

The image is a complex architectural collage. It features several overlapping layers: a background of a dense urban grid, a central cutaway of a building showing its internal structure, a dark rectangular block with a white '150' on it, and a foreground photograph of a modern building complex with a large open plaza. The collage is held together by a network of thin, intersecting lines.

RAIC SYLLABUS  
THESIS - 1994  
VLADIMIR MOISE

# HARBOURFRONT



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ROYAL ARCHITECTURAL INSTITUTE OF CANADA  
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**RAIC SYLLABUS - TORONTO CHAPTER  
VLADIMIR MOISE**

**DESIGN THESIS PROBLEM 10 : HARBOURFRONT RENEWAL - URBAN STRUCTURE AND BUILDING FORM**

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## ABSTRACT

Toronto harbor is one of those key areas Aldo Rossi described as "original elements which participated in the formation of the city, endured, and became characteristic over time, transforming or denying its original function, and constituting, finally, a fragment of the city".

Today, Toronto harbor is an amorphous zone, presenting a two-fold discontinuity: a temporal discontinuity in the evolution of the harbor as a persistent element in the history of the city, and a spatial discontinuity in the fabric of the city core in one of its key areas - the water edge. The railway lands and Gardiner Expressway are both physical and psychological barriers, blocking the city's access to the lake. The waterfront area itself, Harbourfront, is underdeveloped, it lacks urban structure, articulation, identity; it contains "set-pieces" and not enough, if at all, "texture"; later developments are inappropriate in terms of urban "model", building type and programming; its major axis, Queen's Quay, is weak.

Reintegrating Harbourfront with the city rests very much on solving the long debated expressway/railways problem; since it requires a different approach, which does not apply to the Harbourfront's internal structure, it is not part of my study. The subject of my study is to propose specific urban morphology and building form for urban water edge setting. While dealing specifically with Toronto's harbor, the study addresses the issue from a larger perspective. Waterfront obsolescence is a problem common to many port cities around the world, and, while the specifics address the particular case of Toronto, the general approach can be adapted to suit local conditions elsewhere.

The growth and transformation of cities occurs neither through total control nor through spontaneous happenings. The perpetual problem is that of finding an ordering principle, flexible enough and all encompassing. Once we recognize the impossibility of a single and definitive vision for a structure that evolves as an accretion of elements brought into being by conflicting forces, the "ideal city" becomes an informing vision rather than a model to be implemented literally. The degree of intervention may be limited to only providing a scaffold and then to allow for spontaneous development. If we accept the notion that archetypes play a vital role in shaping our entire culture, we may as well deliberately use the process. Archetypes at work consist precisely in endless reactualizations of certain specific archetypal responses. The task of building a city or part of is to a large extent such a collective, anonymous cultural act. The large "area projects" that are themes proper to the city of our time cannot be assigned to a single architect without the risk of reducing their complexity.

As one of the persistent elements in Toronto's history, the harbor has taken shape as a specific response to an archetypal situation - city at the water's edge. As a model, the harbor should be neither replicated, nor replaced, but transformed; it should respond to the same archetypal situation, but in a specific way as to reflect the new relationship with that same given environment.

Harbourfront has always been a distinct fragment and it should reemerge as one. A distinct identity can be achieved through consistent texture (prevalent use of specific urban configurations, building types, and programming) in a precisely defined area. The area identified as Harbourfront coincides with the historic location of the harbor. Queen's Quay, the major axis of this area, should become its northern edge, mediating between two systems: the city fabric from the north, ending in a sea-wall like building mass, and Harbourfront's urban structures to the south.

The criteria for urban structure and building form should come from understanding the specificity of Harbourfront within the city's structure. Harbourfront is not just city, or port, or a link in the chain of waterfront system of open spaces; it is all of the above. The contemporary Harbourfront is more likely to become a hybrid. Its character will result from combining the characteristics of the three models: harbor, city core, waterfront "park". In a sense, the city takes over the harbor, but, in doing so, it adjusts in order to preserve the memory of the place and to continue the essentially public, leisurely character of the waterfront system.

Zoning promotes fragmentation and restricts quantity only, while offering little as to the desirable quality of urban/building form and as means of controlling it. A master plan would be too prescriptive and, worst, its prescriptions would cover the entire area, without allowing for the necessary spontaneity and variety.

The "scaffold" I propose, and I would call it "open-ended model", consists of a combination of prescriptions and guidelines. The prescriptions (zoning-like restrictions) would limit the size of urban blocks, and make mixed-use programming and public access to water's edge mandatory. The guidelines would establish the typological theme to be developed: harbor specific block structures and building types, to be developed and reinterpreted. Private structures with specific or related harbor use should become structures that assume an urban role and include city content. Each individual designer has unlimited choice of specific examples within the theme, and complete freedom in reinterpreting them.

The exclusive use of the theme would produce the needed texture. The freedom allowed within the theme would produce the needed variety.



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## INTRODUCTION

*"To dwell implies the establishment of a meaningful relationship between man and a given environment. This relationship consists in act of identification, in a sense of belonging to a certain place. To dwell means to become friends with a natural place; it also consists in orientation and identification. The place unites a group of human beings, it gives them common identity and hence a basis for a fellowship or society. The permanence of the place is what enables it to play this role."*<sup>1</sup>

Toronto has evolved into a diverse and complex city but its most promising potential is yet to be fulfilled.

Lake Ontario, the large body of water on which shores Toronto has developed, had a definite influence in the shaping of the city. Proximity to one of the Great Lakes provided opportunity for both industry, transportation, leisure, and, in a more general sense, for the establishment of a complex relationship with this particular part of nature.

The once thriving industrial-shipping activity that helped establish the city core at the water-edge has long declined. As the main economic activity shifted from industry/transportation to finances, so the core shifted north, away from the waterfront. The waterfront decline has only been compounded by the railway tracks and the construction of the elevated expressway which separate the city from the lake.

The very part of the city which is the most significant and potent in strengthening the image of Toronto is, because of various economical, political, and administrative reasons, perhaps the most neglected and underdeveloped.

An analysis of the waterfront will reveal problems within the area itself as well as with its edges. The northern edge is both a physical and a psychological barrier (railway tracks and Gardiner) blocking city's access to the lake. The southern edge (water's edge) is underdeveloped, leftover from the industrial-shipping era. The major streets connecting the waterfront with the rest of the city are weakened by the railway-expressway barrier and the lack of buildings to sustain them. The waterfront area itself is underdeveloped, it lacks structure, pattern, articulation, identity; with few exceptions, it lacks articulated public spaces; it contains "set-pieces" and not enough, if at all, texture; its major axis, parallel to the water, is weak; most of the building types are inappropriate and insensitive to their location.

<sup>1</sup> Norberg-Schultz, Christian, *Genius Loci*, page 170

*"... rather than hoping and waiting for the withering away of the object (while, simultaneously manufacturing versions of it in profusion unparalleled) it might be judicious, in most cases, to allow and encourage the object to become digested in a prevalent texture or matrix. Neither object nor space fixation are, in themselves, any longer representations of valuable attitudes. The situation to be hoped for should be recognized as one in which both building and spaces exist in an equality of sustained debate... a type of solid-void dialectic which might allow for the joint existence of the overtly planned and the genuinely unplanned, of the set-piece and the accident, of the public and private, of the state and the individual."*<sup>2</sup>

*"We may receive strength from the novelty of prophetic declamation; but the degree of this potency must be strictly related to the known, perhaps mundane and, necessarily, memory-laden context from which it emerges.*

*Why should we be obliged to prefer a nostalgia for the future to that of the past?*

*Could not the model city, which we carry in our minds allow for our known psychological constitution?*

*Could not this ideal city, at one and the same time, behave, quite explicitly, as both theater of prophecy and theater of memory?*

*Without prophecy there is no hope, then, without memory there can be no communication."*<sup>3</sup>

City at water's edge is an archetypal condition. The building form on the old waterfront was a specific response to this condition, at that time. Now it is time to give it form that embodies our present aspirations; in doing so we should also look at Toronto's own past as well as at patterns of cities at water's edge elsewhere. When I speak of pattern I speak of an OPEN-ENDED model, of some prevailing idea which overrides individual concerns without stifling them. The subject of my study is to propose specific urban morphology and building form for urban water edge setting. I am dealing with the particular case of the City of Toronto, but the problem is common to many port-cities around the world.

All the research and analysis will generate a concrete proposal, but my thesis is not about the resulting design only; it is about the entire process of analysis and search for criteria and ordering principles; the resulting design is an application of those criteria to a typical waterfront site.

<sup>2</sup> Rowe, Colin and Koetter, Fred, *Collage City*, Crisis of the Object, page 83

<sup>3</sup> Rowe, Colin and Koetter, Fred, *Collage City*. After the Millenium, page 49



## HARBOURFRONT - FRAGMENT OF THE CITY

### Toronto - Structure

Understanding the evolution of the city and the relationship between its different parts, as well as of the current economic, social, and political forces will reveal directions for redevelopment.

The city reflects the dynamics within the collectivity and its relationship with the environment. The internal and external relationships are synthesized into an image. The image has an ideal quality, either as a synthesis of existing characteristics or as a projection of desirable characteristics to be achieved. The concrete shaping of the image is mediated by reality.

The uniqueness of each city is the resulting relationship between the design, as imposition of an ideal, and the local and specific nature of the place.

The structure of every city can be traced to a fundamental model.

The ideal quality of the fundamental model is to be found in the myth accounting for the origin of the city.

*"A celestial Jerusalem was created by God before the city was built by the hand of man. The most beautiful description of the heavenly Jerusalem occurs in the Apocalypse (21:2ff): 'And I John saw the holy city, new Jerusalem, coming down from God out of heaven, prepared as a bride adorned for her husband' ".<sup>4</sup>*

The plan for Toronto came actually from the military engineer Captain Gothar Mann and it was a typical colonial American town plan, modeled, in turn, after the typical Roman military camp: eleven block square grid, with six blocks for public use, surrounded by a reserve of common land was to occupy the site of the Indian fur trading settlement near a natural harbor on the north shore of lake Ontario.

The gridiron plan (rational, convenient tool for dividing land) and the water-edge location (water, transportation, leisure) were the two permanent elements, or "*primary elements*" (Rossi), that functioned as ordering device and "*nuclei of aggregation*" (Rossi), and have been at the basis of the city structure to this

day.

The grid was imposed without regard to the natural features of the land.

Toronto evolved through expansion of its original nucleus - expansion and filling in of its original grid pattern.

The plan is a "primary element" and it is persistent in the city's evolution.

The city may, or may not coincide with the plan that issues from it.

The plan does not prescribe any particular spatial solution. Toronto, like most modern cities, is a complex entity, unfinished and incomplete.

The orthogonal grid is its persistent element, materialized in streets and blocks.

The grid pattern is largely oblivious to the irregularities of the local topography.

The natural system of creeks and ravines disrupts the continuity of the grid, creating special places in the city's fabric.

The actual built form that fills the grid pattern developed over time following diverse models.

### Toronto as City of Fragments

Toronto is a city of parts, fragments, highly diverse in their sociological and formal characteristics. The distinctive fragments evolved in different historical periods, are relatively homogenous, and are traceable to different (and often overlapping) models. They are defined by their location, imprint on the ground, topographical limits, and their physical presence.

- the historic core - small town and main street
- the business district - Ville Radieuse (via Manhattan)
- suburbs - Garden City

The different neighborhoods did not develop around "nuclei of aggregation"; I would say that Toronto lacks monuments. Development of built form occurred through filling in of the grid, which is a powerful presence and almost the only means of imaging and orientation in the city (perhaps specifically North American, any location is characterized by compass points and streets

<sup>4</sup>Eliade, Mircea, *The Myth of Eternal Return*. Celestial Archetypes, page 8



intersections rather than a "place" shaped by a monument or event).

The morphological diversity of Toronto is not explained by scale. There are cities larger than Toronto which have a more homogenous pattern (Manhattan, Los Angeles).

The diversity is not a result of a functional distribution within the city; the districts are relatively autonomous parts.

There are specialized zones, not as embodiments of functions required by the city, but as parts with distinct and characteristic morphologies, characterized by a physical and social homogeneity (consistent degree of density and mass, and consistent urban landscape, social content, and its function).

### **Toronto Harbor**

*"The city is the locus of the collective memory; this relationship between locus and the citizenry then becomes the city's predominant image, both of architecture and of landscape, and as certain artifacts become part of its memory, new ones emerge."*<sup>5</sup>

Toronto harbor is one of those key areas Aldo Rossi described as "original elements which participated in the formation of the city, endured, and became characteristic over time, transforming or denying its original function, and constituting, finally, a fragment of the city".<sup>6</sup>

The waterfront is a special fragment, where the condition of city at water's edge is embodied.

While the fragments of the city are generally autonomous, there are a few fragments, and the waterfront is one, more relevant to all the other fragments and to the city as a whole.

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<sup>5</sup> Rosi, Aldo, *The Architecture of the City*, Chapter 3, page 130

<sup>6</sup> Rosi Aldo, *The Architecture of the City*, Chapter 3, page 115



## HARBOR - HISTORY

The town's first windmill was built at the east end of the harbor near the Don River in 1832. The Worts and Gooderham Windmill, aside from producing flour, marked the southern boundary of the harbor and the Windmill Line remained the base for all legal description of water lots.

The old Toronto harbor was stretching as far north as Front Street, with Harbor Commission Building standing at the end of its own pier. Before 1850 the harbor was a bustling port of docks and sheds, sailing ships, warehouses and shops crowding to the edge of the bay.

In 1850 the city established a Harbor Trust to maintain the harbor and rebuild the Queen's Wharf (Royal York hotel site). However, there was little overall planning and private facilities developed haphazardly.

1853 saw the first railway track completed just opposite the Queen's Hotel. In the following years the Great Western Railway and Grand Trunk Railway reached the city. The Esplanade, instead of developing into a carriage way and promenade, became a right of way for the Grand Trunk Railway.

In 1871 all railway companies agreed to bring their tracks into a new Union Station. The great hall of the new Union Station opened in 1919 but the entire station was completed only in 1927.

In 1911 the city approved the founding of the Toronto Harbor Commission. During 1913 detailed plans were prepared for major harbor dredging, landfill and the creation of the industrial district. By 1917 about 75 acres of reclaimed land were ready for occupancy in the industrial district. Another 200 acres were partly reclaimed but not completed. Work on the central area was delayed until the railway companies agreed to give up their rights to those lands. Between Yonge and Parliament a bulk headline was constructed along what is now Queen's Quay and the lands were filled in to this line and landscaped. By 1929 a total of 226 acres of industrial land had been fully reclaimed in the central harbor section.

The Toronto Harbor developed in the 20's and 30's with the construction of both passengers terminals, docks and freight sheds. The opening of Welland Canal allowed large displacement passenger and freight ships to come to Toronto. The completion of Bay and Yonge Street subway bridges opened up the waterfront to traffic. Construction began in 1927 on the Terminal Building and was completed in 1928. The structure, on 30 foot wooden piles, was one of the first and largest poured-in-place concrete structures in Canada.

The opening of the St. Lawrence Seaway in 1959 permitted vessels to travel the length of the St. Lawrence-Great Lakes water system.

In the 1970s and 1980s harbor activity started to decline: vessel owners, interested in faster vessel turnarounds, switched to containers increasingly off-loading in Halifax and Montreal; and more recently, the increase in use of large container vessels, too big to navigate the Seaway.

Today, Toronto is a regional port, serving specific local industries.

The development of the automobile in the early twentieth century and the rapid increase of auto ownership had a strong impact on passenger and freight transportation, and, ultimately, on the way the city evolved. The growing importance of air transportation led to the decline of railway traffic and to stronger industrial and commercial development in areas closer to the airport. The shift from rail to truck made industries less dependent on proximity to the railway lands and led to sprawling industrial areas. Likewise, the increase in auto ownership and personal mobility encouraged the residential suburban sprawl.

The 1960s saw the beginning of the "Manhattanisation" of downtown Toronto, process which continues as we speak.

Since World War II, the provincial and municipal governments provided substantial transportation facilities: roads - Q.E.W. in 1939, Hwy.400 in 1951, Hwy.401 in 1952, Gardiner Expressway in 1958, Don Valley Parkway in 1961; transit - subway, from Yonge subway in 1954 to Spadina subway in 1978, Metro-wide TTC after 1954; GO Transit, linking Union Station with areas beyond Metro's boundary.

The decline in harbor and railways activity led to the decline of waterfront industries; silos and warehouses were demolished. The general transition from a manufacturing to a services economy in the post-industrial era has changed the role of the water-front: the specialized shipping and industrial activities are still active in a relative small area of the central waterfront, but the vast majority of lakefront lands, particularly in the central waterfront, could be now reintegrated into normal city life. Toronto's waterfront has evolved as a chain of distinct neighborhoods, but there is an overriding characteristic - water, parks, pleasures, and public amenities - that gives it local, regional, and even international importance.

In 1978, the Federal Government established the Harbourfront Corporation to help revitalize Toronto's central waterfront through both programming and physical development. The goals to be achieved were:

- development of Harbourfront as Toronto's central urban waterfront
- preservation and development of Harbourfront as a public place
- development of Harbourfront in ways that would take into account its special location, conditions, and history
- financial self-sufficiency through proper organization and management of the Harbourfront lands



The Harbourfront Corporation was given two roles:

- to develop, manage, and operate the site in accordance with the Development Framework
- to initiate, conduct or sponsor cultural, recreational, scientific, and educational programs that, in its opinion, were of advantage to the public

The Harbourfront Corporation was given rights to plan and develop almost 700,000 square meters upon obtaining Metro City Council approval. It was supposed to satisfy both private and public interests, by using proceeds from capitalized leases and sale of land to private developers to subsidize cultural and recreational programs on the federal agenda and to fund subsidized housing and open public spaces on the local government's agenda. By 1987, almost 350,000 square meters of space had been built or was under construction, housing about 4,000 residents, staging some 4,000 events and activities annually, and attracting 3.5 million visitors.



## WATERFRONT TODAY

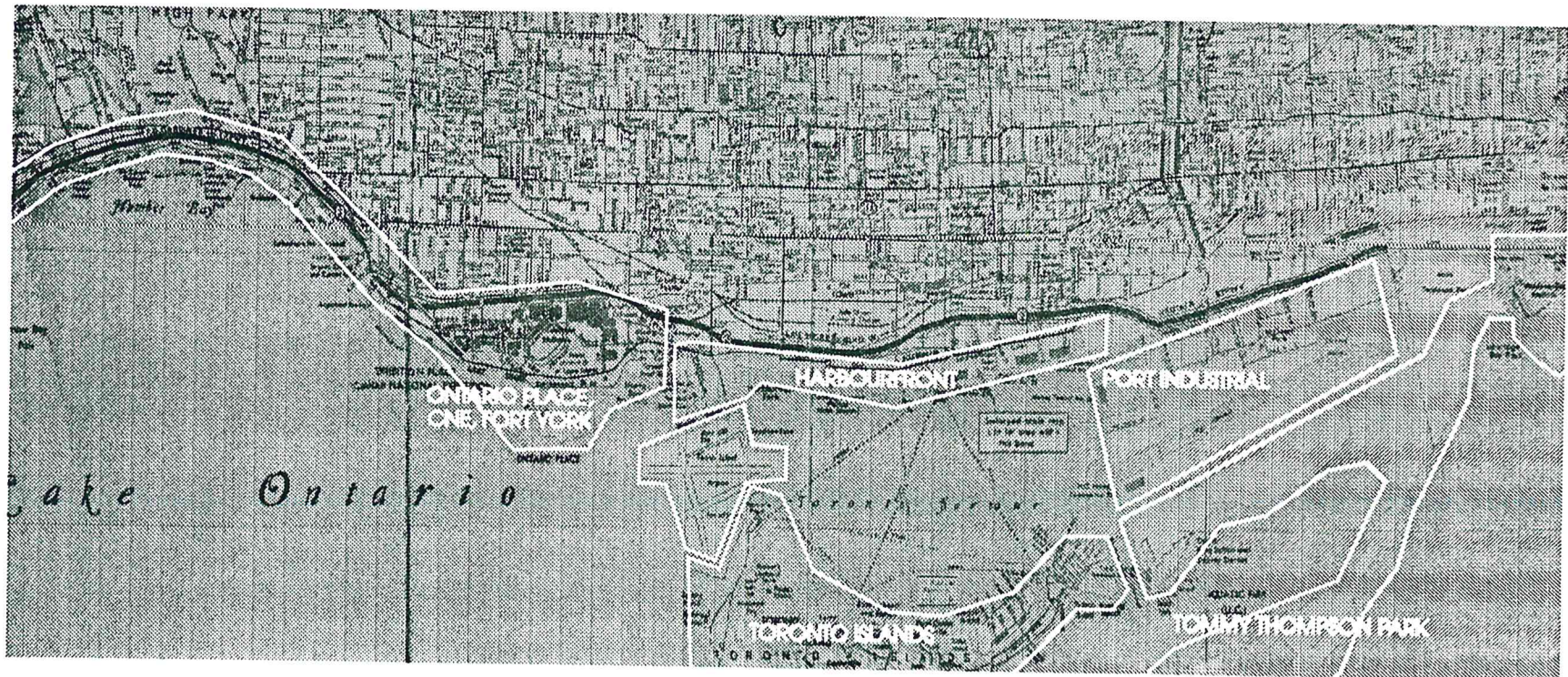
As the city expanded the waterfront is now stretching for tens of kilometres of shoreline, from Oakville in the west to Ajax in the east.

The Metro waterfront was divided in sectors which, with few exceptions, are administrative jurisdictions rather than homogenous morphologic and social entities: Mississauga Sector, Etobicoke Sector, Western Beaches Sector, Central Sector, Eastern Beaches Sector, Scarborough Sector, and Pickering/Ajax Sector.

The Central Sector includes the harbour, the islands, and the reclaimed land.

The Central Sector actually comprises five distinct fragments:

- Harbourfront (Harbourfront, Central Bayfront, East Bayfront)
- Port Industrial Area
- Tommy Thompson Park
- Toronto Islands
- Ontario Place, CNE, Fort York

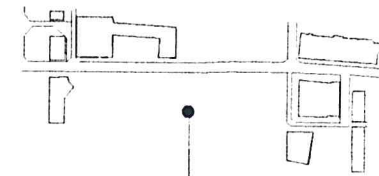




## SITE OF THE PROPOSED STUDY AREA

The identification of the study area itself is very much part of my thesis and it will be dealt with later in this study.

The actual site is Maple Leaf Quay, situated in the Harbourfront area, Central Sector, between Peter Street Slip and Rees Street Slip. Urban design criteria, as well as building form prescriptions for the site will result from the analysis of the area at the foot of downtown core comprising Harbourfront, Central Bayfront, and East Bayfront. This analysis, in turn, will be made in the larger contexts of the Central Sector and of the entire waterfront.



MAPLE LEAF QUAY - SITE 3





## **PRESENT CONDITIONS - DATA**

### **Land Use**

#### **Harbourfront**

- large variety, described in detail under "User data"

#### **Tommy Thompson Park**

- man made peninsula
- to become natural habitat

#### **Toronto Islands**

- originally a peninsula
- subsequent land reclaiming and creation of Eastern and Western Gaps account for the present configuration
- mixture of natural environment, park, beaches
- 250 houses village
- Island Airport
- access by ferry only

#### **Port Industrial Area**

- reclaimed land
- preponderant port activity since the switch to container shipping
- heavy industry, scrap metal, salt, and coal companies
- beach (Cherry Beach) and yacht clubs on the north shore

#### **Ontario Place, CNE, Fort York**

- leisure and entertainment, quasi public, "space age" architecture
- haphazard collection of heterogeneous buildings in parking lot, quasi public, mass entertainment
- historic site

Maple Leaf Quay is devoid of any building, except for the sheds of the sailing school and sailboat renting facility operating there. The southern half of the quay is parkland (grass), while the northern half is parking lot. Part of the site north of Queen's Quay is occupied by high rise residential, the rest being parking lot.

### **Topographic & Climatic**

Lakefill site, practically flat; six lane Lake Shore Blvd. under elevated Gardiner Expressway to the north; bisected by Queen's Quay West, a 28m roadway with a central boulevard used by street car, which forms the main "spine" of the

central waterfront area; Lake Shore Boulevard and Gardiner Expressway handle heavy through traffic, while Queen's Quay has only light local traffic; water level varies by about 0.5m from a minimum in December to a maximum in June; the southern edge is right on the Harbourhead Line and about 100m north of the Inner Harbour Channel. Climate - the average daily temperature between early December and the middle of March remains below 0 C; the average summer temperature is 22 C, with occasional heat waves and high humidity; maximum rainfall intensity about 6 inches per hour for 5 minute periods once in 10 years; total annual snow fall on the ground averages 137.5 cm; prevailing winds from north-west.

### **Financial Data**

The site, as well as the entire Central Sector, being located on the waterfront at the foot of the downtown core, is prime real estate.

Construction values are expected to be high for mainly two reasons: the location would warrant high quality buildings and soil conditions are poor.

### **Political Issues & Development Strategies**

The entire Metro Toronto's waterfront area is divided between the City of Toronto, City of Etobicoke, and City of Scarborough. The Government of Canada is also involved, particularly with its land holdings in the central waterfront.

It has been difficult to achieve consensus and coherent development policies where three levels of government pursue sometimes conflicting agendas: the Cities of Toronto, Etobicoke, Scarborough at the local level, the Ontario Government at the regional level through the Intergovernmental Waterfront Committee and through its influence over Metro and local governments, the Federal Government at national level through no less than one department, three Crown corporations and one commission.

In 1989 a Royal Commission was established to inquire into and make recommendations regarding the future of the Toronto Waterfront. David Crombie, the appointed Commissioner, set up Work Groups that studied the various issues and published the following reports: Issues on the Toronto Waterfront; Access and Movement; Parks, Pleasures, and Public Amenities; Jobs, Opportunities, and Economic Growth; Persistence and Change: Waterfront Issues and the Board of Toronto Harbour Commissioners; and The Future of the Toronto Island Airport: The Issues.

The conclusions, summed in these reports as well as in the Interim Report of



1989, deal with issues common to the entire waterfront as well as with issues specific for each district.

Common issues:

- reintegration of the waterfront into the city, which could only be achieved by eliminating -or otherwise working around the- expressway/railways barrier
- the waterfront is a chain of distinctive districts whose specificity should be preserved and enhanced (eg. Port of Toronto is essentially "water-related industry"; Harbourfront essentially an "urban recreational-residential mix"; the islands essentially a "pastoral residential-recreational mix"; Bluffer's Park essentially a "manicured marina park"; Leslie Street Spit essentially an "urban wilderness")
- the waterfront has great actual and potential touristic interest (local, regional, international) and it should retain public accessibility
- programming and development should strive toward overall diversity: diverse general uses (residential, industrial, commercial, recreational) and diverse recreational uses (active/passive, developed/undeveloped, urban/rural, etc.); however, the particular mix for each district should enhance its predominant character

The Transportation report conclusions

1. over the past 15 years transportation demand has grown faster than growth in new roads, transit services, terminals and parking
2. demographic and transportation pressures will persist
3. possible transportation initiatives
  - land-use patterns that assist transportation efficiency
  - an increased role for public transportation
  - more efficient transportation management
  - an expanded road network
4. alternate proposals for Gardiner Expressway
  - remove the elevated section and replace it with a widened Lakeshore Boulevard, other arterial connections, and more public transit
  - relocate the Gardiner to a tunnel beneath Lakeshore Boulevard from the D.V.P. to Bathurst Street
  - relocate the elevated portion into a tunnel just south of the existing shoreline, with new parkland on landfill above the tunnel, throughout the Inner Harbour waterfront
  - retain the elevated portion, with appropriate widening and ramp improvements

A January 1990 report by the Metropolitan Toronto Transportation Department found that retention of the elevated section, with appropriate engineering and urban design improvements, would be the most practical alternative; relocation to a tunnel would be possible only with the help of private sector funding.

The Parks, Pleasures, and Public Amenities report conclusions

1. public ownership of the water's edge
  - no further sale of public land; long term leasing arrangements
  - transfer of land along the water's edge to public ownership for public use
  - aggressive programs of waterfront-land acquisition
  - development and maintenance of water's edge promenades
  - creation of new waterfront cycling paths
  - creation of parkettes at the end of streets at water's edge
  - special design and landscaping of roads
  - an increase in north-south open space links to the waterfront
2. economically-balanced programming
  - no entrance fees for waterfront parklands or promenades
  - more low-cost public boating facilities
  - free days for higher-cost facilities and programs
3. children and other frequently ignored groups
4. diversity
5. ecologically sound planning and development
6. historical continuity
7. disseminating information
8. year-round use
9. dispersal of major facilities
10. regional-local balance
11. public accountability
12. co-ordination

Harbourfront and Adjacent Areas

The "Harbourfront 2000" plan calls for:

- more mixed and lively recreational/commercial and educational uses
- better east-west and north-south access
- sheltered walkways
- protected open spaces in winter
- a Cousteau Centre

- more public programming

#### The Central Bayfront

There are plans for a seven metres wide protected promenade and for a City park that would be linked with Harbourfront.

#### The East Bayfront

The plan of the Toronto Harbour Commissioners proposes mixed industrial business and studio use, while the Central Waterfront Plan of March 1984 suggest that the area be used for general industrial purposes.

#### The Housing and Neighborhoods report conclusions

##### Basic policy principles

1. The waterfront is Metropolitan Toronto's single most important natural asset
2. The waterfront belongs to everyone
3. The water's edge should be in the public domain and future development should include substantial provision for parks and public open space
4. Opportunities to live on the waterfront should be available to a cross-section of all income groups and household types
5. Waterfront housing should not be a physical or visual barrier to the water
6. Waterfront housing should be part of integrated communities that have different forms and tenures of housing, a range of income levels, and a range of employment opportunities, all of which in turn generate a complete range of local services
7. Housing and jobs should be situated close to each other
8. Mixed land uses contribute to neighborhood and urban vitality and are an appropriate solution to the competing demands on the waterfront
9. Waterfront neighborhoods must accommodate a balance of regional and local needs

##### Recommendations and Opportunities

##### Harbourfront and Adjacent Areas

These areas are covered by the City's Central Waterfront Plan which calls for development of residential and mixed commercial/residential communities with a variety of households.

##### Issues:

1. About half the Harbourfront site has already been developed by the Harbourfront Corporation. A mix of housing for about 4,000 people has been

developed, primarily towards the western end.

2. Harbourfront is deficient in such community services such as schools; improvements may have to wait until the western end of the Railway Lands is developed and there is enough population to justify them.

3. The HMCS site is occupied by the Department of National Defense; its use should be evaluated in light of the need for public access and open space in the area.

4. Loblaw's proposed for its two sites, at Bathurst & Gardiner, a mixed-use development of hotel, office, commercial and a food store, with one of the two buildings proposed at 24 storey; it submitted a rezoning application based on the 7x coverage allowed before the Central Waterfront Plan and by-law.

5. Nearby Molson's has particular concerns about introducing residential or hotel uses to the area; it has also filed objections to the Central Waterfront Plan and by-law.

##### Opportunities/recommendations

A new Development and Urban Design Plan is required, not only for Harbourfront but for the whole West Bayfront, to include and be concurrent with an urban design plan for the Central Bayfront and for the East Bayfront. The major emphasis in the new plan should be on linking Harbourfront and adjacent areas and integrating them with surrounding neighborhoods; strengthening Harbourfront's relationship to the water; safeguarding continuous waterfront public access.

##### Central Bayfront

##### Issues:

1. The Central Bayfront has been under development at high density since the late 1960s; today, the area contains some of the tallest buildings along the entire metropolitan waterfront.

2. The Central Waterfront is covered by the City's 1988 Central Waterfront Plan and is designated as an area of integrated mixed uses at medium to high density, with provision for assisted housing and adequate community services and facilities.

3. The City's Central Waterfront Plan specifies that the remaining development parcels must have an approved Part II plan before redevelopment will be permitted.

4. The Central Bayfront should have the strongest relationship to the financial district, Union Station, and the Greater Toronto Area's transportation hub.

5. The Toronto Harbour Commissioner's sell-off of public land to the private sector led to the kind of development that has occurred and to accusations that



the waterfront is a concrete curtain and a playground for the well-to-do.

6. The physical relationship between the Central Bayfront and Harbourfront is an important planning and urban design issue.

7. Road patterns and the relationship to the rail corridor and the Gardiner Expressway need careful consideration.

8. There is a lack of affordable housing and an appropriate housing mix in the area, with little or no provision for family housing and community facilities.

9. Public access to the Central Bayfront water's edge is weaker than it should be; a substantial improvement is needed in terms of extended parkland and open space, and relocation of the ferry docks.

#### Opportunities/recommendations

Sensitive mixed-use development of the remaining available parcels, based on thoughtful planning and urban design, would resolve most of the issues identified. A new urban design of the area should be commissioned to guide completion of its redevelopment. Major challenges of this urban design will be to bring the financial district toward the waterfront, with pedestrian, road, and transit links through and by Union Station, and links with other waterfront districts.

The Royal Commission on the Future of the Toronto Waterfront issued an Interim Report in the summer of 1989. It dealt with the future of the Toronto Island Airport, the role of Harbourfront Corporation, the role of Toronto Harbour Commissioners, and with environment and health issues.

- placing a stronger emphasis on marine and water-related programs and activities
- reflecting, maintaining, and preserving Toronto's waterfront and marine heritage

The Harbourfront lands and properties should be planned with the City in accordance with the following principles:

- a minimum of 16 hectares (40 acres) of land to be made available for parkland and be conveyed to the City, including a continuous waterfront promenade along the water's edge
- provision of a community school site to serve the Harbourfront community and the surrounding area
- provision of community facilities, including, but not limited to a community centre, medical clinic, library facilities, day-care and play space for children, and a place to worship
- the completion of Harbourfront Corporation's commitments with respect to assisted housing

#### The future of Toronto Island Airport

##### Conclusions/recommendations

1. The airport should continue its existing role as an airport serving general aviation and limited commercial air passenger traffic.
2. An improved, expanded or new Airport terminal, the original terminal building to be preserved and possibly relocated, subject to further study.
3. No major expansion, including the introduction of commercial jets and construction of a fixed-link vehicular tunnel.

#### The role of Harbourfront Corporation

##### Conclusions/recommendations

1. Harbourfront Corporation should be converted to a new entity, Harbourfront Foundation, whose mandate will be:

- programming its own activities
- providing facilities and support to other organizations who wish to use its amenities and expertise
- funding other organizations programs which are in the public interest compatible with a waterfront environment

- allocation of sufficient lands for a nautical centre, with sailing clubs and schools currently operating out of makeshift facilities at Harbourfront
- preservation of the Canada Malting silos, and consideration of their conversion to a civic museum
- no further building south of Queen's Quay West with the exception of low-rise buildings considered by the city to be in the public interest
- an urban design plan be established as an integral part of Harbourfront's Official Plan amendments; the plan should call for visual coherence, distinctive architecture appropriate to a setting along the water's edge, and special treatment of Queen's Quay West

#### The role of Toronto Harbour Commissioners

##### Conclusions/recommendations

1. Important change is possible on the waterfront only if there is a coherent sense of the role of the waterfront in the life of Metro Toronto, and only if that change reflects a broadly based consensus amongst the many agencies and bodies with waterfront interests, after the fullest possible public consultation.
2. The THC responsibility, jurisdiction, and mandate to operate the Port of Toronto should be clearly separated from planning or developments of lands that do not serve the Port function on the waterfront.
3. The amount of land now needed to operate the Port should be defined after further detailed analysis.



4. A complete environmental evaluation of all THC lands should be undertaken immediately

### Legal

The part of the site south of Queen's Quay is the property of Toronto Harbour Commissioners; the part north of Queen's Quay has been sold. Development on the entire site is governed by The Harbourfront Zoning By-Law 569-80 (as amended).

### Permitted uses

#### Residential uses:

- housing comprised of dwelling units
- shared housing containing dwelling rooms
- incidental residential uses (private garage or parking station or any use accessory to a residential use)

#### Non-residential uses:

- a. community services and facilities
- b. general institutions
- c. local retail and service shops
- d. general retail and service shops
- e. offices
- f. workshops and studios
- g. places of amusement and assembly
- h. automobile related uses
- i. manufacturing and related activities
- j. packing and packaging
- k. warehousing and storage
- l. harbour uses
- m. public recreation uses
- n. miscellaneous non-residential uses
- o. signs
- p. accessory uses

#### Maximum residential gross floor area

Area "D" 77822 sm extrapolated for my site 44578 sm

Area "D1" 7946 sm extrapolated for my site 3753 sm

#### Maximum non-residential gross floor area

Area "D" 19455 sm extrapolated for my site 11144 sm

Area "D1" 1987 sm extrapolated for my site 938 sm  
Maximum combined residential and non-residential  
Area "D" 86334 sm extrapolated for my site 49454 sm  
Area "D1" 8816 sm extrapolated for my site 4164 sm

Maximum gross floor area for i,j,k,l

Shall not exceed 10% of permitted non-residential g.f.a.

Additional non-residential g.f.a. up to 0.05 times the area of the lot, for the purpose of community services and facilities, may be added to a non-residential or mixed-use building.

#### Recreation space requirement

dwelling room	4.5 sm per room
senior citizens dwelling unit	9 sm per unit
single dwelling unit	9 sm per unit
bachelor dwelling unit	13 sm per unit
one-bdrm. dwelling unit	16 sm per unit
two-bdrm. dwelling unit	28 sm per unit
three or more	37 sm per unit

#### Portion of recreation space as personal recreation space (except senior citizens or single persons housing)

bachelor	4 sm per unit
one bdrm.	6.5 sm per unit
two or more	9 sm per unit
two or more where within 1.5 m of grade	18.6 sm per unit

#### Portion of recreation space as shared recreation space (except senior citizens or single persons housing)

bachelor and one bdrm.	4 sm per unit
two bdrm.	7.5 sm per unit
three or more	11 sm per unit

For parking requirements see attached Schedule 2.

Maximum height permitted is 25m above 76.8m Canadian Geodetic Datum. Stair tower, elevator shaft, etc. may project another 5m over height limit, providing their horizontal area does not exceed 30% of roof area.



No building shall extend above a plane of 45 degrees from all points along northerly limit of the setback area 15m above 76.8m Canadian Geodetic Datum.

No building shall be erected in the setback area - 7m stretch along the southerly limit of the site.

The above height restrictions notwithstanding, buildings exceeding the height limit may be erected on area HFZ3, provided that:

- an area(s) is left clear of buildings above the height limit
- such area(s) has a frontage of not less than 306m on line A and 306m on line B
- such area(s) extends from, to and between line A and line B without interruption, above the height limit
- two buildings only extend above 101.8m Canadian Geodetic Datum, neither of buildings shall have an east-west dimension greater than 25m.

Notwithstanding any other provisions, no habitable room or personal recreation space shall be accommodated within an area extending vertically from grade a distance of 3m.

### **Technological Data**

Pour soil bearing capacity, as well as the level of underground water may require expensive underground structure.

Moist environment due to proximity to the water may require careful choosing of exterior finishes to avoid costly maintenance and repairs.

### **User Data**

The Central waterfront area, though perceived mainly as a Sunday passing time destination - the York Quay complex, the Antique Market, the Queen's Quay Terminal, the walk along the water edge - serves other uses as well, namely residential, commercial offices and retail, institutional.

#### **Residential**

- high end luxury apartments
- conventional high rise condominiums (Harbourfront, new towers at the foot of Bay Street)

- luxury apartments atop multi use building (Queen's Quay)
- luxury apartments in resort-type mid rise (King's Landing)
- low to middle income apartments
- high rise slabs (between Queen's Quay and Gardiner)
- low and mid rise apartment blocks (Bathurst Quay)
- hotel (Admiral Hotel, Harbourfront Hotel)

#### **Commercial office**

- corporate office towers (new towers at the foot of Yonge Street)
- offices in multi use building (Queen's Quay)
- convention hall (Harbourfront complex)

#### **Commercial retail**

- luxury shops in mini-mall (Queen's Quay)
- street related retail (specialty shops at the ground floor of Admiral Hotel and of the residential towers across the street)
- Antiques Market
- restaurants, cafes (Queen's Quay, Harbourfront complex, Admiral Hotel, Pier 4 on York Quay)

#### **Institutional**

- Toronto Harbour Commissioners building
- Toronto harbour Police

#### **Arts and Entertainment**

- theatre in Queen's Quay Terminal
- theatre and exhibition hall (Power Plant)
- auditorium, exhibition hall, multi-purpose hall, arts and crafts studios (York Quay Centre)
- nautical school and sailboat renting (Maple Leaf Quay)
- park and wading pool adjacent to York Quay Centre
- public park and semipublic courtyards (Bathurst Quay)
- Spadina Marina and mooring (Spadina Quay)

### **Demographic change**

The City of Toronto's population declined between 1971 and 1981. However, in 1986 it rose by 2% as a result of new housing construction in the Central Area of the City. The population drop of 3.5% over the city as a



whole occurred primarily in outer City neighborhoods due to gentrification and conversion of houses from flats back to single-family houses.

Of the total City population, 42% is between 20 and 39 years old, compared to 36% in the Toronto region. Twelve percent of the population is 65 or older.

The number of single-person households grew by 5% between 1981 and 1986 to a total of 47% of the population. Of the family totals, 16.6% are single parent families. The average household size decreased from 3.75 people in 1961 to 2.35 in 1986. The rate of decrease in the 1980's was much slower than in the 1970's.

#### Waterfront population and housing stock

1. During the 1981-1986 period, Metro's waterfront population grew at twice the rate of Metro Toronto's population (4.8% compared with 2.6%). The City of Toronto's waterfront had the most pronounced increase, at 10.8%.

2. The overall Metro waterfront area had an equal proportion of owner and tenant households in 1986.

3. The need for assisted housing is most severe in Metro Toronto.

4. In 1986, Metro's waterfront communities had a lower average household income than Metro as a whole; 13% of all families and 34% of all unattached individuals fell within the definition of low-income households.

5. In Metro Toronto, condominium housing starts comprised 74% of recent row and apartment starts, compared with 36% of historical housing completions; the actual number of condominium units started was four times higher than historical completions.

6. In the waterfront area, recent condominium starts are eight times higher than historical condominium completions.

7. The condominium units are predominantly one-bedroom units for almost exclusively adult lifestyle projects.

8. Rental apartment vacancy rates in 1988 were 0.1% in the Central Metro Area and 0.2% in Metro Toronto.



## PRECEDENTS - OTHER WATER-EDGE CITIES

My thesis is dealing with the particular case of Toronto Harbor, but the problem is common to many port-cities around the world. I selected a few examples of urban design solutions for other port-cities, as well as a few examples that, while dealing with different urban settings, I felt represented precedents to my approach.

### Villa Olimpica - Barcelona

- questions of both urban form and of finding solutions to major problems of infrastructure

- it has been necessary to think in terms of a type of district that would fit in well with the adjoining fabrics of the old, medieval, nineteenth, and twentieth century city, and, on the other hand, take on the form of the modern, comfortable, vibrant city

Ideas:

- 1 - plan Cerda to continue without break into the area of the new quarter
- 2 - resolve the contradiction between traditional forms (streets, squares) and up-to-date architecture (in its form and content)
- 3 - an overall mixture of different uses (housing, stores, offices, hotels, services, community facilities, etc.)
- 4 - the form of the city should be defined on the basis of the general project - which was not architectural, but it should leave room for the architectural creativity of the designers- and be achieved by means of four distinct instruments:
  - the "literary" description of the criteria of architectural formalization of buildings and public spaces
  - a proposal of form, given expression in a general and indicative ante-project and translated into a model
  - a normative plan that shows what is fundamental, what is perceptive, and what is indicative, in order to achieve the flexibility needed for creativity
  - a number of ordinances
- 5 - the quarter should not be constructed on the basis of a single architectural project, but split up into many separate ones

Degrees of freedom:

- total - for key buildings, intended as memorable monuments (towers, curving blocks)
- intermediate - for buildings defining the superblocks (tall buildings lining the edges)
- strict regulations - for buildings within the superblocks ("urban villas" and tight low-rise housing)
- Rail lines and lanes of fast traffic to be buried below landscaped park

### Sydney

Exclusive, populist, escapist fun-zone, turning even citizens into tourists

Suburban model:

- no intensity of fabric
- no intensity of place
- refuge, escape from the city
- no "ordinary" buildings that forfeit individual expression for the greater intelligibility of the plan
- lack of big, formal idea
- zoning enforced homogeneity of use - all play, no work (no offices, no houses, no schools, no churches, no markets, no libraries, no streets, no cars)
- elevated expressway, similar to Toronto's, transformed by context of landscape and adjoining buildings

### Genoa - Renzo Piano

- existing strong fabric
  - elevated expressway, similar to Toronto's, that separates the harbor from the city
  - declined as port, like Toronto (cannot accommodate large cargo ships)
- General idea
- Genoa wants to share in the sea of wealth cruising the Mediterranean (building form and program seek to tap the luxury yachts-boutiques, trendy restaurants, night-clubs); workers associated with the port are not the

intended beneficiaries of this proposal (open-air theatre, renovated cotton warehouse, national, international, and theme-oriented exhibits to be turned over to retail and commercial use)

#### **Milan Polytechnic, Bovisa - Antonio Monestiroli**

- group of eleven architects
- a collective project is a metaphor for the process by which the city is created
- distinguishes different levels of rationality in the procedure and estimates the degrees of liberty possible for each level
- the coordinator establishes the rules once he is certain that they can be translated into conditions of freedom
- in order for a rule to become operative it has to become terrain in which each person can plant his own idea of architecture
- worked with technique of collage, putting together buildings designed by others and drawn from an existing context that is familiar with everyone
- a place can be imagined and described prior to each subsequent construction - a conceptual rather than a formal choice
- collage assembled of building types taken from a survey of the City of Pavia
- the collage has a provisional value of stimulating debate over the typological rule as well as the planimetric one
- question: should the building type be adopted as a theme to be developed, or should it be part of everyone's choices?
- the rules suggested by the collage have been translated into themes of architecture, guaranteeing the unity of the result and the multiplicity of choices
- everyone started from the chosen typology, have taken their motifs for their form from the rules that determine their position and purpose, without distorting the typological suggestions provided by the collage
- the large "area projects" that are the themes proper to the city of our time cannot be assigned to a single architect without the risk of reducing their complexity

#### **Nexus World, Fukuoka, Japan - Arata Isozaki**

Underlying idea

Renga - form of Japanese poetry in which the given subject continually elicits a response from several poets, resulting in a chain of individual expressions from the participants

Master plan

- only rough indication of the site and the building volume to housing block ratio, leaving the form and the style up to each of the eight participants
- to set conditions whereby the participants could work freely, with little or no restrictions
- the unique group of people seated around a circular table, speaking and discussing as they liked, might be called "the master plan"



## PRECEDENTS - MULTI-USE BUILDING TYPE

### General historical background of the multi-use building type

In a sense, the multi-use building is a reflection of the human condition: it responds to both man's needs as an individual and as a member of society. A structure may define a private realm, a public one, or any of the transitional stages reflecting various degrees of privacy or social interaction.

The acceptance of private and public realms varies in time, as well as between different cultures and socio-political entities. In most cultures, though, separation of work from domestic activity and subsequent institutionalization of work creates a distinction between residence as a private retreat for one and his family, and place of work which one owns and where one has control over who has access and the type of activity and interaction. Since work is seldom done in isolation and almost always require some degree of exposure to the public the residence and family life have a stronger connotation of privacy. By contrast, the public domain is that which allows total access and all kinds of interaction within society's norms. Therefore, while the meaning of privacy has been more or less constant, the quality of public life has been strongly influenced by society's goals and institutions.

We may have various types of multi-use structures:

- structures for different work related activities
- structures for different leisure related activities
- structures combining work and residence
- structures combining work and leisure
- structures combining leisure and residence
- structures combining work, leisure and residence
- any of the above incorporating public space (arcade, galleria, enclosed court or square)

The first six categories provide a variety of uses and various degrees of public access, but they are privately owned and the owner(s) controls and regulates accessibility and the nature of activity and interaction. The true public space is the adjacent street only.

The last category internalizes the street, brings it in closer proximity to the private domain but does not exercise any restrictive moves: allowing

unimpeded public access to any of the other uses, it is the most potentially rich urban structure.

I may conclude that public space is not continuous, neutral, featureless void between private structures; it is neutral in terms of allowing indiscriminate access, but it takes its character from the very structures that border it, or enclose it, and define it.

Some of the earliest examples of multi-use structures that come to mind are the Greek Agora and the Roman Baths. The space around the market stalls in the agora was a place of commerce but also a place of gathering for social interaction and political discussions. The Roman Baths offered a great variety of uses: baths, libraries, theatres, lecture halls, sports rooms, dining facilities; yet, all these activities were settings for social interaction and political discussions much as in the Greek Agora.

In the Medieval city the public life centers around religious and commercial activity. The Greek-Roman antiquity may be the cradle of our civilization, but most of today's institutions, customs, practical inventions are the product of the Middle Ages. The first institutions were housed in isolated function buildings: church, city hall. Residence and work were still not separated; they were contained within one structure: shop at street level, residence above. This type of private multi-use building was characteristic of the medieval city and it is the most widespread and enduring type.

The dwellings above street-level shops were common in Renaissance and Baroque cities, but work and residence began to separate in the sense that neither the owner nor the shopkeeper necessarily lived there. The increase in population made it necessary to build more than one level of residential over a single shop. While in the Medieval town the access to residence above was directly from the shop, in Renaissance and Baroque cities the separation of residence from shop as well as the increase in number of residential stories required separate access to the dwellings.

In the early nineteenth century the type evolved into the walk-up apartment block: shops, restaurants, cafes, theatres at ground level, often protected by colonnades, with four to five floors of apartments above. The model was used by Haussmann for his new boulevards of Paris. In fact all major streets in cities throughout Europe used it extensively as a basic building block.

Another type that emerged concomitantly with the Parisian walk-up apartments was the enclosed passage, galleria or arcade. The model may have been inspired by the Eastern bazaar, encountered during Napoleon's campaign in Egypt.

The Islamic city had a different urban structure than that of the European



medieval town. The city does not play an essential role in Moslem life: it consist of a loose community of familial clans; it is the religious life, the mosque, that unites the community. City life is introverted, partially as a response to the harsh climate. The streets, with the exception of those built by Romans in a regular pattern, are meandering and serve mostly to demarcate living enclaves. There is no one city centre; each residential district develops a centre, a building complex consisting of a mosque, madrasa (school), bazaar (retail trade), chan (wholesale trade), bath, and other smaller institutions. The chan is normally a large courtyard; the bazaar develops around the chan. The bazaar is a network of irregular streets, sometimes covering the entire district of the town, lined on both sides with booths. The streets are protected by wooden structures covered with straw mats, or archways and domes with small openings for illumination. Each shop has a business room above street level. The arcade appeared first in Paris in the early nineteenth century as a business and social setting for the emerging bourgeois society. It responded to the need for a public space protected from traffic and weather and new ways of marketing luxury consumers goods. It was essentially a public thoroughfare, limited to pedestrians, cutting through the middle of the block.

The arcade achieved two main goals: to offer a better environment for shopping than the congested main streets without sidewalks and to exploit the inexpensive and derelict areas in the middle of the blocks. Johann Friedrich Geist, in his *Arcades, The History of a Building Type*, outlined seven characteristics of the arcade:

1. as access to the interior of a block

The arcade made possible the construction of great number of apartments and shops on inexpensive land. Some were strictly residential and developed into luxurious private streets (The Albany, London, the "cites" of Paris). A variation of the arcade type is the walk-through building, which were used primarily for housing but were rented out during fairs and conventions as meeting spaces or storage space. The cours, or passages ouvert in Paris provided a place for trading, living, and manufacturing all year round. The passages couvert were narrower, more regular in shape and served trade in luxury items and its unique public.

2. public space on private property

The arcade proper, as opposed to the arcaded walk which merely surrounds the block, cuts through the building. The interior facades of the arcade have

a reoccurring motif, the arcade, whether as arches, pillars, or engaged columns. Another common motif is the covered column-lined passage. Public access may happen at the ground level only, or at few levels above ground as well, as in the case of the multistoried covered ways.

3. a symmetrical street space

The facades of the arcade are exterior facades. What distinguishes the arcade from the commercial street is its formal regularity with symmetrical street space in both plan and section (Uffizi, Florence). Bridges lined with shops and apartments, covered or not covered, were symmetrical, forced passages functioning like arcades (London Bridge, Pont Notre Dame, Ponte Rialto).

4. a skylit space

The arcades were either open to the sky or covered by a simple glass roof or a skylight with two layers: exterior glass roof and interior dust cover. There were several ways of utilizing the skylight: set to the sides, central skylight, oblong skylight, continuous skylight, space-defining lighting from all sides and the ceiling skylight.

5. a system of access

The open space of the arcade is similar to that of the street with houses on both sides; the houses are self-sufficient units brought together by the interior facades and sharing the common space. This type of arrangement is common to other building types such as department store, market hall, bath house, prison.

6. form of organizing retail trade

The arcade is a conglomeration of individual shops; its success depended on a supply of a variety of goods and a supply of public space for promenading, window shopping, and display of merchandise.

7. a space of movement

The arcade is a transitional passageway; characteristically, the arcade connects two streets. The gallery is an indoor promenade, connecting two buildings, or a passage or corridor connecting separate rooms. The arcade may be viewed as either an aristocratic gallery at urban scale or an internalized street. Often the name "gallery" is reserved for the more elegant arcades. The glass vault is the main feature which transforms the arcade into gallery.



The arcade was an object of private speculation. Its success or failure often depended on external elements such as changes in environment, the composition of its clientele, or the public's sense of space. However, there are certain considerations that might ensure its viability: location, position, internal organization, and targeted public.

The arcade attracts its own public; it is the product of a liberal economic system, a particular social class, and a public sphere.

The arcade is a particular building type that evolved and flourished in the nineteenth century, more precisely between the French Revolution and World War I. Many didn't survive the passage of time and the two world wars. The few that still exist are active and alive.

Other building types, related with the arcade, employ the common space of transition and movement either in isolation or in the scope of bringing together separate functions: built-up bridges of the Renaissance, jails, bordellos, the greenhouse, the railway station, the market hall, the library.

A particular development of the type was the purely residential arcade. It developed as part of the early nineteenth century social utopia, first in Charles Fourier's phalansteries and then in Godin's "Familistere" which was eventually built. These utopians work, which formed the seeds of modern town planning philosophy, proposes three main ideals:

- the ideal community is removed from the chaos of city life and conveniently isolated amidst benign landscape
- the ideal community is restricted to a manageable size and number of inhabitants
- the ideal community is internally organized according to a zoning of uses which segregates the different functional parts; even in the common multi-use space the various activities are grouped so as to avoid potential conflict

The typical continental arcade contains dwellings oriented toward the arcade space. The phalansterie, a purely residential arcade, is a system of access to the interior of a freestanding building with the residences facing the outside.

Another utopian project, precursor of modern town planning, was Ebenezer Howard's Garden City. Garden City, with a population regulated to a maximum of thirty thousand people, had a commercial and cultural centre of civic buildings standing on individual grounds from which the city radiated in concentric circles to a greenbelt of agricultural land. Needless to say, such city had no use for multi-functional buildings.

In the first decades of the twentieth century the program of the arcade broke down and became dependent on other structures.

Johann Friedrich Geist identifies five types:

1. a light well or courtyard in office buildings, banking halls, factories, and public buildings
2. interior street in the large apartment and communal complexes
3. pedestrian level above or below pedestrian traffic
4. dependent passage in commercial buildings or entranceway to cinemas and theatres
5. business street, shop street, or shopping centre reserved for pedestrians and closed off to vehicular traffic

#### light well or courtyard

The originally public arcade has been made private. It serves a limited public, the interior facades disappear being replaced by open galleries. In fact they are not multi-use buildings, but specialized buildings with a lit open space core meant primarily to make accessible the deeper recesses of the building (Frank Lloyd Wright's Larkin Building, Perret's Esder's tailoring, french department stores, Colin St. John Wilson's Liverpool Social and Civic Centre).

#### interior street

As in case of the light well or courtyard, the originally public access is limited. The origins of this type could be traced back to Godin and Fourier. Henri Sauvage's terraced house is a

stepped-back building with apartments facing one direction accessible from continuous galleries; the lower stories, wider because of the terracing, contained a common space with swimming pool illuminated from above. Le Corbusier conceived a residential unit with more than one hundred villas accessible from arcaded walkways and provided with all the amenities-recreational space, community institutions, hotel-type services. His Unite d'Habitation is a similar self-contained vertical enclave, with interior streets running through on every third floor and a shopping street half-way up the building.

#### the pedestrian level

The public dominates the space, which becomes independent plane, bridge, gallery. The pedestrian plane evolves as a technological need for separation between pedestrian traffic and increasingly heavy vehicular traffic. The first monumental visions were Sant' Elia's sketches for "Citta Nuova". In Le Corbusier's Algiers Viaduct building and his Plan for Rio de Janeiro superhighways run on top of long curvilinear residential structures. In the



Soho Study in London and Harlem Study in New York the superhighway is drawn into the city as a building, flanked with parking structures or commercial enterprises, and covered with pedestrian streets and residential structures.

#### the dependent passage

In most European cities the reconstruction of the old inner city districts has brought a resurgence of the arcade type. Geographer Walter Hantschk analyzed Munich's commercial districts and distinguished a number of types based on popularity and location:

- downtown arcades (boutiques; considerable traffic during business hours)
- cinema and theatre arcades (evening rush hour)
- thoroughfare arcades (normal rush hour traffic)
- exhibition arcades (less populated)
- neighborhood arcades (local, short term needs)

#### the commercial street

The old business streets are closed to vehicular traffic, sidewalks disappear and the streets become open arcades.

### **Current Developments**

The twentieth century urban renewal theories pioneered by the Modern Movement shifted emphasis from primacy of space to primacy of object; from articulated public realm to articulated private objects set in a continuous, flowing, homogenous public space.

Function receives an unprecedented importance in shaping of buildings as well as in shaping of cities.

Perhaps the shaping of a city, given its complex nature, is a task that eludes any rational attempt. No single vision, no single model, however rich and complex, can duplicate the "natural" pattern that comes into being as a result of an ever-changing balance of conflicting interests.

The Modern Movement model is a static, closed model which tries to solve the inherent contradictions by separating the conflicting elements. The result is a drastic reduction in the number and kind of modalities of social interactions which make up city life; the very space where these occur, the public space, is not any more a container of activity, a transitional space coloured by the influence of adjoining diverse private structures; it is an

undifferentiated continuous space punctuated by islands of specialized functions.

The perpetual problem is that of finding an ordering principle, flexible enough and all encompassing. This presupposes an ideal to strive toward.

Once we recognize the impossibility of a single and definitive vision for a structure that evolves as an accretion of elements brought into being by conflicting forces, the ideal becomes an informing vision rather than a model to be implemented literally.

The degree of our intervention may diminish to that of only providing a scaffold and then to allow for spontaneous development. By scaffold I mean a frame of reference which doesn't necessarily have to be street pattern, or structural grids; the scaffold should prescribe the essential elements, constant and characteristic, elements that could be anything: street pattern, or buildings heights, or roofs shapes, or colour of the facades. It becomes obvious such prescription does not work for large cities which generally develop a multiplicity of images, but then no large city has ever been built in one stroke.

The natural reaction to the orderly and sterile city of the future was the resurrection of the messy and lively city of the past. The problem is not so much whether we just passed unknowingly by the ideal or it is still awaiting ahead for us; both "memory" and "prophecy" are equally good promised lands.

The problem is to avoid the narrow minded, simplifying vision.

Instant complexity is not the answer: as an alternative to the orderly and sterile city of the future (Modern Movement) we offer the messy and lively city of the past (Post Modernism of Disneyland persuasion), or the messy and not so lovely (but we can't help it) city of the present (Venturi's Las Vegas), or the messy and neurotically lively city of the future (Deconstructivism).

The multi-use type had no place in the modern city, theoretically. The multi-use variety comprising public space had no place at all.

The 1958 meeting of CIAM at Otterlo marked the first break with the ideology of Athens Charter; Aldo Van Eyck and other Team 10 members began looking for more realistic planning models that would correspond with the actual network of social relationships.

Candilis, Josic and Woods commented on their project for The Berlin Free University: " The question is not to build flexible buildings but to establish an environment in which buildings appropriate to their function may occur, and



to encourage an interaction between these buildings and their environment." The project introduced the concept of the mat building; the scheme was a mini-town in which only traffic and structural grids were established. The project restored the pedestrian street and the multi-use building; although it lacked the internal segregation and formal expression of functions, it was still a megastructure (city as a single building).

### Megastructure

The megastructure is more than a multi-use building type, it is a reactualization of the self-contained community first proposed by the nineteenth century utopians. The megastructure prescribes from the onset, irrevocably, the physical setting for a introverted and self-sufficient community life; it is the frozen materialization of a singular vision; its tendency to self-sufficiency pre-empts dialog with the surroundings; its rigid inner structure does not allow for adjustment and change. One more recent example is Paolo Soleri's Arcology.

By extension, the term megastructure is used to qualify any monolithic structure of a size disproportionate to its surroundings.

### Mat building

At the other end of the spectrum, the concept of the mat building, taken to its ultimate conclusions, produces an ideally uniform stage for spontaneous happening (Superstudio: "You can be where you like... there's no need for shelters... all you have to do is stop to connect a plug: the desired micro-climate is immediately created (temperature, humidity, etc.); you plug in to the network of information, you switch on the food and water blenders..."). The mat building anticipates change by being noncommittal. It generally serves well speculative buildings - most office towers have mat floor plates; they will be partitioned by the future tenant, or become open floor office spaces which are but a microscale version of Superstudio's vision. The most common type of mat building is the convention hall, which is mostly a huge warehouse (preferably column free floor space) with adjoining facilities for public and conventioners. While its flexible floor plan makes it a mat building, its sheer size makes it a megastructure. It lacks identity because its primary use is for occasional events.

Residential (office) slab with retail

The most common multi-use type is the residential or office slab with retail at street level. The direct precursor of this type is the walk-up apartment building of the nineteenth century. The contemporary counterpart evolved in

two directions:

-one maintains the morphology of the original, where apartments or offices are stacked vertically over the ground floor retail following the same footprint (the number of stories increases and they are accessed by stacks of elevators); the type was seldom used in new high rise suburbs (the segregation of residential and commercial activity is the suburb's *raison d'être*), but, since the resurrection of the street as important urban element, quite frequently for infill projects in the urban core.

-the other one takes the functional components apart, groups them in distinctive building blocks, and then brings the blocks together in a sculptural composition; in most cases the overriding concern is with the external balance of the composition and less with the internal relationships; even when some public space is defined, at least one major component does not participate. Usually, the residential and office components are massed in separate high rise slabs resting on, or adjacent to a plinth of retail; the plinth may develop as an introverted space - a couple of stories of retail facing galleries surrounding a two story high public space occasionally lit from above - which resembles the department store type or a sort of free standing atrium type.

### Atrium building

The Atrium building is, in most cases, a combination of a modified office tower type and an arcade like retail space. Its precursor is a rare variety of the arcade type, the free standing arcade building occupying the entire block. The Atrium building is both free standing object and space definer: it is, generally, a mid rise structure with a large footprint (entire block) and a hollowed core which becomes skylit public space. Depending on the size and the configuration of the lot, the inner space may take the form of an inner courtyard or of an inner street with light shafts. The first floor, or the first couple of floors, is devoted to retail. The upper floors contain offices (most often), apartments, or combinations of the two.

### Suburban shopping mall

The shopping mall, like the arcade, is an exclusively commercial venture: it strives to provide a protected and pleasant shopping environment.

The arcade developed in the old, most active part of the city; it exploited the unused mid block sites; it connected two busy streets or squares; it brought public space onto public property; it removed the pedestrian from the street, by offering a weather protected, traffic free promenade lined with shops; it



made possible additional living quarters with natural light in the middle of the block.

The shopping mall appears in the context, or rather, out of the context of the modern city. The suburban shopping mall is a product of the car culture: it is fed by it and it feeds it.

Like the arcade, it is a concentration of shops along an internalized street (or group of streets), but, unlike the arcade, and according to the new wisdom of segregation and concentration of functions, the shopping mall is removed from the city core and safely tucked away from traffic and unwanted adjacencies. It does not exploit the mid block parking lots, but it takes advantage of the relatively cheap agrarian land at the outskirts of the city. It does not connect anything, being surrounded only by an amorphous parking lot. Movement within the mall is not senseless though: both ends of the inner "streets" are usually capped with department stores, so that the traffic flow between the two attractions is compelled to feed the little stores. It removes the pedestrian not only from the street, but from the city altogether. It rarely includes office space; it never includes residential. It is completely introverted: its exterior facades are blank walls with the occasional service doors.

To compensate for lack of context it creates "ambiance": garish decoration along "exotic" or "nostalgic" themes meant to uplift the shopping experience. The suburban shopping mall is never a passage, a transitional space; it is only a destination for a specific group: the shoppers. Both the shops and the "public" space are private property; the owner controls the access to the "public" space.

#### Urban shopping mall (Arcade)

Shopping malls, located in the inner city and comprising office space (and residential, sometimes) come very close, and in fact are an actualization of the traditional arcade type. The urban shopping mall has a structure similar to that of the atrium building, only that in this case the emphasis is on retail and the pedestrian thoroughfare. Unlike the traditional arcade, where the pedestrian access, although sometimes controlled, was still public, the urban shopping mall is entirely private; as in its suburban counterpart, access to the "public" space is at its owner discretion.

#### Pedestrian street

Pedestrian streets are either an actualization of the open arcade type, or are simply old commercial streets closed to vehicular traffic and converted into

shopping promenades (open arcades).

#### Subway passage

The subway passage started as an underground pedestrian link between buildings, or buildings and the underground transportation, in cities with severe winter weather. Addition of shopping, restaurants, and other public amenities changed them into underground shopping streets; however, they are perceived mainly as conveniently sheltered passages and not as pleasant shopping and social environments.

#### "Vertical arcade"

Vertical arcades (for lack of a better term) are a more recent multi-use building type that emerged in the Far East (Japan, Hong Kong), where the concept of order is a very loose one compared with the hierarchical rigidity of its western counterpart. The emergence of the type was facilitated by this uninhibited sense of order, but it was, more likely, the result of the tremendous pressures of scarcity and high price of available land.

The type is a medium to high-rise, small footprint building, on an infill site, often with but one facade; all imaginable uses, stacked up in no particular order, are accessible via public stairs and elevators.

Buildings have seldom developed as pure representation of one singular type; in most cases they are the resulting combination of elements of different types, often used in configurations and urban situations not characteristic for the particular types evoked.



## DISCUSSION OF TYPE

If archetypes are subconscious patterning, the types are conscious acknowledgment of the process. That is, (architectural) objects, otherwise heterogeneous, possess certain common characteristics and thus belong to a class.

The type itself is an abstract class, or category. Its contents are the immutable characteristics that defined the type in the first place.

The type manifests itself in actual objects, which are individual expressions of the typical qualities.

The types are the work of the collective unconscious, through a slow and repetitive process of crystallization.

Each step along the process is a typical object that embodies to a larger or lesser extent the qualities of the ideal type. In fact, there is not any a priori type; rather, the type emerges as the consistent occurrence of a certain archetypical response.

Each step along the way, that is each typical object, is the product of an individual effort, according to that individual's particular frame of mind and historical context.

Each step builds upon previous steps. The imagination doesn't deal with the future, it feeds on the past. The future is an infinite array of possible reshuffling of our cultural heritage within our natural limitations.

In a larger perspective, a continuous cultural discourse is assured despite attempts to break with the past and build a brave new world; just as well, the urge to emulate the past becomes redundant.

The archetypical response, being a datum of our condition, is unavoidable. Everybody, consciously or not, employs typical objects or elements of typical objects.

The type endures because it provides answers to archetypical situations. The typological object is both an universal and a particular response to a situation that is both general and specific.

Since typological objects are not simple repetitions of the respective types, the real process is that of adaptation or reinterpretation of the type.

## MODES OF INTERVENTION

Toronto, or any city for that matter, cannot be reduced to a single idea.

The growth and transformation of the city occur neither through total control nor through spontaneous happenings.

The nature and degree of intervention will dictate the scale of intervention.

The city is a complex entity with a multitude of layers, and consequently, with a multitude of levels of reading its structure.

A division into districts, blocks, and buildings is a synthetic reading of building form aggregations and it does not explain elements of continuity. It is also a somewhat artificial division because the relationship building-block-district-city is not a linear one.

There are elements of continuity, both in a sense of physical continuity (the plan, streets) and in a sense of common principles manifesting in distinct fragments. These elements may take specific form as they become part of distinct fragments, but they always remain discernible entities at the level of the city.

When the nature of the study/intervention is at a level transcending the specificity of the fragment and it operates on elements of continuity in city's structure (street pattern, system of green spaces, etc.), then the study area may extend to encompass a larger area, even the whole city.

The more general the element, the simpler and more generic the prescription.

The prescription to be most specific, most concrete, when applied at the building level.

When the purpose of the study is to prescribe building form, then the study area will be limited to the fragment whose perceived characteristic morphology would be preserved and enhanced by the prescribed form.

The criteria for the building form come from understanding the internal requirements of the particular building, as well as of the forces manifesting at the district and city level. The criteria are generic prescriptions that take specific form in the particular individual building.



## STUDY AREA

There are two main concerns involving the process of identification of the study area:

- determining the area which is amorphous, or obsolete, or derelict (in most cases obvious)
- determining, based on the analysis of the city's structure whether the area identified in the first step constitutes a distinct fragment of the city, or part of a distinctive fragment, or it straddles different fragments; since the scope of intervention is that of prescribing specific building form, the study area will have to coincide with the fragment for which the prescribed building form will become specific.

The second point is quite important because it involves the recognition and acceptance or the need for redefinition of the existing fragments and their relationship; it amounts to a reevaluation of the structure of the city, a reevaluation of the place of the particular fragment within the city's structure, of its relationship with other fragments.

The amorphous, obsolete, and derelict area is a larger one, and extends beyond the actual Harbourfront area to include various waterfront sites, the railway lands, and Gardiner Expressway. Equally important are the east-west connections both in terms of access and in terms of continuity of urban or landscape form.

As I mentioned earlier, the study area does not necessarily coincide with the area in perceived need of intervention.

Establishing the limits of the study area implies a qualitative judgment on the structure of the city.

In this case two questions arise:

- is Harbourfront a distinct fragment, or we would simply expand the city fabric to the edge of the water?
- if it is a distinct fragment, where are its boundaries to the north as well as to the east and west?

To the first question I tend to answer that Harbourfront is a distinct fragment, or it should reemerge as one. The harbor has always been a distinct "place" with characteristic urban morphology and building types.

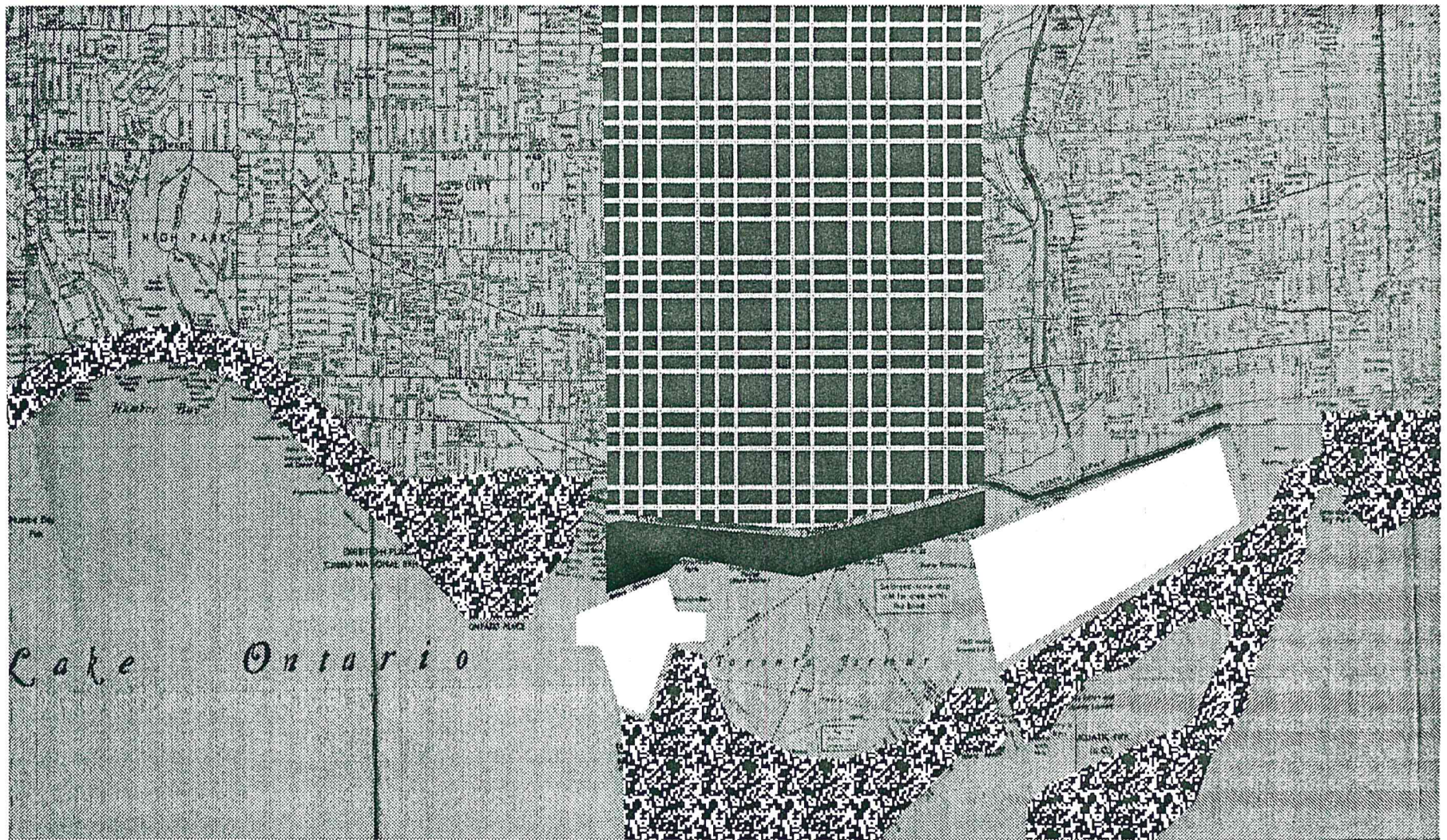
The answer to the question of boundaries is linked to both the historical location of the harbor and the latter developments of the street patterns in this area.

Up until the start of its pronounced decline in the early '80s, the harbor land included the whole length of the shore between Bathurst Street and Don River, and the present Port Industrial Area. The present subdivision into sectors reflects the fragmentary transformations that have taken place lately. The subdivision is meaningless; the harbor is one entity, comprising the whole shoreline. It should develop a homogenous morphology, and in the process of its transformation it should be capable of including incongruous fragments (industry, port) in its fabric.

The present shoreline is the result of successive land reclaiming, progressing from its original location along the natural ridge just south of Front Street around 1880, to the actual outline, completed in 1967. Unlike most other ports, it never developed deep and narrow piers in any of its stages. Port and industrial activity was closely connected with land transportation, thus the railway tracks were laid in the immediate proximity, separating the city from the water edge. The ensuing conflict between railway and pedestrian traffic was alleviated by tunneling the main north-south arteries under the railway tracks. The successive advances of the shoreline moved the port area further away from the railway tracks, but this largely coincided with the decline in water and railway transportation and the emergence of auto transportation. Queen's Quay became the service auto route for the port area. The shift over to container shipping led to the concentration of port activity in the actual Port Industrial Area which offered larger dock area for container storage.

Queen's Quay is emerging as a strong axis and, potentially, the northern edge of the Harbourfront. It would become the southern edge of the city fabric when that extends toward the lake, after the Gardiner Expressway and the railway lands are dealt with one way or another.



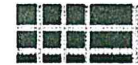


## TORONTO WATERFRONT



WATERFRONT "PARK" - NATURAL ENVIRONMENT,  
OPEN SPACES, PREDOMINANTLY PUBLIC

ISLAND AIRPORT AND  
PORT/INDUSTRIAL



CITY CORE - URBAN, DENSELY BUILT, FEW  
OPEN SPACES, MIXTURE OF PUBLIC-PRIVATE



HARBOURFRONT - THE URBAN SEGMENT  
IN THE WATERFRONT "PARK" CHAIN



HARBOURFRONT  
AND RAILWAY LANDS

FIGURE GROUND  
EXISTING FABRIC



FIGURE GROUND  
COMPLETED FABRIC



## HARBOURFRONT - PROBLEMS

*"Amorphous zones do not exist in the city, or where they do, they are moments of a process of transformation; they represent inconclusive times in the urban dynamic; when these phenomena appear frequently the high density puts pressure on land usage and the process of transformation is accelerated; these transformations are realized through the definition of a precise area and redevelopment occurs"<sup>7</sup>*

Aldo Rossi - The Architecture of the City

Toronto harbor is such an amorphous zone, presenting a two-fold discontinuity:

- a temporal discontinuity in the evolution of the harbor as a persistent element in the history of the city
- a spatial discontinuity in the fabric of the city core in one of its key areas - its water edge

Harbourfront area presents two sets of problems:

- internal problems of urban structure, building type, programming
- edge problems of how it relates to adjacent areas and, generally, to the rest of the city

### Internal problems

The area is largely underdeveloped (with the exception of Central Bayfront, which is overdeveloped); it lacks urban structure, coherent pattern, identity. Later developments are inappropriate in terms of urban "model", building type, programming:

Central Bayfront - Manhattan or Hong Kong model

- no land pressure to warrant the height and density
- inappropriate block pattern
- inappropriate building types

- public, leisurely character seriously hindered

Bathurst Quay - (apartments slabs, anywhere)

- inappropriate block pattern
- inappropriate building types
- single use (residential)
- tendency to become self-contained neighborhood
- complete lack of retail and amenities

Queen's Quay, the potentially strong axis and promenade

- not supported by buildings
- over emphasis on the mechanics of vehicular traffic
- lack of pedestrian amenities and character

### External problems

The expressway/railways barrier separates Harbourfront from the city. It is both a physical barrier and a psychological one - the north-south running streets have, evidently, no buildings in the expressway/railways zone, and some are even interrupted altogether.

Generally, the area has poor pedestrian and public transportation access.

<sup>7</sup> Rossi, Aldo, *The Architecture of the City*, Chapter 2, page 95



## POLITICAL CHOICES

In the last ten years there has been an increased public and political interest in Toronto's water edge. A consciousness of the collective need to redefine the water edge is taking shape. The city, as a synthetic image of the collective imagination, is reasserting its fundamental condition, that of a city at the edge of the water.

The political choices were summed in the conclusions of the Royal Commission for the future of the Toronto Waterfront:

- reintegration of the waterfront into the city
- the waterfront is a chain of distinctive districts whose specificity should be preserved and enhanced
- the waterfront has great actual and potential tourist interest (local, regional, international) and it should retain public accessibility
- programming and development should strive toward overall diversity; however, the particular mix for each district should enhance its predominant character

These guidelines suggest a common theme for the entire waterfront; public accessibility, diversity of programming and development, leisure and tourist orientation, and integration with the city are the common link in the chain of districts; they prescribe qualities that, to a certain degree, will unify the distinct fragments into a cohesive entity.

On the other hand, every distinct fragment of the chain has its own problems and potential, and it would address the common concerns in its own particular way, fulfilling a role that is inherent in its own characteristics.

Since my study deals specifically with Harbourfront, I beg to differ on a few points with the Royal Commission findings in as much as Harbourfront is concerned. Accepting the risk of offending certain views and interests, I would not recommend :

- any type of self-contained neighborhood (this is a city-core area and public

interests should be addressed in equal measure, if not more than private groups' ones)

- setting aside acres of land for park (again, this is a city-core area and there is enough park land on the Islands and elsewhere along the waterfront)
- favoring or banning a particular use-group (affordable housing, high-end residential)

Commissioning of an urban study to give shape (building form) and program (proposed uses) would certainly help implement these guidelines. Restricting T.H.C. jurisdiction to the active port lands and privatizing the rest might spur development. A new set of rules (tougher on urban and building form and laxer on permitted uses and parking) to replace the existing zoning would control and direct development toward the desired goals.

## OBJECTIVES

The scope of this study is to propose urban morphology and building types that would restore this fragment of the city. The proposal should reaffirm the essential character of this place.

The proposed forms should embody the new values, but they should retain the memory of forms that shaped the character of this place in the past. In other words, the same ideas that generated the forms in the past would shape the forms in the present, but those ideas would also be shaped by present reality.

The present reality demands:

- coherent image (distinct urban and building morphology)
- essentially urbane quality
- predominance of public realm
- diversity of programs (function)
- reintegration with the city

### Reintegration with the city

While my study is concerned with the reshaping of the Harbourfront, i.e. its "internal" aspects, the problem of reintegrating Harbourfront with the city is relevant for two reasons:

- there are elements of continuity in the city's structure that take particular shape in Harbourfront
- the criteria for building form come from understanding the specificity of the Harbourfront as a fragment of the city, which means both what makes it distinct and what makes it part of the city

## Identity

Harbourfront is part of Toronto's harbor; it is also a fragment of the city core, and a fragment of the waterfront system, each with its own characteristics. It appears that whatever Harbourfront becomes, it will have to be a hybrid mitigating between these three models:

### Harbor model

- specific urban block typology (pier, quay, dock, basin, etc.)
- specific building types (warehouse, silo, elevator, factory, etc.)
- water-related uses (shipping, industry)
- limited public access to water's edge
- absence of public spaces/parks

### City-core model

- high intensity of land use
- high degree of space occupation in plan and/or section
- close proximity and strong interchange between the private and public spheres
- as focal point for city, region, country, etc., local interests are surpassed by external pressures which affect the distribution of public/quasi-public space and programming
- "natural" environment is either absent or reduced and controlled

### Waterfront "park" model

- "natural" environment, more or less manicured, prevails
- almost exclusively public/quasi-public space and programming
- spaces and buildings for mass events (single, seasonal uses)



## **OPEN-ENDED MODEL**

What should the contemporary harbor look like?

There is no need to "invent" a new identity for the harbor. There is no need to come up with a new model. The contemporary harbor is more likely to become a hybrid resulting from mitigating between the tendencies and the demands of three models: harbor, city core, waterfront "park".

The harbor is one of the persistent elements in Toronto's history; as a model, it should be neither replicated, nor replaced, but transformed. The proposed forms should embody the new values, but they should also retain the memory of forms that shaped the character of this place in the past. In other words, the same ideas that generated the forms in the past would shape the forms today, but those ideas would also be shaped by present reality.

In a sense, the city takes over the harbor, but, in doing so it adjusts in order to preserve the identity of the place, and to continue the essentially public, leisurely character of the waterfront.

Rather than start from a "grand plan" with unavoidable coarse grain, I would prescribe concrete building form for the small fragment; the consistency of approach to all fragments will ensure the cohesiveness of the larger entity, while the incremental and individualized nature of the process will ensure flexibility and diversification of response to specific local conditions.

The general criteria, derived from understanding the position of Harbourfront in the context of the waterfront and of the city as a whole, will take concrete, specific shape on each block (pier). Therefore the criteria will be reshaped by the specific conditions of the block, and it is at the level of the block and of the individual building that they will be ultimately established.

Reshaping the Harbourfront means designing building forms, because, ultimately, at the concrete level, it is the individual building that gives shape to the city.

## **Reintegration with the City**

Harbourfront to be redefined as a distinct fragment, extending from Queen's Quay to the water and from Bathurst to Parliament.

Queen's Quay to evolve as both edge of city core and of Harbourfront, and as an east-west connecting link.

North-south arteries to develop into true streets as the city will extend toward the water after the Gardiner/CNE lands problem is solved.

The essentially urban character of the city core to extend, though in different form, to Harbourfront.

The essentially public, leisurely, and water related character of the entire waterfront to be retained, in specific form, in Harbourfront.

## **Identity - Harbourfront as distinct fragment**

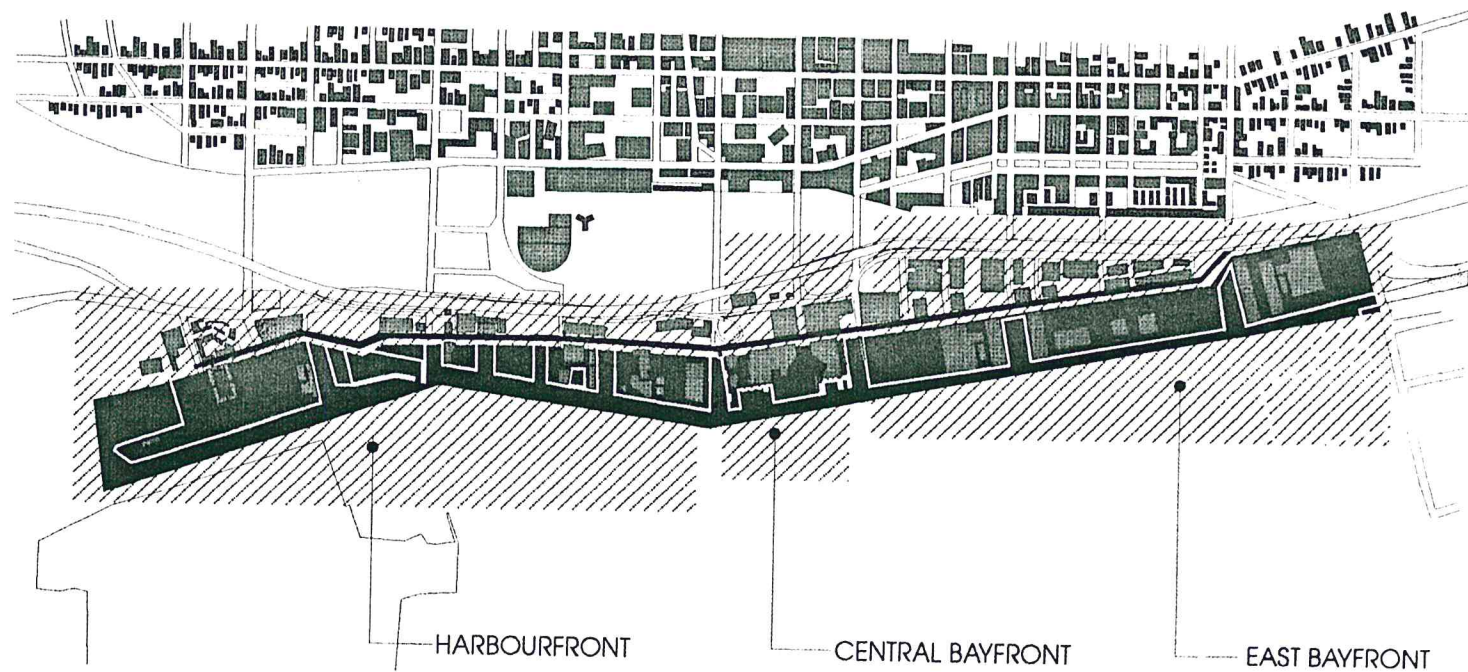
Harbourfront is largely unbuilt and the few existing buildings are rather "set-pieces". To achieve identity it needs "texture" - through consistency of morphology and social content, that is, through prevalent use of certain block configurations, building forms, and programming.

Harbourfront is not city, or port, or a link in the chain of waterfront's open spaces; it is all of the above. Its character will result from combining the characteristics of those three models; some will be retained, others will be altered or eliminated:

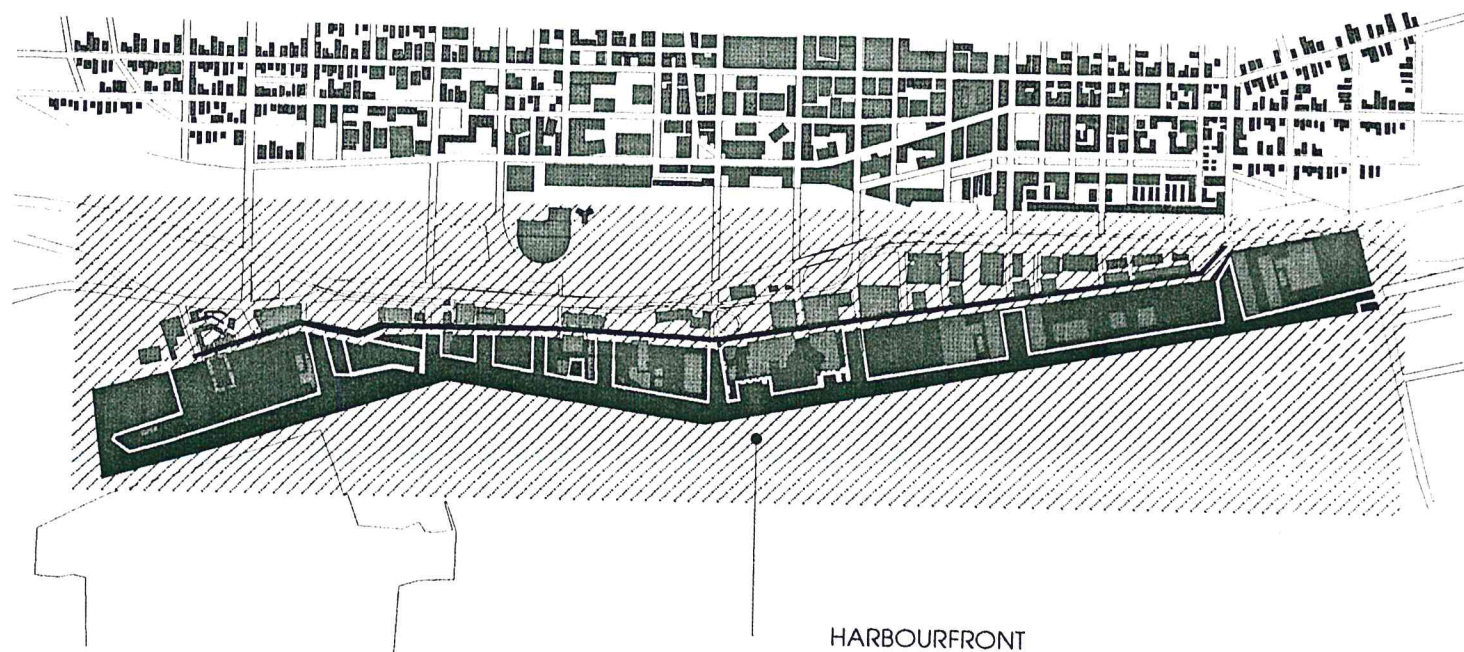
- high intensity of land use to be achieved through fragmentation of the blocks and through diversification of programming
- urban composition of the block to follow building-land-water relationships specific to harbor patterns
- high degree of occupation of space to be curtailed by the need to preserve public outdoors spaces and specific harbor building massing
- conversely, as a result of city pressures, the open space character of the waterfront to be reduced to small urban gardens and promenades along the



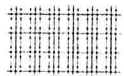
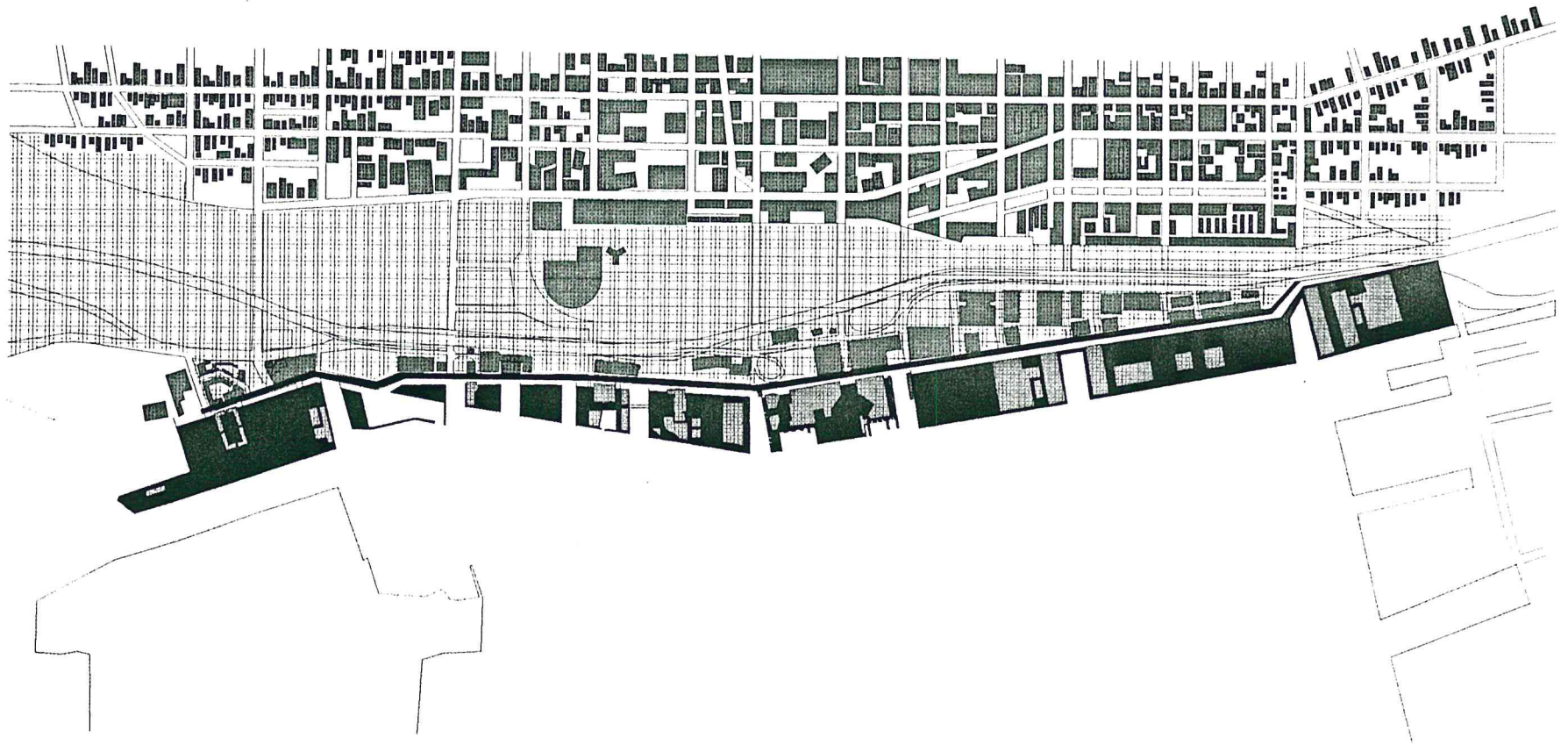
PRESENT FRAGMENTATION  
INTO SECTORS



HARBOURFRONT  
IS ONE ENTITY







RAILWAY LANDS AND GARDINER EXPRESSWAY  
CITY FABRIC TO EXTEND TO QUEEN'S QUAY WEST



STUDY AREA - HARBOURFRONT



QUEEN'S QUAY WEST  
MAJOR AXIS AND EDGE

water edge

- programs geared to mass entertainment, better suited and well provided for elsewhere along the waterfront, to be avoided, since they generate megastructures and single, occasional use
- close proximity, and strong polarization and interchange between the private and the public spheres to be achieved through multi-use structures
- building morphology to result from reinterpretation of building types specific to harbor or generally associated with waterfront location
- reinterpretation of the type to occur at two levels: first, morphological transformation from private structure to one that assumes an urban role by inclusion of public/quasi public space; second, morphological and programmatic transformation from specific harbor use to include city content

### Queen's Quay West

Queen's Quay should acquire a multiple role:

- element of city's plan - vehicular and pedestrian artery, connecting element in the chain of waterfront districts
- strong pedestrian artery, promenade, as it passes through Harbourfront
- northern edge of Harbourfront and southern edge of city core

The arteries connecting Harbourfront with the city will become true streets once the Gardiner/railways barrier is dealt with. At that time, the north-south access will be improved by reshaping the blocks north of Queen's Quay and by allowing all north-south streets to reach Queen's Quay.

Queen's Quay is, potentially, the major axis of this area, but for the moment is hardly more than a traffic artery. It requires a new street profile (integrated vehicular traffic, enlarged sidewalk along the water edge, trees, street furniture) and building mass to define its space.

As an edge, Queen's Quay should become the mediator between two systems: the city fabric from the north, ended in a sea-wall like building mass and holding the street line, and Harbourfront's urban structure to the south (basically an alternation of piers, become "city blocks", and water inlets).

### Implementation

I propose the use of this model in lieu of both master plan and zoning. The model should be a combination of prescriptions and guidelines designed to achieve the objectives stated earlier. The prescription would pre-empt undesirable developments; the guidelines would do the same, yet they would allow for unlimited choice within certain conditions.

Prescriptions:

- limited size for urban blocks
- mixed-use programming
- public access to water's edge
- no parking required

Guidelines:

- harbor theme for block structure: unlimited choice of pattern within the theme, complete freedom in reinterpreting it
- harbor (or waterfront) specific building type: unlimited choice of type within the theme, complete freedom in reinterpreting it

The use of harbor related themes at both urban and building levels would produce the needed texture. The freedom allowed within the theme would produce the needed variety.

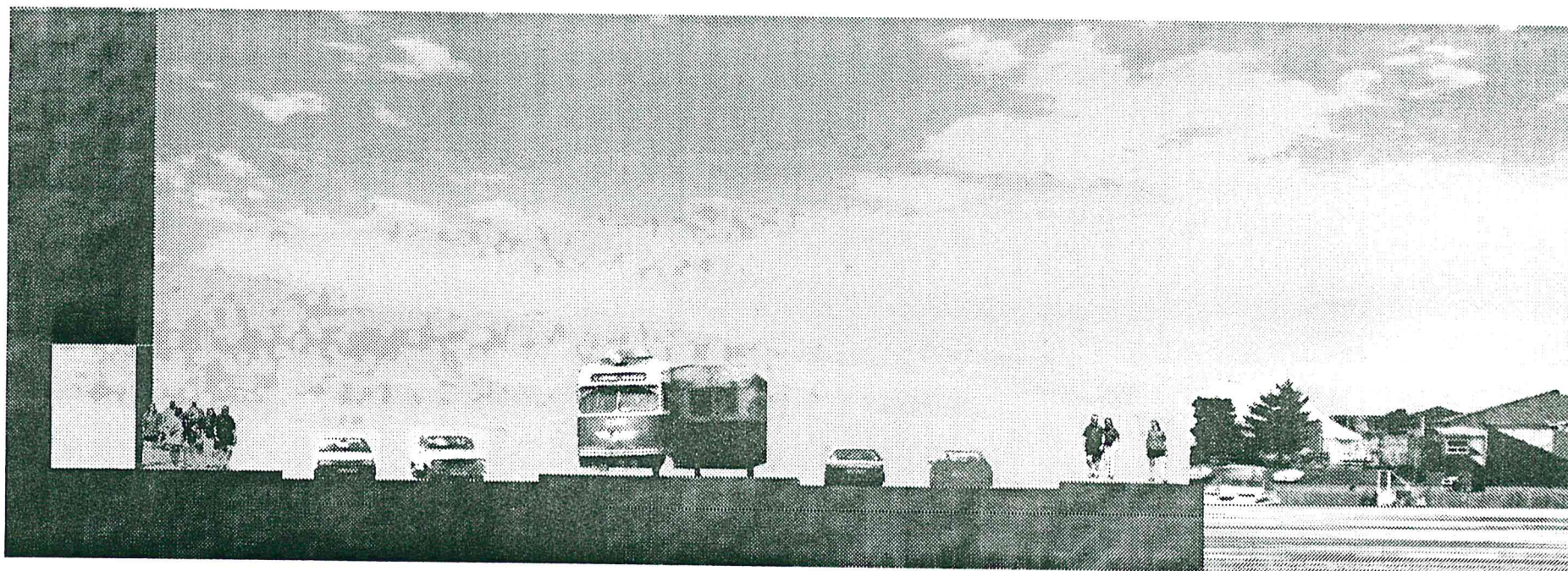
I have completed the fabric for the entire area just to have a glimpse at what it might end up like. When each block is designed by a different hand, starting from different patterns and reinterpreting them differently, the result will be much more refreshing.



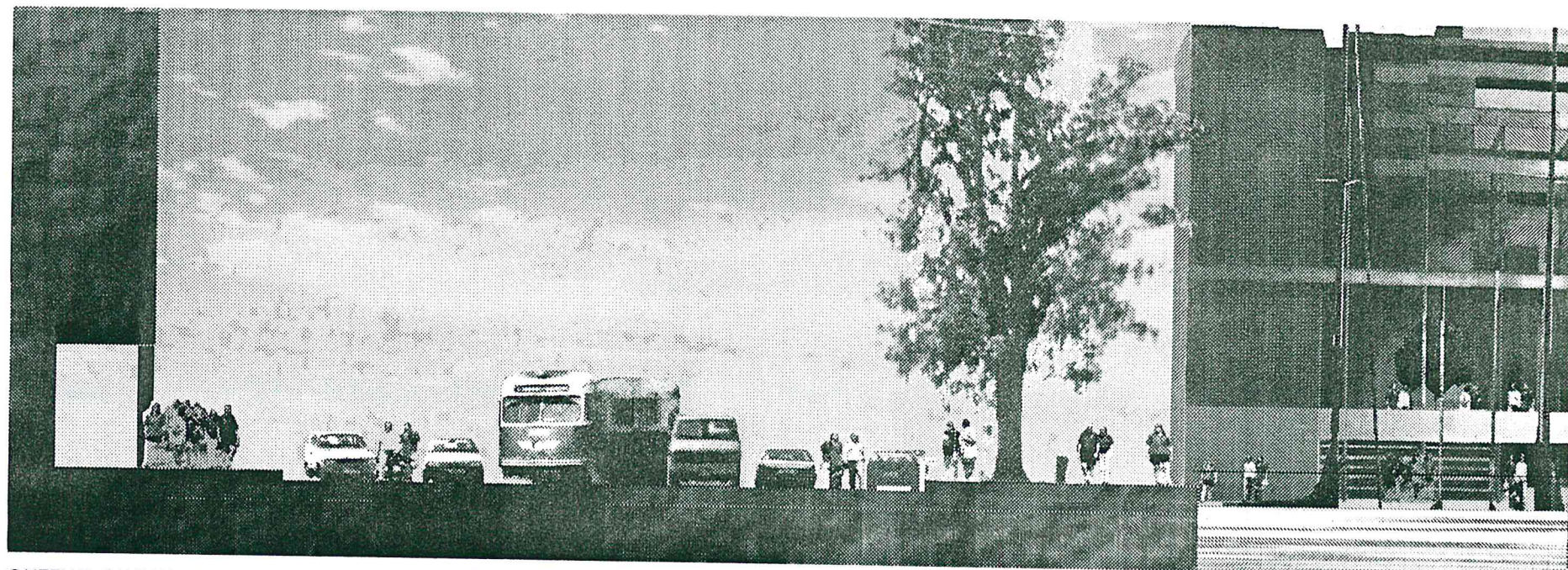
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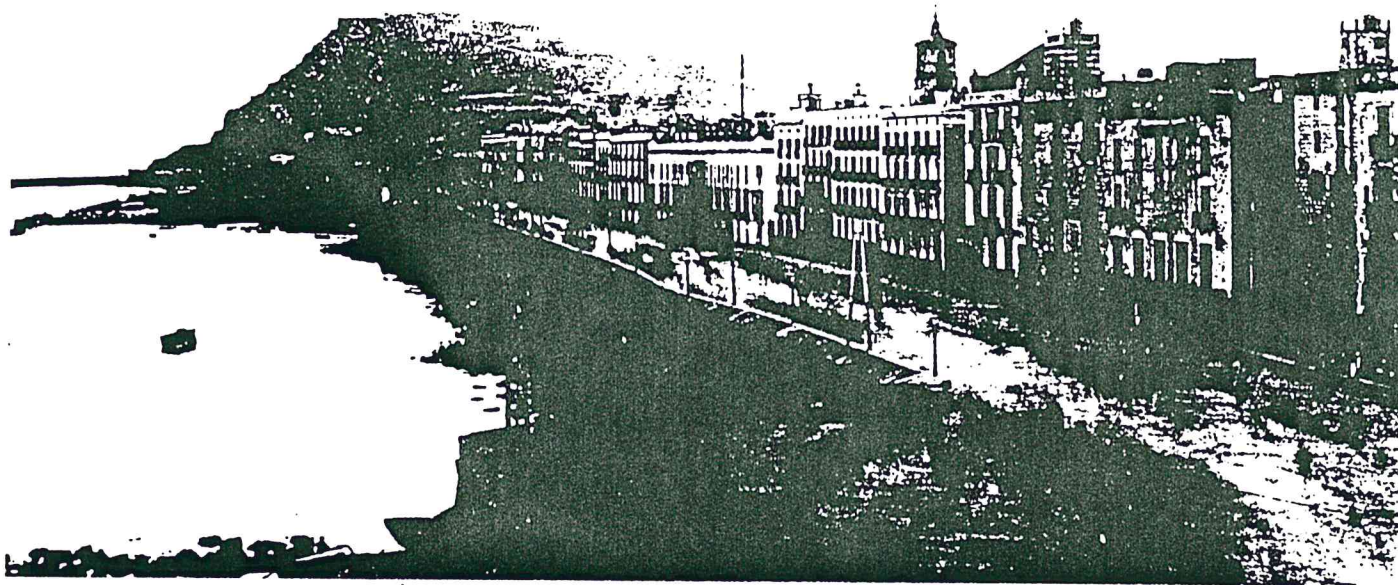


QUEEN'S QUAY WEST PRESENT STREET PROFILE WITH EMPHASIS ON TRAFFIC ENGINEERING



QUEEN'S QUAY WEST WIDER SOUTHERLY SIDEWALK (PROMENADE), NARROWER STREET WITH "DISORDERLY" TRAFFIC



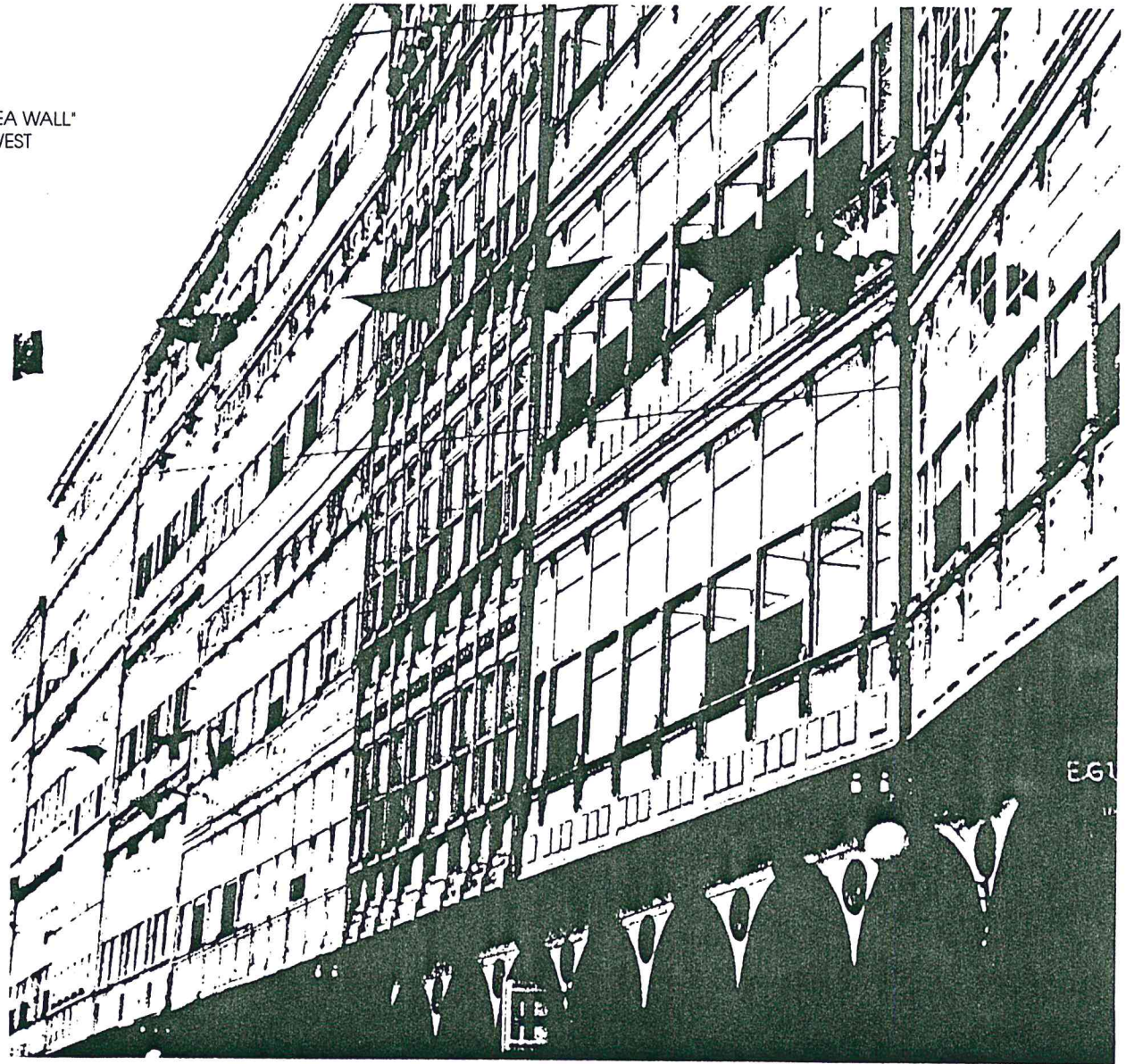


BARCELONA

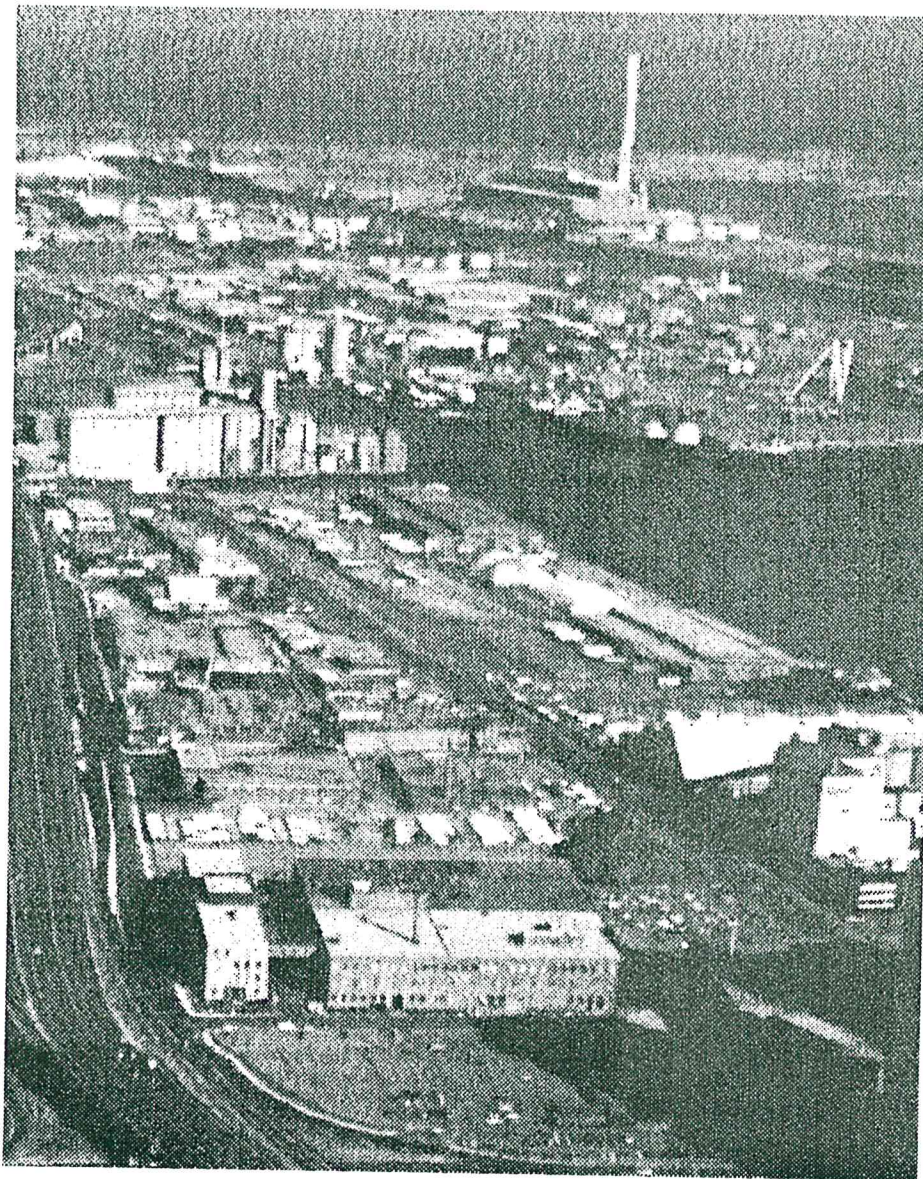
POSSIBLE BUILDING TYPE TO FORM THE "SEA WALL"  
ON THE NORTH SIDE OF QUEEN'S QUAY WEST

CORUNA

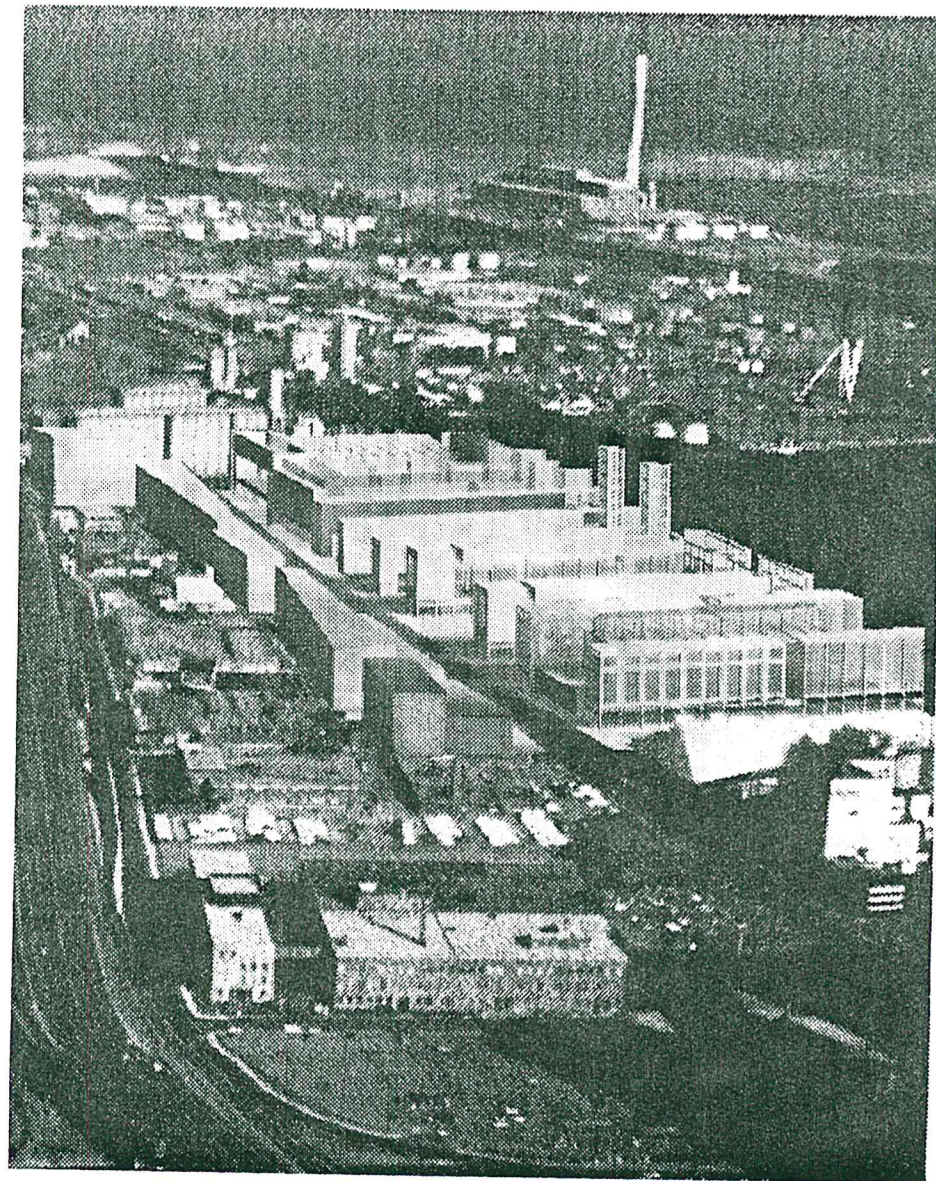
POSSIBLE BUILDING TYPE TO FORM THE "SEA WALL"  
ON THE NORTH SIDE OF QUEEN'S QUAY WEST







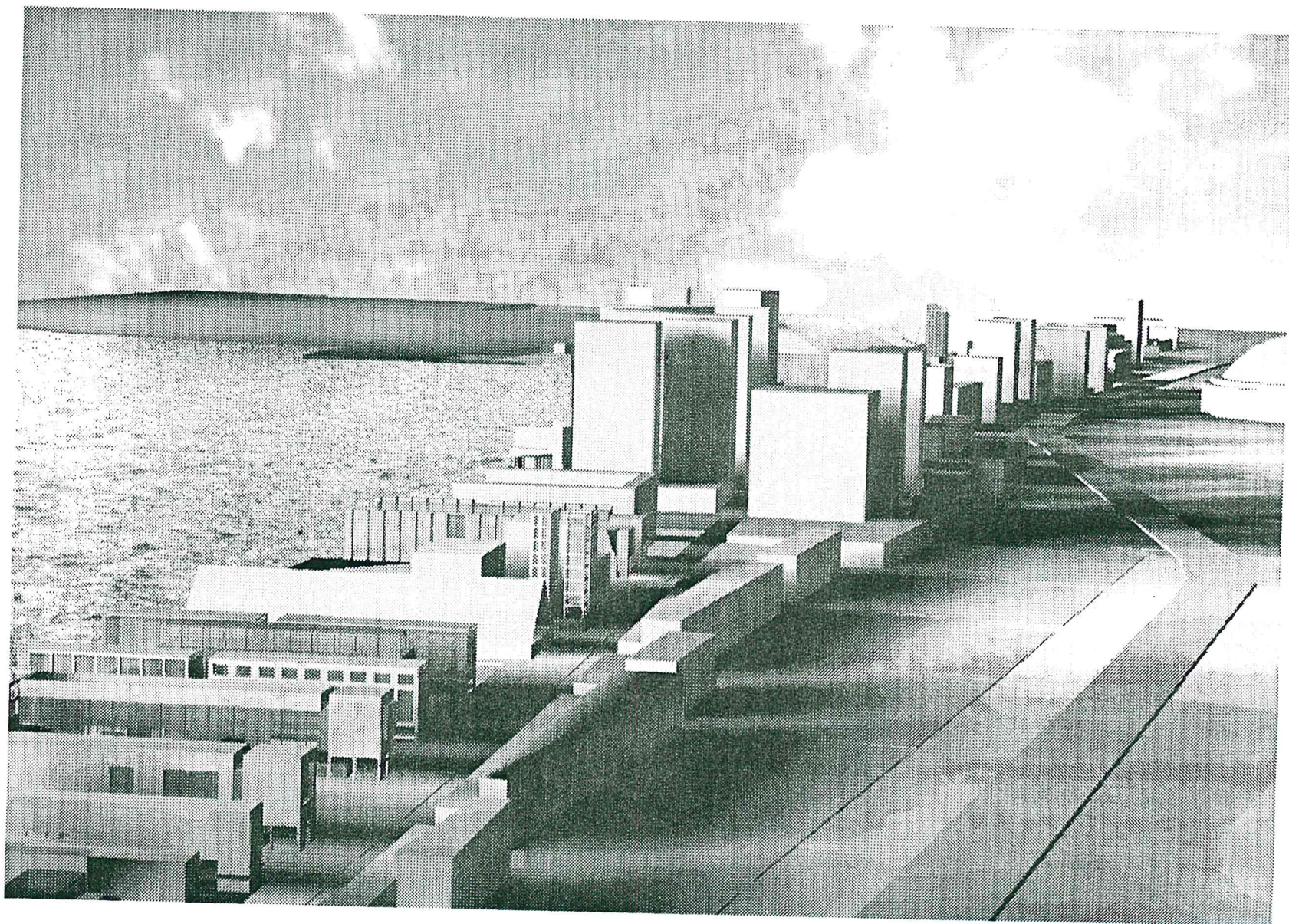
EXISTING



PROPOSED

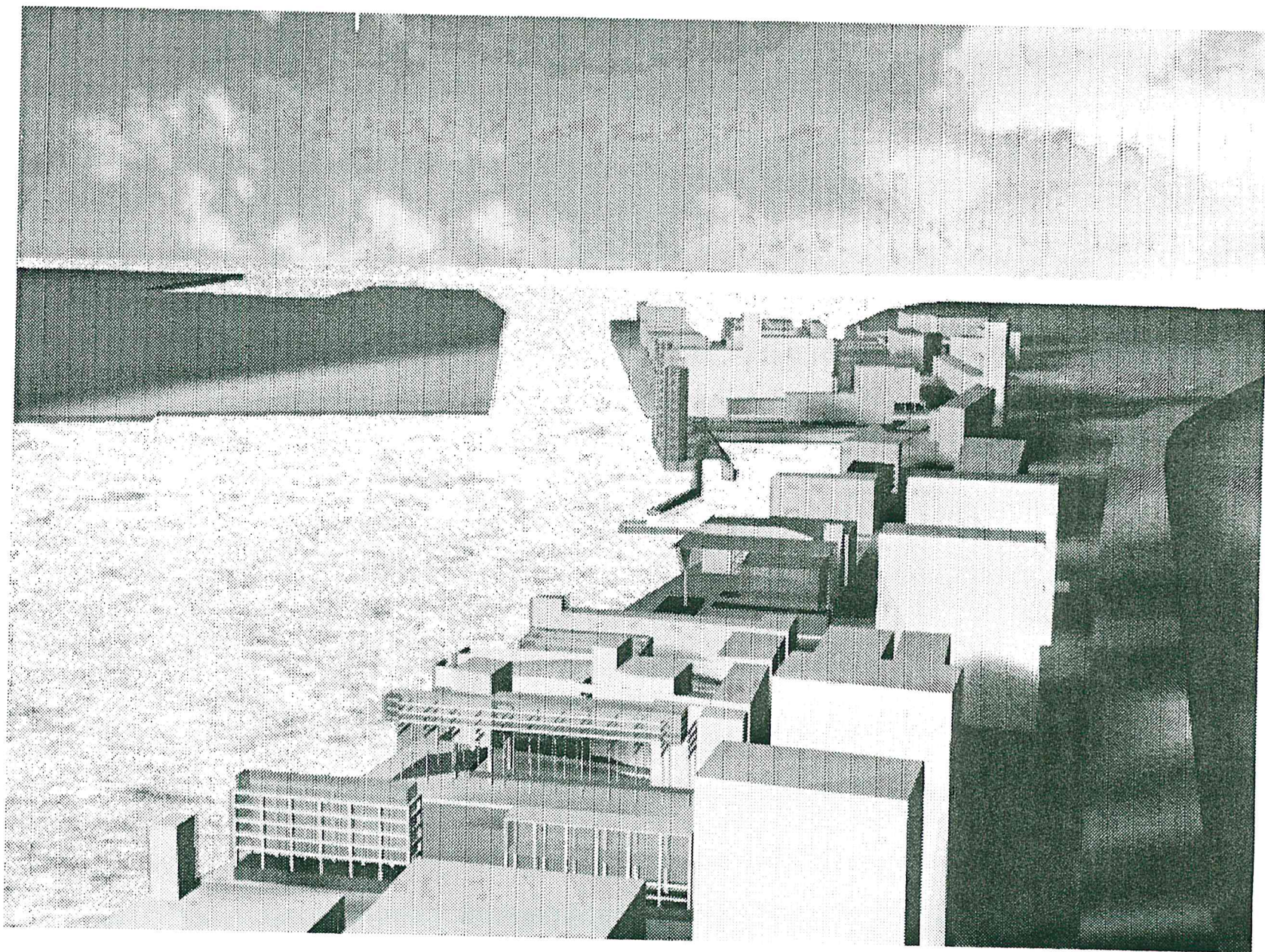
HARBOURFRONT (LOOKING EAST)





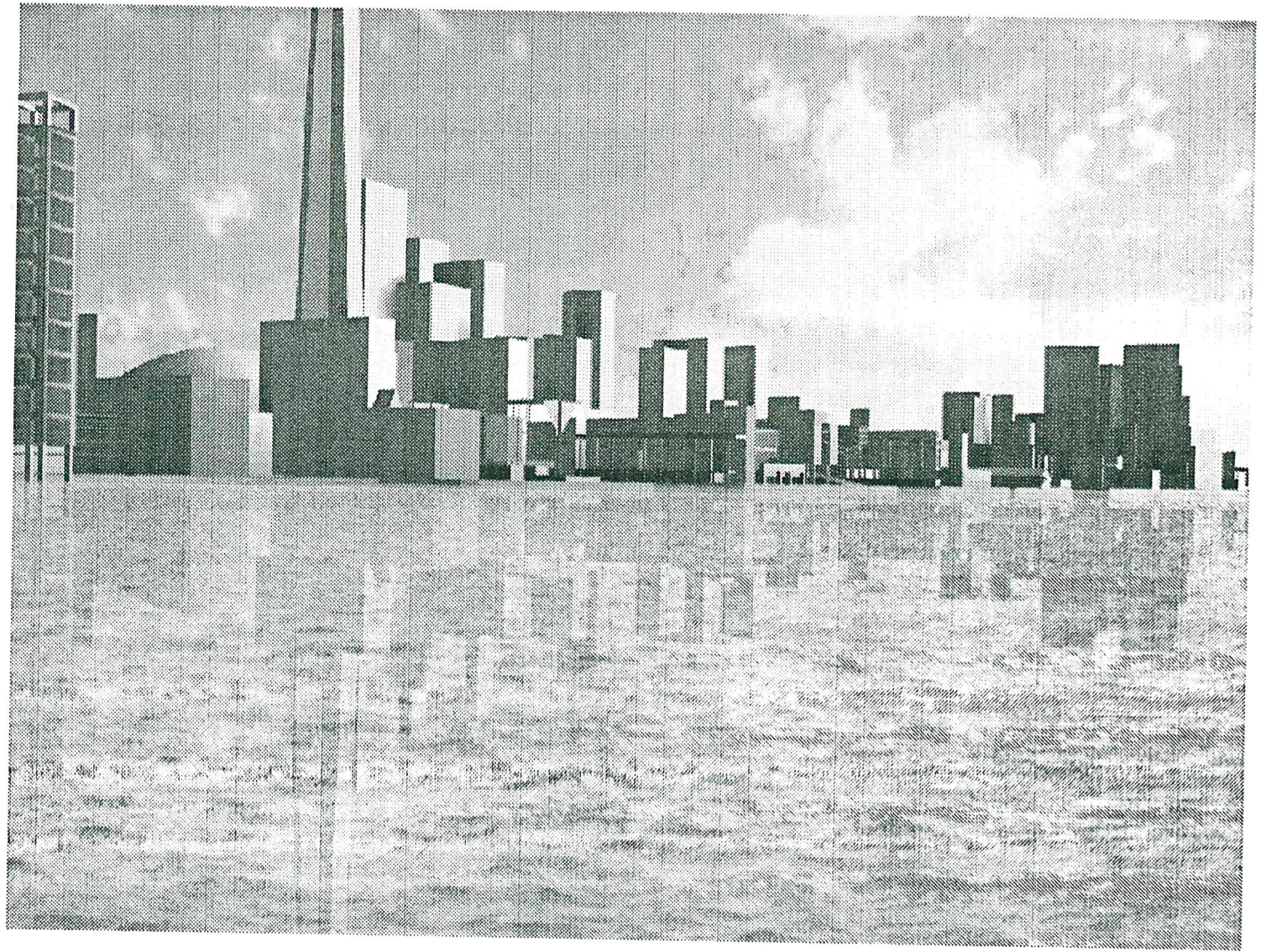
HARBOURFRONT (LOOKING WEST)





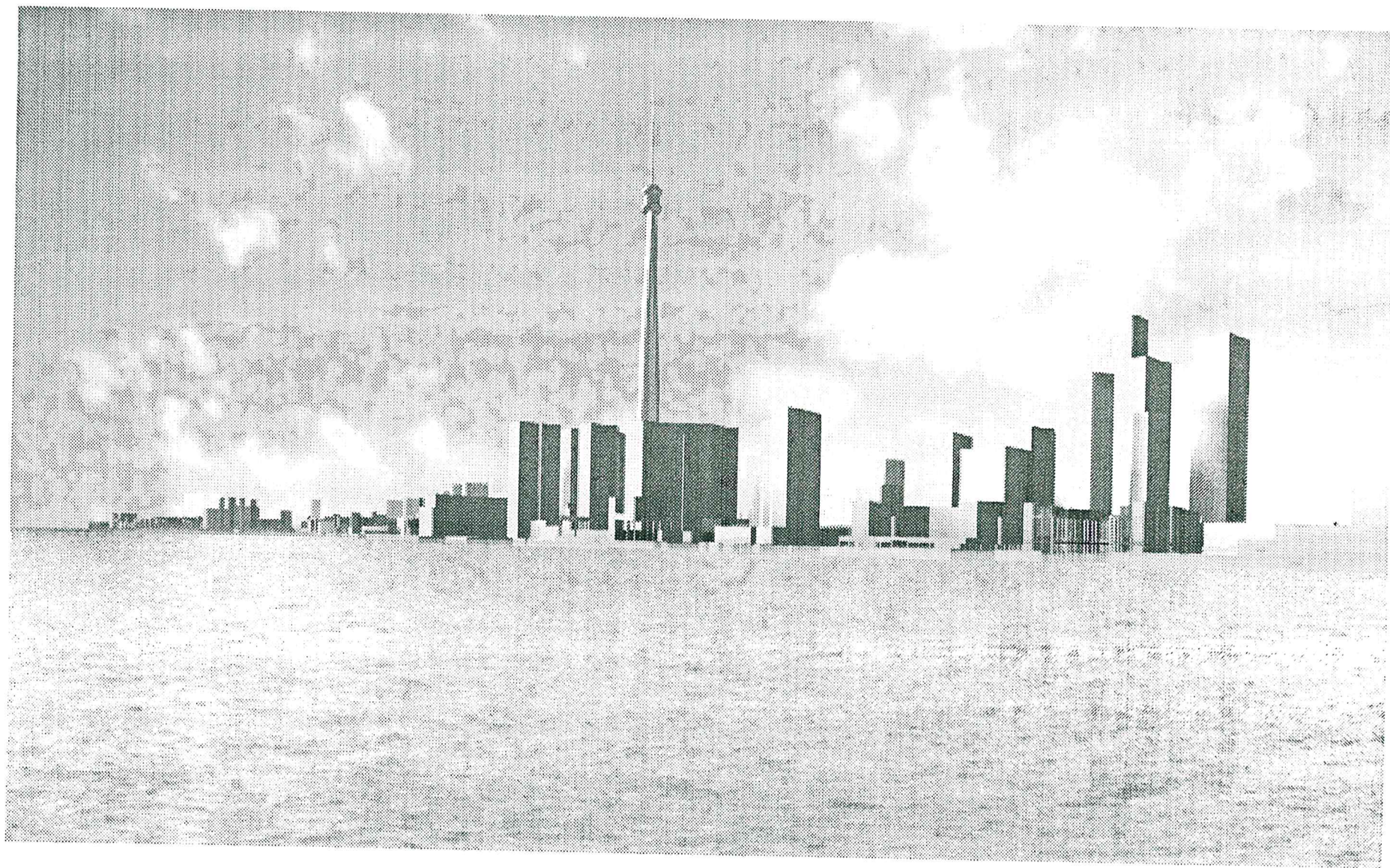
HARBOURFRONT (LOOKING WEST)





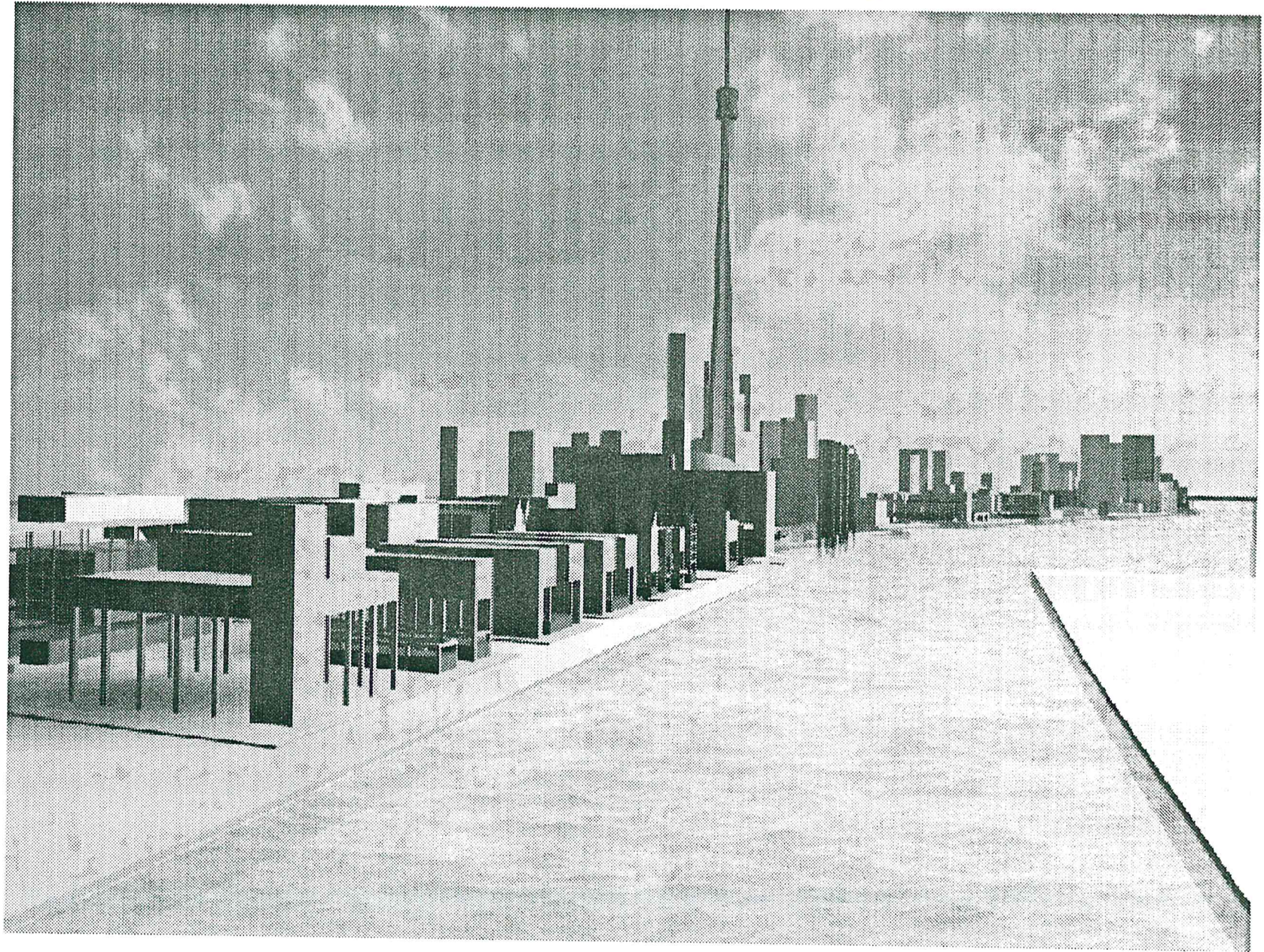
HARBOURFRONT - VIEW FROM THE ISLAND AIRPORT





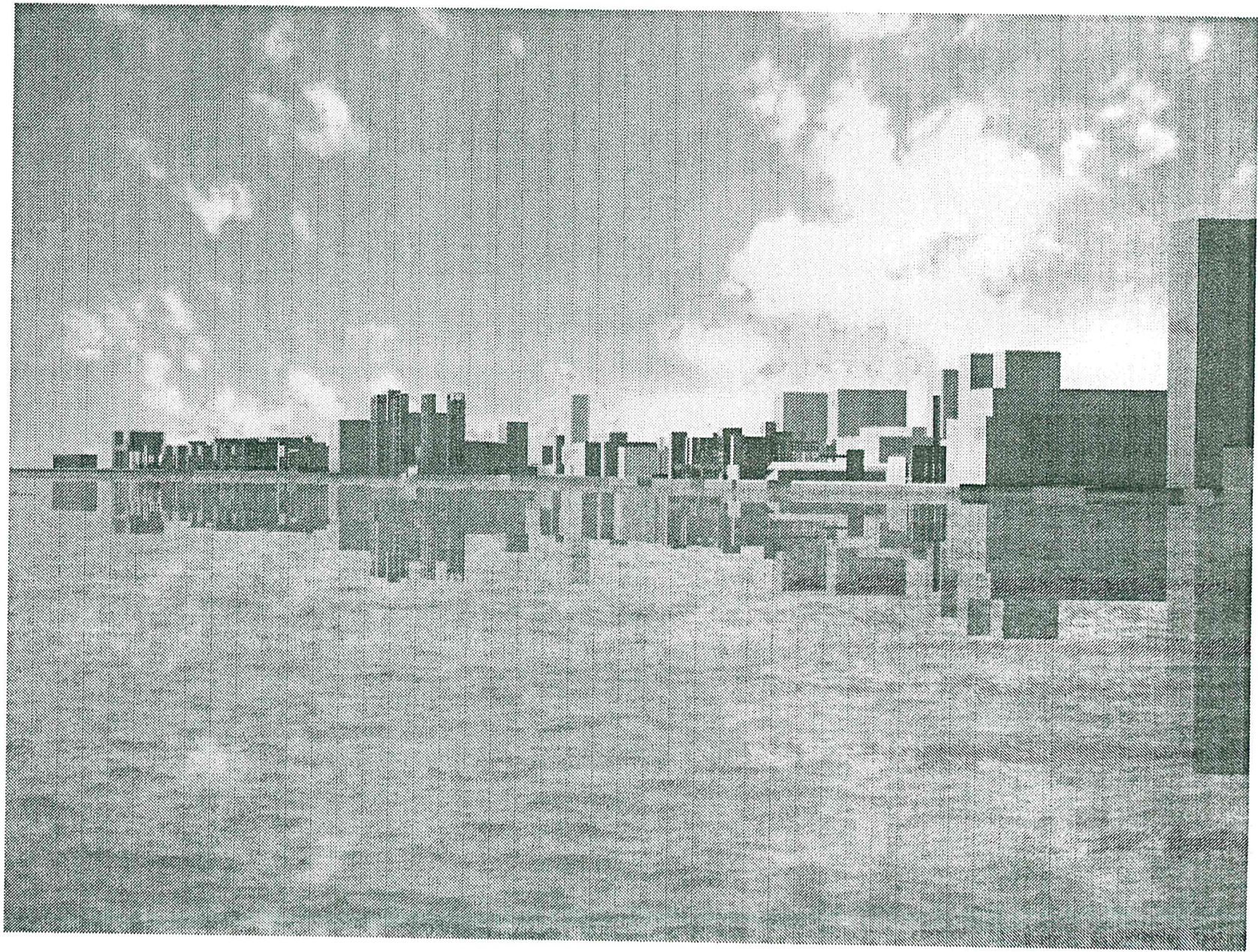
HARBOURFRONT - VIEW FROM EAST GAP





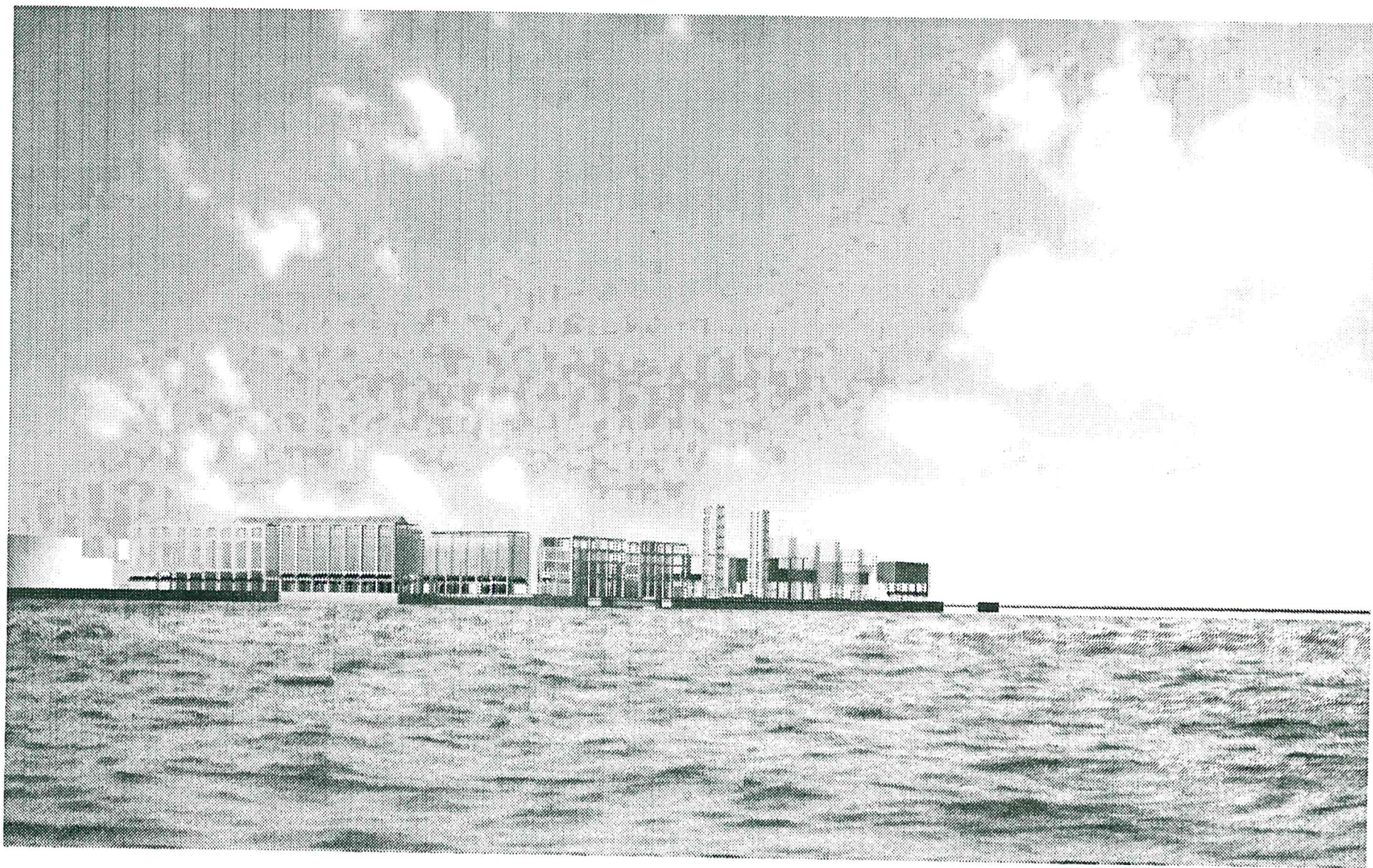
HARBOURFRONT - VIEW FROM WEST GAP





HARBOURFRONT - LOOKING WEST FROM INNER HARBOUR





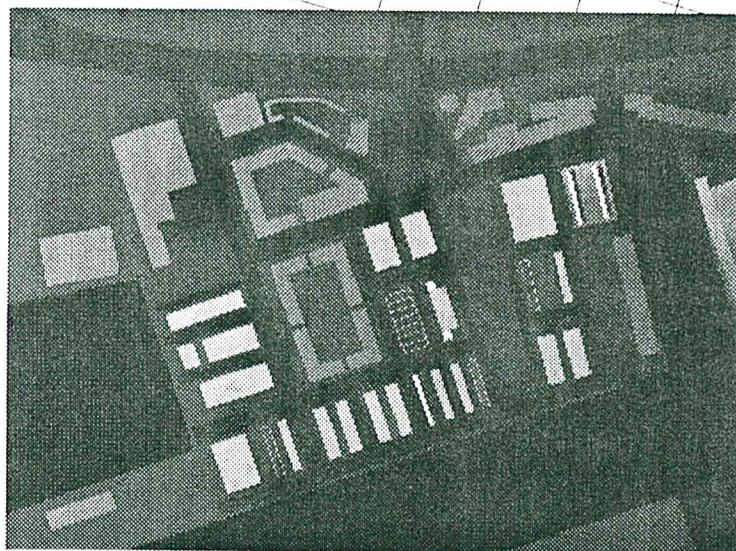
HARBOURFRONT - LOOKING EAST FROM INNER HARBOUR



EXISTING BUILDING  
PROPOSED BUILDING

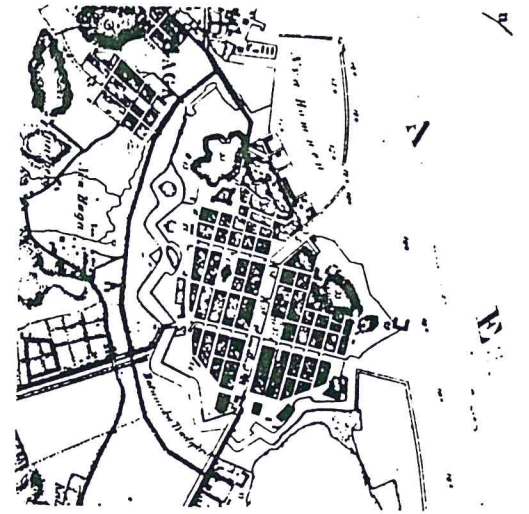
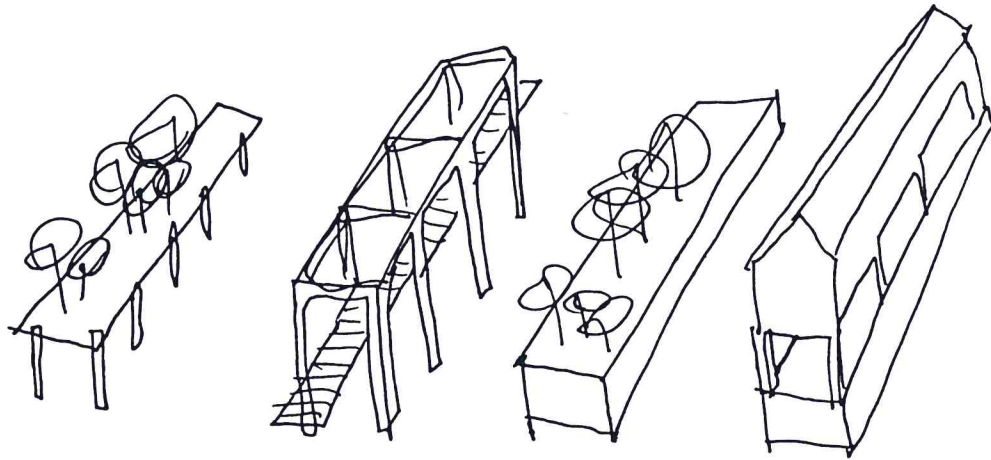




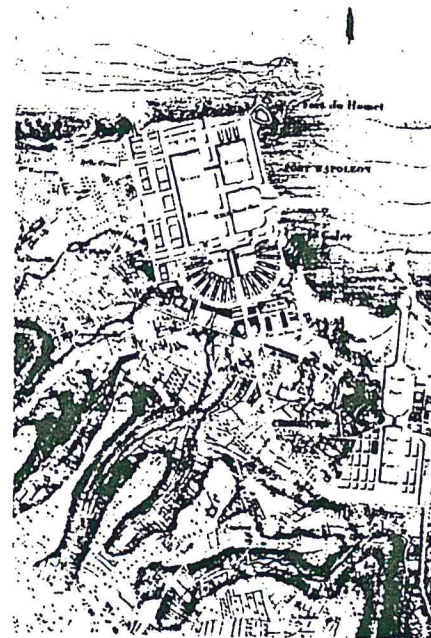
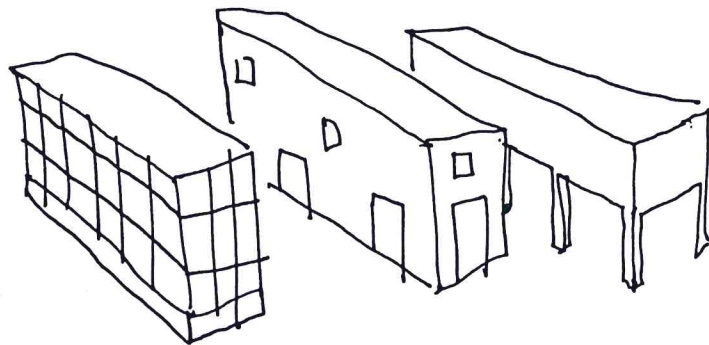


**SITE 1**

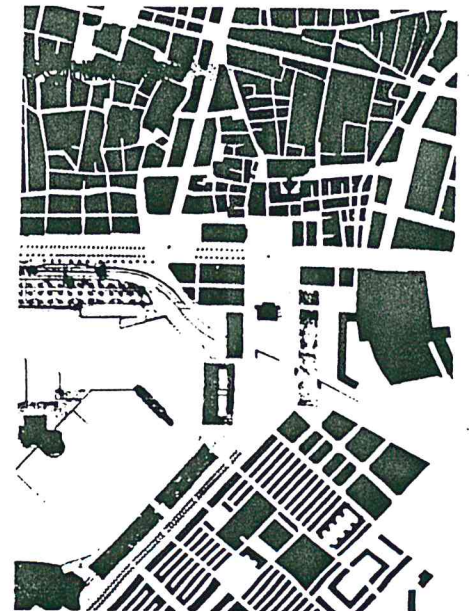




GOTHENBURGH

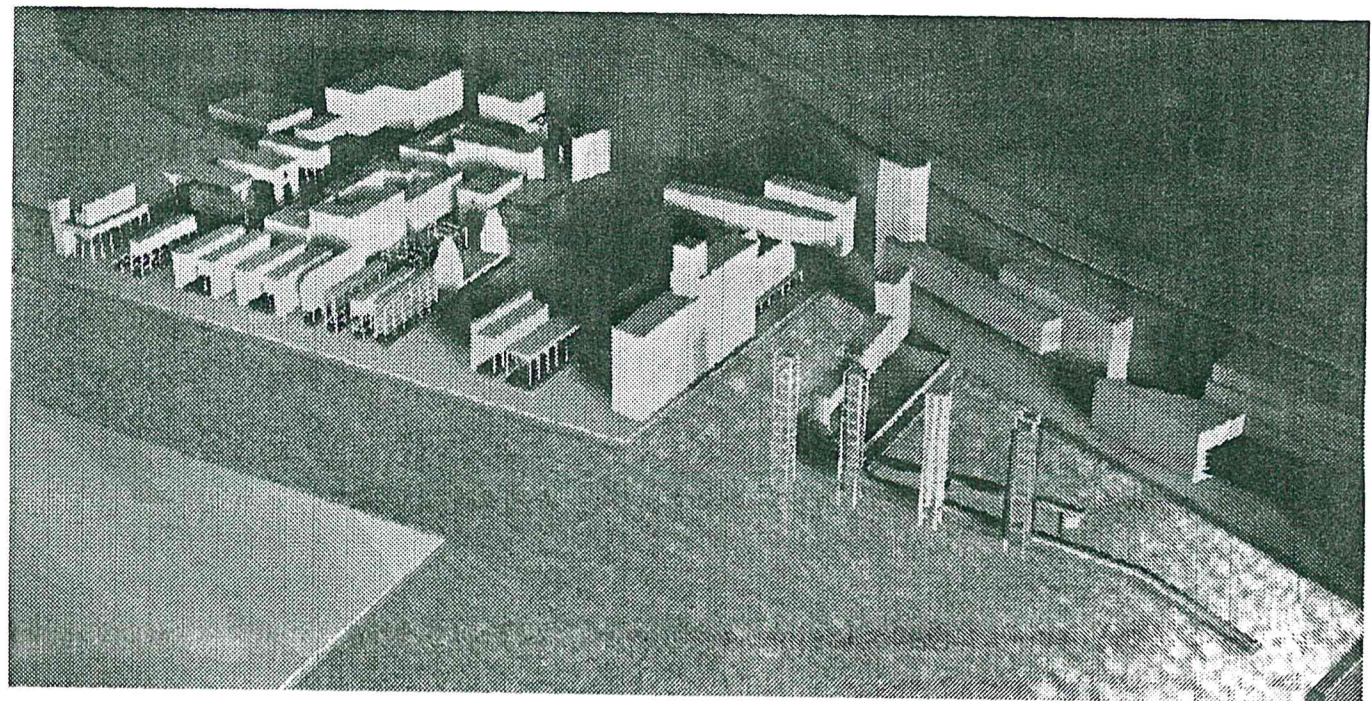
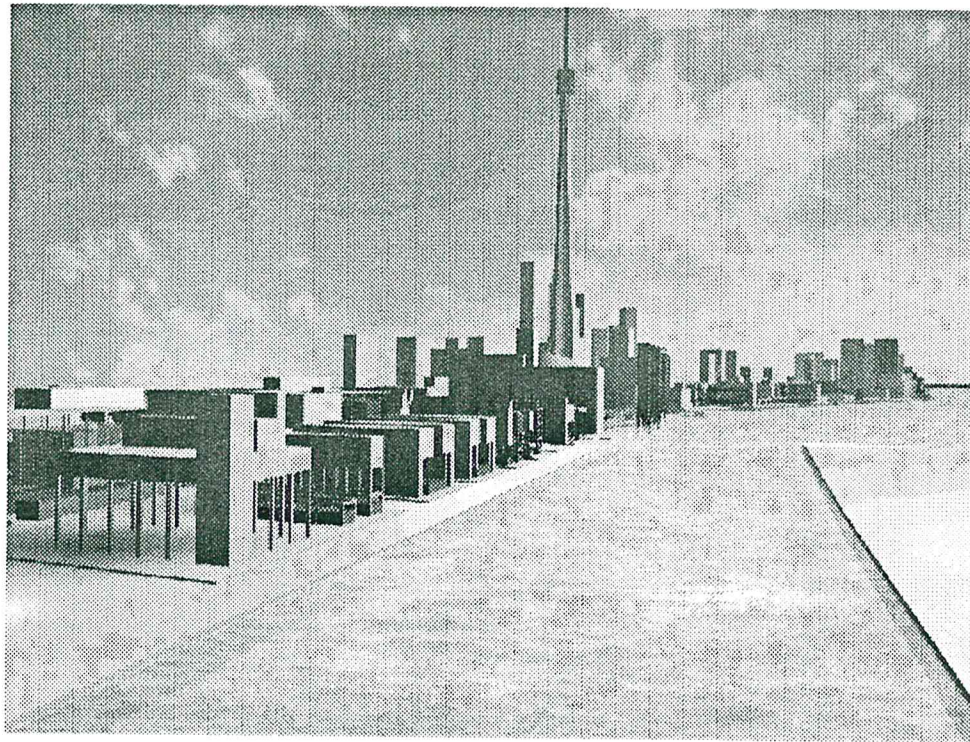


CHERBOURGH

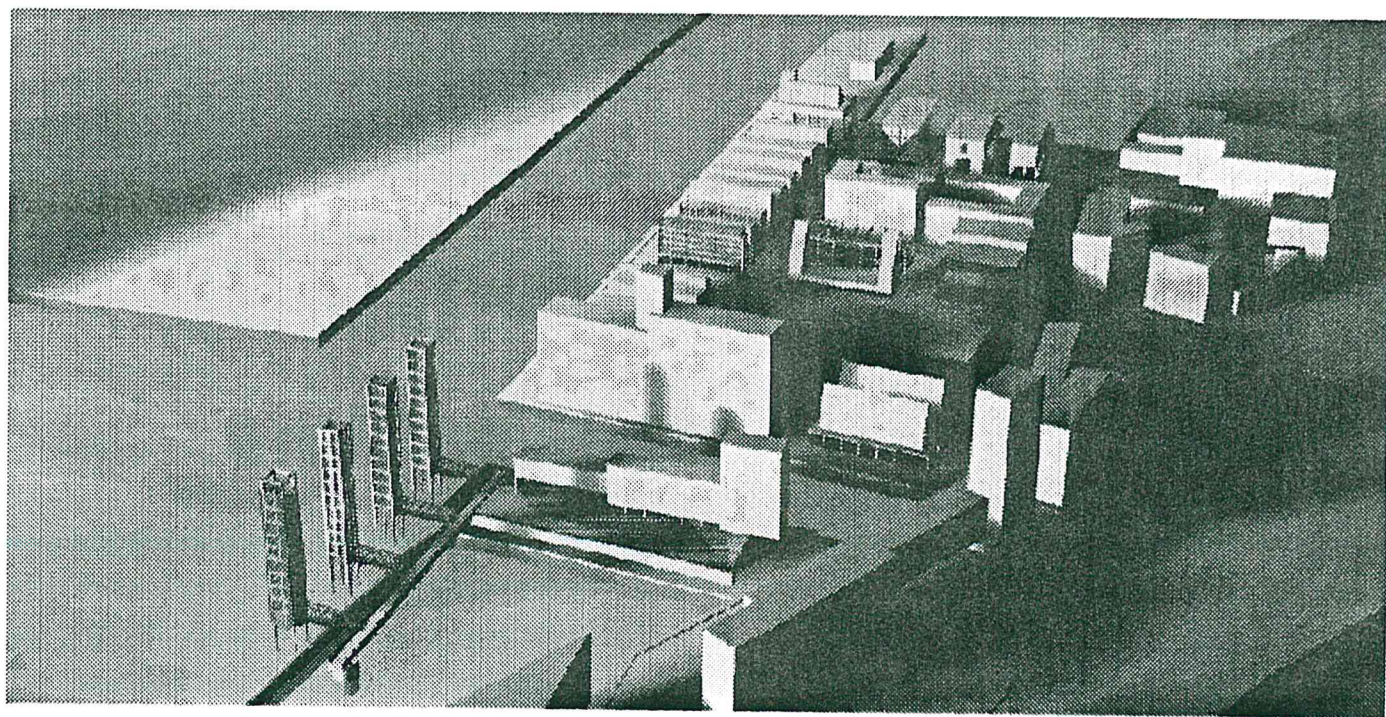
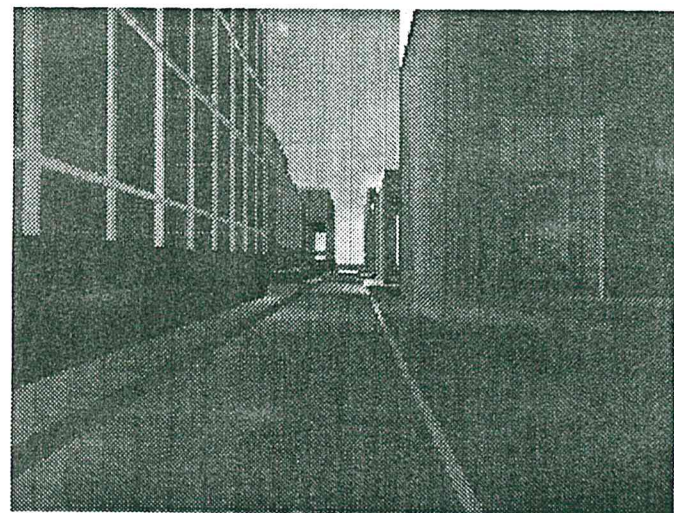
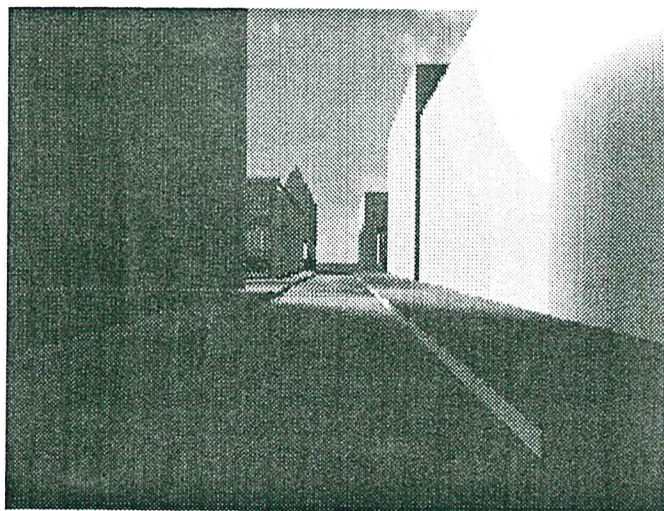


BARCELONA

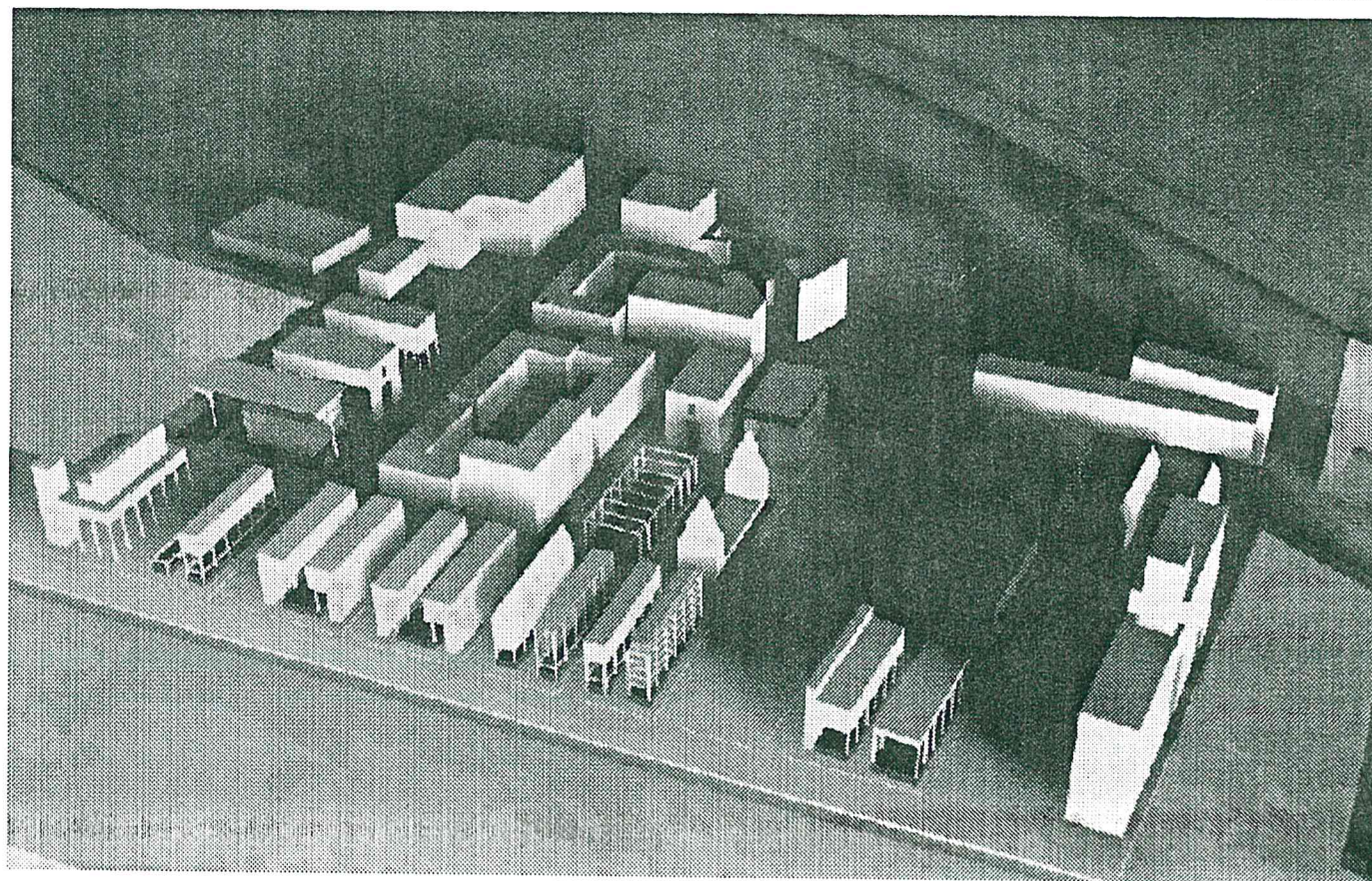
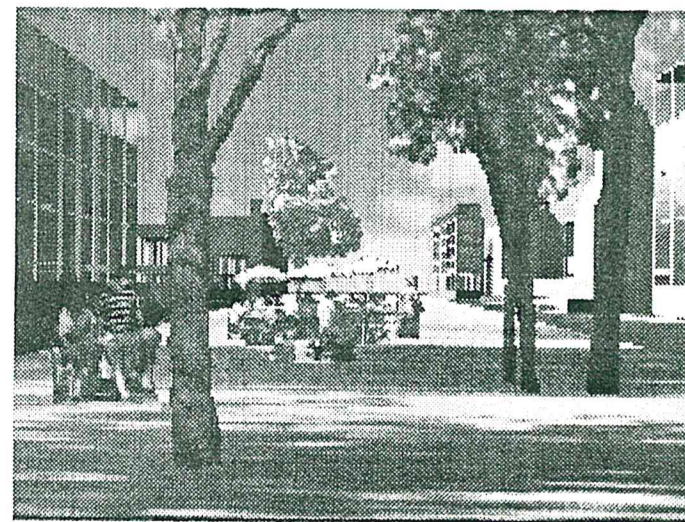
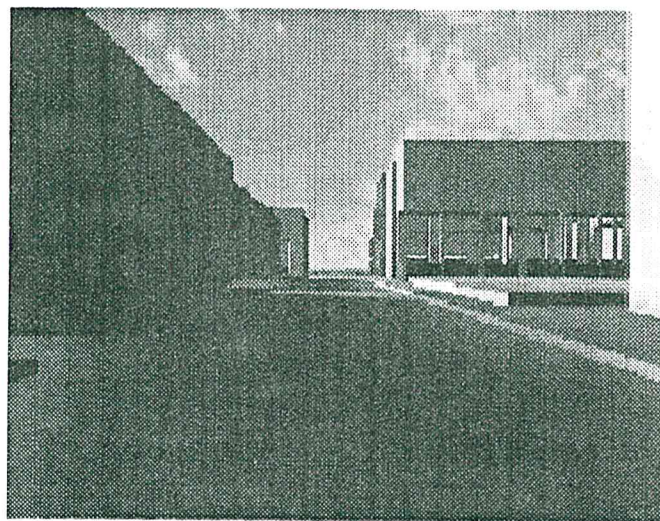




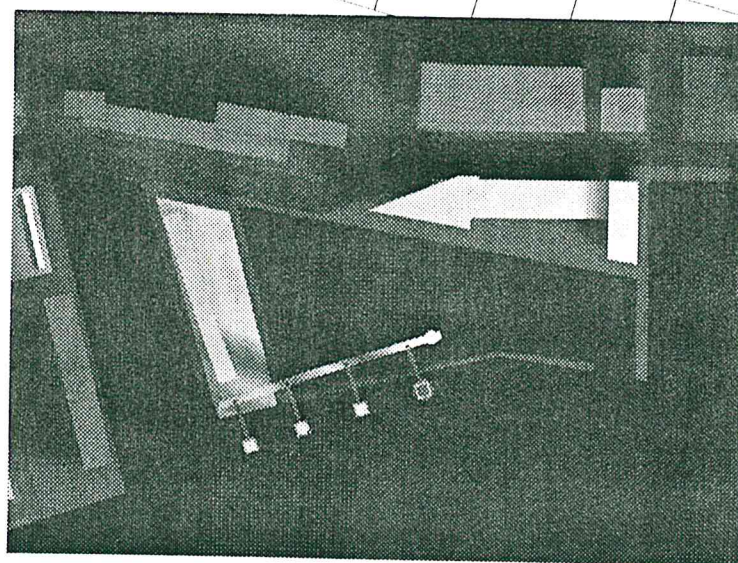






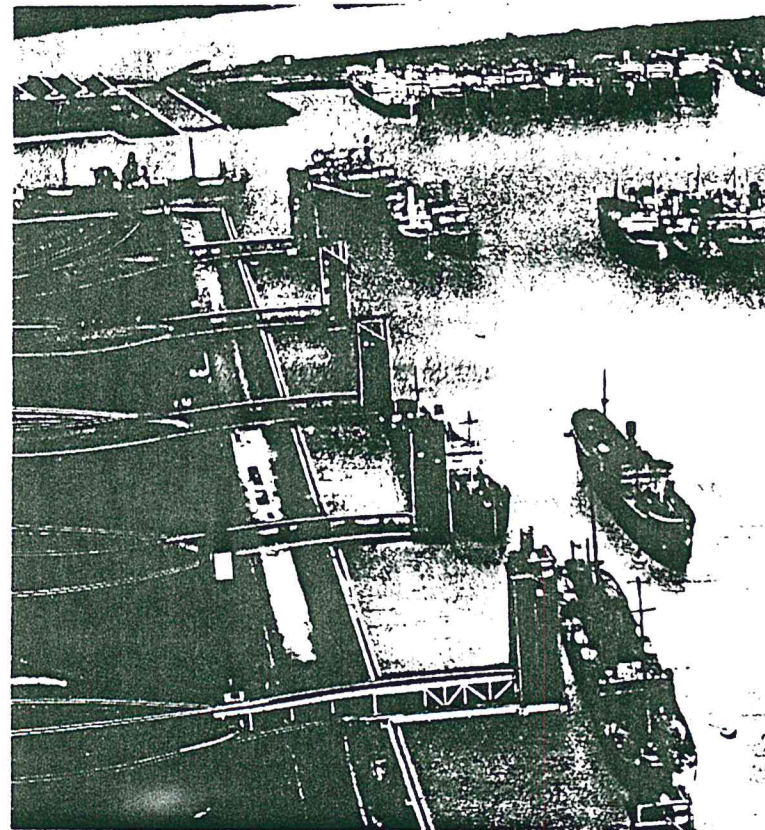
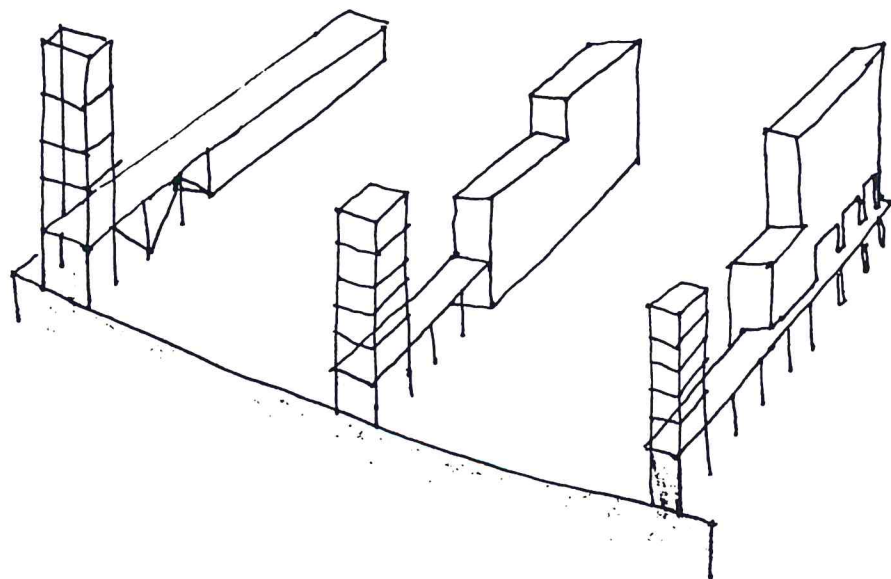
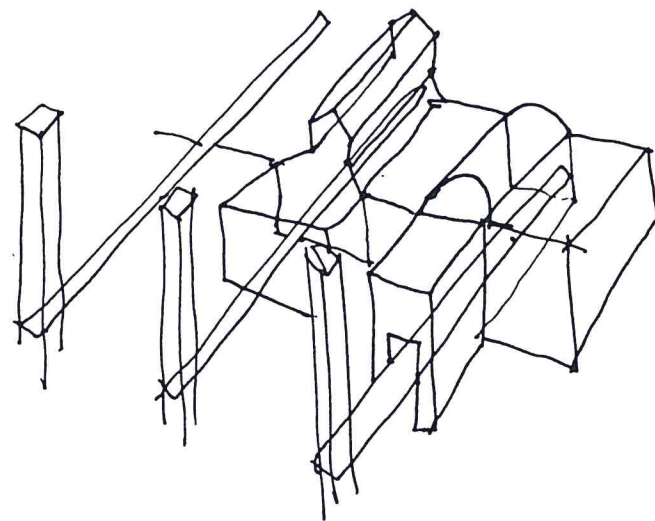
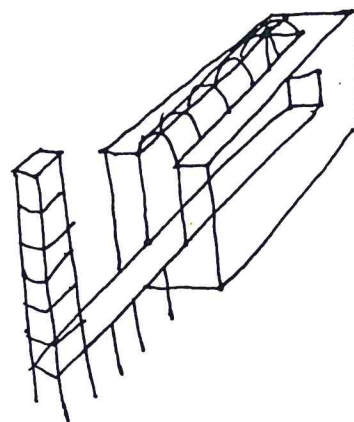
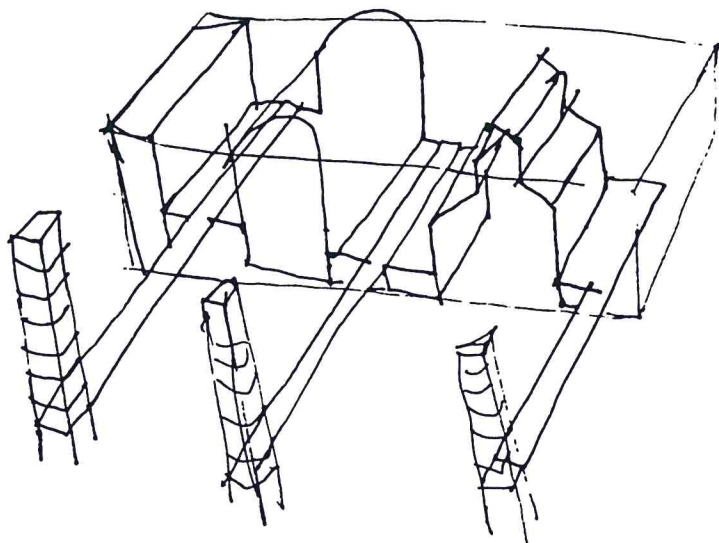






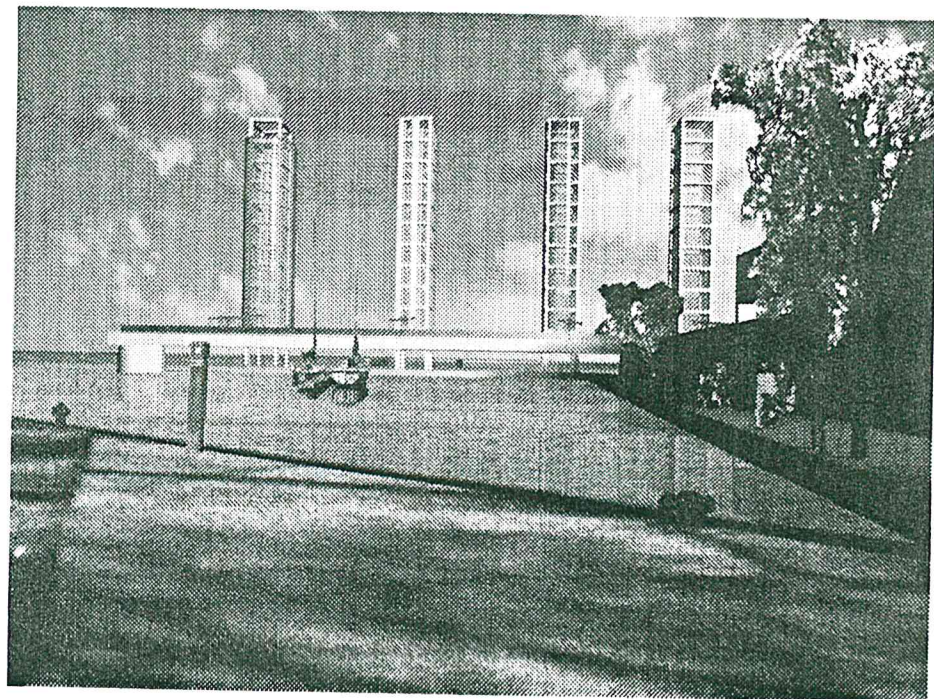
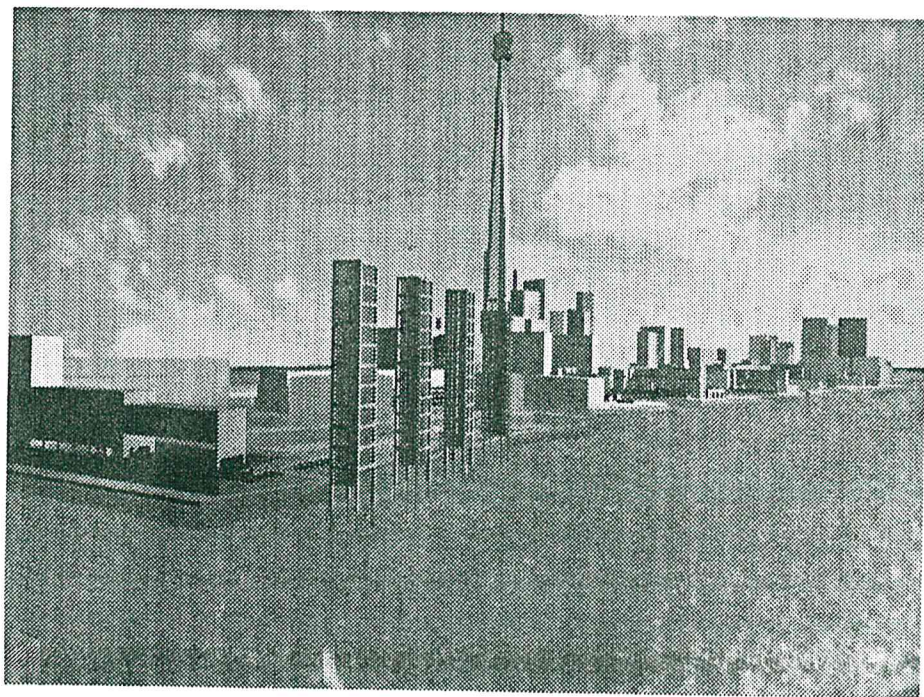
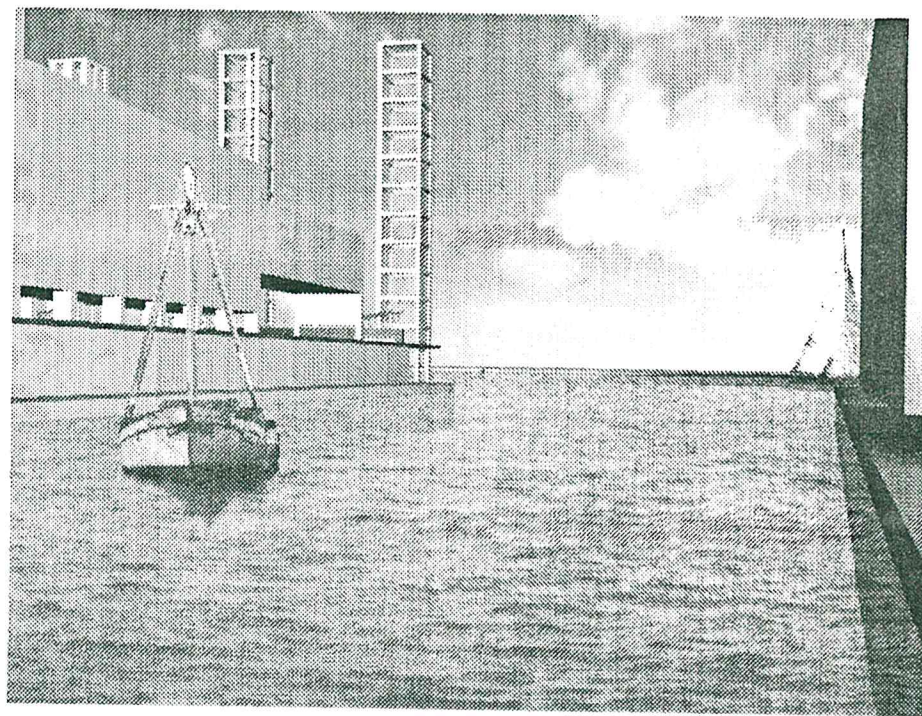
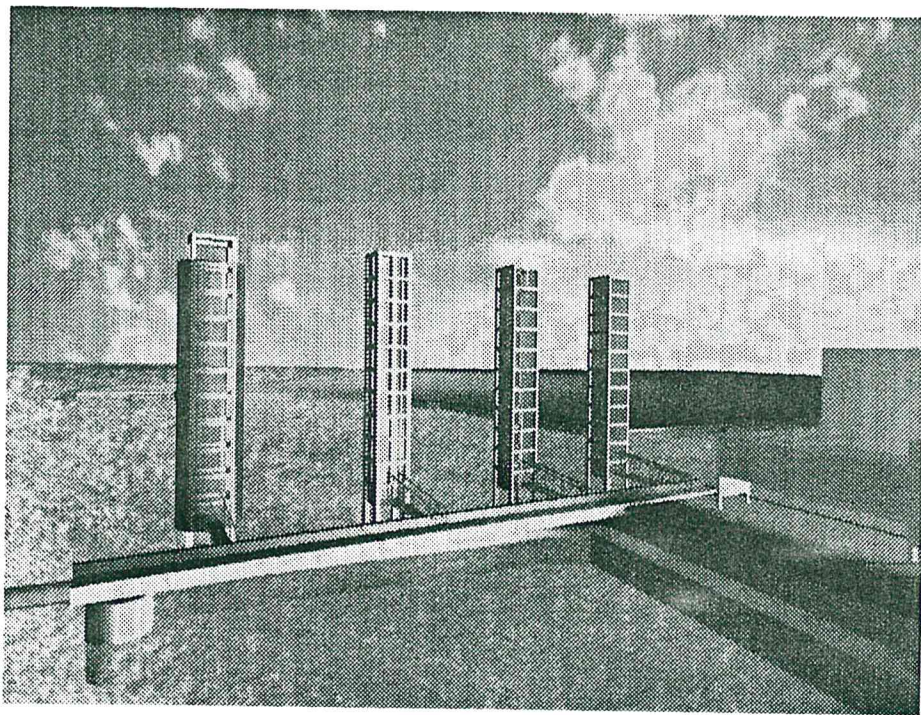
**SITE 2**



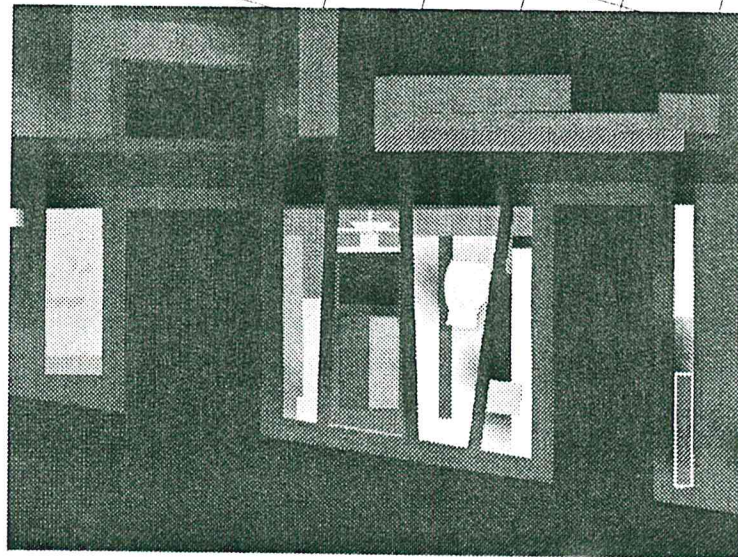


ALEXANDRA SOUTH DOCK - NEWPORT



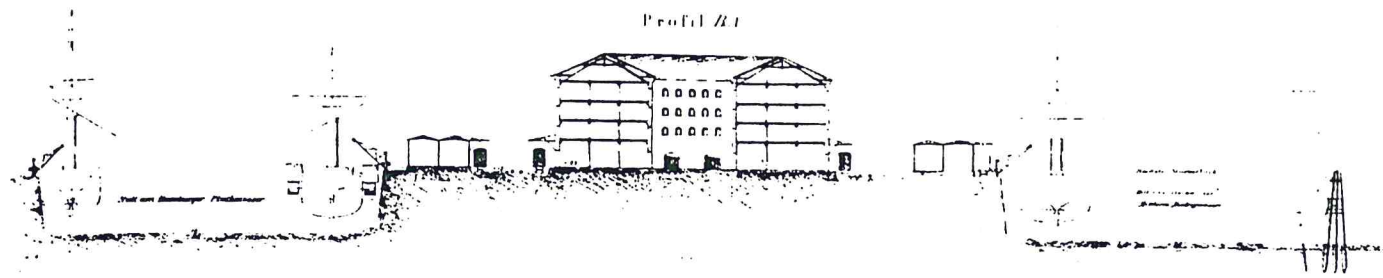






**SITE 3**

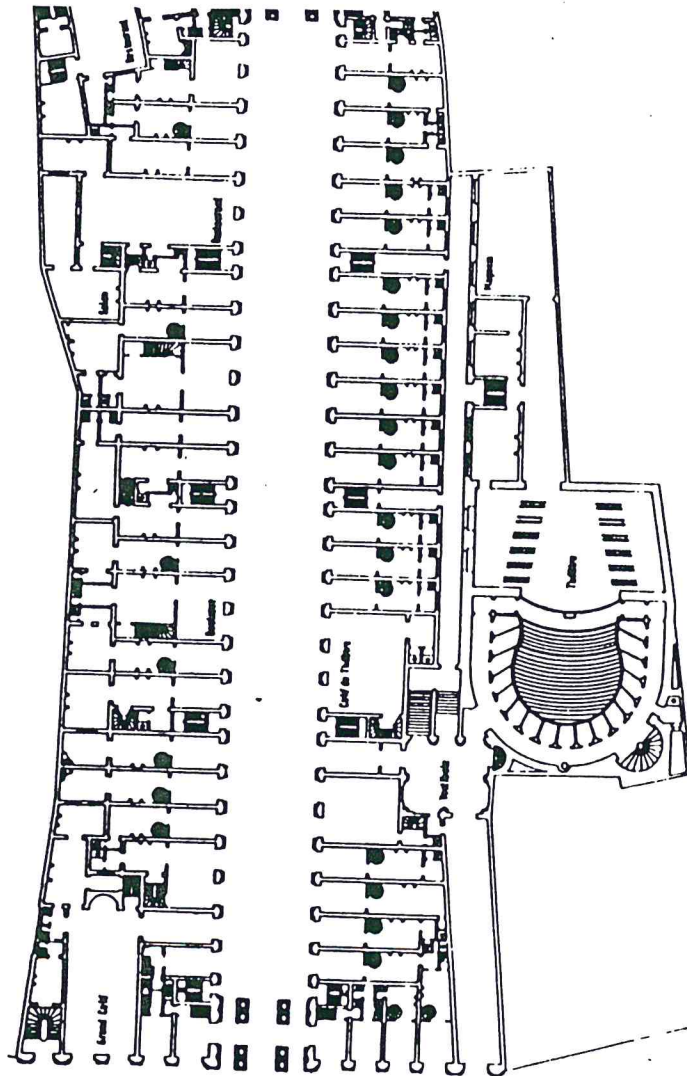




BREMEN - DOCKS

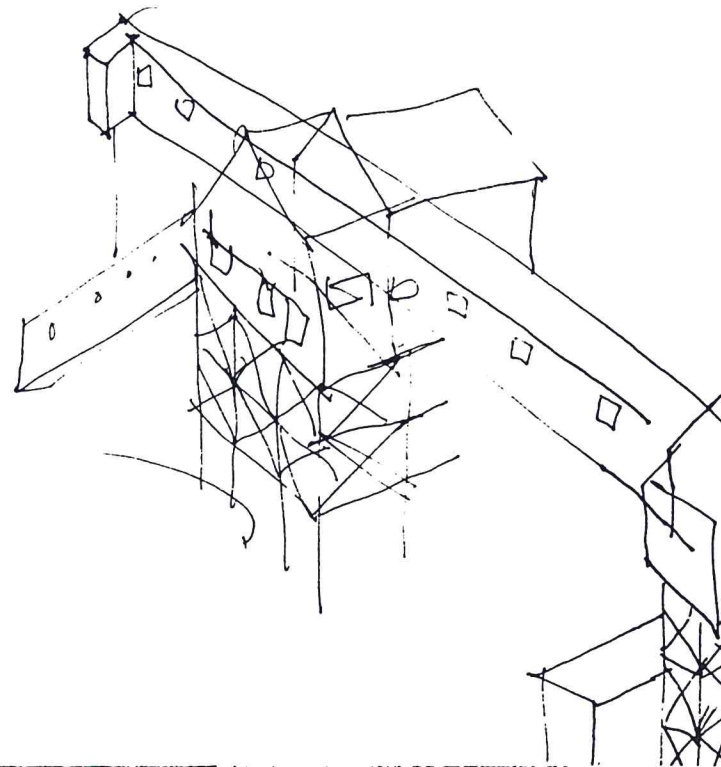
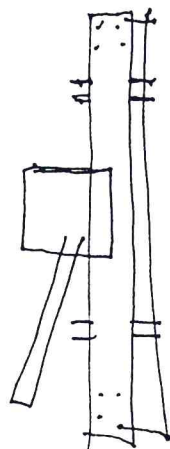
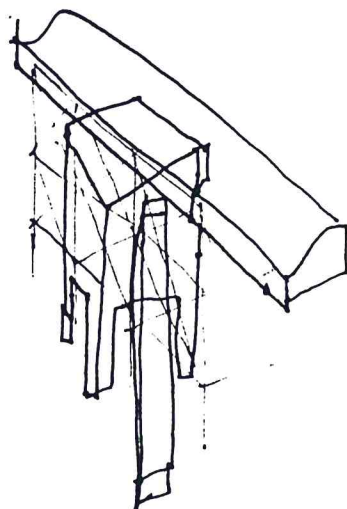
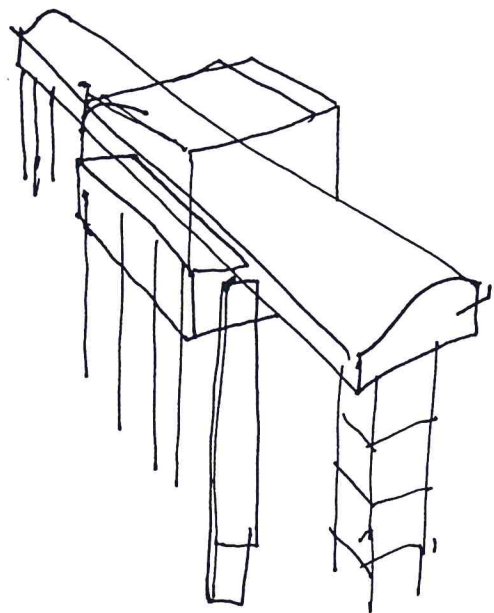


LIVERPOOL - WAREHOUSE

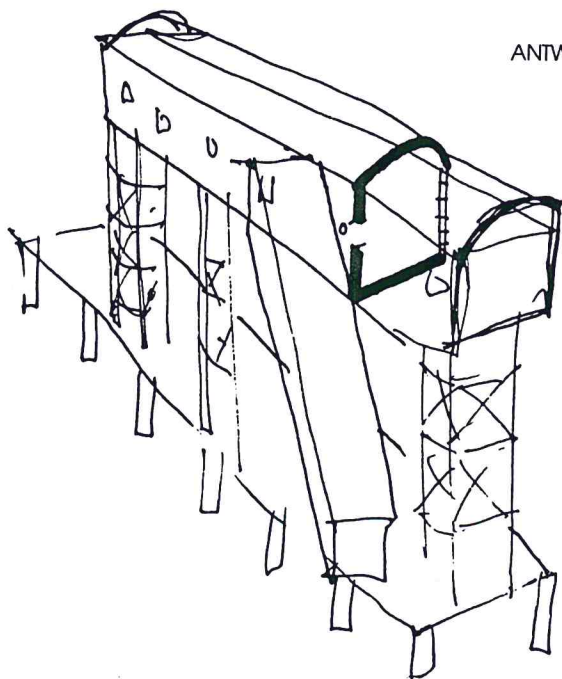


BRUSSELS - GALERIES ST. HUBERT

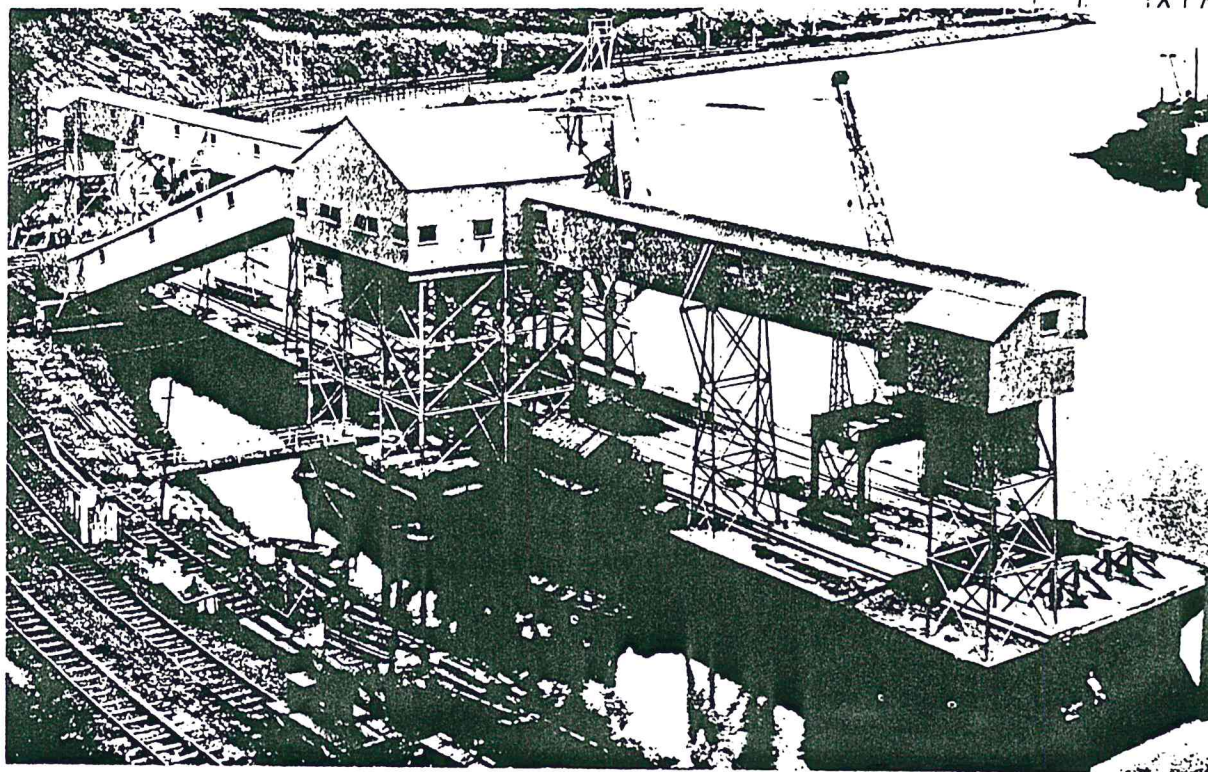




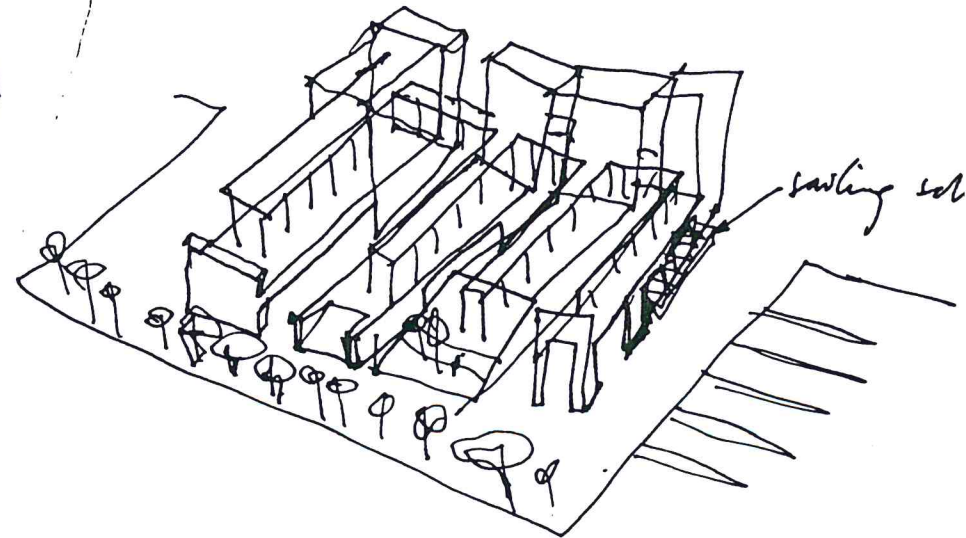
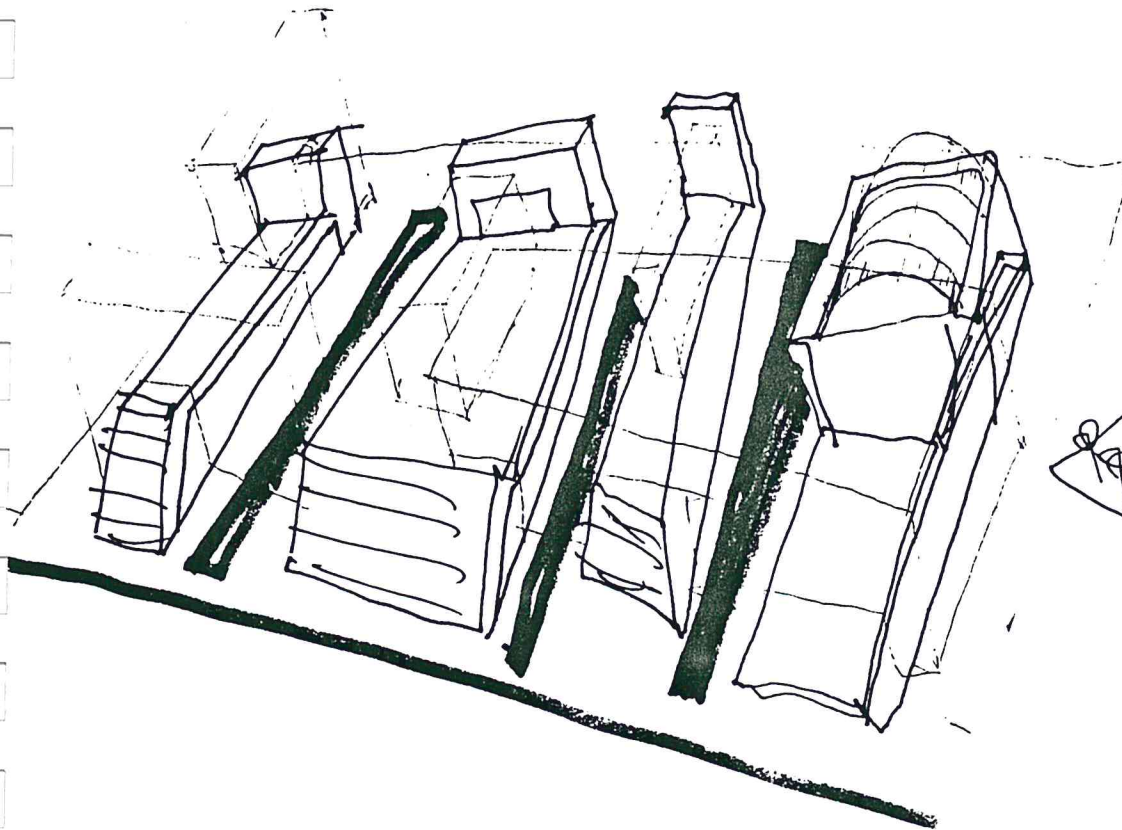
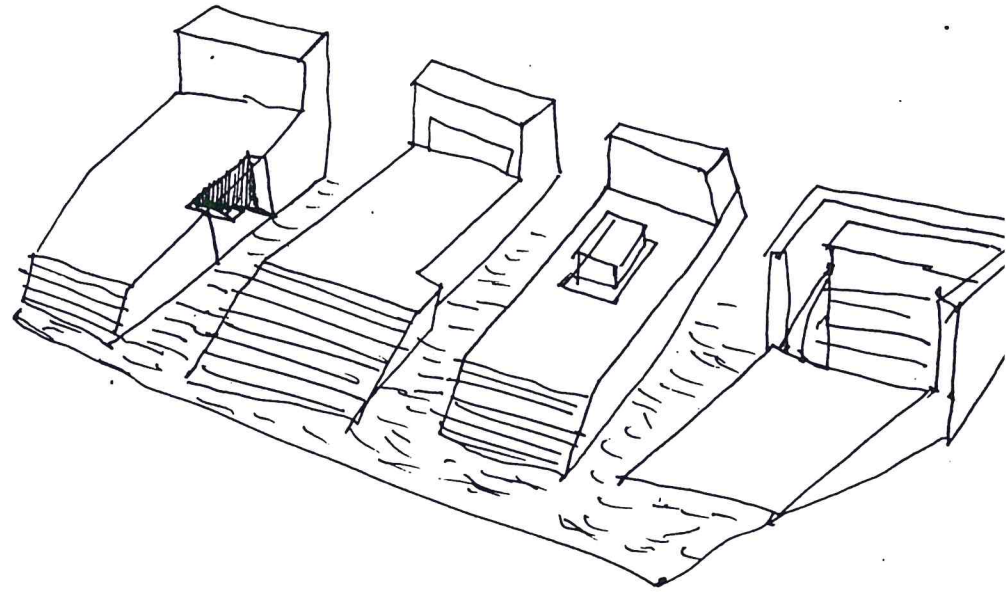
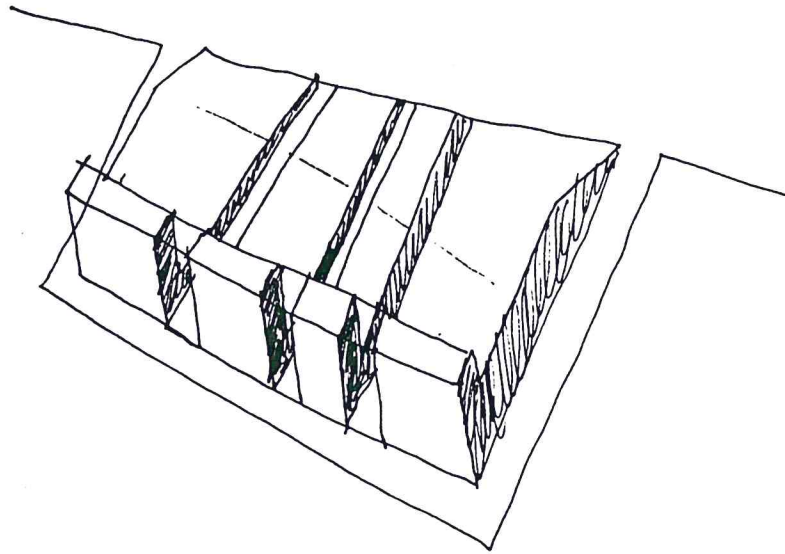
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ANTWERP

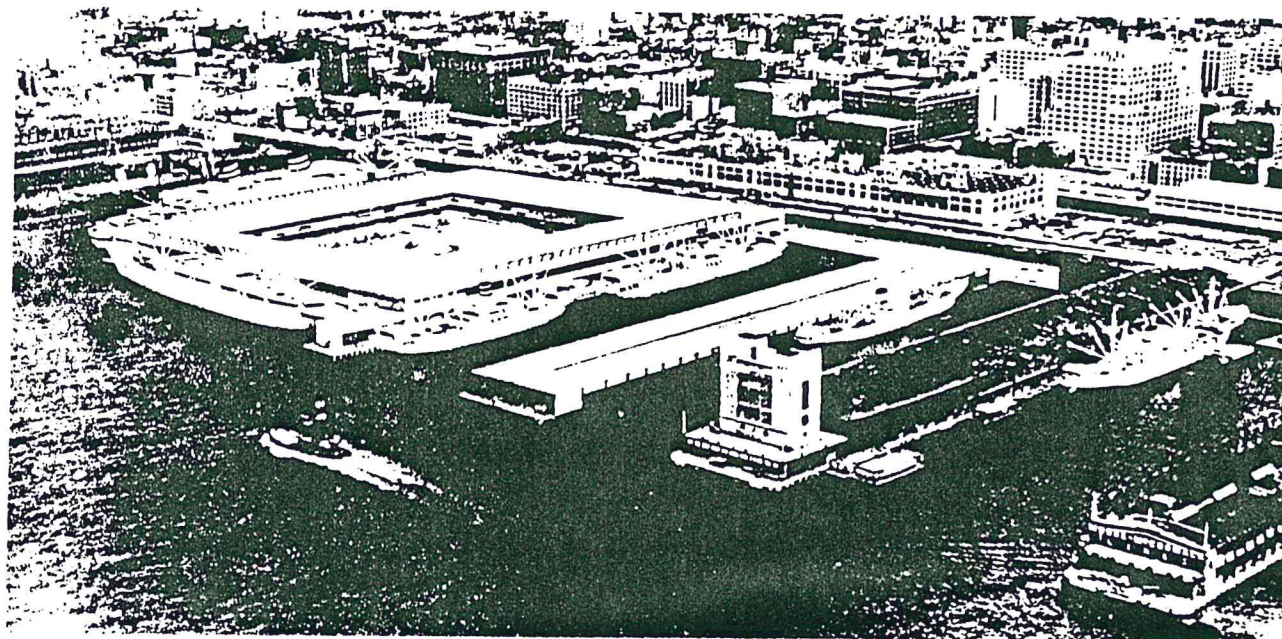




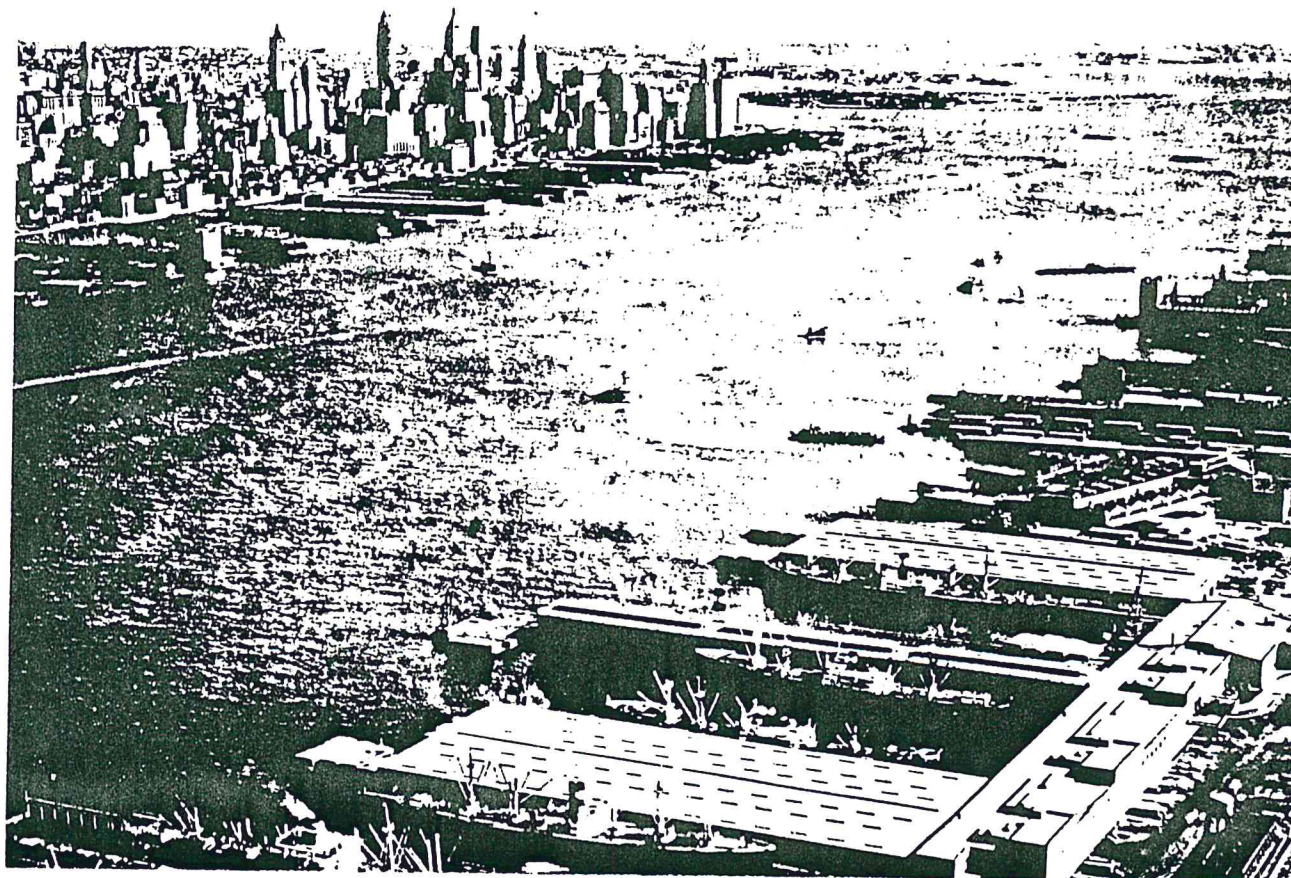




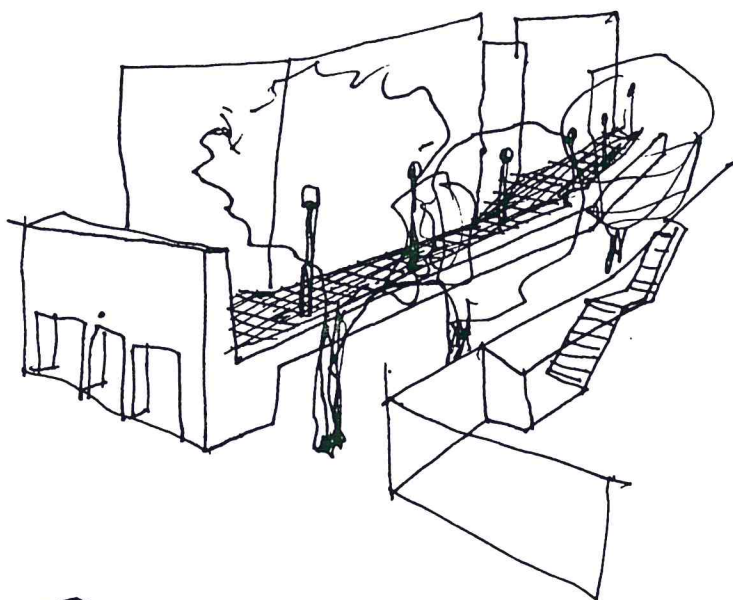
NEW YORK CITY - DOCKS



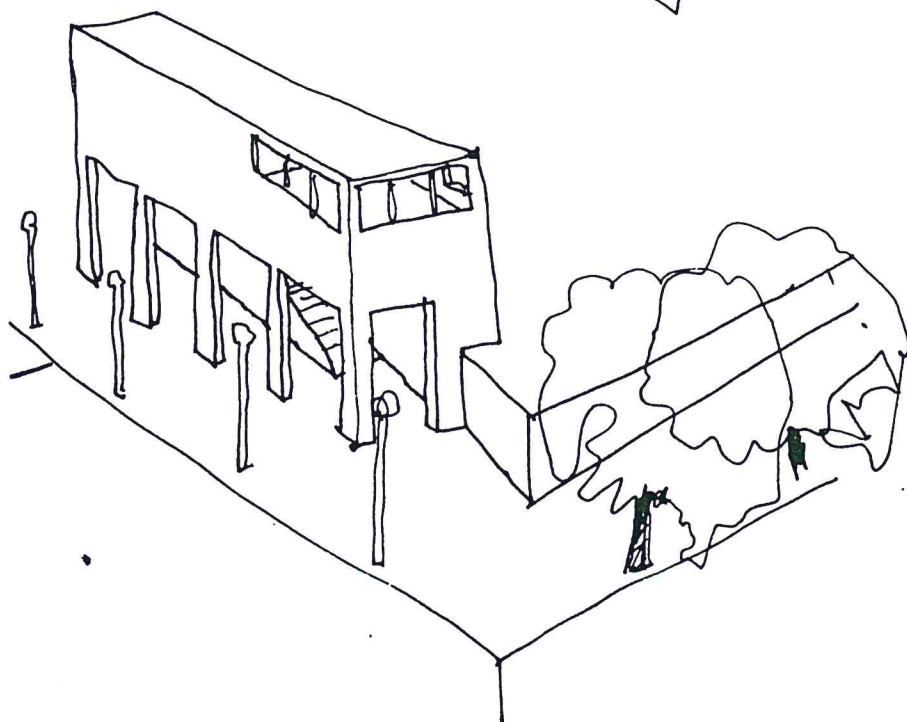
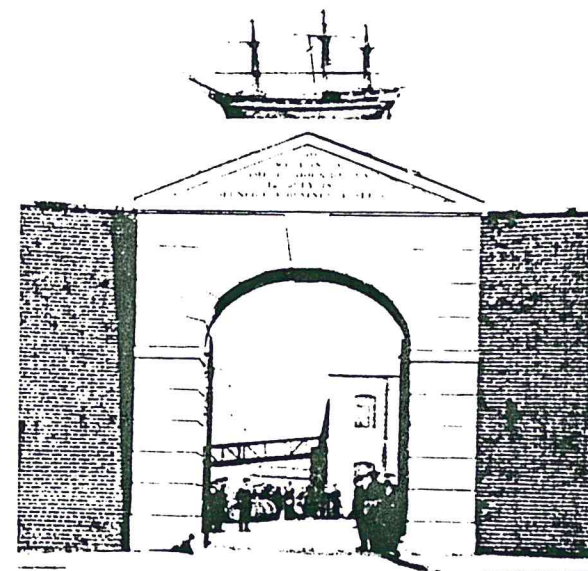
NEW YORK CITY - DOCKS







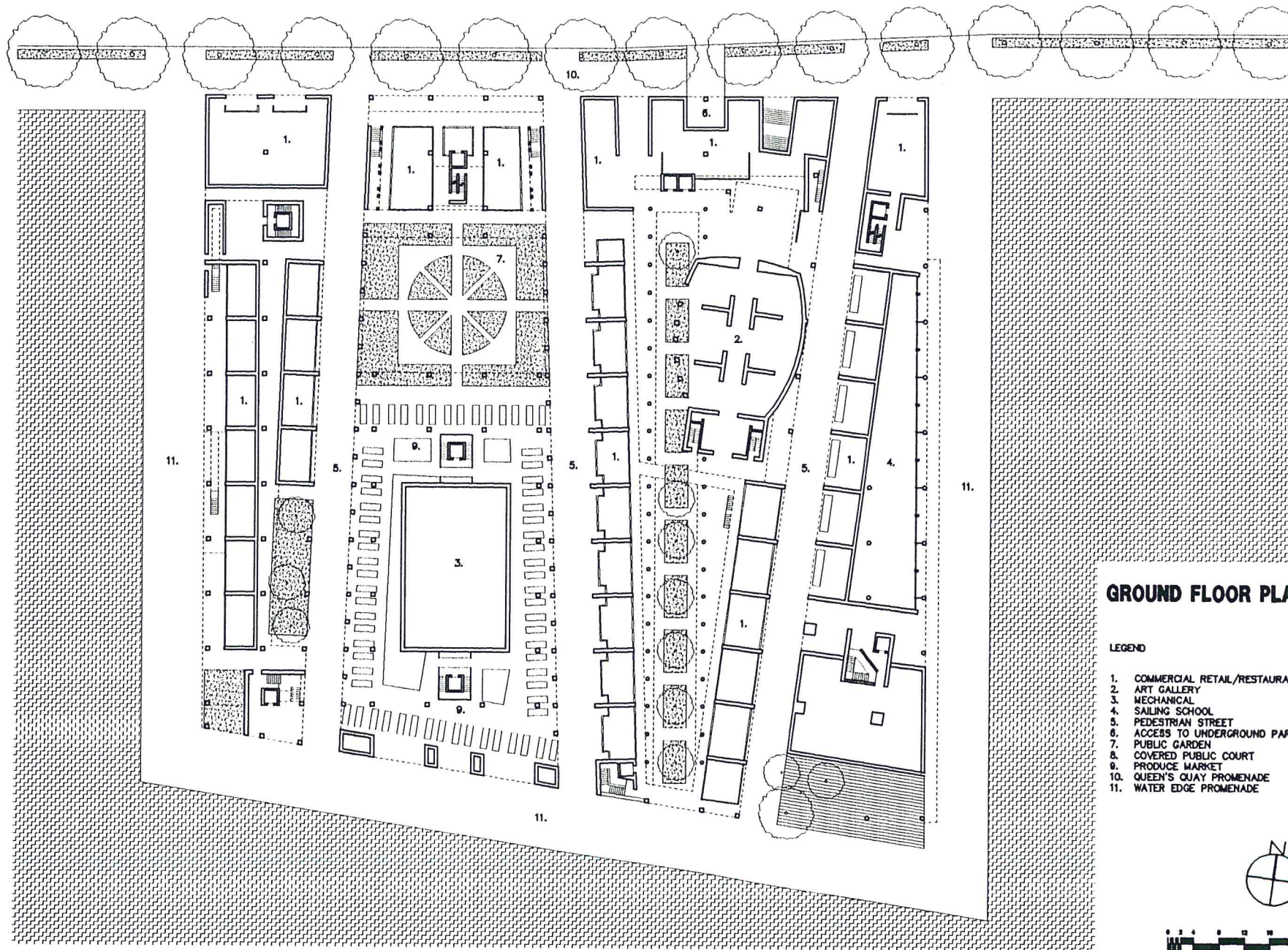
GATEWAY AT WEST INDIA  
IMPORT DOCK - LONDON



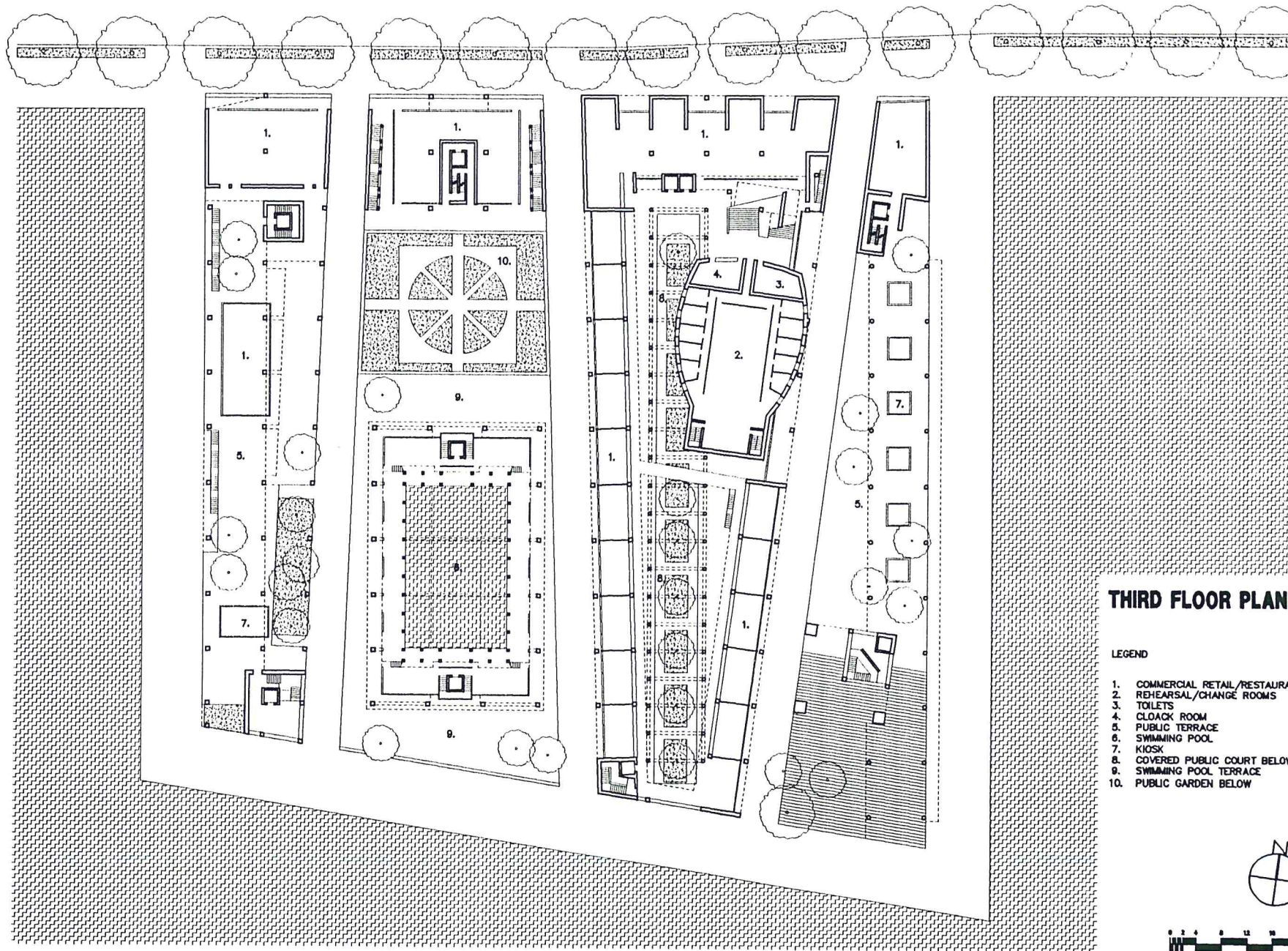
STREET IN THE  
PORT OF GENOA











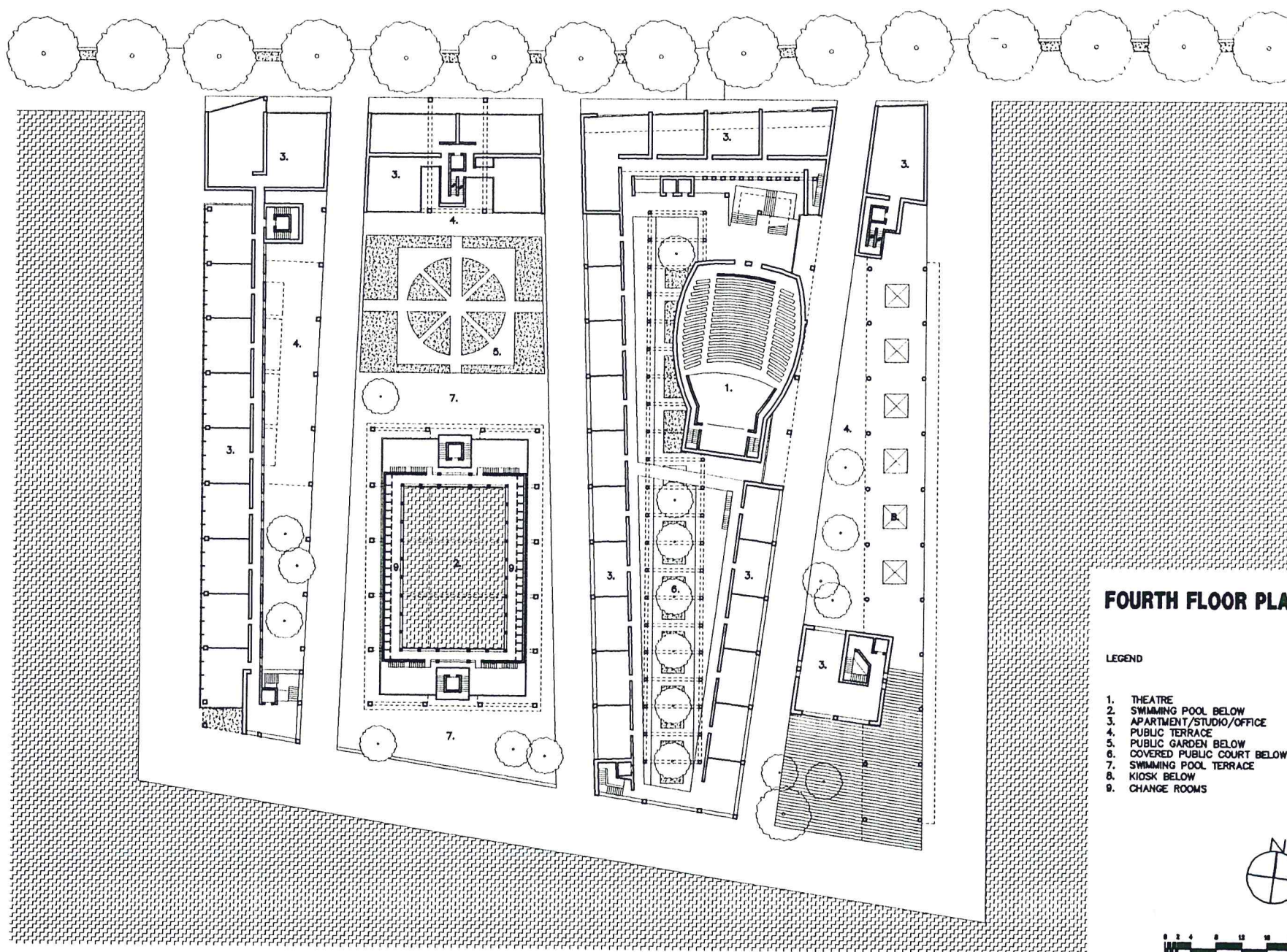
# THIRD FLOOR PLAN

## LEGEND

1. COMMERCIAL RETAIL/RESTAURANT
2. REHEARSAL/CHANGE ROOMS
3. TOILETS
4. CLOAK ROOM
5. PUBLIC TERRACE
6. SWIMMING POOL
7. KIOSK
8. COVERED PUBLIC COURT BELOW
9. SWIMMING POOL TERRACE
10. PUBLIC GARDEN BELOW







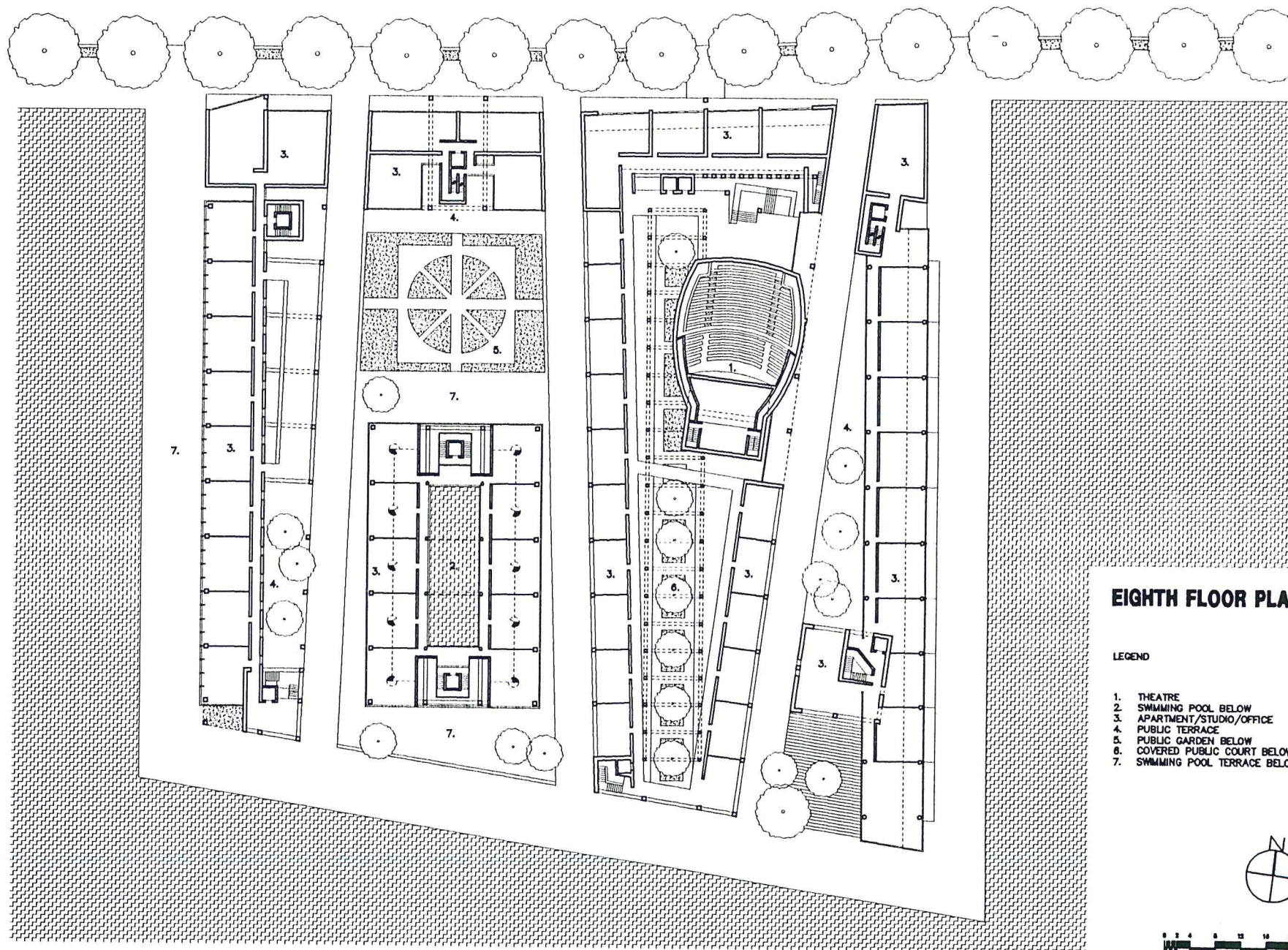
## FOURTH FLOOR PLA

### LEGEND

1. THEATRE
2. SWIMMING POOL BELOW
3. APARTMENT/STUDIO/OFFICE
4. PUBLIC TERRACE
5. PUBLIC GARDEN BELOW
6. COVERED PUBLIC COURT BELOW
7. SWIMMING POOL TERRACE
8. KIOSK BELOW
9. CHANGE ROOMS





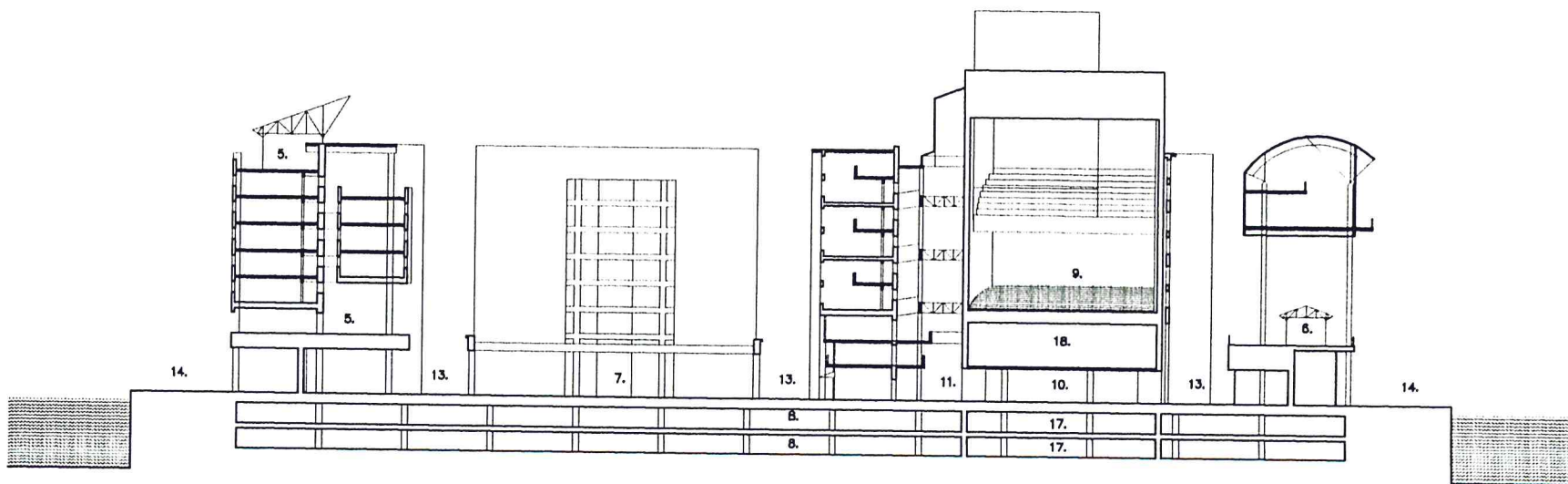
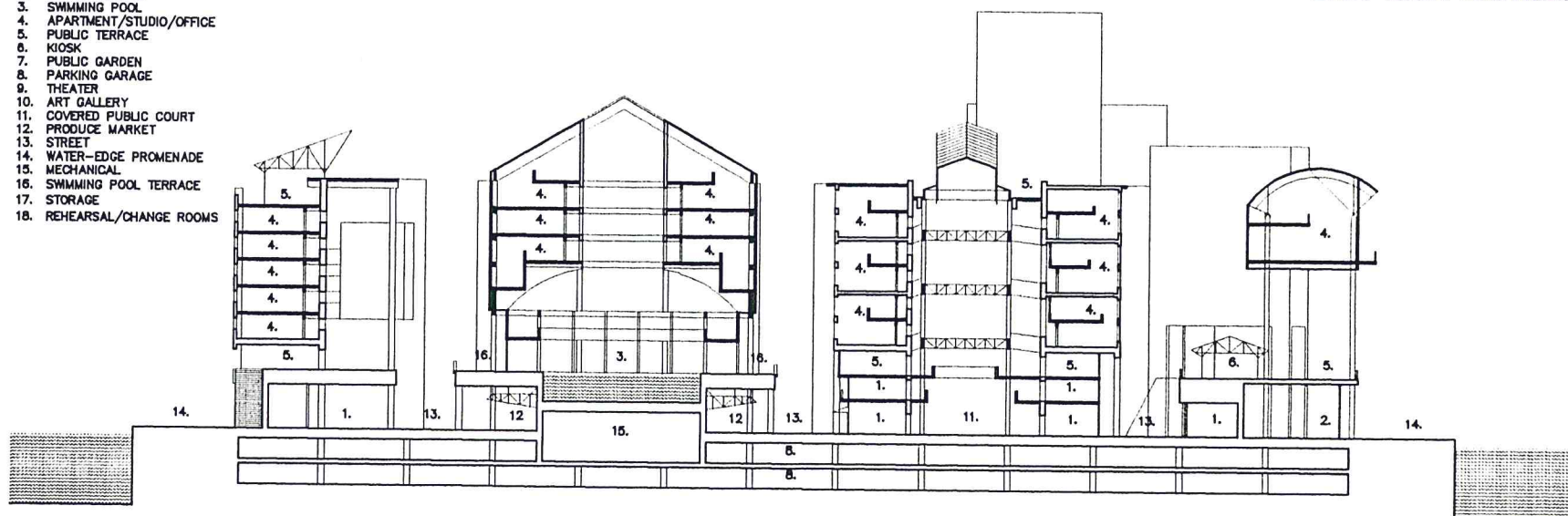




# LEGEND

1. COMMERCIAL RETAIL/RESTAURANTS
2. SAILING SCHOOL
3. SWIMMING POOL
4. APARTMENT/STUDIO/OFFICE
5. PUBLIC TERRACE
6. KIOSK
7. PUBLIC GARDEN
8. PARKING GARAGE
9. THEATER
10. ART GALLERY
11. COVERED PUBLIC COURT
12. PRODUCE MARKET
13. STREET
14. WATER-EDGE PROMENADE
15. MECHANICAL
16. SWIMMING POOL TERRACE
17. STORAGE
18. REHEARSAL/CHANGE ROOMS

## EAST-WEST SECTIONS

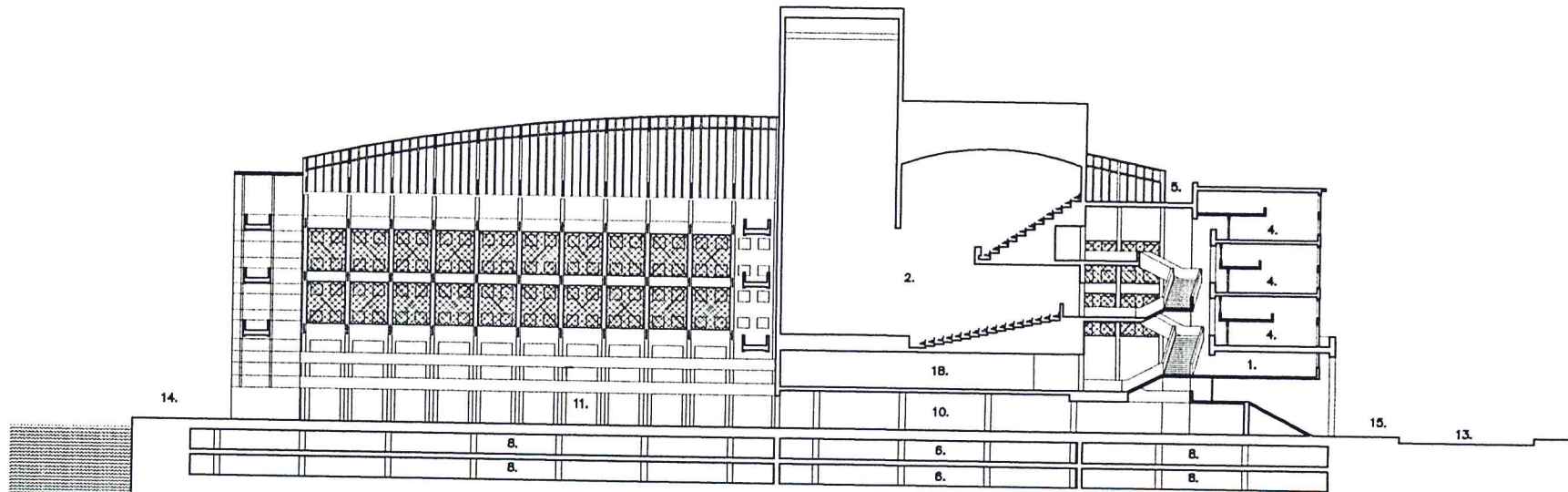
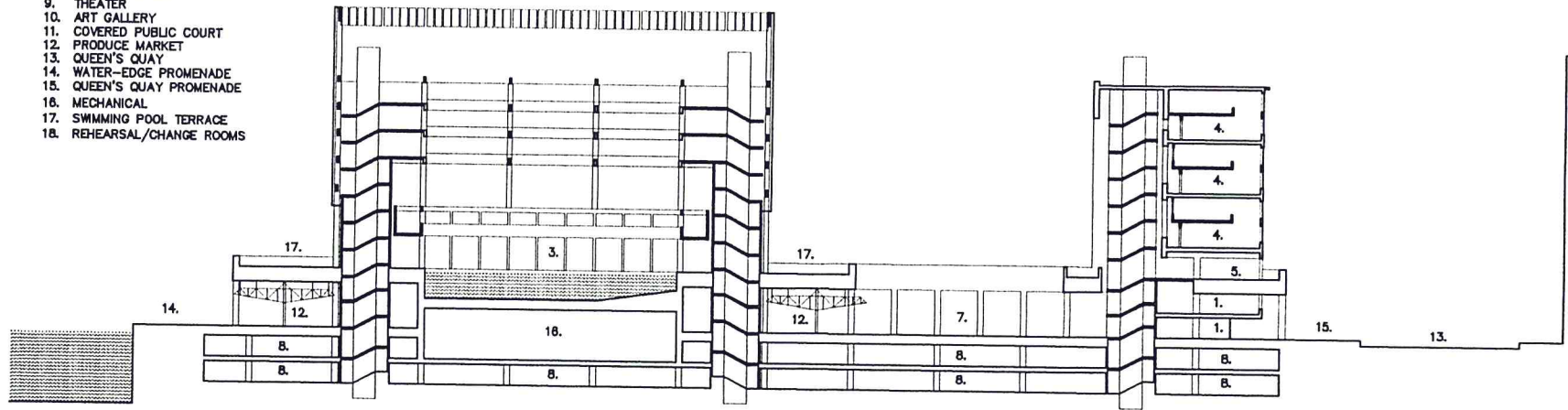




# LEGEND

1. COMMERCIAL RETAIL/RESTAURANTS
2. THEATRE
3. SWIMMING POOL
4. APARTMENT/STUDIO/OFFICE
5. PUBLIC TERRACE
6. STORAGE
7. PUBLIC GARDEN
8. PARKING GARAGE
9. THEATER
10. ART GALLERY
11. COVERED PUBLIC COURT
12. PRODUCE MARKET
13. QUEEN'S QUAY
14. WATER-EDGE PROMENADE
15. QUEEN'S QUAY PROMENADE
16. MECHANICAL
17. SWIMMING POOL TERRACE
18. REHEARSAL/CHANGE ROOMS

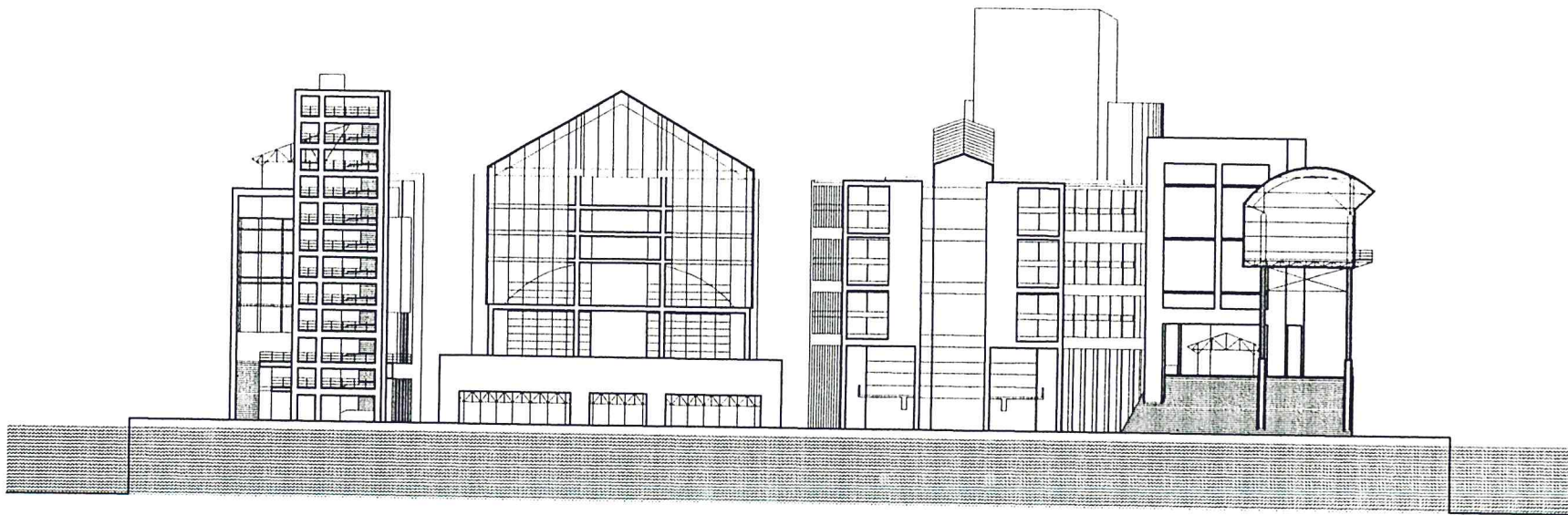
## NORTH-SOUTH SECTIONS





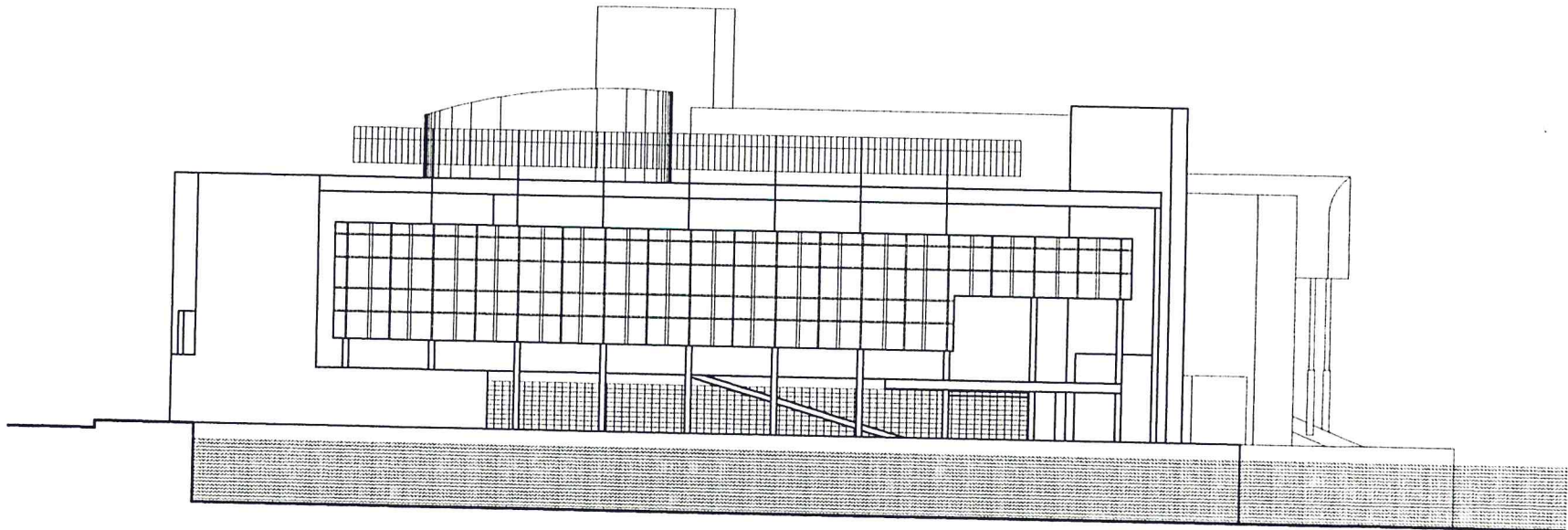


**NORTH ELEVATION (QUEEN'S QUAY)**

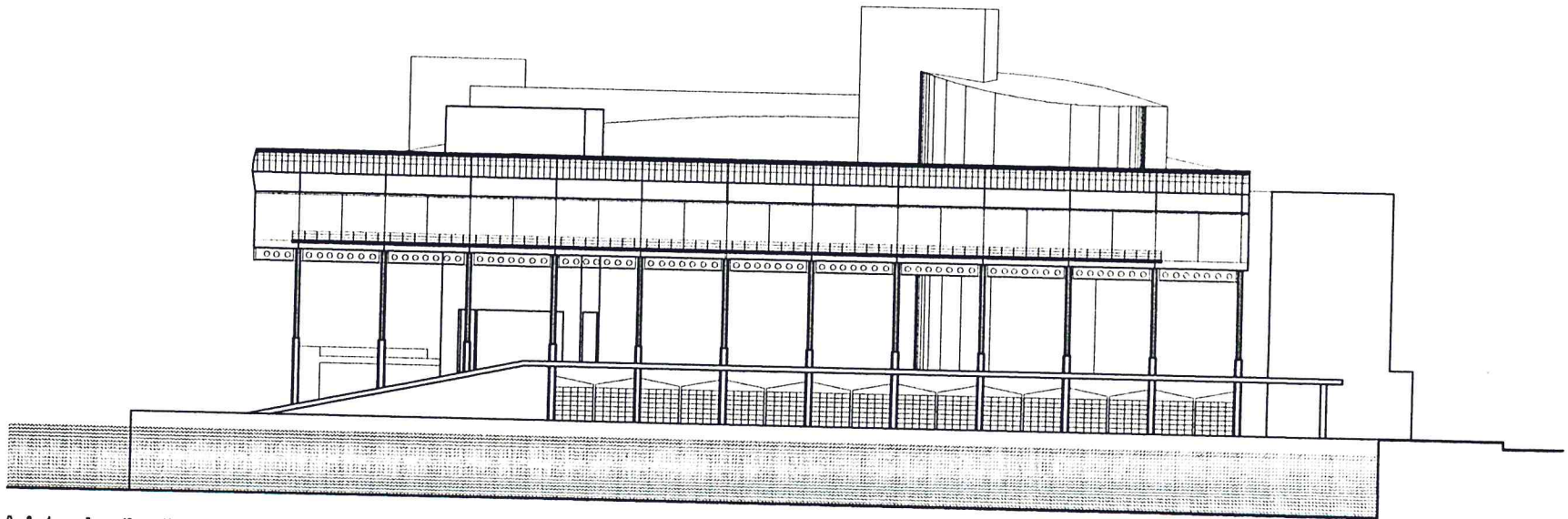


**SOUTH ELEVATION (HARBOUR)**





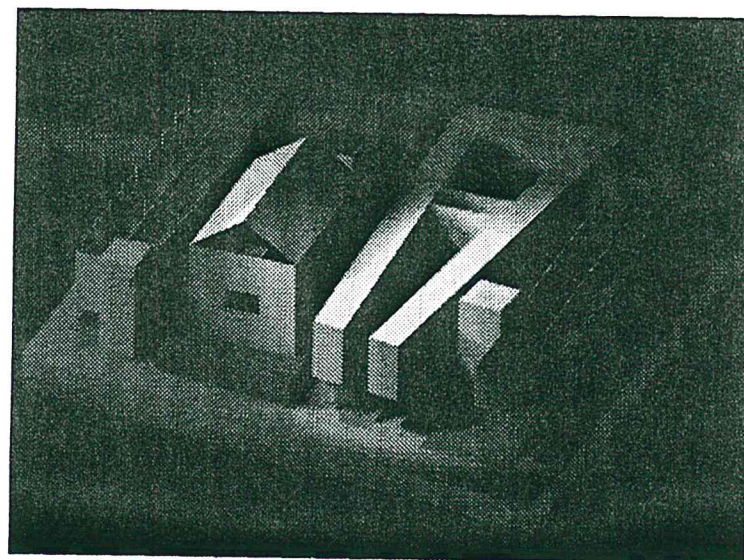
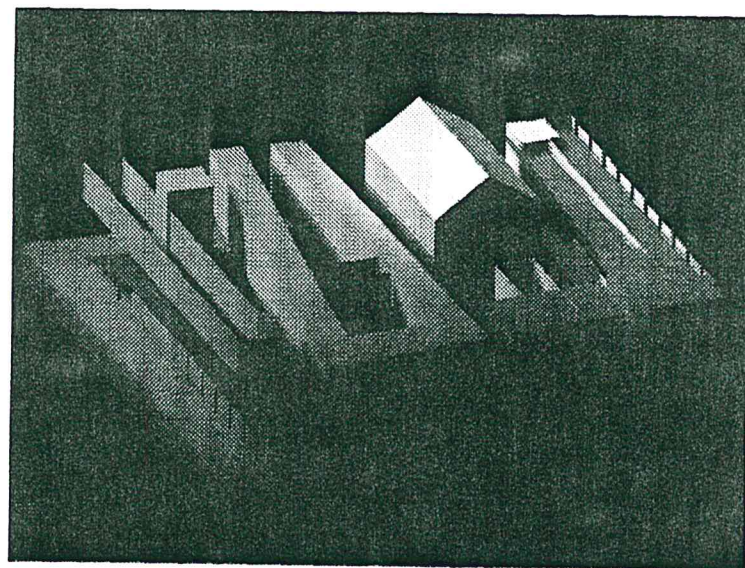
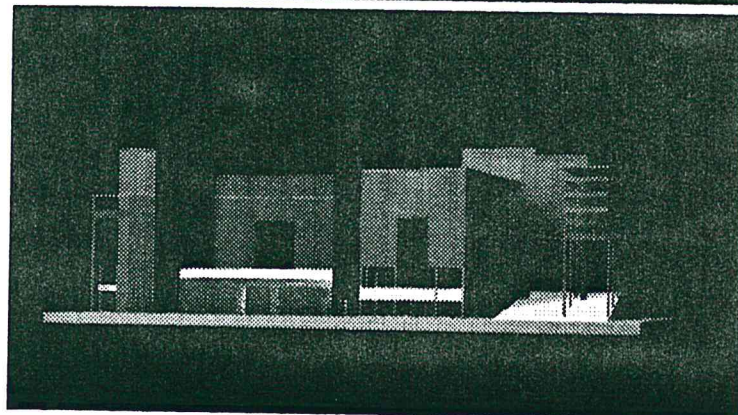
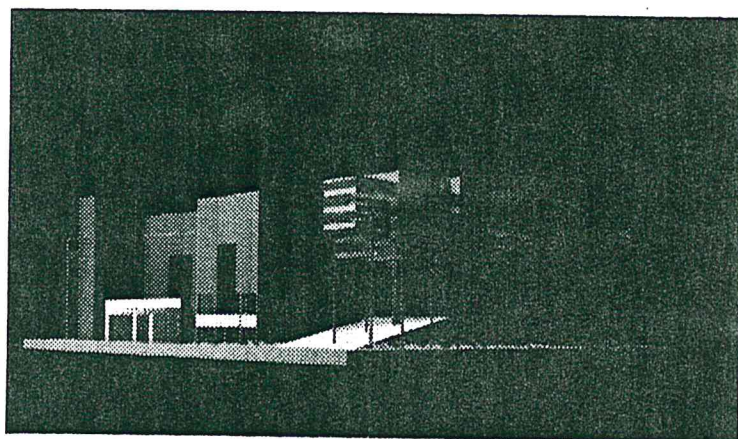
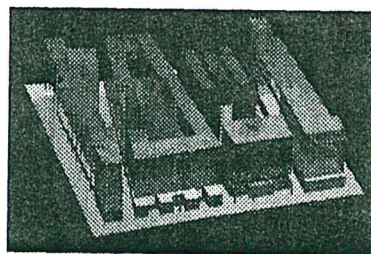
**WEST ELEVATION**



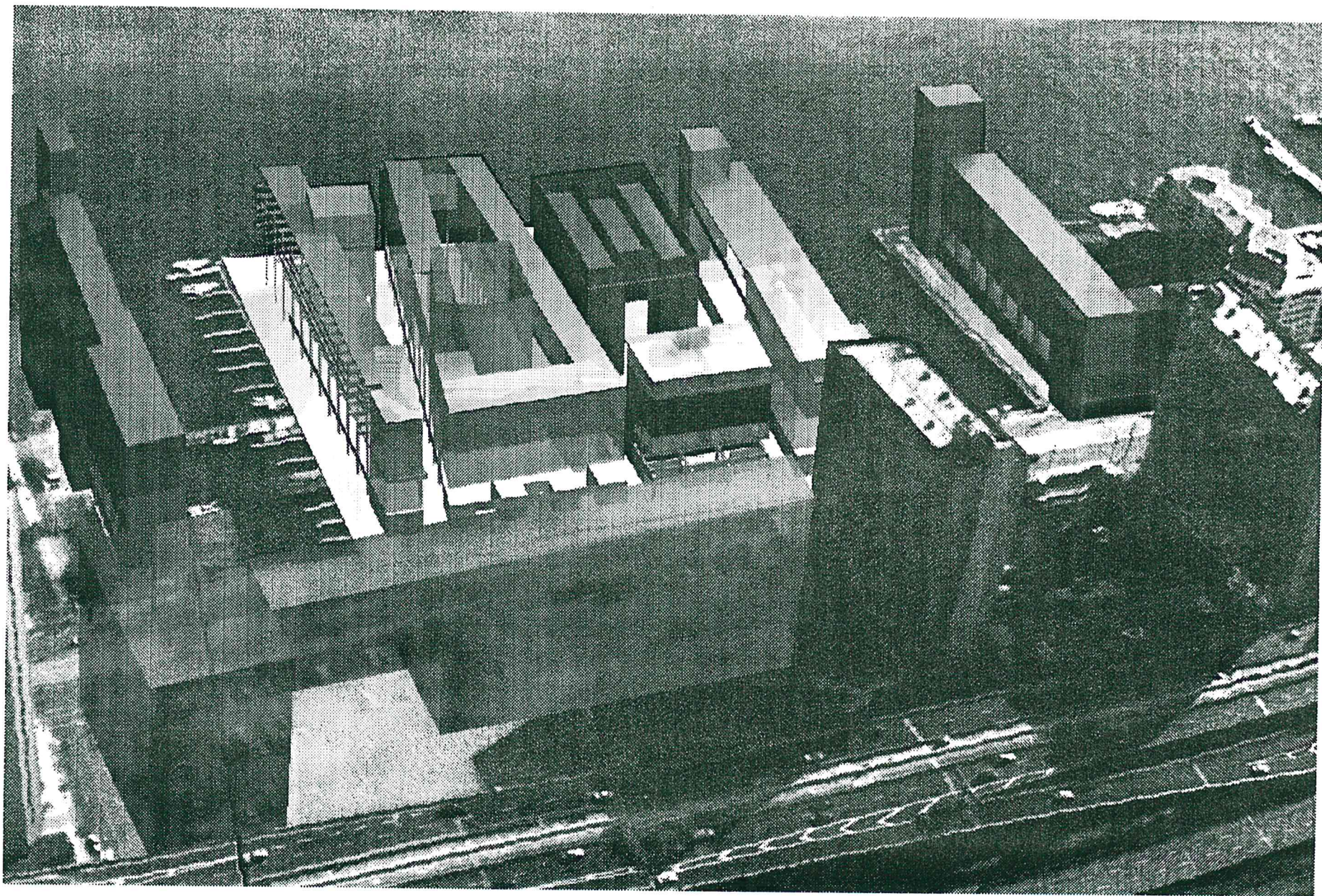
**EAST ELEVATION**



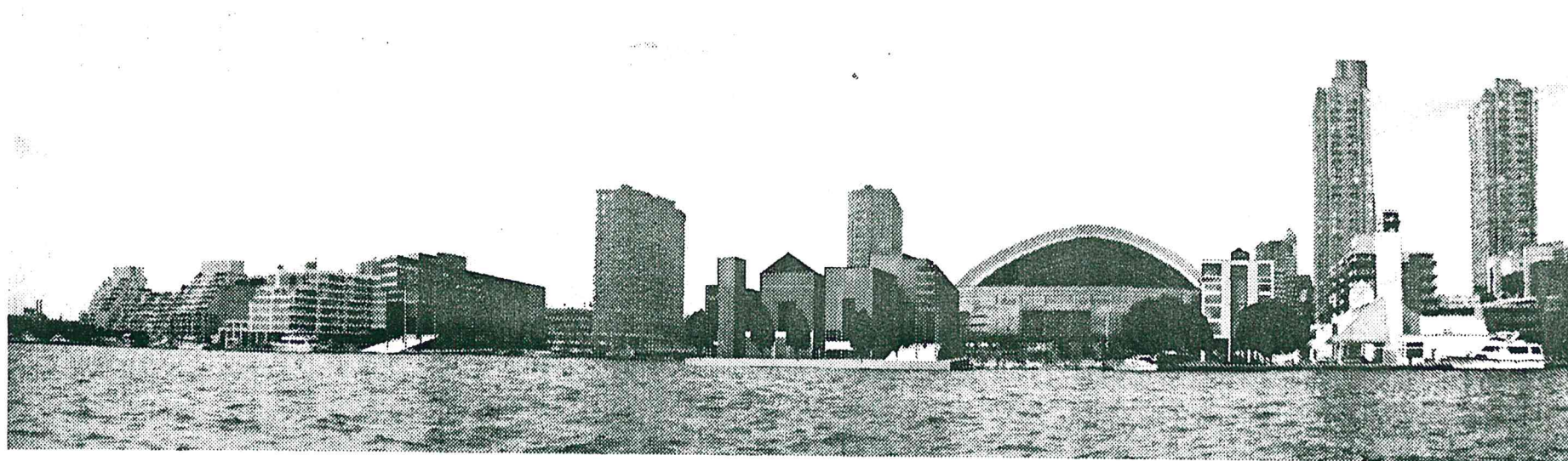




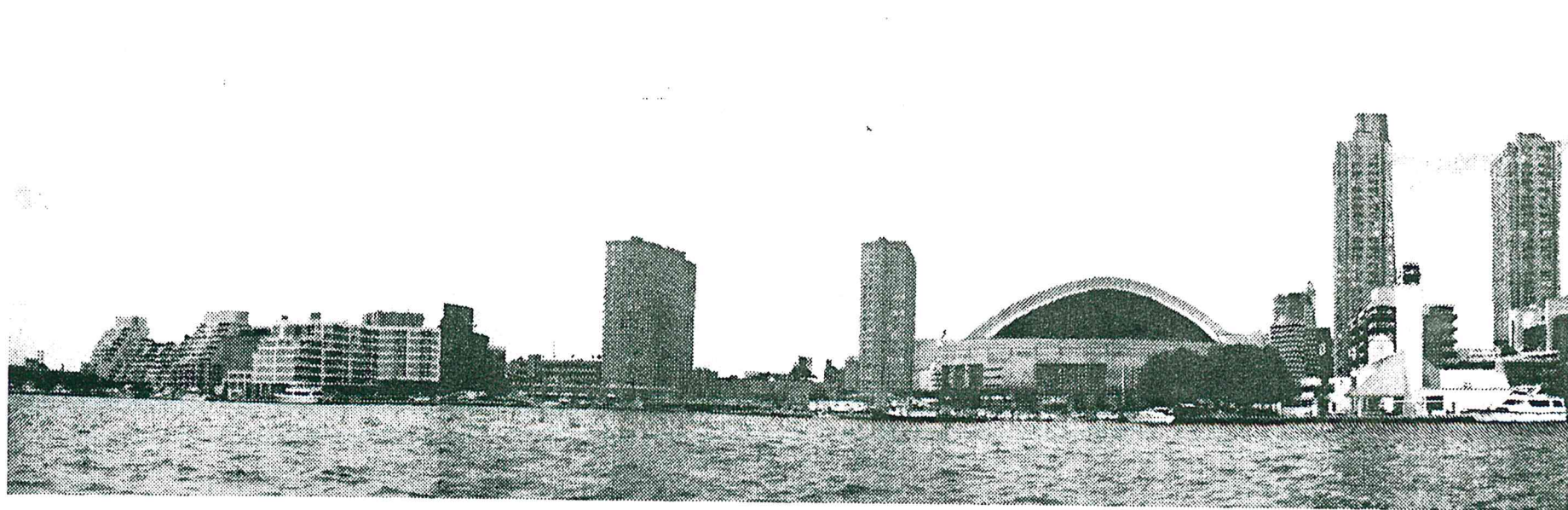






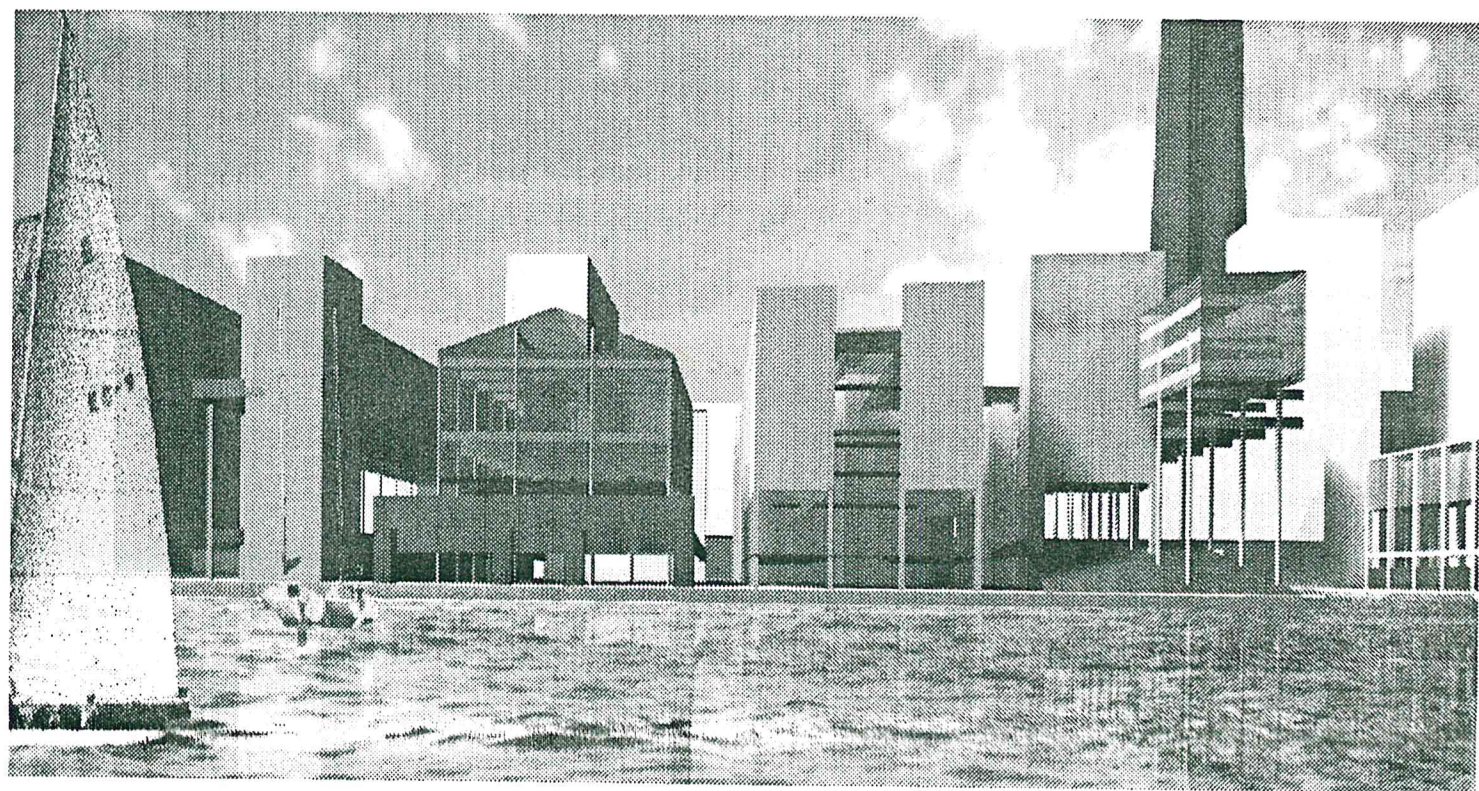
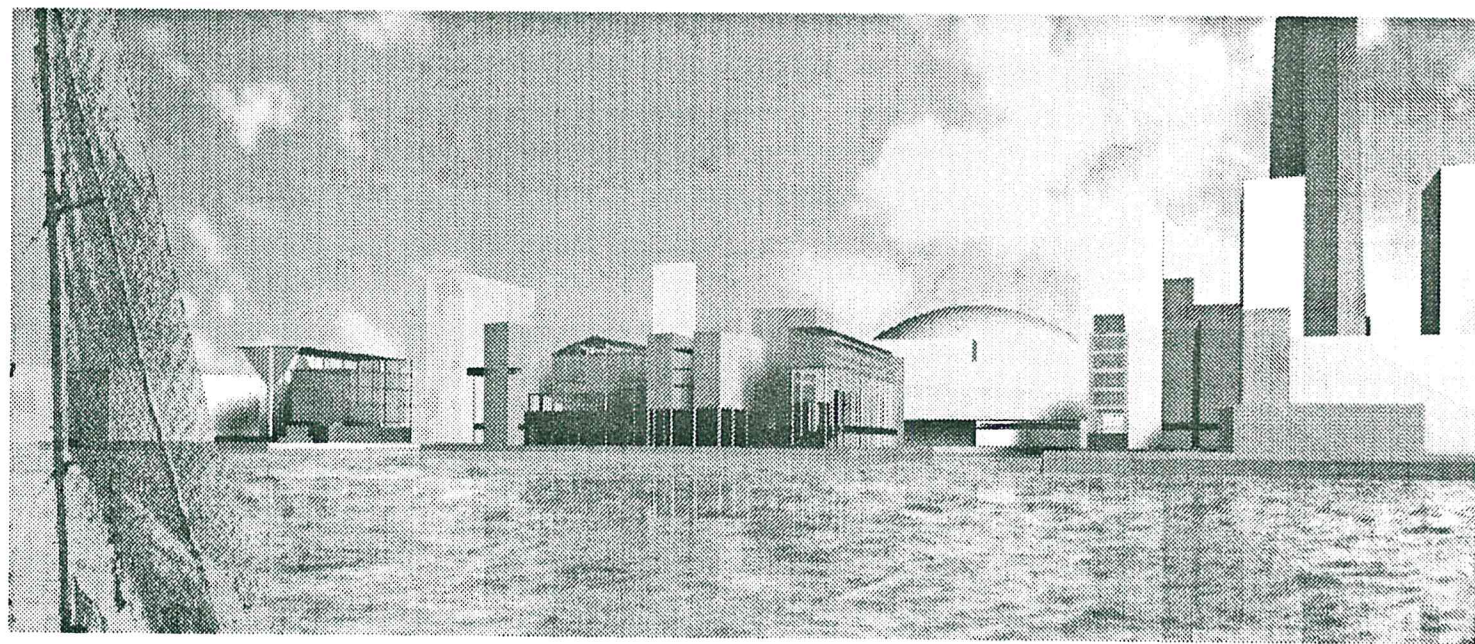


PROPOSED



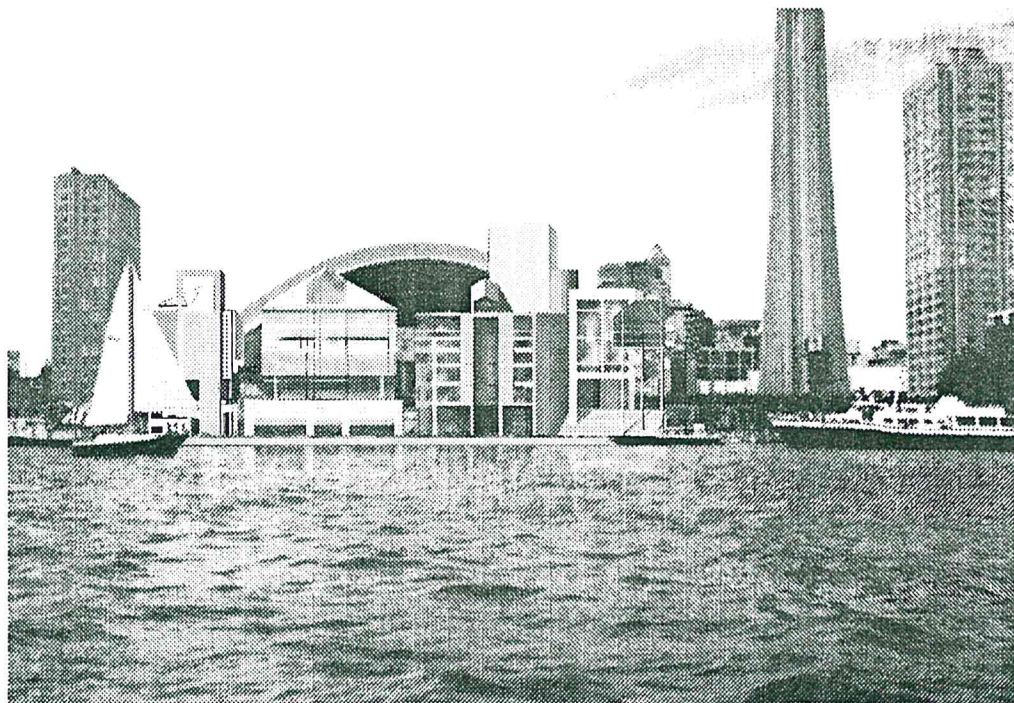
EXISTING



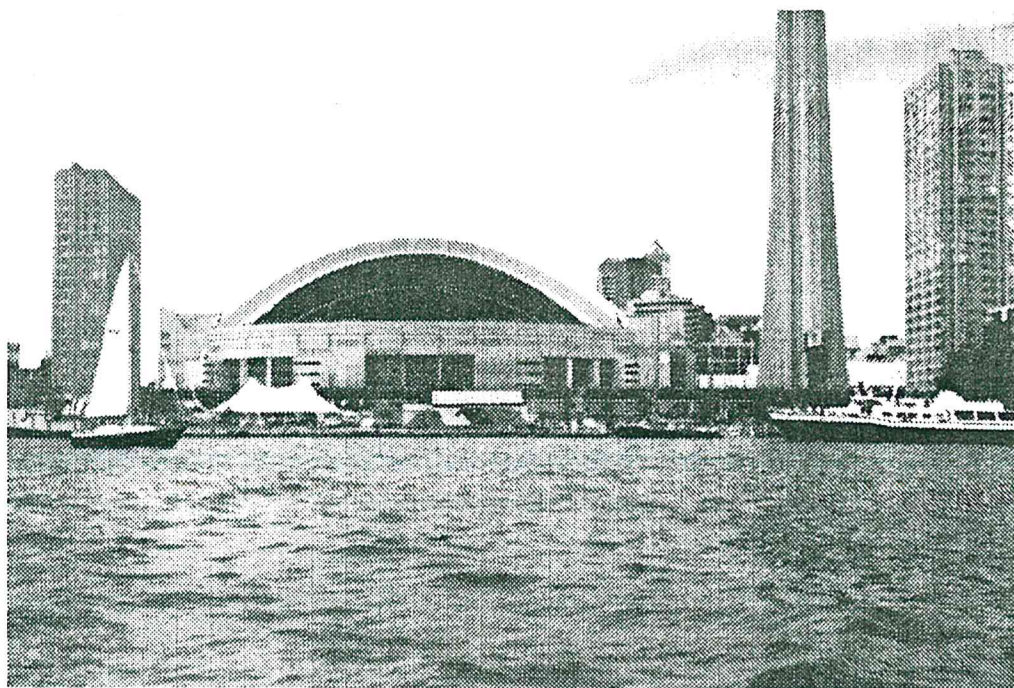




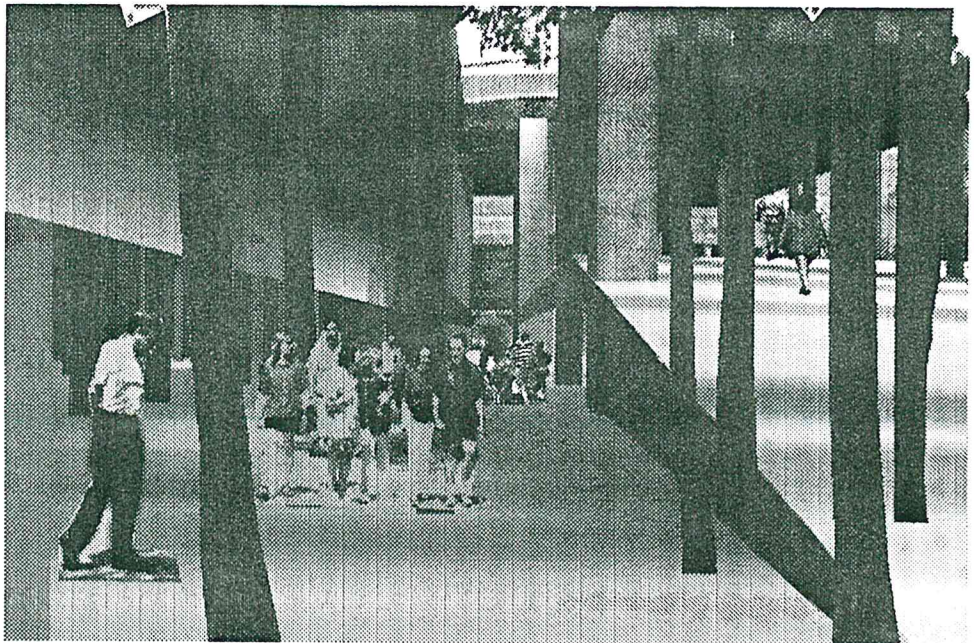
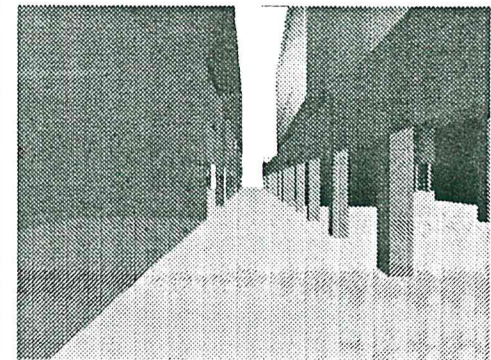
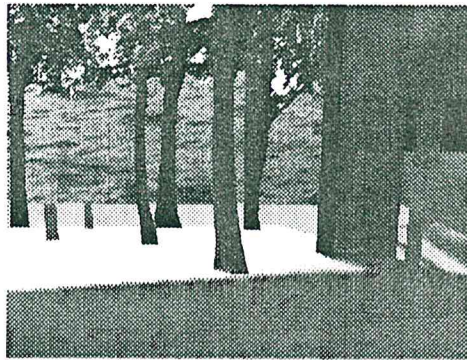
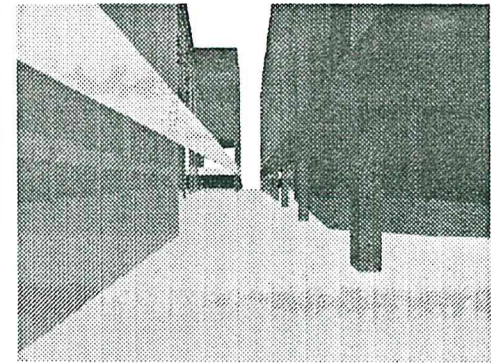
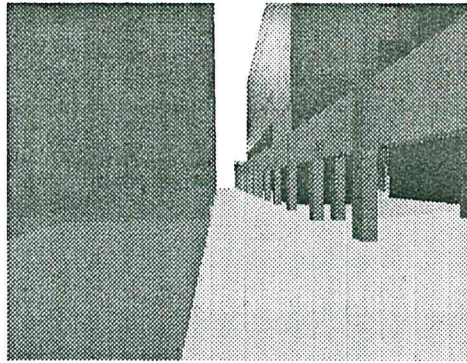
PROPOSED



EXISTING







PEDESTRIAN STREETS



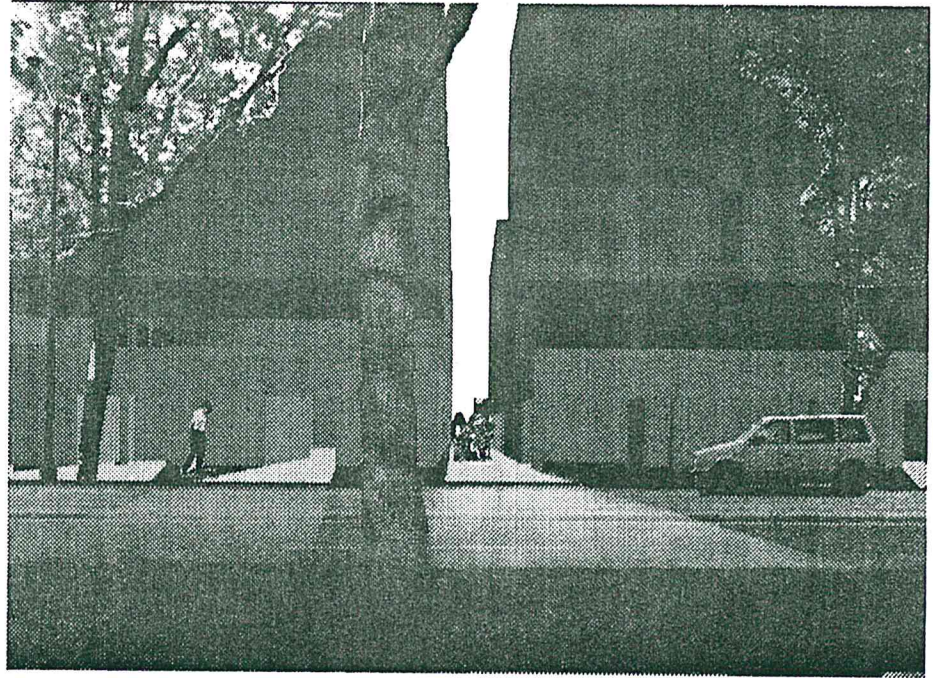
PROPOSED



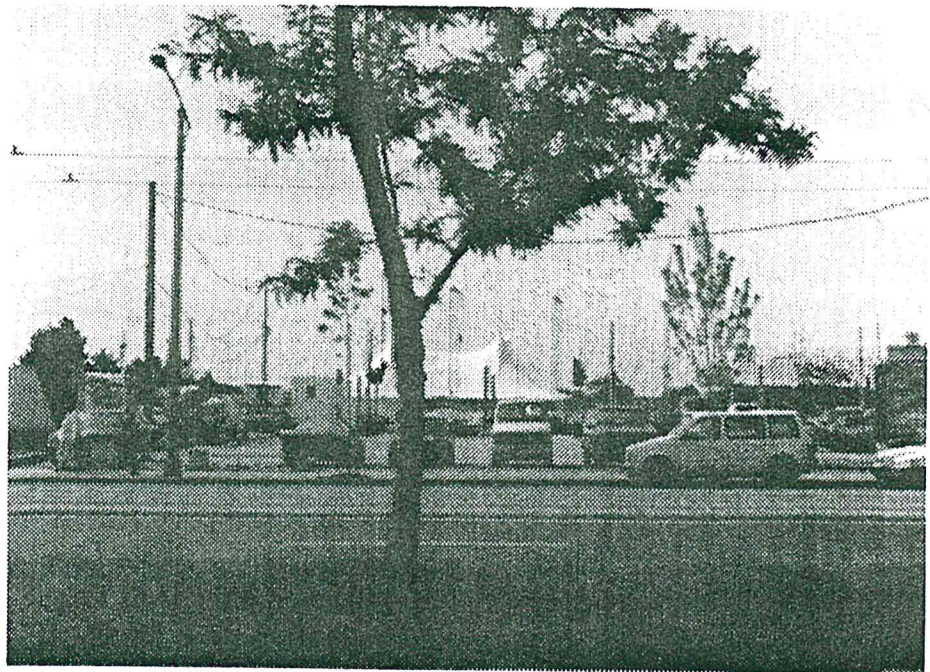
EXISTING







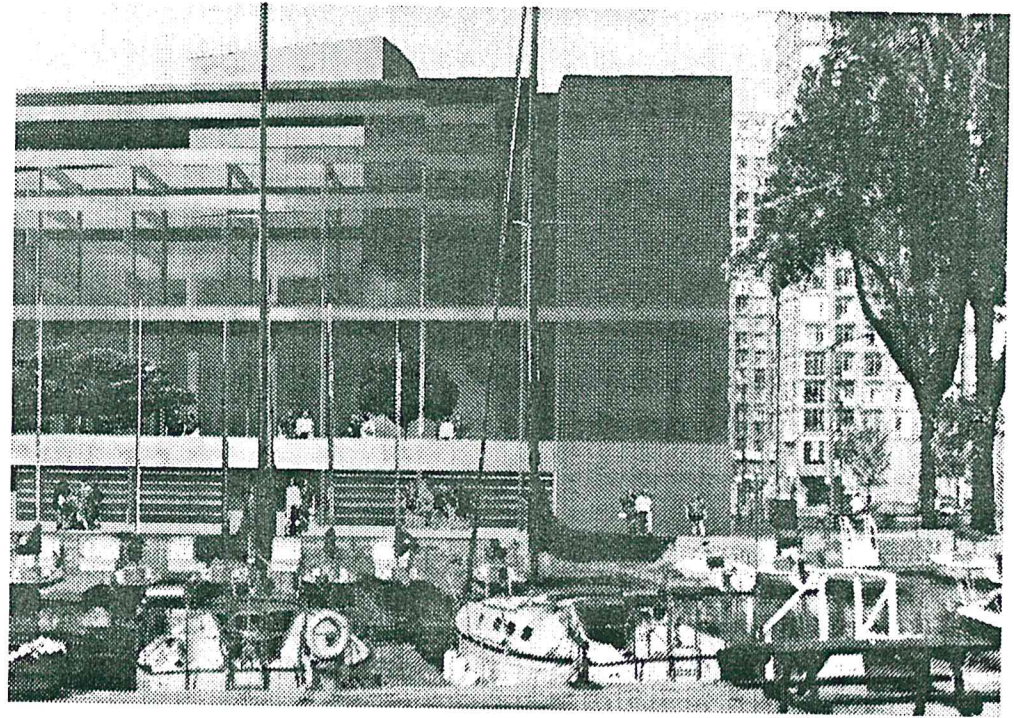
PROPOSED



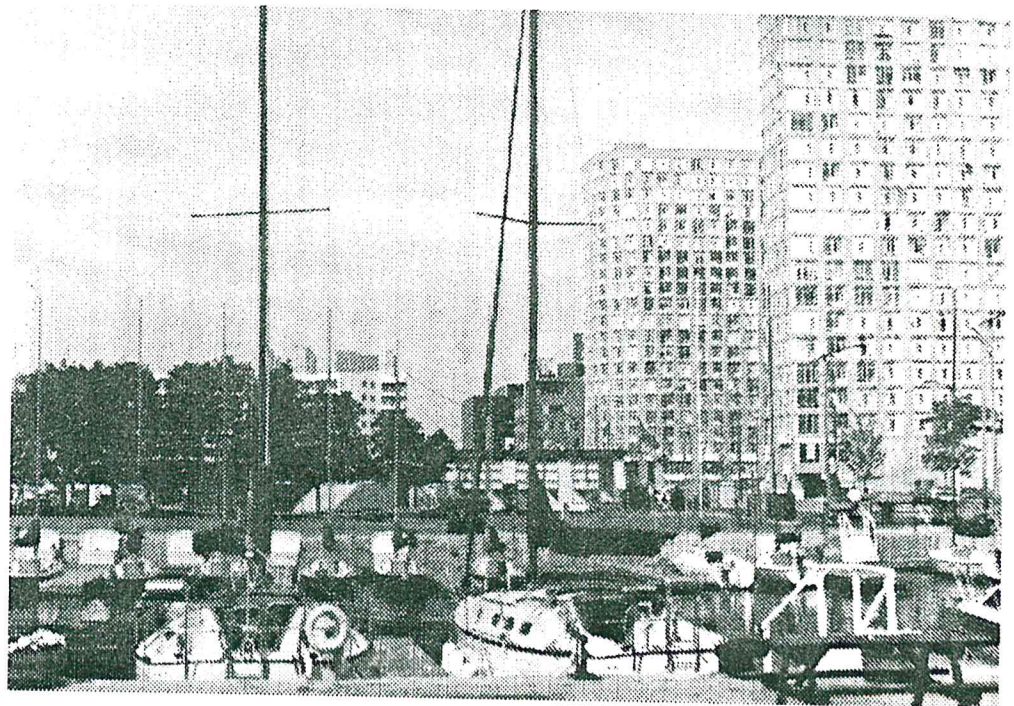
EXISTING



PROPOSED

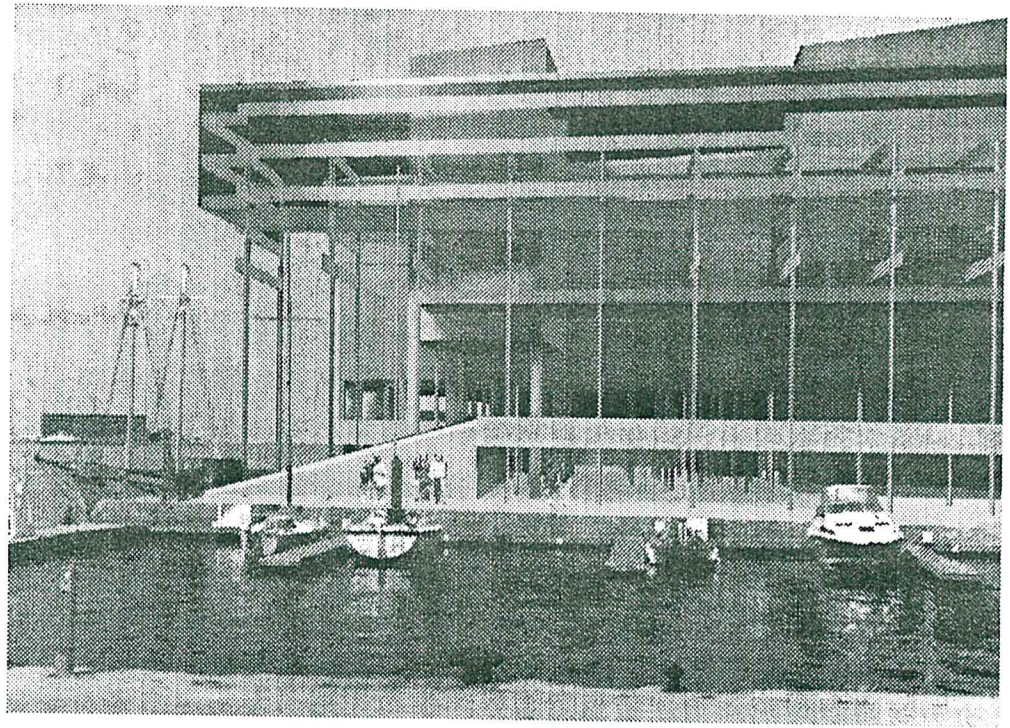


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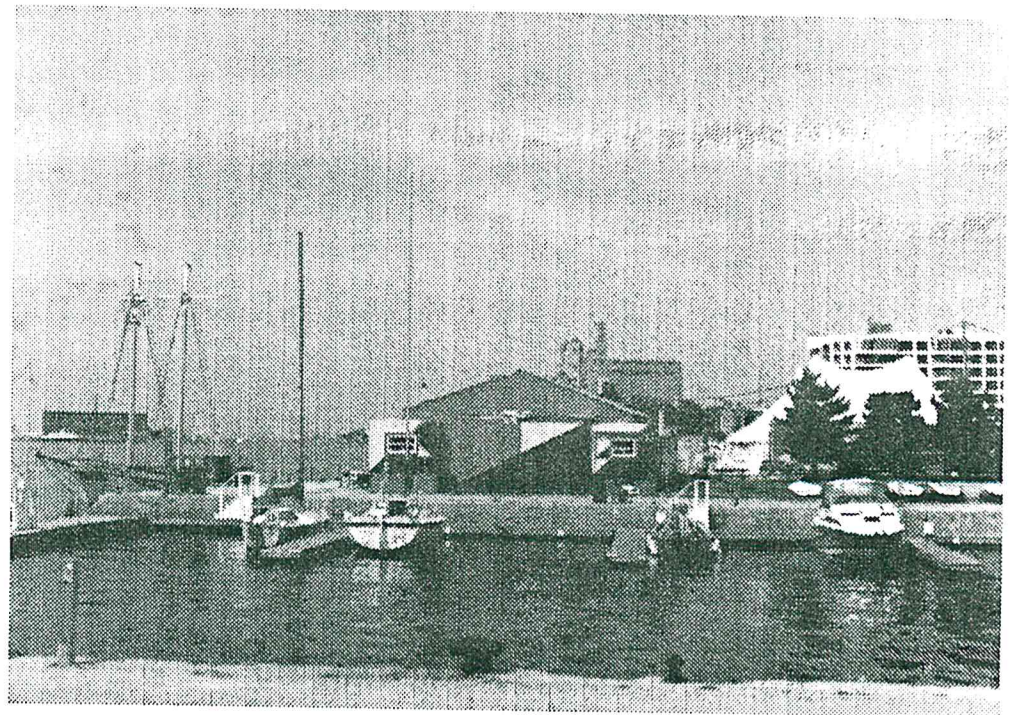




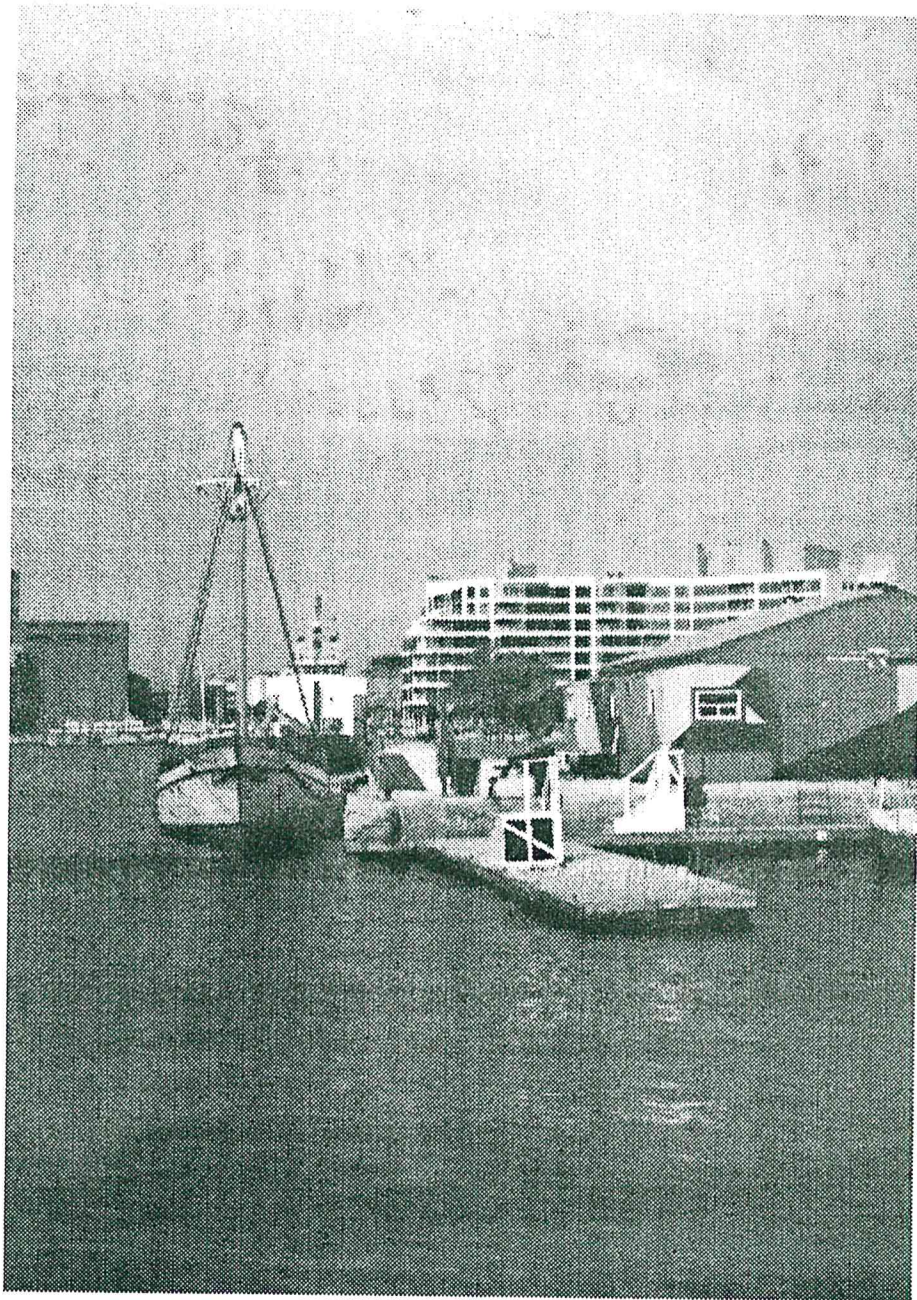
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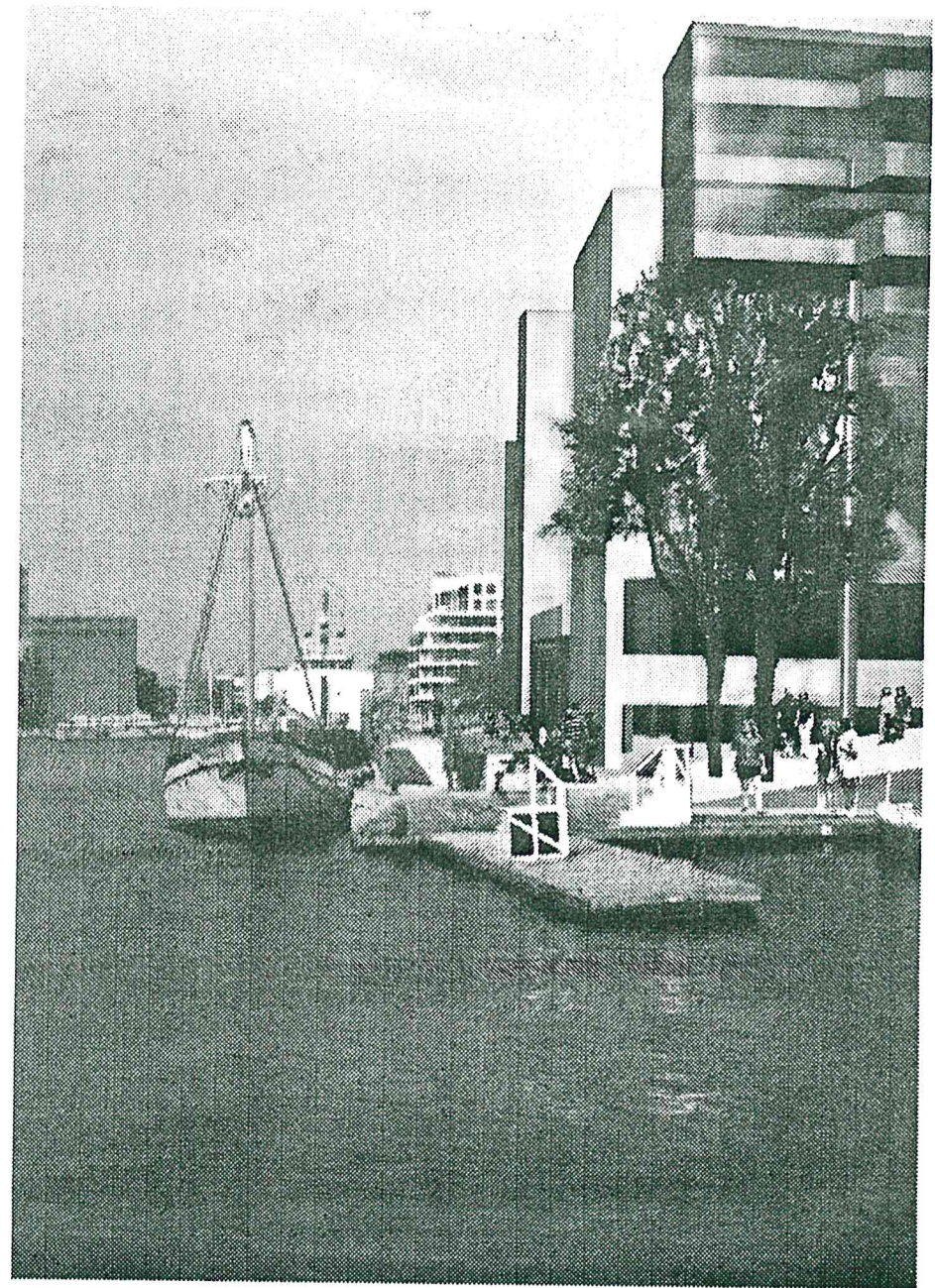
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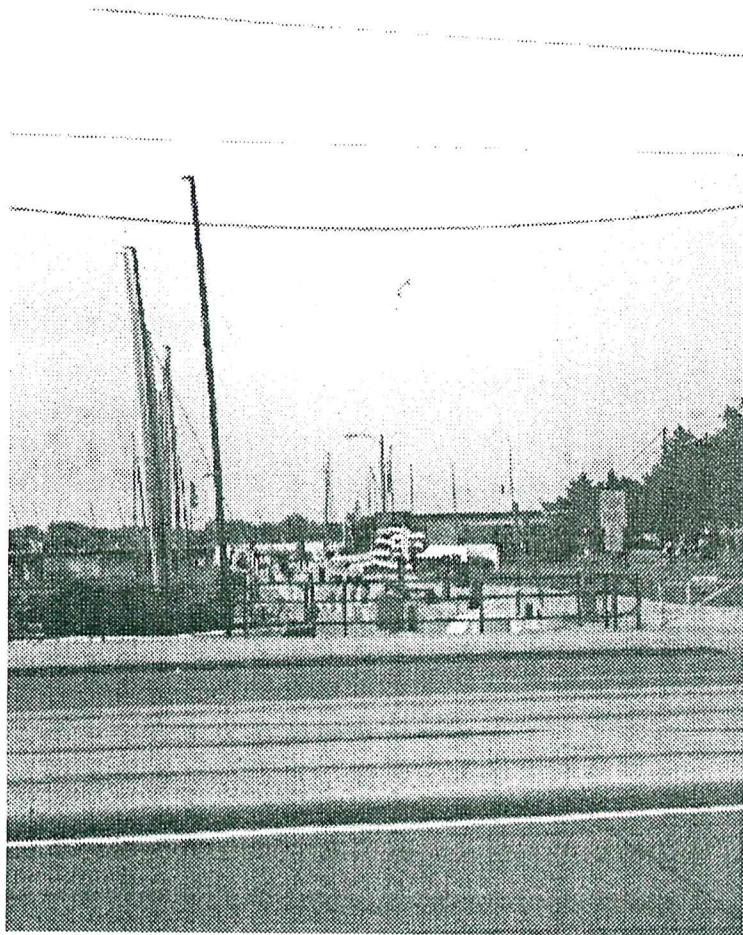


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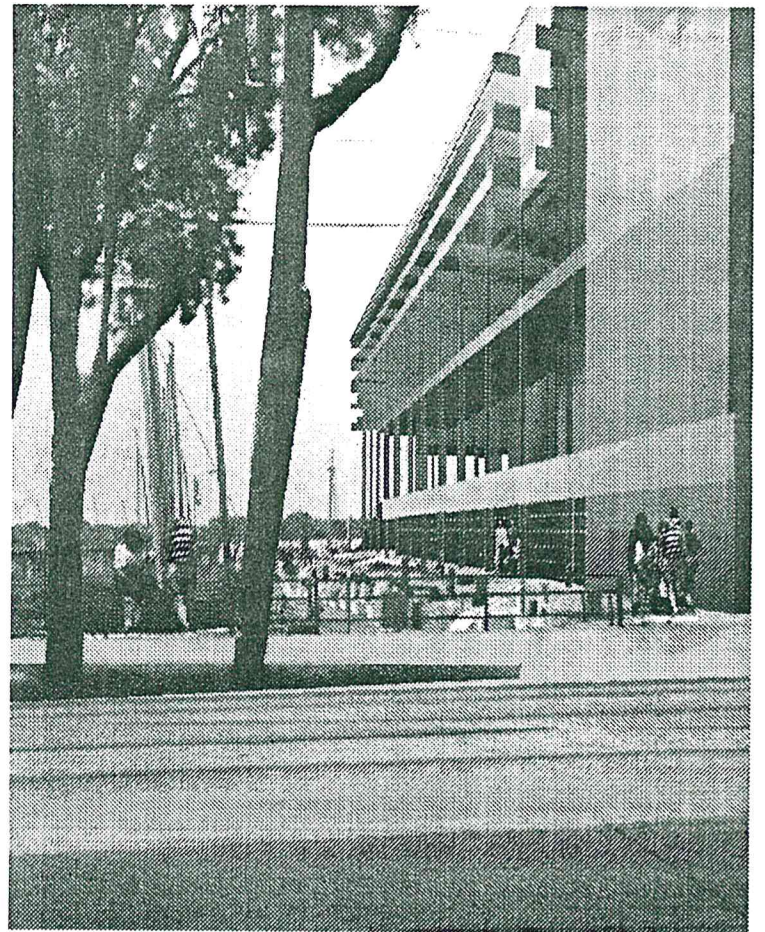


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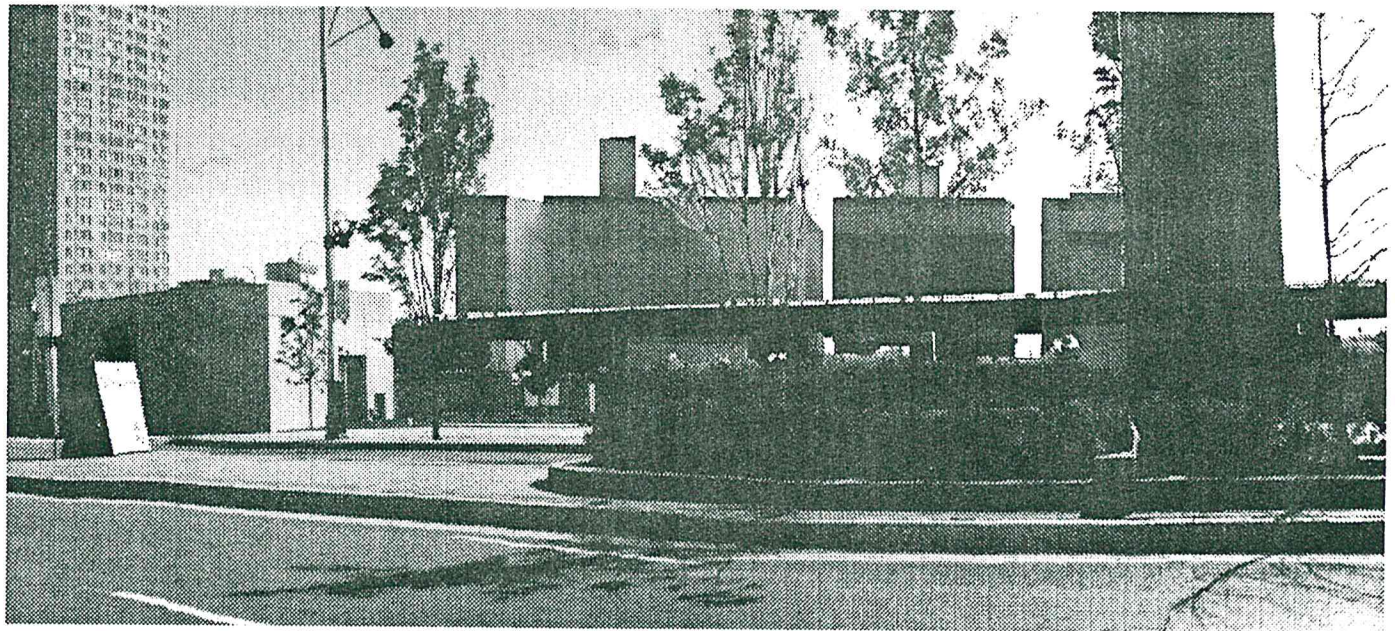
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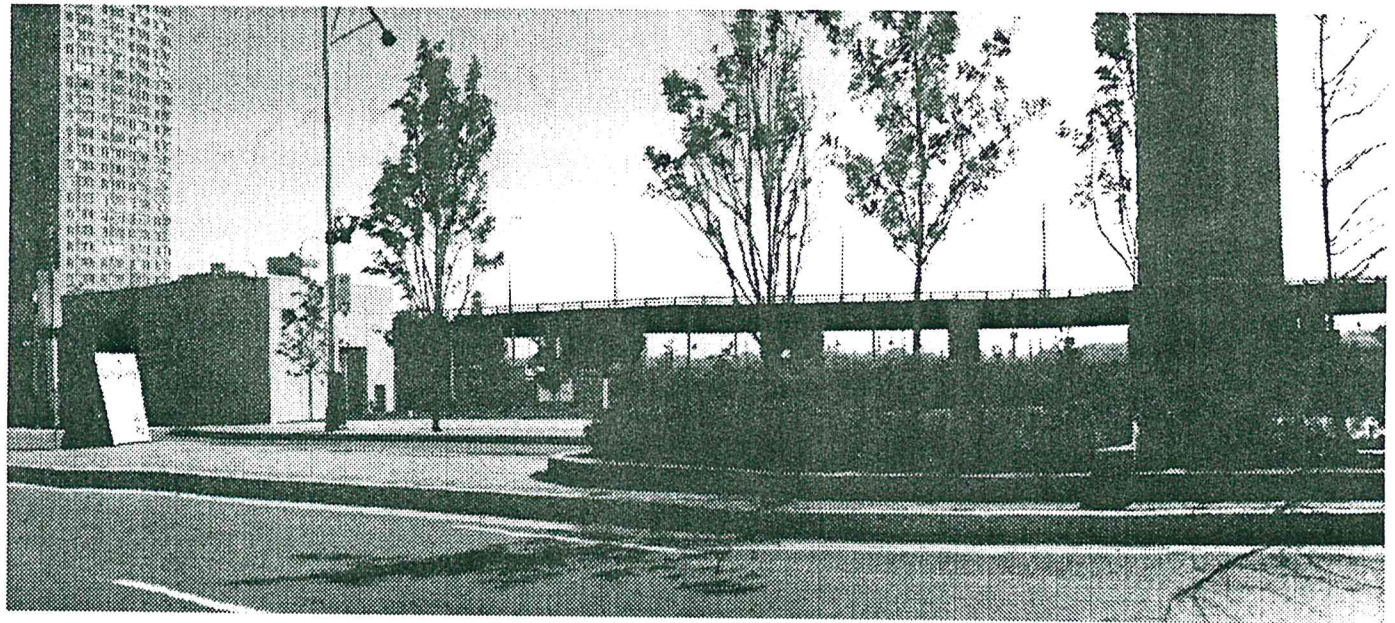
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PROPOSED

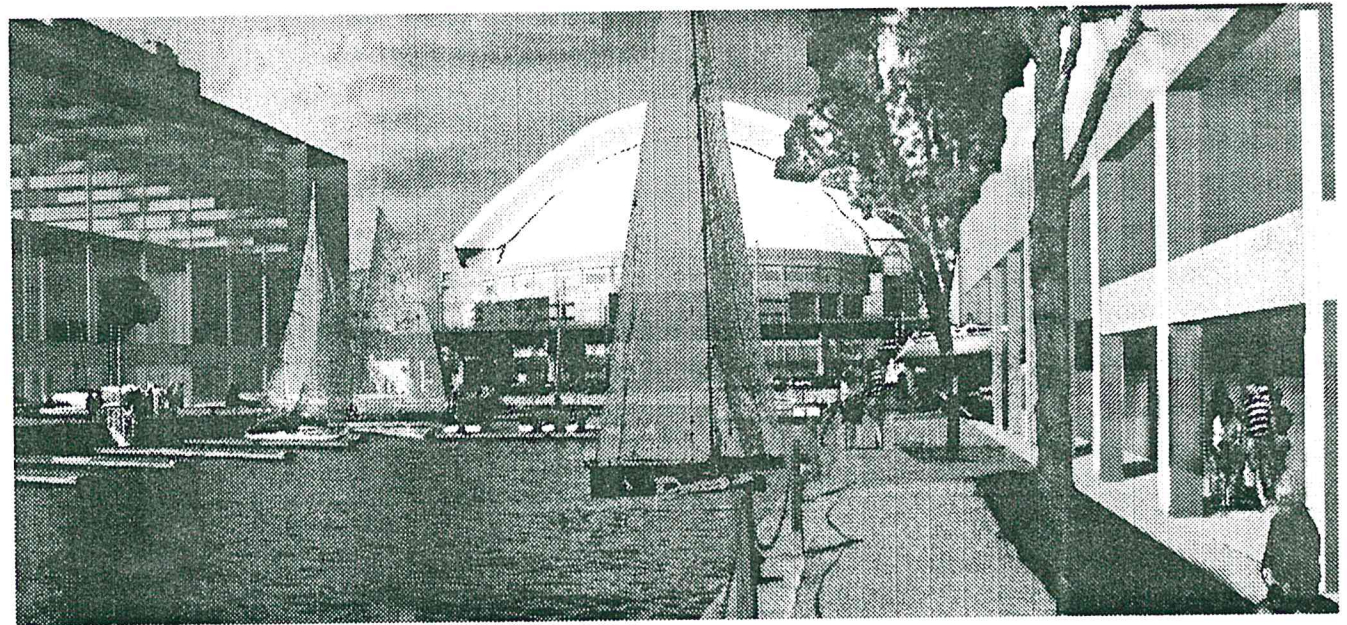


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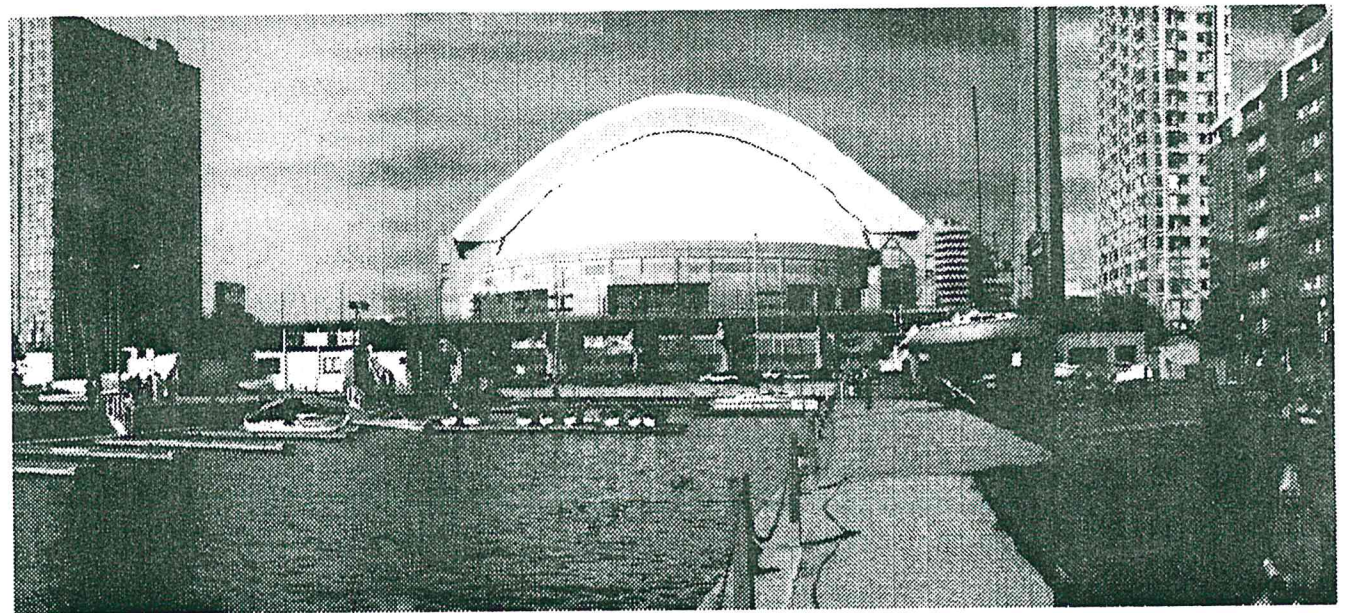




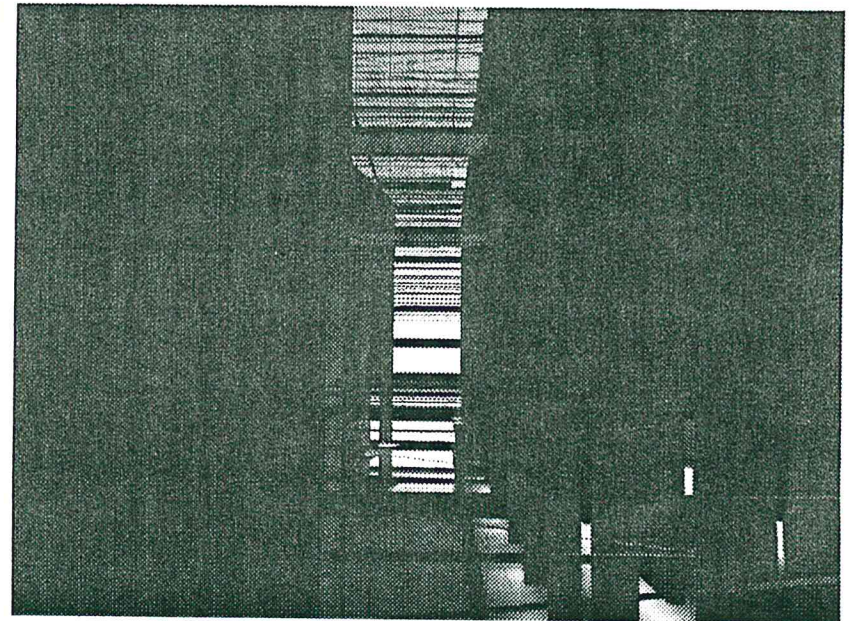
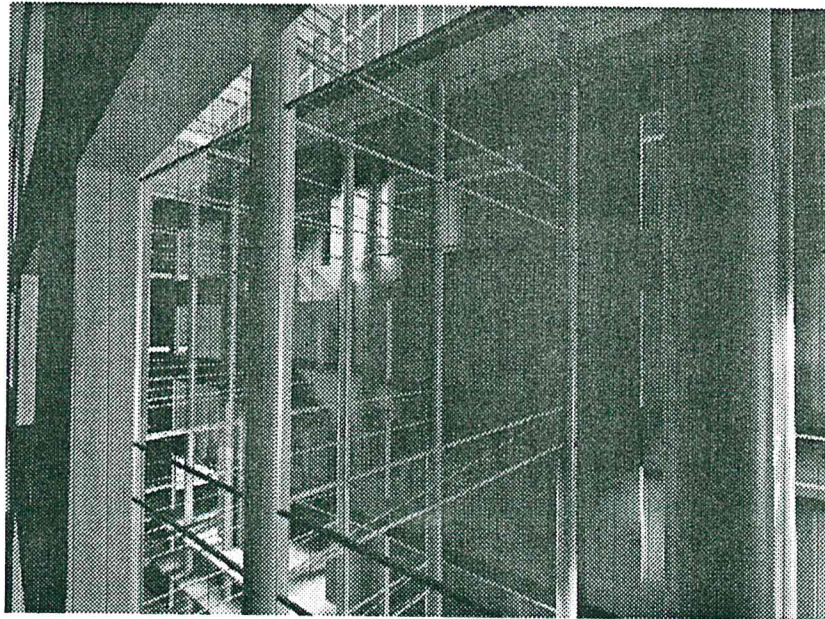
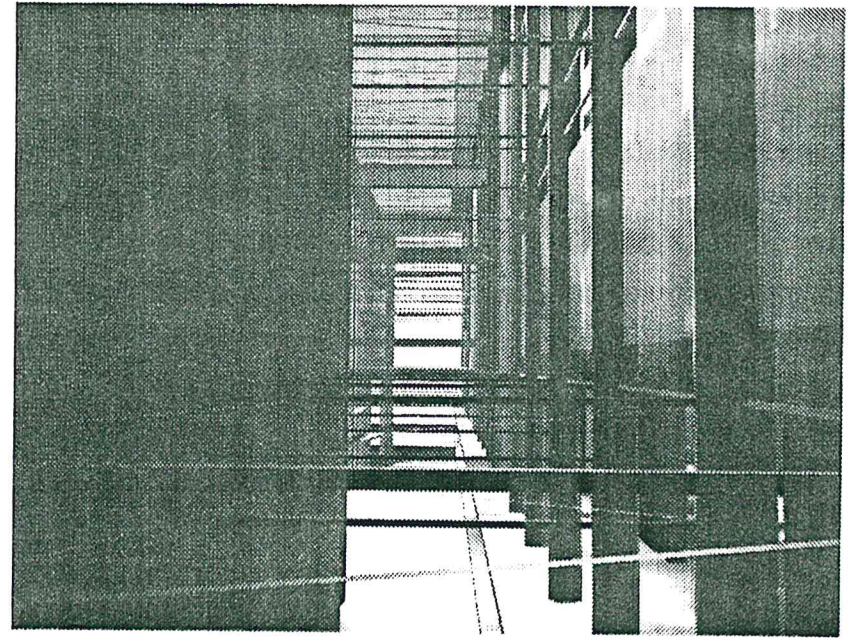
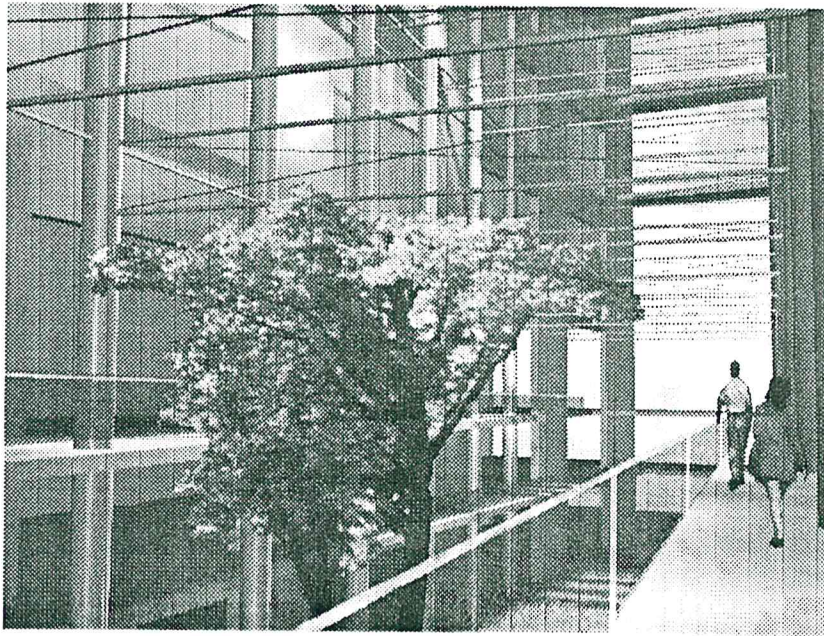
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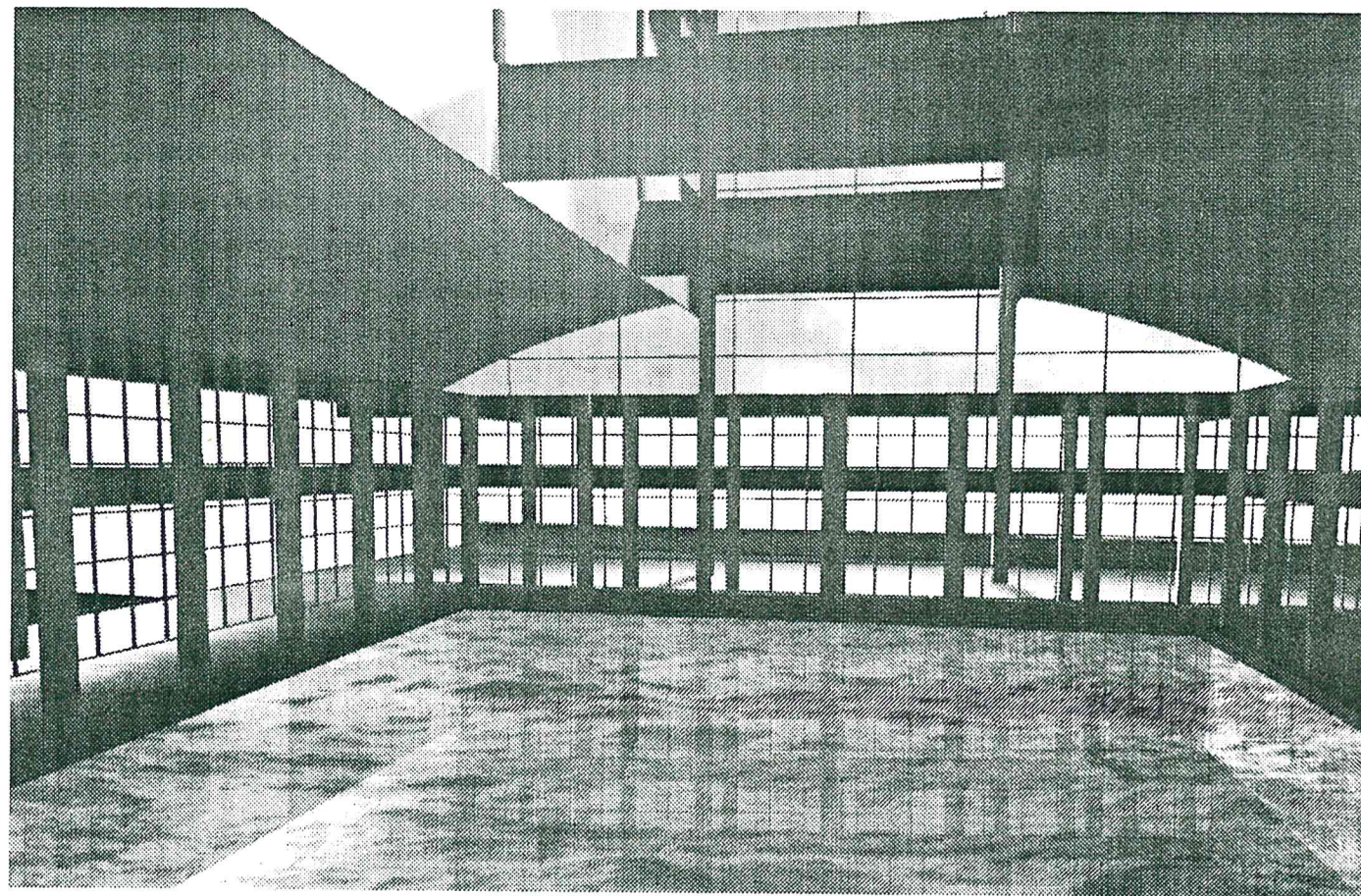






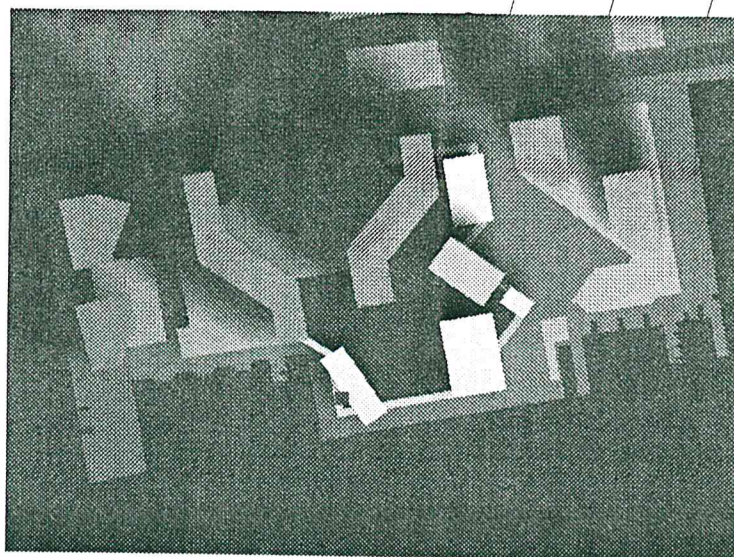
COVERED PUBLIC COURT





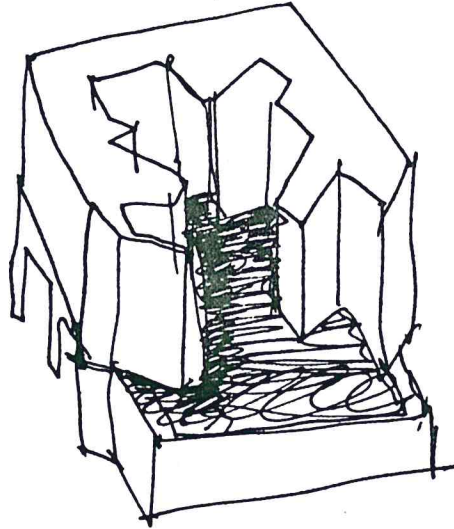
SWIMMING POOL





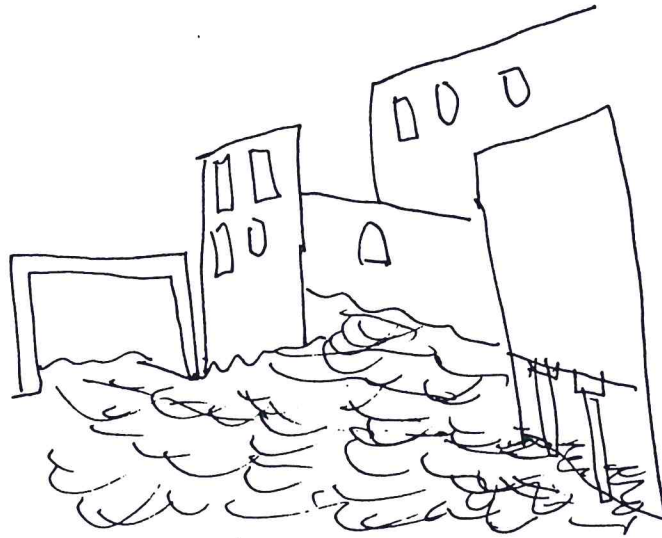
**SITE 4**



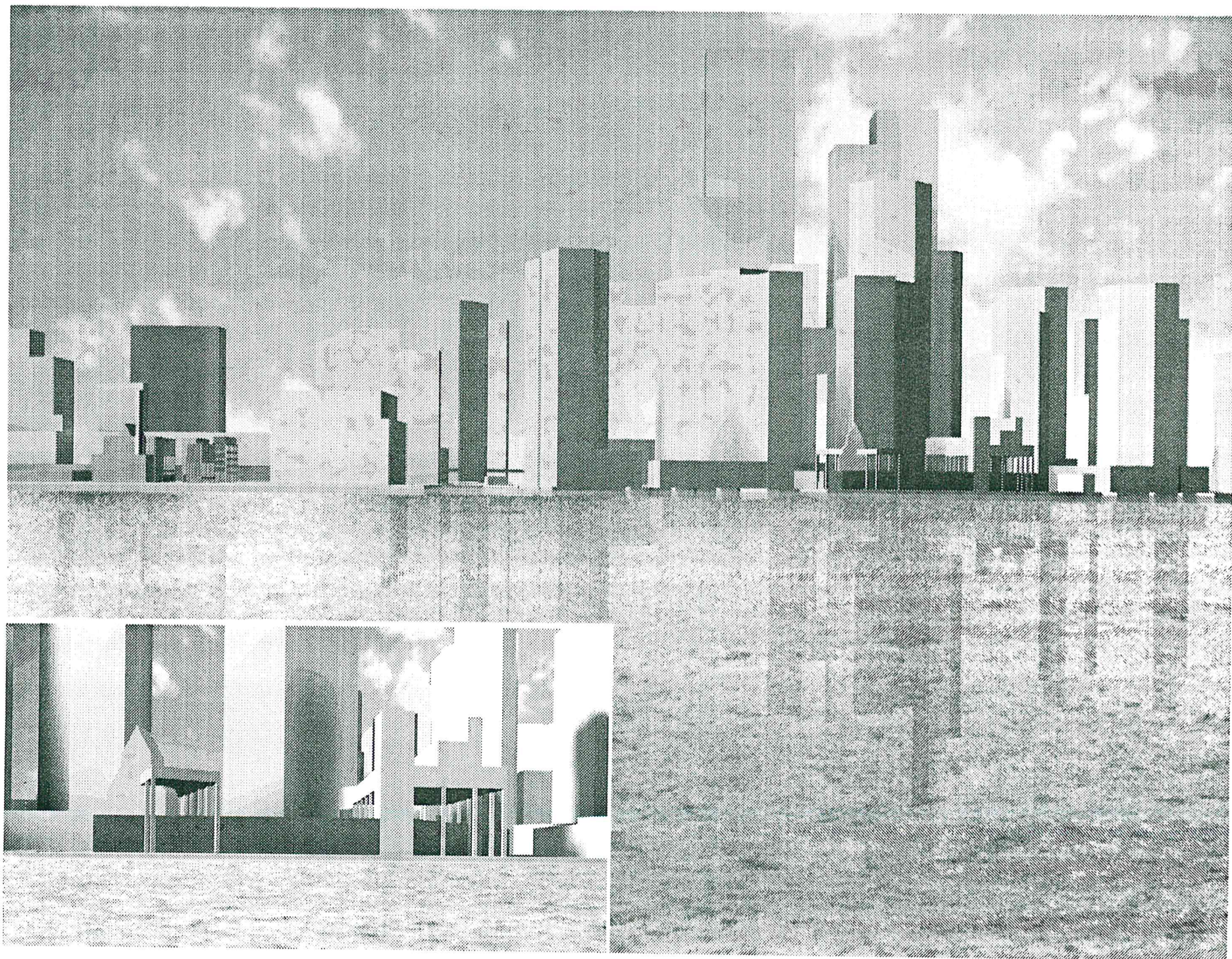


spa

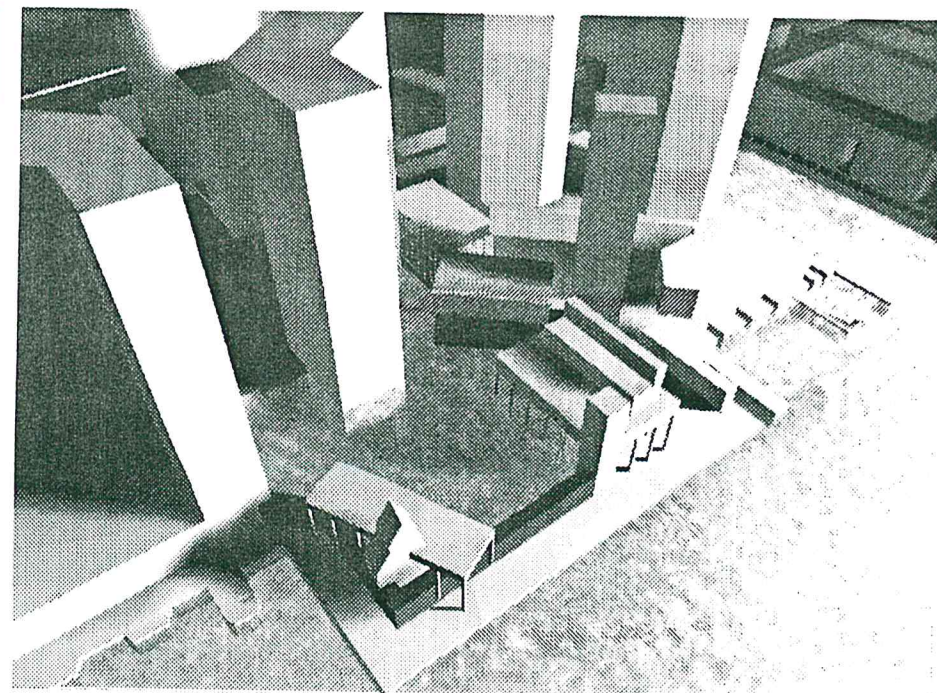
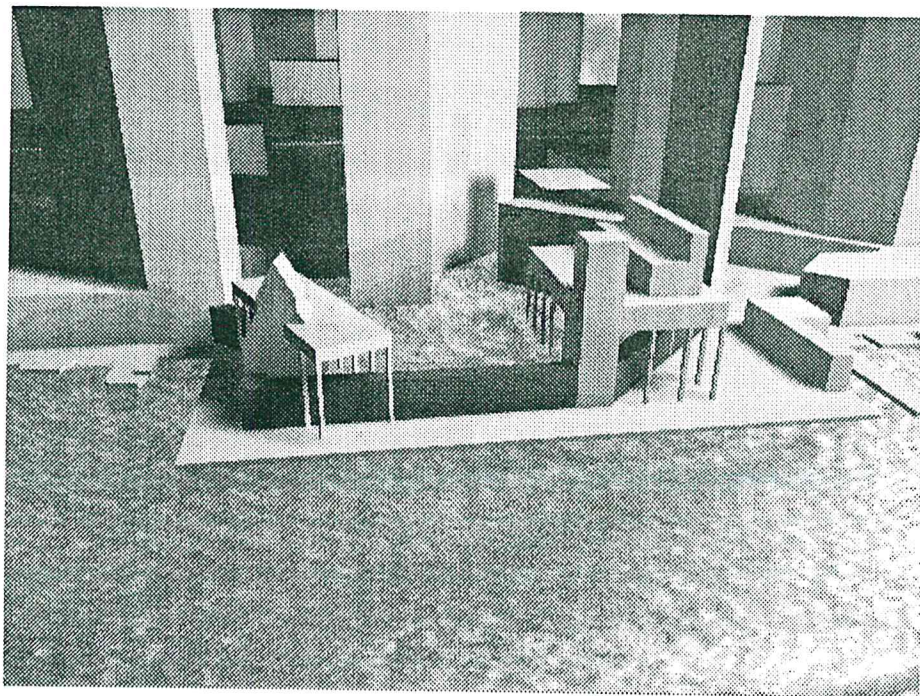
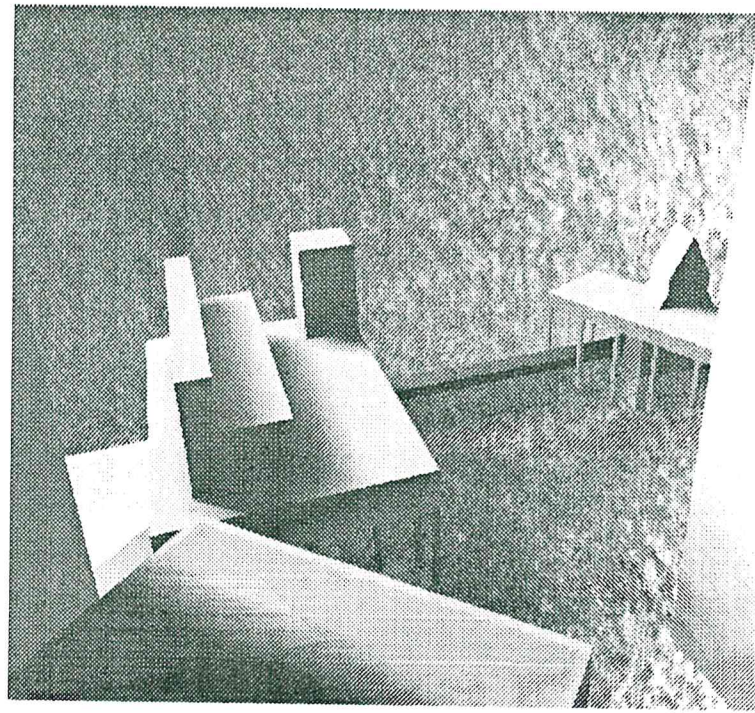
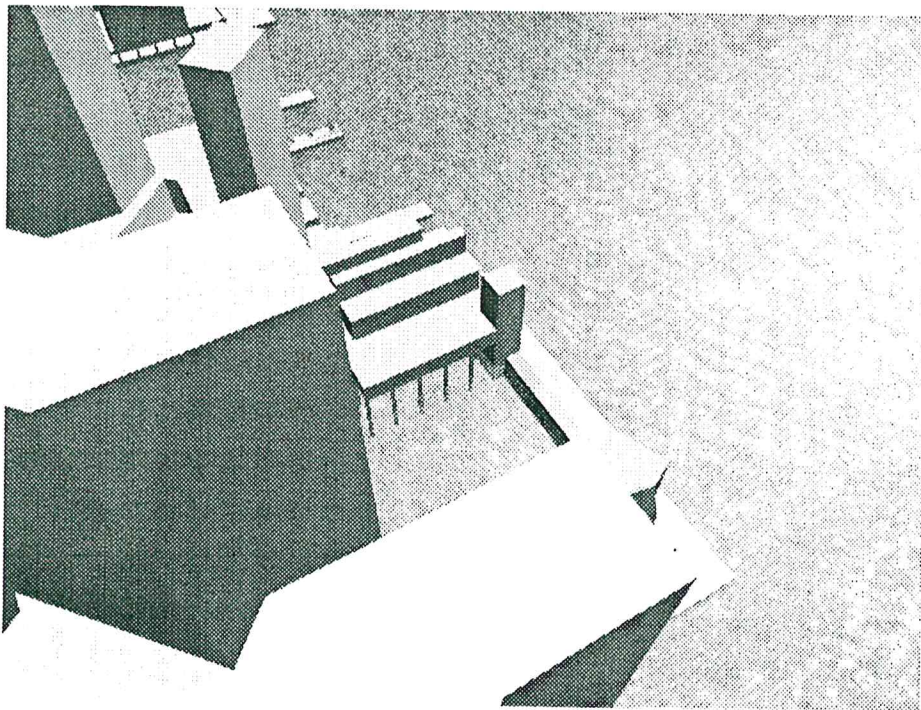
pool - flooded plaza



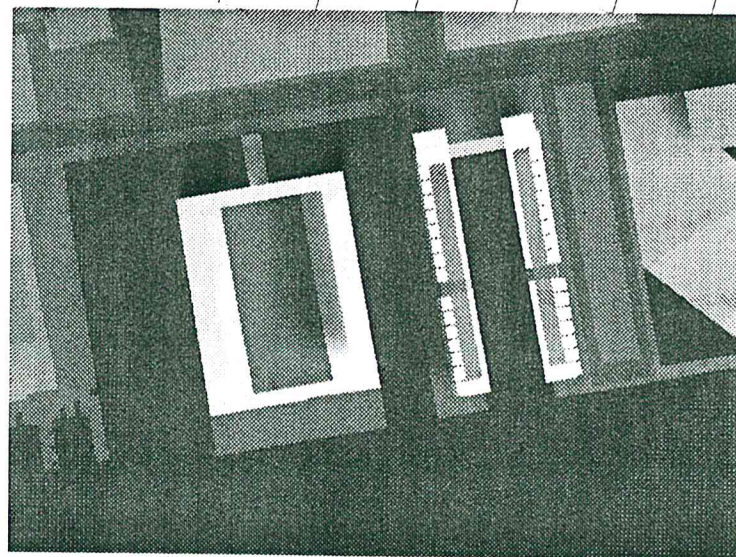






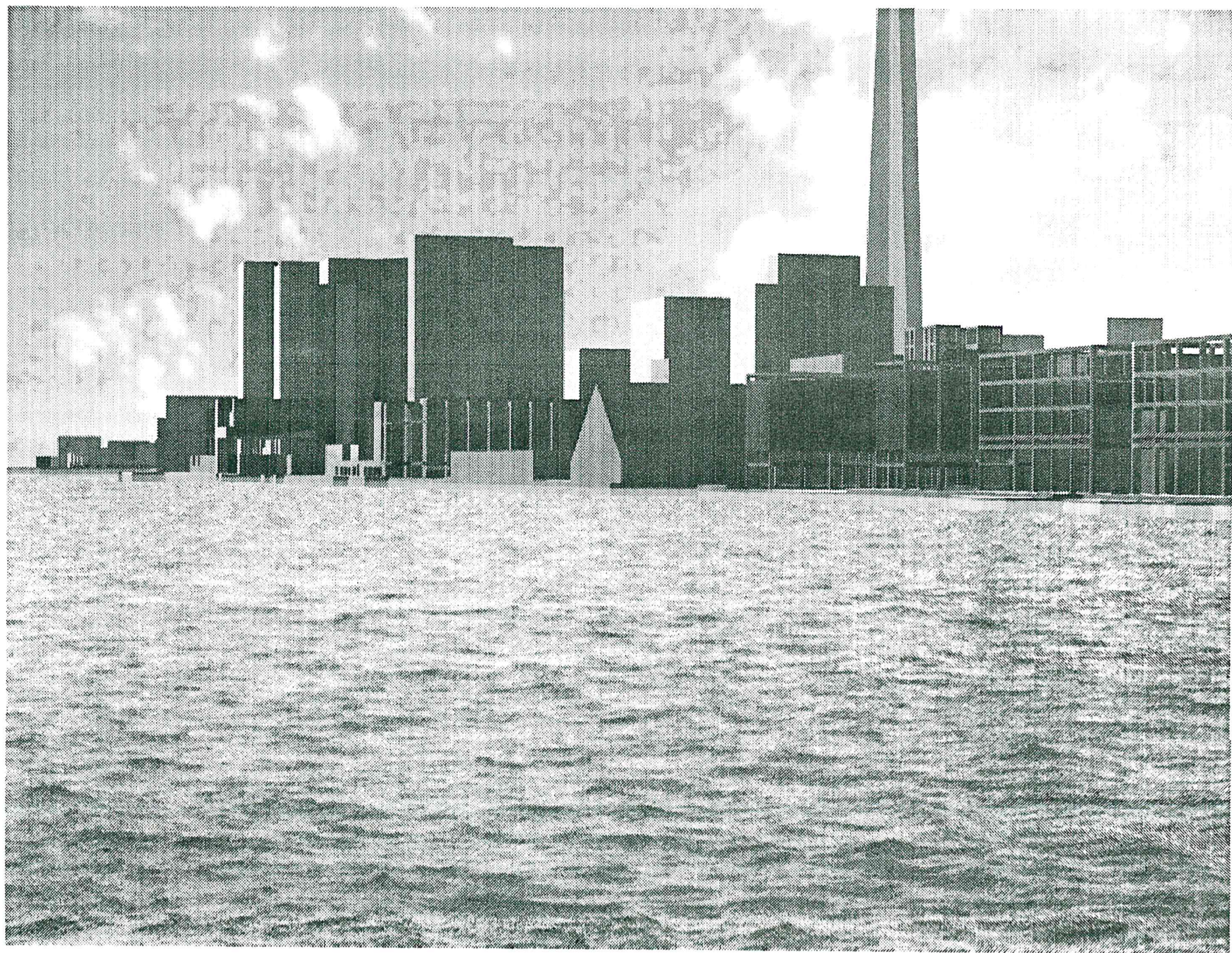




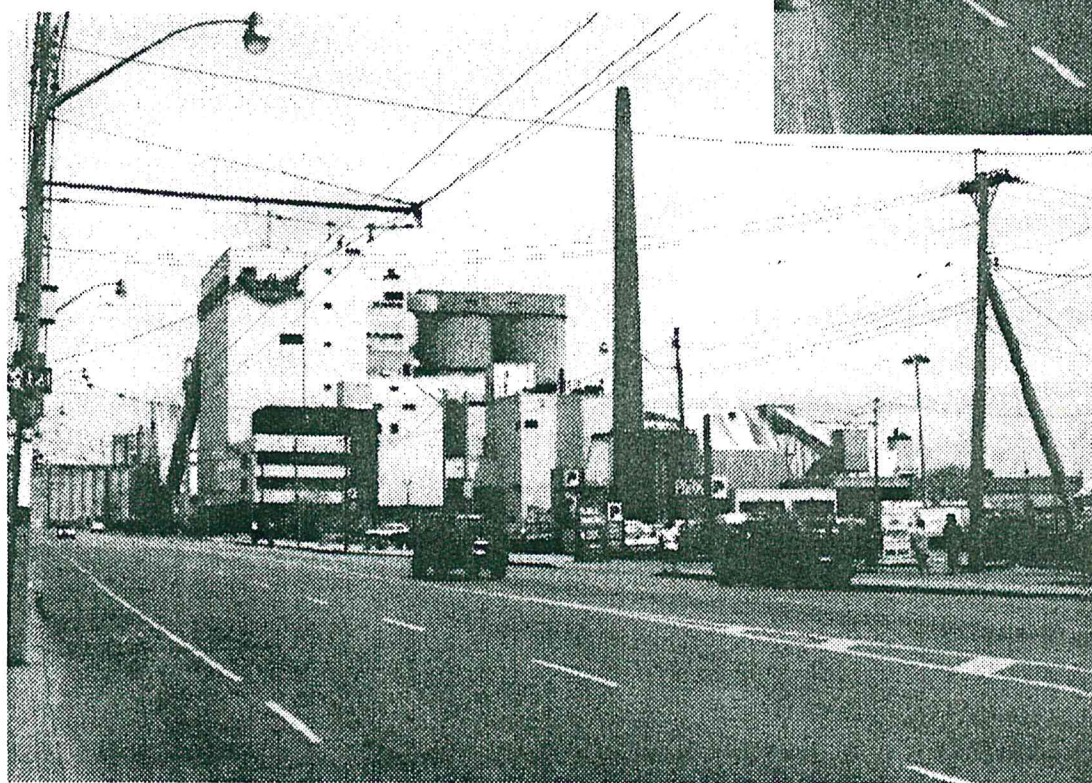
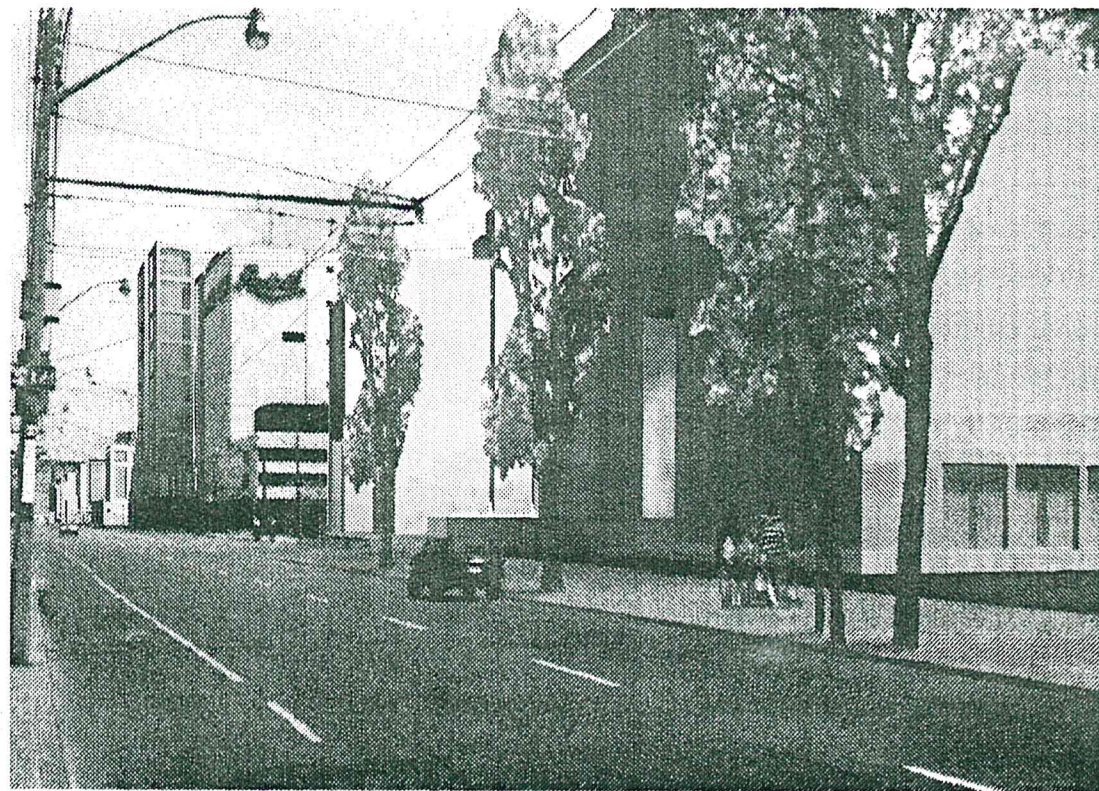


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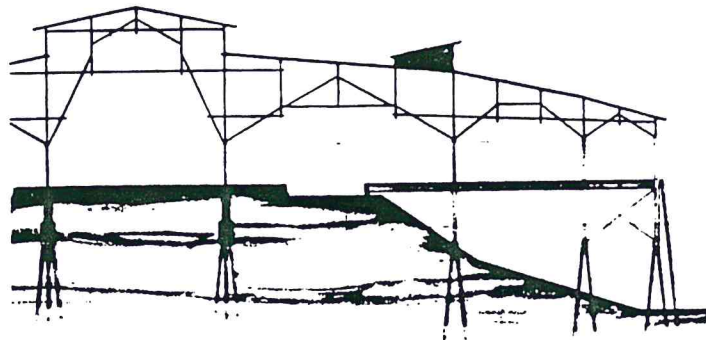




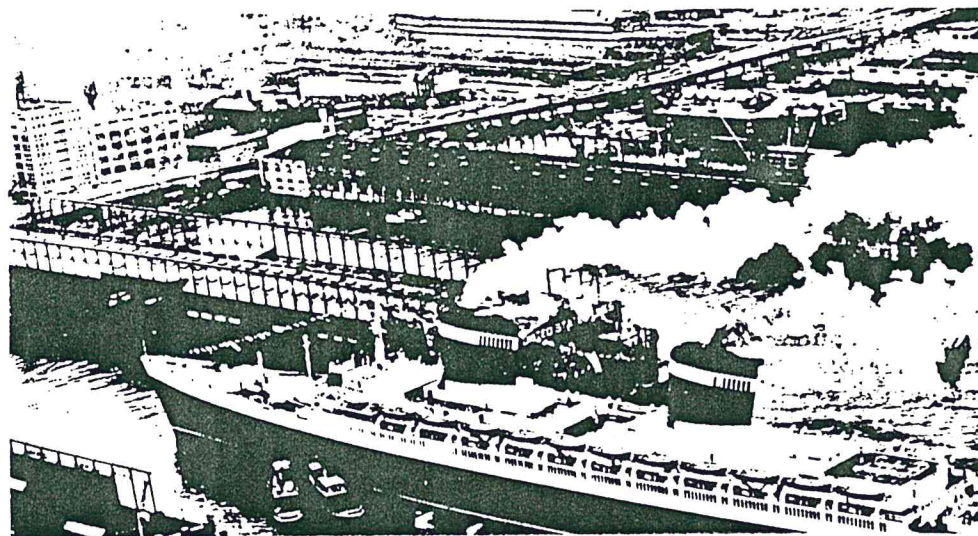




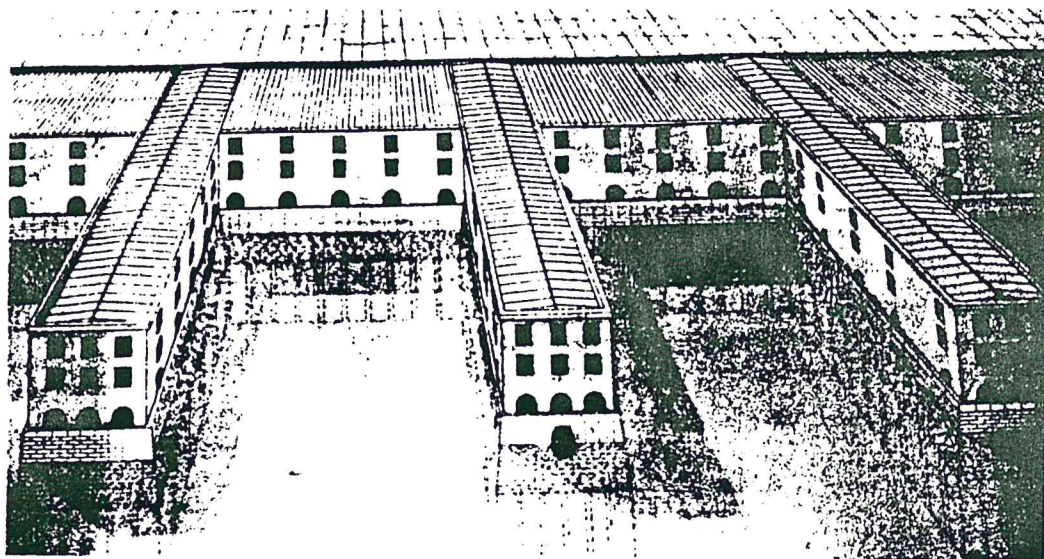




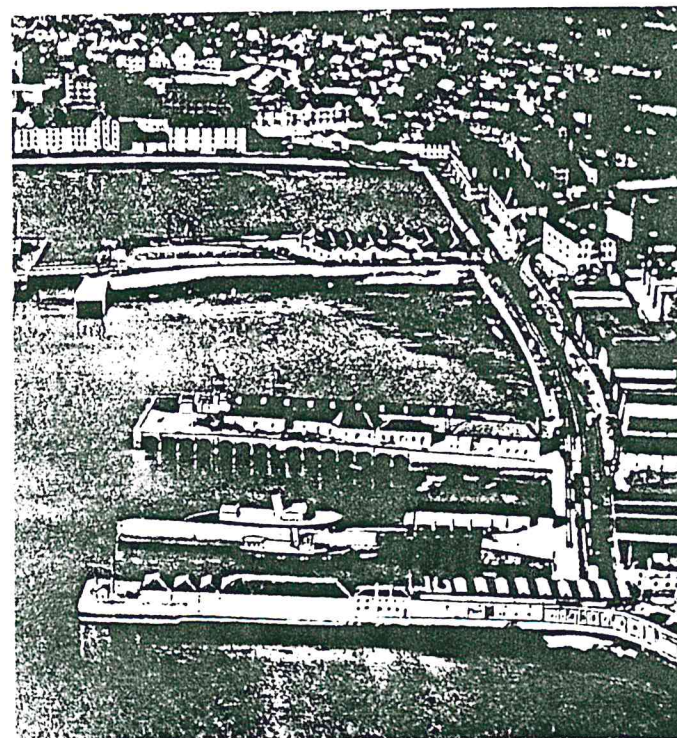
DOCKS, BREMEN



DOCKS, NEW YORK CITY

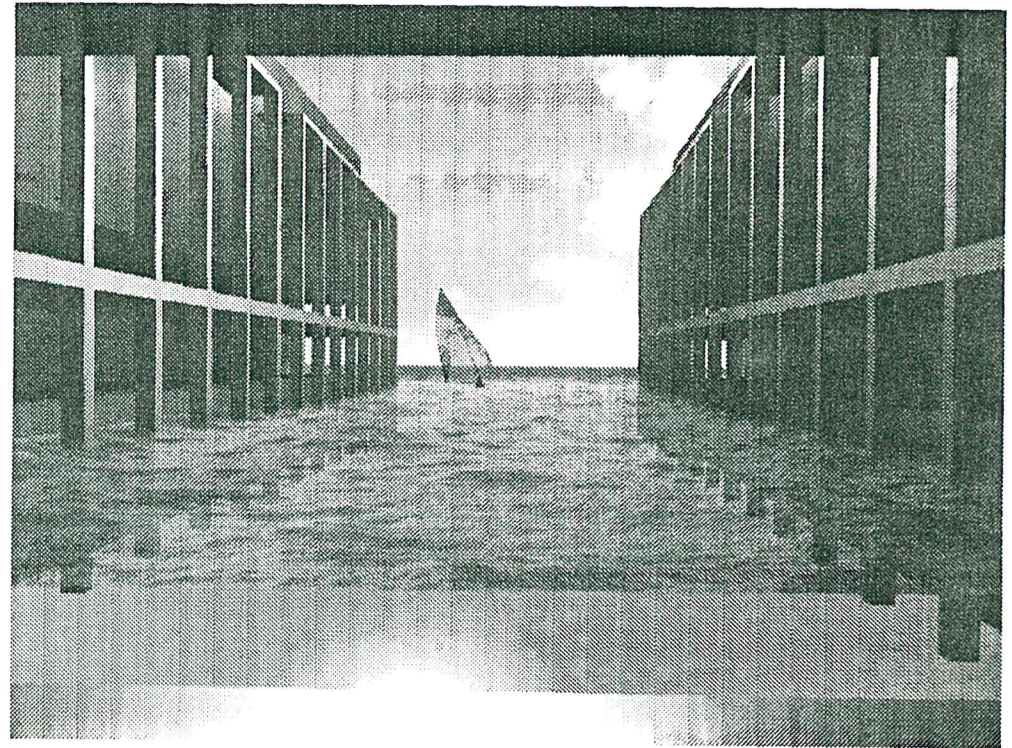
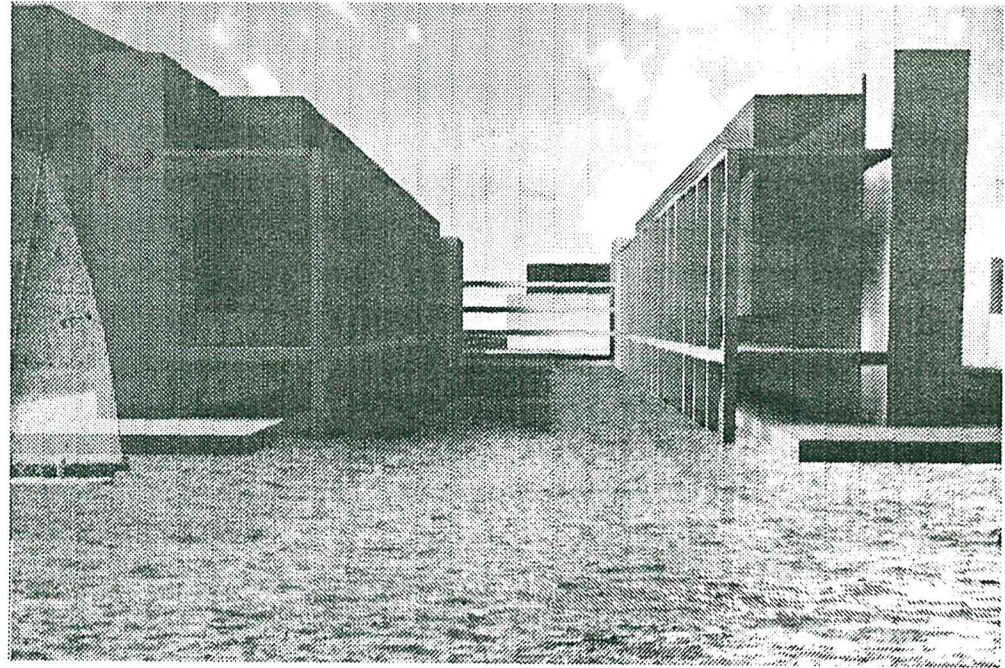
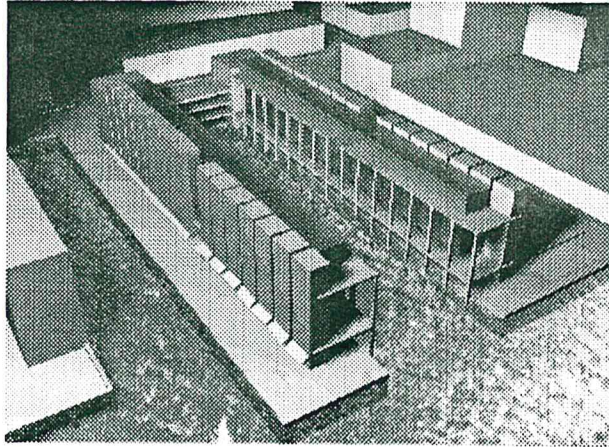


DOCKS, NEW YORK CITY



DOCKS, PLYMOUTH





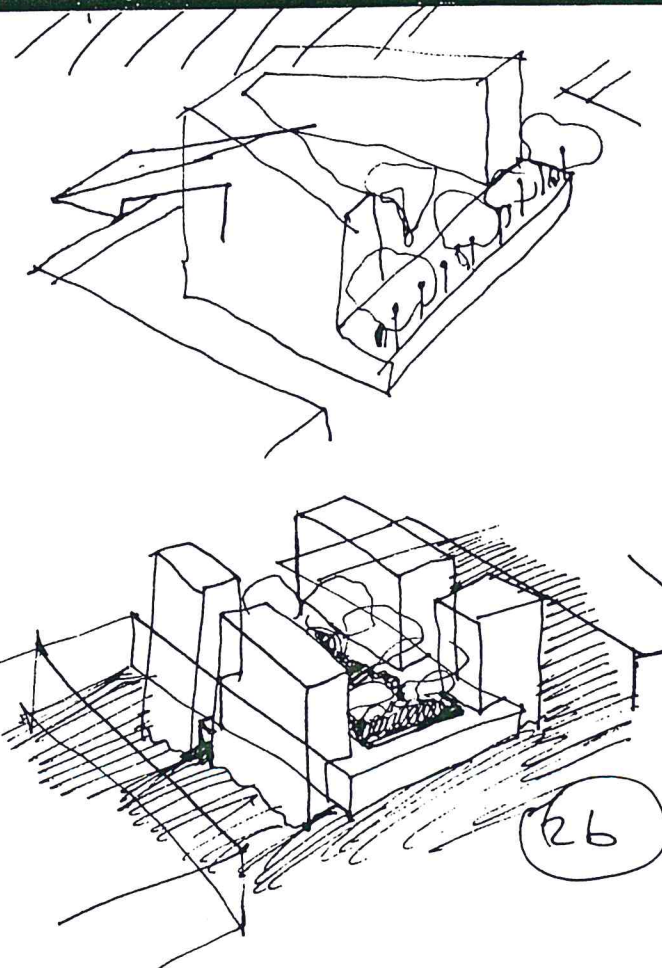




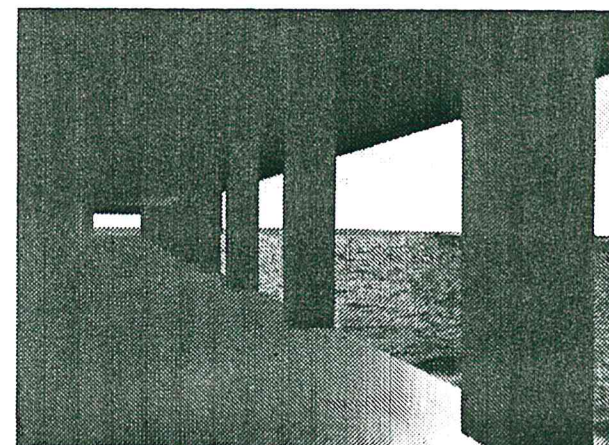
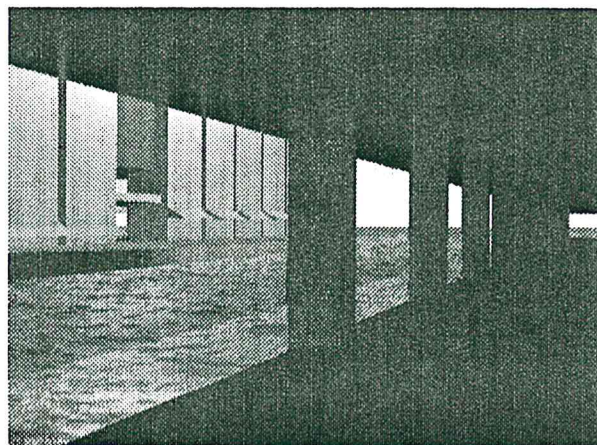
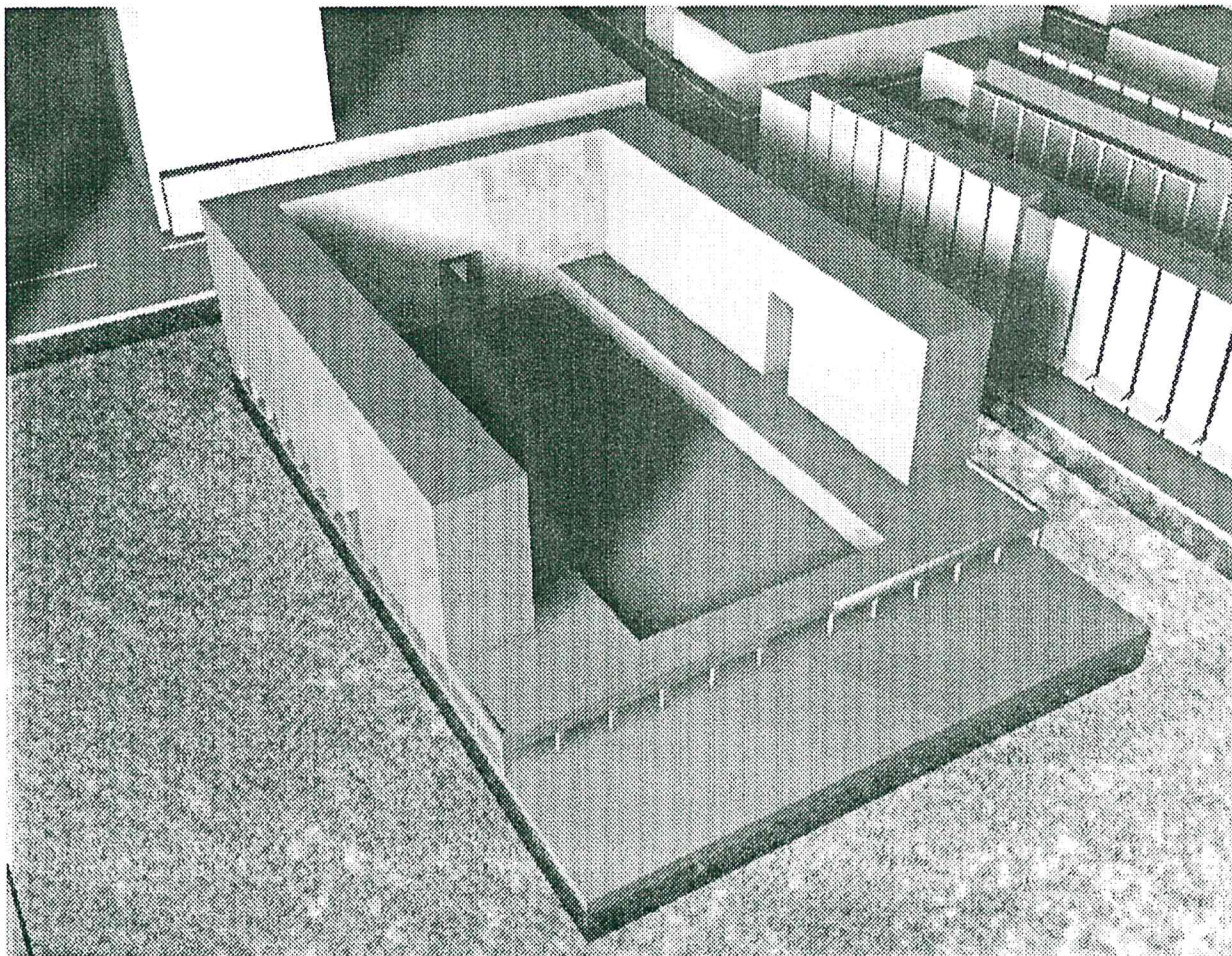
FLOATING CHINESE VILLAGE



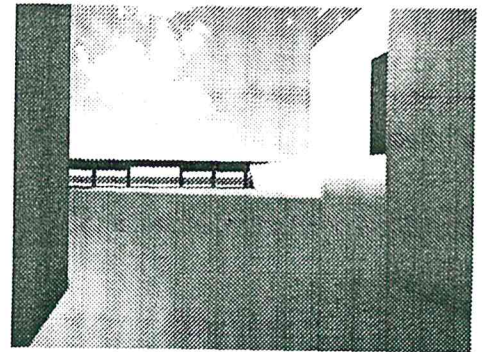
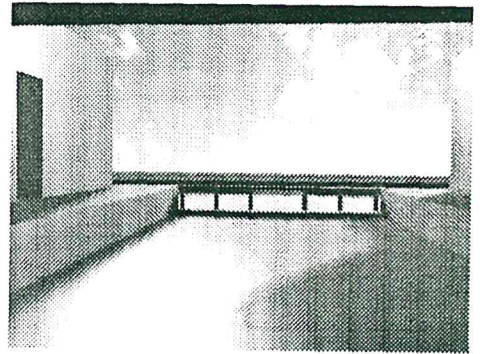
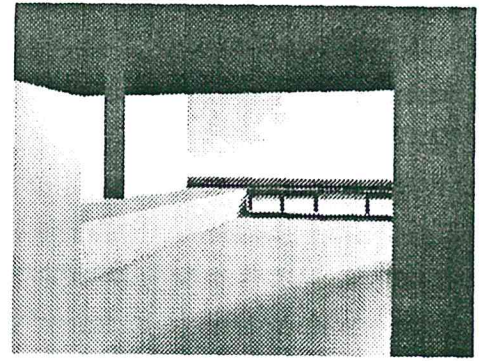
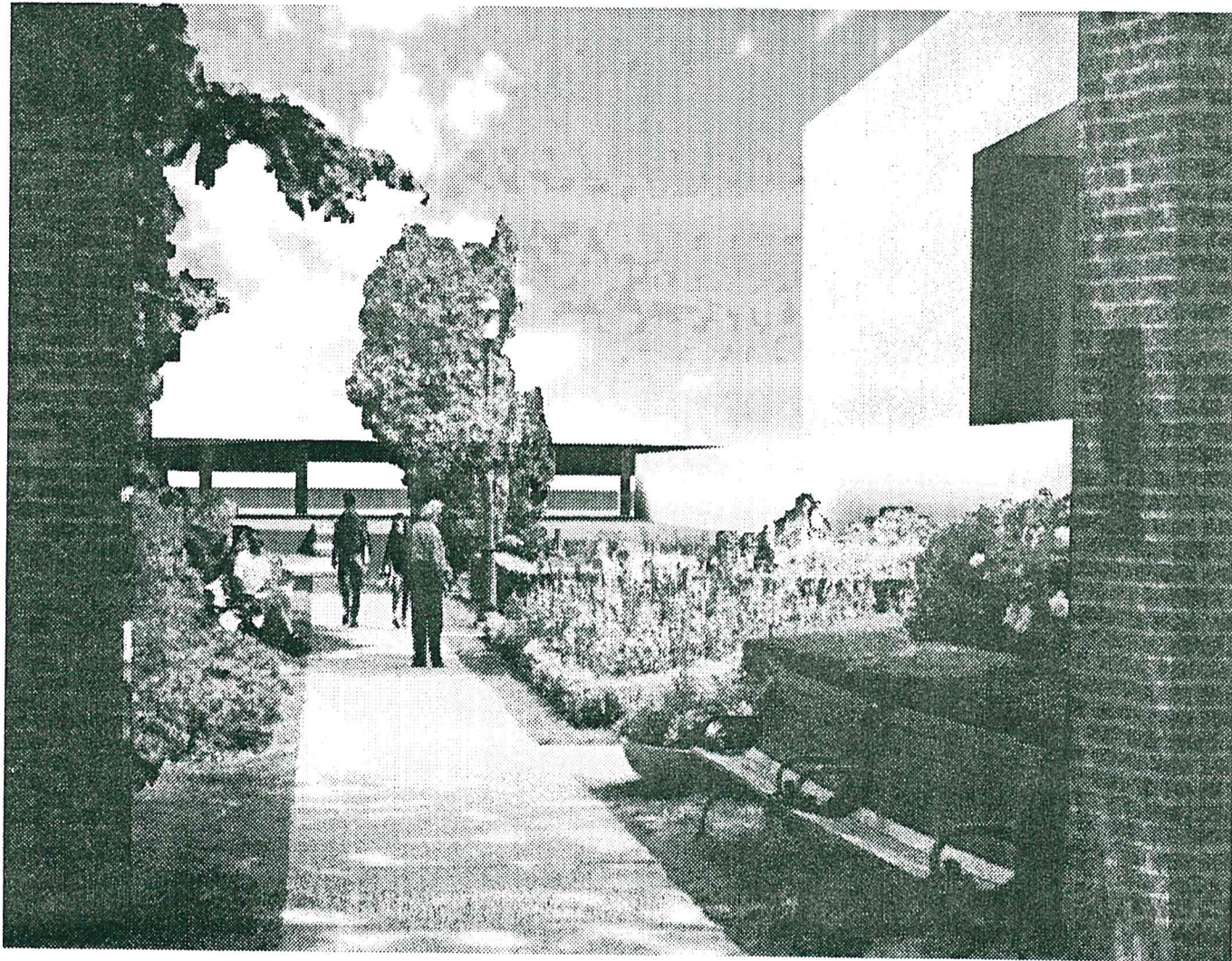
ST.XAVIER FLOATING CHURCH (NEW YORK CITY)



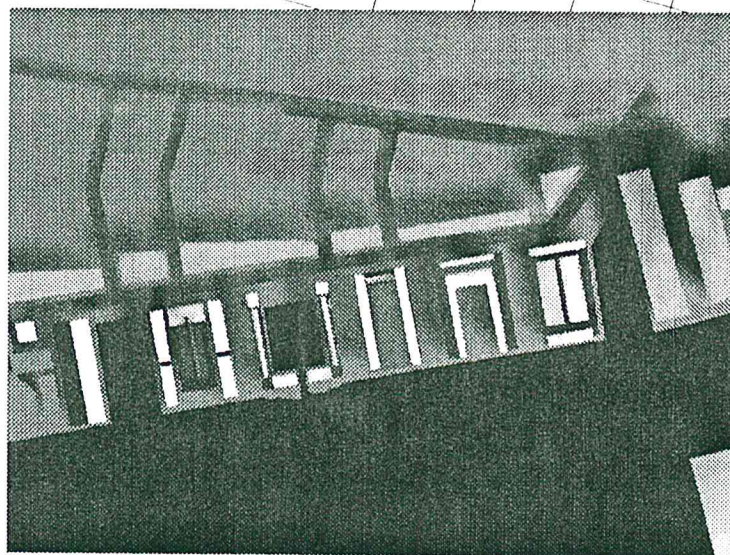






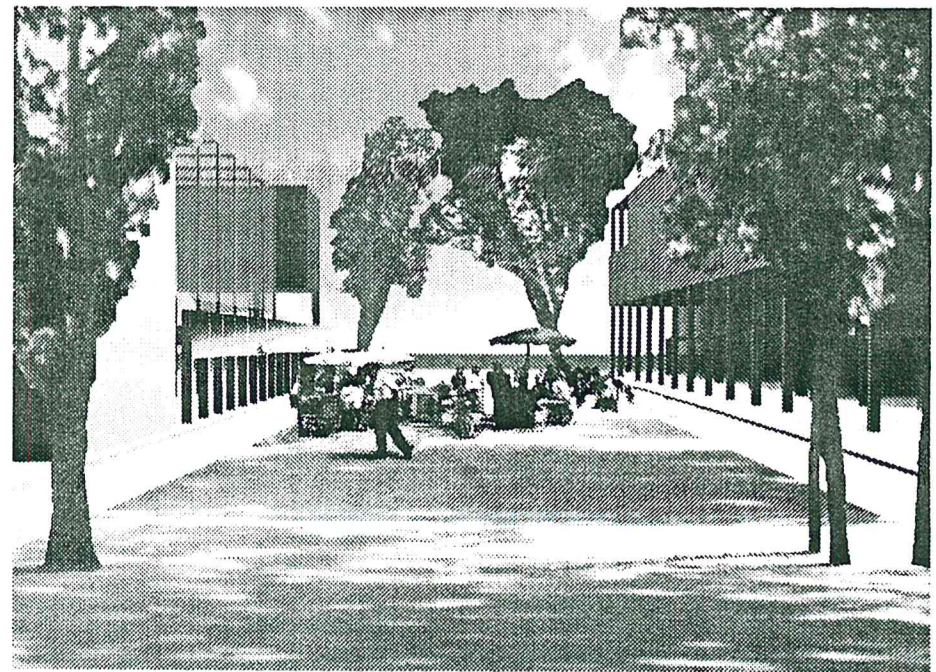
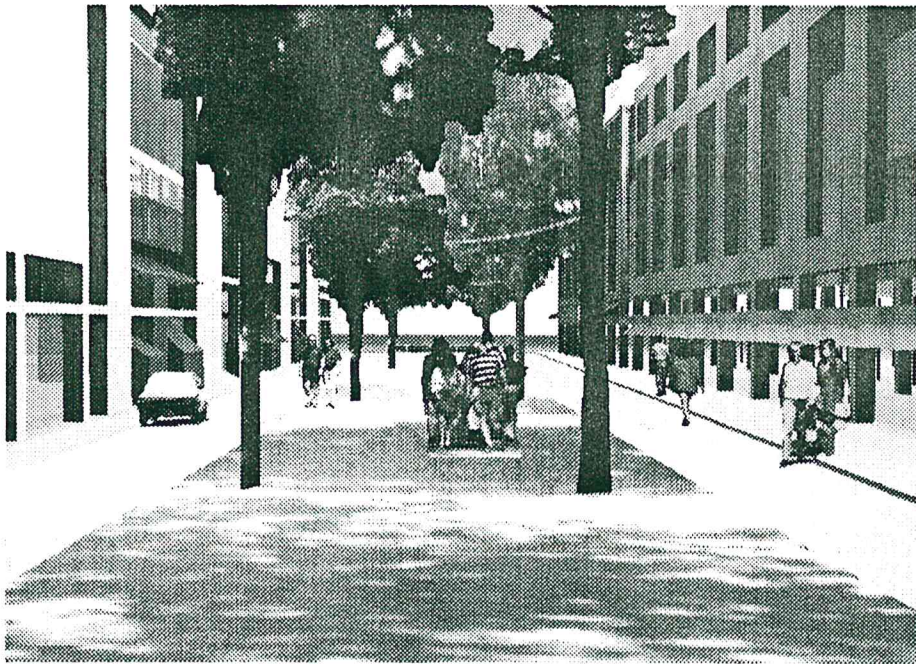
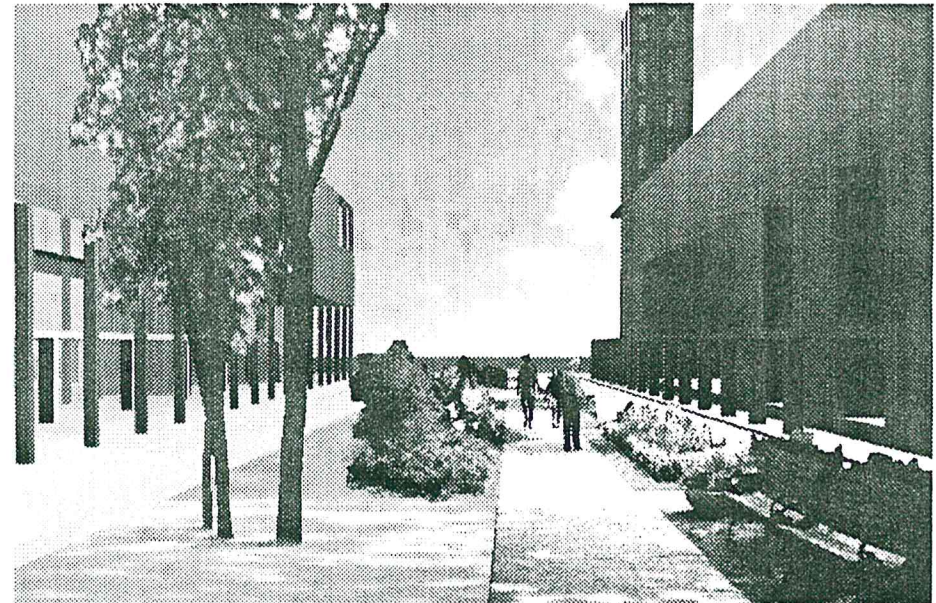
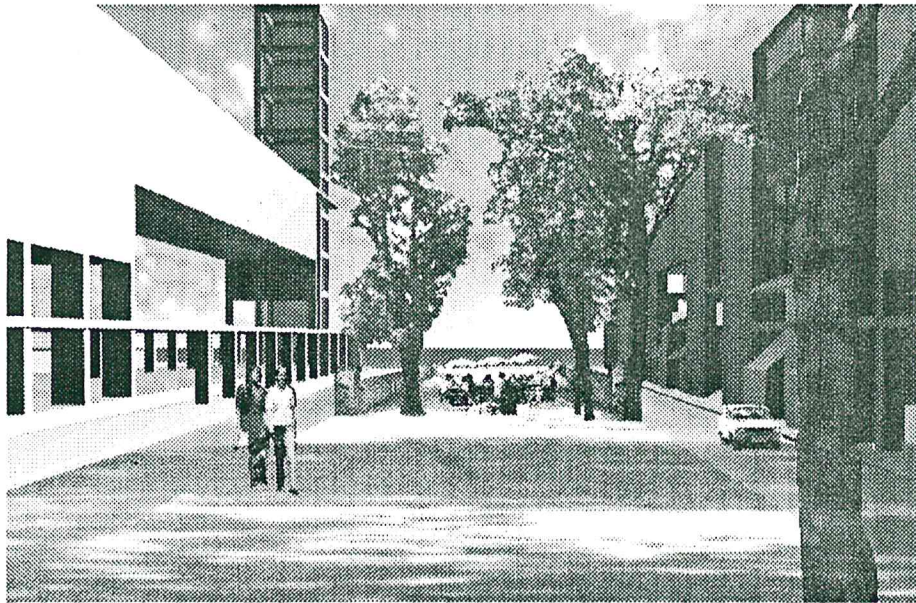




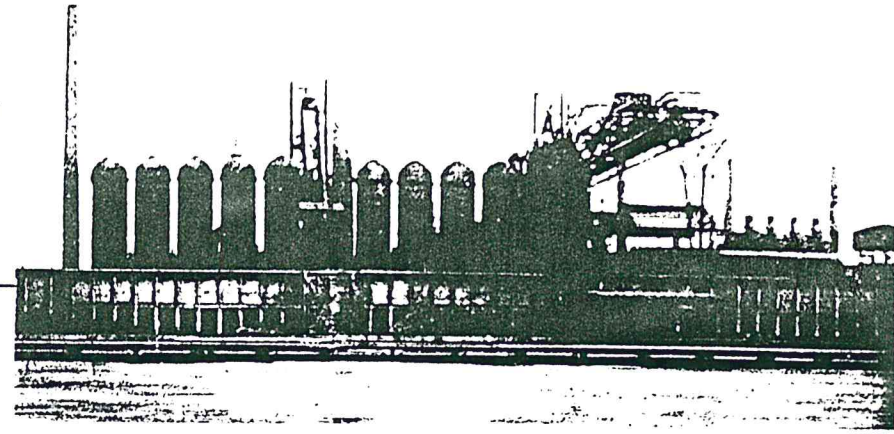
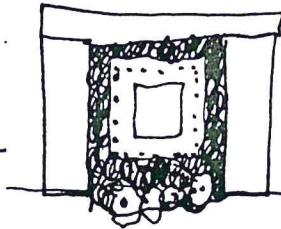
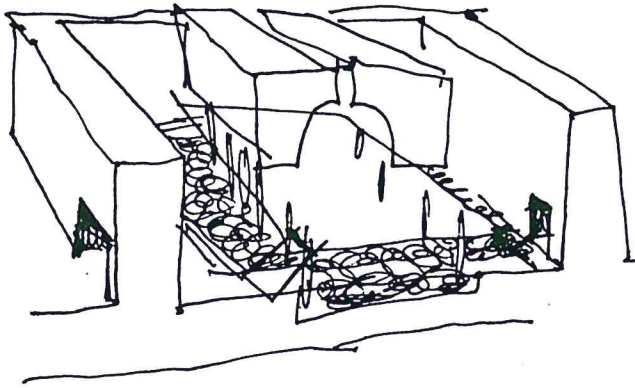


**SITE 6**

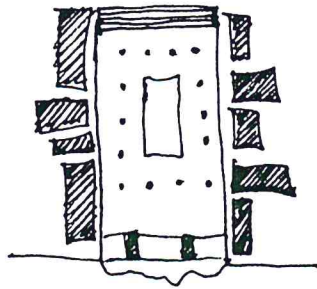
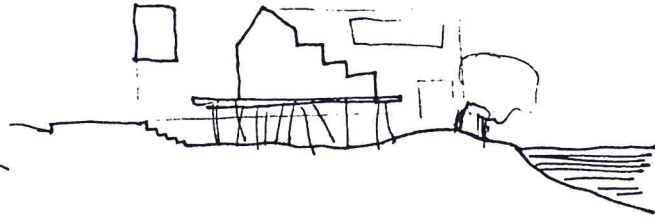
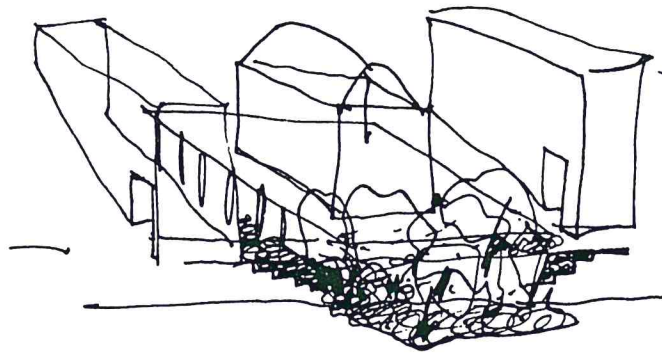
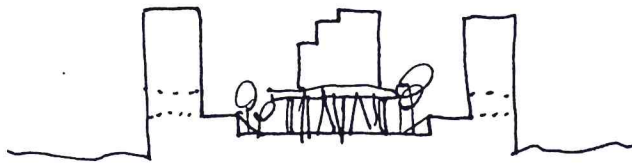




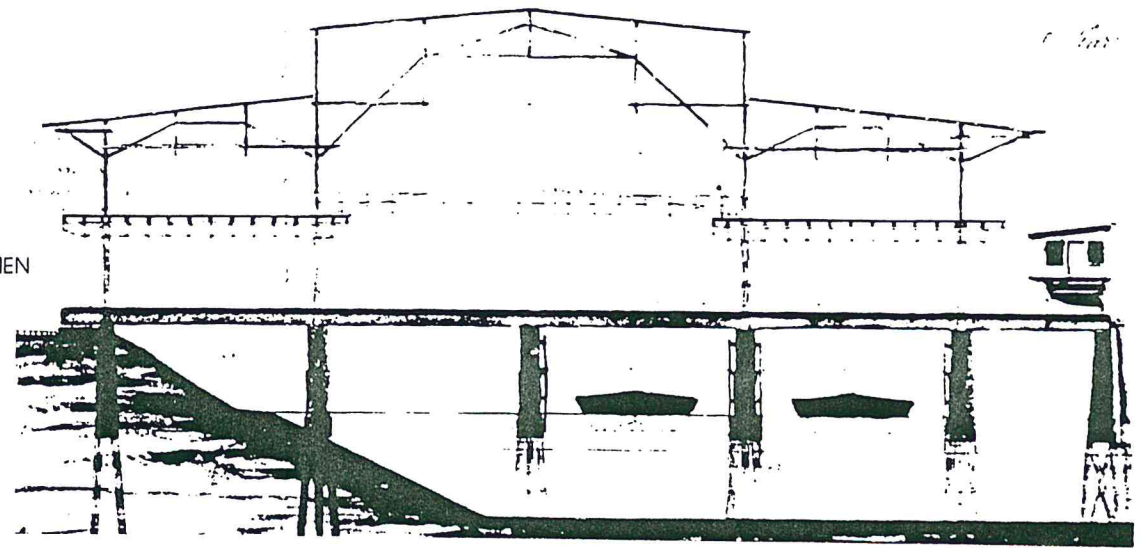




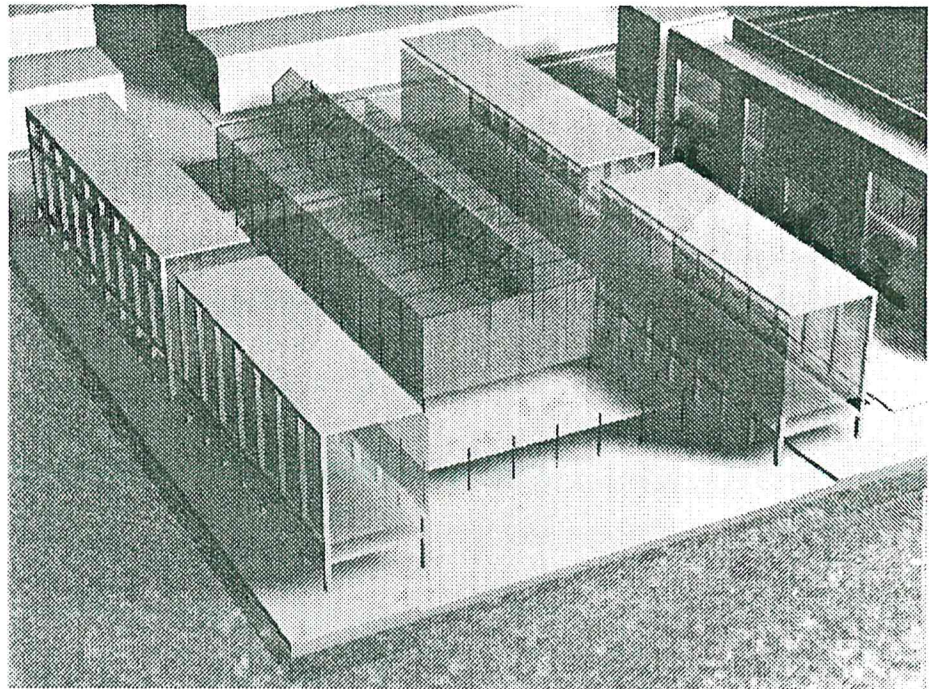
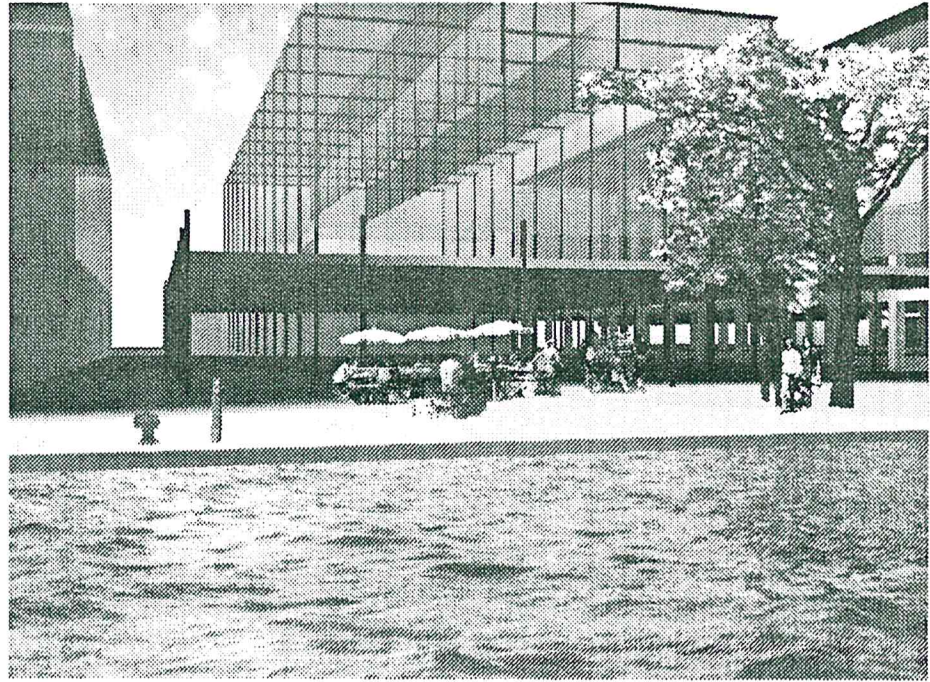
PORT TALBOT DOCKS



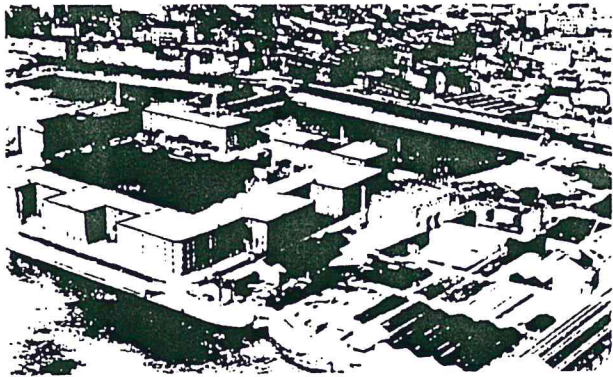
BREMEN



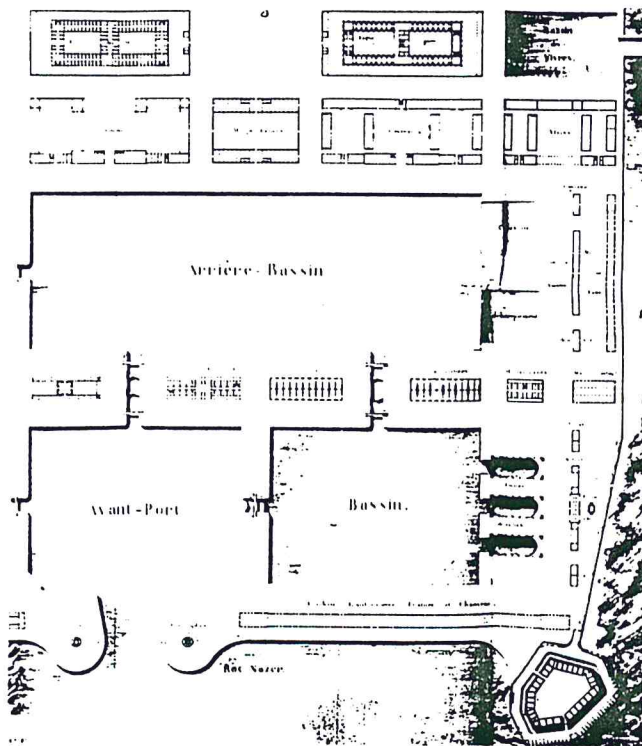




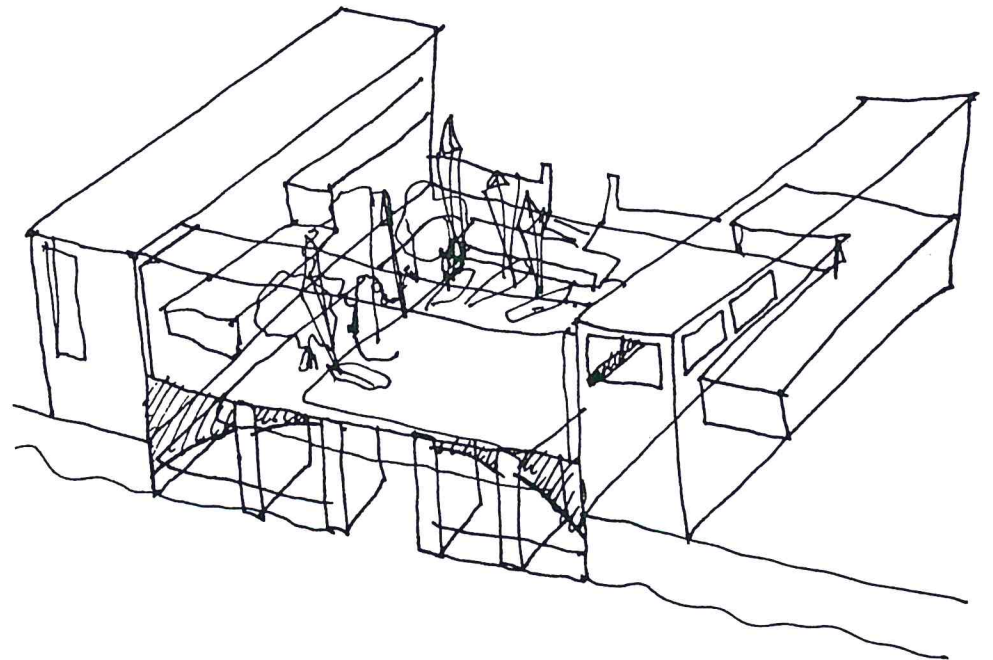
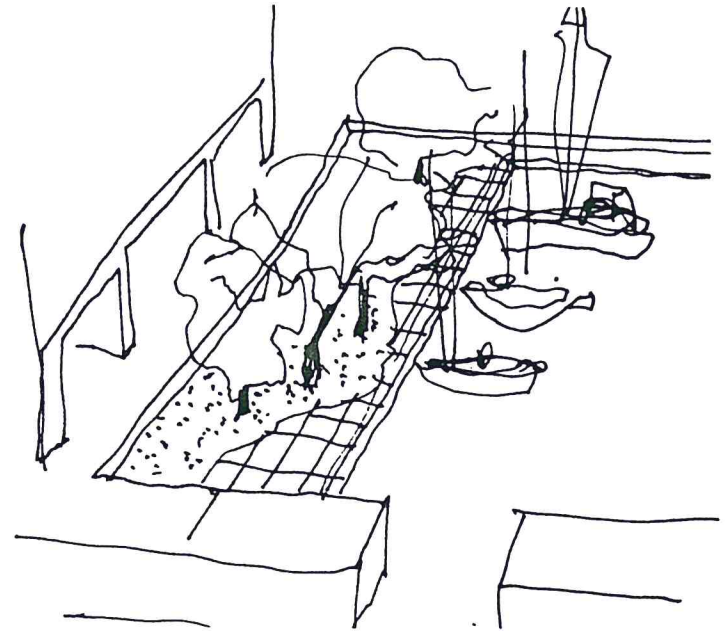
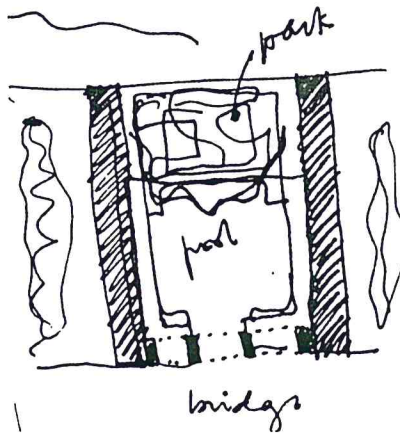




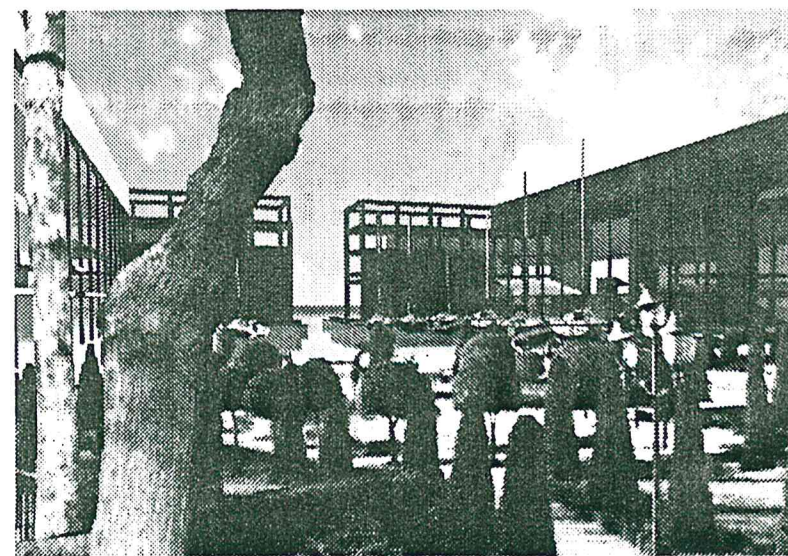
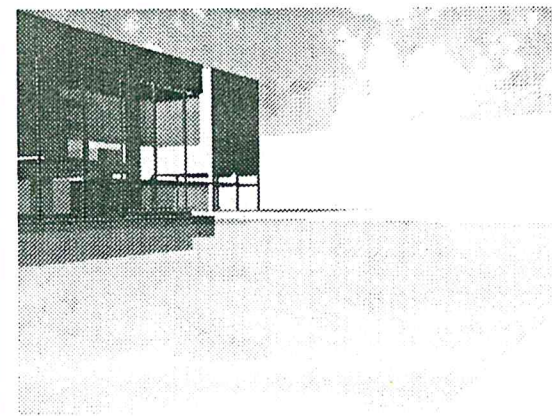
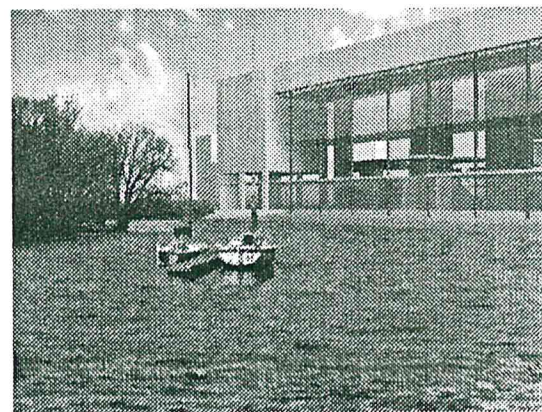
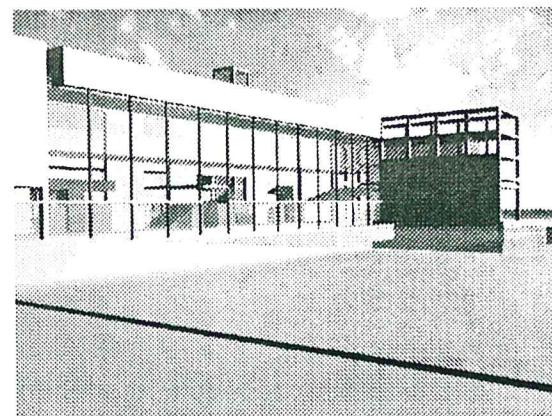
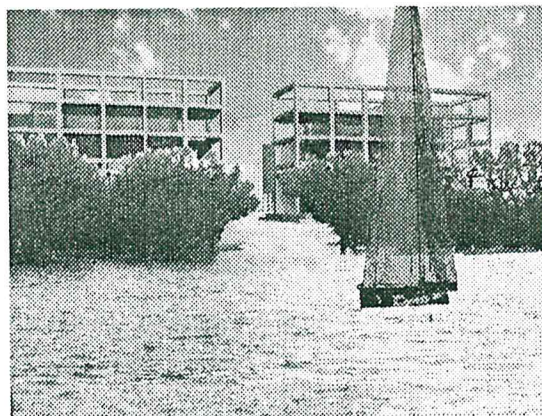
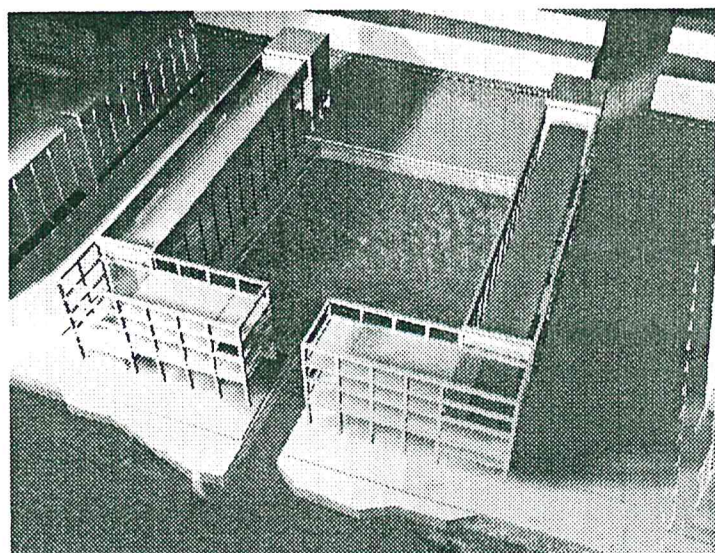
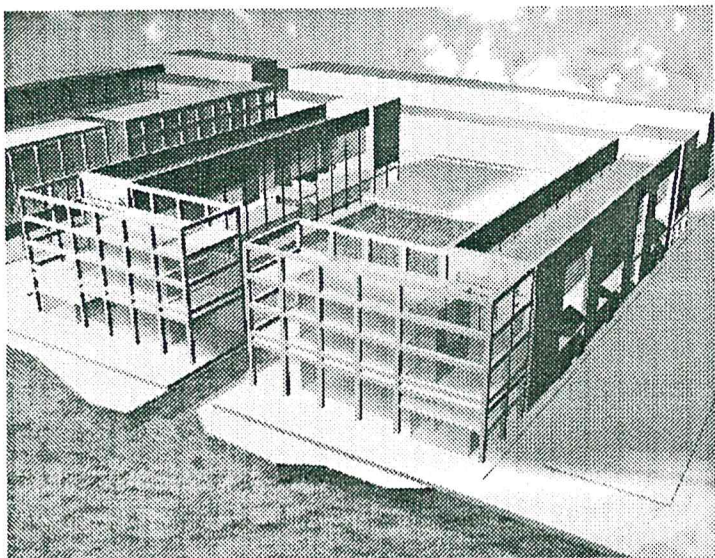
COBURGH DOCKYARD



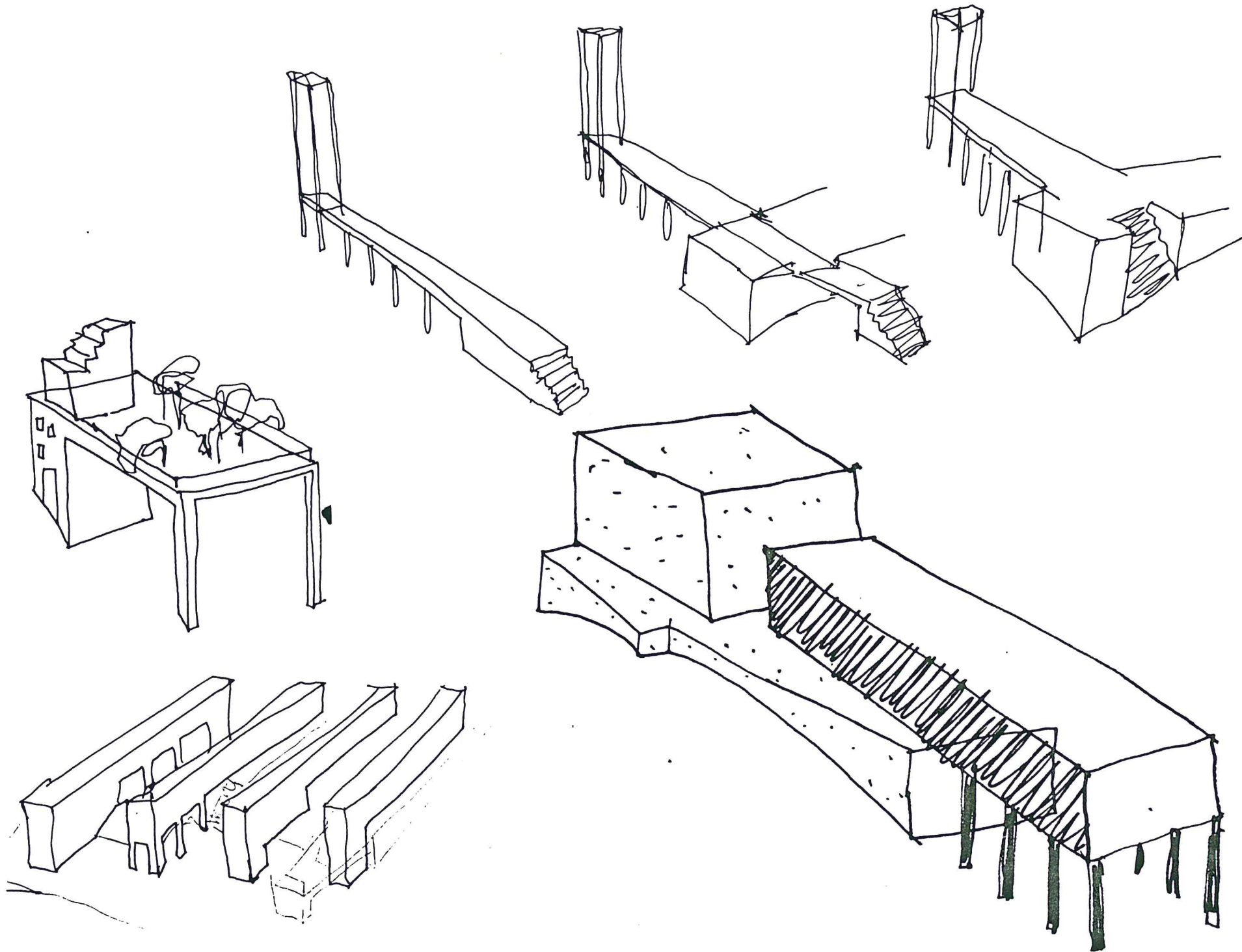
COBURGH DOCKYARD



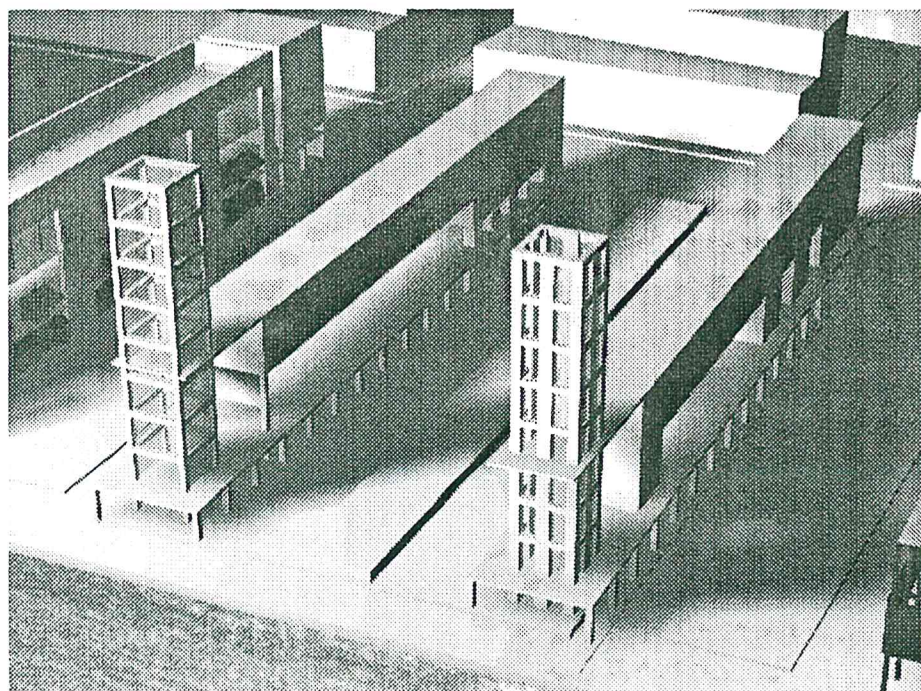
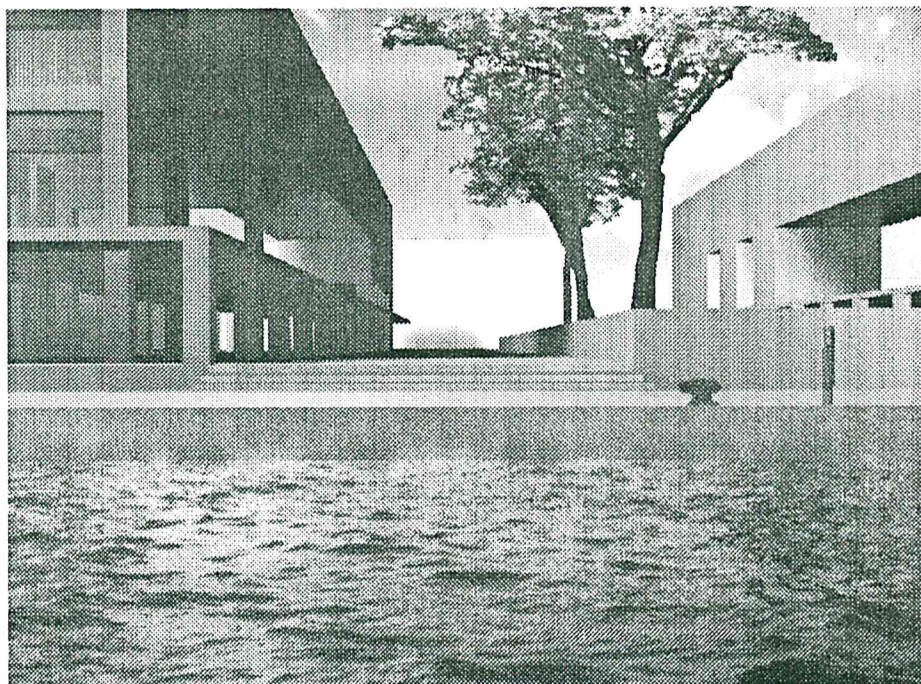




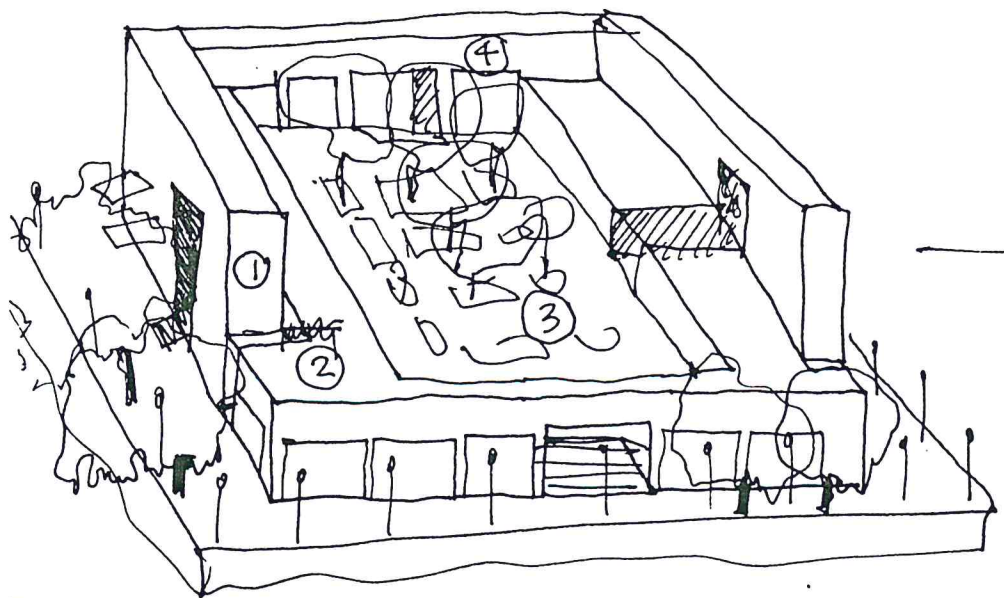
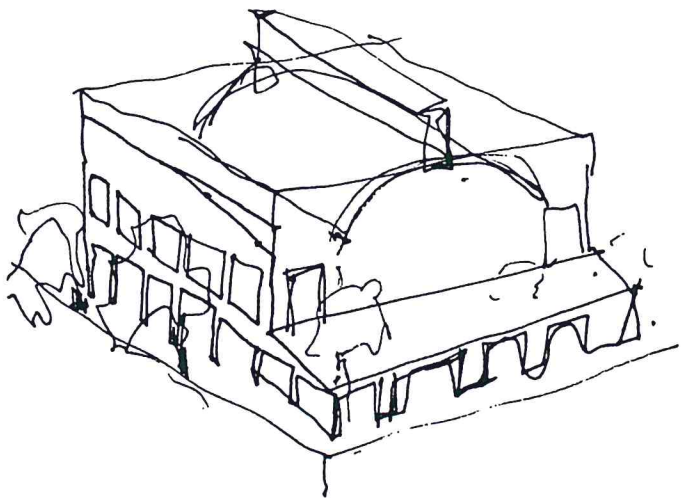
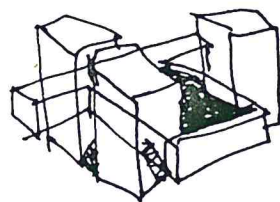
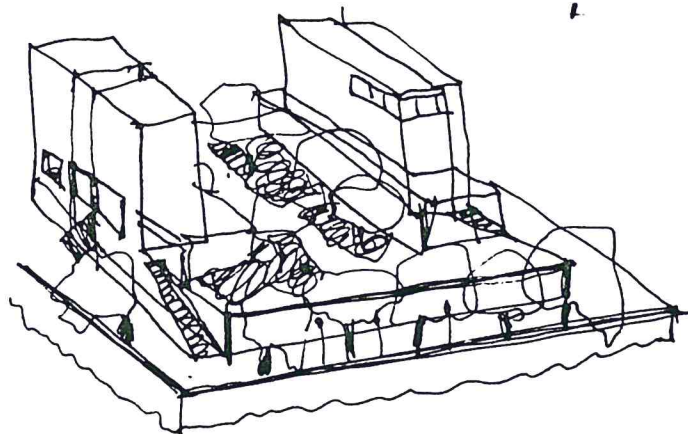
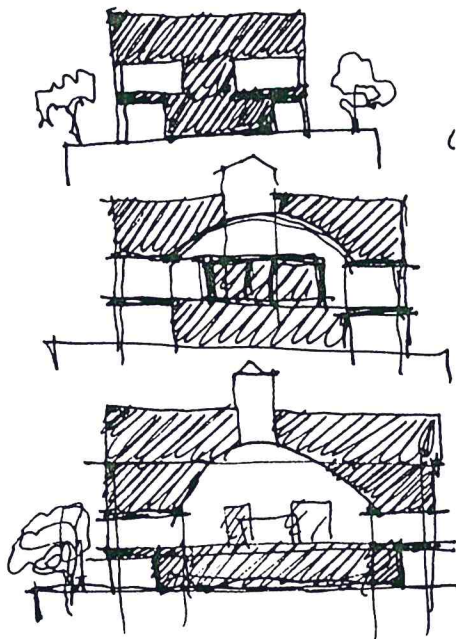
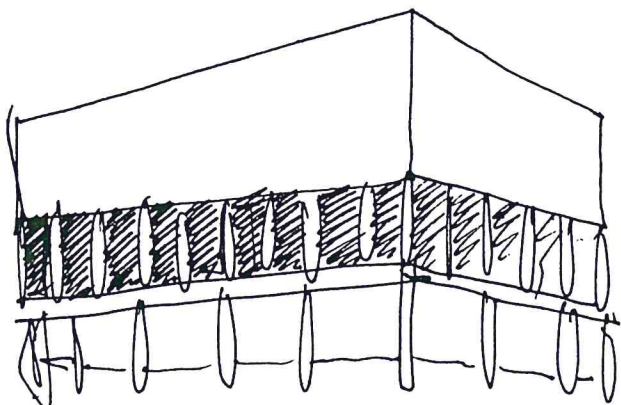




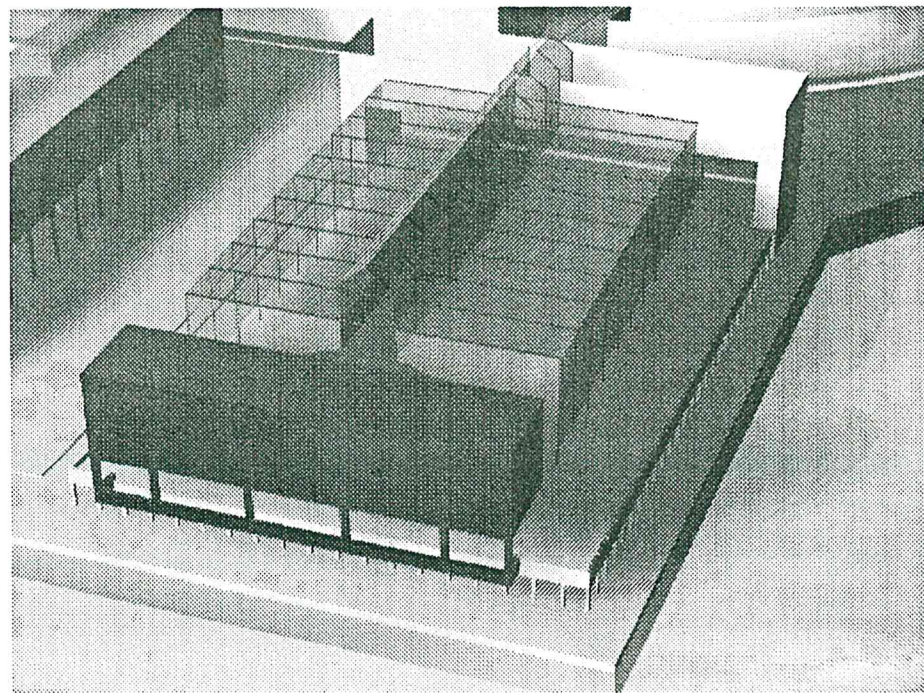
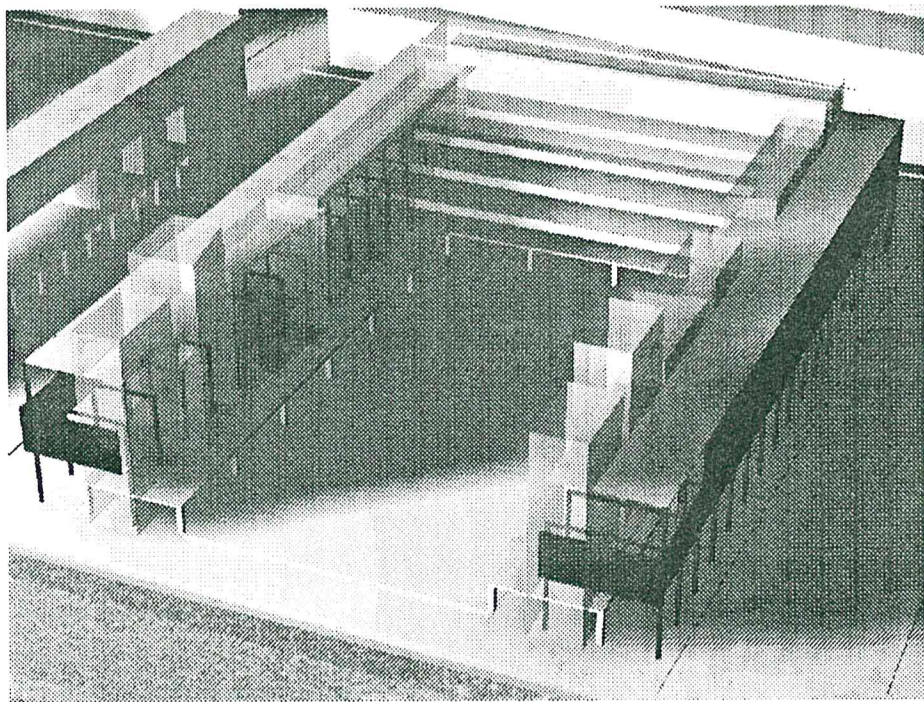














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