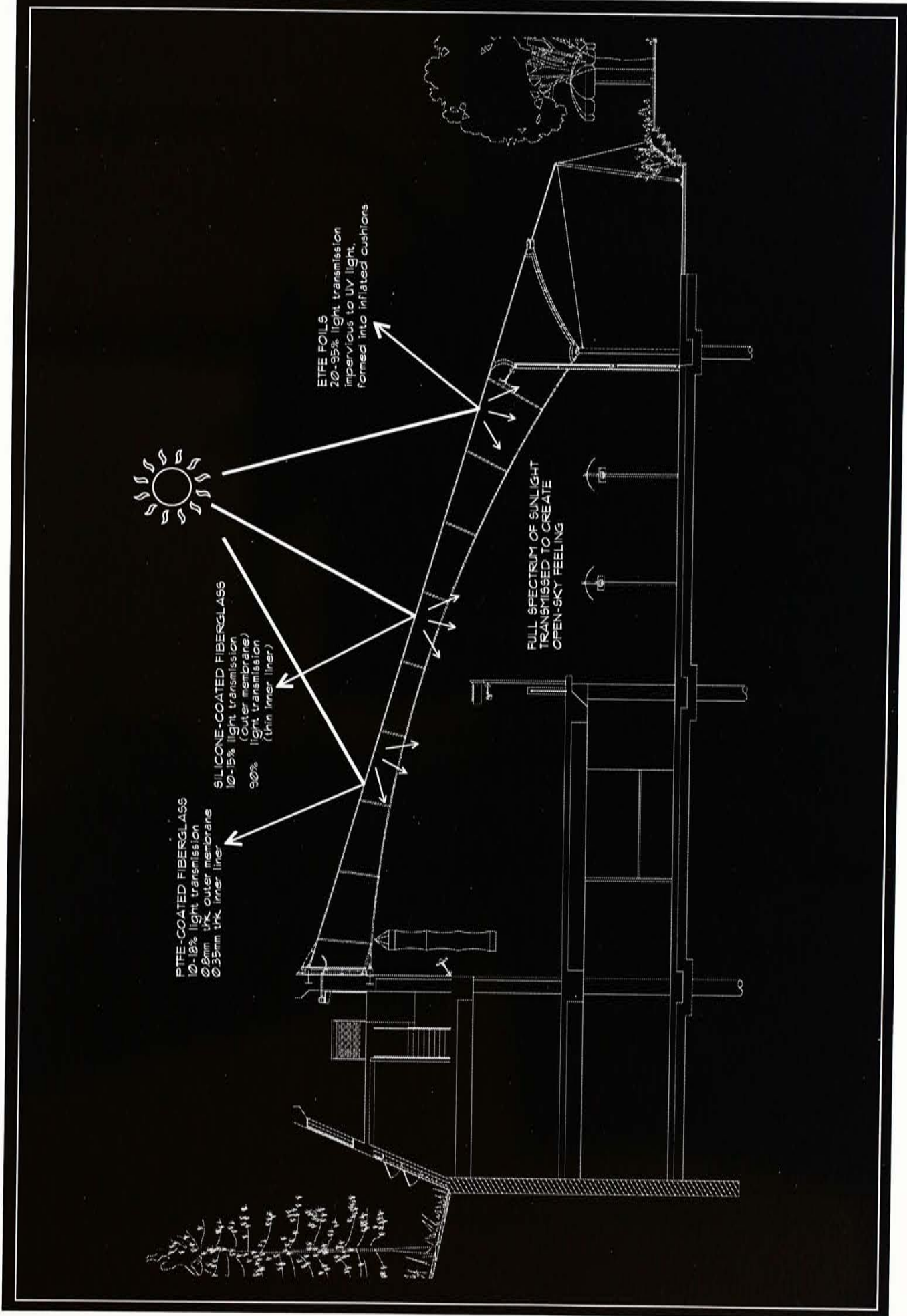


photo 3.2.2 Interior daytime view of Denver International Airport, USA

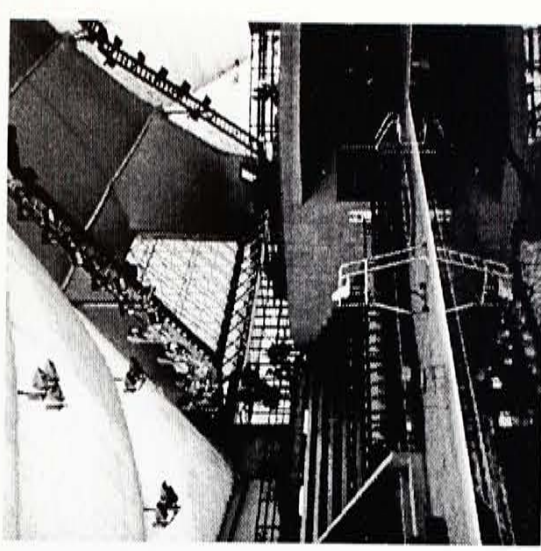


photo 3.2.3 The Lindsay Park Aquatic Centre in Calgary, is light enough inside for plants to grow and warm enough for people to swim

fig.3.2.1 Daylighting

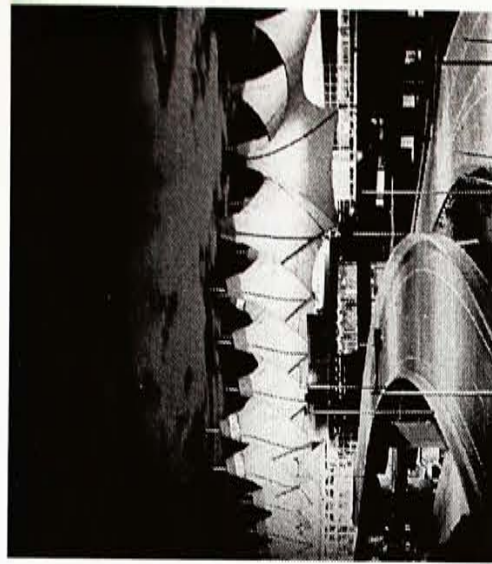


photo 3.2.4 Night view of Denver International Airport, USA

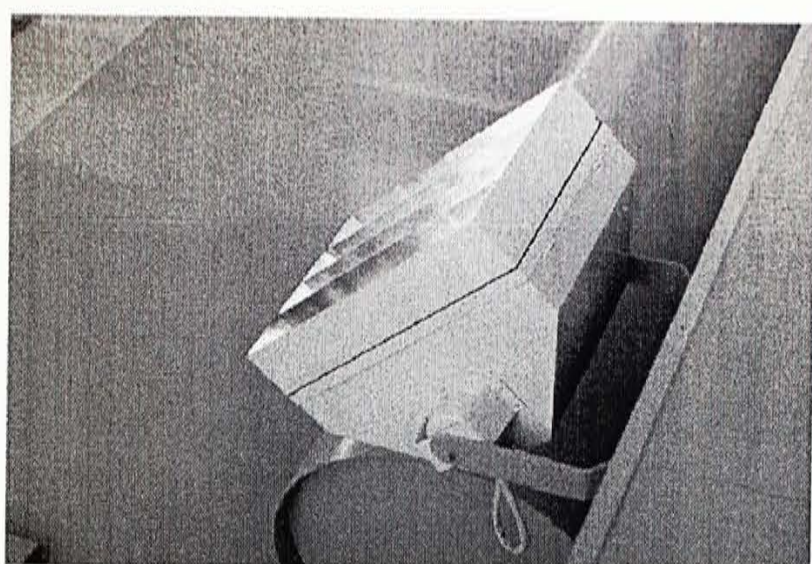


photo 3.2.5 Uplighters adopted in Kansai International Airport, Japan

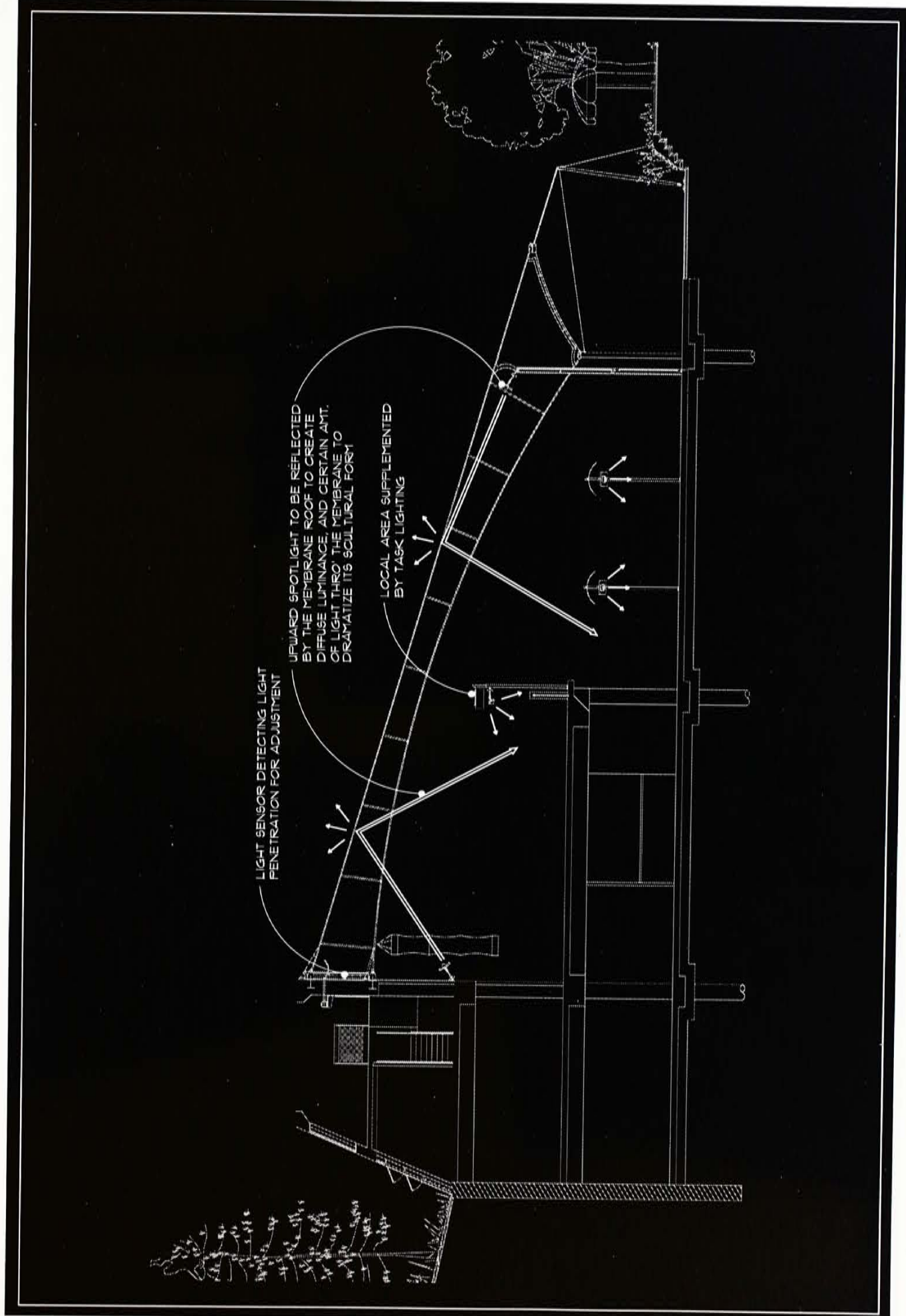


fig.3.2.2 Artificial Lighting

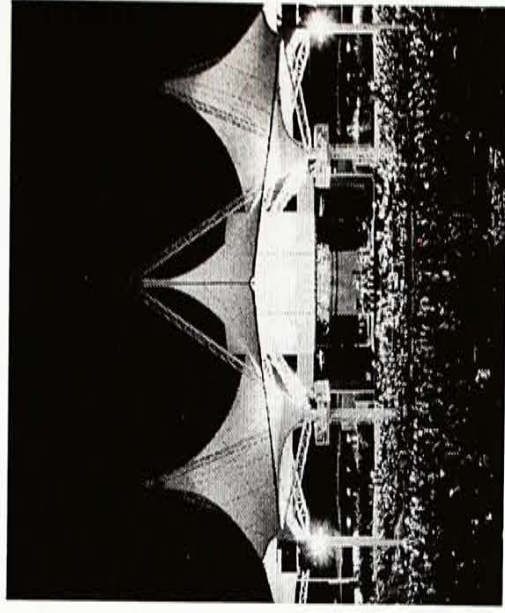


photo 3.2.6 Night view of the Cynthia Woods Mitchell Centre for the Performing Arts in the Woodlands, Texas

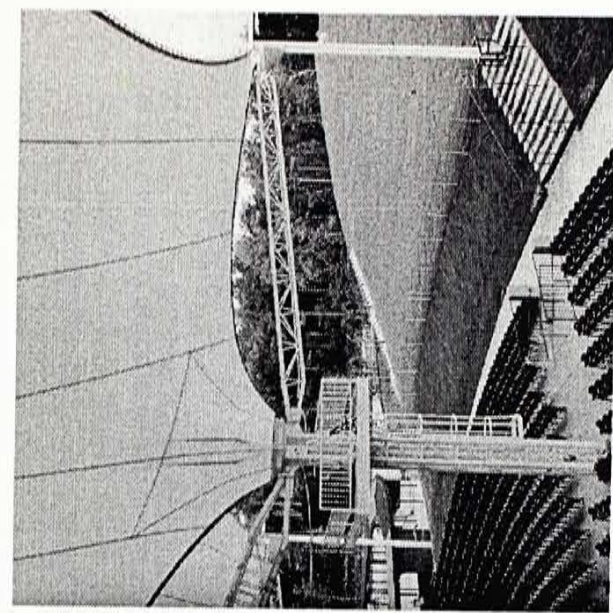


photo 3.2.7 The Mitchell Centre, showing the uplifting and loudspeakers

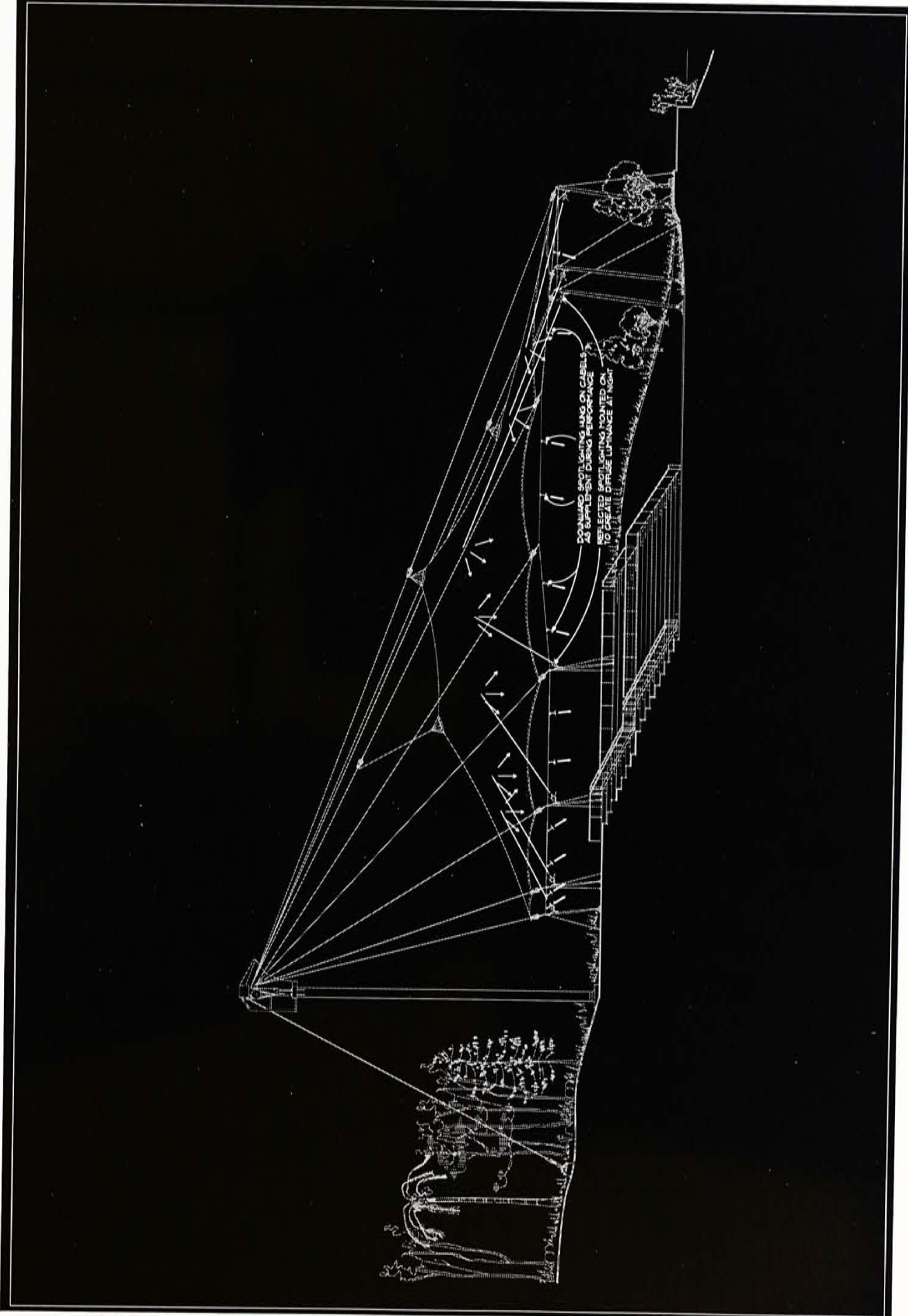


fig.3.2.3 Lighting strategy

3.3 Acoustics

Amenity gallery

- Control of sound is intrinsic to the membrane.
- Soft fabric muffles sound, and membranes can be specially engineered as acoustical liners to reduce noise.
- Tensioned membrane surfaces are anticlastic - the wof and warp lines in the weave are curved in opposite directions - and therefore diffuse sound.

Amphitheatre

- The diffused sound reflected by the tensioned membrane surfaces allows the performers hear each other under the roof and prevent "hot spots" of uneven sound from occurring in the audience.
- As in the Mitchell Center the surface, because of its general shape, projects sound to the audience, reducing the need for amplification even for those outside on the berm. (photo 3.3.1)

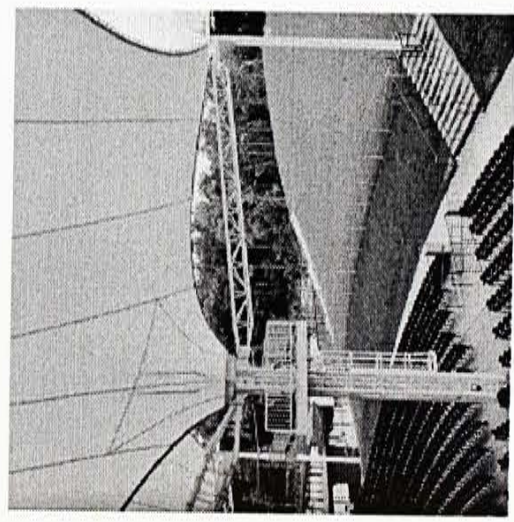


photo 3.3.1 The Mitchell Center

3.4 Plumbing and Drainage

Amenity gallery

- As the toilet core is grouped in the central part of the floor, the plumbing pipe will line up and go down easily.
- The water tank is located at the third floor level where maintenance are carried.
- For the rainwater drainage, the water falls along the valley point of the fan-shaped folded plate and drains off.

Amphitheatre

- Gutter systems is not applicable in bunchable membrane constructions.
- The roof surface is designed to drain the water themselves.
- Flexible rainwater drainage system is designed which are mounted at the roof edge. A thin fabric strip is attached to the membrane and elastically suspended. The rain water is caught in the fabric pocket and drained off at the sides. (fig.3.4.1)
- At places with larger water accumulations, the fabric strips are made wider. (fig.3.4.2)



fig. 3.4.1 Fabric strip at the edge of the membrane

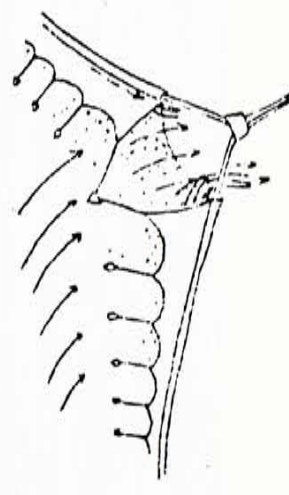


fig. 3.4.2 Wider fabric pocket at the corner

3.5 Power

Amenity gallery

- The transformer room and switch room is in between the amenity gallery and amphitheatre on the ground floor.
- Cable trenches are connected from the transformer room to the switch room.

Amphitheatre

- For the convertible roof, each tractor has its own power line.
- Power supply lines are along underside of the membrane and all electric lines can be disconnected with a plug connection. (fig.3.5.1)
- Current is fed in through the membrane edge by means of a flexible cable which does not hinder bunching of the membrane edge to higher points. (fig.3.5.2)

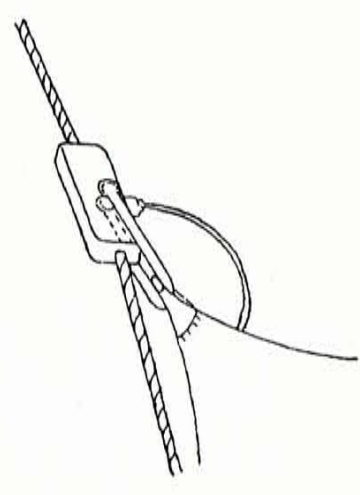


fig. 3.5.1 Power supply lines along the underside of the membrane

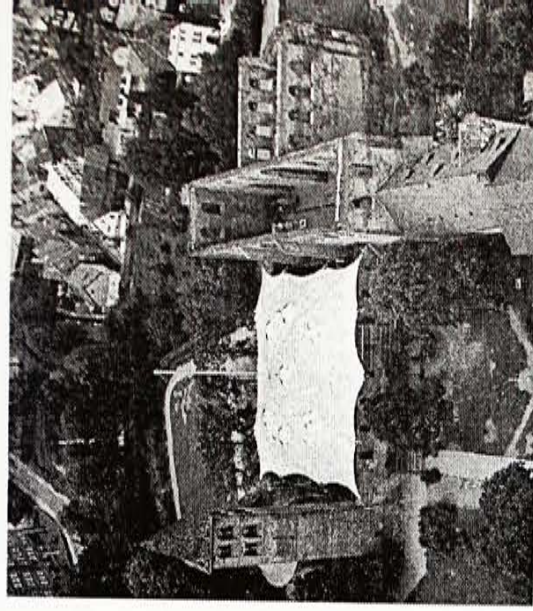


photo 3.5.1 Open air theatre, Bad Hersfeld, Germany

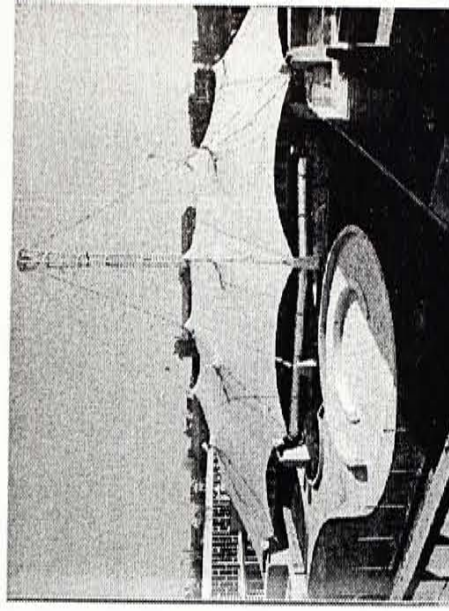


photo 3.5.2 Swimming pool Boulevard Carnot, Paris, France

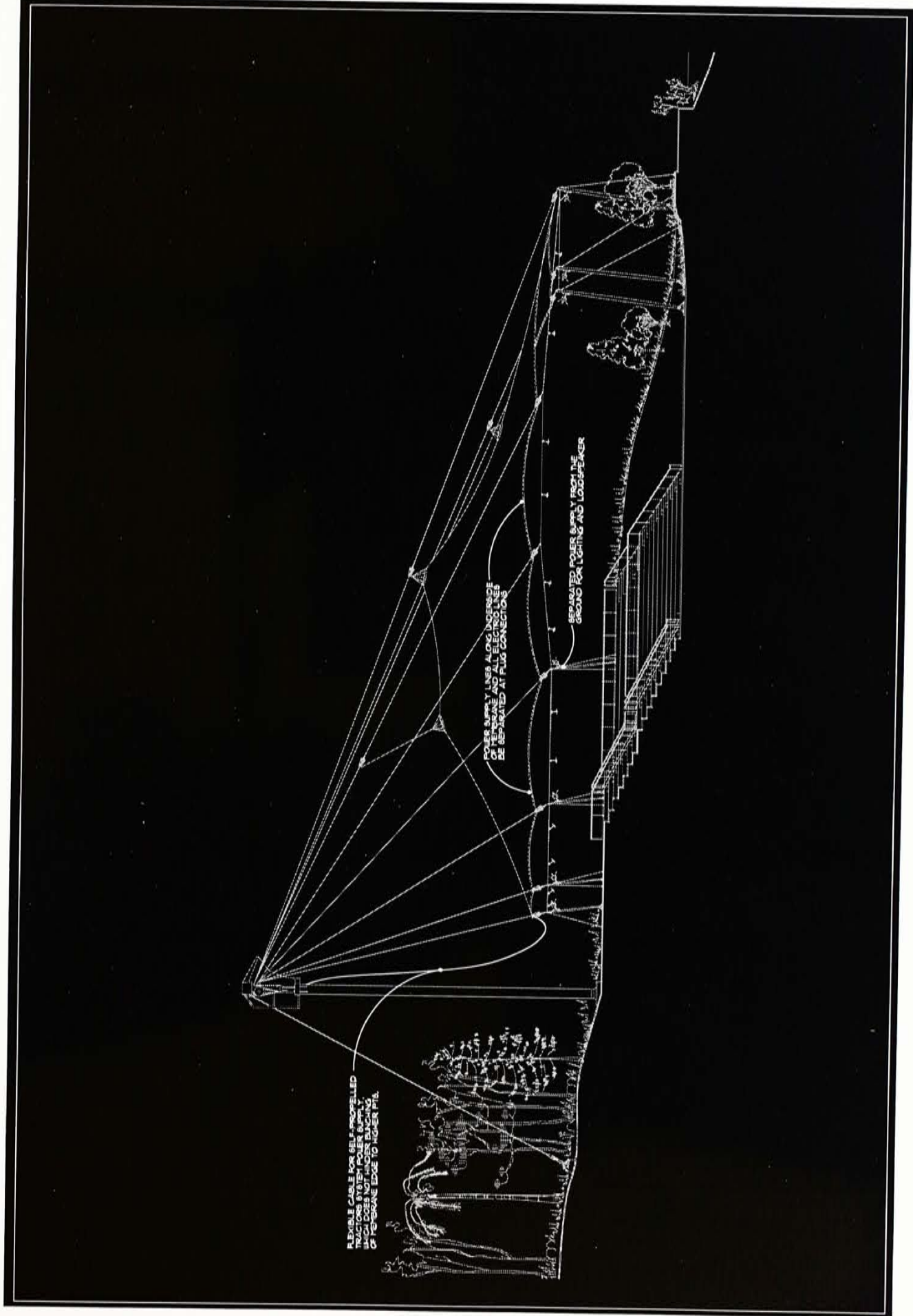


fig.3.5.2 Electrical supply

4.1 Compartmentation

Amenity gallery

- **Compartment 1 (Cafeteria, lounge, storage, lecture rooms and toilet on G/F)**
Area of Compartment 1 = 670m^2
Floor-to-floor height = 3.5m
Compartment Volume = 670×3.5
= 2345m^3
< 7000m^3
- **Compartment 2 (Conference room, Park Manager, toilet and preparation rooms on 1/F))**
Area of Compartment 2 = 300m^2
Floor-to-floor height = 3.5m
Compartment Volume = 300×3.5
= 1050m^3
< 28000m^3
- **Compartment 3 (Atrium space))**
Area of Compartment 3 on G/F = 600m^2
Area of Compartment 3 on 1/F = 500m^2
Floor-to-floor height = 7m
Compartment Volume = $(600 + 500) \times 7$
= 7700m^3
< 28000m^3

4.2 Fire Engineering

Amenity gallery

- As fire occurs, traditional shutters close off to cut down the smoke between the atrium and inner rooms. (fig.4.2.1)
- The cafeteria, lecture rooms on the ground floor and preparation room on the first floor are contained under traditional sprinklers system.
- Infra-red sensitive, computer-guided water cannons mounted at the edge beam are activated to protect the atrium in case of fire.
- Smoke eliminating opening will open to allow hot smoke rises up and go out.
- Fresh air is admitted from the louvred opening on the south.
- Non-combustible and non-inflammable membrane are used.
PTFE-coated fiberglass possesses Class A fire rating (BS5867)
PVC coated fabrics possesses Class B fire rating (BS5867)
whilst ETFE foil is flame resistant and does not form hot droplets when melts.

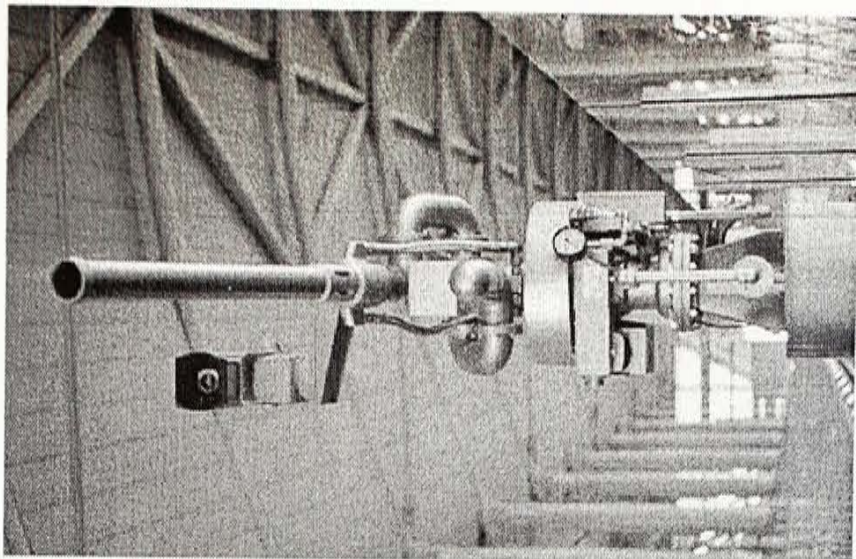


photo 4.2.1 Automatic water cannon in Kansai International Airport, Japan

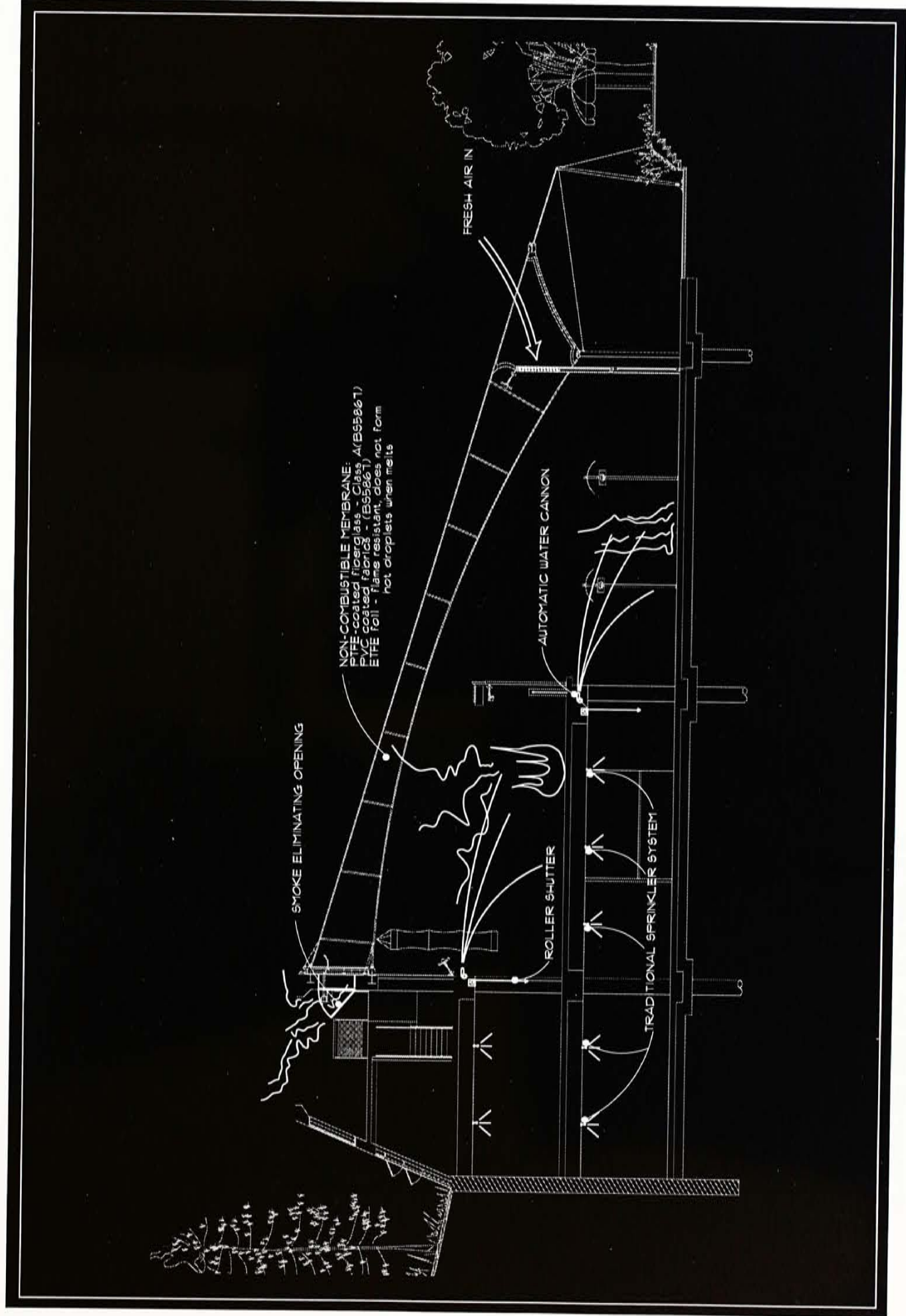


fig.4.2.1 Fire engineering

4.3 Means of Escape

Amenity gallery

The following calculation is in accordance with Code of Practice for the Provision of Means of Escape in case of Fire 1996.

d1=direct distance d2 / d3=travel distance
 d = staircase separation = 42m <48m [para 14.3(c)]

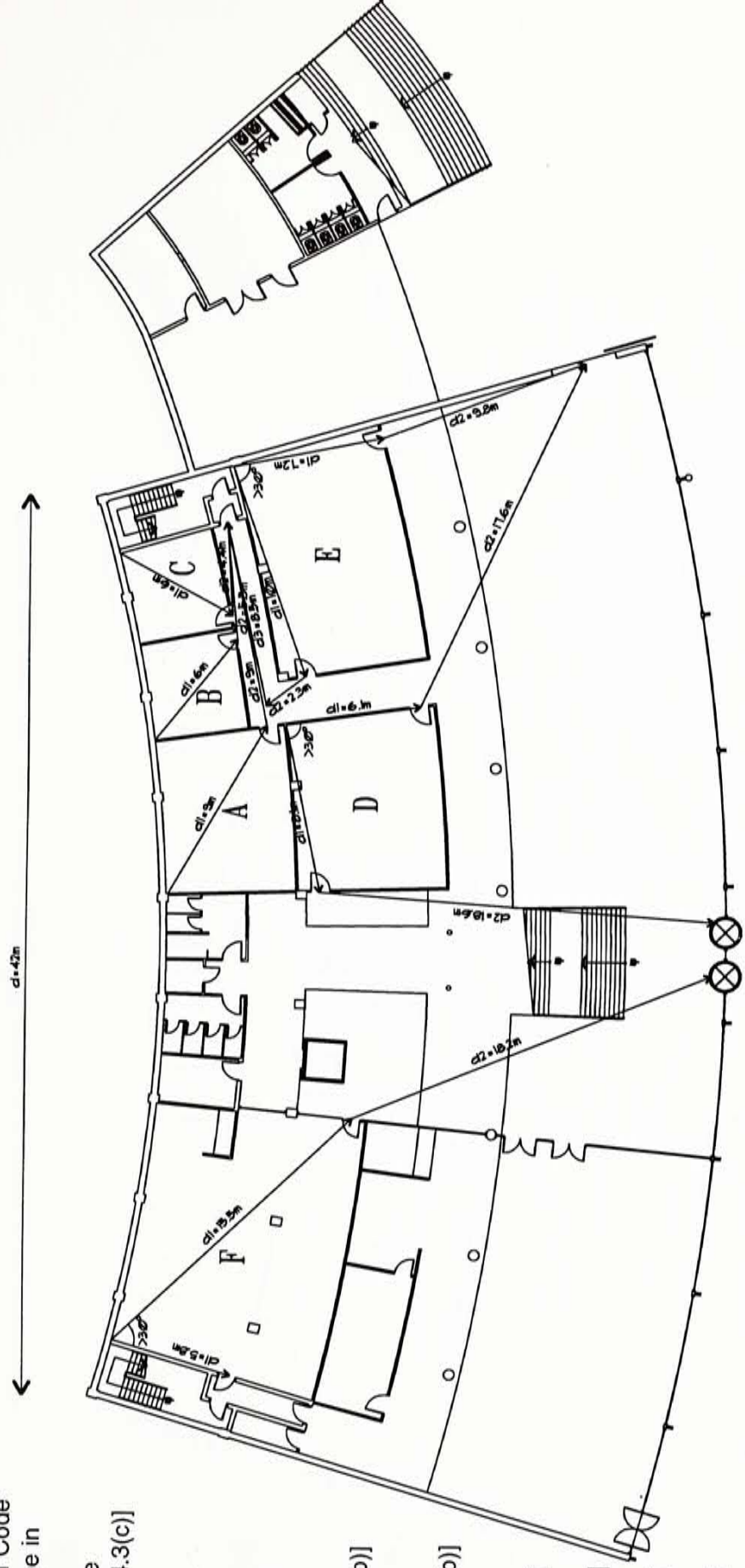


fig.4.3.1 Means of Escape Illustration on G/F

- **Ground Floor (fig.4.3.1)**
 - A (Dead end):
 d1=9m<15m [see para. 14.1]
 d1+d2=9+9=18m=max. [see para 14.3(b)]
 - B(Dead end):
 d1=6m<15m [see para. 14.1]
 d1+d2=6+5.5=11.5m<18m [see para 14.3(b)]
 - C(Dead end):
 d1=6m<15m [see para. 14.1]
 d1+d2=6+4.4=10.4m<18m [see para 14.3(b)]
 - D:
 Path 1:
 d1=8.1m<18m [see para. 14.1& para.14.6]
 d2=18.6m<24m [see Table 4]
 d1+d2=8.1+18.6=26.7m<36m [see Table 4]
 Path 2:
 d1=6.1m<18m [see para. 14.1& para.14.6]
 d2=17.6m<24m [see Table 4]
 d1+d2=6.1+17.6=23.7m<36m [see Table 4]
 - E:
 Path 1:
 d1=10m<18m [see para. 14.1& para.14.6]
 d2+d3=2.3+8.5=10.8m<24m [see Table 4]
 d1+d2+d3=10+10.8=20.8m<36m [see Table 4]
 Path 2:
 d1=7.2m<18m [see para. 14.1& para.14.6]
 d2=9.8m<24m [see Table 4]
 d1+d2=7.2+9.8=17m<36m [see Table 4]
 - F:
 Path 1:
 d1=5.8m<36m [see Table 4]
 Path 2:
 d1=15.5m<18m [see para. 14.1& para.14.6]
 d2=18.2m<24m [see Table 4]
 d1+d2=15.5+18.2=33.7m<36m [see Table 4]

• **First Floor (fig.4.3.2)**

- **A (Dead end):**
 $d1=7.5m < 15m$ [see para. 14.1]
 $d1+d2=7.5+7.7=15.2 < 18m$ [see para 14.3(b)]
- **B(Dead end):**
 $d1=16.8m < 18m$ [see para 14.3(b)]
- **C(Dead end):**
 $d1=5.5m < 15m$ [see para. 14.1]
 $d1+d2+d3=5.5+2.9+8.9=17.3m < 18m$ [see para 14.3(b)]
- **D:**
Path 1:
 $d1=9m < 18m$ [see para. 14.1& para.14.6]
 $d2+d3=19+4.7=23.7m < 24m$ [see Table 4]
 $d1+d2+d3=9+23.7=32.7m < 36m$ [see Table 4]
Path 2:
 $d1=9m < 18m$ [see para. 14.1& para.14.6]
 $d2+d3=3.2+14.3=17.5m < 24m$ [see Table 4]
 $d1+d2+d3=9+17.5=26.5m < 36m$ [see Table 4]
- **E:**
Path 1:
 $d1=9m < 18m$ [see para. 14.1& para.14.6]
 $d2+d2+d3=1.8+16+4.7=22.5m < 24m$ [see Table 4]
 $d1+d2+d2+d3=9+22.5=31.5m < 36m$ [see Table 4]
Path 2:
 $d1=9m < 18m$ [see para. 14.1& para.14.6]
 $d2+d3=1.8+14.3=16.1m < 24m$ [see Table 4]
 $d1+d2+d3=9+16.1=25.1m < 36m$ [see Table 4]
- **F(Dead end):**
 $d1=7.8m < 15m$ [see para. 14.1]
 $d1+d2=7.8+1.5=9.3 < 18m$ [see para 14.3(b)]

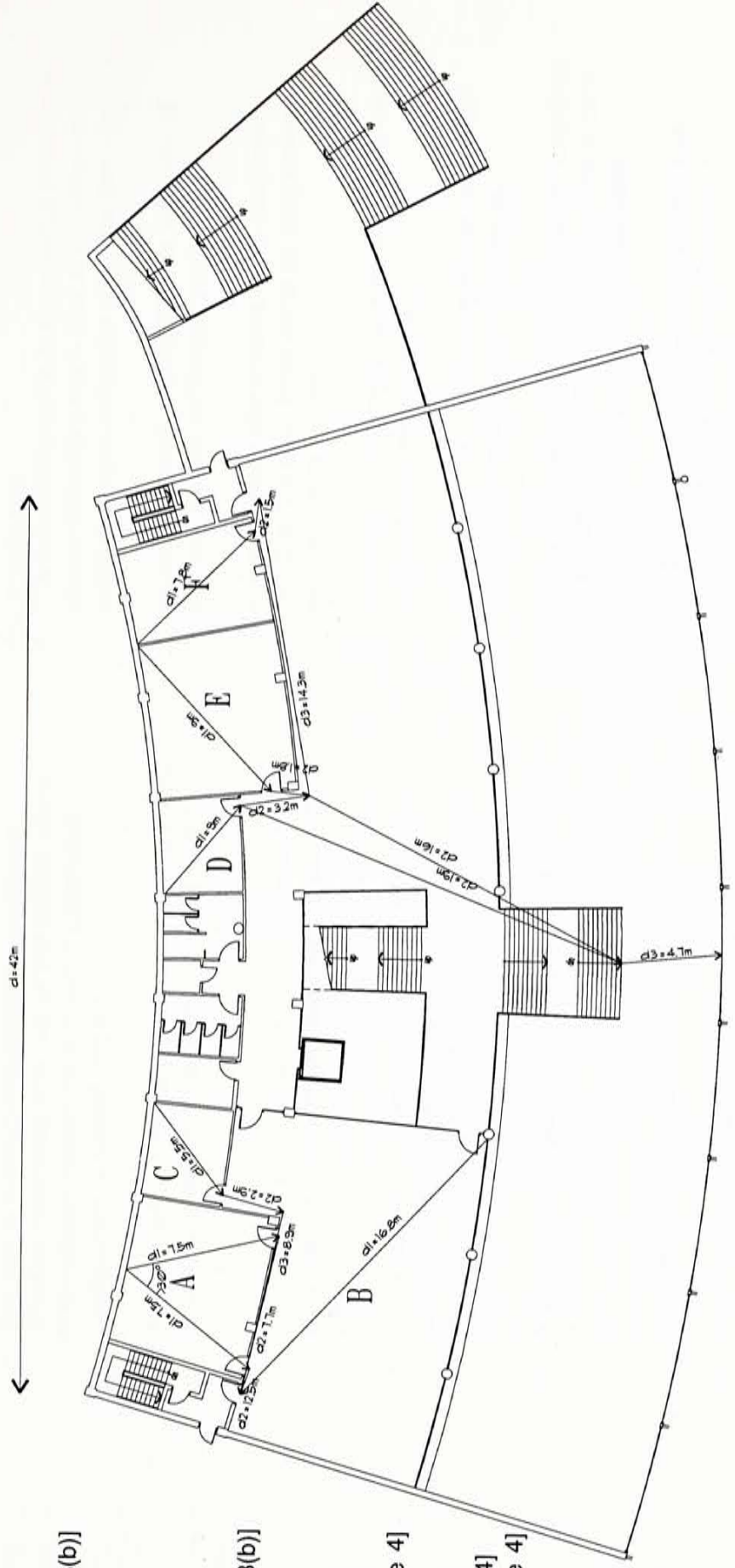


fig.4.3.2 Means of Escape Illustration on 1/F

Amenity gallery

- The roof is a full-scale suspension membrane structure made only from cables and coated fabrics. A fan-shaped membrane roof with a folded plate configuration is formed. (fig.5.1.3)
- A reinforced concrete supporting frame forms a rigid support and suspend the membrane roof on the other end.
- Ridge cables take downward thrust of rain and self-weight whilst valley cables resist uplift forces from the wind.
- The rigidity of the membrane would be obtained by stressing valley cables. This tension would introduce tensile force to the ridge cables and the membrane.
- A self-supporting glazed walls with louvered opening is erected on the south. The upper edges of these are connected to the fabric with pneumatic tubes that expand and contract as the fabric flexes. An example is Denver International Airport (photo 5.1.1).
- Previously, end detail of RC edge beam supported by columns is adopted. Introduction of tensile force in the membrane is performed by pulling the bracing cables as well as the boundary edges of the roof membrane. (fig.5.1.1) However, the elevation is considered too rigid and the boundary of inside and outside is too distinct.

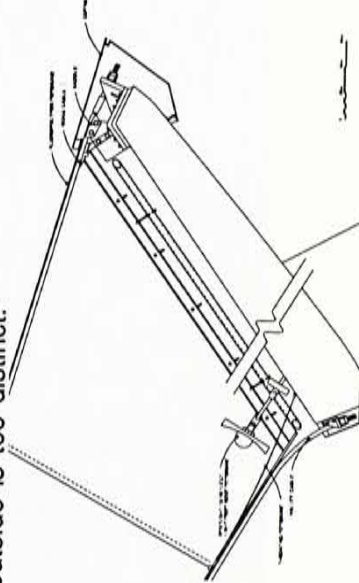


fig. 5.1.1 Previous version of end detail

Amphitheatre

- The convertible roof is in symmetrical form which ensure all tractors reach their end position at the same time upon extension and retraction. (fig.5.1.4)
- A 30m high steel mast of 800 dia. supports 16 transport cables to the end posts.
- Self-propelled cable tractors at 16 suspension points at the mast head come by programmed remote control system.
- Individual emergency system is available in case of failure of the remote control.
- The force of the tractor is dependent upon motor power, travel speed and friction losses.
- Tractors are self-locked by force-locking couplings as the strongest pulling forces on tractors occur in most cases on the outer membrane edge.
- The locking device over a tube equipped with grooves and teeth which is pushed onto the transport cable. (fig.5.1.2)
- The control of unlocking, along with the tractor control, is activated by an electrical system laid in the underside of membrane.

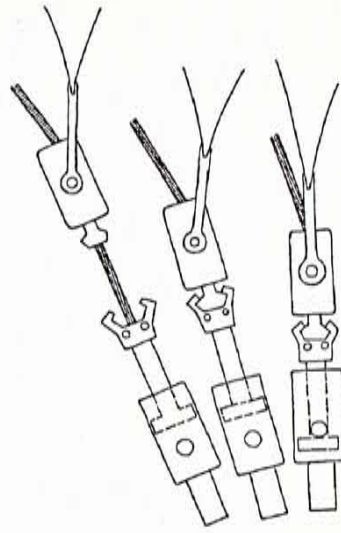


fig. 5.1.2 The endpoint locking device

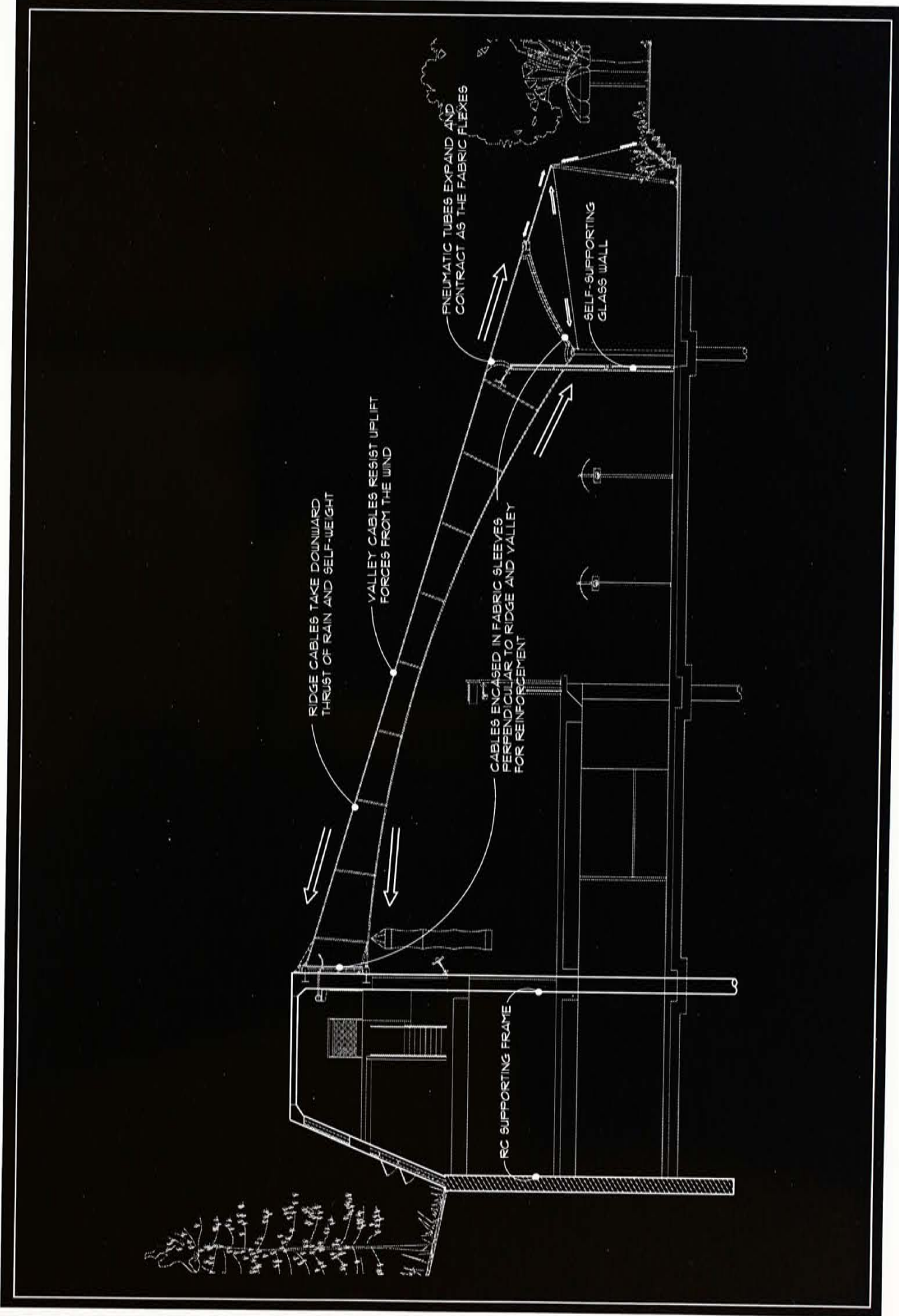


fig. 5.1.3 Structural strategy

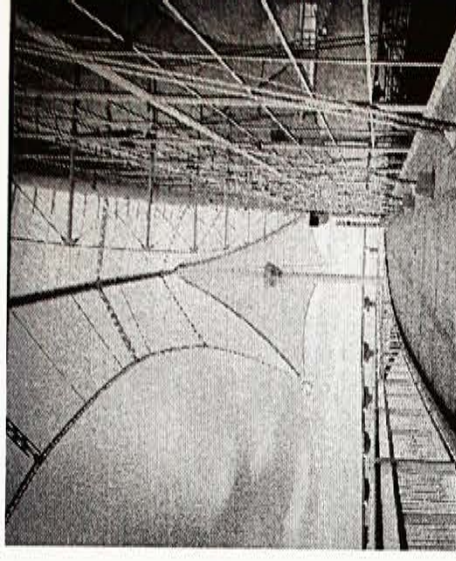


photo 5.1.1 Pneumatic tubes used in Denver International Airport, USA



photo 5.1.2 Aviary of Hong Kong Park, Hong Kong

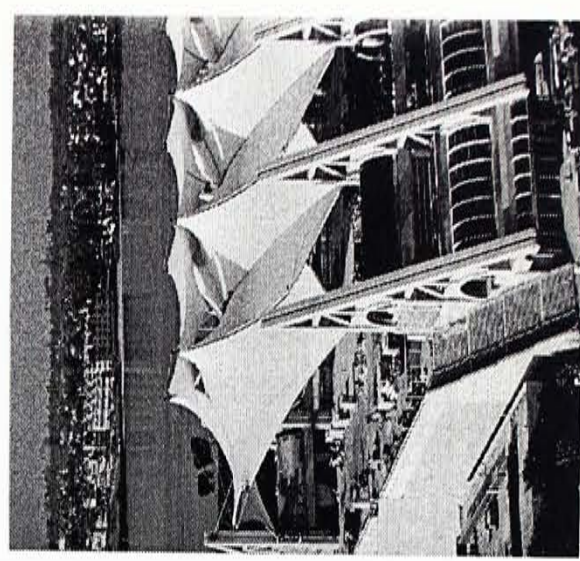


photo 5.1.3 The San Diego Convention Center

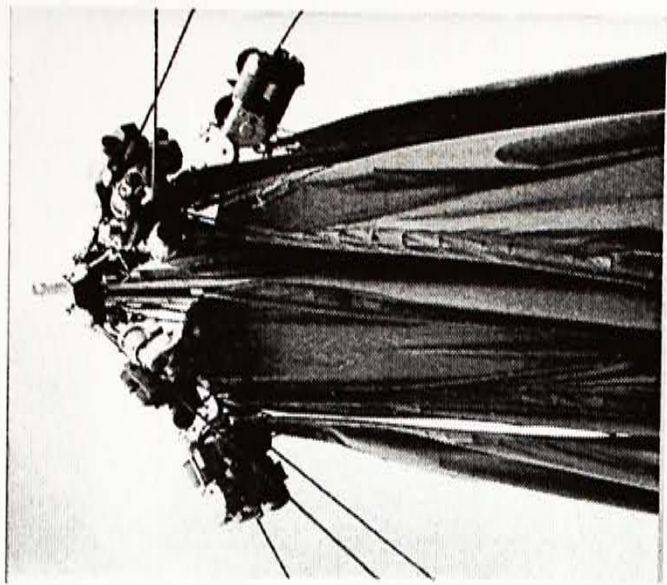


photo 5.1.4 Tractors at retracted position

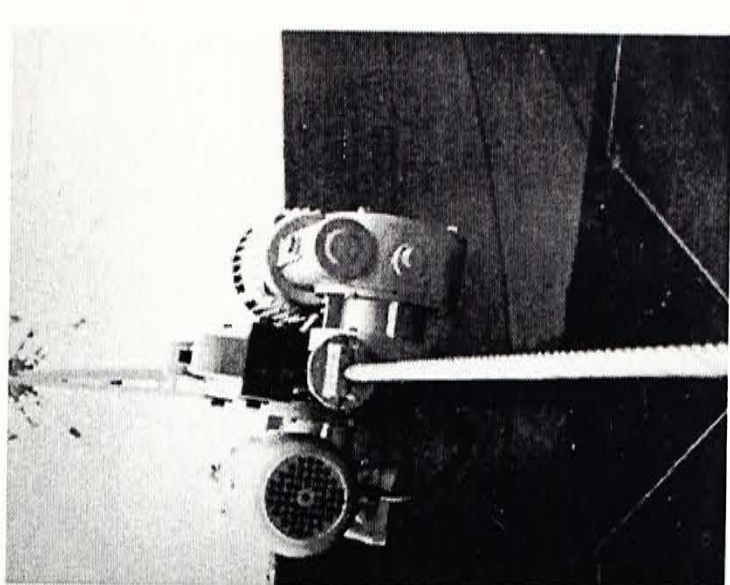


photo 5.1.5 Self-propelled tractors on transport cable

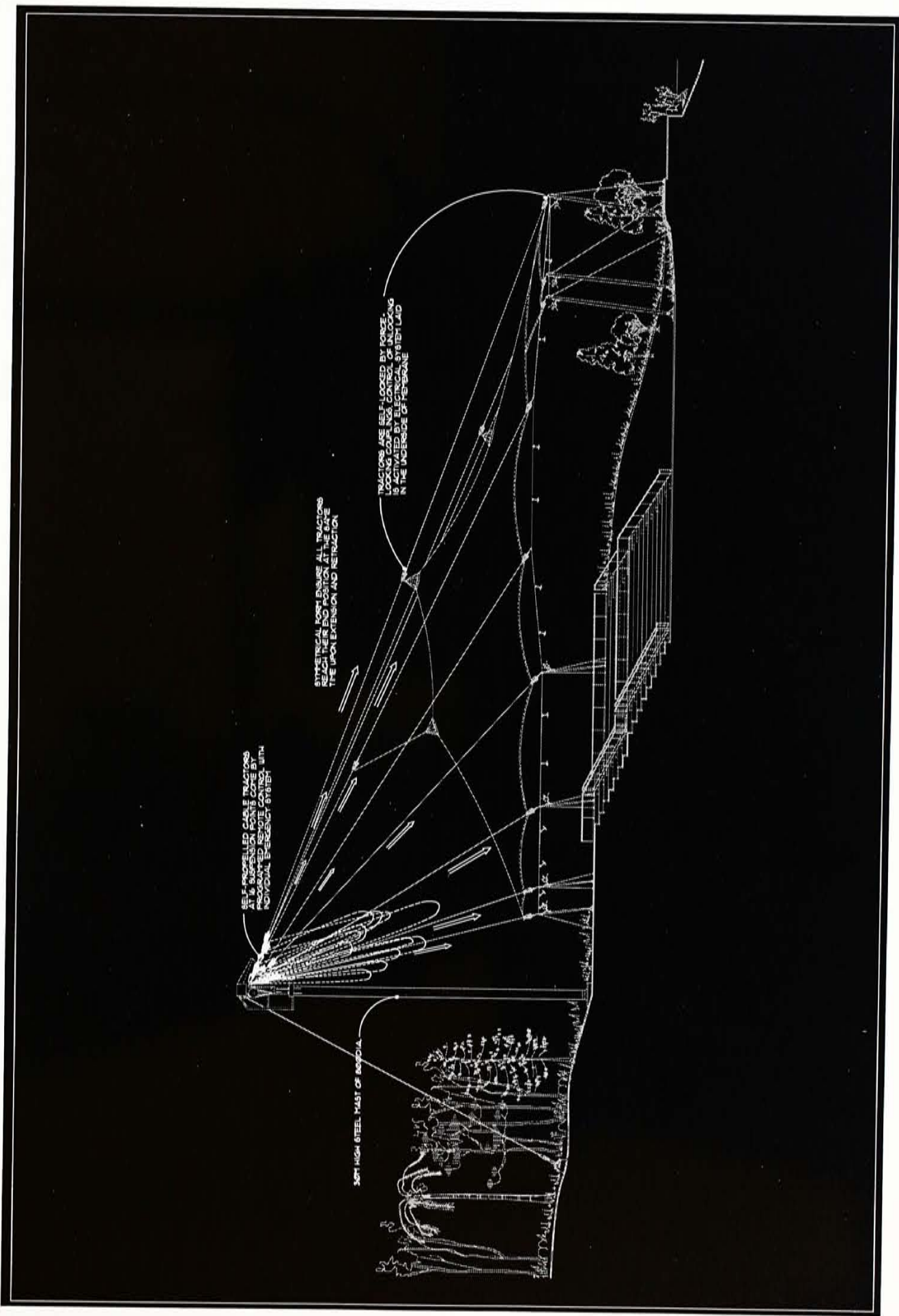


fig.5.1.4 Retraction system

5.2 Construction & Maintenance

Amenity gallery

- The maintenance level is on the third floor level where AC plant, water tank and air-inflation machines are located. (fig.5.2.1)
- A throating membrane performed as flashing principle is utilized to facilitate waterproofing joint at junction between membrane and the RC supporting frame.

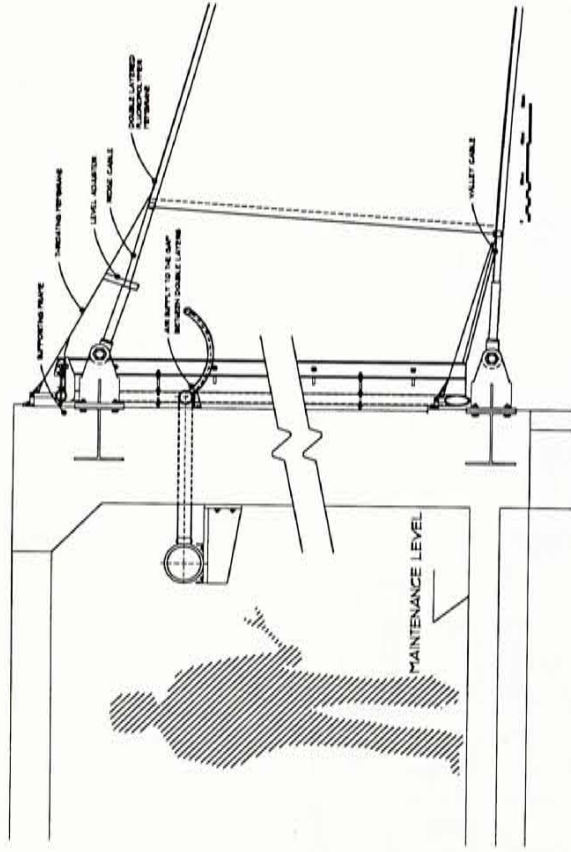


fig. 5.2.1 Maintenance detail of amenity gallery

Amphitheatre

- Convertible membrane roofs often have suspension points which are detensioned when the membrane is extended and tensioned and are loaded with the weight of the membrane during bunching.
- A sprung, internally suspended bag is utilized where the force can be taken up by sewn-on belts and reinforcements. (fig. 5.2.2)
- Cable tractor consists of two trolley halves which are tensioned against the trolley cable. (fig.5.2.4).
- In each of the two trolley frames there are two drive-rollers with semicircular grooves to fit the transport cable.
- All four wheels of the tractors are operated by a self-locking worm drive, which blocks them when the trolley is not moving.

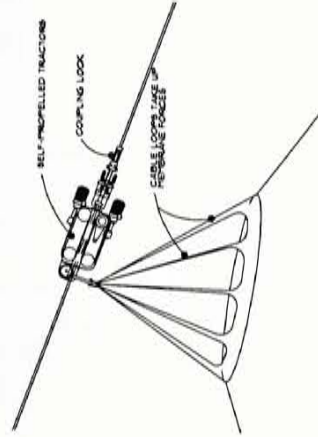


fig. 5.2.2 Suspension point of convertible roof

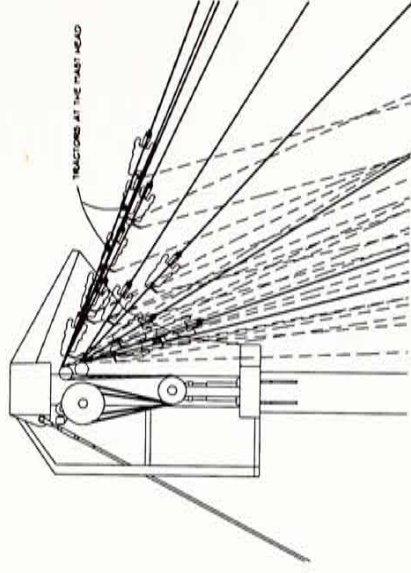


fig. 5.2.3 Head detail of convertible roof

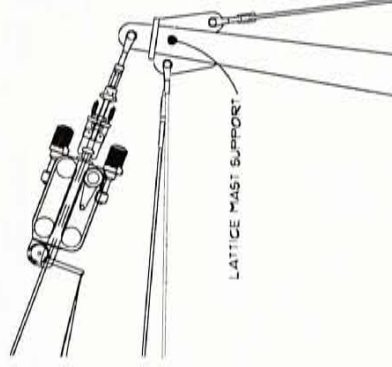


fig. 5.2.4 Cable tractor at endpoint support

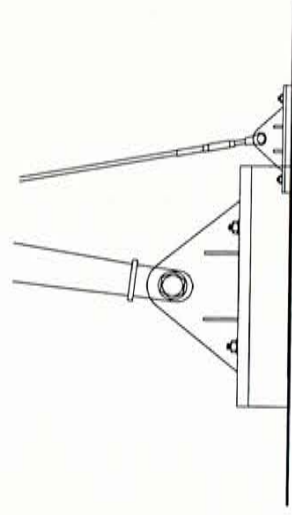
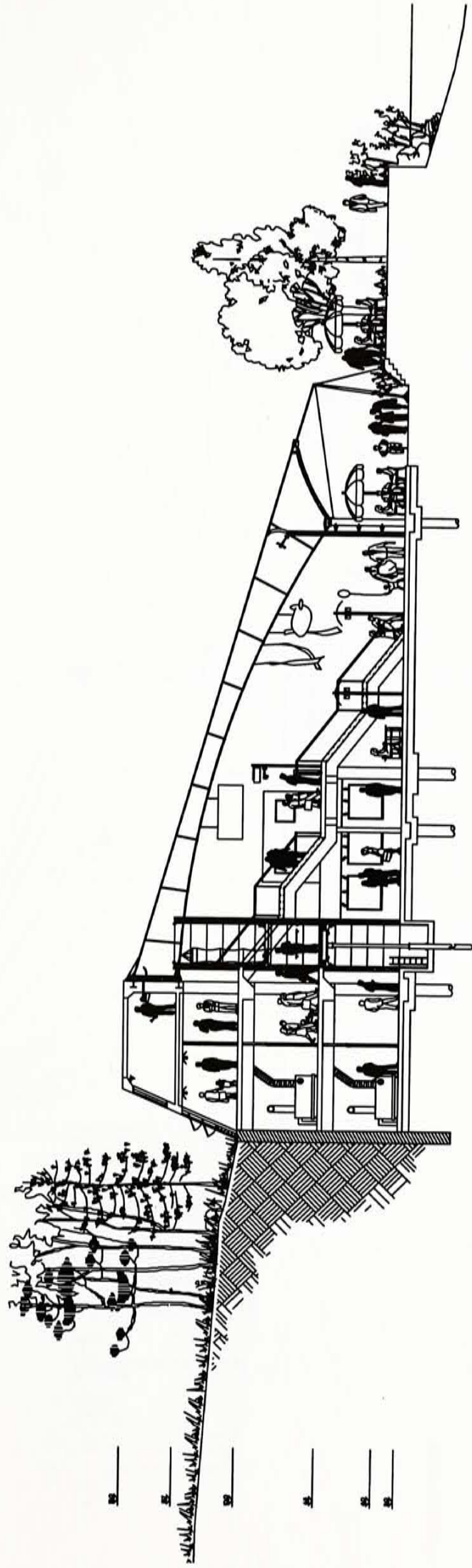


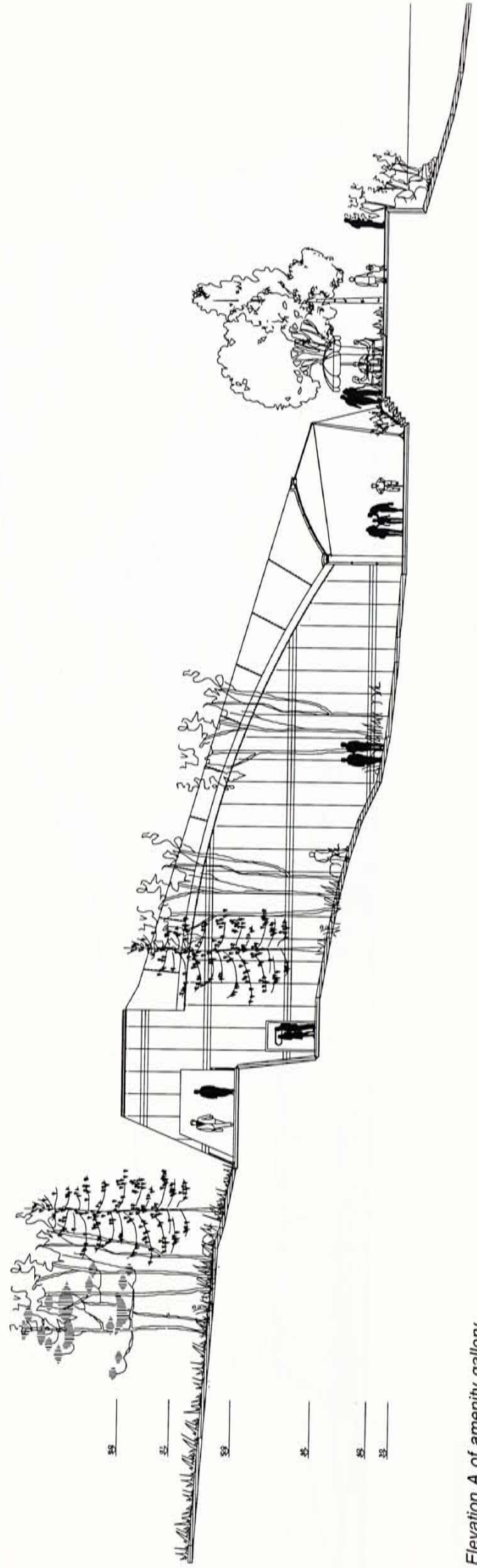
fig. 5.2.5 Endpoint ground support

Appendix

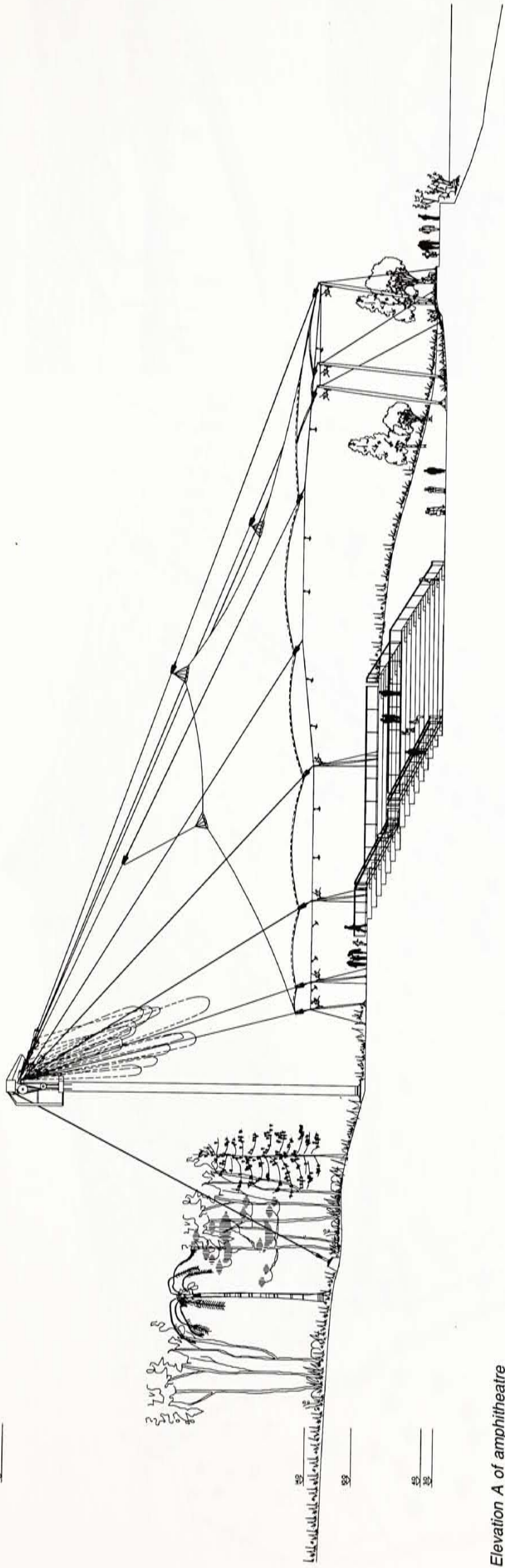
Presentation drawing



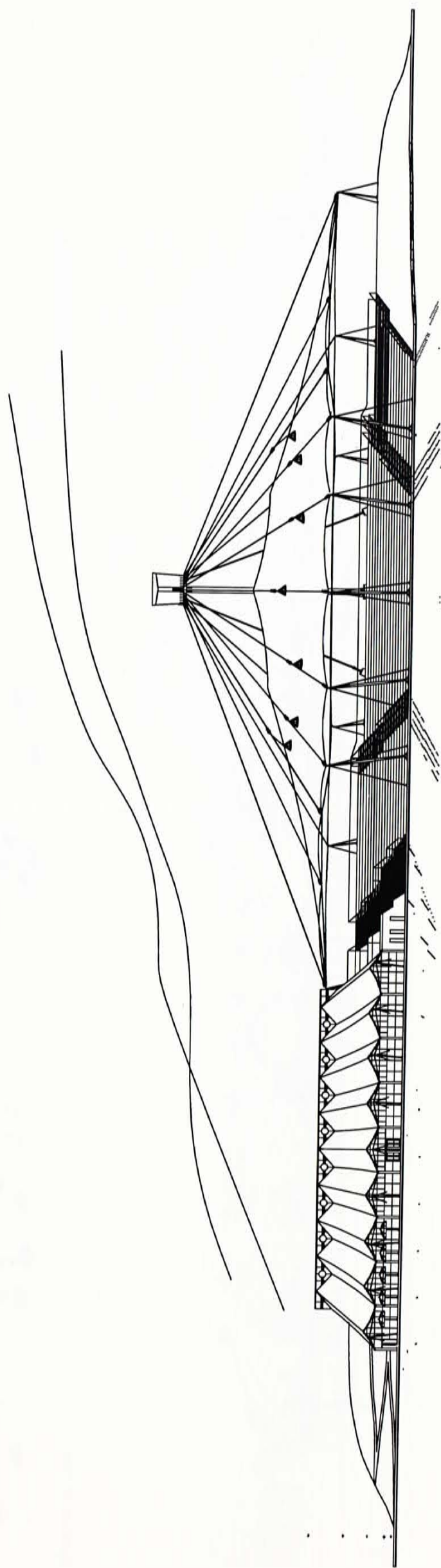
Section A of amenity gallery



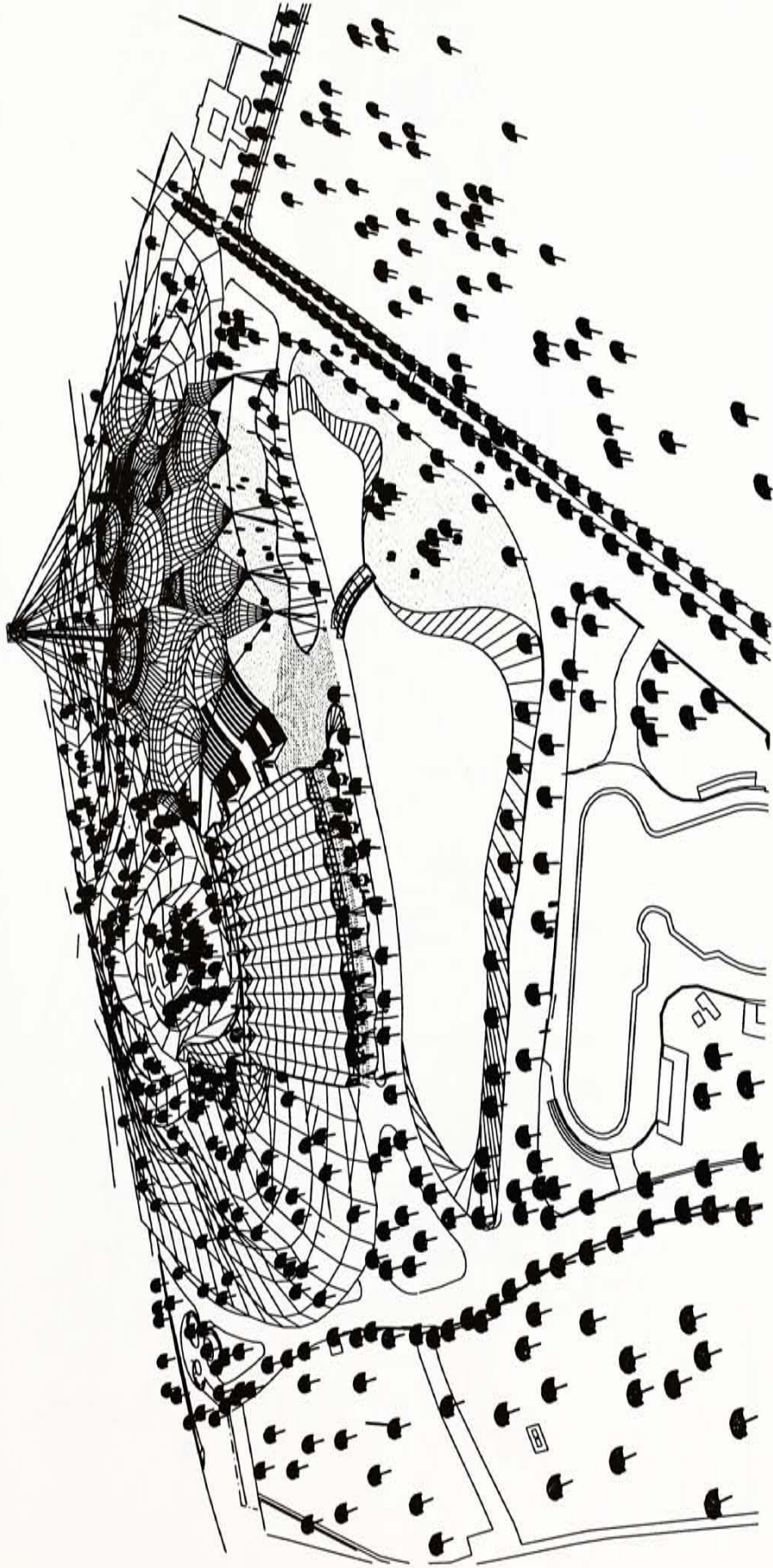
Elevation A of amenity gallery



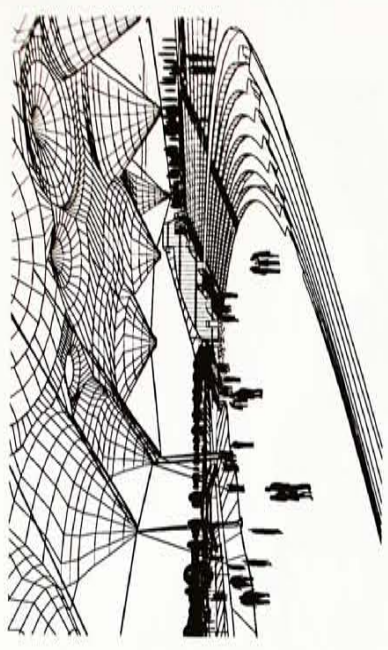
Elevation A of amphitheatre



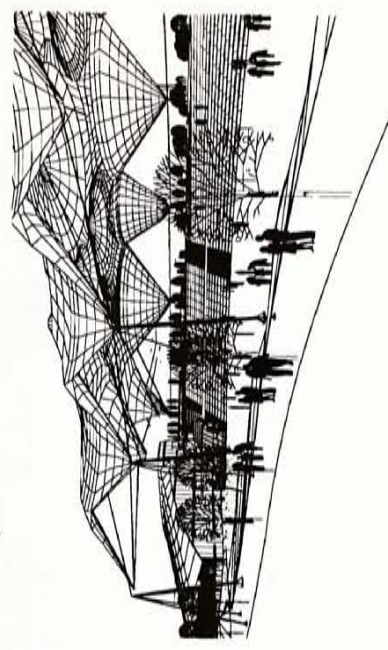
Elevation B of amphitheatre



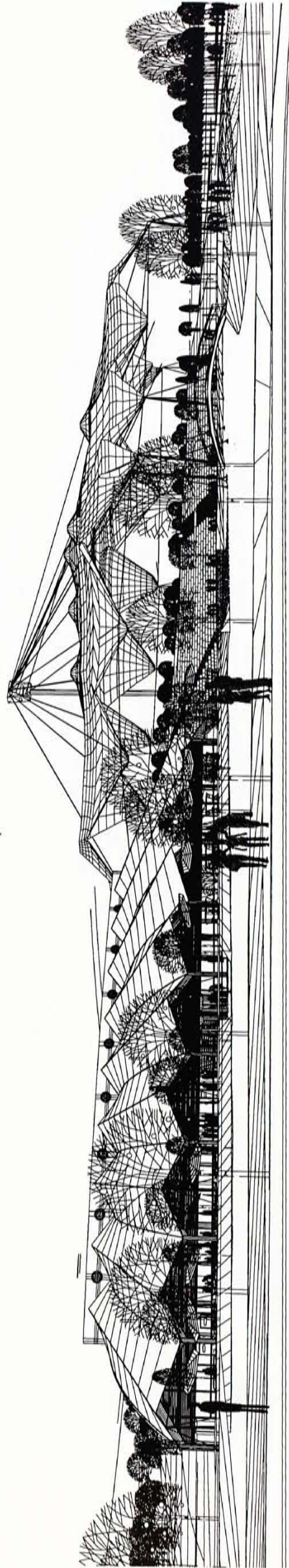
Panoramic view



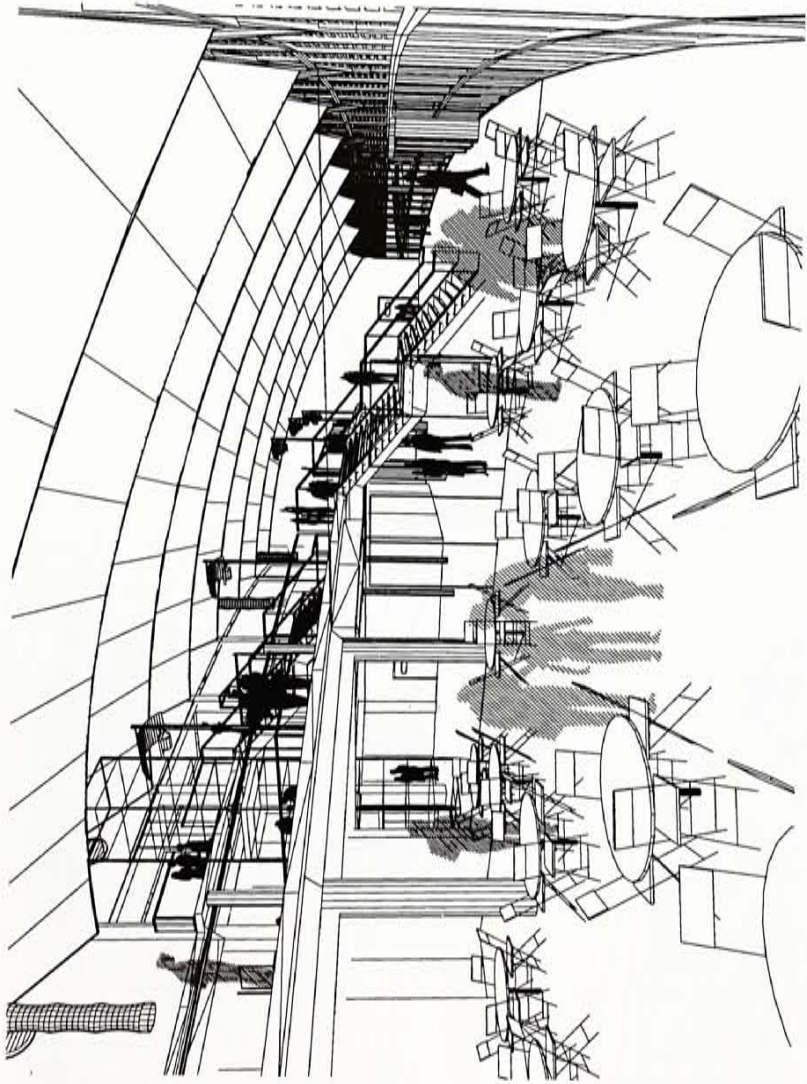
View from grand stand



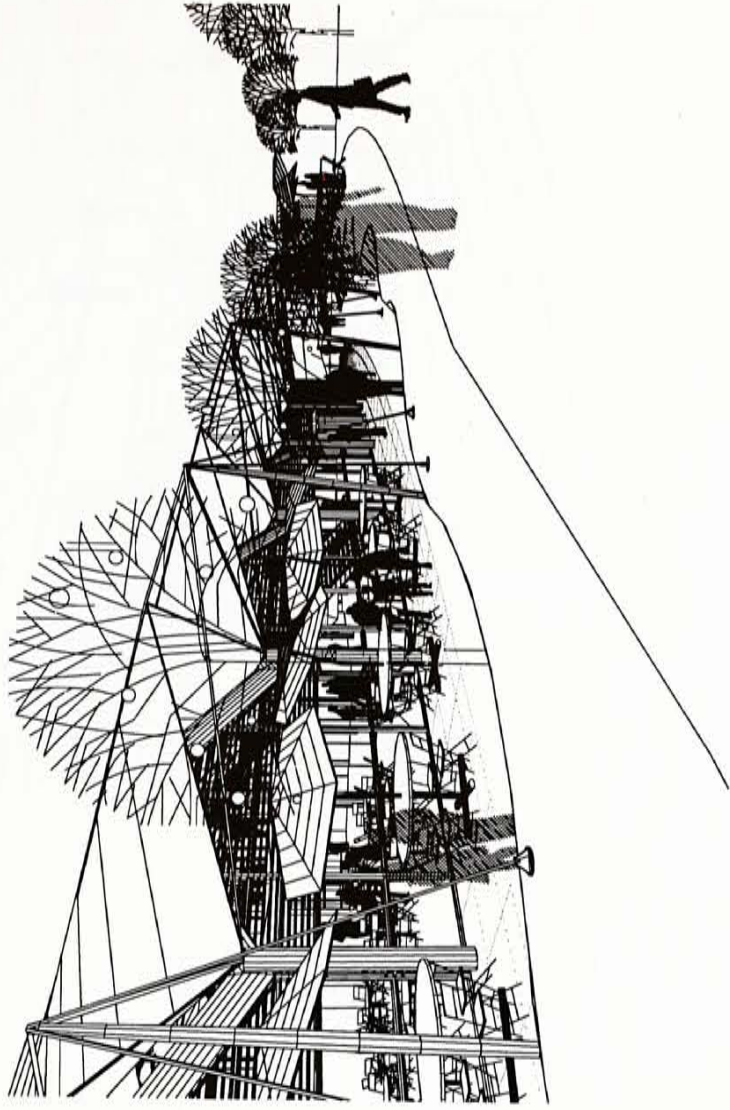
View along footpath



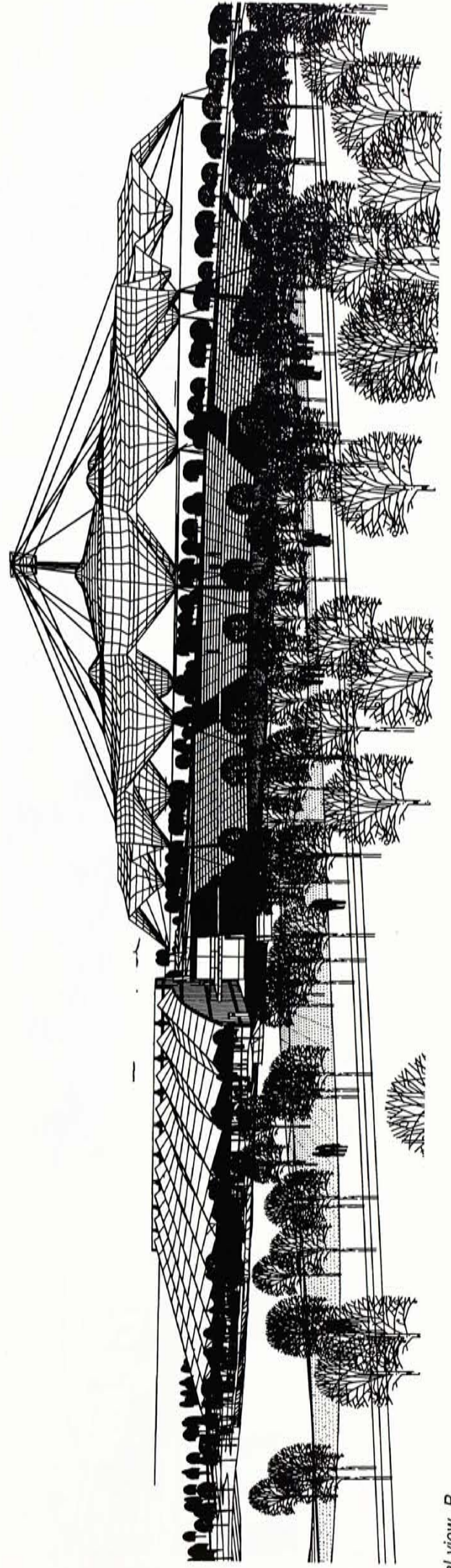
External view A



View from cafeteria



Outdoor diner



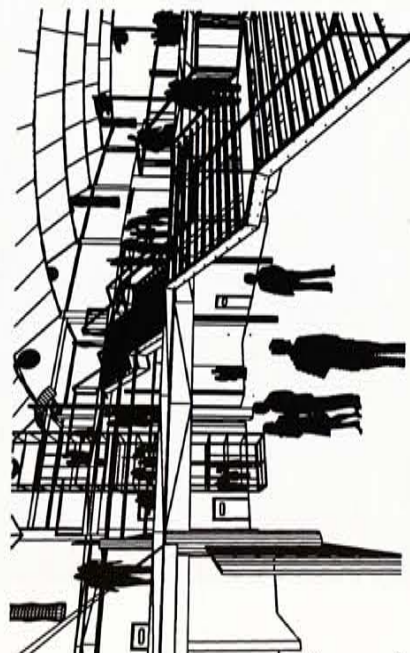
External view B



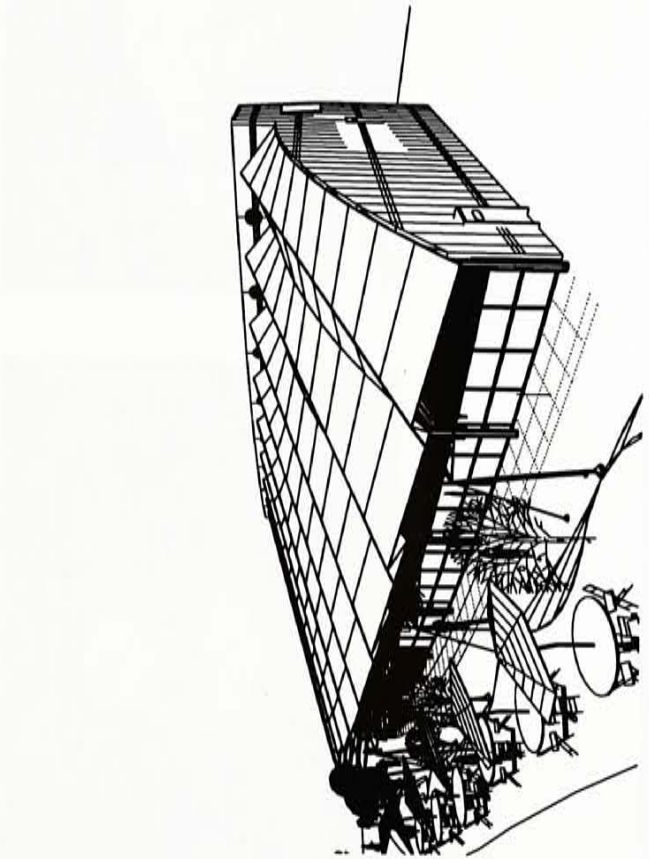
VIEW FROM SUB-ENTRANCE



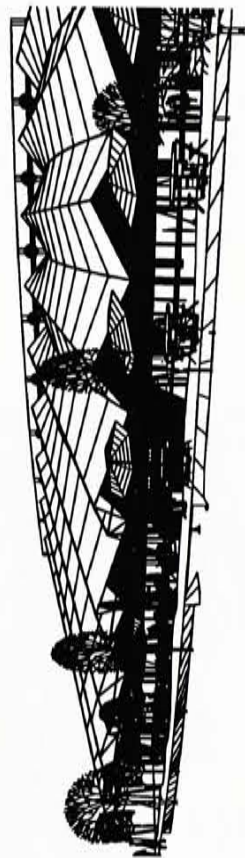
VIEW OF VOID



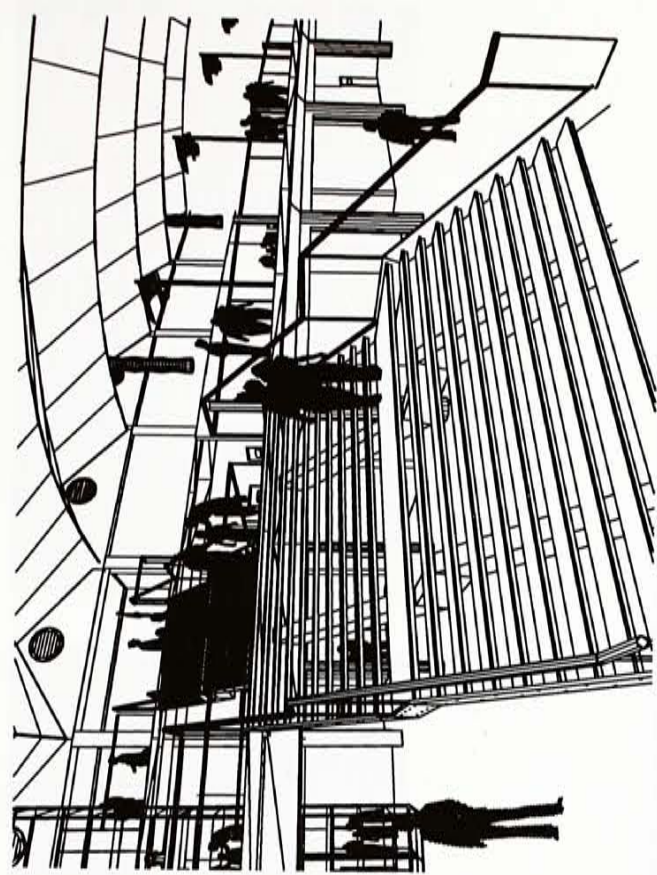
LIFT LOBBY ON G/F



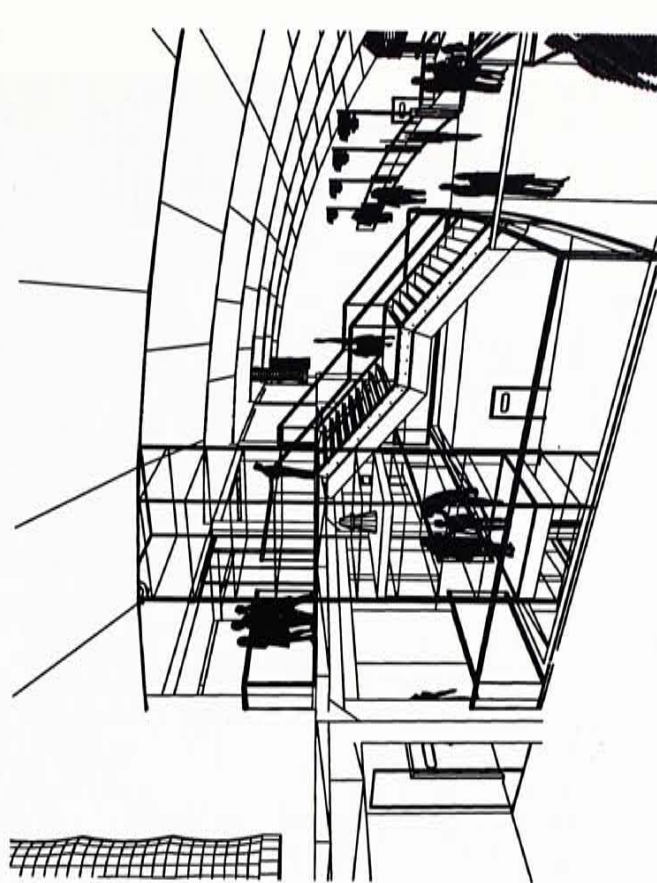
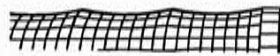
EXTERIOR VIEW 1



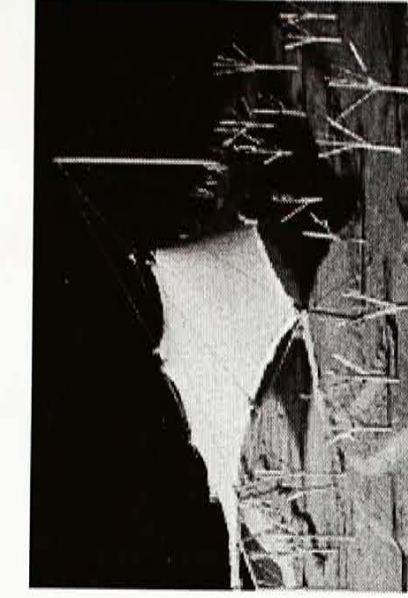
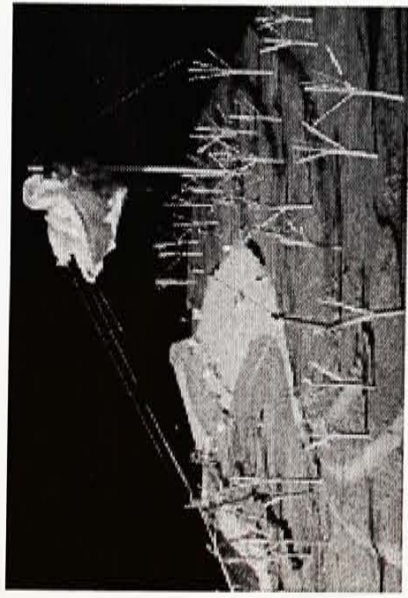
EXTERIOR VIEW 2



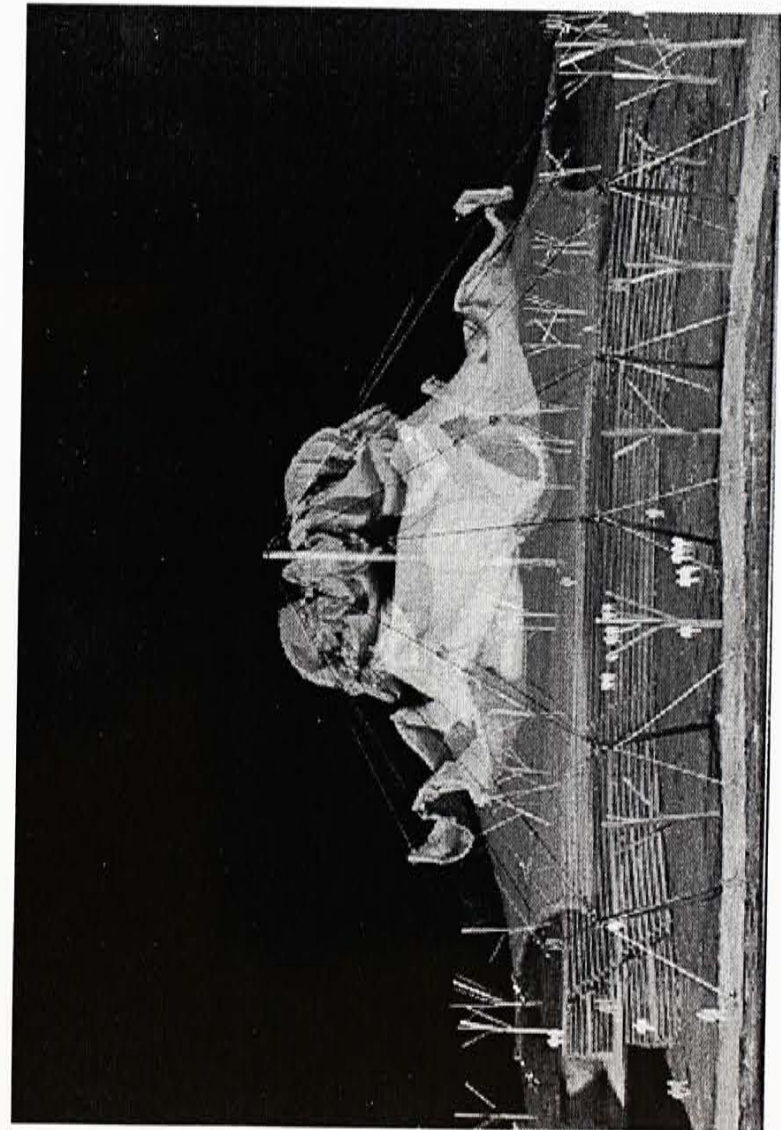
THE STAIR



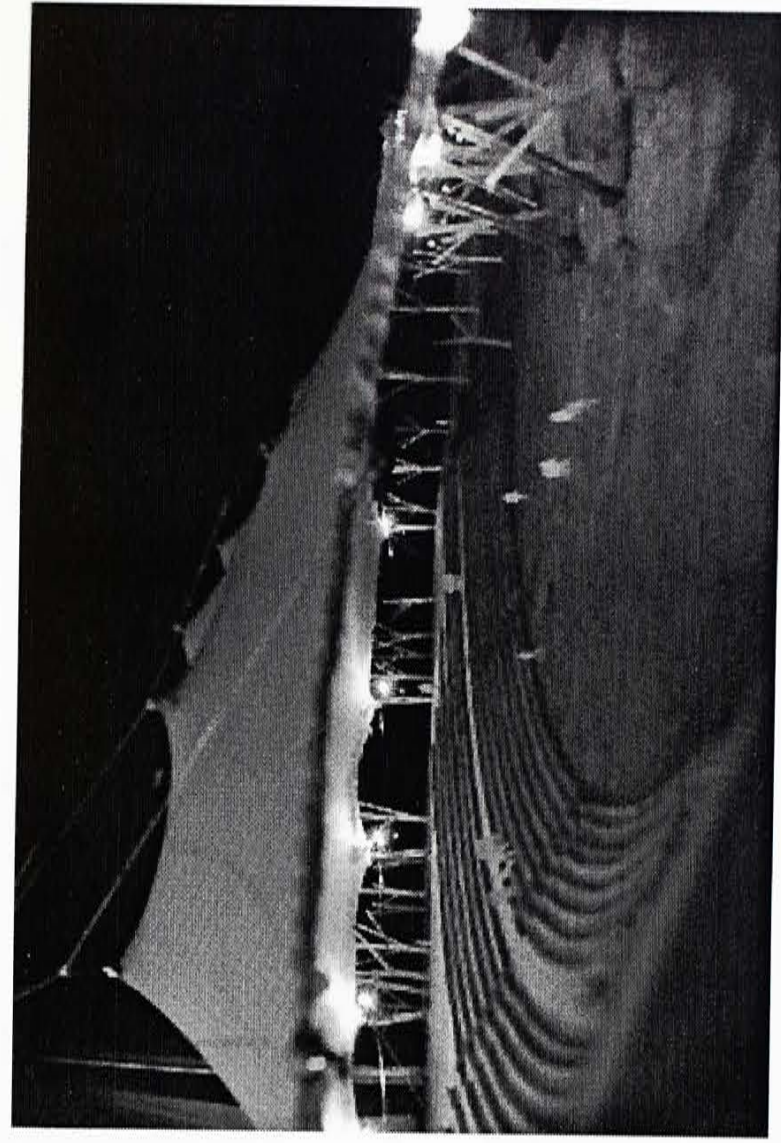
THE LIFT



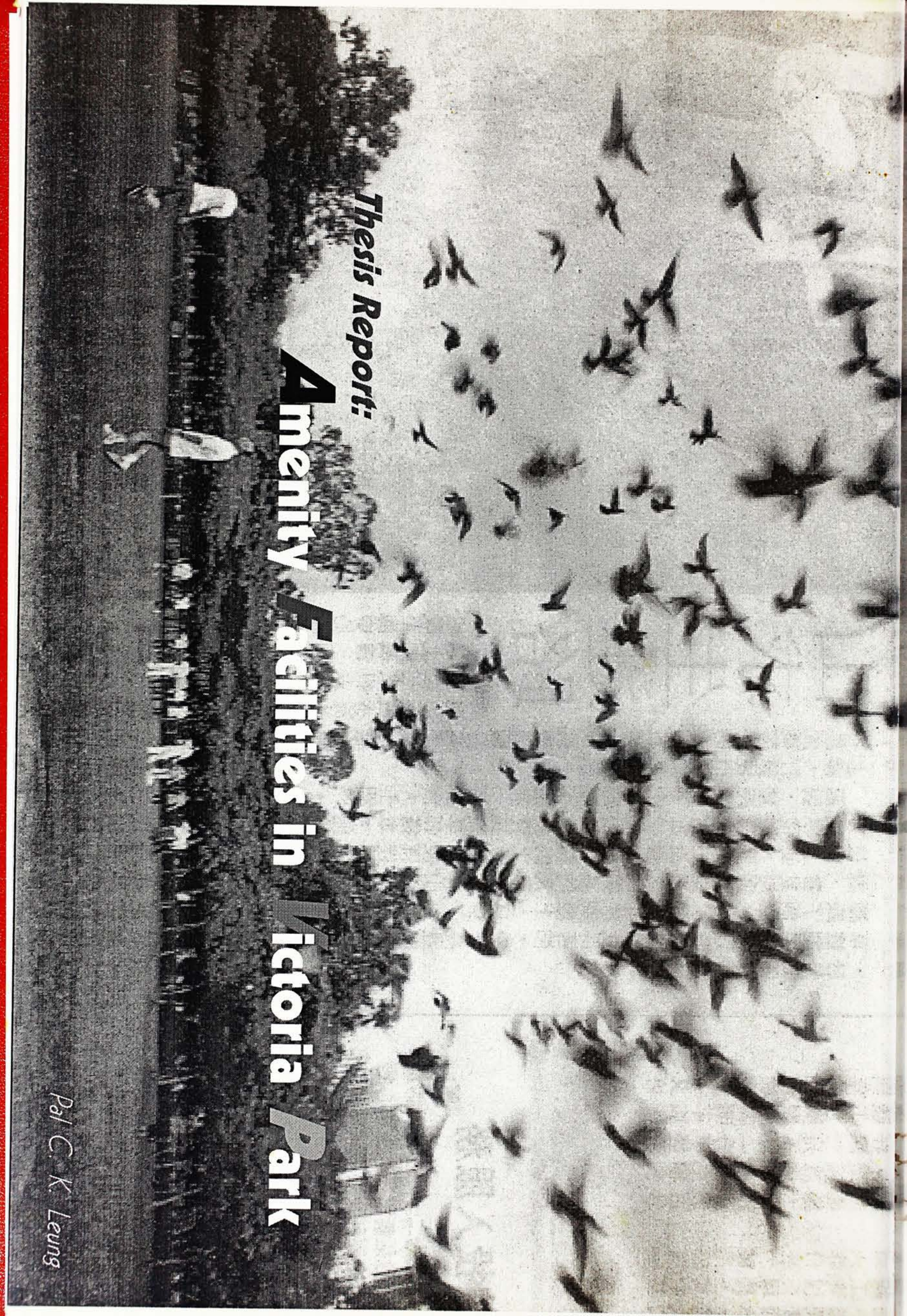
Retraction process of convertible roof



Multi-exposure of retraction process



Amphitheatre at night



Thesis Report:

Amenity Facilities in Victoria Park

Pat C. K. Leung

Acknowledgements

I am indebted to Prof. Tunney Lee, Department Head of Architecture, Mr. Alfred Yeung, my studio instructor, Prof. Gunits Plesum, my second tutor and Prof. Steven Lombardi, my programming lecturer, for their invaluable advice, encouragement and above all patience in my preparation of this research, programming and design report.

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We therefore wish to acknowledge the following people:

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- Mr. Edwin Wong (Architect, Architectural Services Department)
- Mr. Chiu Yuen-ying (Manager, Victoria Park Management Office, Urban Services Department)
- Mr. Ng Ping-shum, Benson (Staff Officer, Urban Services Department)

Victoria Park has become a very popular park since it was opened in 1957. Thanks to its convenient location and easy accessibility by public transport, Victoria Park is not just an open space to accommodate recreational and space area in the hyper-density residential zone, but it also functions as the venue for large-scale entertainment events and community gatherings.

With the rapid growth of the city, it forms a fluid void between fast-flowing traffic of the commercial area in Causeway Bay and Tin Hau residential area. However, the traditional planning and out-dated facilities in Victoria Park will no longer meet the public satisfaction. Over the years, apart from some minor refurbishments carried out, there were no major change in Victoria Park. It follows that a full-scale improvement programme for modernized Victoria Park is considered necessary.

With the increasing number of events held in Victoria Park like political ceremony and the weekly Public Forum, the function of large-scale gathering of the park itself is identified. It is thus a park where human, domestic scale of life is necessary complement to large civic space.

Victoria Park is derived on the scale of Hong Kong urban fabrics differing from any preconceived park typologies. In accordance with the rapid growth of the city of Hong Kong, redevelopment of this unique park in pursuit of formal and social innovations will manifest the approach of Hong Kong to the 21st century.

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1. Objectives

1.1 Definition

Park, to its dictionary description, is not only a public garden or recreation ground in a town, but a large area of land used for recreation by the public such as a safari park and an amusement park, when used as compound.¹

Whilst Disneyland or Ocean Park is a place for various active activities, an urban park like Victoria Park is regarded as a place for both active and passive activities. In this sense, Victoria Park is considered as a compound.

Victoria Park, situated in the midst of the built-up urban area, express the nature of Hong Kong. In this hyper-density city, it is analogical that the buildings are the organs and the interwoven streets are the veins for vehicular flow; parks are then conceived as the lungs to offer fresh air to ensure the urban system in good shape and healthy conditions. The landscaping is being threaded through the city fabrics forming an integral part of cohesion and continuity.

Functionally, the park can integrate with nature so that people get rid of the hustle and bustle of the city. People are able to interact, relax and exercise with the multi-use facilities provided.

Last but not the least, a prominent park also serves as a landmark to the city by making a place a symbol for the collective identity of the people and enriching the city with its differing characters.

1.2 Background

The site of Victoria Park is a Crown Land of Hong Kong Government. Urban Council, being the clients, deals with all kind of matters concerning hygiene, leisure, culture and recreation for the public in the urban districts. Urban Services Department, a department works under Urban Council has a special teams managing the landscape and parks in Hong Kong.

Currently, Urban Council had an idea to redevelop Victoria Park and a Redevelopment Committee of Urban Council was formed. This project is in the preliminary master layout stage. The programme will be divided into three phases according to land availability. Some of the existing facilities would be relocated.² This large-scale redevelopment will include an indoor swimming pool with an open leisure pool, outdoor music pavilion, shoreline trails, viewing tower as well as an underground carpark. The proposed construction cost is about HK\$ 1,140,000,000. The construction will commence on September in 1997 and the project is scheduled for completion in 2000. During the construction process, large-scale staging and entertainment will be held normally.³

1.3 Deficiencies

Victoria Park was constructed in 1957 from the reclaimed land in Causeway Bay. Sized of 19.32 hectares, more than 60% of the area of the park was allocated to sport use in accordance with the recreational needs of the Urban Council in the initial planning.⁴ In the progressive years, however, taking advantage of its convenient location and its vast area, it not only serves as a gathering place for sports and recreation, but it is also the important venue for large-scale entertainment staging and versatile community functions like Lunar New Year Fair, New Year count-down, Flower Show and Mid-Autumn Lantern Carnival. More importantly, it is also public gathering place for political purpose such as mass demonstration and memorial ceremony. In addition, it is the venue of the weekly Public Forum organized by RTHK, the government radio broadcast. It will probably play a more active role after the unification with the Mainland China in 1997.

The city has undergone a great deal of change and the traffic system differs a lot in the past 40 years. Victoria Park, however, has not. Over the years, apart from some minor improvement works for upgrade or refurbishment such as the Centre Court, the hot water supply in the Northern Changing Room and redevelopment of the bowling greens, the facilities has become out-dated and cannot accommodate the ever-increasing needs and changing demand of the society, not to mention the maintenance cost involved to up-keep these old facilities.

At present, a wide range of recreational facilities are provided in the park, including:

- a swimming pool complex including 1 main pool with high board diving, 1 children pool, 1 paddling pool, 1 training pool and 1 driving pool with admission capacity of 1125;
- a skating rink;
- 14 tennis courts including a Centre Court with seating capacity of 3611;
- a squash court building with four squash courts;

- six football pitches (hard-surfaced);
- a handball cum mini-soccer pitch;
- four basketball courts (hard-surfaced);
- four children's playgrounds;
- two pavilions;
- an aviary;
- a band stand;
- two general restaurants;
- a dog garden;
- a model boat pool;
- two bowling greens with 12 rinks; and
- a central lawn with a jogging track of 600m in length and eight fitness stations.⁵

Many aspects of the traditional planning of the existing park are worthy of closer consideration.

- It takes insufficient account of the hierarchy of space and axial promenade alignment. They simply fence off several piece of land, add a few canopies and casually construct the paths across the site. Strictly speaking, it is an assemblage of elements rather than a unified park.
- The introduction of Mass Transit Railway has altered the public access system such that the southern entrance become less dominant while the eastern and western entrance forms a strong linkage between Causeway Bay and Tin Hau MTR stations;
- The swimming pool are placed in isolated corner at a high-level without interaction with the rest of the park;
- The bowling greens are utilized by very limited number of people;
- The cafe and restaurant are fragmented parts of the park. The scale is not integrated with the rest of the park and not a pleasant place for dining and viewing.
- The aviary is often unnoticed by the public.
- The multi-use hard-surfaced football pitches are not making good use in day time when it becomes extremely hot under the immense sunlight;
- The landscaped zone with the cannons and flags on the north is a breeding grounds of gambling at day

- time and crimes at night;
- The existing car access point does not provide a sense of arrival;
- Pedestrian and vehicular circulation is not well separated causing disturbance to visitors;
- There is not enough car park for Victoria Park, temporary parking for VIPs and physically challenged are located next to the football pitches at Hing Fat Street sides.

1.4 Hypothesis

For the redevelopment proposal, the following propositions are emphatically presented.

- To maintain and enhance the quality of the urban environment by strengthening the city's leisure, recreational and sports activities;
- To take account of the diversified open space requirements of different age groups, especially children, teenagers and old people, as well as of different type of activities;
- To give preference to the reduction of building density of the park to offer spaciousness for the urban fabrics which is already overcrowded;
- To conserve and develop green spaces as articulating elements within the urban structure;
- To preserve and improve the visual quality and accessibility of the park with the streets;
- To protect and enhance the climatic and ecological conditions within the park;
- To keep a coherent townscape and skyline with the immediate area;
- To deploy advanced technology of park architecture regarding greenary issue and energy efficiency;
- To establish an up-to-date park which will denote the era of the city and anticipate future growth.

2. Background

2.1 Urban planning

- *Reclamation*

The topography and coastline had been changed to a large extent through century. In 1897, the Praya East Reclamation Scheme was mooted. (fig.2.1.1)¹ It included the building of the sea wall from the Naval Yard to East Point and the reclaiming of all that land in Wanchai, which lies between Hennessy Road and the sea front. Morrison Hill was resumed with the object of its removal as fill. Solid rock were encountered and the last vestiges of Morrison Hill were only removed in 1958. The scheme began in 1921 and completed in 1931. The land thus recovered has become one of the busiest and most densely settled areas of Hong Kong. One result of this piece of reclamation was the complete disappearance of East Point as a geographical feature.

After the war, the Colony was officially liberated from Japanese occupation on 30th August, 1945. On Hong Kong Island three major works of land reclamation had been carried out in the post-war years. At Causeway Bay (the other two are located in Central and Chai Wan), the old typhoon harbour was almost completely filled and a new one constructed seaward. Kellet Island opposite Causeway Bay, housing the Hong Kong Yacht Club, lost its island status.² On 6th July of 1951, Reclamation Committee was formed. The reclamation was easy as the original breakwater prevented the soil and rock for reclamation from blowing away and the demolition of the old houses provided abundant materials for reclamation. The work was completed in 1953, reclaiming 57 acres, which are devoted entirely to playing fields and recreational activities and was later known as Victoria Park.³ (fig.2.1.2-2.1.5)

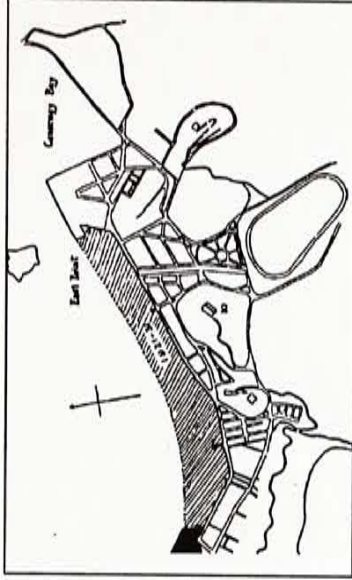


fig.2.1.1 Praya East Reclamation Scheme⁴

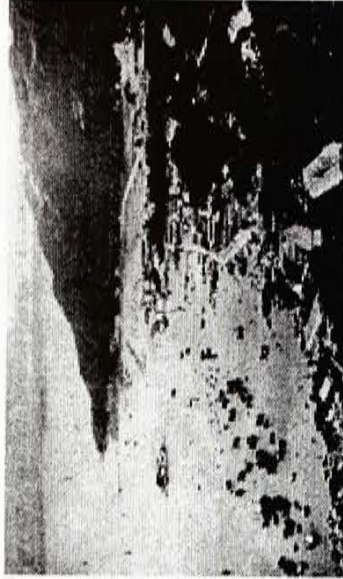


photo 2.1.1 Wan Chai and Causeway Bay at the beginning of this century⁵

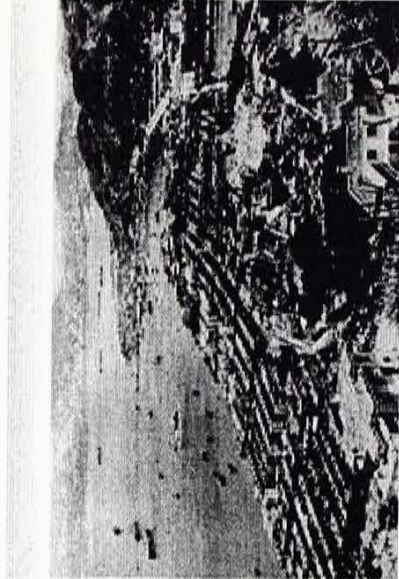


photo 2.1.2 Wan Chai and Causeway Bay in 1950s. The coastline was extended to Gloucester Road and the Morrison Hill on the left was levelled off.⁶

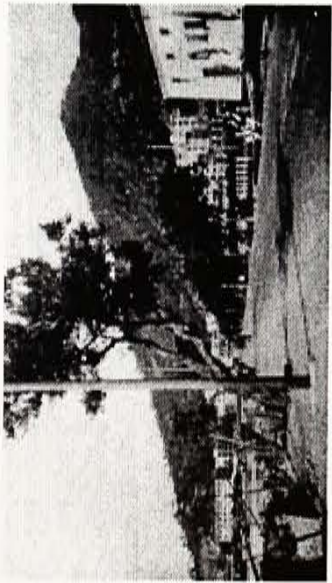


photo 2.1.3 Causeway Road in 1930s.⁷

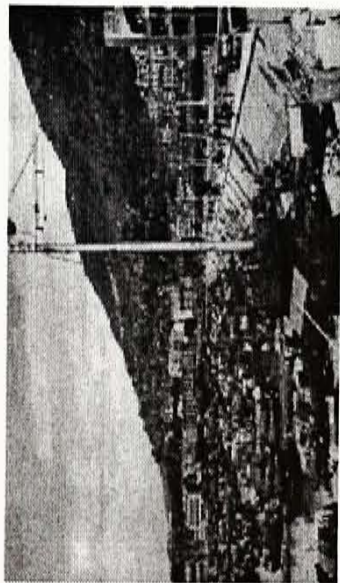


photo 2.1.4 Causeway Road in 1950s. The typhoon shelter on the left was transformed to Victoria Park later.⁸



photo 2.1.5 Aerial photo of Causeway Bay Region in 1945⁹



photo 2.1.7 Aerial photo of Causeway Bay Region in 1975¹¹



photo 2.1.6 Aerial photo of Causeway Bay Region in 1964¹⁰



photo 2.1.8 Aerial photo of Causeway Bay Region in 1989¹²

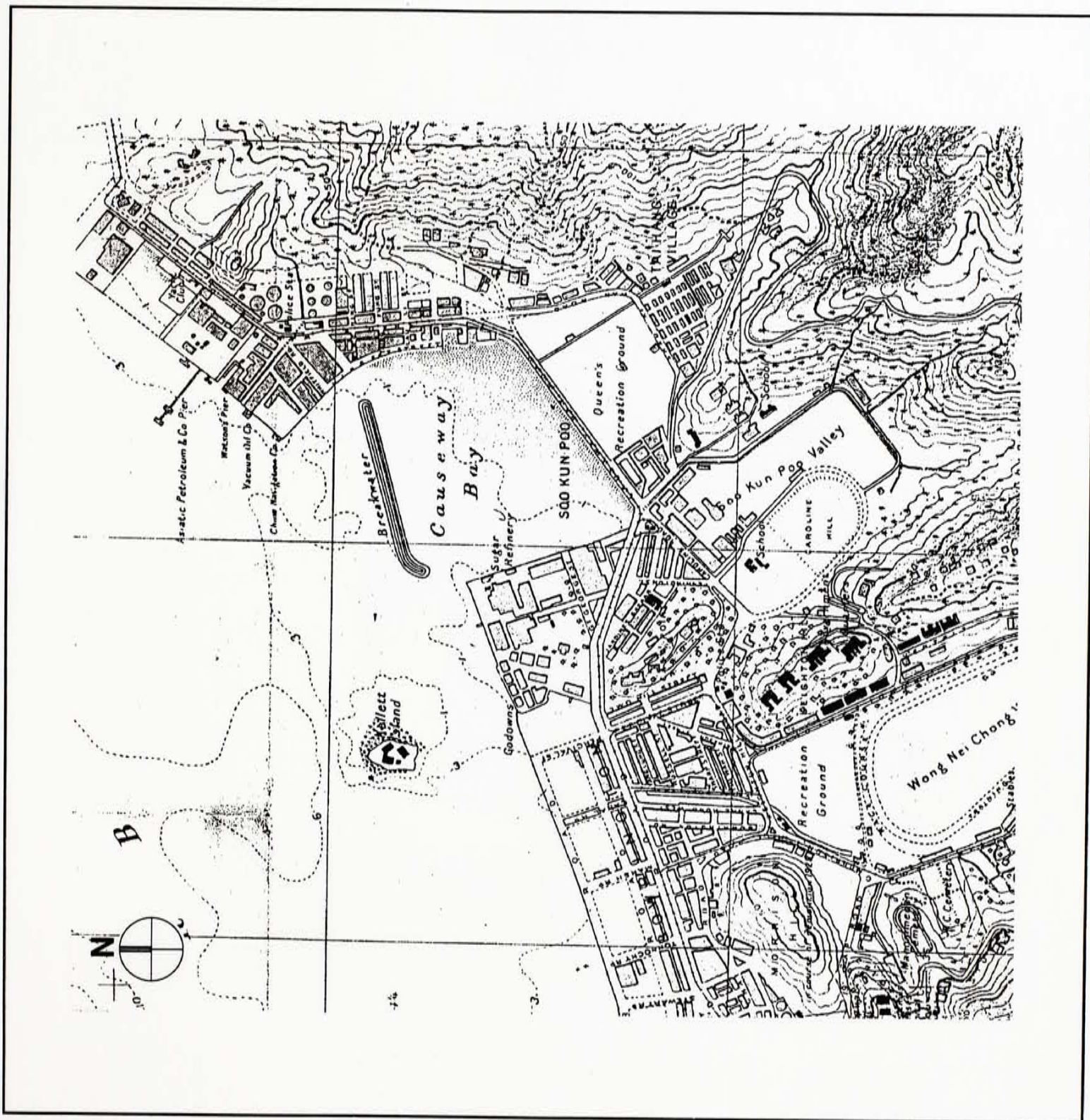


fig.2.1.2 Causeway Bay region in 1930-45

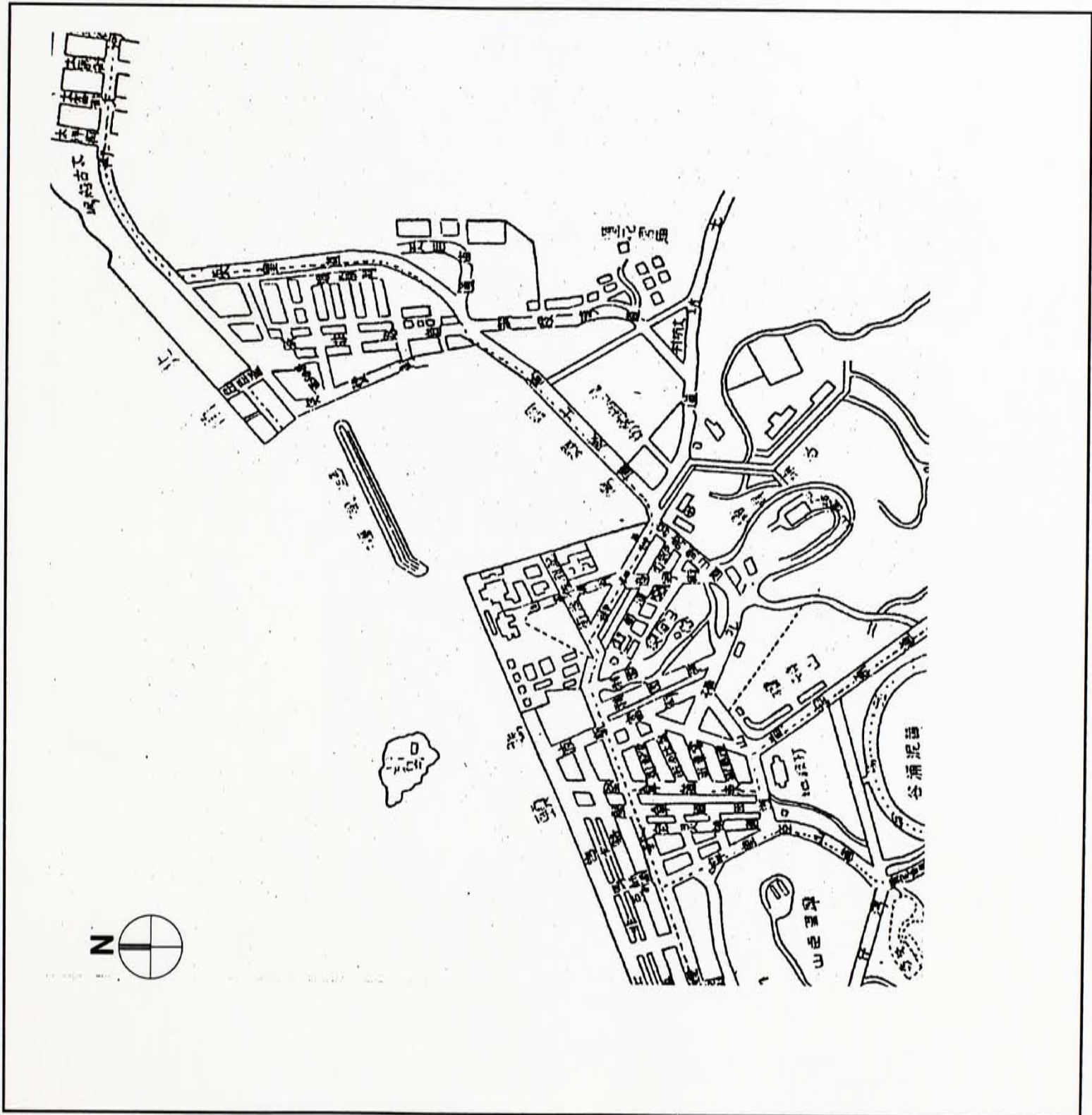


fig.2.1.3 Causeway Bay region in 1954¹⁴

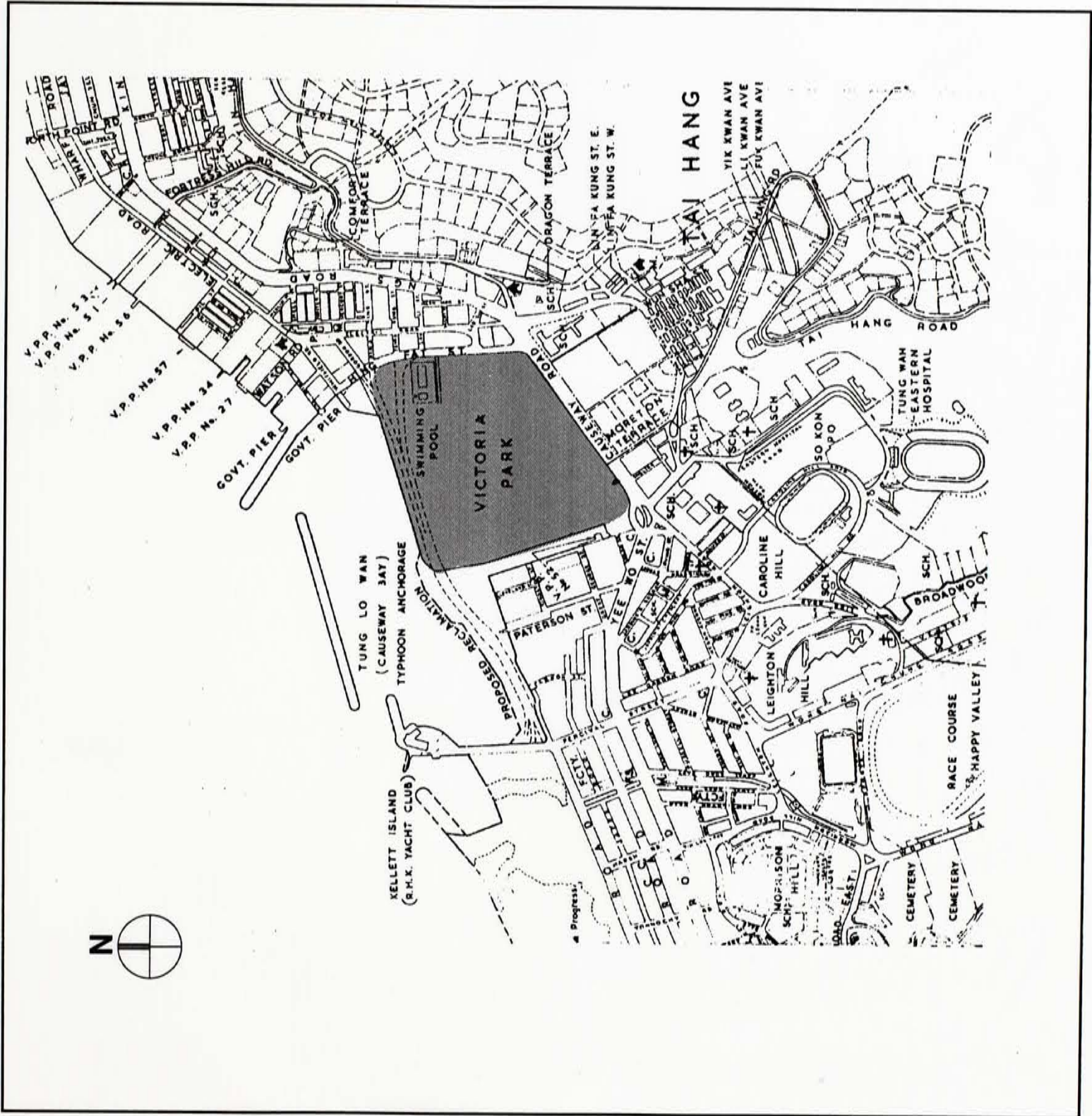


fig.2.1.4 Causeway Bay region in 1964¹⁵

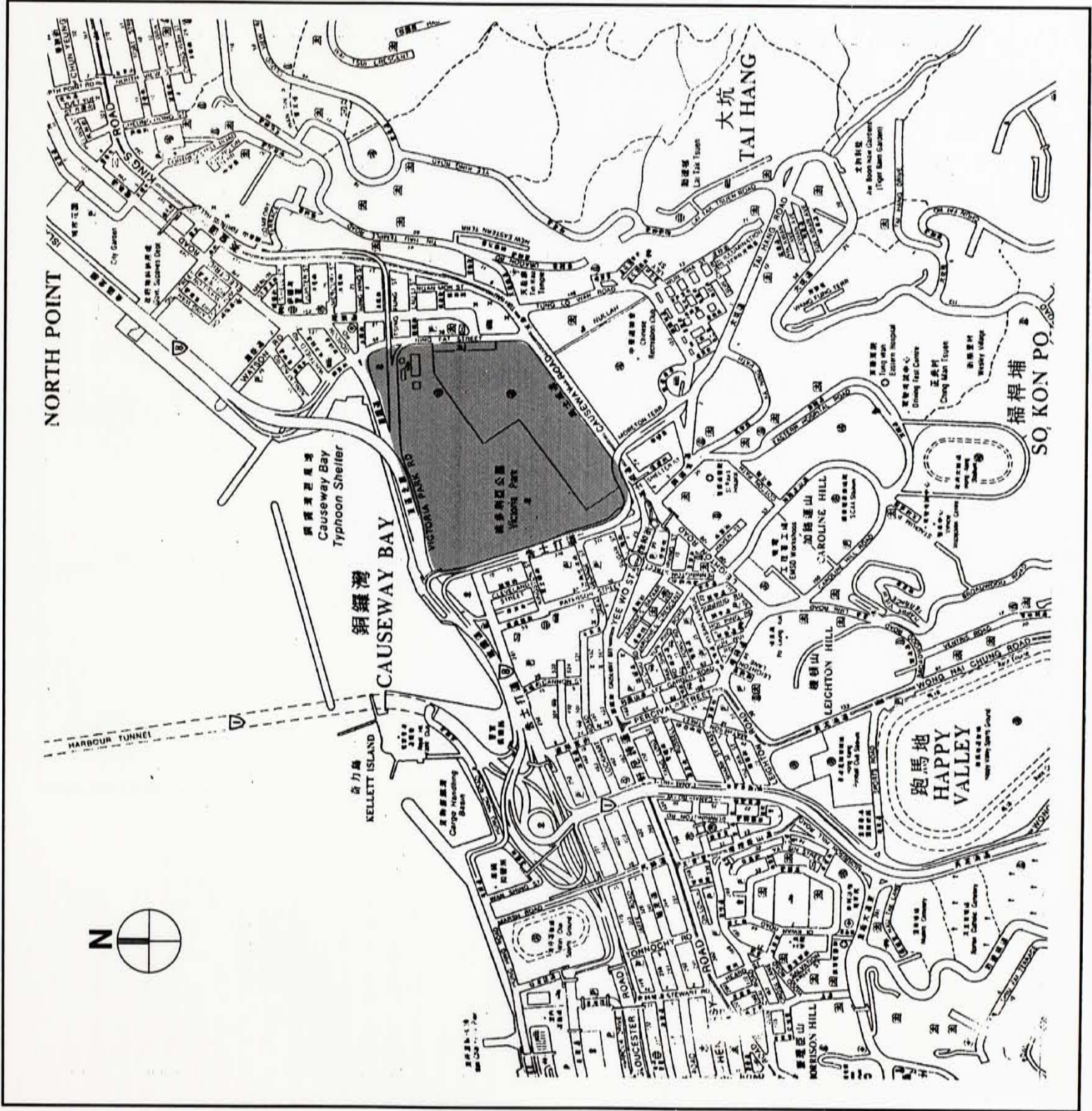


fig.2.1.5 Causeway Bay region in 1990 16

- *Open space distribution*

The total area covered by Hong Kong Planning Area No.6 (Causeway Bay) and No.8 (North Point) is approximately 373.18 hectares. There are totally 39.93 hectares of open space in the planning area, with Victoria Park being the largest (19.32 ha.). It provides a wide range of active and passive recreational facilities for residents within and outside Causeway Bay and North Point. Besides, Choi Sai Woo Park, the second largest open space in this area, is located in close proximity to the residential and educational developments in the North Point mid-levels. Another major existing open space is the Causeway Bay Recreation Ground at Causeway Bay. In addition, a park is proposed at Tai Hang Road to the north of Jardine's lookout. Other open space like sitting-out areas and rest gardens are also provided in the immediate vicinity to meet the recreational needs of the population and to serve as breathing spaces among high-rise buildings.¹⁷

- *Population*

According to the 1981 and 1991 Censuses, there were about 52,000 and 36,528 persons in the Planning Area No.6 (Causeway Bay) in 1981 and 1991 respectively. Upon full development, it is expected that the population of the Area will be in the region of 41,000 persons.¹⁸ According to the 1971, 1981 and 1991 Censuses, the population of the planning area No.8 (North Point) was 14,8000, 184000 and 188,900 persons respectively. With the current trends towards a reduction in the average household size, the future population of the area is expected to fall to around the region of 182,000 persons upon full development.¹⁹

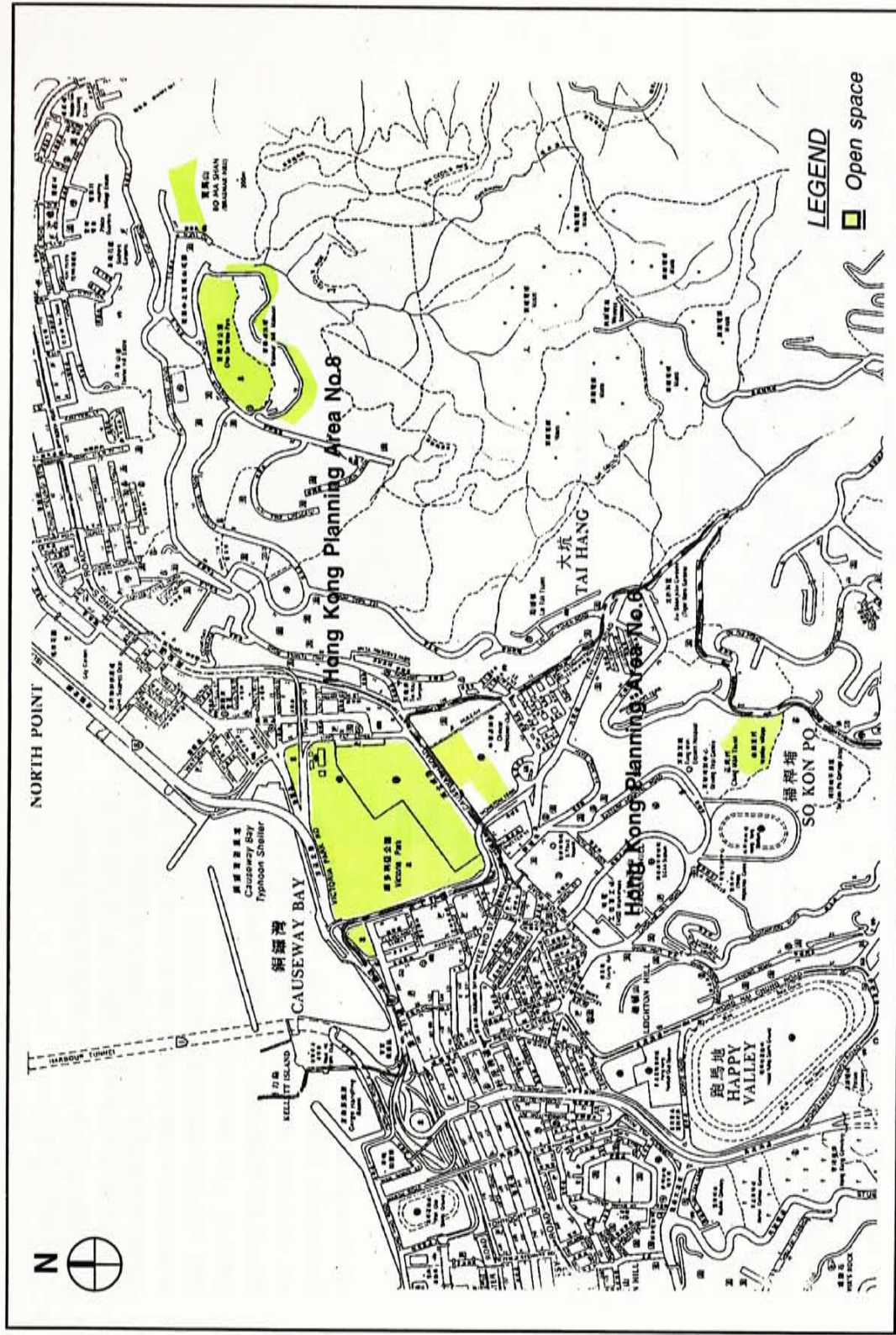


fig.2.1.6 Open space distribution

2.2 Historical development

• Causeway Bay

In the early colonial years, the area around Wanchai and Causeway Bay was known as East Point because of its geographical protrusion in the East coast. The Hong Kong people called it "Tung Lo Wan" because of the resemblance of the coastline shape to our Chinese "Tung Lo".²⁰ In 1724, there had been already a causeway, a road paved with raised stone, along the coastline around Causeway Bay to protect the field in Tai Hang and So Kon Po from flooding. Thus the road on the south of the present Victoria Park is known as Causeway Road and the area is called Causeway Bay.²¹

Jardine Matheson & Co. Ltd. was the first British firm developed the Causeway Bay region as the shape of the shore was an ideal natural typhoon shelter for their shops. Besides, there were water sources from the streams along Tai Hang Villegge. The residents from Tai Hang Village and Son Kon Po also offered good labour for the firm.²²

There was a small hill between Jardines Bazaar and Lee Garden Road, known as East Point Hill in the early colonial years. It was then renamed as Jardines Hill when Jardine Matheson & Co. Ltd. bought it for the residents of their top officers. In the 1920's, the merchant, who was later the well known Lee's family, bought the hill and redeveloped into an adventure park named Lee Garden. The park business flourished in the end of 20's and the beginning of the 30's. The hill was named after as Lee Garden Hill. Lee Garden went bankrupt during the worldwide inflation after 1933. The park was then left unattended. After Japanese occupation period, it was utilised for a temporary campus. In the mid 50's, the Lee's family developed the site, excavated the hill, construct the apartments and traffic roads. The earth excavated out was used for the reclamation of the Causeway Bay waterfront and Victoria Park.²³

• Victoria Park

Although Victoria Park is named after Queen Victoria, it was the reclamation of the previous Causeway Bay typhoon shelter in 1950s. Its name is due to the statue of Queen Victoria. The statue was originally situated in the Statue Square in Central. The Japanese Army removed the statue during the Japanese Occupation Period. In 1945, the Japanese returned the statue. However, the statue was destroyed severely and had been repaired for years.

Since the artistic stand for the statue in Statue Square was destroyed, it is better to locate the repaired statue in a new location. The new reclaimed park was chosen and it is thus named after Queen Victoria. The statue was placed at the main(southern) entrance of Victoria Park.²⁴ (photo 2.2.1)

When this flat land was reclaimed in Causeway Bay, it attracted a lot of hawkers and neighbourhood to relax. Originally, it was mistaken that the western entrance near Sugar Street was the main entrance owing to the convenient transport there. It was until the placement of the statue of Queen Victoria signified the main entrance at the South.²⁵ As 1997 approaches, however, the significance of the statue is controversial. On 16th September in 1996, vandalism by an Art student of Mainland China cause destruction of the nose of the statue and the whole statue was painted red. This act is claimed to be "Behavioural Art" by the student. In the end, the so-called "artist" was judged to jail for 28 days.²⁵

Victoria Park was open to the Public on 16th October, 1957. The initial planning did not make a great difference to the present state. The central court was constructed after the park was open and the golf court was transformed into two bowling greens in 1992. The hot water supply in the Northern Changing Room was upgraded.²⁶(fig.2.2.1)



photo 2.2.1 Statue of Victoria

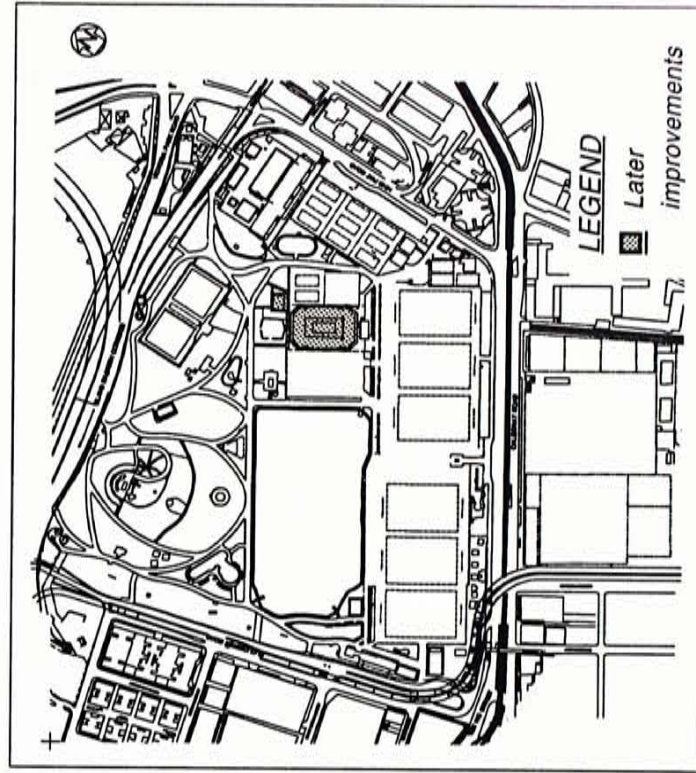


fig 2.2.1 Subsequent amenities improvement

3. Site and Context

3.1 Location of site

The site is a pleasant, wooded and green open space set in between the densely built-up urban area to the west of Causeway Bay and to the east of Tin Hau. (fig.3.1.1 - 3.1.2)

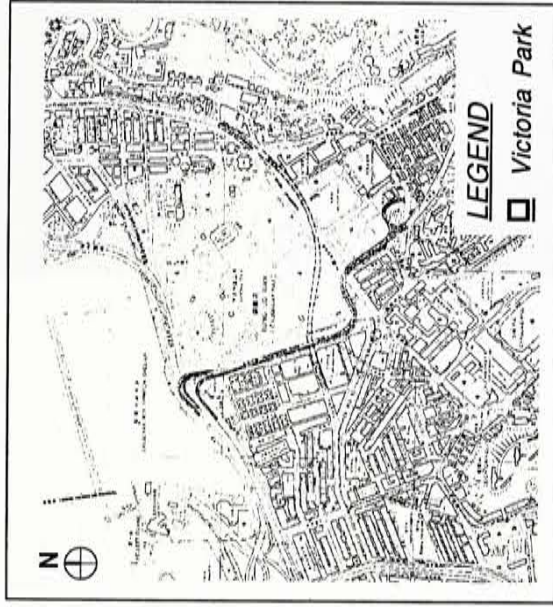


fig.3.1.1 Location plan - Victoria Park

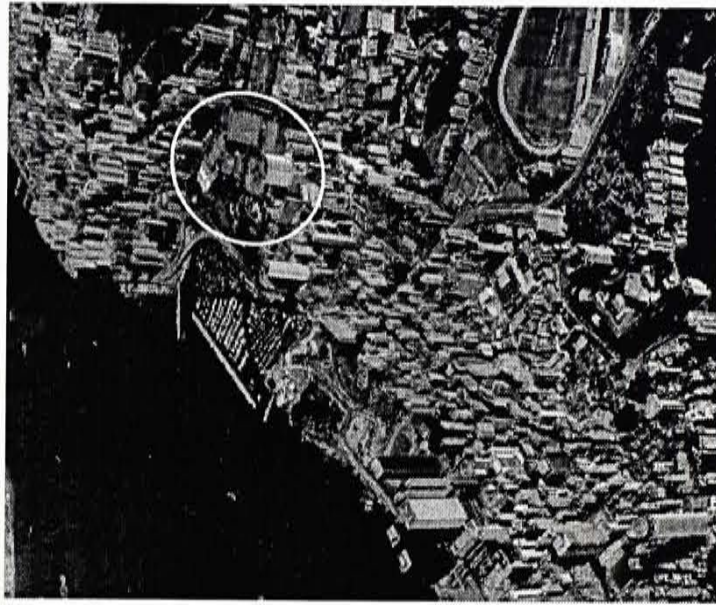


photo 3.1.1 Aerial photo showing location of Victoria Park

3.2 Planning considerations

- *Ownership*

It is a piece of Crown Land of Hong Kong Government.

- *Zoning conditions*

Victoria Park is zoned "O" on the North Point Outline Zoning Plan No. S/H8/5.

- *Lease restrictions*

According to Buildings Ordinance section 41(1)(a), the building shall be exempt from the provisions of the Building Ordinance.

- *Site area*

19.32 hectares.

- *Class of site*

Class C site.

3.3 Access and transportation

- *Pedestrian circulation*

There are eight entrances (photo 3.3.1 - 3.3.6) in total in Victoria Park. The visitors are expected to come from all directions.

On the west side in Causeway Bay, there is a major access point from the Great George Street (Entrance A) whereas the other two entrances are connected to Gloucester Road and Sugar Street.

On the east side in Tin Hau, two major access points are situated at car park and toilet (Entrance B & C) whereas there is an additional entrance near the swimming pool at Hing Fat Street.

On the south side, the statue of Victoria signifies a historical entrance (Entrance D) opposite to the tram station. An elevated pedestrian walkway above the tram route links the visitors from Moreton Terrace to the west and south entrance.

Finally, there is an entrance from Fortress Hill and North Point which leads to the tunnel under the Tsing Fung Street flyover.

Owing to the strong linkage of the park to the two MTR stations, Causeway Bay and Tin Hau, the main pedestrian routes through the park are primarily two paths running parallel from west to east on the two sides of the Central Court.

The winding paths leads off around the aviary and landscape to Causeway Bay exits whilst the promenade towards Tin Hau leads eventually around the tennis courts to the way out. On the north, the pedestrian route meanders up and down through the landscape to various park features. On the south, visitors are free to walk around and across the six football pitches. It is noted that the jogging track around the grassland forms another pedestrian route.(fig.3.3.1)

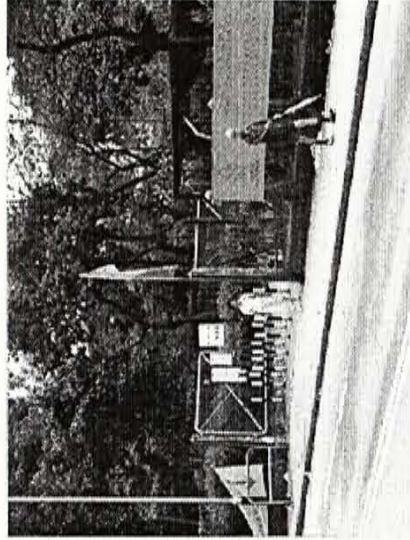


photo 3.3.1 Entrance (A)

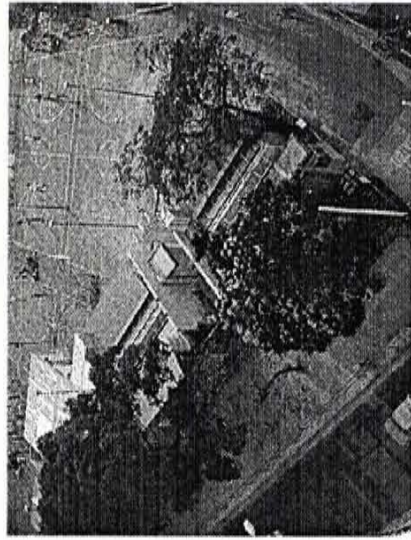


photo 3.3.2 Entrance (B) & (C)

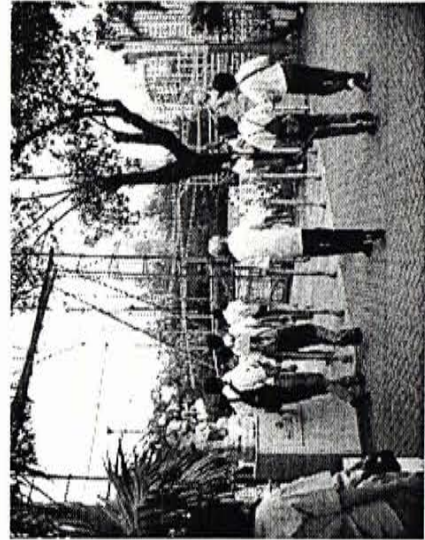


photo 3.3.3 Entrance (D)

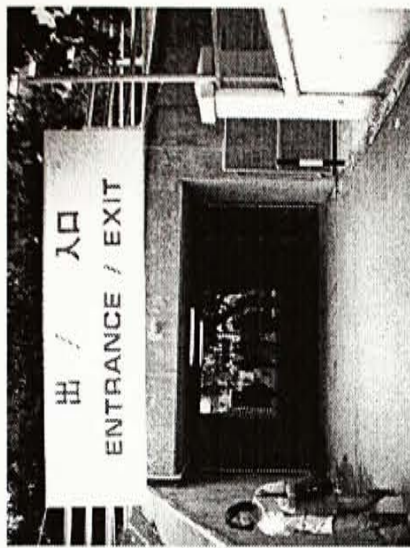


photo 3.3.4 Entrance (E)

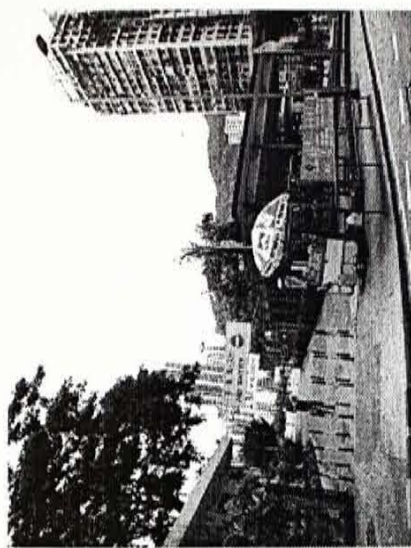


photo 3.3.5 Entrance (F)

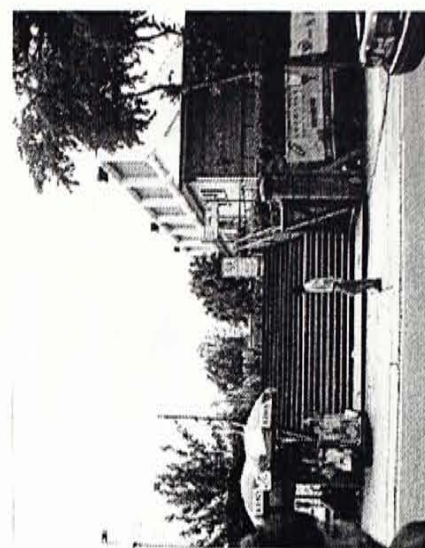


photo 3.3.6 Entrance (G)

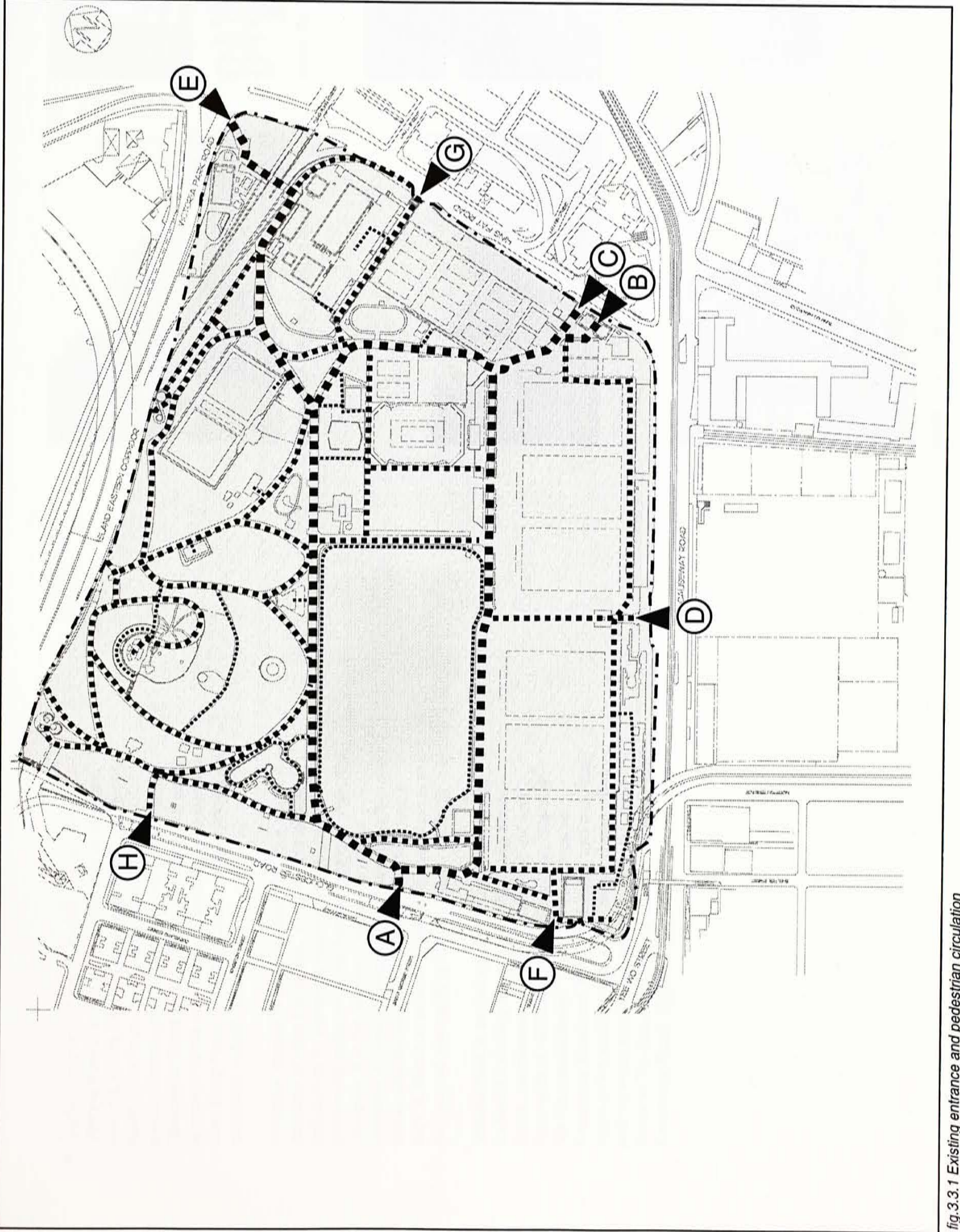


fig. 3.3.1 Existing entrance and pedestrian circulation

- *Vehicular circulation & public transport*

Victoria Park is surrounded by flyovers at all sides. Island Eastern Corridor, the major roads connecting North Point, is located to the northeast. The elevated road system linking Tai Hang Road and Gloucester Road and providing access to the south is located at the southwest. There are also flyovers over Tsing Fung Street and Lau Sin Street linking the west side. (photo 3.3.7 - 3.3.10)

Vehicular access is only possible from the east entrance at Hing Fat Street. A car park is located adjacent to it. However, some cars are parked temporarily adjacent to the football pitches. After the entrance, it is the intention to restrict normal vehicular access to selected part of the area by road blocks and the maximum speed of all vehicles is kept at 8km/h to ensure minimum disturbance to the landscaped surrounding. (photo 3.3.11 - 3.3.12)

Victoria Park is served by various modes of public transport including Mass Transit Railway, buses, trams, mini-buses and taxis. There are six and three exits of MTR stations at Causeway Bay and Tin Hau respectively. There are bus stops on Causeway Road and Hing Fat Streets and mini-bus stops at the south entrance and Sugar Street. Bus and mini-bus termini are situated under the Park Tower in Tin Hau. Tram stops are located along the Causeway Road. (fig.3.3.2)

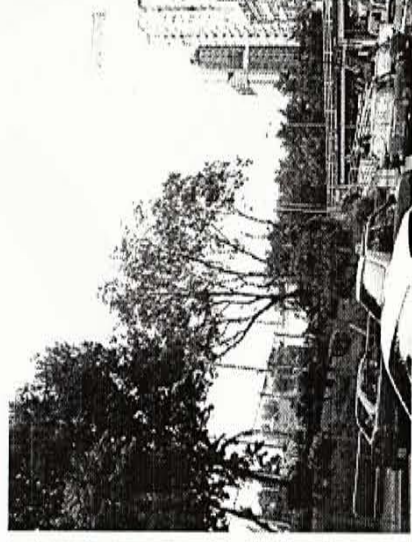


photo 3.3.7 Tsing Fung Street flyover

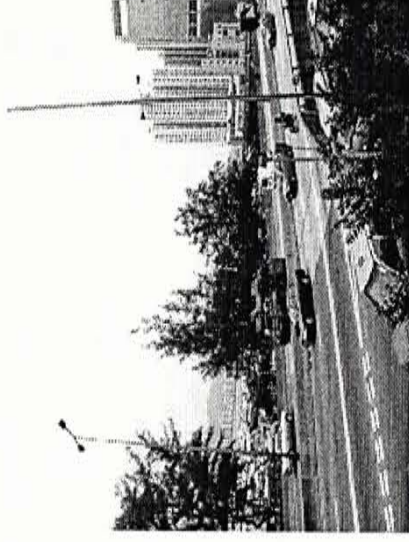


photo 3.3.8 Victoria Park Road

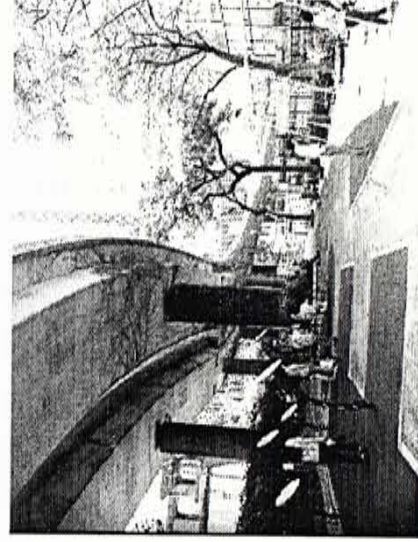


photo 3.3.9 Flyover to Moreton Terrace



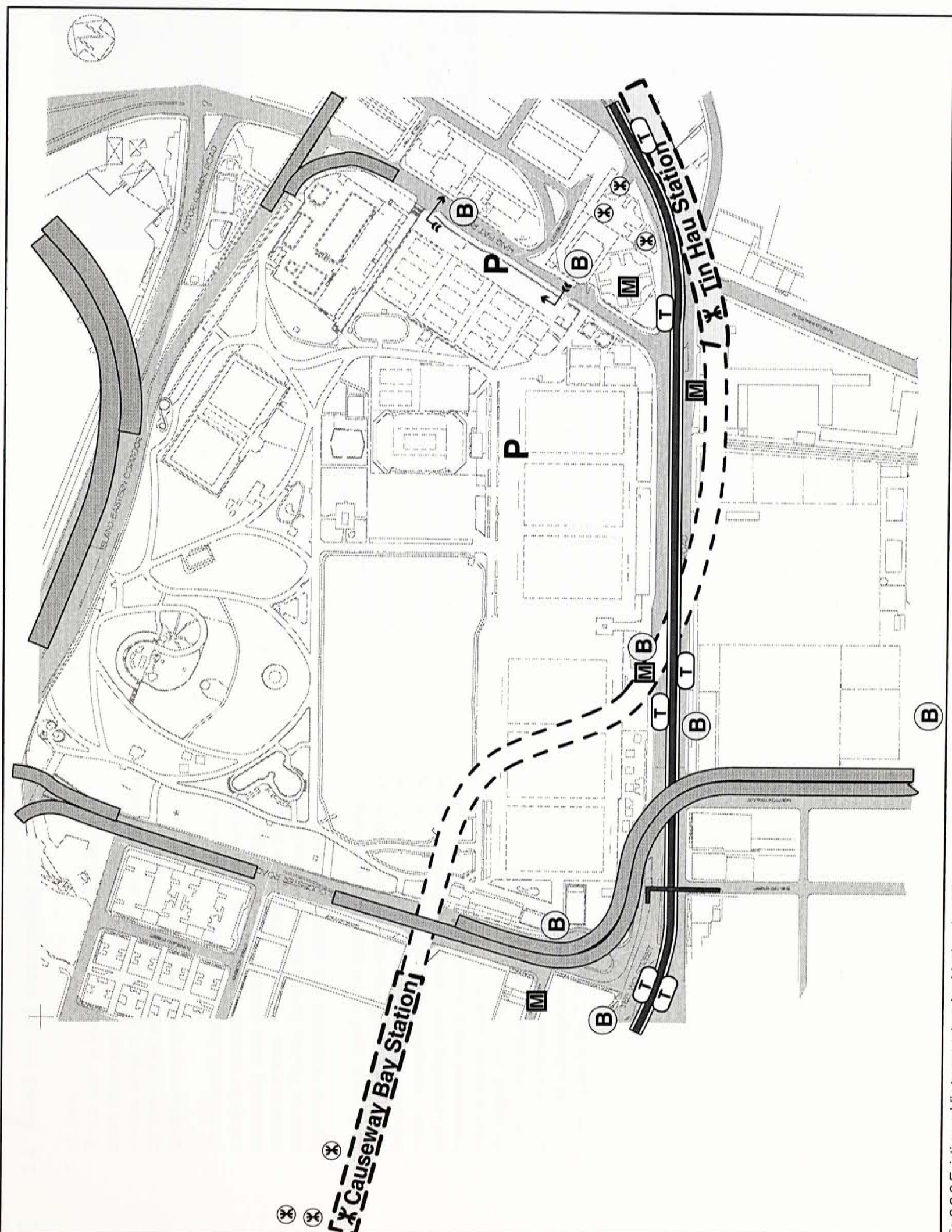
photo 3.3.10 Tram and bus stops at southern entrance



photo 3.3.11 Car park at Hing Fat Street



photo 3.3.13 Temporary carpark on football pitches



LEGEND










-  Vehicular road
-  Flyover
-  Tram route
-  Pedestrian bridge
-  MTR Station exit
-  Bus terminus
-  Tram station
-  Mini-bus stop
-  Car park

fig.3.3.2 Existing public transport and vehicular circulation

3.4 Land use of surrounding area

• Zoning

To the west of Victoria Park, Causeway Bay has been developed into a commercial district with various kinds of shopping, sports and entertainment facilities. A lot of commercial/residential developments are located there.

On the south, the developments in So Kon Po are mainly for recreation, government, institution and community uses whilst Tai Hang is mainly a residential area. Towards the mid-levels to the south of Tin Hau Temple Road, there is a blend of high-rise residential and educational developments.

To the east, most of the commercial/residential buildings and public housing estates are found on both sides of King's Road and Java Road in North Point. Along the waterfront in the east is a loading and unloading area. Since North Point is gradually transformed into a commercial/residential area, most of the old waterfront industrial site have been developed into large private housing estates and some of the industrial sites along King's Road have also been redeveloped for commercial uses. Industrial buildings are mainly found at the north-eastern part of North Point.² (fig.3.4.1)

• Neighbourhood

The urban spatial character of Victoria Park is very much defined by the high-rise buildings around. On the other hand, with the proposed central library on Moreton Terrace, the neighbouring facilities will probably form a major cultural, leisure, sports and recreational network in Causeway Bay. Some of the major neighbouring facilities are:

a. Causeway Bay Sports Ground

It comprises tennis courts and a green football field.(photo 3.4.1)

b. Moreton Terrace temporary playground

It comprises volley ball court and tennis courts (photo 3.4.2)

c. Chinese recreational Club

It is a recreational club for Chinese members only. There are tennis and badminton courts, billiards room, mah-jong rooms, swimming pool, restaurants, bar, table tennis room and car parks.(photo 3.4.3)

d. Tai Hang Resident's Welfare Association

It provides evening tuition courses for neighbouring residents like handicraft, folk dancing, secretarial courses, yoga, karate, Chinese kung-fu, language courses, etc.(photo 3.4.4)

e. Clubs under the Moreton Terrace flyover

Private and public clubs are found under the Moreton Terrace flyover:

- World War II Veterans Association
- Wan Chai District women's Association
- The Hong Kong Silver Jubilee Singers Society
- Wan Chai District Arts Cultural Recreational & Sports Association.(photo 3.4.5)

f. The New Central Library

It will be the Administrative Headquarters and the main library for the Urban Council Public Libraries system. (photo 3.4.6)

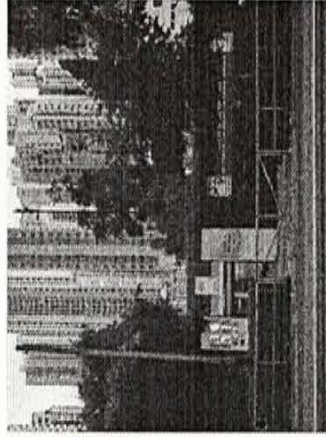


photo 3.4.1 Causeway Bay Sports

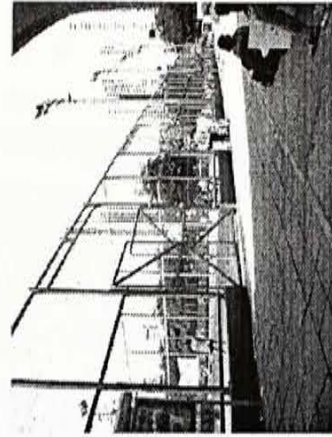


photo 3.4.2 Moreton Terrace temporary playground

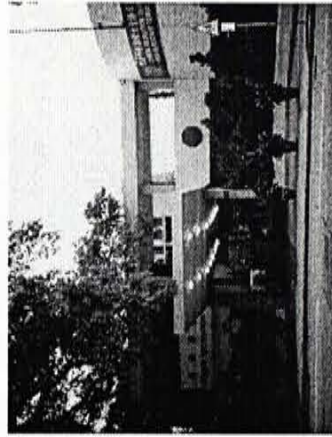


photo 3.4.3 Chinese recreational Club



photo 3.4.4 Tai Hang Resident's Welfare Association

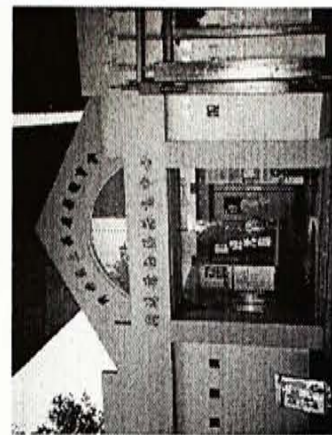


photo 3.4.5 Wan Chai District Arts Cultural Recreational & Sports Association

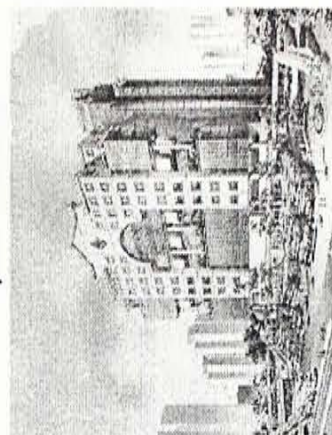


photo 3.4.6 The proposed Central Library³

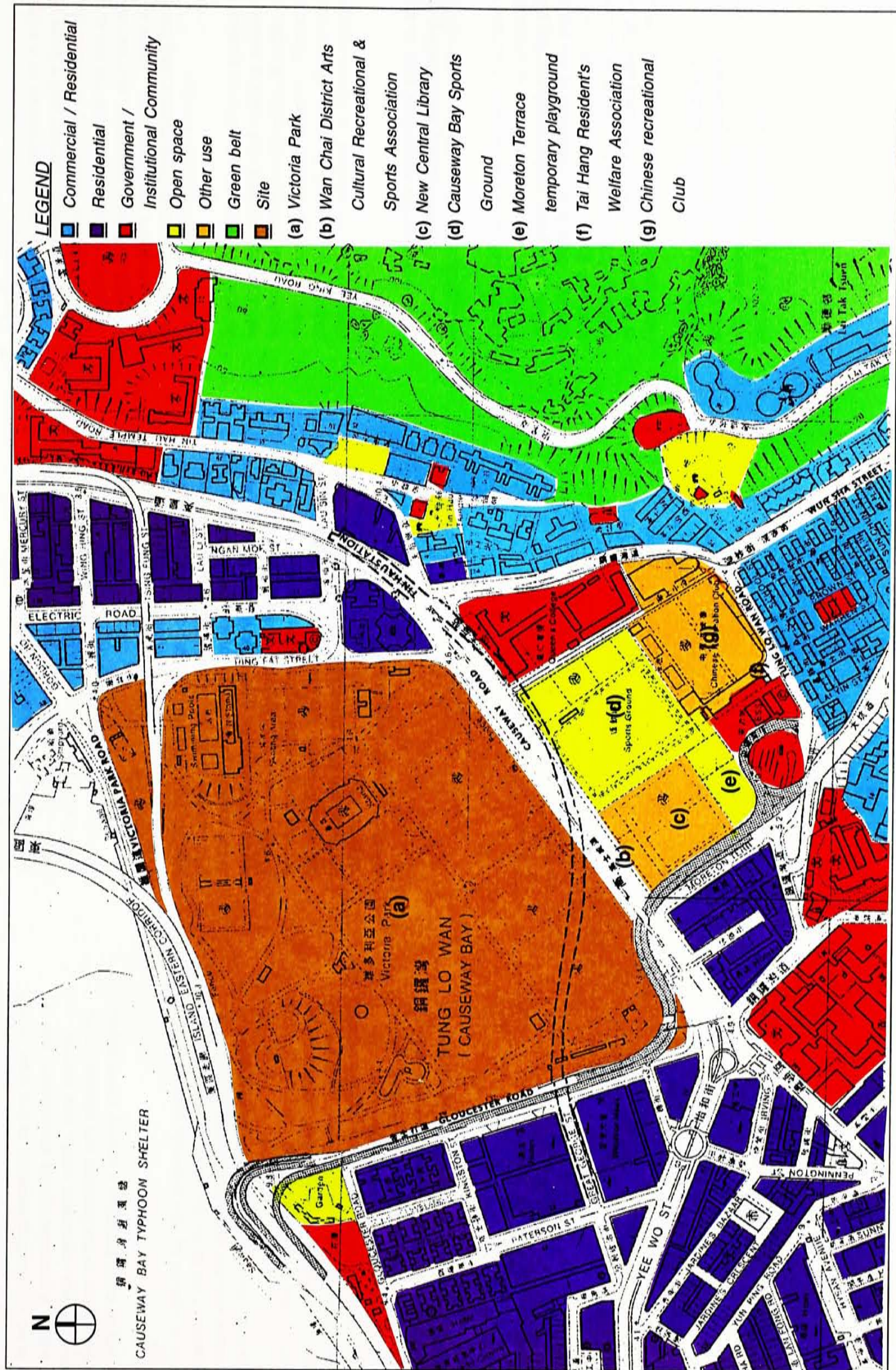


fig.3.4.1 Neighbourhood location and land use of surrounding area

3.5 Availability of services

- *Water Supply*

There is no impounding reservoir in the area. Fresh water supply is provided by the incorporated use of pumping stations, treatment works and service reservoirs. Most of the facilities are situated in the mid-levels so as to maintain a gravity water supply.⁴

- *Sewage*

The area is served by two separate system drains and sewers. One is for the carriage and drainage of storm-water and the other for the collection of sewage from households and other premises.⁵

- *Electricity, gas and telephone*

The area is adequately provided with other utilities such as electricity, gas and telephone services and no difficulties are anticipated in meeting the future requirements for utility services upon full development.⁶ Services such as electricity, gas, water supply, telephone lines and sewage disposal are readily available under the pedestrian footways of Causeway Road.

3.6 Physical environment

- *Noise & Air Pollution*

Victoria Park is enclosed by heavy traffic on four sides. Traffic noise and air pollution is especially severe along the flyovers in Causeway Road, Gloucester Road and Victoria Park Road.

- *Topography*

The site in Victoria Park is higher on the north-western part with the highest point near the flags and cannon is about 12.5m altitude and runs down to the relatively flat plane with the lowest point of about 3.9m altitude. The majority of the land is a gentle plane in the range of 4.0m to 5.0m. On the highest point, however, the view is blocked by the dense high trees. On the other hand, the swimming pool and the pool restaurant were built on a raised platform of about 7.0m altitude. It thus has a visual effect of looking down. (fig.3.6.1)

- *Landscaping*

Victoria Park can be conceived as a combination of a large landscaped garden and a large piece of hard surface for sports and recreational purposes. Generally, the northern part of the site is heavily wooded, with thick vegetation and tall trees. The southern areas are more open. There are quite a number of mature trees surrounding the whole park for shading and acoustic barrier.

To enter from the George Street, passing the mesh fence at the entrance and walking around the heavily landscaped frontage and aviary, it is the central lawn, a large piece of grassland. There is a paved jogging track around the lawn. On the peripheral, some areas are marked as fitness stations with sand surface.

Employment of the model boat pool as a water feature creates a relaxing and soothing atmosphere and provide practice area for model boat lovers.

On the north side, the footpaths meander through the denser landscape and rise up gradually as it arrive the highest platform with the flag poles and cannon. Next to the waterfront is the tranquil flat land with the soft landscape provide shade to the visitors. It then leads to a small landscaped garden at the junction of Hing Fat Road and Victoria Park Road forming the entrance from North Point.

On the east-western side abutting Hing Fat Street and Causeway Road, it is basically hard surface with a series of trees in rows to provide shade at the peripheral and walkways. (fig.3.6.1)



LEGEND



Landscaped area

fig.3.6.1 Existing topography and landscaping

3.7 Zoning and facilities

- *Active and passive zones*

Victoria Park is divided into sports, civic, public, semi-public and private zones.

The sports zone is located at the eastern part of the site. Tennis courts, basketball courts, squash courts, swimming pool and bowling greens are in this zone.

Civic zone is defined as the area where specified activities or functions like entertainment staging, community functions and public gatherings for politics are held. In Victoria Park, it is the multi-use hard-surfaced football pitches. They are mainly located on the southern part of Victoria Park.

Public zone is the open area where performance like the circus can be held. In Victoria Park, it is located in the central grass lawn next to Causeway Bay. In daytime, it is used for domestic ball games and socialising.

Semi-public zone is the transitional zone between the public and private zone. In Victoria Park, amenity facilities like the aviary, model boat pool, the band stand and cafe are placed there, which provides a variety of activities.

Private zone is defined as the area where passive facilities are provided for general relaxation and leisure purpose such as jogging, morning exercises, socializing, etc. This zone is located on the north-eastern part of Victoria Park. (fig.3.7.1)



photo 3.7.1 Bowling greens

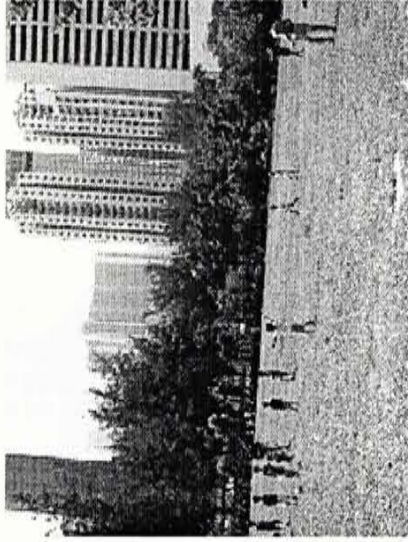


photo 3.7.2 Central lawn

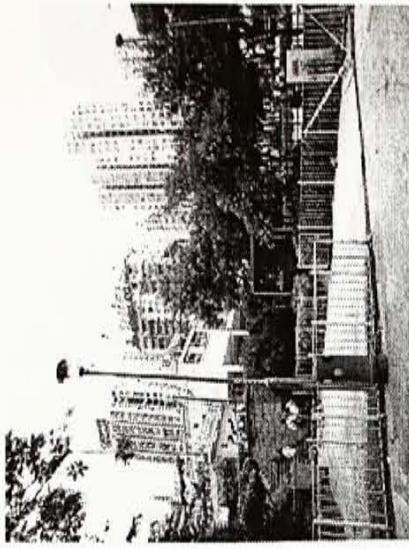


photo 3.7.4 Swimming pool

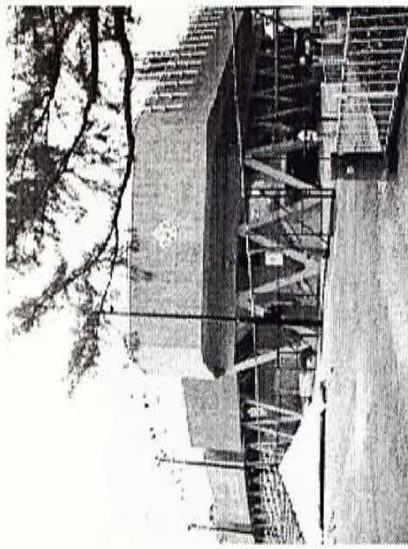


photo 3.7.5 Central Tennis Court

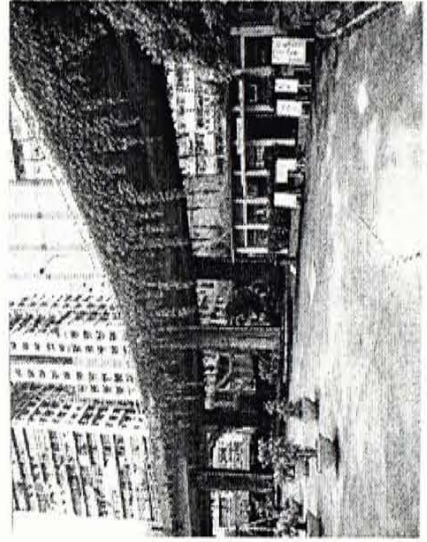


photo 3.7.3 Children library

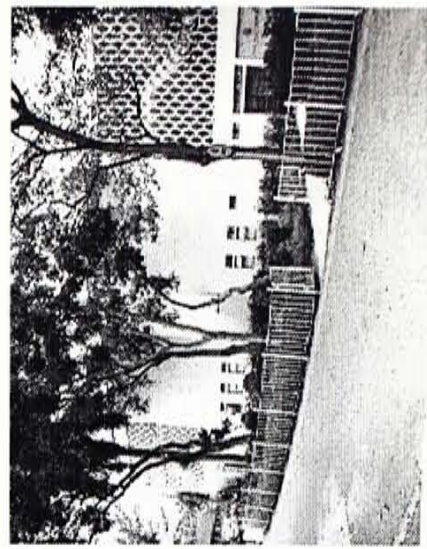


photo 3.7.6 Squash Court

- *Land use and amenity facilities*

In the sports zone, intensive sports facilities are provided for soccer, basketball, tennis, squash, roller skating, swimming, handball and bowling greens. The central tennis courts is situated in the middle of the park with the top forming the main court with a spectator stand whilst the park management office is placed on its ground level. The park is also supported by a number of public toilets, changing rooms and restaurants, storerooms, staff and boxing offices.

On the civic zone, it includes the six multi-use football pitches and four basketball courts. The statue of Queen Victoria signifies the entrance on the south. A toilet with disabled facilities is located on the Tin Hau side. On the entrance near Sugar Street, a pavilion is located. Besides, there is a small children library and a children playground under the flyovers on the south.

In the public zone, there is a central lawn where visitors like to lie on. It is observed that family gatherings and ball games. Additionally, staff office and storeroom are located there.

In the semi-public zone, there are model boat pool, jogging track, an aviary, a central lawn with fitness stations, pavilions, children playgrounds. A clock on the slope acts as a monument whilst the band stand forms a focal point in this area. This zone is also supported by a toilet and a cafe as well.

In the private zone, there is a pavilion located on the raised slope with three flag poles and two cannons as special features on the northern parts. It forms a gathering place for the old people at daytime and also serves as lovers' meeting point at night. Supporting facilities like the toilet is found. This area is furnished with a small tortoise pond. (fig.3.7.2) (photo 3.7.1 - 3.7.12)



photo 3.7.7 Football pitches

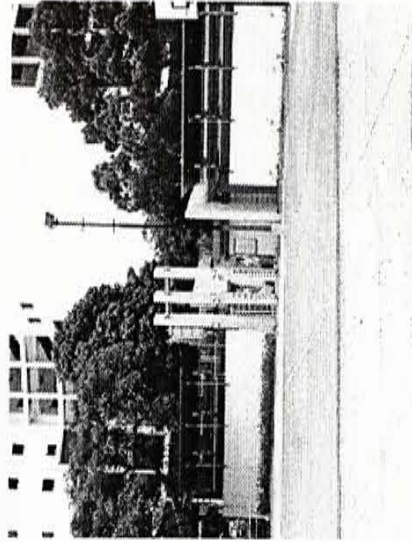


photo 3.7.8 Toilet at Hing Fat Street

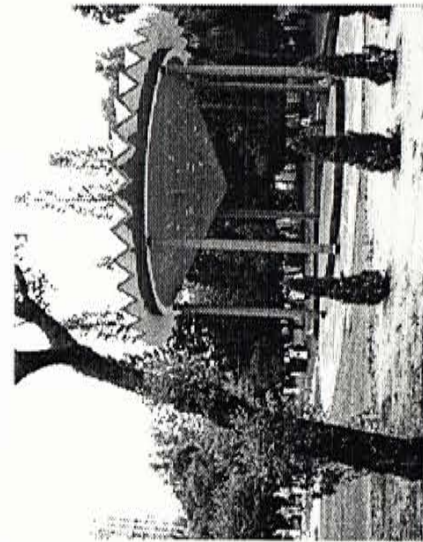


photo 3.7.9 The band stand

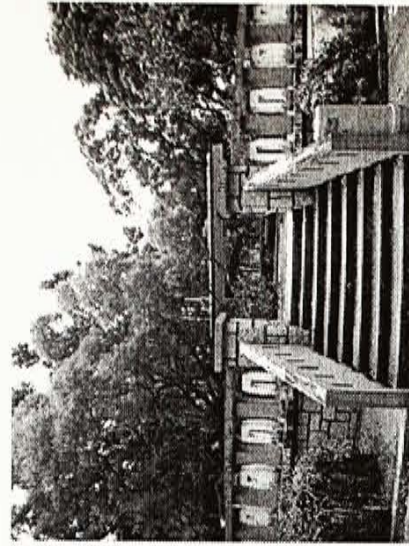


photo 3.7.10 Area around the flags

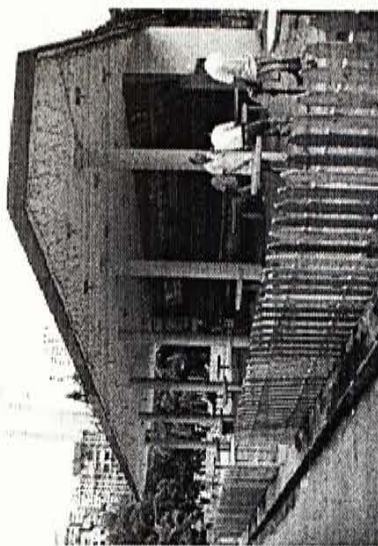


photo 3.7.11 The cafe

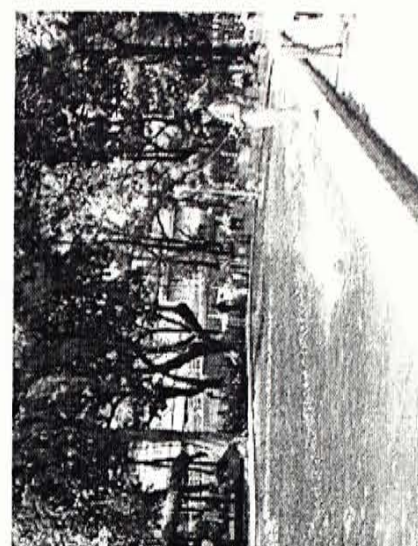
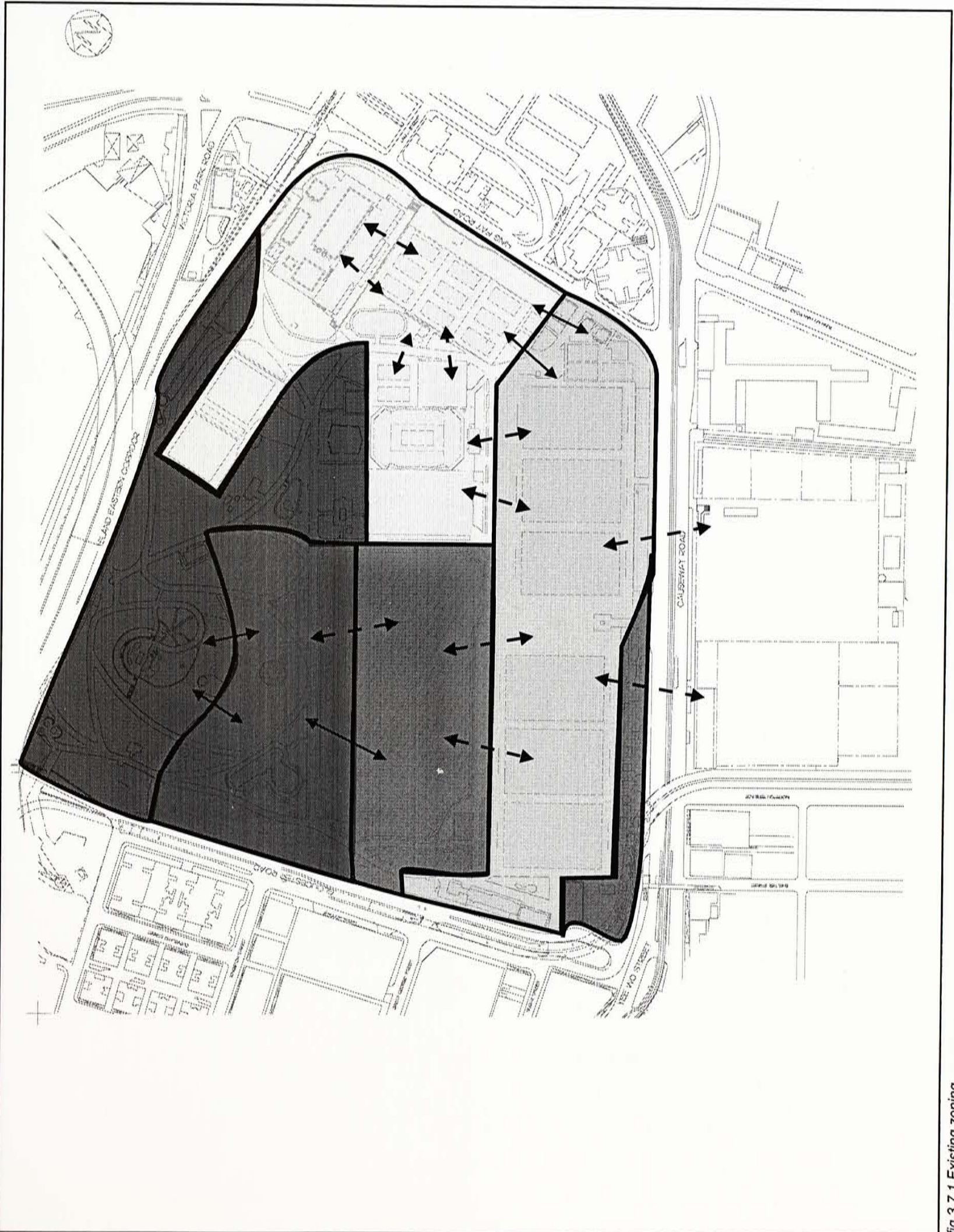


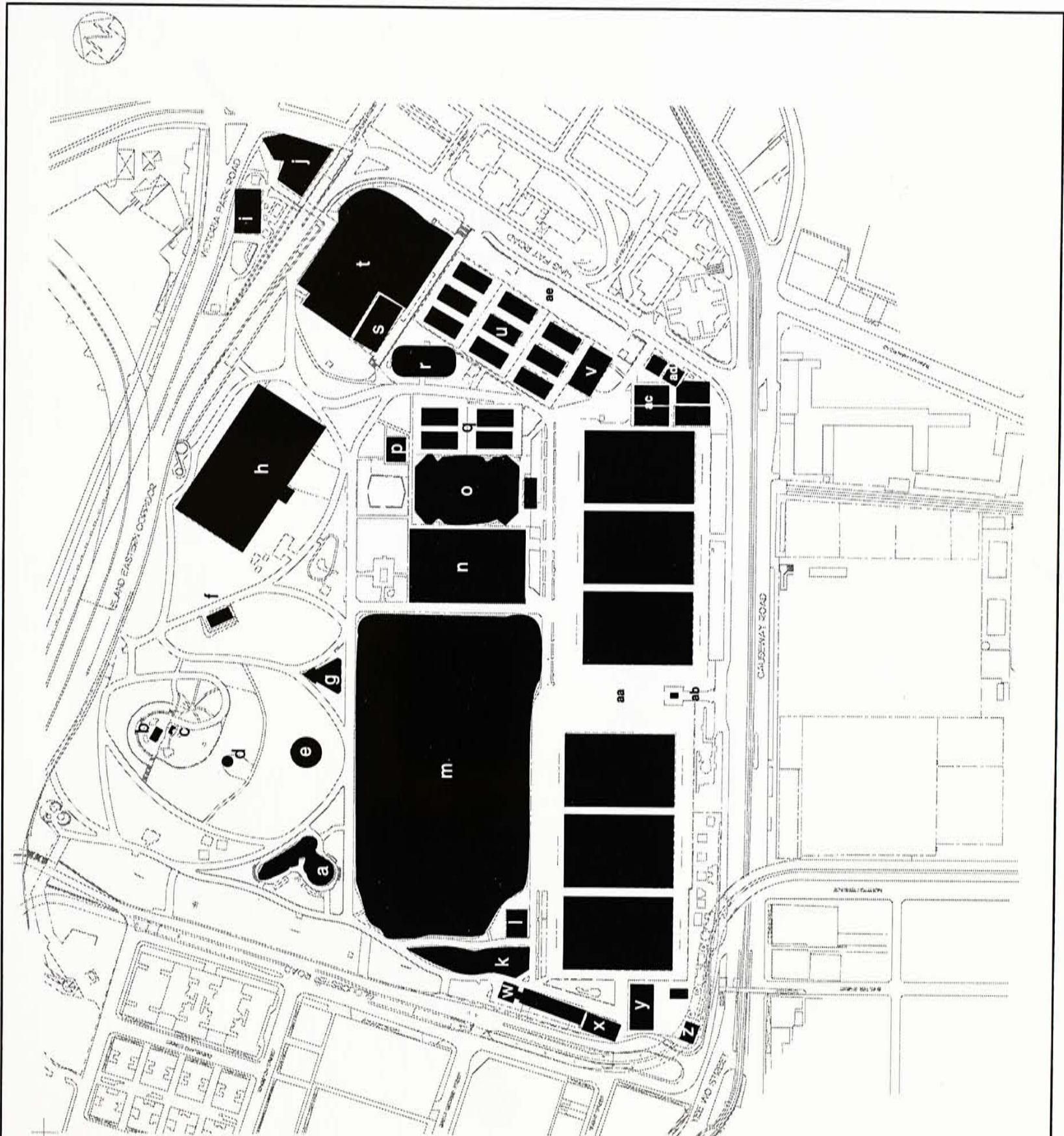
photo 3.7.12 Model boat pool



LEGEND

- Sport zone
- Civic zone
- Public zone
- Semi-public zone
- Private zone
- Physical relation
- Visual relation

fig.3.7.1 Existing zoning

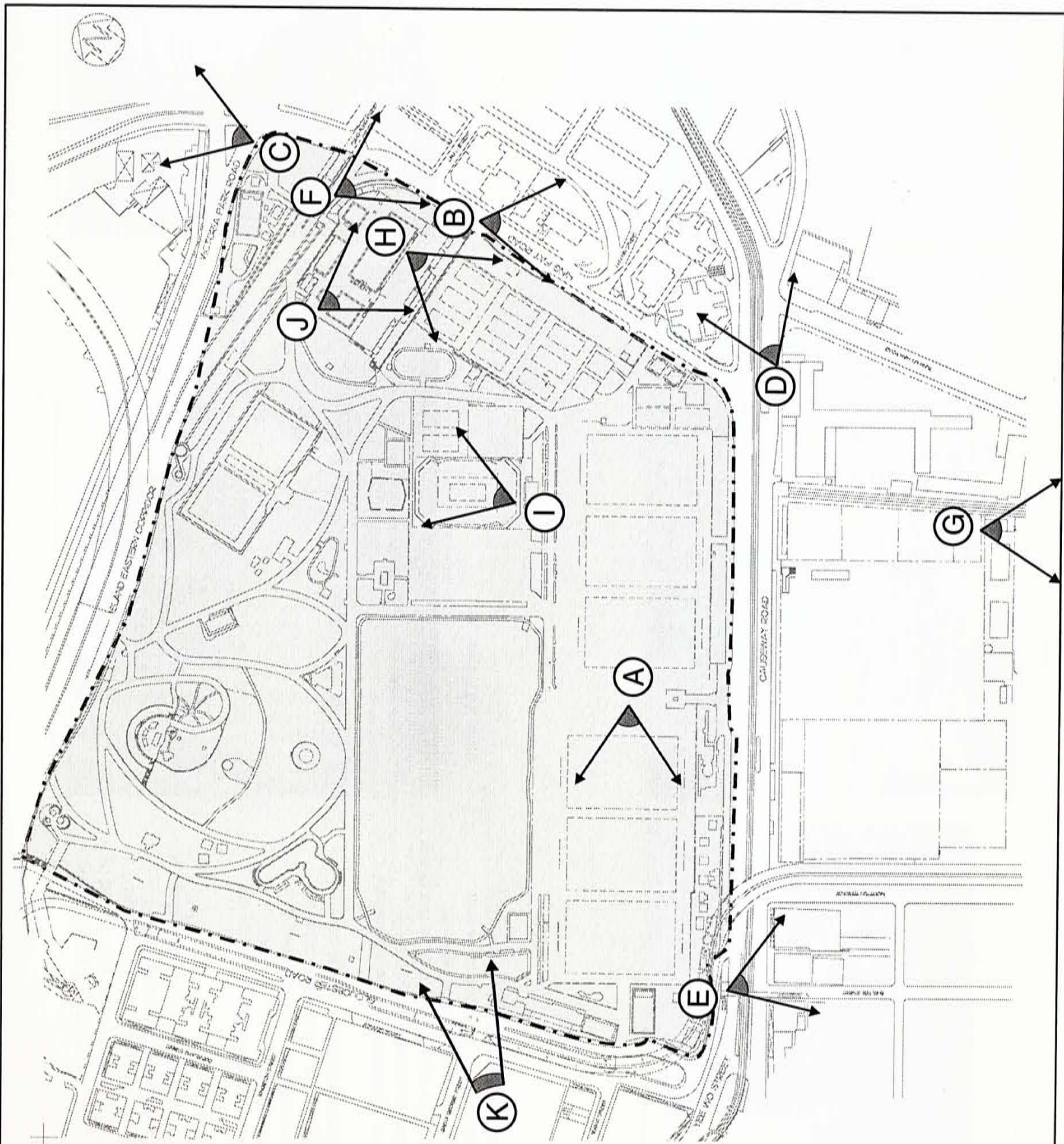


LEGEND

- a. Model boat pool
- b. Pavilion
- c. Flags and cannons
- d. Clock
- e. Band stand
- f. Toilet
- g. Cafe
- h. Bowling greens
- i. Pavilion
- j. Garbage collection
- k. Aviary
- l. Office
- m. Central lawn
- n. Handball court
- o. Central tennis court
- p. Changing rooms
- q. Tennis courts
- r. Skating rink
- s. Restaurant
- t. Swimming pool complex
- u. Tennis courts
- v. Squash court
- w. Workshop, store
- x. Toilet
- y. Pavilion
- z. Children library
- aa. Football pitches
- ab. Statue of Queen Victoria
- ac. Basketball court
- ad. Toilet
- ae. Carpark

fig. 3.7.2 Existing amenity facilities

3.8 Visual structures



LEGEND


 The site

fig.3.8.1 Photo key map

- *Views towards the park from the surrounding Victoria Park is a piece of gentle land surrounded by the high-rise blocks and flyovers. The views are thus unblocked. One can look over the entire Victoria Park from the high-rise in Causeway Bay and Tin Hau.*

On the southern side, however, the buildings are generally recessed against the hill. One will probably get a better view from the apartments up the hill. Lower angled view will be seen from the flyovers of Island Eastern Corridor on the north.

However, this site is surrounded by dense mature trees. It forms a visual obstacle when people approach the park. The southern side does not give the sense of a park because of the location of football pitches and carpark. The central tennis court is the only high visual elements in the park.



photo 3.8.2 View (B)

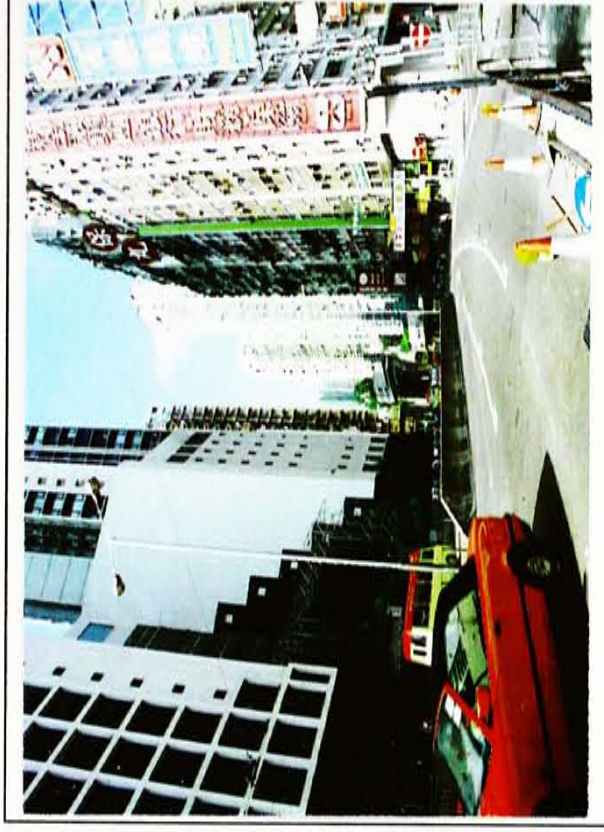


photo 3.8.4 View (D)



photo 3.8.1 View (A)

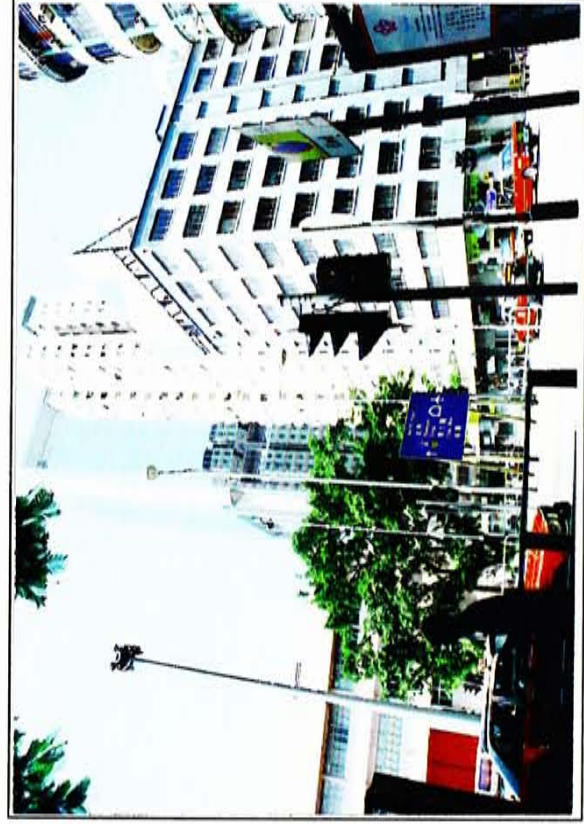


photo 3.8.3 View (C)



photo 3.8.5 View (E)

- *Views towards the surrounding from the site*
As the park is generally flat, high-rise commercial centres and residential towers in Causeway Bay and Tin Hau are clearly seen without obstruction.

Although the high-rise apartments block the view to the south, one can have a glimpse of hills at the back. Moreover, the raised platform to the swimming pool offer good views to the tennis courts, football pitches and surrounding residential area on the south.

The view towards the north is the Causeway Bay typhoon shelter and Island Eastern Corridor flyovers. The photo key map (fig. 3.8.1) shows the various view of the surrounding area and the park. (photo 3.8.1 - 3.8.11)

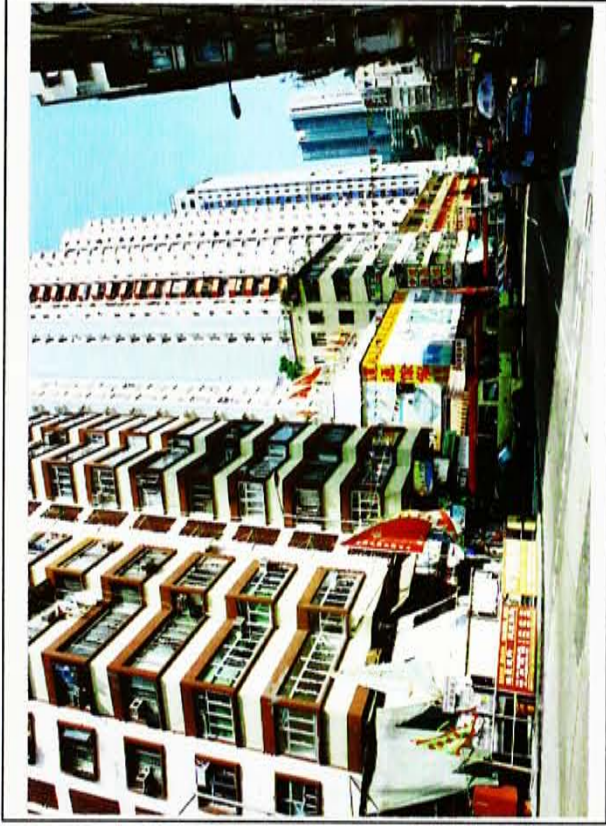


photo 3.8.7 View (G)



photo 3.8.9 View (I)

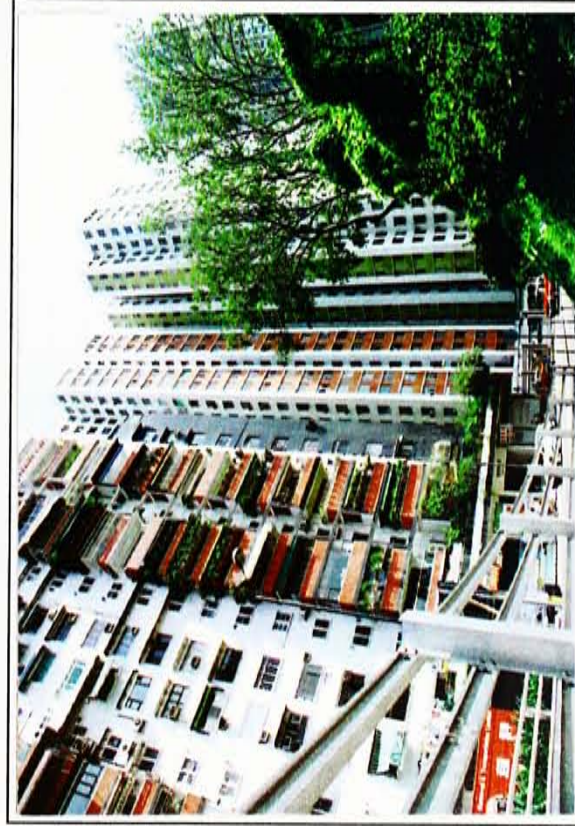


photo 3.8.6 View (F)



photo 3.8.8 View (H)



photo 3.8.10 View (J)

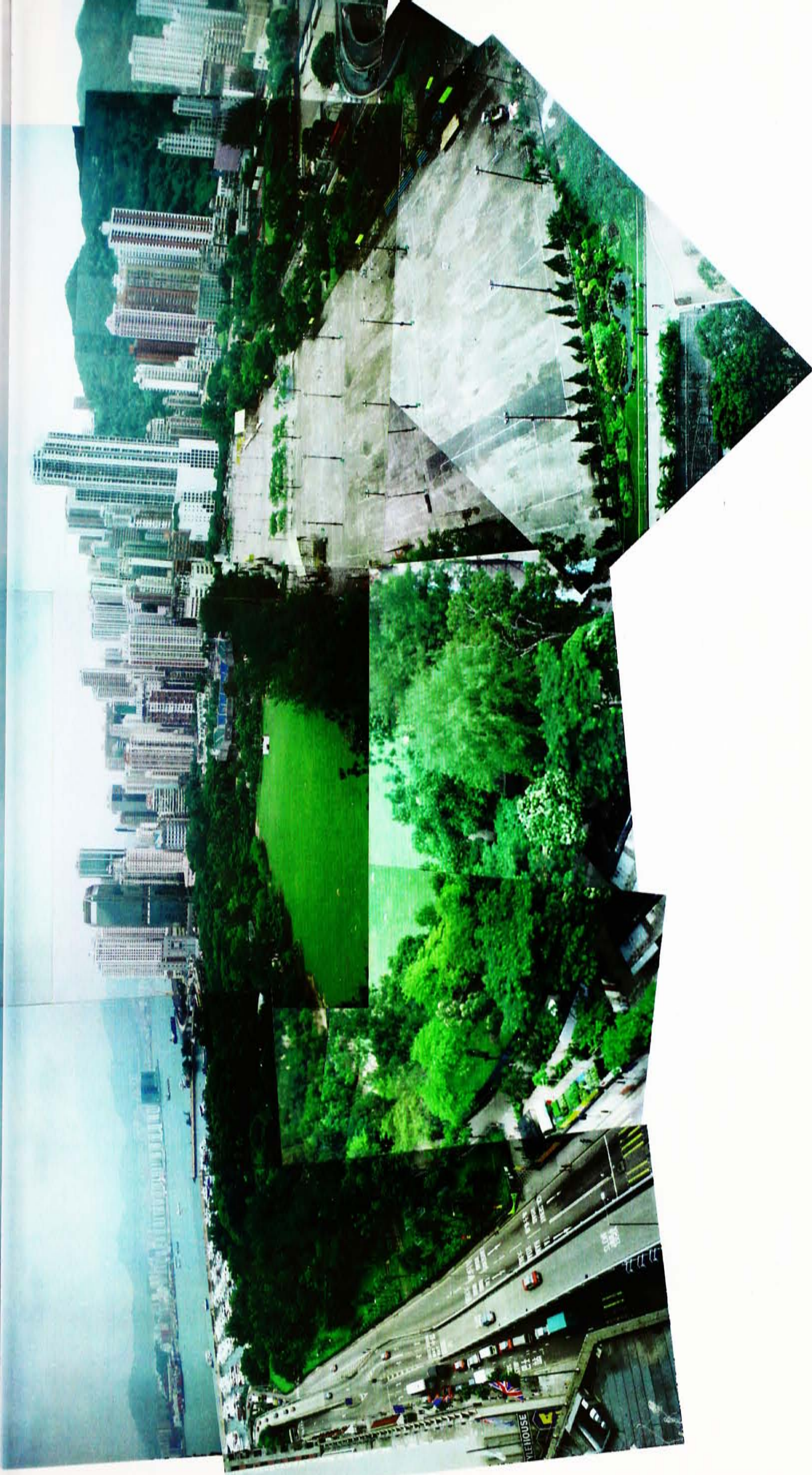


photo 3.8.11 View (K)

3.9 Activities

- *Activities on a day*
The following are the activities observed in Victoria Park during weekdays.⁷

Time	User group	Place	Activities
7:00 - 9:00am	young group, old people, housewives and a few foreign people	pedestrian path	lots of people use the path for circulation and jogging; park staff do the clean-up and watch around
	young group, old people, housewives and a few foreign people	fitness stations	some people use the facilities for morning exercises like sit-up.
	young group, old people, housewives and a few foreign people	jogging track	many people jogging, walking
	old people	seats	fully occupied for socializing, reading newspaper and listening to the walkman
	old people, housewives	central lawn	group exercises, like tai chi, sword playing and dance are very popular here. Most of them follow their leaders while a few play on their own. Some even bring with their own music. Park staff do the clean-up
	old people, housewives	hard surface	a few group exercises, like tai chi, sword playing
	young group	tennis court	increasing number of people come and play tennis
	male secondary school students	football pitches, basket ball court	students, mainly boys, play ball games before the commence of the swimming gala in swimming pool; some people sleep take a rest on the platform
	secondary school students and teachers	swimming pool	students and teachers gather before the commence of the swimming gala
	female secondary school students	skating rink	students, mainly girls, rehearsal the cheer slogans before the commence of the swimming gala
	morning exercise people	cafe	the snack bar has not opened and some people take a rest on the tables and stools
	young group, old people, housewives and handicapped	space around the band stand	a lot of people doing morning exercises under the trees around the band stand; a few of them relax under the pavilion; a certain number of physically challenged people lean against the trees, relaxing and doing a little exercise
	young group, old people, housewives with children	model boat pool	a few people group around the pool but no one play model boats on the pool
	mainly old people	space around the flags and cannon	a lot of old people socialize and play birds, some temporary seatings are available
	old people and housewives	children playgrounds	only a few children play here

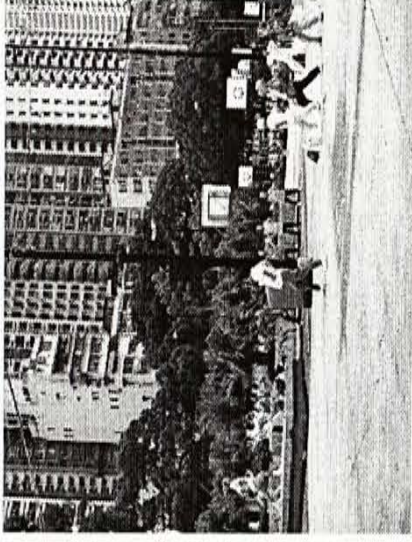


photo 3.9.1 Morning exercise on hard surface

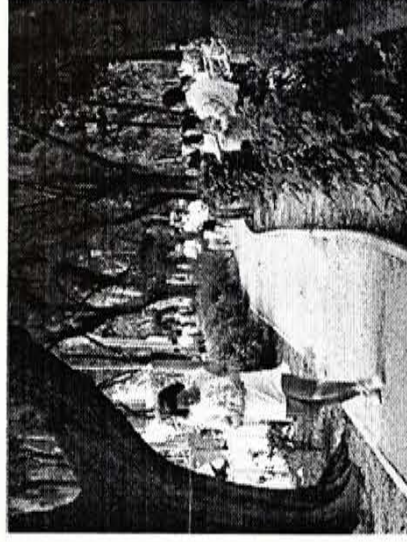


photo 3.9.3 Jogging on jogging track



photo 3.9.5 Old people gathering near the flags



photo 3.9.2 Morning exercise on central lawn



photo 3.9.4 Exercise in fitness station

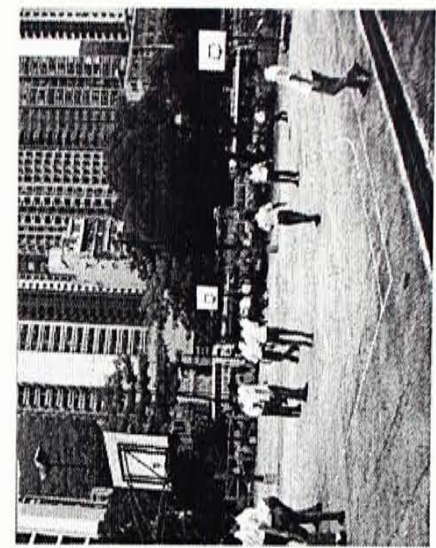


photo 3.9.6 Students play ball games

9:00 - 11:00am	young group, old people, housewives and a few foreign people	pedestrian path	after morning exercises, a lot of people head for Causeway Bay, Tin Hau and North Point circulate in the park; park staff watch around on their vehicle
	young group, old people, housewives	central lawn	a few group of exercise people still remains
	young group, old people, housewives	space around the band stand	some people gather, do exercise; interestingly, social dance teams begin at this time
	young group, old people, housewives and children	children playground and model boat pool	more children come and play there
	park staff	hard surface	park staff begin decoration works for special events; not many people over there; some service vehicles pass around
	old people and housewives	seats	occupied for social gathering, reading newspaper, listening to the walkman
11:00am - 1:00pm	different kind of people	pedestrian path	some people use it as circulation
	different kind of people	other space in the park	minimum number of people in the park at this time
1:00pm - 2:30pm	office workers	pedestrian path	a lot of office workers circulate in the park for lunch and after lunch
	male secondary school students	football, basket ball court	students, mainly boys, play ball games after lunch prior to the second part of swimming gala
	office workers, old people	cafe, restaurant	a few people have their lunch in the cafe and restaurant of the park
2:30pm - 5:30pm	old people, young group, children, philippines, handicapped,	central lawn	philippines bring with children, relaxing; some people play ball games and do exercise; some old people sketch the scenery here
	old people and policemen	space around the flags and cannon	chattering, gambling; it is a dirty place and some people even urinate over there
	secondary students	hard surfaced football pitches	secondary students play ball games
	all kinds of people	jogging track	increasing number of people jog here
5:30pm - 7:30pm	a lot of lovers, office workers and other people	pedestrian path	use as circulations; it is noted that pedestrians from North Point prefer the path on the north while the people from Causeway Bay use both
	family, children and other people	cafe, the band stand	more people group under the well-lit band stand and cafe; children play "BMX" bicycle under band stand
	lovers	space around the flags and cannon	old people leave and a lot of lovers like to settle in the quiet corner with dim lighting
7:30pm - 9:30pm	young group	hard surfaced football pitches, sport facilities	a lot of people play ball games in the active zone, making it an energetic space
	old people	pavilions next to Sugar Street	a lot of old people play chess, socialise



photo 3.9.7 Old people occupy the seats

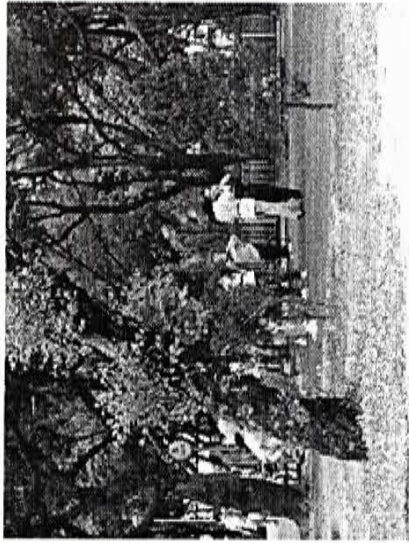


photo 3.9.8 Social dance near the band stand

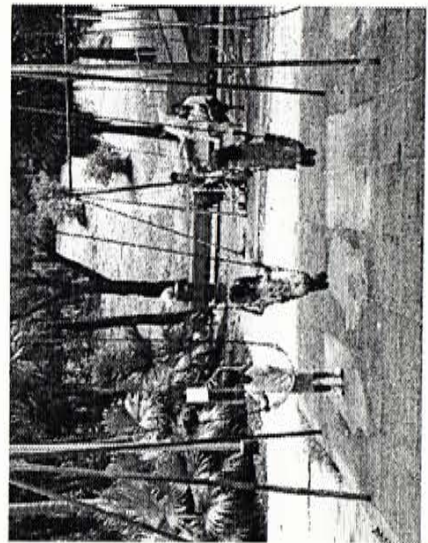


photo 3.9.9 Children play in playground



photo 3.9.10 Philippines gather on central lawn

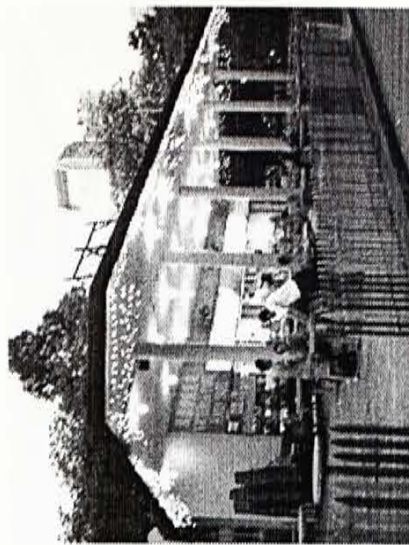


photo 3.9.11 A few people gather in cafe at night

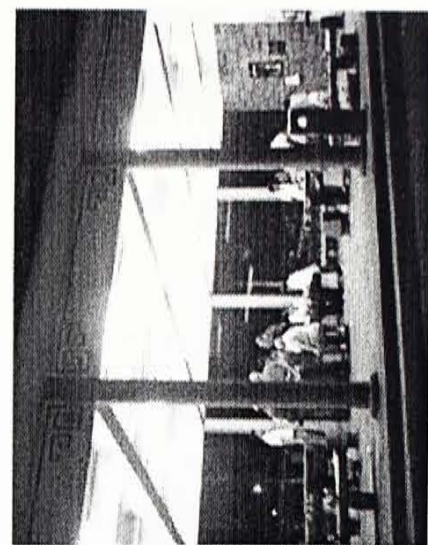


photo 3.9.12 Old people gather in pavilion near Sugar St.

- *Activities on weekends and Sundays*

On Sundays and holidays, there are a lot of people come to Victoria Park for leisure, sports, relaxation and socialisation. They are come from the places all over Hong Kong. Interestingly, a large proportion of philippines like to group in the park. They often gather in groups, socializing, reading and eating. They behave casually and like to lie on the lawn.

Besides, all the sports facilities are occupied by the energetic people. There are also some sports teams wearing uniform found on the landscaped area, practising and doing exercise. More importantly, some old people, sick people or physically challenged would like to do certain degree of exercise in the park.

A weekly Public Forum organised by RTHK, the government radio broadcast, is held under the band stand every Sunday from 12:00noon to 1:00pm. Prior to its commence, there are a lot of people, especially the elderly, gather near the band stand and the area around the flag poles and cannon, talking about politics. The people with permission are allowed to sit under the band stand and voice their opinions. On the other hand, the other people have to content with standing behind and listening. A lot of policemen, safe guard and first aid staff are on duty to preserve the order. In order to support the forum, quite a number of lorries and service cars have to drive in and out the park, causing certain degree of disturbance to the visitors.



photo 3.9.13 Phippines gather on Sunday

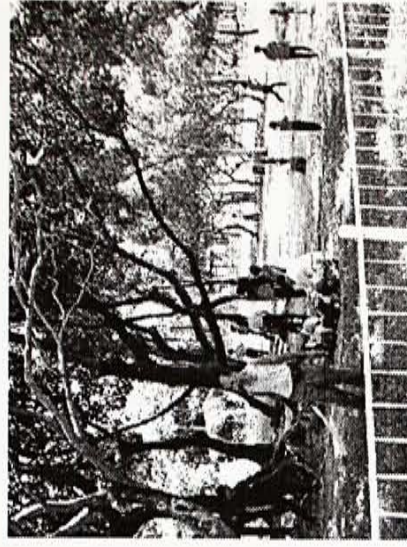


photo 3.9.16 Training teams on Sunday

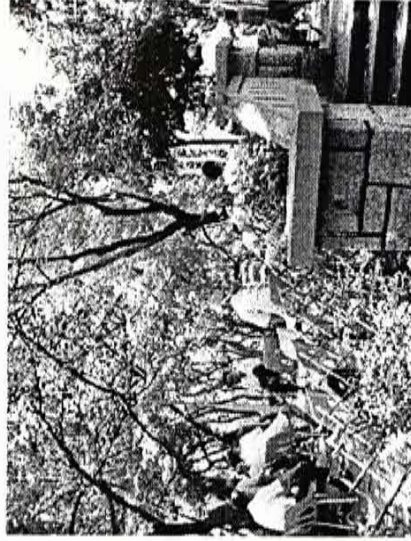


photo 3.9.14 Talking politics near the flag

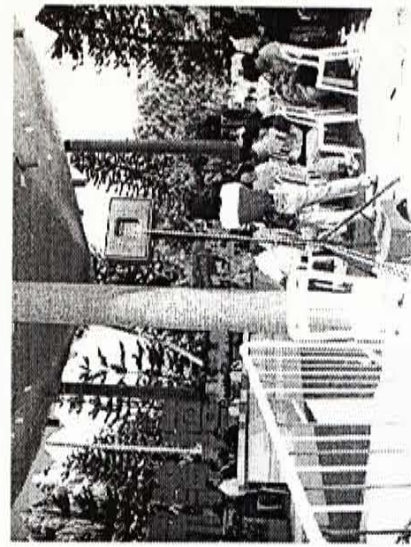


photo 3.9.17 Public Forum on Sunday



photo 3.9.15 Supporting vehicle for Public Forum

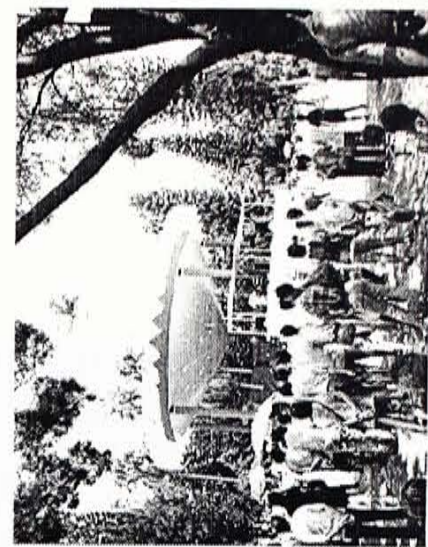


photo 3.9.18 "Audience" of Public Forum

- *Special events*

Apart from the annual events of Lunar New Year Fair, New Year count-down, Mid-Autumn Lantern Carnival and the biennial event of Flower Show, Victoria Park is also the venue for public gatherings for political purpose. The park can accommodate ten thousands of people in these events.

The six football pitches is often utilised for functions because of its large size and flexibility. Various stalls and stages are put there. Decorations are put on light poles beforehand. It is often the starting point for large-scale campaign and demonstration.

The central lawn is also acts as an venue for large-scale staging. In this case, some tent structures are erected temporarily there. In Mid-Autumn Lantern Carnival, the central lawn is also utilised by the visitors for celebration and lighting lantern and candles. However, there are often complaints about the huge amount of garbage accumulated on the ground afterwards.

In some cases, the band stand, the symbol of democracy and freedom of speaking, is decorated with political slogans.



photo 3.9.19 Victoria Park was a starting point for the "Walking to Beijing" activity⁸

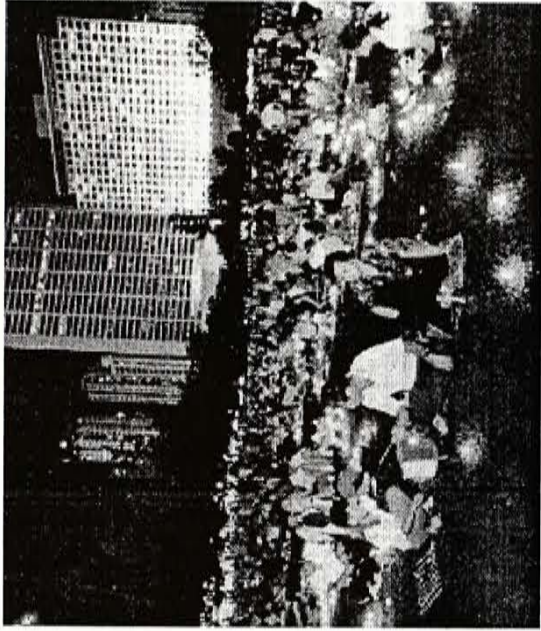


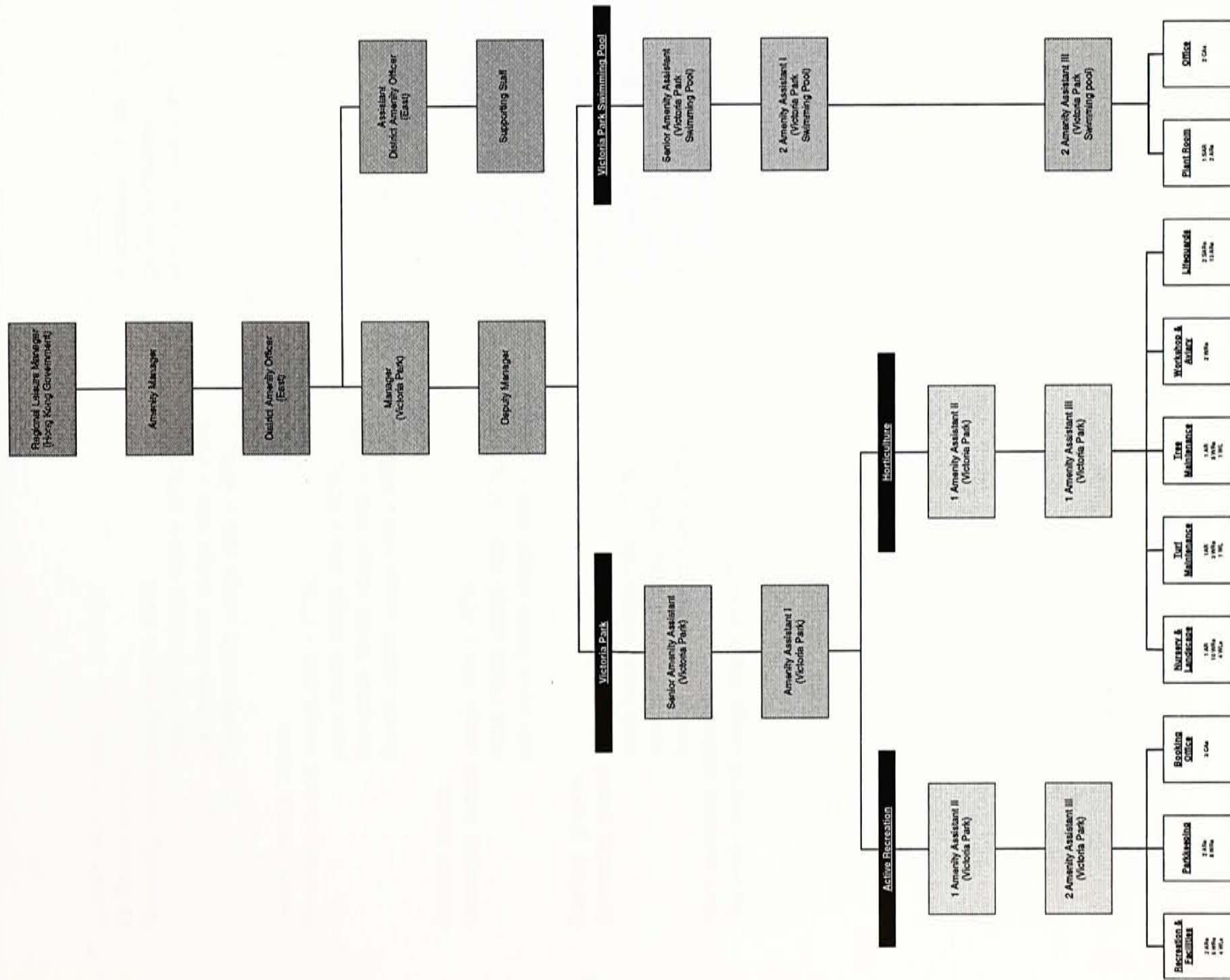
photo 3.9.20 Crowds in Mid-Autumn Lantern Carnival⁸



photo 3.9.21 Crowds in political ceremony¹⁰



photo 3.9.22 The band stand was decorated with democracy slogans in Mid-Autumn Lantern Carnival



Strength of Victoria Park Swimming Pool

Amenity Officer(AOI) I	0
Amenity Officer(AOII) II	0
Senior Amenity Assistant(SAA)	1
Amenity Assistant I (AAI)	2
Amenity Assistant II(AAII)	0
Amenity Assistant III(AAIII)	2
Clerk Assistant(CA)	2
Senior Artisan(SAR)	3
Artisan(AR)	13
Workmen(WR)	0
Labour(WL)	0

Strength of Victoria Park

Amenity Officer(AOI) I	1
Amenity Officer(AOII) II	1
Senior Amenity Assistant(SAA)	1
Amenity Assistant I (AAI)	1
Amenity Assistant II(AAII)	2
Amenity Assistant III(AAIII)	3
Clerk Assistant(CA)	3
Senior Artisan(SAR)	0
Artisan(AR)	7
Workmen(WR)	33
Labour(WL)	10

Total: 62

fig.3.10.1 Organizational structure of District Amenity Office (East) and Victoria Park Management Office

- *Usage rate of amenity facilities*

13 Tennis courts:

Generally, overall usage rate > 85%;
peak hours usage rate > 95%;
non-peak hours usage rate > 75%;
floodlit courts usage rate > 95%.

Central tennis courts:

Generally, overall usage rate > 70%;
peak hours usage rate > 90%;
non-peak hours usage rate > 40%;
floodlit courts usage rate > 95%.

Squash courts:

Generally, overall usage rate > 30%;
peak hours usage rate > 45%;
non-peak hours usage rate > 10%;

Bowling greens:

Generally, overall usage rate > 15%;
peak hours usage rate > 15%;
non-peak hours usage rate > 10%;
floodlit courts usage rate > 25%.

Hard-surfaced pitches:

Generally, overall usage rate > 50%.¹⁶

- *Garbage disposal*

A contractor is responsible for the daily cleaning and garbage disposal of the park. A garbage collection is located near Tsing Fung Street.¹⁷

- *Special event arrangement*

On special events, meeting will be held between other Government Departments beforehand regarding access, staging and control. The park will provide staff to assist the organiser, but the arrangement is up to the organiser.¹⁸

Owing to the large inflow and outflow of the crowds, the ingress and egress has to be considered carefully. To facilitate the flow of people, some of the gates only allow for either ingress or egress. The arrangements are different among different functions. In general terms, the entrance of Great George Street and Hing Fat Street are mainly for ingress due to the great number of people coming from the MTR stations. The egress point are located at the east, south and west side of the multi-use football pitches. (fig.3.10.2)



photo 3.10.4 Decoration works for special event

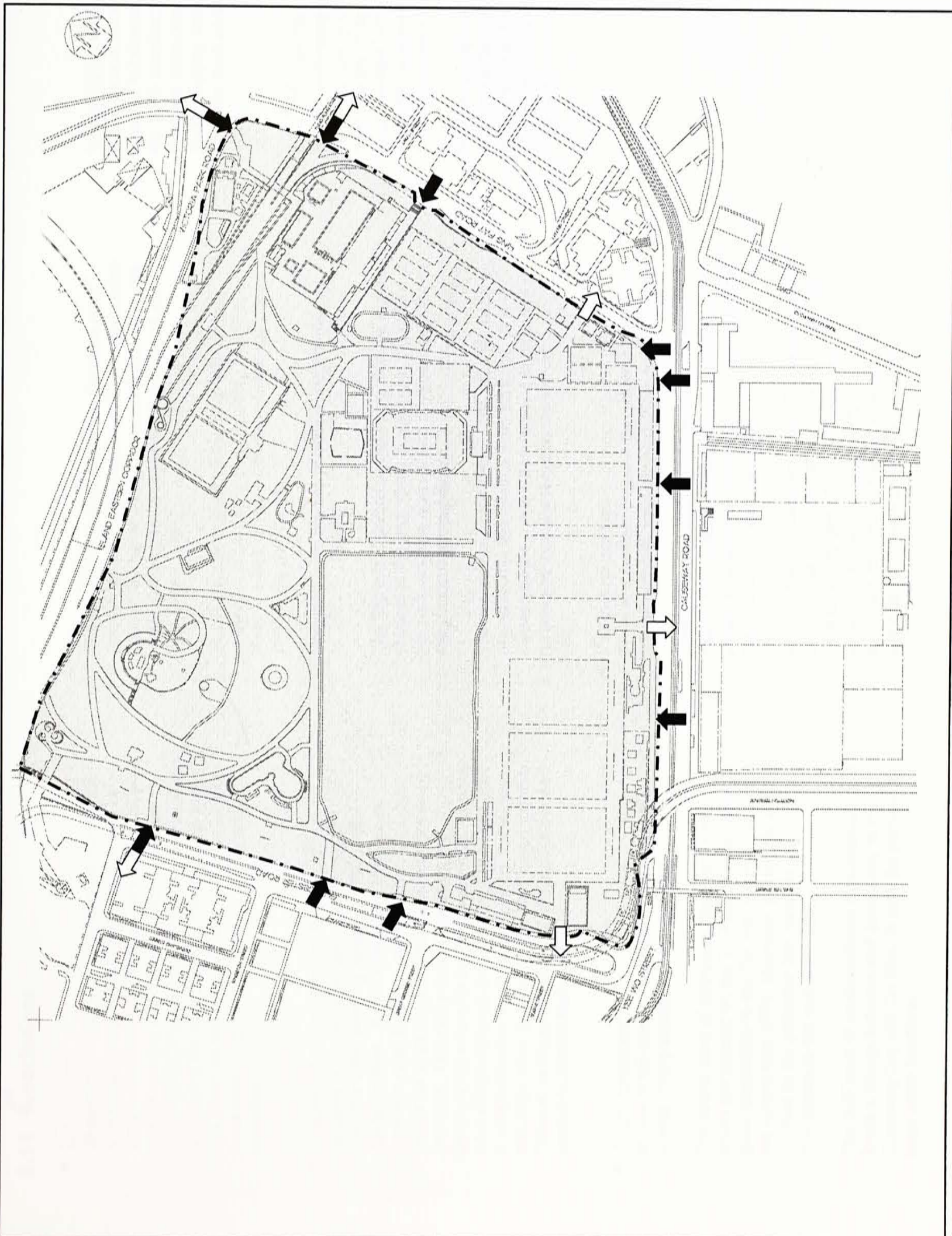


fig. 3.10.2 One example of ingress and egress in 1996 Mid-Autumn Lantern Carnival

3.11 Conclusions

- *Costly land*

Situated in the midst of highly densified commercial area in Causeway Bay, the large piece of land of Victoria Park is thus considered very costly. Coupled with the existing urban fabrics which is already overcrowded, it is advisable to give preference to the reduction of the visual building density of the park and blend the buildings with the landscape to allow more room for greenery space for leisure and relaxation.

- *Unique situation in Hong Kong*

Because of the proximity and convenience of Victoria Park, the initial planning allocated 60% of land to sports facilities. As the time grows, there is an insatiable need for large open space in the urban district for large scale entertainment and gathering functions. This rare piece of land therefore becomes the venue for the above activities. Judging from what mentioned above, Victoria Park becomes a unique situation in Hong Kong where the sports and large scale multi-functional area mixed together. There is no any preconceived park typology can be applied to Victoria Park directly.

- *Multi-functional*

In view of the need for a multi-functional park, the overall zoning strategy is basically valid.

The sports zone of swimming pools and tennis courts are situated on the Tin Hau side perimeter. It gives accessibility to the Tin Hau neighbourhood and the visitors from MTR. Moreover, placing the sports facilities to the perimeter can minimize the disturbance to the rest of the park.

The civic zone of multi-functional hard-surfaced area forms a linkage between and accessibility to the Causeway Bay and Tin Hau. It suits the purpose for large scale functions.

The lawn and the area surrounds the band stand forms a transition between the civic zone and private zone of the higher slope. The area is noticed by the visitors and some functions like the circus is also held there.

To put the private zone up the slope with densely vegetation is considered appropriate. However, there is a lack of visual linkage between the private zone to the public zone.

However, there are two problems with the existing location of facilities.

The first one is central tennis court. It is the highest element in the park which is placing in the middle of the park, creating a visual and physical obstacles to the tranquil surroundings.

The second one is the aviary. The open air aviary is placed next to the western main entrance. It is considered too public. Sometimes it is protected by canvas and thus unnoticed by the visitors.

- *Activities pattern*

There is a contrast between the activities pattern in private and civic zone during daytime and nighttime.

Owing to the sunshine in daytime, most of the visitors stay under the shade of the trees in the private zone whereas the hot hard-surfaced area in the civic zone is less well-used.

At night, the reversed happened. The students and officers after school and work gathering at the civic zone for sports and leisure activities under the spotlights. However, there is only a few people in the private zone due to the low level of lighting. Law and order is not well preserved in this area as well.

Interestingly, the public zone of the lawn and semi-public zone of the area surrounds the band stand is a sort of in-between situation. In daytime, visitors like to do exercise and socializing in this area. In nighttime, there are still some family gatherings and people jogging around. Last but not the least, some functions such as the circus is also held there at night.

- *Lack of characters*

Being a well-recognized urban park in Hong Kong, there is a lack of characters which can distinguish itself with the others in Victoria Park. The site is simply divided into several zones to suit its functional requirements. However, there is no any scenic spots with features or themes.

Besides, the space is virtually undesignated and there is too much "flexibility" in the site. For instance, one have to erect all the temporary structure in case of any performances or shows. It is, however, not a good way to do so.

3.12 Zone of interest

- *Location*

A zone of interest was selected for special study and it is located in the west part of Victoria Park as shown. Its characteristics are described below.

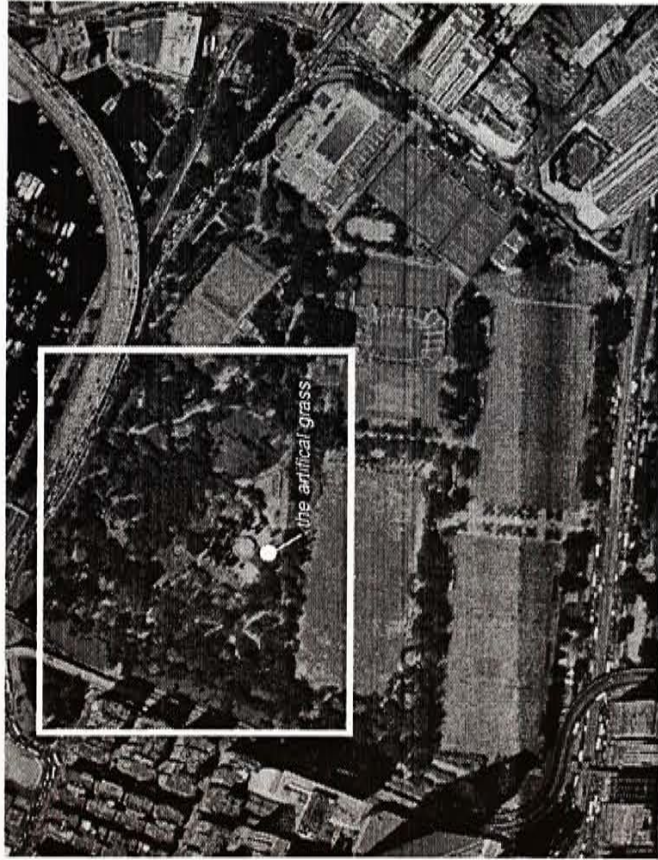


photo 3.11.1 Aerial photo showing the zone of interest

- *Topography*

In Victoria Park, the slope in the zone of interest is the only raised area. The slope raised from +4.5m to +12.5m above sea level. It provides a quiet backdrop at the back and potential for sequential experience from the public zone of the lawn up the slope.

However, the existing treatment isolated the slope and there is no visual linkage between this area to the rest of the park. As a result, law and order is not well preserved in this area. Gambling as well as robbery often occur in this area.

- *Vegetation*

The zone of interest is highly wooded up the slope and at the perimeter of the promenade. However, the trees in the area around the existing band stand and cafe are not so dense and the grass is stumbled over by the public, leaving a ground of sand.

Being a reclaimed land, it is feasible to modify the existing landscape. However, from environmental point of view, it is advisable to retain the vegetation as far as possible.

- *Accessibility*

This area is next to the western main entrance which provide easy access to this area. Beside it also faces to the primary circulation routes. Therefore it is easily reached from Causeway Bay, Tin Hau as well as the south.

- *Water element*

There is a existing model boat pool in this zone. It arouse a lot of visitors and model boat lovers gathers in holidays. However, it is quite remote and isolated from the rest of the sites. Nevertheless, it provides a water source for any extensions of water element.

- *Zoning*

The zone of interest comprises the private zone, semi-public zone and public zone which in turn forms a linkage to the civic zone. There is a layer of space from private to public down the slope.

- *Diversity of activities*

In daytime, this area is crowded of people doing morning exercise. During lunch time, there is people having lunch in the cafeteria. In the afternoon, old people like to socialize here. At night, lovers like to study here.

In holiday, there are people gathers around the model boat pool. On Sundays when the Public Forum is held, a lot of people gather over here, discussing politics.

- *Dispersed facilities*

Although there is a variety of activities in this zone, the facilities are dispersed and there is no strong linkage in the spatial organisation.

- *Band stand*

As the time goes by, the band stand does not only acts as a pavilion, but also the venue for the weekly Public Forum organised by RTHK. In some occasions, it is decorated and forms a symbol of democracy and freedom of speech. However, the original design of the band stand is insufficient to fulfil the requirements as there is a physical trace that the grass around the band stand is stumbled by the crowd of public showing that this area is greatly in use. Interestingly, a piece of artificial grass is laid over the sand by the Park Management Office as shown (photo 3.11.1).

- *Cafeteria*

There is a cafeteria about on the primary circulation route. However, its building form is not integrated with the surrounding landscape and there is no connection with the other elements in this zone.

- *Site & context*

The site is a green open space set in between the densely built-up urban areas of Central to the west and north, Wanchai to the east, and the Mid-Levels to the south. Originally, the site was no green oasis to begin with. As a military barracks, the land was well endowed with concrete, including an old army school, a road system, several sets of domestic buildings, tennis courts and car parks. 'Victoria Barracks is very mountainous with lots of spurs, valleys and steep slopes. Apart from the small number of mature trees, it's not a very attractive site at all,' said one member of the team of parks' architects from Wong Tung and Partners, local design firm of Hong Kong Park.⁶

Under this unique topographical condition of the site, 700 existing mature trees and more than 400 new trees plus thousands of green plants and soft landscaping were used to achieve this oasis in Central.¹ Many circulation routes were designed to avoid the cutting of trees.

In the meantime, existing buildings of historical values were preserved as possible. Cassels Block is turned into the award-winning Visual Arts Centre, while Wavell building is converted into the Education Centre with the Aviary Support Centre inside. However, some buildings were still demolished. For example, Alexandra Block was converted to the Tai-chi Garden because it was located in the midst of the Lake Area and the Aviary Area, causing blockage of scenic views of the site and stifling the space.

Many facilities were built on the existing platforms on which previous buildings had once existed to minimize the costly site formation and excavation work.⁷

- *Design approach*

There are three basic objectives in the layout, disposition and design of the facilities in the park

Firstly, in view of the popularity of the park, a variety of paths, both primary and secondary, have been created within the park and mostly in amongst greenery. Alternative routes and circular paths are devised.

Secondly, it is a green oasis within "the jungle of concrete". The notion of naturalistic park is emphasised although it is realised as an urban park.

Thirdly, the park will provide a variety of visual, spatial and educational experience. It includes the fountain promenade to the central area, diners verandah adjacent to the waterfalls, the multi-use Garden Plaza, the Aviary with natural beauty and educational functions, the Greenhouse set for delightful exhibits and habitats, play area with different platforms echoing different themes.⁸

On the whole, the park is a multi-functional, passive and active recreational area.

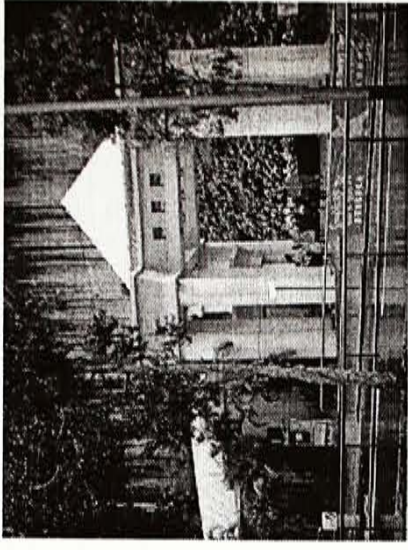


photo 4.1.2 Gate in front of escalator linkage

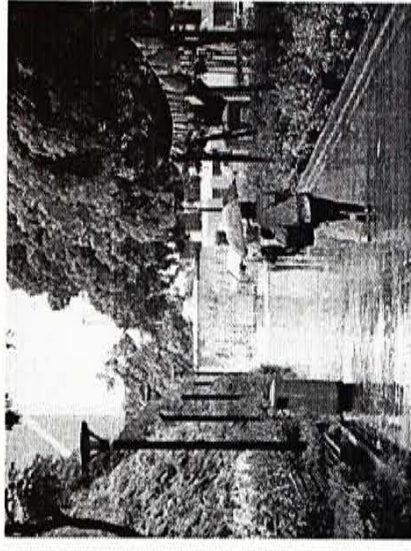


photo 4.1.3 Entry promenade

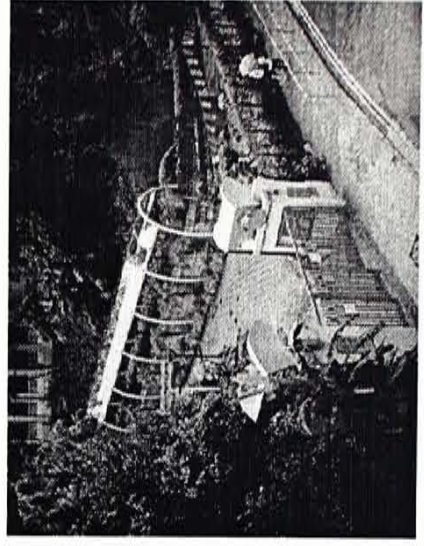


photo 4.1.4 Entry gate from Cotton Tree Drive

- *Zoning*

The park can be divided into three areas.

The first area is the land starting from the eastern entrance up to the Clock Tower Plaza. It has been conceived as basically an entry promenade which leads into the park form a narrowish space opening out to the Clock Tower Plaza.

The second area is the central area of the park extends from the Clock Tower Plaza up to the Marriage Registry at Rawlinson House, constituting the Museum of Teaware at Flagstaff House, the Restaurant, the Lakes and Waterfalls, the Greenhouse, and the Garden Plaza.

The third area locates the Aviary, the Play Area, the Sculpture, Hong Kong Visual Arts Centre and Indoor Games Hall. This area is separated from the central area of the park by a high ridge on which stands the Tai chi Garden which incorporates a Vantage Point Tower, a landmark and orientation point in the park.

- *Appraisal of use*

In terms of planning, the location of the Child's Play area (photo 4.1.5) is appropriate as it is located right below the Kennedy Road entrance, which is close to the residential blocks at Mid-Level that is next to the park. The design is split into four theme on different levels in accordance with the topography of the site. It is visually interesting, however, the current situation create a limited amount of running space and linkage amongst the levels.

As for Tai-chi Garden (photo 4.1.6), the intended purpose of providing passive space for elderly people practising the ancient martial art is not achieved. It is located at a rather high level, veiled by the existing tall trees it is virtually unnoticeable from the lower Lake area. Because of its isolated location, robbery is probably occur there. The layout of this garden is interesting as it portrays the Chinese architectural courtyard concept. However, it is basically a self-enclosed area without sufficient integration with the surroundings. On the tai-chi garden, the vantage point is a pointer of the garden. However, by looking to it, you would never know a garden adjacent to this garden.

Most visitors would by-pass the cafeteria because of the recessed open sitting area sunken from the park and, to a certain extent, the high expense of the food there.

The design of the arches for the "huge-cage" of the Aviary is to lessen the hostile intrusion by the structural elements, the existing trees under the cage had posed difficulties in the construction work. Traditional bamboo-scaffolding method was employed during construction which is more flexible and friendly towards the trees.



photo 4.1.5 Play area in front of Hong Kong Visual Arts Centre

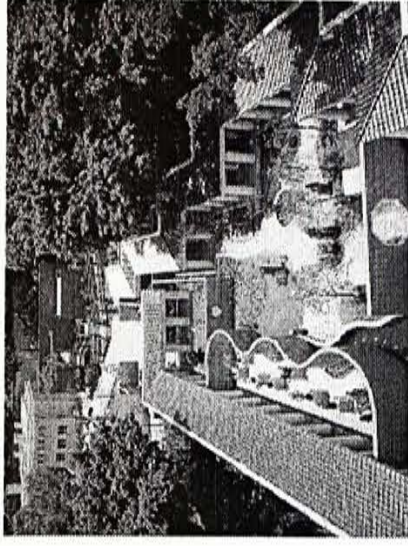


photo 4.1.6 Tai -chi Garden

- *Remnant of Chinese tradition*

In Hong Kong, urban parks is one of the main sources we can look for Chinese architectural culture. As in Kowloon Park and Shatin Central Park, "Suzhou Style Gardens" are included or incorporated in the parks.

However, in Hong Kong Park, the use of traditional architectural elements for the garden is limited. There is only one Chinese Garden, Tai-chi Garden designed with tile-roof, moongates and a limited number of Chinese style openings framed with zinc sheets. Expression is relatively simple and modern, and the materials used are inevitably contemporary; concrete walls covered with tiles, white plastered columns with dark cement groove lines, modern architectural floor tiles for the corridors and glass blocks used in the Bonsai Court.

The planning resembles those of Chinese courtyard house, the space is subdivided by walls into three consecutive courts connected by geometrical moongates and covered corridors run around the garden. However, the columns are oversized and the sense of enclosure is increased.

- *A Colonial Reminder*

As the old architecture of the restored buildings in the park has set the style for a nostalgic military look in design. "As we already had some buildings of that colonial design on the site, we stylised the design and continued using it", said one architect. "It is a very practical style. The wide columns give shape and privacy and a screening effect. It is a feeling of old Hong Kong."

As a consequence, a colonial style is adopted for the entire project, and oversized colonnades have been taken as an implication of the style.

- *Park as a city*

Hong Kong Park is like a child of a city and it expressed "Hong Kong" in a number of ways. A large number of construction within a small area of land; many activities can be carried out within a short time; the gradual fading of the Chinese character but the unwillingness to lose the whole of it and finally, the existence of the colonial style as a record of history.

When we come to Hong Kong Park, we can obtain different kinds of qualities like relaxation, entertainment, education. All those features are linked by clearly defined routes. Under such circumstance, however, mutual interaction possibilities is questioned. The park is regarded as having too many human control. Circulation paths is very dominant, they have a strong effect of leading people.

Regarding the efficiency of Hong Kong people, Hong Kong Park is probably a good place to visit and get as many services as possible in a short time. However, it is not the best place to ease the pressure off the city life as we just find another "city" within a different context. It is still controversial if we should follow this "stereotype" of the way of life of Hong Kong people.⁹

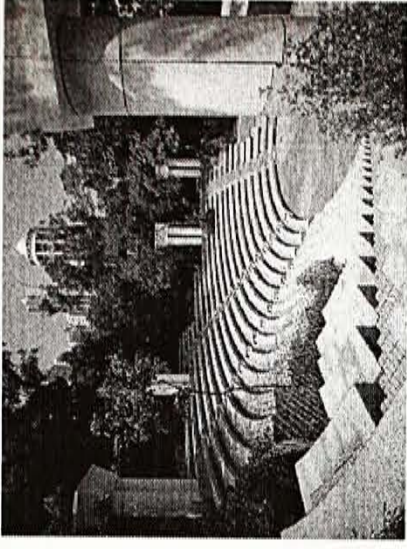


photo 4.1.7 The Garden Plaza

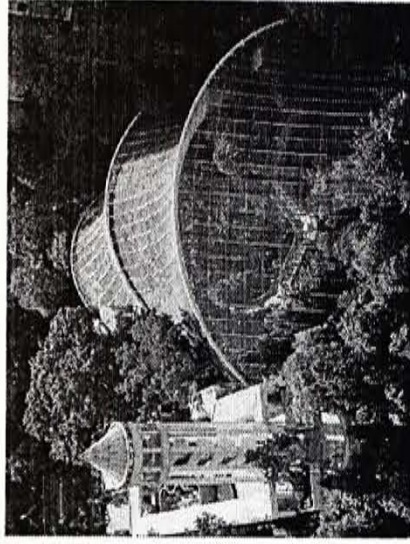


photo 4.1.8 The Aivary

4.3 Kowloon Park, Hong Kong

The extension and complete redesign of this 37-acre "green lung" in the crowded Tsim Sha Tsui section of Kowloon, was a project for the Urban Council of Hong Kong, funded and project managed by the Royal Hong Kong.

- *Background*

Kowloon Park, which was originally the site of a military barracks, was until recently a rather shabby affair. There was an aviary with rather gloomy inhabitants, a little museum and a running track. The best fit was a rather run-down Chinese garden right in the middle.

Derek Walker Associates was asked to work up a development strategy for the park as a whole and to design a major Olympic sports facility including sports halls and a swimming complex incorporating an olympic-style 50-metre competition pool.¹⁵

- *Design approach*

Walker's first main move was to order the site by driving a broad axial promenade from south to north up the slope on the long dimension of the rectangle. This reinforced the existing main route, with the aviary and the Chinese garden falling conveniently to the east of it, and the museum adjacent to the west.

Walker has brought these elements together in an extensive landscaping scheme which both unites the previously messy lower (southern) end of the park and at the same time divides it up into a coherent set of outdoor rooms. Attractions in the park included an outdoor arena, performance area and piazza, an aviary, a Chinese garden, a children adventure playground, viewing cone and landmark, a sculpture park, water gardens, scent gardens, a sunken garden, bird lake and maze.

Formerly, almost the whole of the eastern side of the open space fell down towards Nathan Road in a long scrubby and virtually useless bank. This has been cut away, giving a long line of two-storey shops, topped by a curved parapet clad in white enamelled steel and pierced by formal gateways. Through these, steps lead up to park level from the new pedestrian boulevard created parallel to Nathan Road and separated from it by the magnificent banyan trees. In place of formerly useless bush, there is now a boulevard, and a row of shops with a series of terraced gardens and a long loggia on top.

The sports complex at the north end of the park has a high barrel-vaulted central entrance concourse with a cross-axis, leading to the swimming complex to the east, and sports halls to the west. Its white enamel steel cladding finishes echoes with the cladding of the Nathan Road parapet. The 50-metre pool has seating for 1,500, and there is also a recreation pool, practice and diving pools.¹⁶

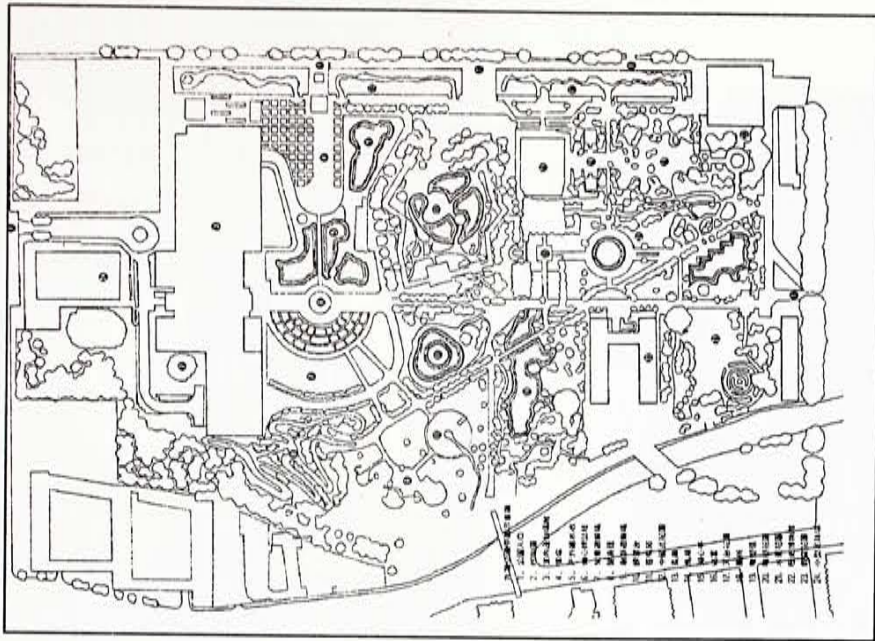


fig. 4.3.1 Master layout plan of Kowloon Park¹⁷



photo 4.3.1 Northern entrance¹⁸

- *Appraisal*

With the sport complex cast in white concrete, this monumental termination of the axis is not nearly as forceful as these words may have made it seem. It is more like some sort of elegant white parasol that links the two main spaces; the swimming pool and the sports hall, that flank it as wings on either side. These present the usual problems of all large sports facilities. The hall has to be a virtually blind box and is separated from the public space under the vault by the usual clutter of changing and practice rooms.

The sparkling fun pool combine with the main pool to make a space which is far more full of joy and life than the normal big international swimming complex. The basic idea is much enhance by the way in which the curves of the lower pool are elaborated in a series of open-air basins, so that swimmers can take advantage of the tropical climate and proceed down a series of gentle cascades from the rater severe inside of the building to the most informal water space at the bottom of the sequence. The free curves of the open-air pools are overlaid with a Euclidian geometry of dry, extra-pool spaces that incorporate a little amphitheatre and a half circular flower garden; this part relates both to the formality of the main building, and to the rooms of outdoor space further down the slope.

To sum up, it is undoubtedly that this multi-functional and many layered complex is immensely popular. At daybreak, people can be found doing Chinese exercise, while families wander dreamily up and down the promenade and lovers huddle in the loggia.

However, there are some faults in detailing. The most obvious is the choice of heavy glazing bars and dark glass for the covered bridge which crosses

the vault to join the two restaurants; the fire office's demands have made it into a heavy and almost solid thing when it should have been a light and elegant tube.

The redesign of Kowloon Park has undoubtedly made a major contribution to the life of the city; it is immensely popular in all sorts of different ways.¹⁹



photo 4.3.2 The barrel -vaulted central concourse²⁰



photo 4.3.3 View from play area to the sports complex²¹

4.4 Lok Fu Park, Hong Kong

Lok Fu Park, best known for introducing the fog system to the Territory, represents a very different approach to park construction.

- *Background*

Lok Fu Park is a new public open space built on 2.96 hectares as part of a comprehensive redevelopment of the Lok Fu housing area in central Kowloon. It was commissioned by the Hong Kong Housing Authority on behalf of the Urban Council. Brian Clouston & Partners attempted to push the accepted boundaries of landscape design by exploring a new thought process to create a unique built form.

- *Access*

The park has four access points, roughly at each corner, with a fifth entry from the shopping complex. While the park is complex with quiet secret areas, circulation throughout is easy. The original site had two vehicular roads which were subsequently eliminated. The park is open 24 hours and specifically lit at night to prevent black sports.²²

- *Design approach*

Lok Fu is a statement that parks can reflect the human spirit: its time, place and future. It is inspired by the complexities of Hong Kong and the spirit of the Hong Kong people.

The park was built in two phases, namely active area of soccer / hockey pitch with associated facilities and minor open spaces; and passive area of parkland with children's playgrounds and major water features.

The design process led to the final park design, which was generated on three levels:

1. Context lines, based on axes to the surroundings, overlaid by a four metre grid.
2. User requirements were considered in the functional relationship between park components, as well as the requirements for access for the handicapped and for low maintenance.
3. Emotional response to the space; complexity and simplicity, calmness and intensity as well as active recreation and passive uses.²³

The park is replete with contrasts. The walkways are robust, with rigid wire nails but above, the roof is gently rolling and wavy. The walkways are constructed of various materials in different colours, all of which are softened, obscured and revealed by the drifting fog.

Metal frame structures and bridges through this feature create a dynamic statement within the park. Falling water is complemented by a fog system. Periodically, fog billows from the water feature forming a cloud which drifts across the park and slowly dissipates. The water deliberately provides white noise to drown the pervasive urban hum.

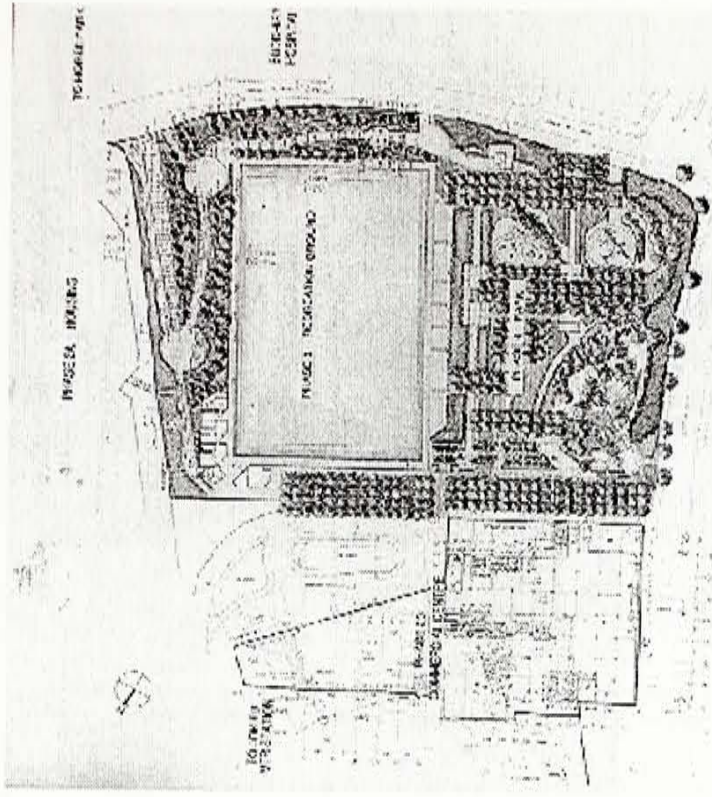


photo 4.4.1 Site context plan²⁴

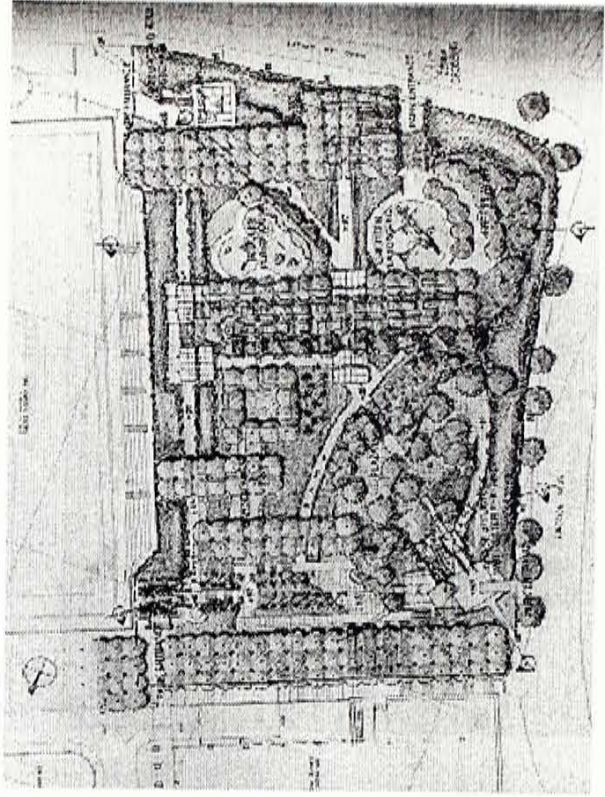


photo 4.4.2 Masterplan of the Lok Fu phase four open space²⁵

- *The fog system*

The MEE fog system is very simple. The fog nozzle, impaction pin type, is constructed of stainless steel. Nozzles produce fog droplets with a mass mean diameter of 17 microns or less. Each nozzle is fitted with a removable micro filter.

The Fog Master pump unit consists of a high pressure operating pump with an enclosed, fan-cooled electric motor and magnetic motor starter.

It has a thermal overload protection and low pressure cut-off switch, pressure regulating valve, high pressure gage, and a high temperature water dump valve.

Feed lines are of a high pressure type made from stainless steel or copper.

The system allows the delivery of water at a pressure of 1,000 pounds per square inch. Water is forced through the specially designed nozzle to create the fog effect on impact.

The system can be operated manually but is typically operated automatically and controlled by humidity and temperature sensors.

The fog system is pre-fabricated at the factory and transported in modular form which allows for easy assembly.²⁶

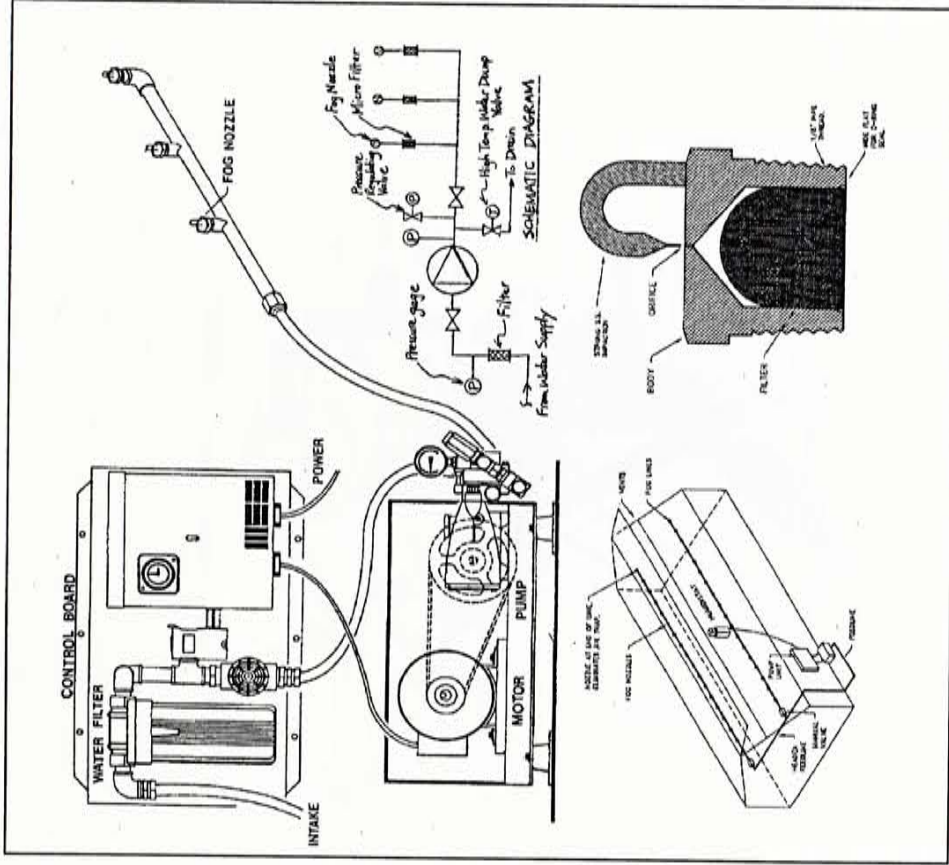


fig.4.4.1 The fog system²⁷

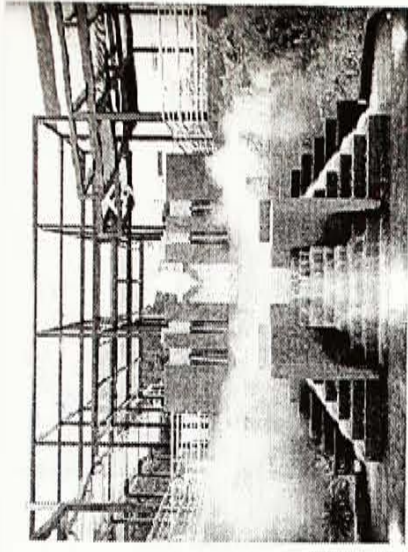


photo 4.4.3 Fog system and water feature in action²⁸

- *Appraisal*

The success of the fog and fountain are self-evident. The park has been heavily used since its opening in January, 1993, and has been accepted by the local community. In particular, the complexity of the park design has allowed for a diverse range of activities to be enjoyed by a whole spectrum of age groups.

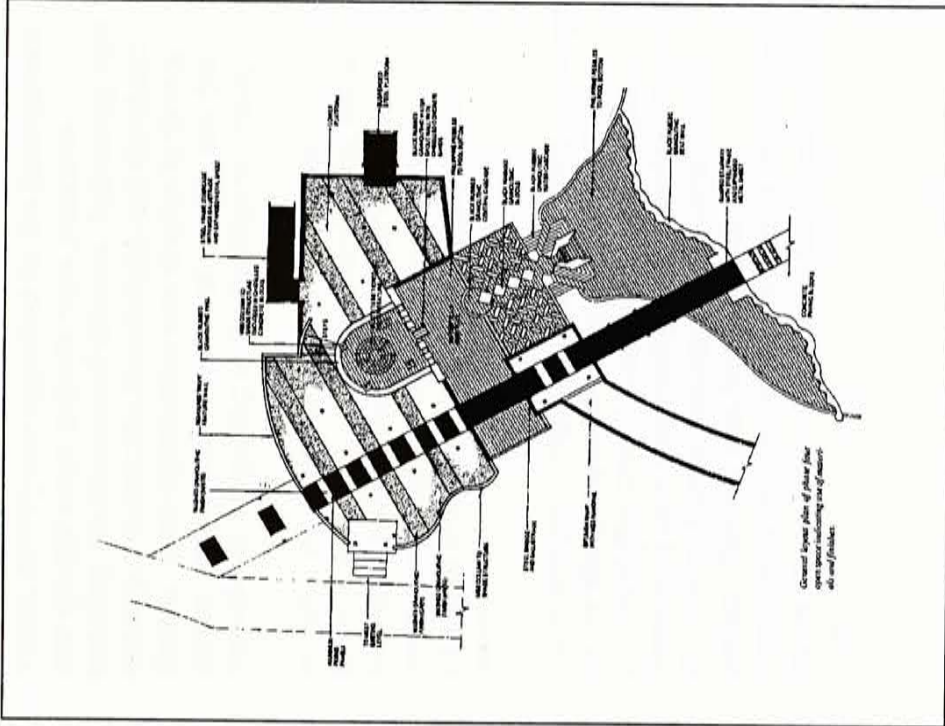


fig.4.4.2 General layout plan²⁹

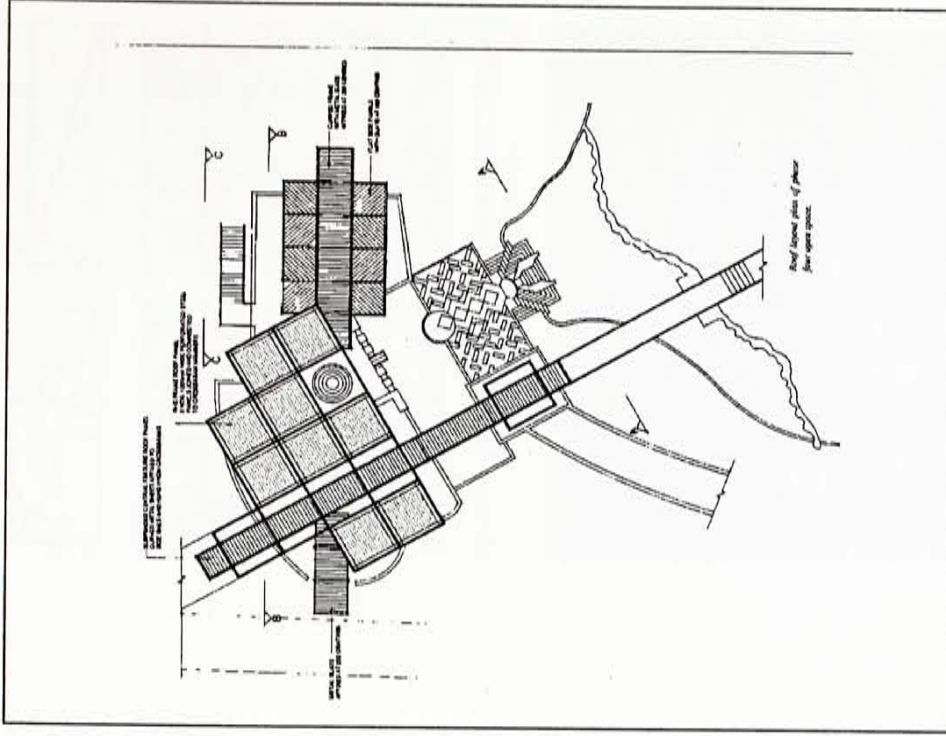


fig.4.4.3 Roof layout plan of phase four open space³⁰

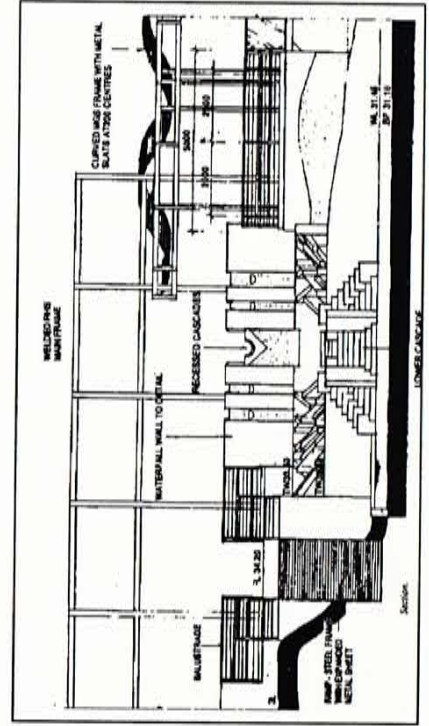


fig.4.4.4 Section³¹

4.5 Parc de la Villette, Paris

La Villette Park stretches over 55 hectares (136 acres) in the east of Paris, nestled between the Porte de la Villette (to the north) and the Porte de Pantin (south) and between Auber-villiers-Pantin (east) and the Buttes-Chaumont Park (west).³²

- *Historical background*

La Villette became a town in its own right in 1790, with a population of under 1,000. The late 18th and early 19th century saw the rise of the public service era where inhabitants were provided with drinking water and organized street-cleaning. In 1808, the la Villette Basin was inaugurated, linking the Ourcq and Saint-Denis Canals and making it one of the largest ports.

In 1859, the heavily industrialized Commune of La Villette became part of the City of Paris, and the Second Empire equipped it with two facilities that would last one century; the slaughterhouse and the livestock market. In its hey day, 3000 persons worked here in a multitude of trades.

By the Fifties, the slaughterhouse had become outdated and needed vast modernization work, and in 1959 the National Meat Market was created, replacing the former facilities. But by the 1969 progress in the refrigeration industry had already changed meat market conditions considerably. Livestock was to be slaughtered where it had been bred and no longer on a centralized site. On March 15, 1974, the government finally decided to close the slaughterhouse. This left a complex of more than 50 hectares vacant in the centre of an area housing millions of inhabitants and close to international roads and airports. Situated on two metro lines and next to Paris ring-road, it offered unique urban development prospects for the capital and the adjoining suburbs.

In 1979 the Etablissement Public du Parc de la

Villette (EPPV) was appointed for the development and several major projects were proposed, including the museum of Science, Technology and Industry, the park, the Grand Halle, and the Music Centre. This organisation was chosen to form a unique project - both in terms of its size, and the objective of integrating all the facilities in a park.

In 1982, an international competition was announced to be held. The cultural policy, whose keywords included "pluralism" and "innovation", coupled with his aim of making Paris once more the art centre of the world, has clearly guided the project's programme.

Many designers regard this an interesting challenge for the designing of an urban park for the 21st century in the form of a new type of urban space and functioning as a present-day cultural facility. Totally 471 entries from 41 countries were received and Bernard Tschumi was finally awarded the commission and allocated a budget of 350 million francs for the initial phase of the park's construction (1984-7).³³

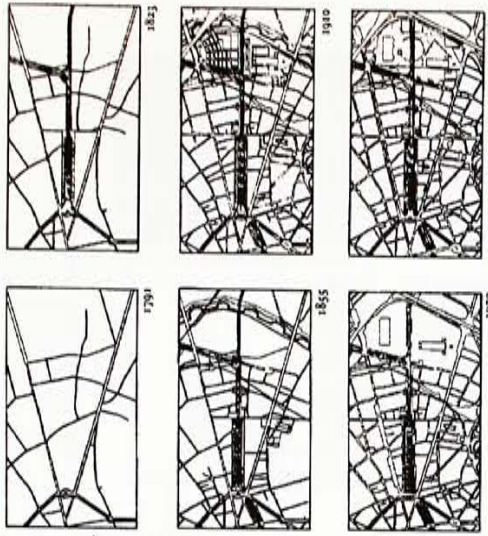


fig. 4.5.1 Historical development of La Villette³⁴

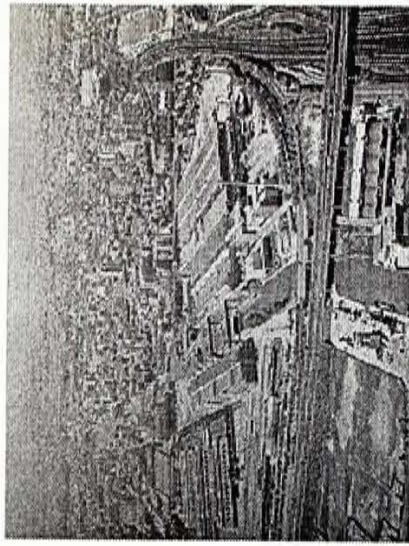


photo 4.5.1 La Villette seen from the east, 1975³⁵



photo 4.5.2 La Villette seen from the north, 1975³⁶

- *The objectives*

The symbolic functions of the art of garden to the culture and symbols of the present ought to be incorporated into the contemporary park.

The character of La Villette is first and foremost determined by the urban context and its history. The district must be animated. The park is not so much a lung, as a heart.

It was suggested by EPPV of the application of the tree unifying concepts:

Urbanism: man and city.

Pleasure: body and mind.

Experimentation: knowledge and action

- *The programme*

In relating the park to the Museum and the Music Centre, the park inform, lead and accompany with them, with a welcoming image that is in harmony with. The park lends support to certain of the Museum's activities and exhibitions.

The main activities will lend the park its unique character. It is classified into the following themes: spectacle and entertainment; discovery, initiation; expositions; training and care of the body; and restaurants. The list of all the facilities are, in brief, an open-air theatre, covered multi-use spectacle site, cultural information centre, kiosks, workshops, discovery gardens, glasshouses, exhibited objects, thematic gardens, baths, thermal baths, skating rink, recreation areas, semi-hard sports fields, training circuit, playgrounds, swimming baths, group of restaurants, snack bars, cafes, buffets, picnic areas, receptions, children's centres, bank, post office, police station, shops, hire companies, markets, administration and management office, cycle paths, storage spaces and workshops, first-aid post, public conveniences, car parks and underground car parks.³⁷

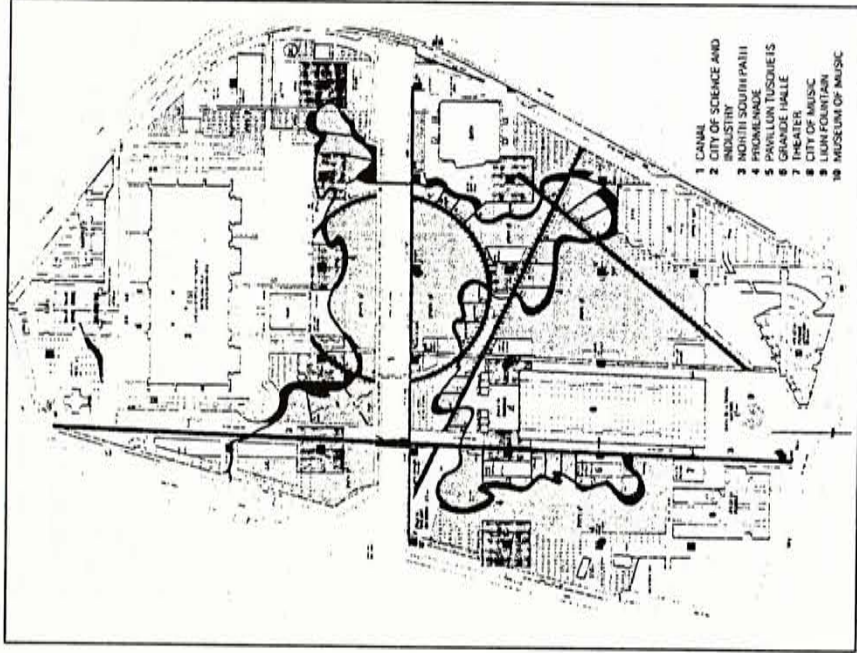


fig. 4.5.2 Master layout plan³⁸

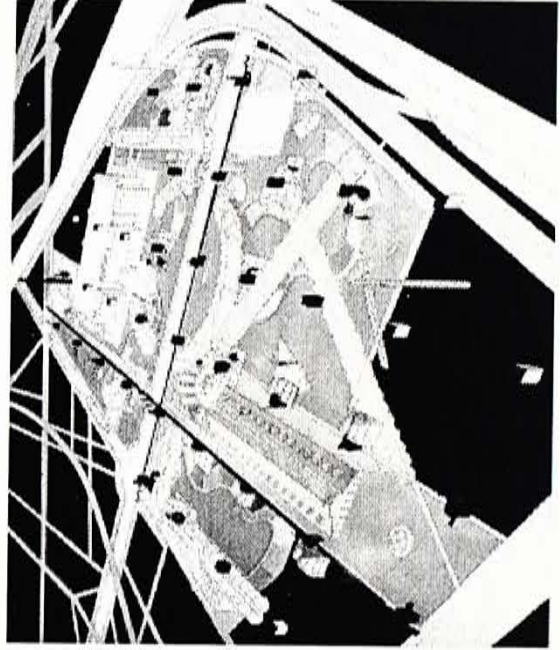


fig. 4.5.3 Site axonometrics³⁹

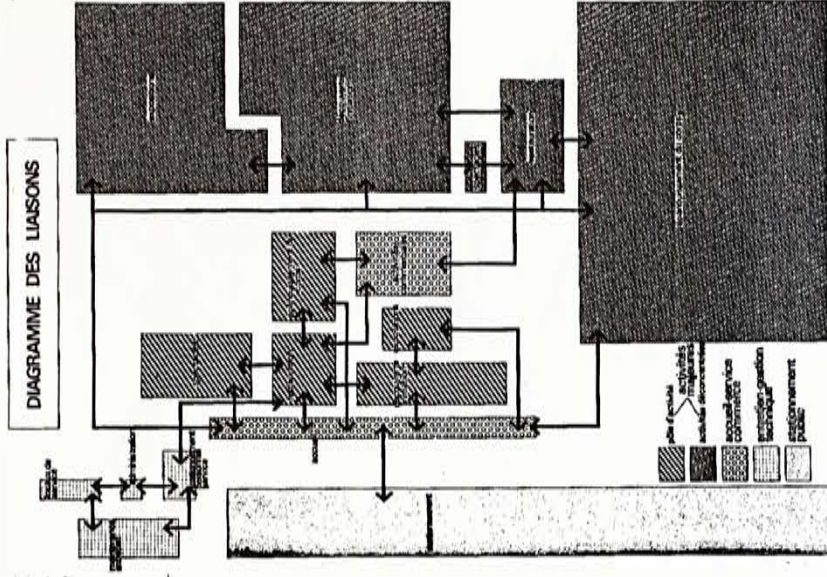


fig. 4.5.4 A summary of the functional relations outlined⁴⁰

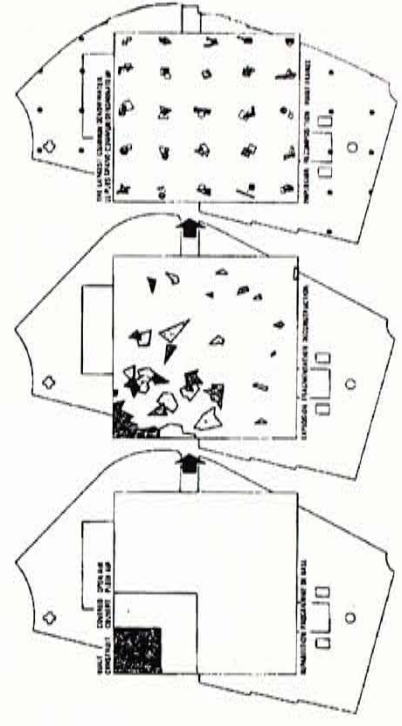


fig. 4.5.5 Decomposition of programming by Tschumi⁴¹

• *Design approach*

In this project, Tschumi adopted his method of disintegration which relied on his superimposition of three autonomous systems of points, lines and surfaces and the resulting context in which other professionals (architects, landscape designers and artists) could work.

The programmatic elements are distributed across the site in a regular grid of 120m. This point grid is juxtaposed against two other organizing systems, one of lines (movement, both vehicular and pedestrian) and the other of surfaces (open space used for playing fields, marketes, and other functions). Points on a grid, the follies march relentlessly across the site and can be extended into the city. They are basic 33-foot cubes that can be adapted for both programmatic and symbolic purposes without losing their fundamental identity. They are thus both fixed and flexible. The swimming pools, skating rinks, greenhouses, and thermal baths are housed in follies that have been modified.

The Lines intersect the follies following a more random order. The major Lines are formed by two continuous open structures on the north-south and east-west axes. The north-south axis connects the two Portes de Paris and their Metro stations. Other Lines are created by double allies of trees which delineate the major shapes: the Circle and Triangle lawns, the West Square of Sorbus and the East Square of Evergreen, the South Curve of the Hornbeams and the North Curve of Maples. The Circle and Triangle lawns demarcate areas for relaxation or fresh-air games. 24-hour-activities will be concentrated in and around the two coordinate axes which Tschumi imagines could extend out into Paris.⁴¹

For organising devices, he continued borrowing from cinema the devices for frames and sequences

he used. He regarded the park as a series of cinograms, each with its own set of architectonic and programmatic transformations, and performed repetition, inversion, substitution and insertion on them so as to create an art of rupture resembling a montage.⁴² Tschumi envisions a "cinematic promenade" in which the gardens are viewed frame by frame. "This is no ordinary urban park," says he. The evidence to date supports his claim.⁴³

• *The follies*

34 "follies", of 3000 to 23,000 square feet, for restaurants, cinemas, video arcades, daycare centres, bars, health clubs, and greenhouses in park, with landscaped promenades. The follis is constructed of prefabricated concrete frame or steel frame. The major material is red porcelain-coated steel, steel painted red, aluminum, and granite. He placed follies on his grid spaced in the 120 metre grid, they were small enough not to evoke association with buildings in the streets.⁴⁴ This was exactly what he intended: to unsettle "memory and context" by rejecting both "contextualist and continualist ideals", and by showing that the architect's intervention did not necessarily refer to a "typology, origin or determining signified".



photo 4.5.3 One of the constructed follies

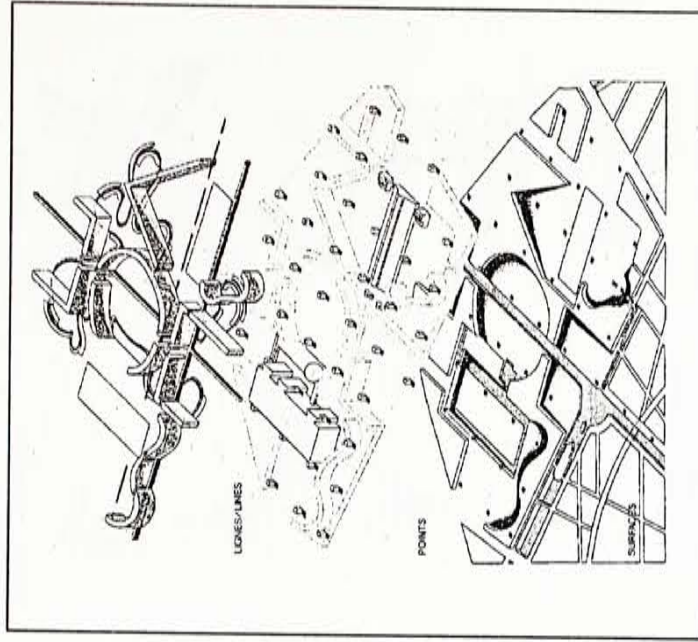


fig. 4.5.6 Exploded axonometric showing the superimposed systems: Points, Lines and Surfaces

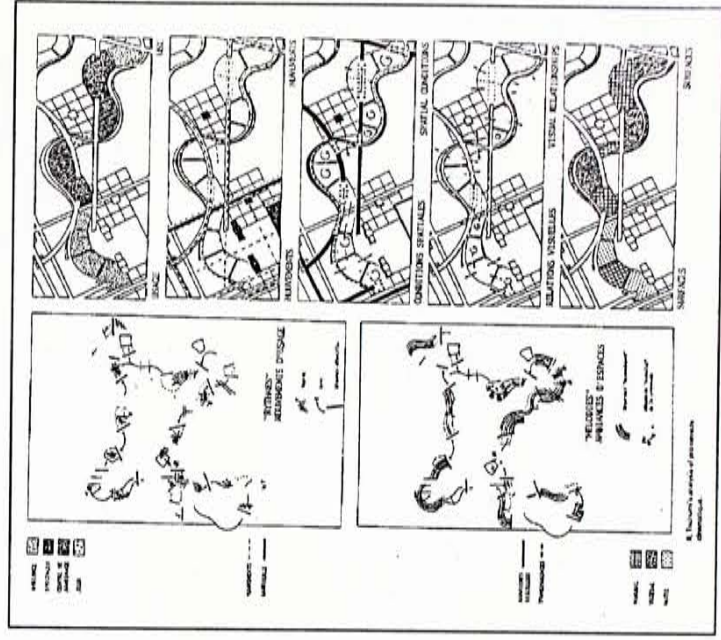


fig. 4.5.7 Tschumi's analysis of promenade cinematique

• *Appraisal*

There is no argument with the numbers: La Villette hosted a record 8.4 million visitors in 1992, of whom 2.5 million visited outdoor areas only (which constitute about three-fifths of the park's total area). These numbers will probably rise in the progressive years, despite France's lagging tourist trade.

Park managers says that 50% of all visitors to La Villette arrive on foot (this includes riders of public buses and the Metro). About a third of all visitors come from surrounding neighbourhoods for free concerts, fireworks displays, outdoor dances, and other events. The users of the park constitute a broad demographic mix.

Calling Tschumi's master plan, it is a powerful but thinly spread framework, in a way seeking a recognizable identity as strong as the British telephone booth. Tschumi's architectural vision and system have proved to be extraordinary tenacious, flexible, variegated, lively, and forgiving. The scheme accommodates intense usage, sudden (even panicked) adaptation for special events, and a wide variety of more or less sympathetic, more or less permanent interventions by other designers.

Remarkably, the visual and cultural cacophony created over these years seems to fulfill and even enhance the promise of Tschumi's original ideas. His framework of follies regularly spaced among geometrically planned gardens, has indeed proved to be powerful and welcome more tour groups arriving.

La Villette at its best is a vibrant locale, if very hard-edged and even the hardness seems right for at least one kind of "urban park of the 21st century." In any case, the place's no-bones-about-it urbanity imparts much of its allure and uniqueness.⁴⁵

Yet even as parkland, the site retains its curious separation from the city and stands aloof, its own island. Although well serviced by two metro lines, the park's physical and visual link to central Paris is weak. Future plans to clean up the canal basins that extend out from centre city to La Villette could provide the missing link. Until that is accomplished, La Villette will remain, like la Defense, a curious satellite on the periphery of Paris.⁴⁶

More importantly, it is necessary to consider the essence of architecture, like La Villette, loaded heavily with theory. For people who did not know the theoretical backgrounds, the follies were simply little red buildings for climbing. In reality, the grid on which they were set was invisible on the ground. So were most of the geometrical relationships between elements and Tschumi's advanced ideas. The essence of the project was different to different people. For ordinary people, they did not need to understand how sophisticated the park was in order to enjoy it. But to the more informed, the power of La Villette did not lie in its built reality. Rather, it lay first in the speaking, writing and drawing of it, and then in the relationship of these "texts" to the built object. It is thus not really necessary for a person to go to the park after he learned the theory behind it, because he had already got the pleasure by appreciating the essence of it in the "texts".⁴⁷

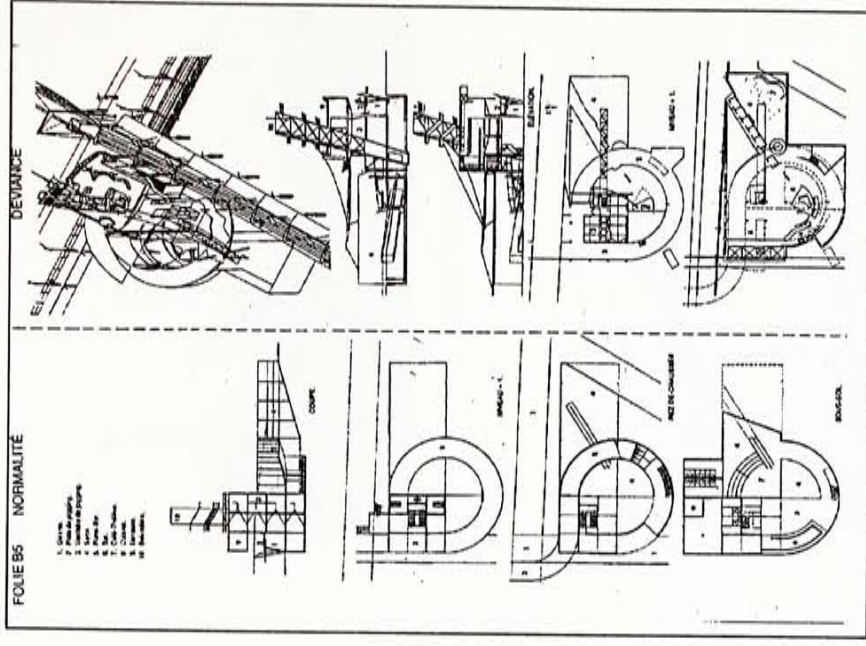


fig. 4.5.8 A set of drawings of one of the follies

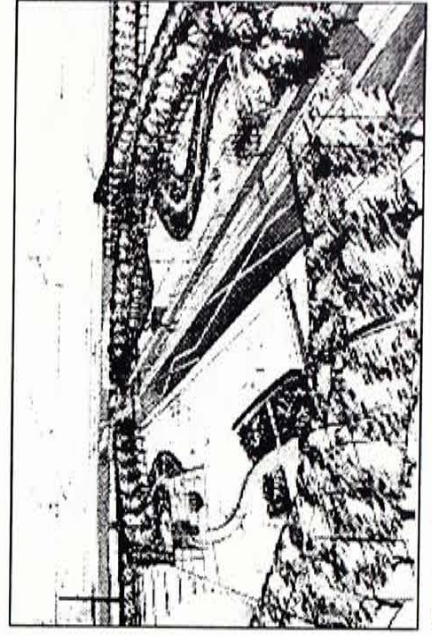


fig. 4.5.9 The drawing of plant forms in La Villette⁴⁸

4.6 Olympiapark, Munich, Germany

- *Design approach*

The designer's intention was to transform the dull flatlands of northern Munich into a new landscape of lakes and hills for a "Green Olympics". But it was not to be a copy of nature; rather an imitation of nature in an architectonically conceived composition combining landform, building, water and plants. The buildings, stadium, athletics and swimming areas were seen, not as separate monumental structures, but integrated by the overriding tent roofs within the 150ha public park.

An artificial hills began with a pile of rubble from the bombed city, overlooking a lake retained by a dam and extending for several hundred metres. This dominant man-made feature offers panoramic views over the Olympic site to the north and across the city to the south. It also generates different levels of circulation between pedestrians and motorized traffic which extend over the whole site.⁴⁹

There are three separate buildings, but form part of one single operation. They are constructed of natural tensile structure to integrate with the topography of the site and relate closely to the organic forms of the lake and hills.

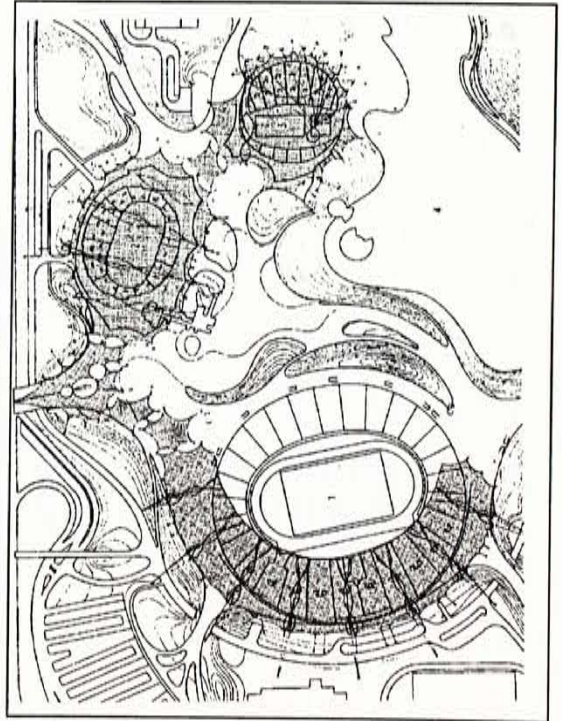


fig.4.6.1 The plan

- *Appraisal*

The Geor Grauchle highway crosses the complex, whose two sides are joined together by a series of bridges and overpasses. The tall supports which up the roofs of the sports complex and the swimming pool make quite an impression when seen from the highway. The roof's curvature and shiny surfaces rise up amongst the surrounding slopes of the park and highway.

The strategically placed and anti-elastic curves of the buildings' surfaces invite us happily to enter into the play of ceilings and interior pathways.

We are immediately struck by the softness of the terrain, and the height of the buildings' anchorings, which seem to frame the horizon and then shoot us rapidly upwards as they rise into the blue.

The essence of this project lies in:

- the translucent and filtered lighting provide by the tensile roof in contrast to what is outside. It make the space a cheerfully spacious one, and unusual in being simultaneously open and yet protected.
- the rhythm of the modules is very clear, revealing the structural clarity of the system as a whole.
- The length and the force manifested along the interior edge of the roof make one worry about its stability. When one is near where the cables anchor into the foundations, one begins to recover one's faith in reality.
- The application of technology on the structure makes the building blend well with the nature of the site.⁵⁰

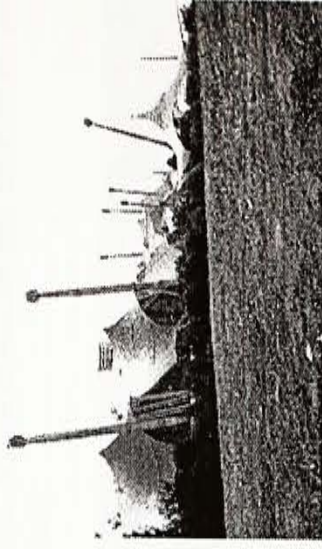


photo 4.6.1 The "natural" tent shapes⁵¹

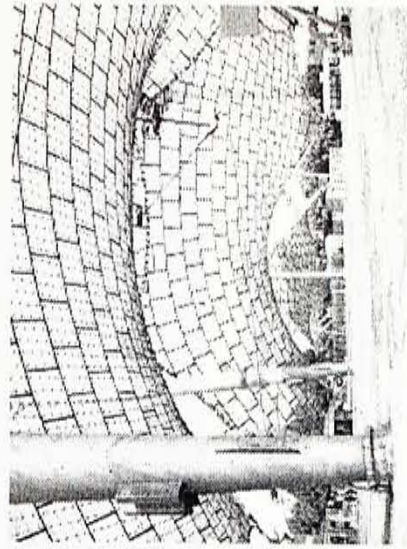


photo 4.6.2 The interior of the tent⁵²

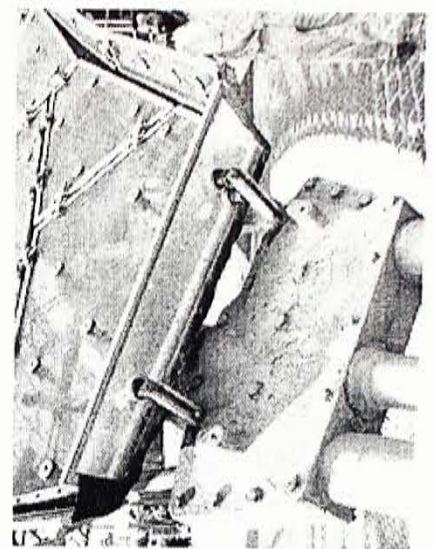


photo 4.6.3 The anchor joint⁵³

5. The brief

5.1 Mission

To enrich the city by offering energy and characters to Victoria Park with the help of advanced technology of park architecture.

5.2 Goals

- To respond to and blend with the existing landscape to form an integrated entity with the amenity facilities;
- To enhance the collective identity of Victoria Park by creating an innovative image;
- To maintain and enhance the existing leisure, recreational activities by addressing the diversified open space requirements of different type of activities for different groups at different times;
- As far as the environmental point of view is concerned, to preserve the existing vegetation as far as possible although there is freedom to modify the existing landscape in the reclaimed land;
- To facilitate the circulation paths within the park and improve the accessibility of the park with the urban fabrics.

5.3 Design criteria

- The existing landscape to be addressed and the design should be able to blend well with it and preserve the existing vegetation as far as possible;
- The technical problem of availability of services to be tackled in the design;
- The existing activities for different groups at different times to be taken account.
- Flexibility to be allowed for special events and entertainment functions.

5.4 Design approach

- In this thesis, a zone of interest was selected for the focus of study.



photo 5.4.1 Aerial photo showing the zone of interest

- Taking account of the deficiency of the existing conditions as mentioned in Chapter 3.12, amenity facilities to be designed to blend with the existing landscape and, in the meantime, minimizing the visual building density of the park;
- Considering the diversified open space requirements in various time, changeable structure for performance and leisure to be designed.
- The overall landscaping strategy including the employment of water elements and relocation of amenity facilities to be dealt with.
- Circulation routes to be resolved to facilitate the accessibility both within and outside the park.
- Finally, the design and its impact will constitute a possible proposal of future master layout plan in diagrammatic form.

6. Design programme

6.1 Schedule of activities

The following is a summary of possible activities in the zone of interest.

- *Morning*
Morning exercise
Socialising
Reading newspaper
Social dance practice
- *Noon*
Box lunch
Lunch in the cafeteria
Multi-functional display
Lunch time concert
- *Afternoon*
Old people chattering
Family gathering
Tea time at cafeteria
Relaxation
- *Evening*
Lovers' meeting
Family gathering
Relaxation
- *Night*
Public performance
Charity shows
Multi-functional display
- *Weekends*
Exhibition shows
Public performance
Charity shows
Public Forum

- *Special events*
Exhibition shows
Decoration
Public performance

6.2 Scope of development

The proposed scope of development aims to modernize and integrate the park facilities with the existing landscape in a systematic manner. In the meantime, it is going to offer energy and characters to this popular park while maintaining and enhancing the original leisure and recreational activities. It will include

- Construction of a multi-use amenity gallery which is able to blend with the existing landscape;
- Redevelopment of the existing park snack bar and cafeteria;
- Construction of a centralized Management Park Office;
- Construction of an amphitheatre with a convertible roof;
- Addition of a pond adjacent to the existing model boat pool;
- Construction of a viewing tower towards the pond;
- Provision of landscaped walkways to the amenity gallery and amphitheatre;
- Improvement to the existing band stand and adjacent open areas;
- Relocation of the aviary to the private zone.

6.3 Schedule of accommodation

- *Amenity gallery (approx. 800m²)*
It will be an amenity structure resting on the landscape with both single-storey-high and double-storey-high display area for versatile exhibit purposes.
- In general, it will be used by the Government Department for promotions and carrying out campaign such as "Cleaning Hong Kong" campaign. In addition, it can be rented by the organisations for charity functions as well as activities advocating art and culture.
- The exhibits can be in the forms of board shows, sculpture display, suspending objects as well as video/audio shows, etc.
- Sometimes these functions are connected to the activities going on the amphitheatres. For instance, pop singers are invited to perform for a charity function.
- *Park diners (approx. 430m²)*
The park diners comprise of:
 - A snack bar of approx. 150m²
The snack bar serves the public with snacks and fast-food in a informal way. Free seatings are provided but there is no waiters/waitress serving;
 - A cafeteria of approx. 150m²
It is a more formal cafeteria serving the public with both Chinese and western food. Breakfast, lunch, tea as well as dinners are provided. Waiters/waitress serving;
 - A kitchen of approx. 80m²
This kitchen is shared by both the snack bar and cafeteria.
 - Toilet of approx. 50m²
It serves only for the visitors in the snack bar or the cafeteria.

- *Park Management Office (approx. 180m²)*
A centralized office for the park management, including:
 - Management office cum booking office;
 - Conference room and multi-purpose function room for organizers and press release;
 - Park-keeping/security duty room;
 - Police/security command post;
 - Staff changing rooms/toilets and briefing room;
 - Ancillary facilities including plant rooms, equipment rooms and switch rooms.¹
 - A carpark for the patrol (golf) car.

• *Amphitheatre*

It is an amphitheatre with a convertible roof and spectator stand accomodating 1,500 audience. The amphitheatre provide public performances, sometimes related to the functions in the amenity gallery, and the convertible roof can make open-air performances independent of the weather and it should be extended when weather conditions demend it.

Underneath the spectator stand will be the supporting facilities including:

- Newstand / commercial shops;
- Public toilets with disabled facilities;
- Dressing room;
- Restroom;
- Control room;
- Rehearsal room.

- *Pond*
It is the water element which forms an extension to the existing model boat pool and provide views and contrast for the amenity gallery.

6.4 Bubble diagram

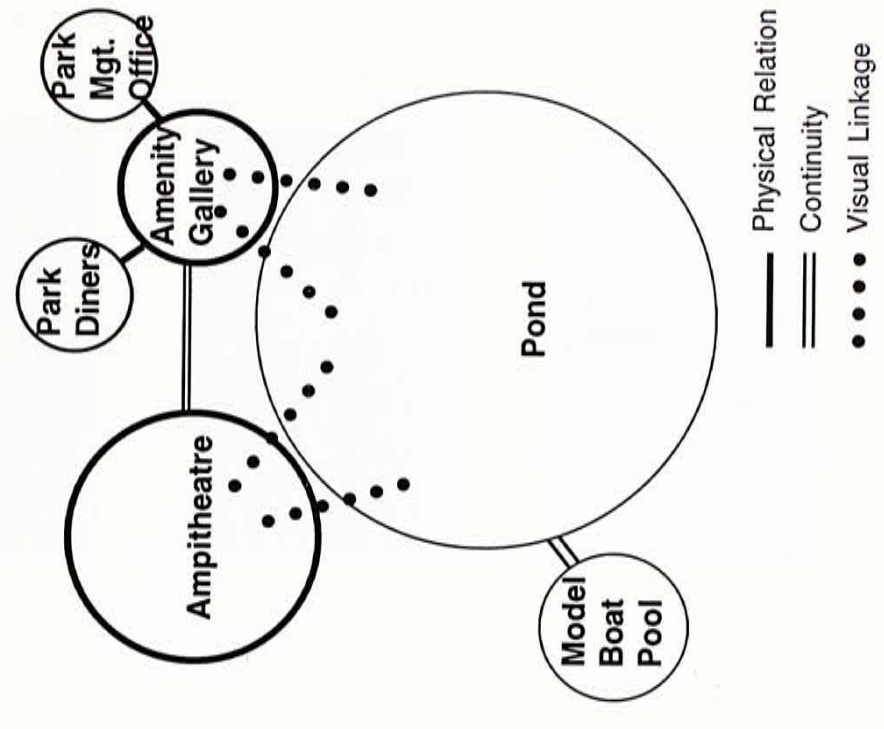


fig. 6.4.1 Bubble diagram showing the spatial relationship

7. Research & Field Works

7.1 Changeable construction

- *Brief history*

The idea and dream of an architecture which can change, adapt and transform itself in response to different situations, wishes and space-time changes comes from the time of the avant-garde at the beginning of this century. The concern with movement, dynamics and simultaneity in applied art has its roots in Cubism, which also created a new space-time concept. Yet concrete or programmatic inventions did not come forth until the Modern era in the 1920s and 1930s; these inventions speak of great originality.¹

- *Definition*

Changeable construction, one kind of dynamic constructions, are constructions that is no longer a fixed element, but one that assumes different configurations, changing over time with respect to the various needs and uses of its spaces.² It is, however, location specific which distinguishes itself from mobile structure.

Sometimes the entire structure is changeable. In other cases, some standard elements such as doors and windows to change the appearance. For instance, part of the pavement of the Alcoy Plaza rises up suddenly to become a sculpture revealing the mirrored plane of water below. (fig.7.1.1 & fig.7.1.2)

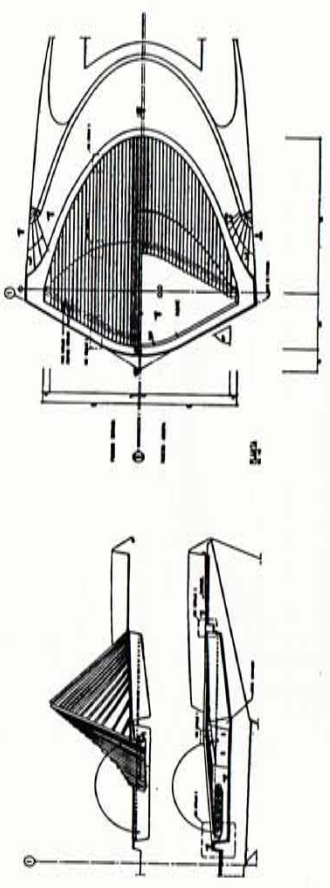
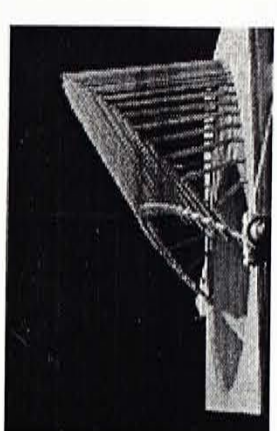
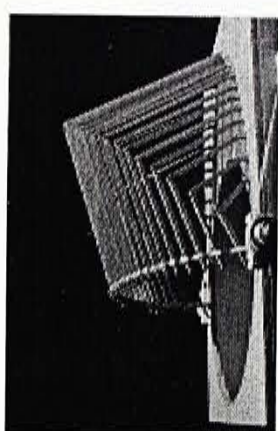
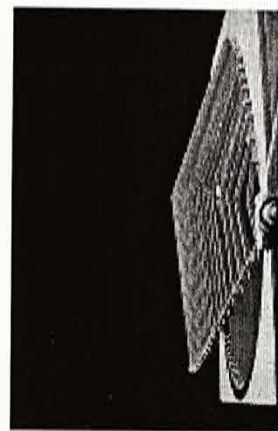


fig. 7.1.1 Plaza and Fountain, Alcoy, 1992-95³

fig. 7.1.2 The changeable pavement of the Alcoy Plaza⁴

- *Multi-functions*

Changeable construction can assume different configurations to suit different functional requirements. By changing the form of the structure, not only the outlook appearance is altered, but also the interior feeling of openness and closeness is changed. It can be further enhanced by the play of light. The Kuwait Pavilion, Expo '92, Seville by Santiago Calatrava is a good example that the spatial feelings vary according to the change of the structure. The building is reduced to a moving covering, semitransparent, a membrane that wraps around us.(fig.7.1.3) The floor allows light to pass through. It is built of semi-transparent marble sheets glued to stratified glass. This rests on a structure of beams made of wooden studs. The roof, which can be opened, is made of tubular wooden beams with a triangular section. Every element is moved by a different motor, which allow the structure to take on continually changing shapes.⁵

- *Weather protection*

Convertible roof can provide shelter in case of rainy days, but at the same time create the feel of open-air atmosphere. Moreover, human comfort can be maintained if it is an air-tight structure.

In a competition project Brullmann developed the Christine Caron swimming pool complex with movable roof on the banks of the Seine, which depending on their position gave certain sections of the pool the appearance and feel of an open-air or an indoor pool. When the roof is open or half-open, there is no structure to be seen, all elements retract and one finds oneself in a fully open-air swimming pool. Unfortunately, this project was not executed. ((fig.7.1.4 & fig.7.1.5)⁶

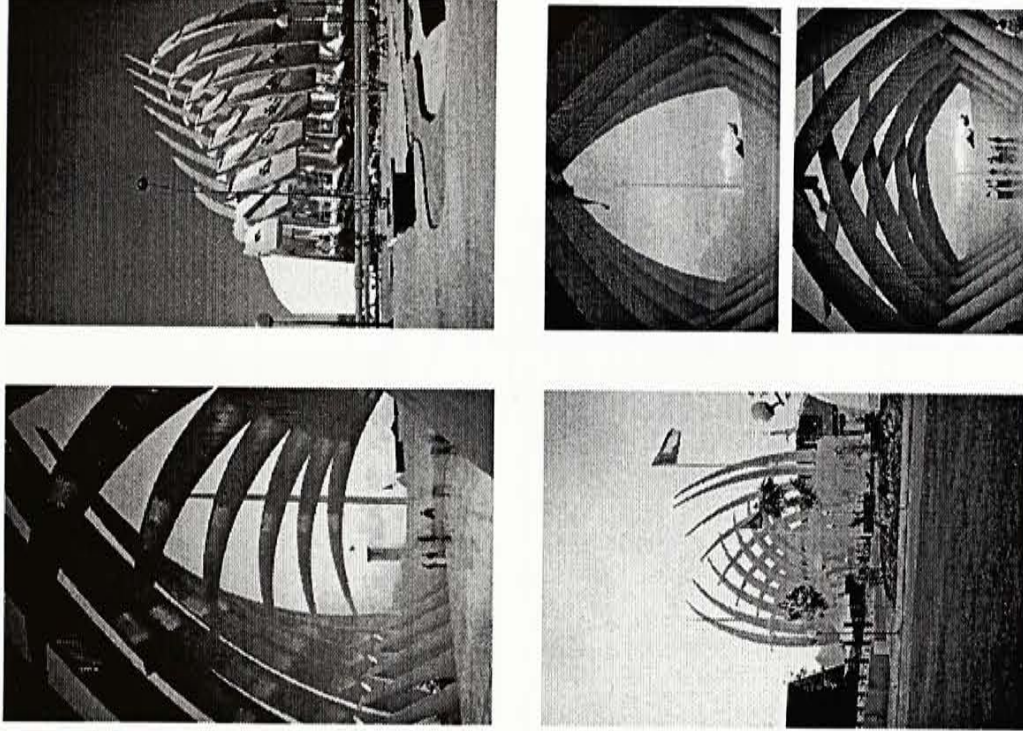


fig. 7.1.3 Kuwait Pavilion, Expo '92, Seville

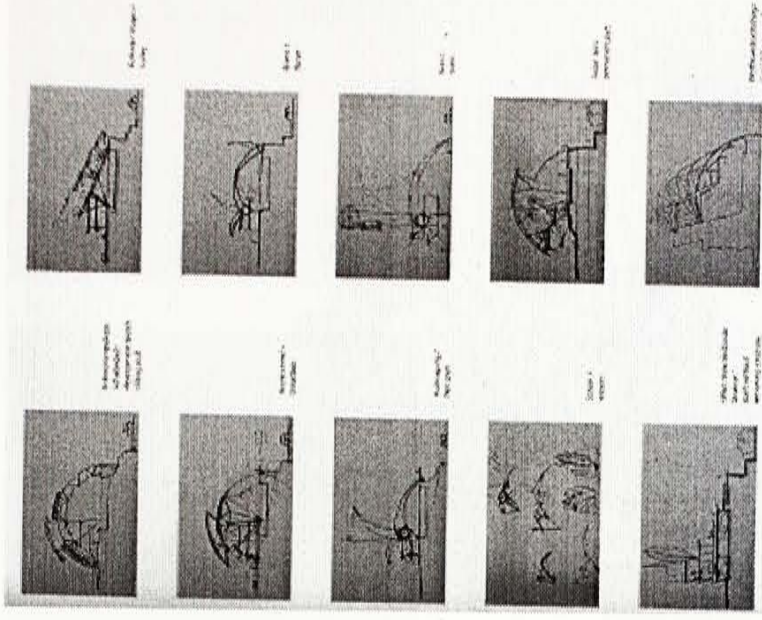


fig. 7.1.4 Movable options by Cuno Brullmann

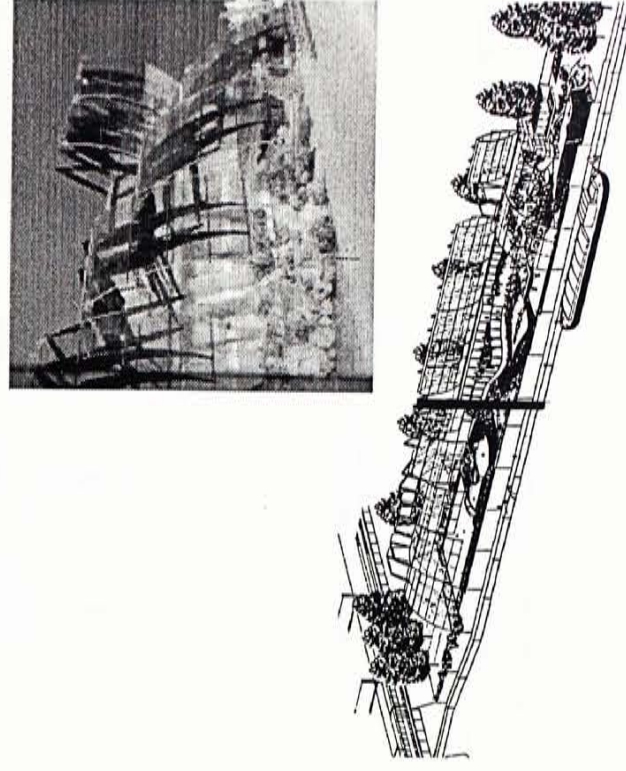


fig. 7.1.5 Model and axonometrics of Christine Caron swimming pool

- *Symbolic meaning*

A project in which dynamics has a certain symbolic meaning and always attract attentions. A roof that raise itself up can draw the visitors in. When the roof opens, it proludes the beginning of a special event.

- *Natural landscapes*

The reference to the natural world - to trees, flowers, or skeletons of animals - are thus not simply the result of formal analogies. In the world of natural forms, movement is a rule. It is a world of unstable equilibriums, always changeable, in which the bodies or the plants assume ever-changing shapes.

Instead of thinking the changeable constructions as buildings, they can be regarded as fragements of a new landscape, transformations of the terrain upon which the roofs or coverings rest. For this they can be defined as natural constructions.

The roof of the floating pavilion on Lake Lucerne by Santiago Calatrava can be opened and is made of independent sheets, each one moved by its own motor, and fixed to an inclined supporting pylon. It resembles the opening of a flower.(fig.7.1.6)⁷

Santiago Calatrava did a comparison of mobile structures with nature in designing the pavilion on an island, Zurich. The restaurant, on a wooded island in the middle of the lake, is roofed with a structure of twelve-meter-tall metal trees; each one can be opened with an independent motor. (fig.7.1.7)⁸

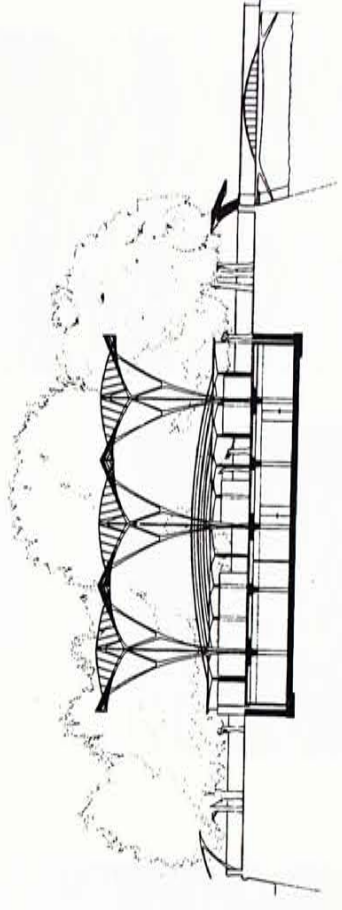
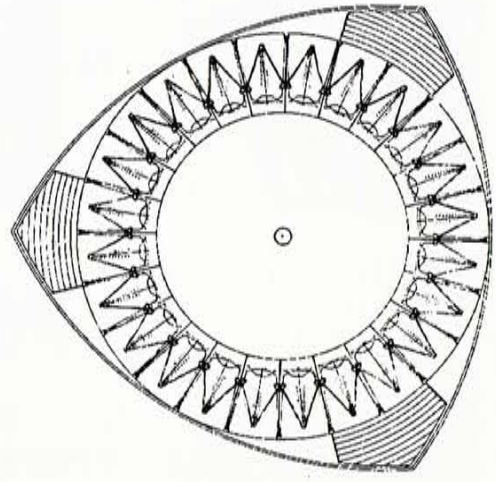
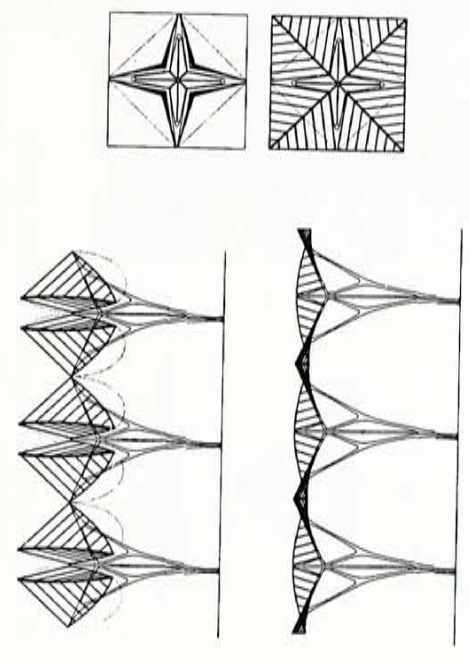
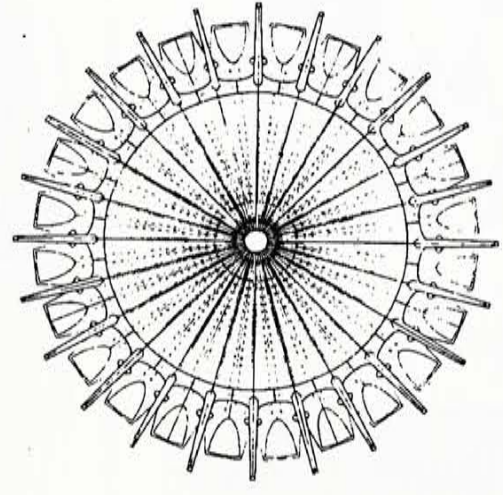
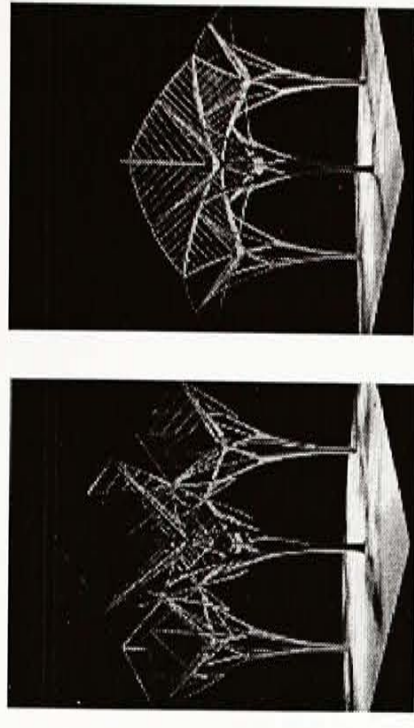
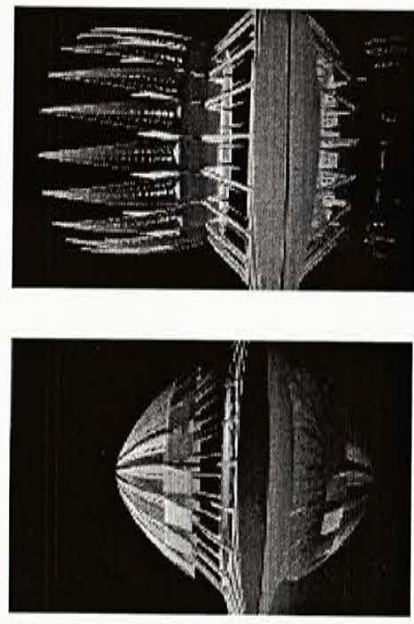


fig. 7.1.6 Floating pavilion on Lake Lucerne

fig. 7.1.7 Pavilion on an island, Zurich

• *Convertible membrane roof*

The convertible membrane roof can be retracted and opened within a short time. Besides, the tent structure give a lightweight feeling and allow considerable light to pass through.

Membranes are pulled by, among other things, tractors which ride on arches, supports, rods or cables. They are driven by electric motors and, in some cases, by internal combustion engines. Tractors with frictional force roll on wheels or caterpillar tracks on cables or tracks. They are pressed onto their running base through their own weight or the weight of the load hung from them.⁹

The roof over the Open Air Theater Masque de fer Casino Palm Beach, Cannes, France executed in 1965 is the first constructed example of a convertible roof structure with an exterior, slanting mast and a centrally bunched roof skin. Eight cables describe a cone and the cables come together in a point which is suspended from the top of the mast, forming one of the three guy directions for the mast. At the same time these cables are trolley cables for the trolleys which support and transport the roof skin. (fig.7.1.8 & fig.7.1.9) One of the triangular surfaces was built as a pattern to be used in making a functional model of the roof skin. Bunching and folding problems in various movement phases were investigated on this movable model. (fig.7.1.10)¹⁰

Swimming Pool Boulevard Carnot in Paris was built in 1966. A convertible roof was planned in order that the pool could be used the year round, regardless of the weather, thereby increasing the utilization potential of the facility. A constructive solution was chosen following the designs of the Open Air Theater in Cannes, for which good experimental values were already available.

Ten trolley cables for the roof skin radiate over the swimming pool from the top of a lattice mast standing outside the roof. (fig.7.1.11 & fig.7.1.12)¹¹

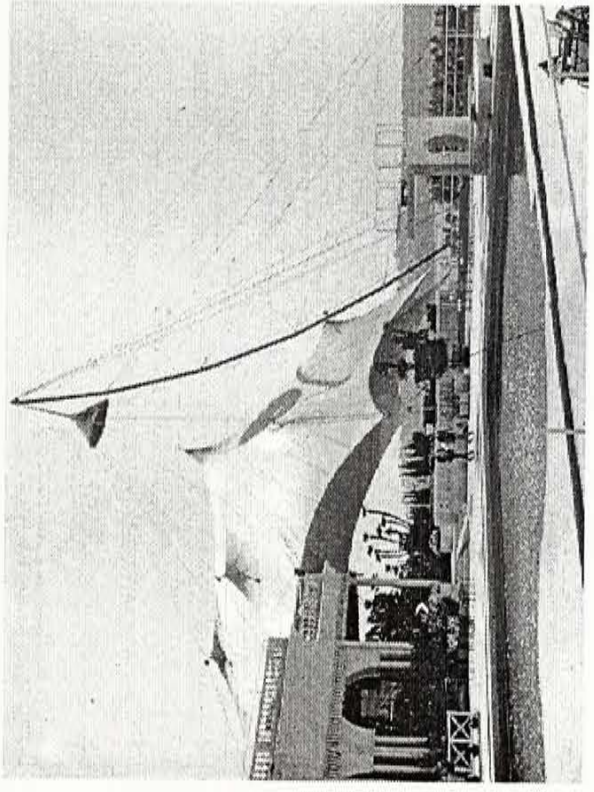


fig. 7.1.8 The Open Air Theatre Masque de fer Casino Palm beach

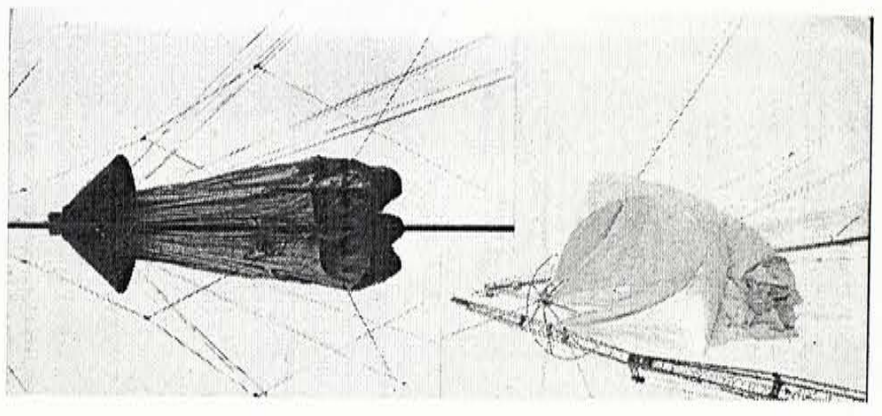


fig. 7.1.9 The membrane retracting to the top of the mast

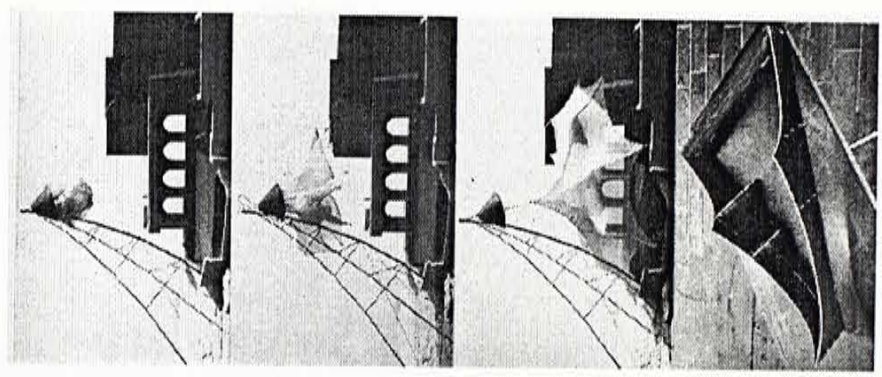


fig. 7.1.10 The model to study the movable mechanism

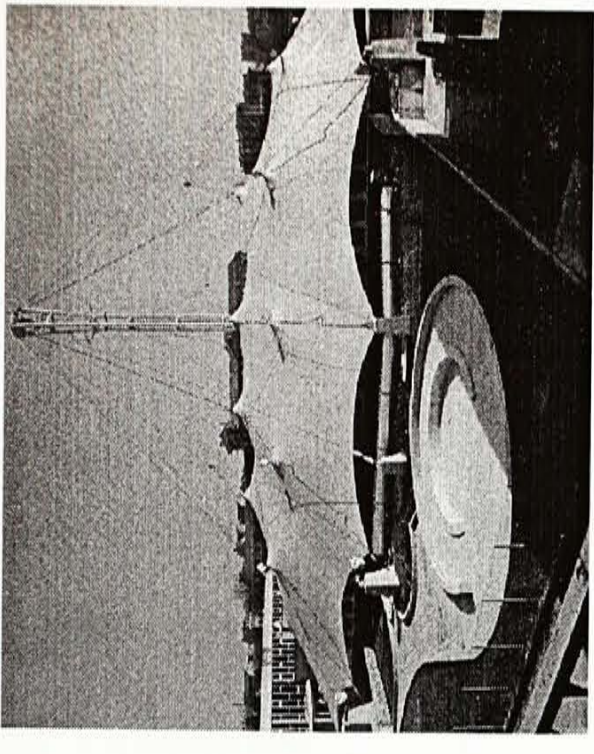


fig. 7.1.11 Swimming Pool Boulevard Carnot

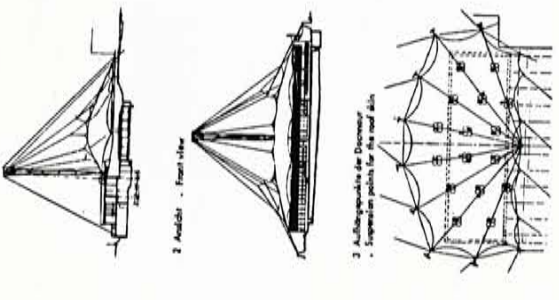


fig. 7.1.12 Section, elevation and plan

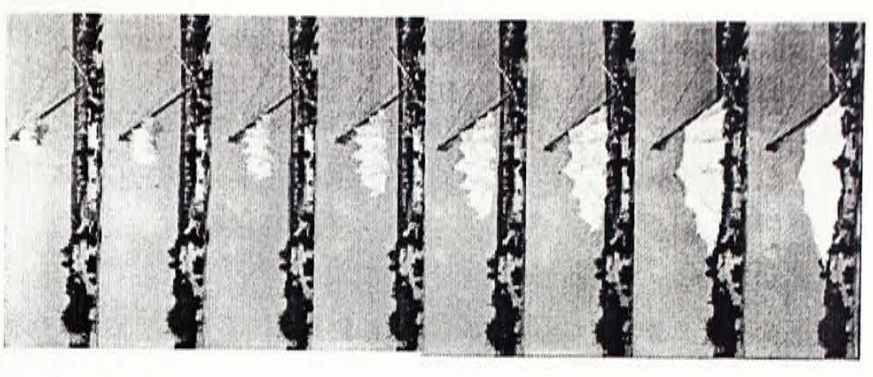


fig. 7.1.14 Sequential change of moving membrane



fig. 7.1.13 Multi-exposure of the moving membrane

8. Design development

8.1 First review

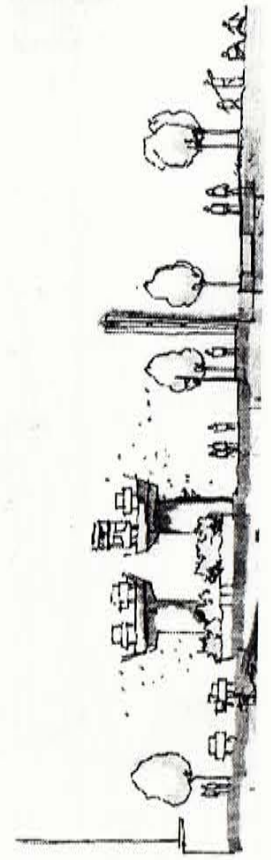
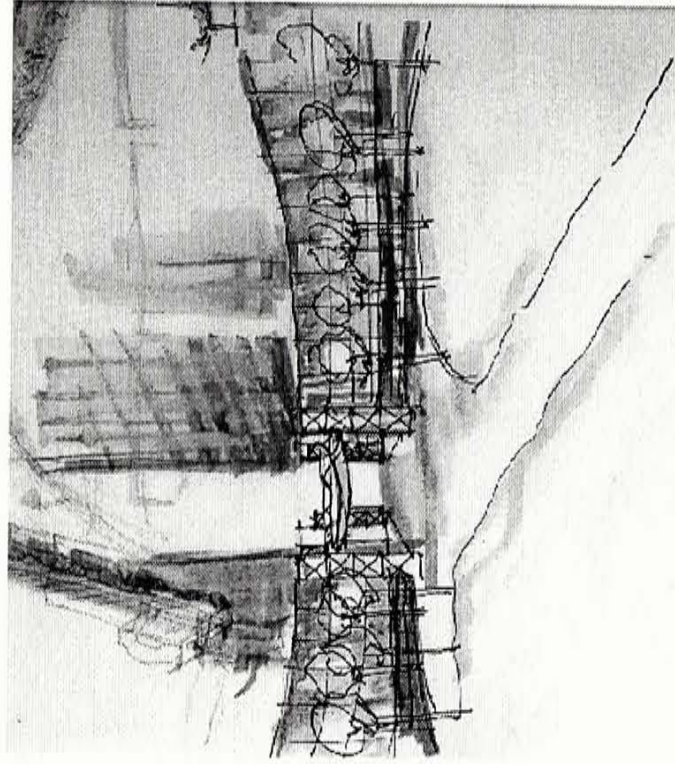
- Design concepts*

The employment of water wall on the western entrance forms a demarcation to separate the hustle and bustle of the streets. Visitors are filtered off from the dust and noise of the crowded urban fabrics. The water can provide white noise for the park.

The water can stimulate the natural typhoon shelter character of Victoria Park.

- Comments*

The use of water elements is a good choice but there should be control over the design.



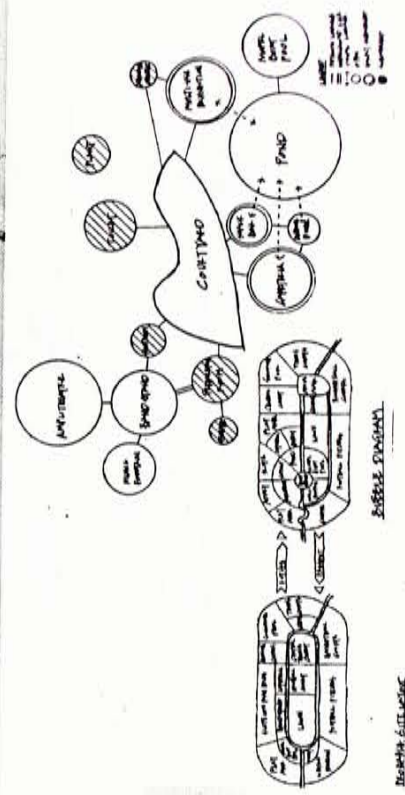
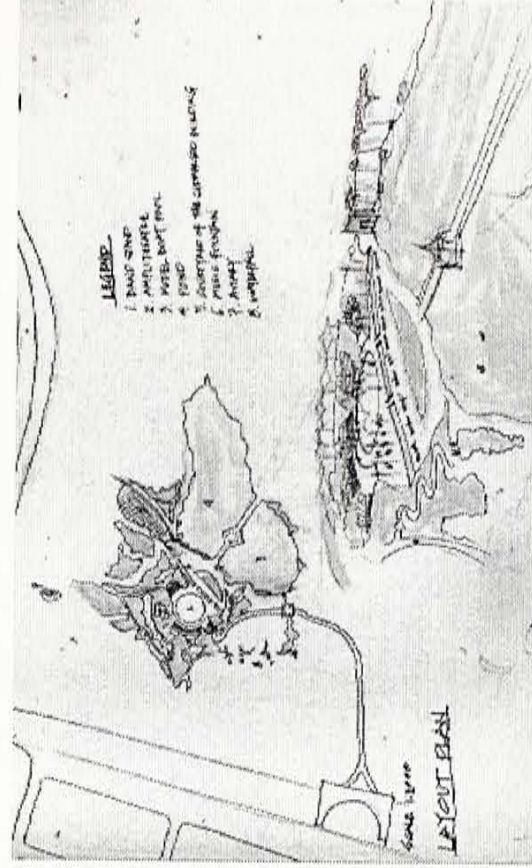
8.2 Second review

- Design concepts*

An amphitheatre with a convertible roof is designed facing to a pond. An organic shaped courtyard link up the cafeteria, multi-use display area as well as the park management office. The cafeteria is facing to the pond to enjoy maximum view.

- Comments*

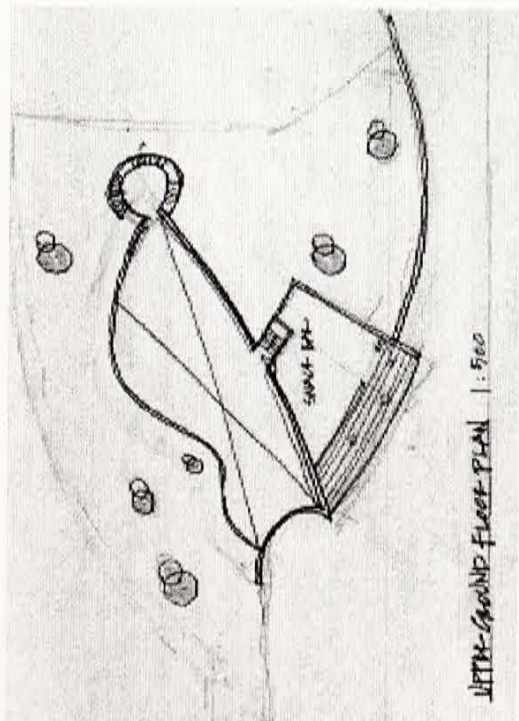
It is noted that the trees should be marked down on a survey plan. The design ought to respond to the existing landscape and the existing trees should be preserved as far as possible for environmental sake. The shape of the courtyard should be awkward and unsolved. The amenity structure should blend with the landscape avoiding cutting out of the site.



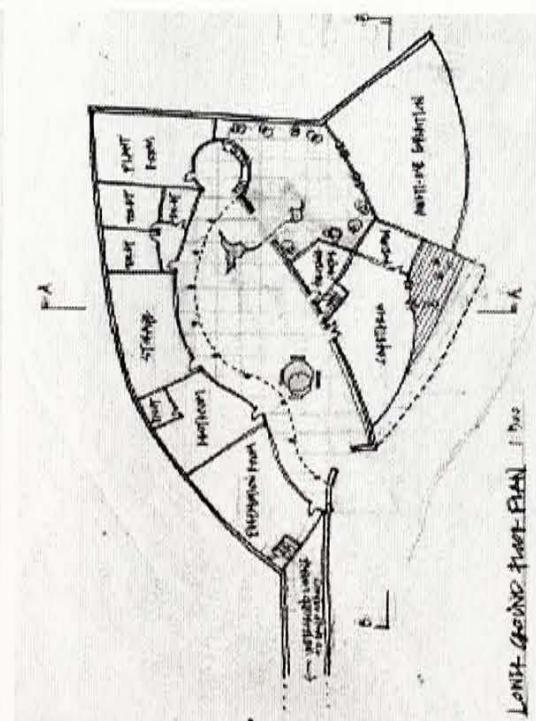
AMPHITHEATRE

8.3 Options & development

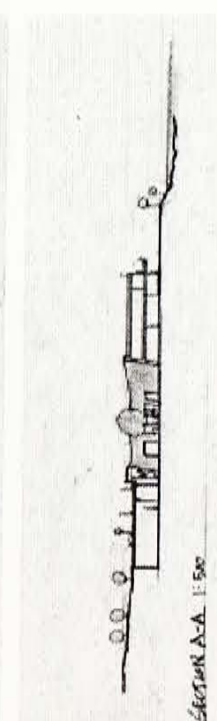
- Sectional approach of amenity gallery
Three options of the steeping down approach, flat roof approach and curved roof approach are produced. Finally the curved roof was chosen because it can fit to the existing landscape the best.



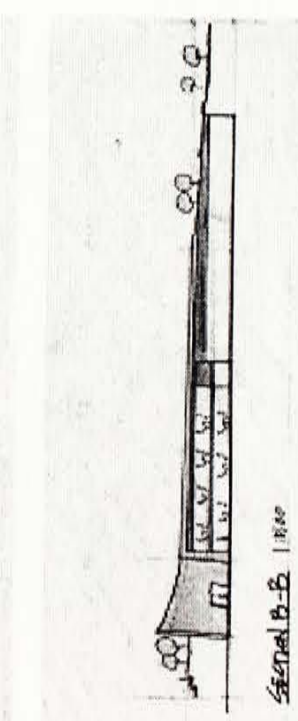
UPPER-GROUND FLOOR PLAN 1:500



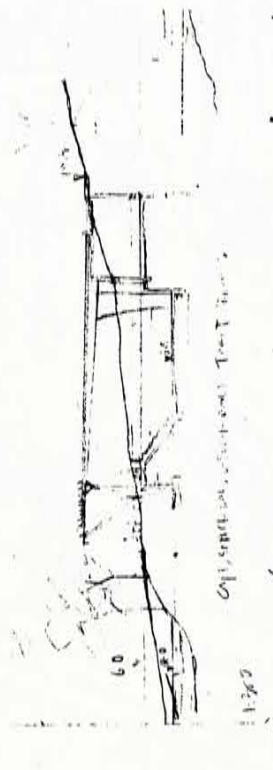
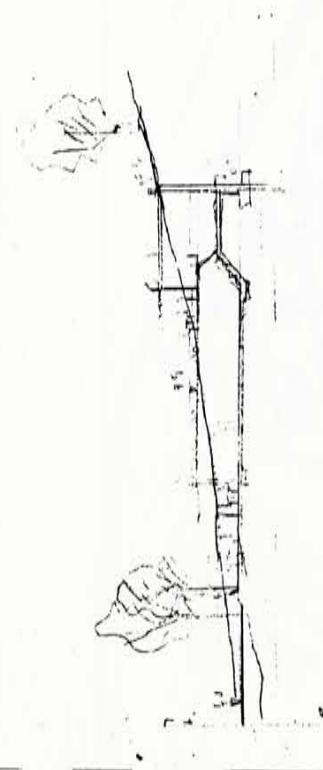
LOWER-GROUND FLOOR PLAN 1:500



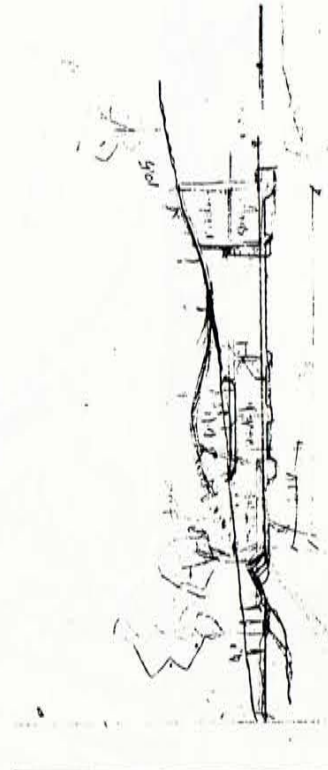
SECTION A-A 1:500



SECTION B-B 1:500

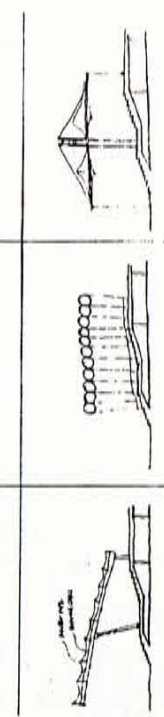
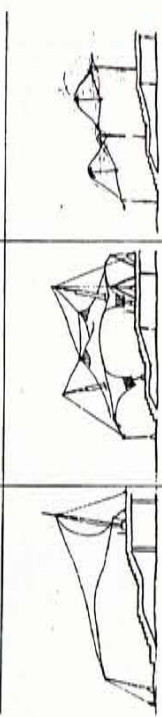
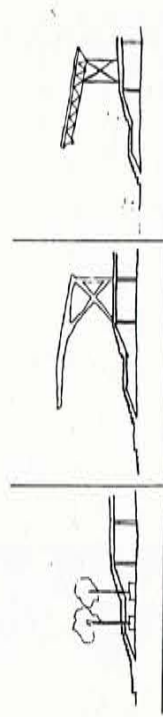
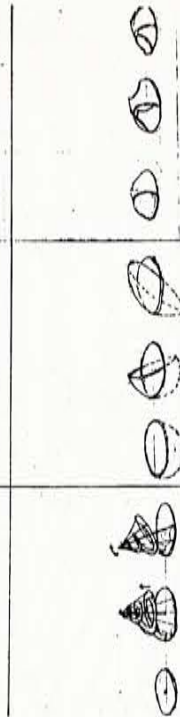
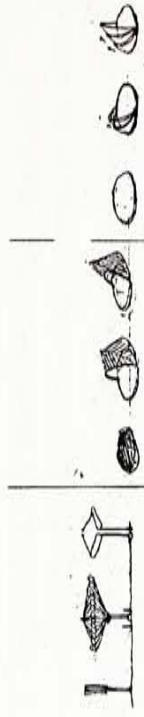


OPTIONAL CURVED ROOF APPROACH



- Structure of amphitheatre

Various choices of changeable structure of the shelter on the stage and spectator stand are explored.



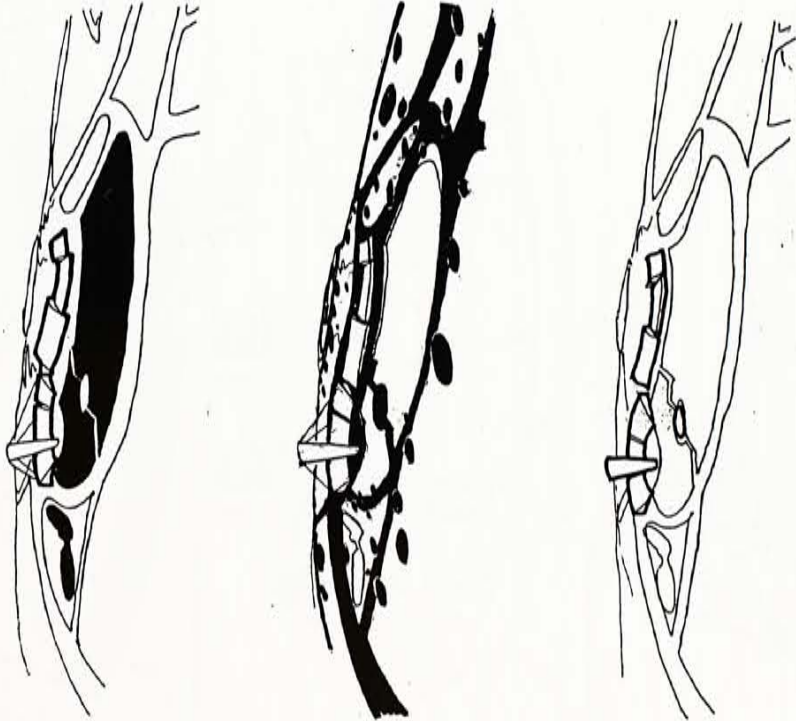
8.4 Third review

• *Design concepts*

In response to the slope at the north side, the amenity gallery is in a curved form radiating out terminating to the amphitheatre. The amenity structure forms a visual contrast to the pond.

The amphitheatre and amenity gallery is connected to the western entrance and the path around the pond forms a circulation loop connecting them to the rest of the park.

The amenity gallery, amphitheatre and the band stand acts as three major scenic spots in this zone.



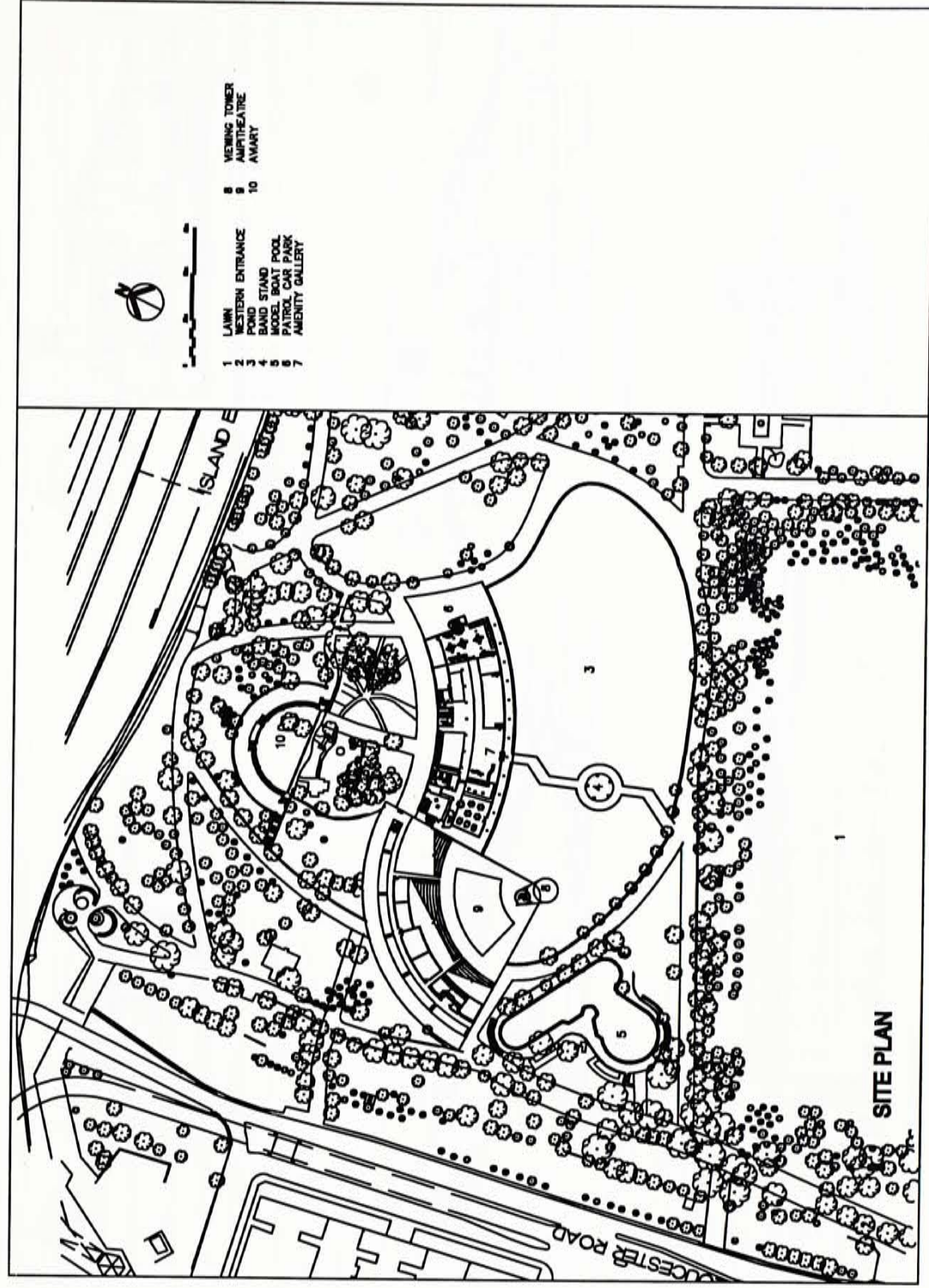
• *Comments*

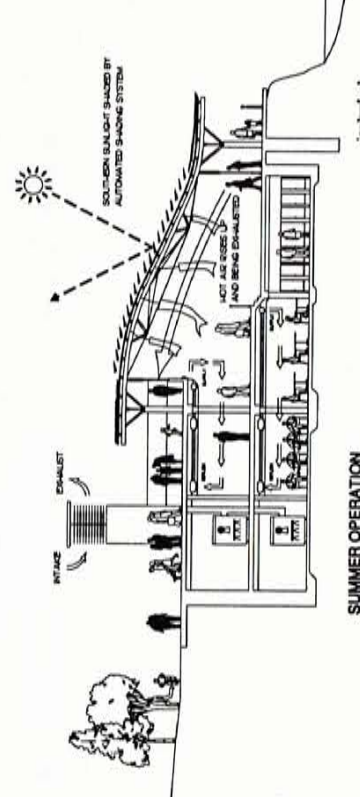
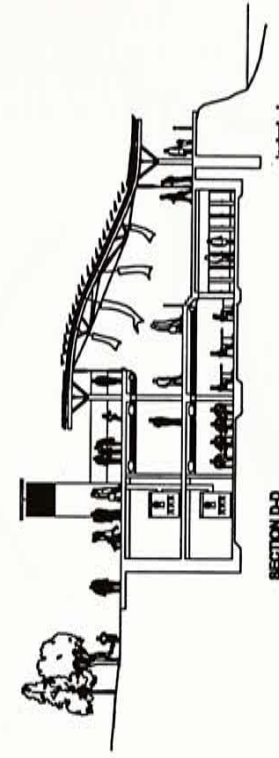
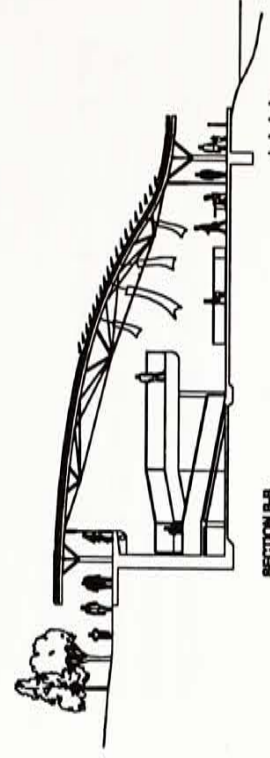
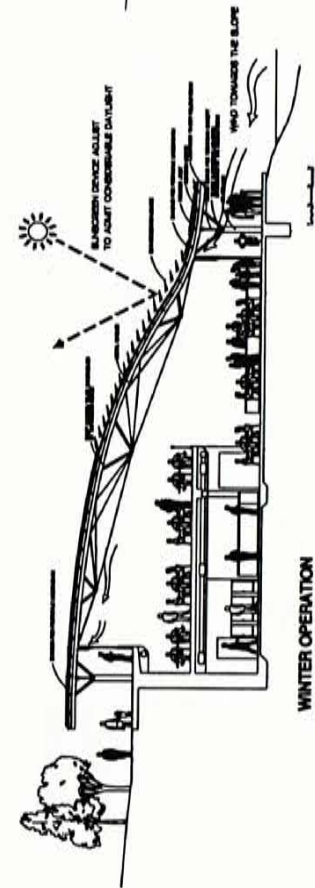
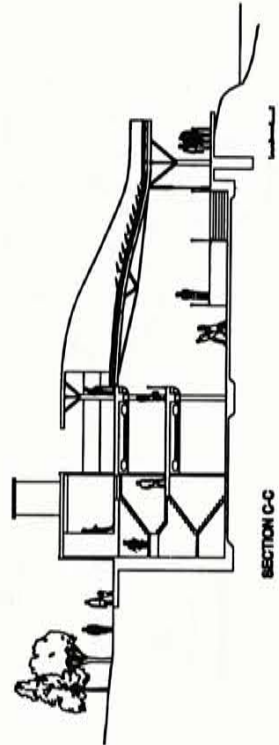
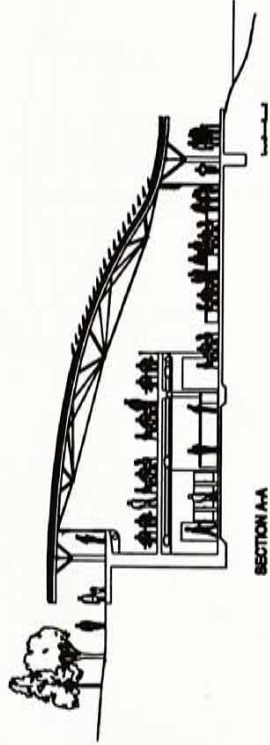
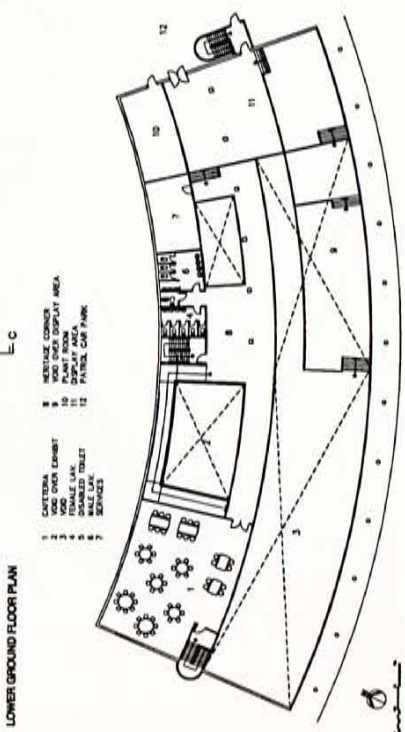
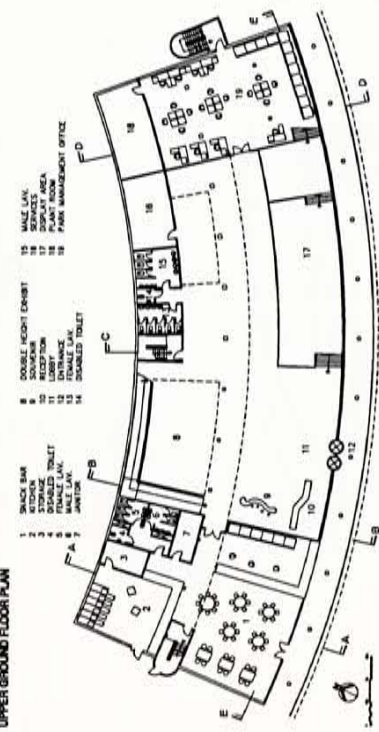
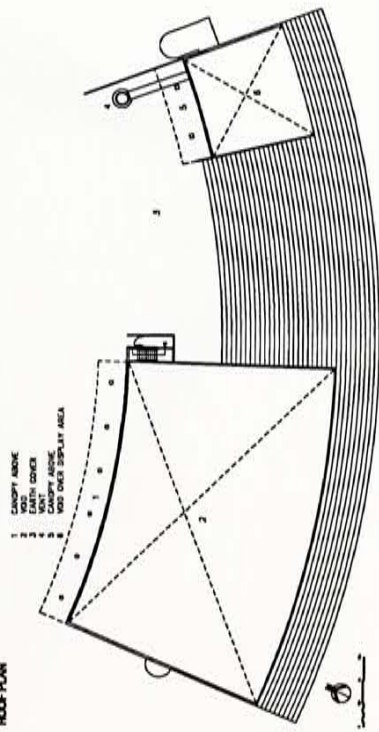
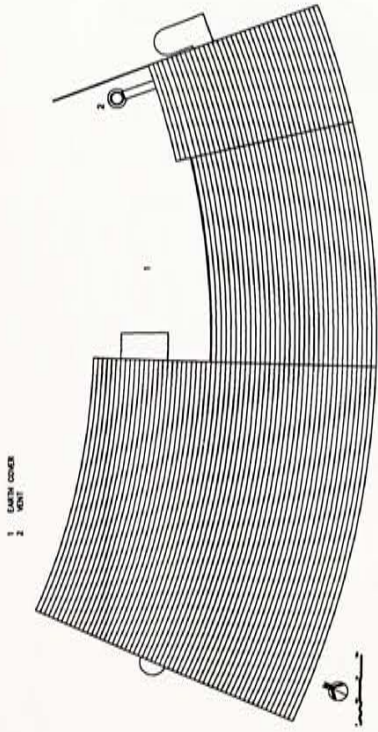
There are not enough relationship within the amphitheatre and the amenity gallery. The circulation has not well resolved. The retainment of the original band stand make the zone too busy.

The membrane form of the amphitheatre does not match with the roof form of the amenity gallery.

The viewing tower seems to create visual obstacle during performance.

The structure of the roof does not work with the existing beams and the connections between the three roof forms are left to be solved. The response of the landscape with level change inside the gallery is great but may seems to be too complicated. Loading, unloading and services need to be noticed.



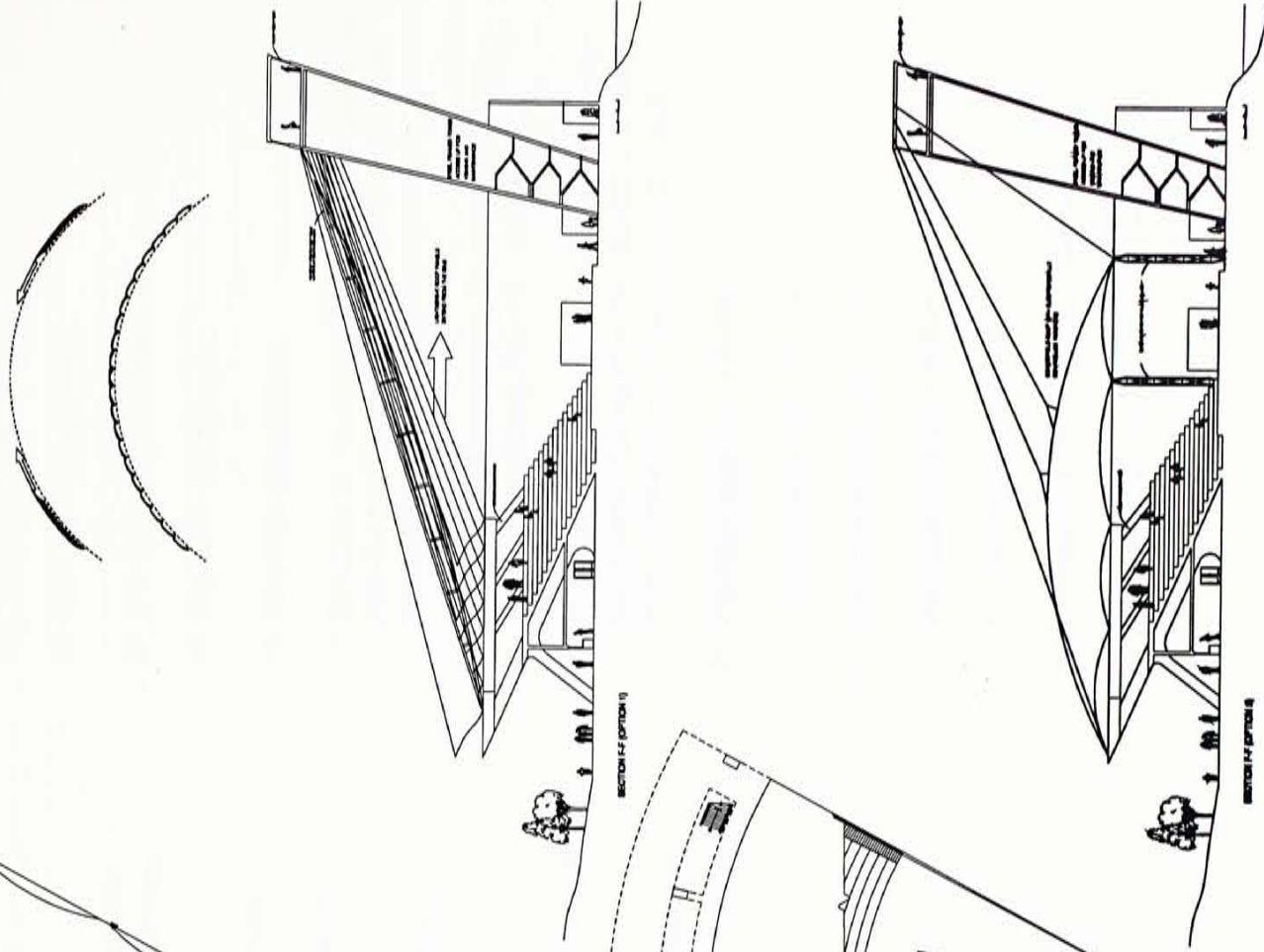
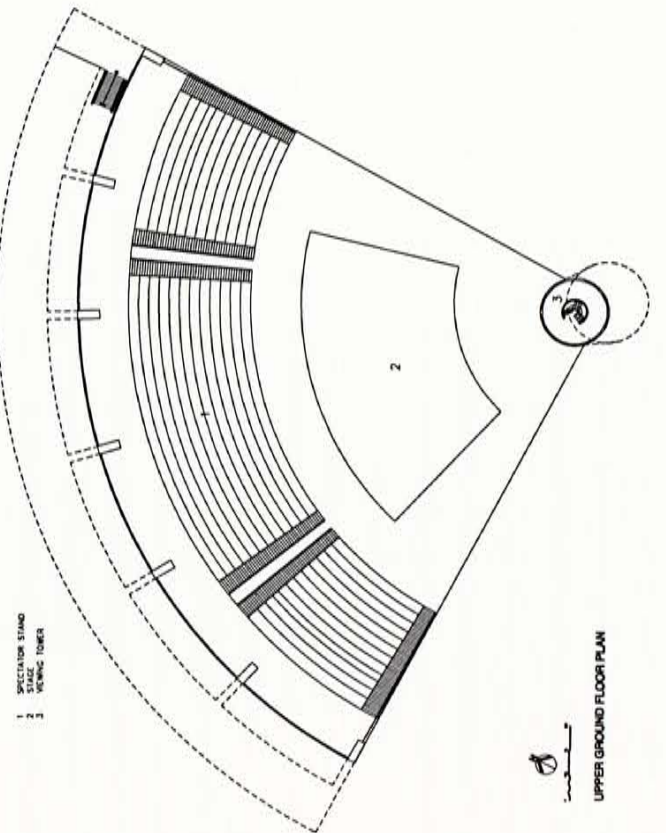
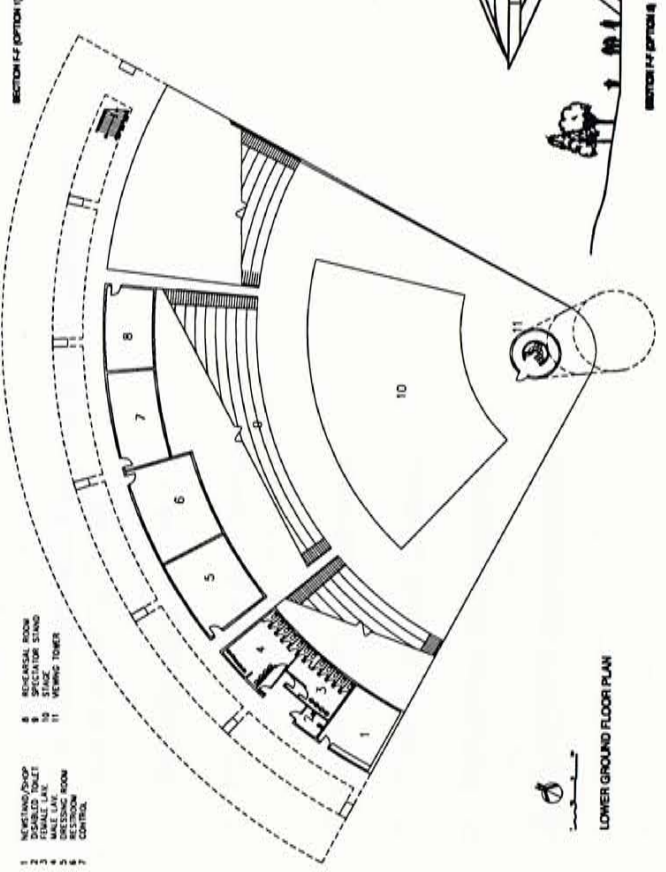
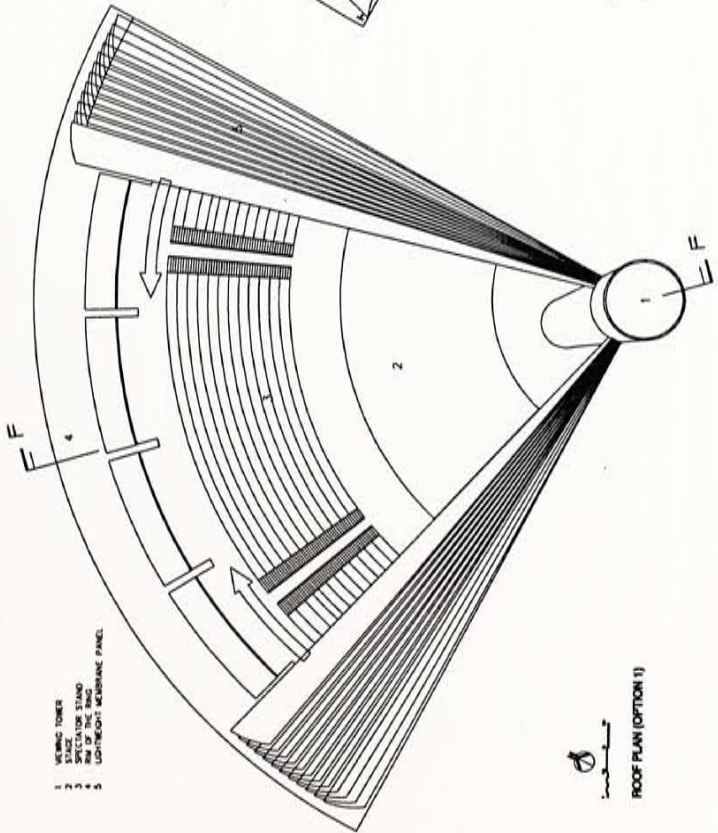
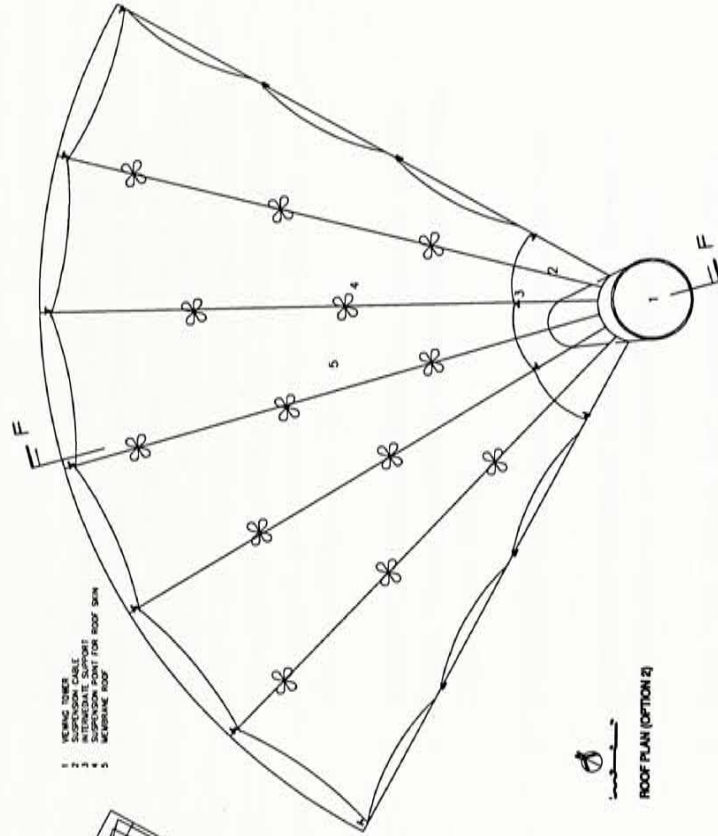


WINTER OPERATION

SUMMER OPERATION

Comments

The membrane roof is preferable to the sliding ring because of its lightweight form and interest during retraction and opening. The long span of the sliding ring also create structural difficulties to the roof.



1. Objectives

1. Definition of park: 1. public garden or recreation ground in a town ; 2. enclosed area of grassland, usually planted with trees, attached to a large country house; 3. (US) sports ground or playing field; 4. (in compounds) (large) area of land used for recreation by the public : a. national park; b. safari park; c. amusement park. (*Oxford Advanced Learner's Dictionary*)

2. Information obtained from the interview with Mr. Edwin Wong, architects of Architectural Services Department (ASD).

3. Information obtained from *Oriental Daily News*.

4. Information obtained from the *Brief Report of Redevelopment of Victoria Park* in ASD.

5. Data from Victoria Park Management Office.

2. Background

1. *The development of Hong Kong and Kowloon, as told in maps*, pp.8-11.

2. *The development of Hong Kong and Kowloon, as told in maps*, pp.28-30.

3. 香港東區街道故事 pp.174-206.

4. Figure 10, *The development of Hong Kong and Kowloon, as told in maps*, pp.9.

5. Photo from 香港東區街道故事

6. Photo from 香港東區街道故事

7. Photo from 香港東區街道故事

8. Photo from 香港東區街道故事

9. Photo from 香港地圖繪製史

10. Photo from 香港地圖繪製史

11. Photo from 香港地圖繪製史

12. Photo from 香港地圖繪製史

13. Map from 香港地圖繪製史

14. Map from 華僑日報街道圖 1954

15. Map from 香港地圖繪製史

16. Map from 香港地圖繪製史

17. *Schedule of Amendments to the Draft Causeway Bay Outline Zoning Plan No. S/H6/3 and North Point Outline Zoning Plan No. S/H8/5.*

18. *Explanatory Statement to the Draft Causeway Bay Outline Zoning Plan No. S/H6/3 ,pp.2.*

19. *Explanatory Statement to the Draft Causeway Bay Outline Zoning Plan No. S/H6/3 and North Point Outline Zoning Plan No. S/H8/5, pp.2.*

20. 香港東區街道故事 pp.174-206.

21. 香港東區街道故事 pp.174-175.

22. 香港東區街道故事 pp.167-173.

23. 香港東區街道故事 pp.174-206.

24. 香港東區街道故事 pp.174-206.

25. Information from *Ming Pao Daily News*.

26. Information obtained from the *Brief Report of Redevelopment of Victoria Park* in ASD.

3. Site and Context

1. Photo from 香港地圖繪製史
 2. *Schedule of Amendments to North Point Outline Zoning Plan No. S/H8/5.*
 3. Photo from *Leaflet of the New Central Library*
 4. *Explanatory Notes to North Point Outline Zoning Plan No. S/H8/5*, pp.5.
 5. *Explanatory Notes to North Point Outline Zoning Plan No. S/H8/5*, pp.5.
 6. *Explanatory Statement to the Draft Causeway Bay Outline Zoning Plan No. S/H6/3*, pp.4.
 7. Activities observed by visits to Victoria Park in various time of a day.
 8. Photo from anonymous newspaper clipping
 9. Photo from *Ming Po Daily News*, 28 Sept. 96.
 10. Photo from *Ming Po Daily News*.
 11. *Extract of the organizational structure of DAO(E) and M(VP) as at 1 July 1995* from Victoria Park Management Office.
 12. Proposed Organisational Chart of Victoria Park Management Office from Victoria Park Management Office.
 13. Interview with Mr. Chiu Yuen-ying, Manager of Victoria Park Management Office.
 14. Interview with Mr. Chiu Yuen-ying, Manager of Victoria Park Management Office.
 15. Interview with Mr. Chiu Yuen-ying, Manager of Victoria Park Management Office.
 16. Usage rate of Sports Facilities from Victoria Park Management Office.
 17. Interview with Mr. Chiu Yuen-ying, Manager of Victoria Park Management Office.
 18. Interview with Mr. Chiu Yuen-ying, Manager of Victoria Park Management Office.
- #### 4. Case studies
1. *Pace*, Aug 1991, vol. 33, pp.70-71.
 2. *Design Report of Hong Kong Park*, Wong Tung & Partners.
 3. *Design Report of Hong Kong Park*, Wong Tung & Partners.
 4. Photo from *Hong Kong architecture: the aesthetics of density*.
 5. Photo from *Hong Kong architecture: the aesthetics of density*.
 6. *Park as a city? Hong Kong Park*, Summer, 1994.
 7. *Park as a city? Hong Kong Park*, Summer, 1994.
 8. *Design Report of Hong Kong Park*, Wong Tung & Partners.
 9. *Pace*, Aug 1991, vol. 33, pp.70-71.
 10. 香港園林, pp.80-89.
 11. Design: Central Park Sha Tin, Hong Kong (Brian Clouston & Partners), *Landscape Design*, Dec 1993, no. 226, pp.A27-A28.
 12. Figure 147, 香港園林, pp.82
 13. Figure 156, 香港園林, pp.85
 14. Photo from *Landscape Design*, Dec 1993, no. 226, pp.A28.
 15. Derek Walker Associates: *the view from Great Linford*, pp.113.
 16. Kowloon Park, *Architectural Review*, vol. 188, no. 1122, pp.22-29.
 17. Map from 香港園林, pp.47.
 18. Figure 70, 香港園林, pp.48.
 19. Kowloon Park, *Architectural Review*, vol. 188, no. 1122, pp.22-29.
 20. Figure 71, 香港園林, pp.48-49.
 21. Figure 72, 香港園林, pp.48.
 22. Lok Fu Park: Active and passive areas echo HK lifestyle, *Pace*, Jun 1994, vol. 67, pp.84-93.
 23. Park Spirits, *Landscape Design*, November 1993, pp.29.
 24. Lok Fu Park: Active and passive areas echo HK lifestyle, *Pace*, Jun 1994, vol. 67, pp.85.
 25. Lok Fu Park: Active and passive areas echo HK lifestyle, *Pace*, Jun 1994, vol. 67, pp.86.
 26. Lok Fu Park: Active and passive areas echo HK lifestyle, *Pace*, Jun 1994, vol. 67, pp.93.
 27. Lok Fu Park: Active and passive areas echo HK lifestyle, *Pace*, Jun 1994, vol. 67, pp.93.
 28. Lok Fu Park: Active and passive areas echo HK lifestyle, *Pace*, Jun 1994, vol. 67, pp.92.
 29. Lok Fu Park: Active and passive areas echo HK lifestyle, *Pace*, Jun 1994, vol. 67, pp.87.

30. Lok Fu Park: Active and passive areas echo HK lifestyle, *Pace*, Jun 1994, vol. 67, pp.88.
31. Lok Fu Park: Active and passive areas echo HK lifestyle, *Pace*, Jun 1994, vol. 67, pp.89.
32. *Explora Guide to the Permanent Exhibitions*, pp.11-14.
33. Designing parks, 1992.
34. Designing parks, 1992.
35. Designing parks, 1992.
36. Designing parks, 1992.
37. Designing parks, 1992.
38. Map from *Progressive Architecture*, Oct 1993, pp.69.
39. Figure 704, *The Landscape of Man*, pp 373.
40. Designing parks, 1992.
41. Parc de la Villette, *Architectural Record*, March 1984, pp.66-67.
42. Disjunction - Bernard Tschumi's Dissociative Methodology, *HKU Portfolio '93*, pp. 113-120.
43. Report - Tschumi on Villette, *Landscape Architecture*, May/June, pp.86-87.
44. The Point of No Return, *Progressive Architecture*, July, 1987, pp.94-97.
45. Critique, *Progressive Architecture*, Oct 1993, pp.66-69.
46. Perspectives, Paris report: Progress at La Villette, *Progressive Architecture*, Nov 1985, pp.47-49.
47. Disjunction - Bernard Tschumi's Dissociative Methodology, *HKU Portfolio '93*, pp. 113-120.
48. Figure 702, *The Landscape of Man*, pp.373.
49. *The New European Landscape*, 1994, pp.23-26.
50. *Quarterly Journal of Architecture & Aesthetics*, pp.134-137.
51. Photo from *Quarterly Journal of Architecture & Aesthetics*, pp.137.
52. Photo from *Quarterly Journal of Architecture & Aesthetics*, pp.137.
53. Photo from *Quarterly Journal of Architecture & Aesthetics*, pp.137.
5. *The brief*
6. *Design Programme*
1. *Proposed Schedule of Accomodation, Redevelopment of Victoria Park.*
7. *Research & Field Work*
1. Cuno Brullmann, 1995, pp.101.
 2. Santiago Calatrava Secret Sketchbook, 1996, pp.58-59.
 3. Figure from Santiago Calatrava Screte Sketchbook, pp.67.
 4. Photo from Santiago Calatrava Screte Sketchbook, pp.67-68.
 5. Santiago Calatrava Secret Sketchbook, 1996, pp.13.
 6. Cuno Brullmann, 1995, pp.102-107.
7. Santiago Calatrava Secret Sketchbook, 1996, pp.33.
8. Santiago Calatrava Secret Sketchbook, 1996, pp.41.
9. IL5: Convertible roofs, 1972, pp.134.
10. IL5: Convertible roofs, 1972, pp.236-239.
11. IL5: Convertible roofs, 1972, pp.242-243.

Books

1. 夏歷, '香港東區街道故事', 三聯書店(香港)有限公司, 香港, 1994.
2. 哈爾, 恩普森, '香港地圖繪製史', 政府新聞處, 香港, 1992.
3. 朱鈞珍, '香港園林', 三聯書店(香港)有限公司, 香港, 1990.
4. '華僑日報街道圖', 華僑日報出版社, 1954.
5. Tregear, T.R., *The development of Hong Kong and Kowloon, as told in maps*, Hong Kong University Press, Hong Kong, 1959.
6. Vittorio Magnago Lampugnani, *Hong Kong architecture: the aesthetics of density*, Prestel Verlag, New York, 1993.
7. Gardiner, Stephen, *Derek Walker Associates: the view from Great Linford*, Academy Editions, London, 1995.
8. *Explora Guide to the Permanent Exhibitions*.
9. Baljon, Lodewijk, *Designing parks*, Architectura & Natura Press, Amsterdam, 1992.
10. Geoffrey and Susan Jellicoe, *The landscape of Man*, Thames & Hudson, London, 1995.
11. *HKU Portfolio '93*, Hong Kong, 1993.
12. Lancaster, Michael, *The New European landscape*, Butterworth Architecture, Boston, 1994.
13. Ulrich Pfammatter, *Cuno Brullmann*, Birkhauser, Basel, 1995.
14. Zardini, Mirko, Santiago Calatrava Secret Sketchbook, The Monacelli Press, New York, 1996.
15. Blumel, Graefe, Hennicke, Kugel, Pankoke, Otto, Schock, Wagner, *IL5: Convertible roofs*, Heinrich Fink KG., Stuttgart, 1972.

Reports, Maps & Booklets

1. *Brief Report of Redevelopment of Victoria Park in ASD*.
2. *Causeway Bay Outline Zoning Plan No. S/H6/3*.
3. *North Point Outline Zoning Plan No. S/H8/5*.
4. *Leaflet of the New Central Library*.
5. *Extract of the organizational structure of DAO(E) and M(VP) as at 1 July 1995 from Victoria Park Management Park*.
6. *Proposed Organizational Chart of Victoria Park Management Office from Victoria Park Management Office*.
7. Ka-Ming, Cheu, *Park as a City? Hong Kong Park*, Summer, 1994.

Appendix

Usage of Tennis Courts

Form 874(a)

Name of Venue Victoria Park District Eastern
No. of tennis court(s) provided in the venue: 13
Month/Year: August 1996

I. Overall Usage

A. Total hours available for use: 4508 hrs.
B. Total hours used: 3937 hrs.
C. Overall usage rate : $\frac{B}{A} \times 100\% =$ 87.3 %

II. Peak Hours Usage

D. Total peak hours available for use: 2486 hrs.
E. Total peak hours used: 2369 hrs.
F. Peak hours usage rate : $\frac{E}{D} \times 100\% =$ 95.3 %

III. Non-peak Hours Usage

G. Total non-peak hours available for use: 2022 hrs.
H. Total non-peak hours used: 1568 hrs.
I. Non-peak hours usage rate : $\frac{H}{G} \times 100\% =$ 77.5 %

IV. Floodlit Hours Usage (Please complete if applicable)

J. Total available hours of floodlit courts: 1119 hrs.
K. Total floodlighting hours used: 1090 hrs.
L. Usage rate of floodlit courts: $\frac{K}{J} \times 100\% =$ 97.4 %

V. Non-peak Hours Usage at Concessionary Rate

M. Total non-peak hours available for use: 2022 hrs.
N. Non-peak hours used at concessionary rate:
(i) for subvented non-government organisations: 0 hrs.
(ii) for schools: 92 hrs.
(iii) for senior citizens: 3 hrs.
(iv) for students: 223 hrs.
(v) for Disabled Individuals: 0 hrs.
(vi) for Disabled Groups: 0 hrs.
[Total (i) + (ii) + (iii) + (iv) + (v) + (vi)]: 318 hrs.

O. Non-peak hours usage at concessionary rate:

$$\frac{N}{M} \times 100\% =$$

15.7
----- %

VI. Peak Hours Usage at Concessionary Rate

P. Total peak hours available for use:

2486 hrs.

Q. Total peak hours used:

(i) for Disabled Individuals

0 hrs.

(ii) for Disabled Groups

0 hrs.

R. Peak hours usage at concessionary rate:

$$\frac{Q}{P} \times 100\% =$$

0
----- %

RV13/TABLES.FRM

2
0
70

02

Allocation of Tennis CourtsName of Venue: R&A (E) Victoria ParkNo. of tennis courts provided: Thirteen

Month/Year: _____

Application Received (Advance booking)	Council functions (e.g. from DRSO) HKTA and bona-fide organizations recommended by HKTA Schools Ordinary booking by public	Nos.
		Allocation result (Ordinary booking by public only)
Distribution (Advance booking in application form)	(i) Council functions a) DRSO b) SRSC (ii) HKTA (iii) Bona-fide organizations recommended by HKTA : (iv) Schools: (a) at concessionary rate (b) at normal rate (v) Public : (a) Subvented non-government organizations at concessionary rate (b) The elderly at concessionary rate (c) students (d) Other members of public	Hours
		a) 439 b) 164 220 0 92 0 - 3 223 2796 Total: 3937

Booking (in hours) actually taken up by		*P	*NP
		(i) Council functions a) DRSO b) SRSO (ii) HKTA (iii) Bona-fide organizations recommended by HKTA (iv) Schools: (a) at concessionary rate (b) normal rate (v) Public : (a) Subvented non-govern- ment organizations at concessionary rate (b) The elderly at concessionary rate (c) Students at concessionary rate (d) Disabled Individuals at concessionary rate (e) Disabled Groups at concessionary rate (f) Other members of public	a) 397 b) 76 50 0 - 0 - - - 0 0 1846
	Total:	3937	2369 1568

Remarks: *NP - Non-peak hours refer to hours before 5:00 p.m. on weekdays.

*P - Peak hours refer to hours on Saturdays, Sundays, public holidays and hours after 5:00 p.m. on weekdays.

*On August 96 total 1731hrs with bad weather (Peak:1058, Non Peak:673) & 1/8 to 9/8, 6am-11pm, Ct.10-13 was resurfacing total 612hrs (Peak : 304, Non Peak:308)

Table I

Usage of Centre Court

Name of venue : Victoria Park

District : Eastern

Monthly/Year : August 1996

I. Overall Usage

A. Total hours available for use :	476	hrs.
B. Total hours used :	340	hrs.
C. Overall usage rate : $\frac{B}{A} \times 100\% =$	71.4	%

II. Peak Hours Usage

D. Total peak hours available for use :	267	hrs.
E. Total peak hours used :	247	hrs.
F. Peak hours usage rate : $\frac{E}{D} \times 100\% =$	92.5	%

III. Non-peak Hours Usage

G. Total non-peak hours available for use :	209	hrs.
H. Total non-peak hours used :	93	hrs.
I. Non-peak hours usage rate : $\frac{H}{G} \times 100\% =$	44.5	%

IV. Floodlit Hours Usage (Please complete if applicable)

J. Total available hours of floodlit courts	108	hrs.
K. Total floodlighting hours used :	108	hrs.
L. Usage rate of floodlit courts : $\frac{K}{J} \times 100\% =$	100	%

Table II

Allocation of Centre Court

Name of venue : Victoria Park Centre Court

Month/Year : August 1996

		Hours	
Distribution	(i) Council functions a) DRSSO	67	
	(ii) HKTA	0	
	(iii) Bona-fide organizations recommended by HKTA	0	
	(iv) Schools : (a) at concessional rate (b) at normal rate	0	
		0	
	(v) Public : (a) Subvented non-government organization at concessional rate (b) Other members of public	0	
		273	
Total :		340	
		*P	**NP
Booking (in hours) actually taken up by	(i) Council functions a) DRSSO	67	0
	(ii) HKTA	0	0
	(iii) Bona-fide organization recommended by HKTA	0	0
	(iv) Schools : (a) at concessional rate (b) at normal rate	0	0
		0	0
	(v) Public : (a) Subvented non-government organizations at concessional rate (b) Other members of public	0	0
		180	93
Total :		247	180

Remark : **NP - Non-peak hours refer to hours before 5:00pm on weekdays.
 *P - Peak hours refer to hours on Saturdays, Sundays, public holidays and hours after 5:00pm on weekdays.

On August 96 (29/8 to 31/8) total 51hrs (Peak:29, Non Peak:22) was resurfacing.

District: Victoria Park Name of Squash Courts: Victoria Park Month: August 96 No. of Squash Courts: 4

HA: Hours Available MU: Hours Used SAU: & Usage

Sessions (according to opening hours)	Weekdays			Saturdays			Sundays			Public Holidays			All days		
	HA	MU	SAU	HA	MU	SAU	HA	MU	SAU	HA	MU	SAU	HA	MU	SAU
7:00 - 8:00 a.m.	84	1	1.2	16	1 1/2	9.4	16	0	0	8	0	0	124	2 1/2	2
8:00 - 9:00 a.m.	84	2	2.4	16	1	6.3	16	1 1/2	9.4	8	0	0	124	4 1/2	3.6
9:00 - 10:00 a.m.	84	8	9.5	16	4 1/2	28.1	16	6 1/2	40.6	8	0	0	124	19 1/2	15.7
10:00 - 11:00 a.m.	84	9 1/2	11.3	16	5	31.3	16	8	50	8	1 1/2	18.8	124	24	19.4
11:00 - 12:00 noon	84	13	15.5	16	8	50	16	12 1/2	78.1	8	4 1/2	56.3	124	38	30.6
12:00 - 1:00 p.m.	84	3 1/2	4.2	16	1 1/2	9.4	16	7 1/2	46.9	8	1 1/2	6.3	124	13	10.5
1:00 - 2:00 p.m.	84	12 1/2	14.9	16	3	18.8	16	4	25	8	0	0	124	19 1/2	15.7
2:00 - 3:00 p.m.	84	9 1/2	11.3	16	11	28.8	16	13 1/2	25	8	2	2.5	124	36	29
3:00 - 4:00 p.m.	84	15 1/2	18.4	16	14	27.5	16	14	27.5	8	2 1/2	31.3	124	46	37.1
4:00 - 5:00 p.m.	84	15	17.8	16	13 1/2	24.4	16	10 1/2	65.6	8	3 1/2	43.8	124	42 1/2	34.3
5:00 - 6:00 p.m.	84	10 1/2	12.5	16	13	21.3	16	6 1/2	40.6	8	1 1/2	18.8	124	31 1/2	25.4
6:00 - 7:00 p.m.	84	8 1/2	10.8	16	6	17.5	16	6 1/2	40.6	8	1 1/2	18.8	124	7 1/2	63.3
7:00 - 8:00 p.m.	84	13 1/2	17.4	16	1	6.3	16	5 1/2	34.4	8	1	12.5	124	9 1/2	73.4
8:00 - 9:00 p.m.	84	7 1/2	9.4	16	2	12.5	16	1 1/2	9.4	8	1 1/2	6.3	124	8 3/2	67.3
9:00 - 10:00 p.m.	84	5 1/2	6.8	16	3 1/2	21.9	16	1 1/2	3.1	8	1	12.5	124	6 2/2	50.4
10:00 - 11:00 p.m.	84	1.8	2.4	16	1 1/2	3.1	16	0	0	8	1	12.5	124	1 1/2	15.7
Overall	1344	403	30	256	89	34.8	256	98 1/2	38.5	128	2 1/2	16.8	1984	612	30.8

(II) Statistics

Peak hours	Non-peak hours	Total hours
1144	840	1984
522 1/2	89 1/2	612
45.7	10.7	30.8

(III) Hours used at concessionary rates

Category	Peak hours used	Non-peak hours used
School	0	0
Urban Council	0	0
Gov't Sports Bodies	522 1/2	89 1/2
Public	0	0
Disabled individuals	0	0
Disabled Groups	0	0
District Sports Areas	0	0
Total hours used	522 1/2	89 1/2

Exempt Peak hours (weekdays from 5:00 p.m. to 11:00 p.m., Saturdays, Sundays & Public Holidays)
 Non-peak hours (weekdays from opening till 5:00 p.m.)
 Closure of courts from _____ to _____ due to _____
 Light maintenance hours should be excluded from the hours available.

Mrs. Sandy CHAN
 District Activities Officer (DMCVP)
 Date: 10-9-96

Monthly Return on the Usage of Bowling Greens

Venue : Victoria Park Bowling Green
 No. of Greens : 12
 Month/Year : August 1996

I. Peak hour usage

No. of peak hours available (A)	No. of peak hours used							Peak hour usage (D) (I.e. (B)/(A) x 100%)	Remarks			
	by UC functions	by schools	by sports associations		by public							
			at normal rate	at concess- ionary rate	at normal rate	at concess- ionary rate	at concess- ionary rate			Total (B)		
			A	B	C	D	E	F				
3432	0	0	231	0	384	0	0	0	0	615	17.9%	

II. Non-peak hour usage

No. of non-peak hours available (C)	No. of non-peak hours used							Non-peak hour usage (E) (I.e. (D)/(C) x 100%)	Remarks			
	by UC functions	by schools	by sports associations		by public							
			at normal rate	at concess- ionary rate	at normal rate	at concess- ionary rate	at concess- ionary rate			Total (D)		
			A	B	C	D	E	F				
2520	0	0	0	0	311	16	0	0	0	327	13%	

* Remark : the figure in this usage is a tentatively one and the accurate figure should be based on the computer record.

Remark: the figure in this usage is a tentatively one and the accurate figure should be based on the computer record.

No. of floodlit hours available (E)	No. of floodlit hours used										Floodlit hour usage (X) (i.e. (F)/(E) x 100%)	Remarks	
	by UC functions	by schools	by sports associations		by public								
			at normal rate	at concess-louery rate	at normal rate	at concess-louery rate				total (F)			
						A	B	C	D				
1488	0	0	106	0	276	0	0	0	0	0	382	25.7%	

IV. Overall usage

Total hours available (E)	Total hours used										Overall usage (X) (i.e. (M)/(E) x 100%)	Remarks	
	by UC functions	by schools	by sports associations		by public								
			at normal rate	at concess-louery rate	at normal rate	at concess-louery rate				total (M)			
						A	B	C	D				
5952	0	0	231	0	695	16	0	0	0	0	942	15.8%	

Note(1): "peak hours" refers to all opening hours starting from 5:00 p.m. on weekdays and all opening hours on Saturdays, Sundays and public holidays while the "near-peak hours" refers to all opening hours before 5:00 p.m. on weekdays. (The hours closed owing to inclement weather or maintenance are not taken into account).

Note(2): Please indicate periods closed and the reasons for the closures (e.g. for maintenance, etc.)

- a) Senior citizens
- b) Students
- c) Disabled Groups
- d) Disabled Individuals
- e) Schools
- f) Subvented Organizations

[Signature]
 Mrs. Sindy CHAN
 for District Association Officers (District)
 Date: 9-9-96

Usage of Sports and Recreation Facilities

Month : August / 96

Sports and Recreation Facilities	Usage of Sports and Recreation Facilities		
	Unit	Quantity (Booked & Used)	Usage Rate (%)
Hard-surfaced Pitches, etc.			
Miniature Football	hour	1539	51.7%
Hour Available : 2976			
Squash	hour		
Tennis	hour		
Obstacle Golf	game		
Grass Pitches, etc.			
Association Football †	session		
Miniature Football †	session		
Bowling	hour		
Hockey (Artificial turf)	hour		
Rugby †	hour		
Indoor Games Halls			
Badminton	hour		
Basketball	hour		
Volleyball	hour		
Table-tennis	hour		
Fitness Training	hour		
Dancing ‡	hour		
Social Activities §	hour		
Sports Activities †	hour		
Other **	hour		

Classification of usage rate by facility of indoor games hall is not feasible.

- † For each grass football pitch and grass rugby pitch, 40 sessions (each of 1.5 hours) are available for use per month.
- ‡ Dancing includes disco night and ballroom dance.
- § Social Activities include fun day.
- † Sports Activities include indoor archery, gate ball, handball, hockey demonstration and mini-tennis.
- ** Others include polling and games room activities.

$$\text{Usage Rate (\%)} = \frac{\text{Total no. of hours used}}{\text{Total no. of hours available for use}} \times 100\%$$

Nature and Number of Events held in Victoria Park from 1991 - 1994

Year	Nature of Event	No. of Events	Estimated no. of participants	Anticipated revenue generated
1991	(a) Fun Fairs/Carnivals	21	68,000	\$ 100,268.00
	(b) Parades/Walks	4	14,000	
	(c) Campaigns/Exhibitions	9	21,000	
	(d) Charity Events	5	24,000	
	(e) Public Forums/Meetings	54	65,000	
	(f) Cycling Competitions	3	4,000	
	(g) Tennis Tournaments	6	76,500	\$ 1,469,067.84
	(h) Others	13	266,500	
	(e.g. Parachutting Competition, Pedal Grand Prix, Opening Ceremonies for various activities)			
	TOTAL	115	539,000	\$ 1,569,335.84
1992	(a) Fun Fairs/Carnivals	23	72,000	\$ 600,457.00
	(b) Parades/Walks	4	15,500	
	(c) Campaigns/Exhibitions	17	61,500	
	(d) Charity Events	3	19,000	
	(e) Public Forums/Meetings	55	72,000	
	(f) Cycling Competitions	2	3,000	
	(g) Tennis Tournaments	7	83,500	\$ 1,763,762.40
	(h) Others	18	498,000	
		TOTAL	129	824,500
1993	(a) Fun Fairs/Carnivals	30	108,000	\$ 968,334.00
	(b) Parades/Walks	4	16,000	
	(c) Campaigns/Exhibitions	23	109,500	
	(d) Charity Events	5	21,500	
	(e) Public Forums/Meetings	57	80,000	
	(f) Cycling Competitions	1	2,000	
	(g) Tennis Tournaments	10	109,500	\$ 2,708,205.20
	(h) Others	20	409,000	
		TOTAL	150	855,500
1994	(a) Fun Fairs/Carnivals	33	179,500	\$ 600,000.00
	(b) Parades/Walks	3	4,500	
	(c) Campaigns/Exhibitions	15	10,840	
	(d) Charity Events	2	3,300	
	(e) Public Forums/Meetings	59	65,000	
	(f) Cycling Competitions	4	4,000	
	(g) Tennis Tournaments	9	82,800	\$ 2,016,377.80
	(h) Others	29	513,100	
		TOTAL	154	863,040

• *Design approach*

In this project, Tschumi adopted his method of disintegration which relied on his superimposition of three autonomous systems of points, lines and surfaces and the resulting context in which other professionals (architects, landscape designers and artists) could work.

The programmatic elements are distributed across the site in a regular grid of 120m. This point grid is juxtaposed against two other organizing systems, one of lines (movement, both vehicular and pedestrian) and the other of surfaces (open space used for playing fields, marketes, and other functions). Points on a grid, the follies march relentlessly across the site and can be extended into the city. They are basic 33-foot cubes that can be adapted for both programmatic and symbolic purposes without losing their fundamental identity. They are thus both fixed and flexible. The swimming pools, skating rinks, greenhouses, and thermal baths are housed in follies that have been modified.

The Lines intersect the follies following a more random order. The major Lines are formed by two continuous open structures on the north-south and east-west axes. The north-south axis connects the two Portes de Paris and their Metro stations. Other Lines are created by double allies of trees which delineate the major shapes: the Circle and Triangle lawns, the West Square of Sorbus and the East Square of Evergreen, the South Curve of Hornbeams and the North Curve of Maples. The Circle and Triangle lawns demarcate areas for relaxation or fresh-air games. 24-hour-activities will be concentrated in and around the two coordinate axes which Tschumi imagines could extend out into Paris.⁴¹

For organising devices, he continued borrowing from cinema the devices for frames and sequences

he used. He regarded the park as a series of cinegrams, each with its own set of architectonic and programmatic transformations, and performed repetition, inversion, substitution and insertion on them so as to create an art of rupture resembling a montage.⁴² Tschumi envisions a "cinematic promenade" in which the gardens are viewed frame by frame. "This is no ordinary urban park," says he. The evidence to date supports his claim.⁴³

• *The follies*

34 "follies", of 3000 to 23,000 square feet, for restaurants, cinemas, video arcades, daycare centres, bars, health clubs, and greenhouses in park, with landscaped promenades. The follis is constructed of prefabricated concrete frame or steel frame. The major material is red porcelain-coated steel, steel painted red, aluminum, and granite. He placed follies on his grid spaced in the 120 metre grid, they were small enough not to evoke association with buildings in the streets.⁴⁴ This was exactly what he intended: to unsettle "memory and context" by rejecting both "contextualist and continualist ideals", and by showing that the architect's intervention did not necessarily refer to a "typology, origin or determining signified".

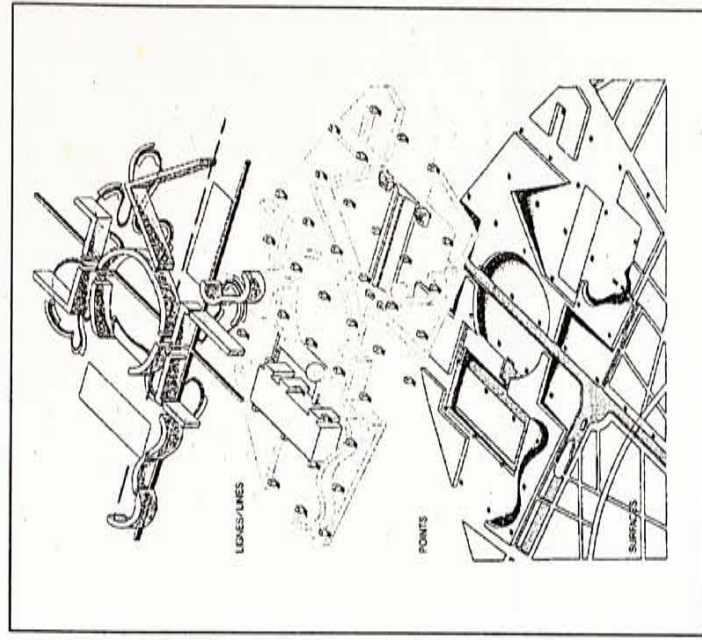


fig. 4.5.6 Exploded axonometric showing the superimposed systems: Points, Lines and Surfaces

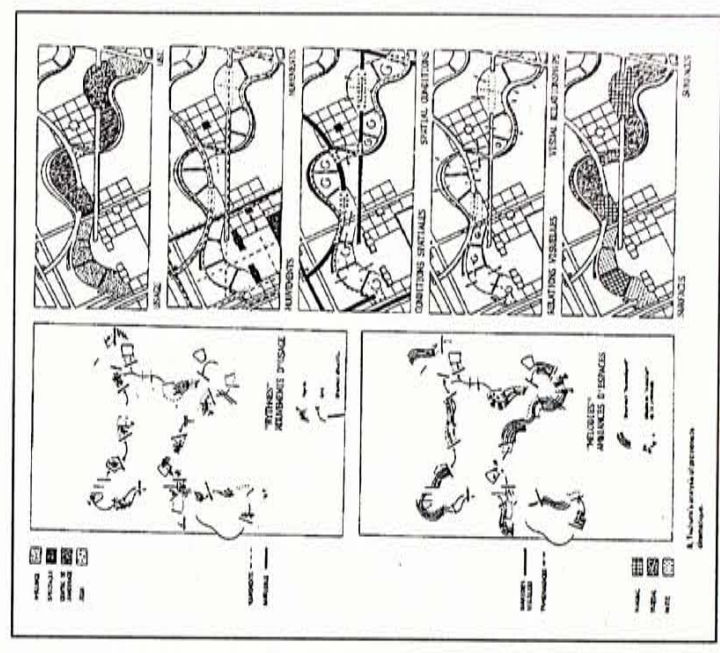


fig. 4.5.7 Tschumi's analysis of promenade cinematique

photo 4.5.3 One of the constructed follies

• *Appraisal*

With the sport complex cast in white concrete, this monumental termination of the axis is not nearly as forceful as these words may have made it seem. It is more like some sort of elegant white parasol that links the two main spaces; the swimming pool and the sports hall, that flank it as wings on either side. These present the usual problems of all large sports facilities. The hall has to be a virtually blind box and is separated from the public space under the vault by the usual clutter of changing and practice rooms.

The sparkling fun pool combine with the main pool to make a space which is far more full of joy and life than the normal big international swimming complex. The basic idea is much enhance by the way in which the curves of the lower pool are elaborated in a series of open-air basins, so that swimmers can take advantage of the tropical climate and proceed down a series of gentle cascades from the rater severe inside of the building to the most informal water space at the bottom of the sequence. The free curves of the open-air pools are overlaid with a Euclidian geometry of dry, extra-pool spaces that incorporate a little amphitheatre and a half circular flower garden; this part relates both to the formality of the main building, and to the rooms of outdoor space further down the slope.

To sum up, it is undoubtedly that this multi-functional and many layered complex is immensely popular. At daybreak, people can be found doing Chinese exercise, while families wander dreamily up and down the promenade and lovers huddle in the loggia.

However, there are some faults in detailing. The most obvious is the choice of heavy glazing bars and dark glass for the covered bridge which crosses

the vault to join the two restaurants; the fire office's demands have made it into a heavy and almost solid thing when it should have been a light and elegant tube.

The redesign of Kowloon Park has undoubtedly made a major contribution to the life of the city; it is immensely popular in all sorts of different ways.¹⁹

photo 4.3.2 The barrel-vaulted central concourse²⁰

photo 4.3.3 View from play area to the sports complex²¹

4.3 Kowloon Park, Hong Kong

The extension and complete redesign of this 37-acre "green lung" in the crowded Tsim Sha Tsui section of Kowloon, was a project for the Urban Council of Hong Kong, funded and project managed by the Royal Hong Kong.

- *Background*

Kowloon Park, which was originally the site of a military barracks, was until recently a rather shabby affair. There was an aviary with rather gloomy inhabitants, a little museum and a running track. The best fit was a rather run-down Chinese garden right in the middle.

Derek Walker Associates was asked to work up a development strategy for the park as a whole and to design a major Olympic sports facility including sports halls and a swimming complex incorporating an olympic-style 50-metre competition pool.¹⁵

- *Design approach*

Walker's first main move was to order the site by driving a broad axial promenade from south to north up the slope on the long dimension of the rectangle. This reinforced the existing main route, with the aviary and the Chinese garden falling conveniently to the east of it, and the museum adjacent to the west.

Walker has brought these elements together in an extensive landscaping scheme which both unites the previously messy lower (southern) end of the park and at the same time divides it up into a coherent set of outdoor rooms. Attractions in the park included an outdoor arena, performance area and piazza, an aviary, a Chinese garden, a children adventure playground, viewing cone and landmark, a sculpture park, water gardens, scent gardens, a sunken garden, bird lake and maze.

Formerly, almost the whole of the eastern side of the open space fell down towards Nathan Road in a long scrubby and virtually useless bank. This has been cut away, giving a long line of two-storey shops, topped by a curved parapet clad in white enamelled steel and pierced by formal gateways. Through these, steps lead up to park level from the new pedestrian boulevard created parallel to Nathan Road and separated from it by the magnificent banyan trees. In place of formerly useless bush, there is now a boulevard, and a row of shops with a series of terraced gardens and a long loggia on top.

The sports complex at the north end of the park has a high barrel-vaulted central entrance concourse with a cross-axis, leading to the swimming complex to the east, and sports halls to the west. Its white enamel steel cladding finishes echoes with the cladding of the Nathan Road parapet. The 50-metre pool has seating for 1,500, and there is also a recreation pool, practice and diving pools.¹⁶

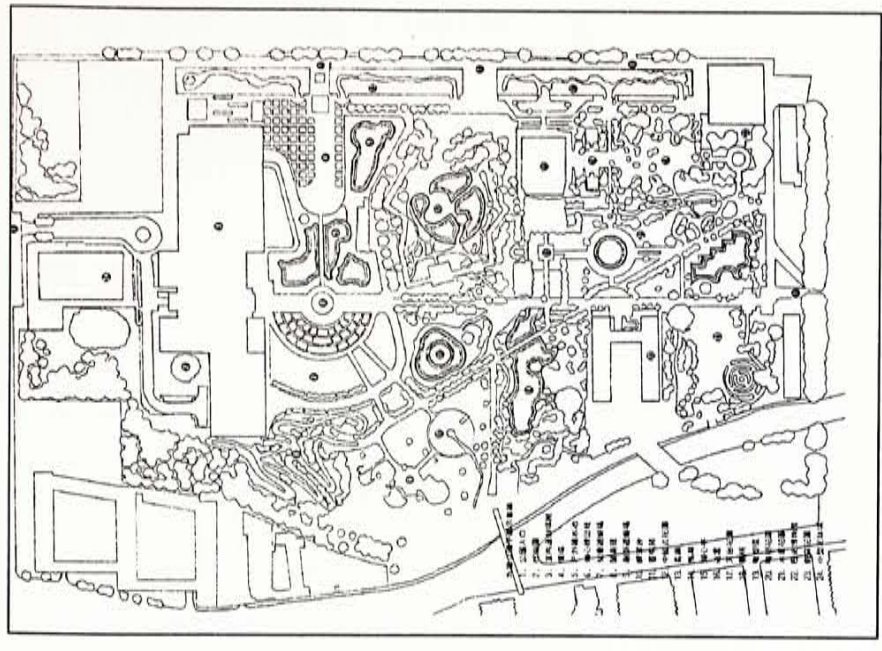


fig. 4.3.1 Master layout plan of Kowloon Park¹⁷

- *Special events*

Apart from the annual events of Lunar New Year Fair, New Year count-down, Mid-Autumn Lantern Carnival and the biennial event of Flower Show, Victoria Park is also the venue for public gatherings for political purpose. The park can accommodate ten thousands of people in these events.

The six football pitches is often utilised for functions because of its large size and flexibility. Various stalls and stages are put there. Decorations are put on light poles beforehand. It is often the starting point for large-scale campaign and demonstration.

The central lawn is also acts as an venue for large-scale staging. In this case, some tent structures are erected temporarily there. In Mid-Autumn Lantern Carnival, the central lawn is also utilised by the visitors for celebration and lighting lantern and candles. However, there are often complaints about the huge amount of garbage accumulated on the ground afterwards.

In some cases, the band stand, the symbol of democracy and freedom of speaking, is decorated with political slogans.

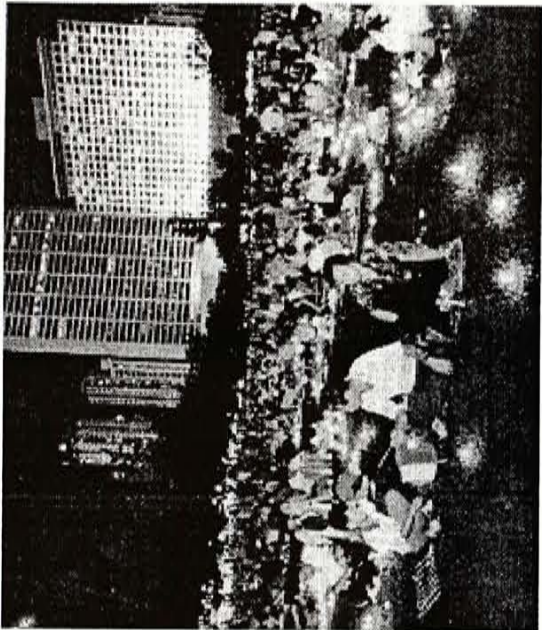


photo 3.9.20 Crowds in Mid-Autumn Lantern Carnival

photo 3.9.21 Crowds in political ceremony¹⁰

photo 3.9.19 Victoria Park was a starting point for the "Walking to Beijing" activity⁹

photo 3.9.22 The band stand was decorated with democracy slogans in Mid-Autumn Lantern Carnival

- Views towards the surrounding from the site
As the park is generally flat, high-rise commercial centres and residential towers in Causeway Bay and Tin Hau are clearly seen without obstruction.

Although the high-rise apartments block the view to the south, one can have a glimpse of hills at the back. Moreover, the raised platform to the swimming pool offer good views to the tennis courts, football pitches and surrounding residential area on the south.

The view towards the north is the Causeway Bay typhoon shelter and Island Eastern Corridor flyovers. The photo key map (fig. 3.8.1) shows the various view of the surrounding area and the park. (photo 3.8.1 - 3.8.11)

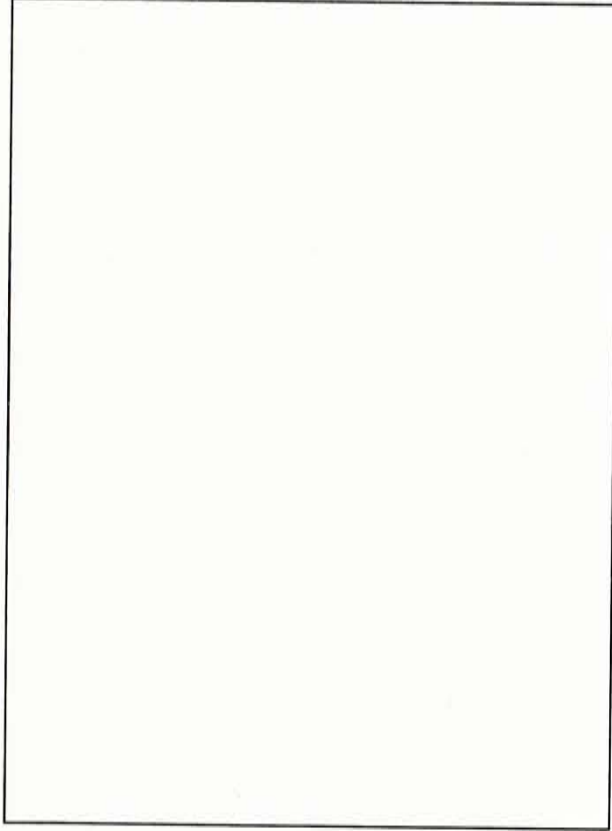


photo 3.8.7 View (G)

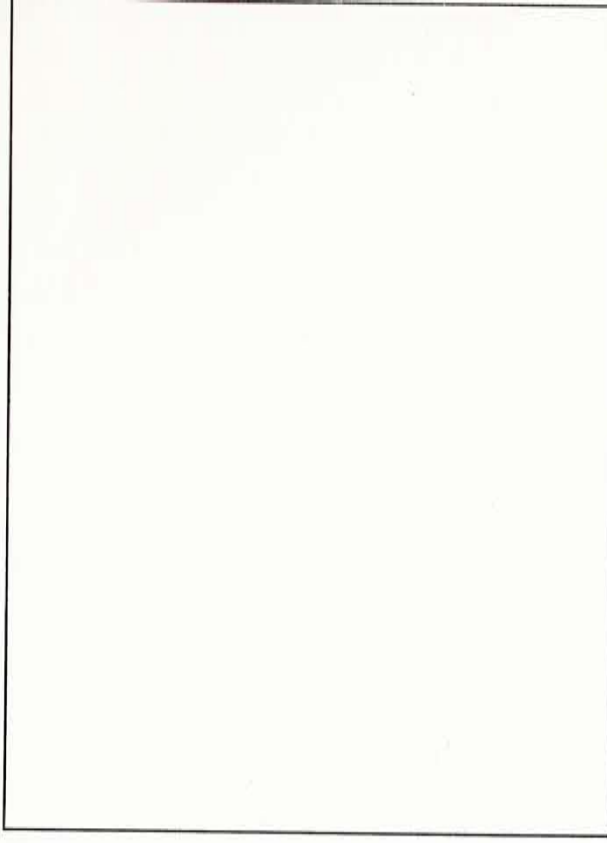


photo 3.8.9 View (I)

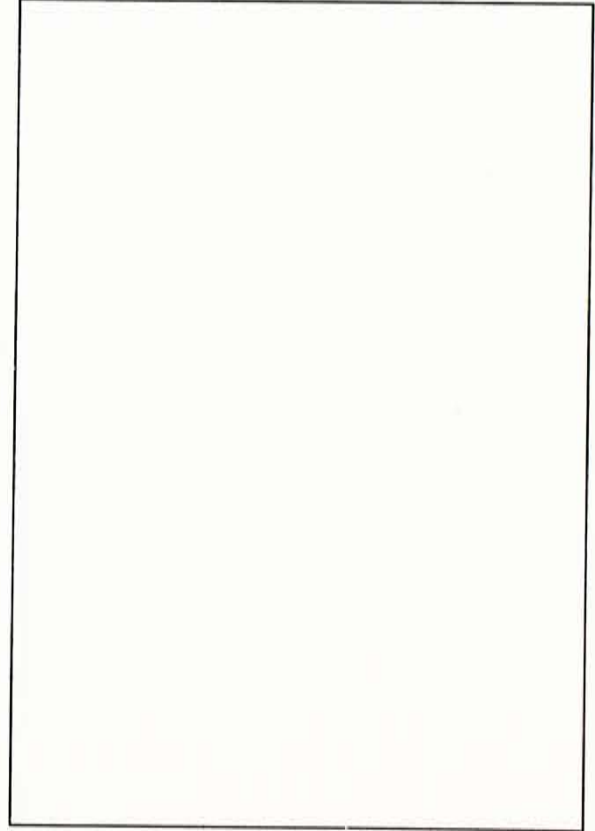


photo 3.8.6 View (F)

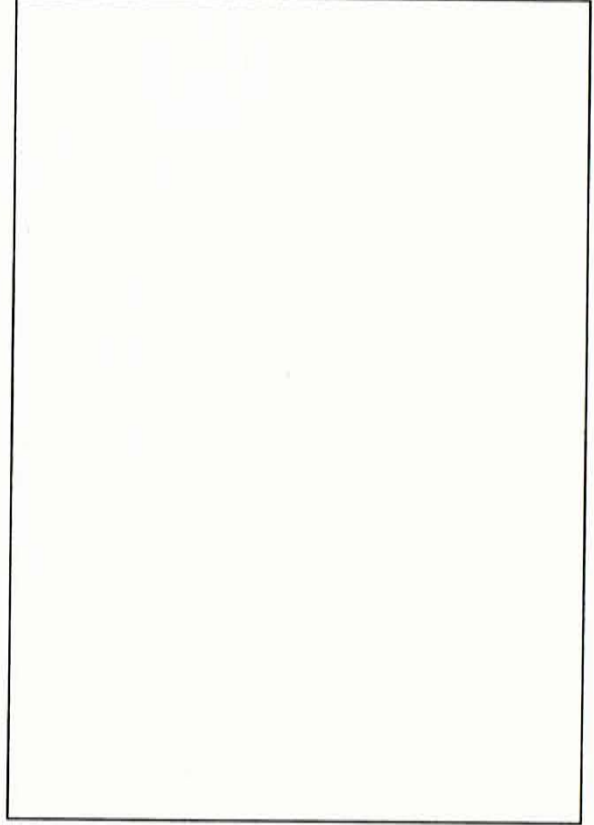


photo 3.8.8 View (H)

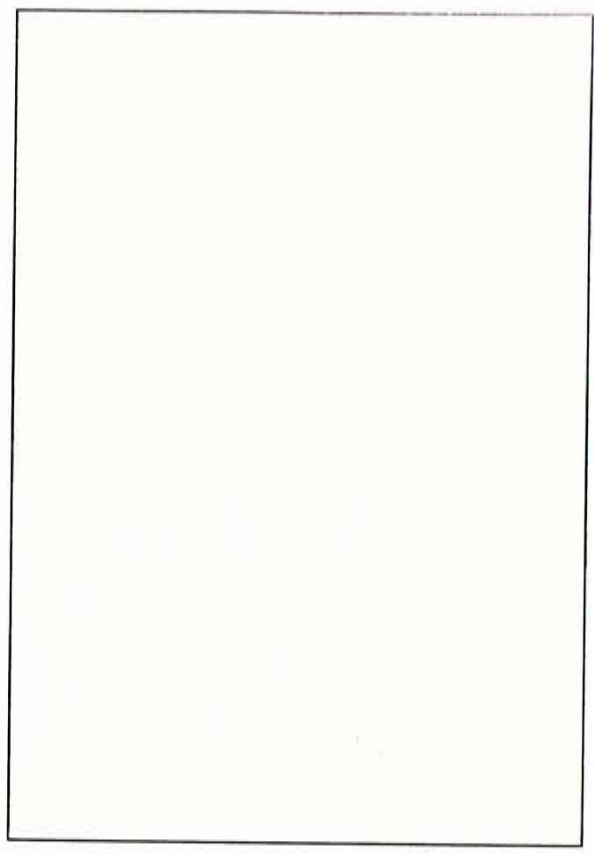


photo 3.8.10 View (J)

- *Views towards the park from the surrounding Victoria Park is a piece of gentle land surrounded by the high-rise blocks and flyovers. The views are thus unblocked. One can look over the entire Victoria Park from the high-rise in Causeway Bay and Tin Hau.*

On the southern side, however, the buildings are generally recessed against the hill. One will probably get a better view from the apartments up the hill. Lower angled view will be seen from the flyovers of Island Eastern Corridor on the north.

However, this site is surrounded by dense mature trees. It forms a visual obstacle when people approach the park. The southern side does not give the sense of a park because of the location of football pitches and carpark. The central tennis court is the only high visual elements in the park.



photo 3.8.2 View (B)

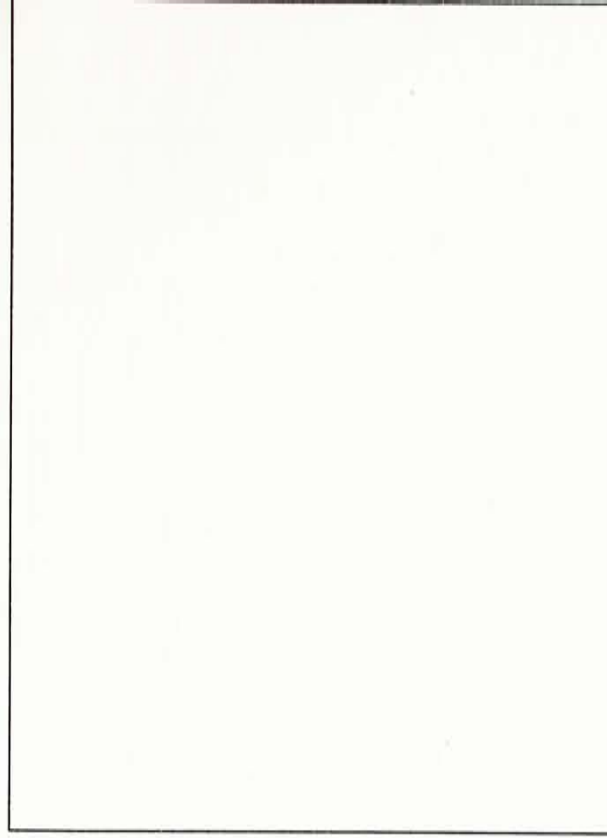


photo 3.8.4 View (D)

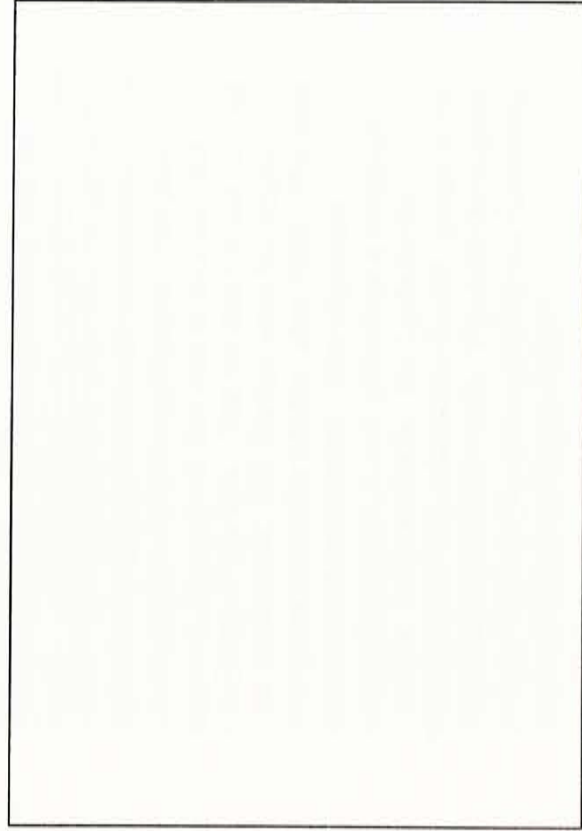


photo 3.8.1 View (A)

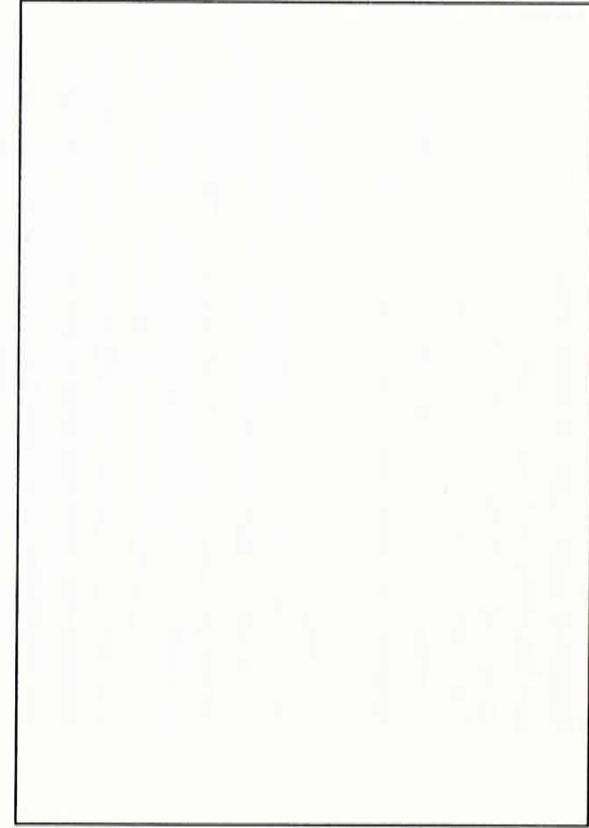


photo 3.8.3 View (C)

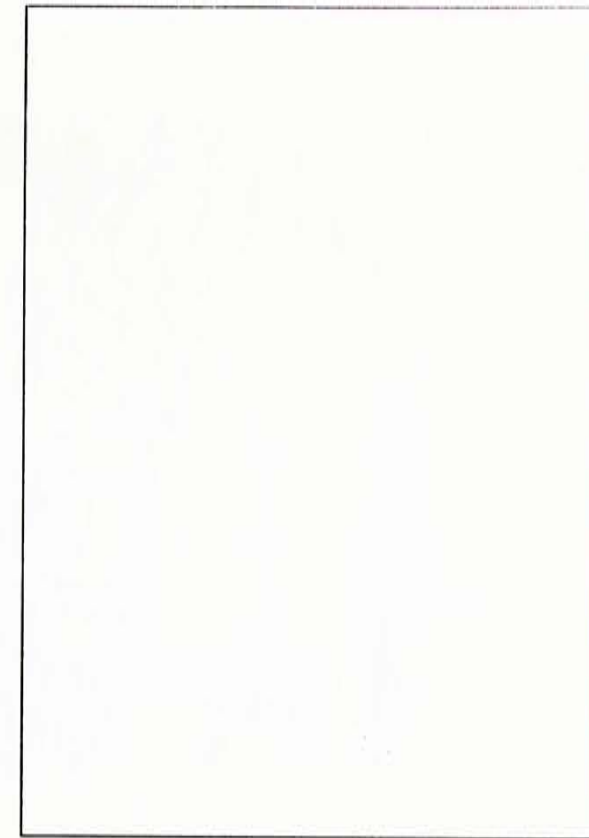


photo 3.8.5 View (E)

2.2 Historical development

- *Causeway Bay*

In the early colonial years, the area around Wanchai and Causeway Bay was known as East Point because of its geographical protrusion in the East coast. The Hong Kong people called it "Tung Lo Wan" because of the resemblance of the coastline shape to our Chinese "Tung Lo".²⁰ In 1724, there had been already a causeway, a road paved with raised stone, along the coastline around Causeway Bay to protect the field in Tai Hang and So Kon Po from flooding. Thus the road on the south of the present Victoria Park is known as Causeway Road and the area is called Causeway Bay.²¹

Jardine Matheson & Co. Ltd. was the first British firm developed the Causeway Bay region as the shape of the shore was an ideal natural typhoon shelter for their shops. Besides, there were water sources from the streams along Tai Hang Village. The residents from Tai Hang Village and Son Kon Po also offered good labour for the firm.²²

There was a small hill between Jardines Bazaar and Lee Garden Road, known as East Point Hill in the early colonial years. It was then renamed as Jardines Hill when Jardine Matheson & Co. Ltd. bought it for the residents of their top officers. In the 1920's, the merchant, who was later the well known Lee's family, bought the hill and redeveloped into an adventure park named Lee Garden. The park business flourished in the end of 20's and the beginning of the 30's. The hill was named after as Lee Garden Hill. Lee Garden went bankrupt during the worldwide inflation after 1933. The park was then left unattended. After Japanese occupation period, it was utilised for a temporary campus. In the mid 50's, the Lee's family developed the site, excavated the hill, construct the apartments and traffic roads. The earth excavated out was used for the reclamation of the Causeway Bay waterfront and Victoria Park.²³

- *Victoria Park*

Although Victoria Park is named after Queen Victoria, it was the reclamation of the previous Causeway Bay typhoon shelter in 1950s. Its name is due to the statue of Queen Victoria. The statue was originally situated in the Statue Square in Central. The Japanese Army removed the statue during the Japanese Occupation Period. In 1945, the Japanese returned the statue. However, the statue was destroyed severely and had been repaired for years.

Since the artistic stand for the statue in Statue Square was destroyed, it is better to locate the repaired statue in a new location. The new reclaimed park was chosen and it is thus named after Queen Victoria. The statue was placed at the main(southern) entrance of Victoria Park.²⁴ (photo 2.2.1)

photo 2.2.1 Statue of Victoria

When this flat land was reclaimed in Causeway Bay, it attracted a lot of hawkers and neighbourhood to relax. Originally, it was mistaken that the western entrance near Sugar Street was the main entrance owing to the convenient transport there. It was until the placement of the statue of Queen Victoria signified the main entrance at the South.²⁵ As 1997 approaches, however, the significance of the statue is controversial. On 16th September in 1996, vandalism by an Art student of Mainland China cause destruction of the nose of the statue and the whole statue was painted red. This act is claimed to be "Behavioural Art" by the student. In the end, the so-called "artist" was judged to jail for 28 days.²⁵

Victoria Park was open to the Public on 16th October, 1957. The initial planning did not make a great difference to the present state. The central court was constructed after the park was open and the golf court was transformed into two bowling greens in 1992. The hot water supply in the Northern Changing Room was upgraded.²⁶(fig.2.2.1)

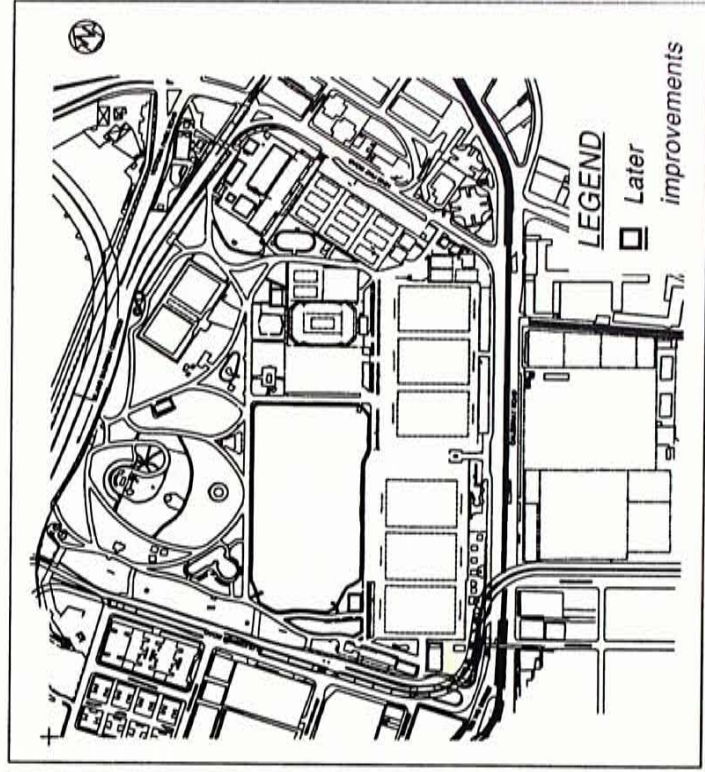


fig 2.2.1 Subsequent amenities improvement

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