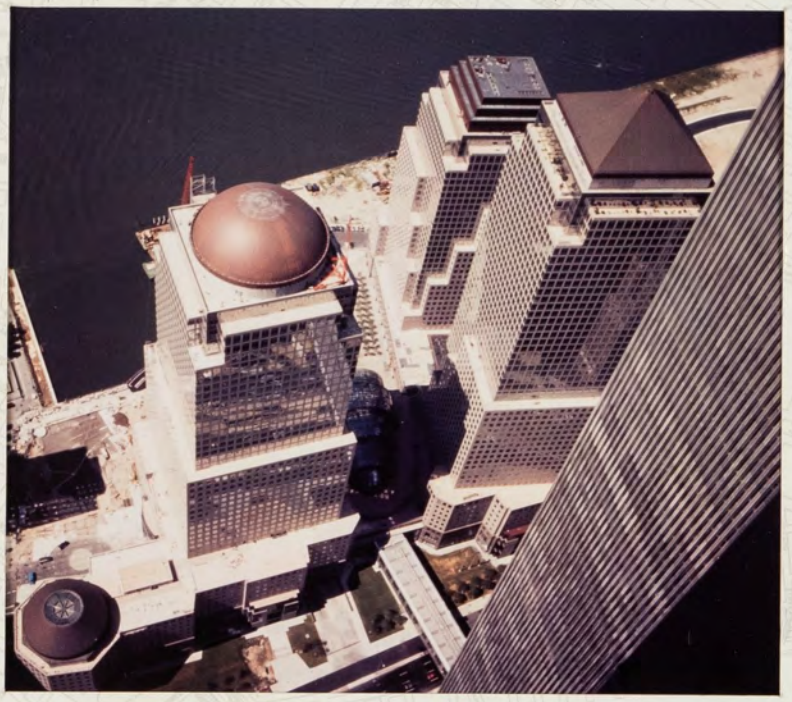
URBAN WATERFRONT RENEWAL

AN APPRAISAL OF URBAN WATERFRONT DEVELOPMENT PROCESSES IN NORTH AMERICA, ENGLAND & AUSTRALIA



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BYERA HADLEY TRAVELLING SCHOLARSHIP

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Cover Photo: Battery Park City World Financial Centre from the World Trade Centre.

CONTENTS

This study, covering three western countries, presents a critical appraisal of what is undoubtedly the greatest focus of late twentieth century urban development - the reformation of the urban waterfront. The study was sponsored by the Byera Hadley Travelling Scholarship 1987 administered by the Board of Architects of New South Wales.

The water's edge of every major western city has been the source of intense conflict at every stage of urban development. This conflict is perhaps inherent in the nature of the terrain, and the confrontation between land uses and water uses is possibly no more evident than occurs in the natural environment. Traditionally port uses dominated waterfront use extending over 200 years into industrial, railway and freeway activities until in the 1960's virtually every waterfront collapsed simultaneously into disuse, with containerization devastating traditional patterns of use.

A number of reasons can be established for the resurgence of interest in the potential of defunct docklands for revitalisation. Flagging urban and state economies needing refuelling, changes in social and lifestyle patterns, the coincidental occurrence of Bicentenary celebrations, burgeoning environmental lobbies, Government and developer avarice have generally contributed to the sudden and concurrent re-evaluation of urban waterfronts, as well as to unprecedented conflicts between the private and public realms.

This study investigates and compares the historic and current patterns of waterfront redevelopment in several major cities, sometimes examining the city in entirety, sometimes concentrating on specific developments of particular interest. The major purpose of the study is to review in the world context the development and design processes that generate the morphology of the urban waterfront of the twenty-first century, to appraise developments by comparison, and to ascertain what processes are most successful based on criteria determined throughout the study.

The instigation for this study is a sincere concern for how waterfronts and cities will exist as a result of the staggering transformation of the urban edge within a mere twenty year time span. The study involved an extensive 'on site' investigation of five North American, two English and four Australian cities, discussions with key government and private protagonists, and compilation of reports, articles and critiques over a two year period. As well, the author's direct experience in the development and design processes of several Australian developments including Darling Harbour Sydney; Bayside, Port of Melbourne; Expo 88 Brisbane; Sullivan's Cove Hobart; Newcastle Foreshore; Walsh Bay, Woolloomooloo Bay and Circular Quay Sydney, have provided a significant information base for assessing past, present and future development patterns.

The concern arises not only from the rapidity of development, but from the frequently shameful and inadequate processes that have produced myopic and haphazard intrusions into urban waterfronts. Australians and Englishmen are however an accepting lot, as evidenced by our nonchalance toward developments in Darling Harbour, along the western city edge and behind Circular Quay, and the English indifference to the deplorable London Docklands. Whether more advanced in thinking or awareness, Americans are less tolerant, and the processes and practices there are being undertaken with social, environmental and moral conscience that gives hope for cities of the future. This study attempts to bring some of that awareness to our shores.

1.1 THE PATTERN OF URBAN WATERFRONT USE IN NORTH AMERICA

The early settlement of North America was directly tied to the location and accessibility of navigable waters. Water provided not only accessibility and transportation routes in America, but a linkage back to Europe. By the beginning of the eighteenth century, five seaports had been established along the Atlantic coast - Boston, Charleston in South Carolina, Newport on Rhode Island, New York and Philadelphia on the Delaware River. Each had a sheltered harbour on which all business and social activity was focussed.

Each waterfront city, however, developed distinctive characteristics related to geographic position, climate or natural resources. Boston had a relatively infertile hinterland so it developed its shipbuilding and fishing port industries. Newport, in the 17th century, developed an agricultural export base. Charleston and New York had comparable advantages of fertile surroundings but New York had the added benefit of the Hudson River giving access to the country's interior. Although the last established Philadelphia in the eighteenth century prospered more than other than other cities primarily because it was able to connect its waterfront to the inland farmland with roads.

After 1750, other cities emerged also on waterfront positions to challenge the five main ports. These included Augusta on the Savannah River in Georgia, Norfolk in Virginia, Annapolis on Chesapeake Bay in Maryland, Salem and Portsmouth in Massachusetts, Providence on Rhode Island and Baltimore. Their prosperity depended on their location or quality of port to challenge the established waterfront cities.

The establishment of cities on the Pacific and Gulf sides of the country followed a similar pattern, with the earliest developments of San Francisco, San Diego and New Orleans demonstrating the fundamental relationship between good waterway and urban expansion. Growth was generally slower due to their greater distance from Europe and the commitment to the eastern cities.

The subsequent urban development of North America depended entirely on coastal or inland water access. Inland examples included Pittsburgh at the head o the Ohio River which linked it to New Orleans via the Mississippi, Cincinnati and St Louis and Toronto on Lake Ontario. The introduction of steam-powered boats and the carving of canals such as the Erie Canal assisted their expansion.

The development of rail transportation had both negative and positive impacts on the role of waterfronts in urban developments. In some cases, it strengthened port activity by providing rail connections, in others it opened up previously unreachable lands, and in others it handicapped cities which had insufficient space along the waterfronts for rail. As a means of transportation, even in established port cities like Baltimore, rail was preferred as it was not subject to seasons, was quicker and allowed access virtually anywhere. However, only Chicago avoided the inevitable separation of the waterfront from the city by rail lines.

An understanding of the changes in history of America's cities is essential as they affect even now decisions on waterfront redevelopment. The pattern of change was similar in every waterfront city and is diagrammatically illustrated in the Urban Land Institute's 'Urban Waterfront Development'.(1) The sequence of events is summarised below:

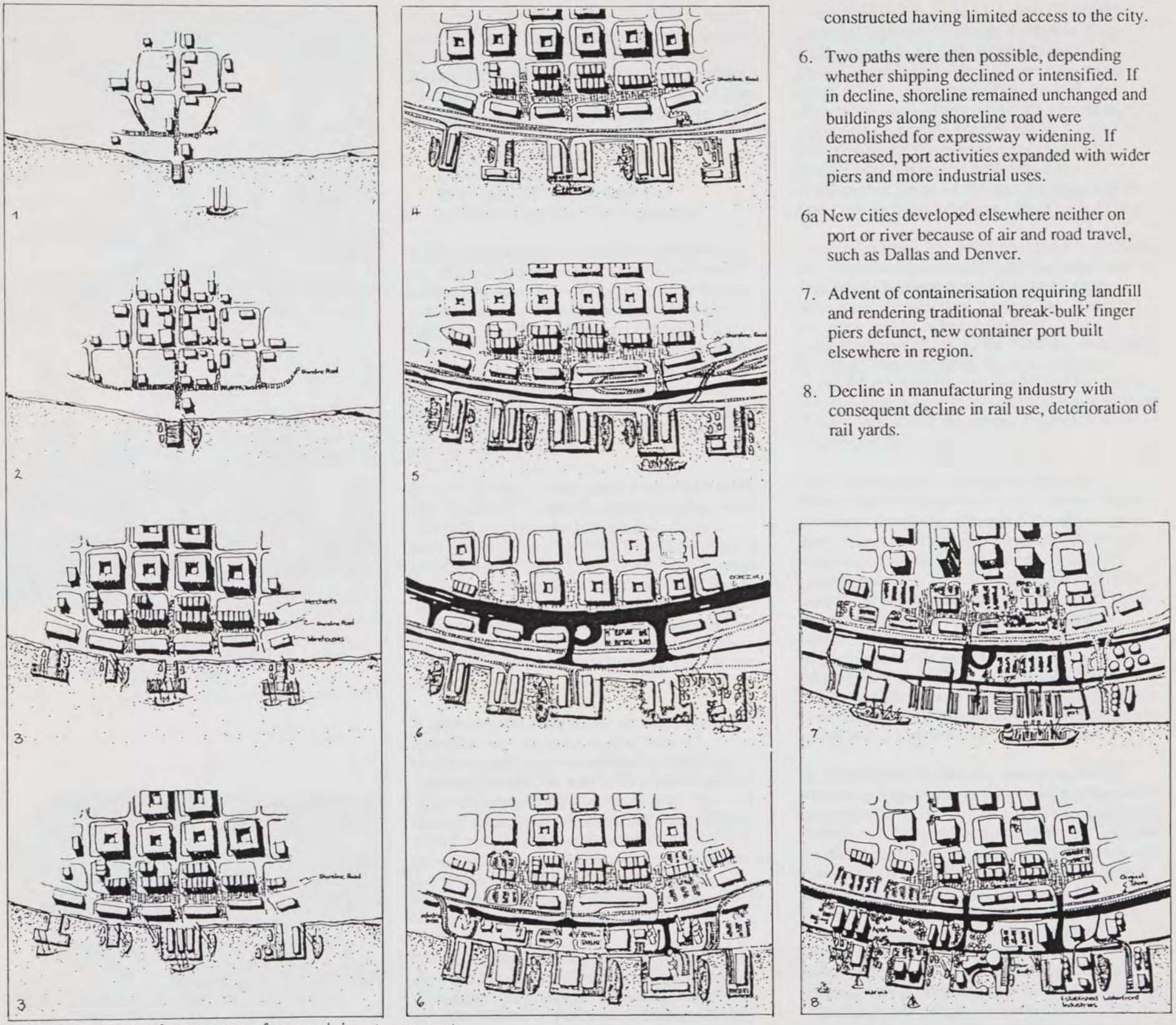
1. Port established in safe harbour, small jetty and primitive streets constructed, boats moored offshore, direct access to waterfront maintained.

2. Rapid expansion, larger pier constructed, street grid developed, shoreline stabilised by seawalls, establishment of shoreline road as centre of commerce.

3. Commerce escalated by steamship, piers and warehouses blocked public waterfront access; landfill distanced shoreline from city centre. Port authority established to manage waterfront activities.

4. Massive landfill to provide space for railways; complete severing of waterfront from the city.

5. Shoreline road rendered useless; waterfront became congested; elevated highway



Patterns of waterfront usage from origins to present.

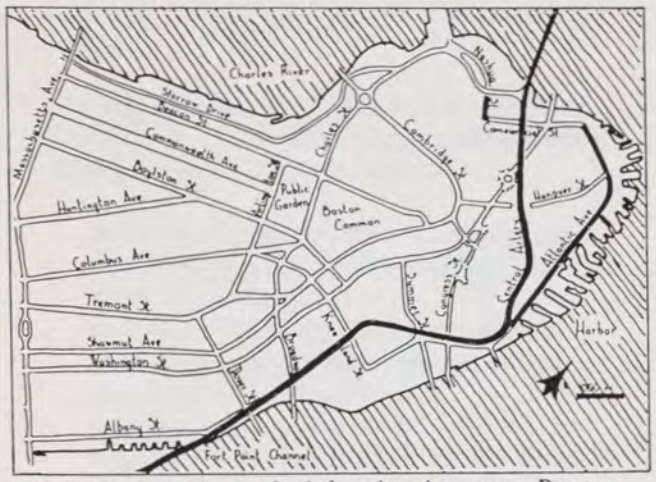
constructed having limited access to the city.

6. Two paths were then possible, depending whether shipping declined or intensified. If in decline, shoreline remained unchanged and buildings along shoreline road were demolished for expressway widening. If increased, port activities expanded with wider piers and more industrial uses.

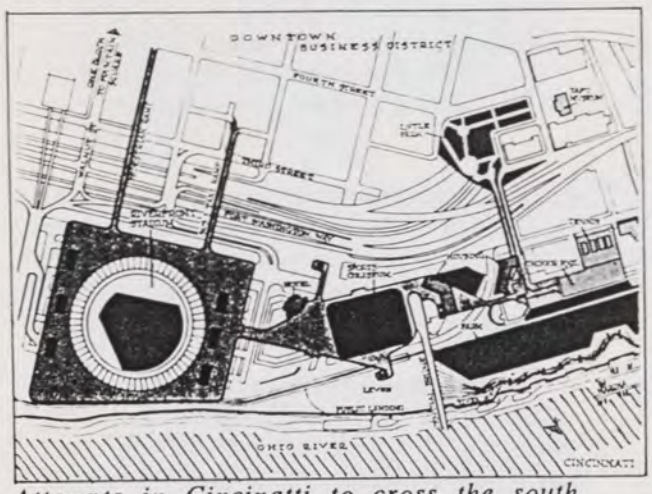
6a New cities developed elsewhere neither on port or river because of air and road travel, such as Dallas and Denver.

7. Advent of containerisation requiring landfill and rendering traditional 'break-bulk' finger piers defunct, new container port built elsewhere in region.

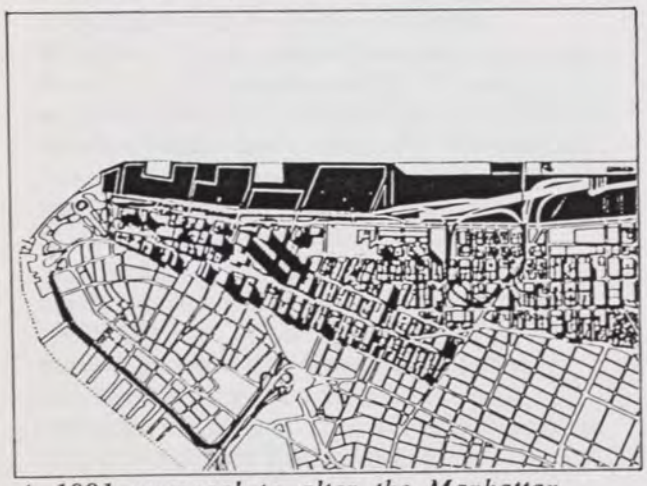
8. Decline in manufacturing industry with consequent decline in rail use, deterioration of rail yards.



Central Artery and Atlantic Avenue, Boston sever access to the waterfront.



Attempts in Cincinatti to cross the south of highways by footbridges.



A 1981 proposal to alter the Manhattan Hudson River Profile but still showing highway imprisoning Manhattan inland.

With almost all the waterfront land in disrepair or vacated, governments and private develpers in the 1960s saw opportunities to obtain and develop relatively inexpensive urban waterfront for commercial, residential and recreational uses. The approach of a city at this stage depended on:

- the city's age and size
- its location and climate
- the diversity of water-related uses
- the forms of government intervention

This evolution of the waterfronts demonstrates the physical and environmental conflicts which affected the shoreline and suggests the political conflicts that occurred (as evidenced by the Riverside Park discussion later). Many cities resolved their conflicts in the simplest possible way, by landfill, and this not only altered the waterfront but clouded the definition of urban waterfront. Baltimore, Boston, Charleston and Toronto are extraordinary examples of redefining the city edge by landfill.

Similar alterations were made on the west coast. San Francisco's financial and commercial centre was built on filled mud flats stabilised by a seawall constructed by 1880. In Vancouver, the entire Granville Island was formed from material dredged to increase the channel width and depth. The effects of such massive landfill operations were irreversible. Yet in the nineteenth century the capacity of a city to modify its waterfront boundaries was considered to be the key to future economic viability.

A common and major result of the pattern of waterfront development was the loss of environmental quality, whether by shipping, industrial or railroad waste. This particularly affected the non-tidal inland river port cities and became a significant deterrent for reuse of the waterfronts for residential or recreational use until America enacted clean water programmes in the 1960s and 1970s most cities are still endeavouring to retain habitable water quality for marine life let alone for people.

The remnants of much of this history still remain as obstacles to redevelopment of the waterfront. Vast tracts of disused railway land are still evident in Vancouver, Toronto, New York and San Francisco. The presence of elevated expressways is evidenced by Washington's Whitehurst Freeway, Toronto's Gardiner Expressway, Seattle's Alaskan Way Viaduct and New York's Riverside and East Drives. Associated with these are even vaster tracts of open vehicular parking land which became the most viable use of the waterfronts when other uses failed in the 1950s. Commonly, the waterfronts were cleared for urban airports such as the National in Washington, Logan in Boston, International in San Francisco and Lindbergh Field in San Diego.

These uses typify the American urban waterfront, are visibly evident in every city, and represent formidable barriers to virtually every urban waterfront revitalisation programme. Even in the latest 'model' urban waterfront redevelopment, Battery Park City, the proposed elevated 'Westway' drive which would have severed the development from Manhattan, was not abandoned until 1985 and today the multilane West Street all but dissociates Battery Park City from New York City.

The historic pattern of urban waterfront redevelopment demonstrates that commercial and industrial decisions, influenced by technological and economic change, have consistently dictated the usage sequence of shorelines. While the waterfronts were obviously the hub of activity and of recreational interest, the concept of using waterfronts for public recreation as a use in itself, is a relatively recent develpment. Exceptions to this were Chicago, St Louis and Washington DC, which early in the century developed plans for urban foreshore parkland, but even these were partly formulated to stabilise the shore and to improve drainage conditions.

It has been argued that the current pattern of returning waterfronts to the people is a logical extension in the history of waterfront change, (2) however, history really shows that such a use is in direct conflict with commercial and economic demands. It also shows that if cities, in their zeal to revitalise their waterfronts for both government and private profit, are to reconcile public enjoyment of the waterfront with commercial and market demands, political intervention is essential. Assuming the new popular and government objective is to return the water's edge to people, thus reversing at least in America the traditional concept of open space recreation as an internal activity, it would be

fallacious to believe private developers share that objective.

The logical extension of history for waterfront developments is to follow commercial demands. This could generally mean either:

- an influx of high rise office development capitalising on large redevelopment land close to the city centres, or
- an influx of hotel development capitalising on the vistas at the waterfront as well as proximity to urban centres, or
- an influx of dense residential development capitalising on the return of the new affluent urban middle class from the suburbs to share in city life, and on the emergence of a thriving young professional class, or
- an influx of tourist-orientated specialty shopping development with little contribution or relationship to the city other than for economic gain.

Many developments are combinations of these and are heralded as vital so-called 'mixed developments', mini-cities within cities, but the one land use that does not generally benefit the private developer is recreational open space.

Government intervention does not in itself guarantee a return of waterfront land to public use. Whether city, state or federal, governments have also seized the opportunity to profit from redevelopment primarily through the vehicle of the 'public authority' (or 'development corporation' as it is called in the United Kingdom). These authorities intervene between the role of government as private developer and as public benefactor and thus blur the distinction between 'public' and 'private'. (3) Furthermore, these authorities have not necessarily set about regaining public access to the water, but because of their wider role as public benefactor, have often compromised this objective by trade-off to developers in order to procure money for other public projects. While on the surface this is a positive action it also decreases the public benefit of the very land the authority was appointed to manage. This will be demonstrated later in the case of Battery Park City.

On the other hand, without government intervention, through planning, financial initiative and control, it would seem apparent that there can be little hope for urban waterfronts to avoid overdevelopment by the private sector. The following section examines a history of political involvement in American waterfront development in this century, with particular emphasis on Manhattan.

1.2 THE ROLE OF GOVERNMENT IN AMERICAN WATERFRONT REDEVELOPMENT

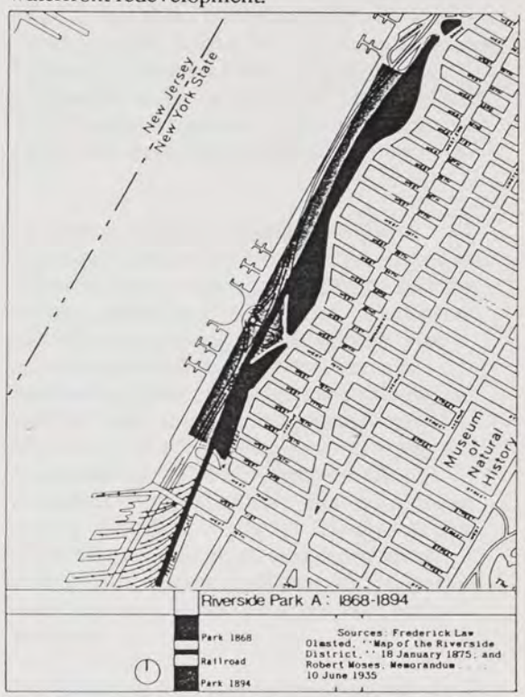
As the commercial viability of nearly every American city historically has depended upon its waterfront, government inevitably played a primary role in waterfront development. In this century, much of this involvement has involved conflict - conflict between government sectors whose principal concern was the survival and economic viability of the port and of the city itself, and sectors whose role was the maintenance or retention of the quality of health and safety of the waterfront for the city. Frequently benefit for the city has meant compromise for the waterfront. Conflict has also occurred between both government sectors and private and public groups as to the best form for the waterfront to follow. In the last twenty years this conflict has given rise to the 'public authority', mentioned in the last section, devised to reconcile these conflicts.

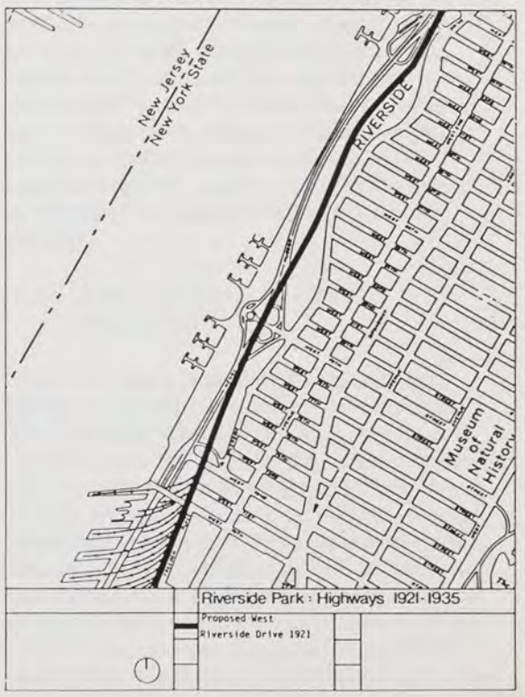
An insight into why this new vehicle of government became necessary can be gained through examination of some historical events.

While much of the development of harbours and riversides has been controlled by maritime authorities, there has generally been an authority or department responsible for maintaining waterfront quality. For instance, the Rivers and Harbours Act in 1879 authorised the US Army Corps of Engineers to regulate all activities affecting navigable waters. Interestingly, the Corps of Engineers still regulates the waterways at a federal level, but since 1899, other federal agencies including the US Coast Guard, Maritime Administration, US Fish and Wildlife Service, and Environmental Protection Agency have each gained part of that jurisdictional authority.

On the whole, however,until the 1960s decisions affecting waterfront use and therefore amenity, were guided by utilitarian needs rather than by environmental concerns. Extending from the late 19th century until today, the debate over

Riverside Park in mid-west Manhattan serves to exemplify the conflicts between government, public groups and commercial interests in waterfront redevelopment.





Manhattan and Riverside Park

In 'Manhattan Waterbound', Ann Buttenweiser gives a lucid description of the changes to New York's urban waterfront and, in particular, to Riverside Park. She describes the development of New York's shoreline as a series of successive events in 'walling' the city off from the East and Hudson Rivers. Although various forms of government intervention had occurred in history, such as the appointment of a New York Harbour Commission in 1855 to investigate the condition of New York's waterways, and to prevent harbour landfilling, she demonstrates that the process of 'walking' the city continued unabated right through until the 1960s at, for instance, Battery Park City.

Riverside Park was a primary test of the strength of 'reinforcers' of and 'attackers' of the 'wall'. In 1868, various public groups assembled with the objective of creating a riverside park along Manhattan's Hudson River. They had not envisaged that the park would extend right to the waterfront as that land was heavily in use by the Hudson River Railroad. But real estate opportunists also saw value in the park drawing a wealthy residential neighbourhood to mid-Manhattan. Simultaneously, the park domain was being continuously eroded by dumping of excavation debris behind the railway lines, and was being further distanced from the water by landfill for expansion of the portside. By 1910, real estate groups and residents, angered by this deterioration, gathered momentum for a park extension to part of the river. In order to reconcile the conflict, the Parks Department drew up plans for the park extension but the plans really disguised pier and road extensions within them. The conflict intensified in 1916 with a statement by trade unions declaring New York as "... primarily a port to which aesthetic conditions (at Riverside Park) must give way."

Establishment of the Port of New York Authority in 1921, and appointment of a Charles Craig, husband of a member of The Women's League for the Protection of Riverside Park, as City Comptroller, gave new spirit to the park lobbyists. But again they were thwarted. Manhattan's traffic congestion, coupled with the rise of a new American pastime of leisure driving, spawned ideas of creating a Riverside Drive through the park. The drive was not necessarily rejected by park supporters, who saw it as a chance to cover the ugly railway tracks on the foreshore. Others, however, wanted it inland to preserve a possible waterfront promenade. The initial design by McKim, Mead and White in 1929 was altered in 1934 by the new Parks Commissioner, Robert Moses, whose name later became synomomous with the principle of ringroading cities by highways. The drive was moved to the waterfront, taking up railway land, but further restricting pedestrians' access to the water.

The concept of a riverside drive was soon expanded by that of an arterial highway, and was followed in other cities like Chicago, Toronto, Boston, Seattle and Los Angeles. Some even saw this as improving waterfront pedestrian access underneath the highway, others as facilitating views of the water and shipping on the river from above. Such was the level of support that in the ensuing decades, nearly all Manhattan was girded by Freeways such as Franklin D Roosevelt Drive, East River Drive and the West Side Highway. It is notable that not until 1985 were plans abandoned for an underground extension of Riverside Drive (West Side Highway), south to Battery Park, called Westway.

The Riverside Park debate highlights the conflicts between the number of users and potential users all wanting their piece of the urban water's edge, and the attempts by government to resolve them. But as was seen later, government, whether federal, state or city, could not ignore the scars that their earlier decisions had left, and in the sixties the role of government as 'beautifier' of the waterfront escalated.

1.3 THE SIXTIES TO THE PRESENT

The 1960s was a decade of almost complete change of attitude to waterfront development. The demise of West Side Highway had been forecast since 1931, but by the sixties it became obvious as cars stacked up along the waterfront. In most cities containerisation was threatening traditional maritime activity on a massive scale, the reaction being either to landfill between the outmoded piers to make greater storage expanse, or to seek nearby land for that purpose as in the case of Oakland from San Francisco and New Jersey from Manhattan. Governments had little

choice but to investigate new directions with the move of shipping trade elsewhere threatening the livelihood of whole cities.

The problem was further exacerbated by the loss of passenger liner patronage of the waterfronts in the sixties, caused by jet air travel taking passengers to other ports to begin their cruises. Yet legally in the 1960s, waterfronts were still 'reserved to aid navigation and commerce' (4) and repeated valiant but doomed efforts were being made to revive traditional port uses.

Some government departments anticipated the hopelessness of these efforts. In 1952, The Department of Marine and Aviation in New York published schemes for transforming the vacant land between Battery Park and Chambers Street (new Battery Park City) into a mixed development of yacht basin, hotel, offices and apartments, and for transforming the waterfront between West 38th and 43rd Streets (now close to I. M. Pei's Convention Centre) into convention facilities.

Similar grand schemes were also developed by government agencies for other waterfronts and cities, but in 1966 the National Historic Preservation Act prompted concern for maritime heritage and waterfront preservation. A year earlier, the White House Conference on Natural Beauty had urged that waterfronts be planned 'for their protection and development to enhance human life and the quality of man's environment.' (5)

The best way to respect heritage and environmental issues, while still redeveloping the ports, was to rehabilitate the old piers for tourism and shopping focussed on historic themes. The earliest attempts at this were Fisherman's Wharf and Ghiradelli Square in San Francisco, and Faneuil Hall and Quincy Markets in Boston, and the most recent, South Street Seaport on Manhattan. But there, the project was not economically feasible without the selling off of unused development rights from the historic buildings to builders in the surrounding area. Seattle and Savannah converted old warehouses and piers into restaurants, shops and galleries in the early sixties.

Where heritage issues were not relevant, the concept was extended to create the urban waterfront version of the suburban shopping mall. Where the waterfront was landfill that had not been utilised as planned for port development, some cities devised the idea of an amusement park, such as Toronto's Ontario Place, modelled on Montreal's Expo 67.

In the earliest years, it had not been government policy to turn waterfronts over to the people. California began that move with official statements which recognised the opportunity for recreation and assembly and invented the term 'public access'. It was not until 1972 that it was made national policy in the Coastal Zone Management Act.

In 1979, New York's Mayor Koch officially declared that City policy would be to re-open the waterfront to public access in a statement marking the 40th anniversary of the New York City Planning Commission:

"if there is one thing I want my administration to be identified with, it is that we brought the harbour back to the city of New York, that we built upon our greatest treasure, that we opened the waters to the people of our city." (6)

But the seventies and eighties have shown how difficult this is to do. The City government is one of numerous authorities which now have some jurisdiction over waterfront development, and it has proven impractical to develop any comprehensive plan for the complete waterfront of any city. The situation is most apparent in cities like New York and Boston which have a proliferation of decaying piers and defunct sites awaiting redevelopment, and not so apparent in San Francisco which is planning one single massive redevelopment on Mission Bay. For Baltimore's Inner Harbour redevelopment, some thirty agencies had authority; in New York, at least fifty federal, state, regional, borough, city and community bodies have certain powers over the shoreline.

The intervention of government in waterfront revitalisation is therefore difficult. For large scale redevelopments, the State and City have set up public authorities, such as the Battery Park City Authority, to initiate and plan sites for private companies to develop. In these situations, the public authority becomes the 'parent' developer receiving profits from leases and development rights, and channeling those

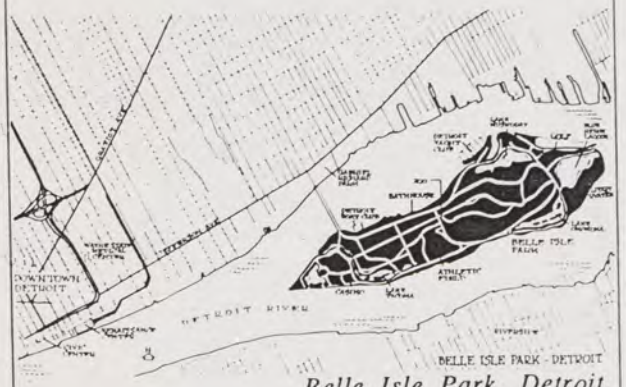
New York, South Street Seaport. Fulton Market Building, 1883.

profits into waterfront open space, streets and other public infrastructure. However, this process inevitably produces conflicts because the authority often sees new ways to improve profit at the expense of their initial grand public gestures. In the case of Battery Park City, these gestures had been to incorporate affordable housing and to create a certain proportion of land as open space. With the completion of the World Financial Centre, the authority decided to allow development of another office tower instead of 1100 apartments rented at prevailing market rates (7), in order to fulfil its financial commitments. There has also been some thought given to increasing landfill to extend the site, but this will probably be abandoned as the current most sensitive issue is the effect of development on marine life in the river. There are nevertheless in Manhattan plans to add 60 hectares of landfill for new commercial and residential development, instead of preserving the few remaining natural coves for recreational activity or reutilising surviving piers for people-orientated activity.

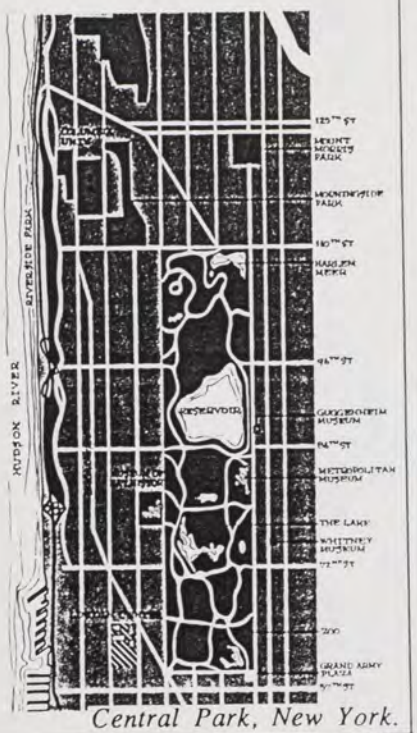
Government can therefore be seen to have been at once the waterfront's worst enemy and its best hope for revival. Whether it sees its future role as profiteer or as responsible for public accessibility really is not yet apparent.

South Street Seaport.

Delaware Park, Buffalo.



Belle Isle Park, Detroit.



Central Park, New York.

1.4 THE NEED FOR PUBLIC ACCESSIBILITY

Since historically the general public have never been given open use of their urban waterfront, it being devoted to maritime, industrial or transport uses since settlement, it should be questioned whether public access to the waterfront is warranted at all.

No doubt, the historic lack of public accessibility of the shoreline was affected by the need for other uses; however, American cities rarely tried to leave any part of it for public use. Traditionally, open space was formed in the city's heart, exemplified by Central Park in Manhattan, Boston's Common, and Louisville's central spine of parks. Such park development stood in marked contrast to the types of open space in the lands of Europe where the early settlers came from, where a waterfront plaza was commonplace. Americans in every new city rejected the European idea of the plaza, a contained space for gathering or for business, preferring vast semi-natural parkland for their recreation and street sidewalks for business. (8)

Rarely did anyone, until the 1950s, conceive of the idea of using waterfronts for public recreation. Some of the few exceptions were the international expositions in Chicago in 1893 and in San Francisco in 1915 which dramatically embraced the waterfront, giving people of that time a taste of the benefits of being beside the water. New York's Battery Park was set aside for a waterfront park but was never well maintained for that purpose. In Chicago, a continuous park along Lake Michigan was established in the 19th century but it was turned into a dumping ground. In 1947, a book by Paul and Percival Goodman argued that the centralisation of parkland should be reversed, so that freeways, industrial and commercial zones would run along a central spine and public recreational space would be transferred to the riverfront. This, they considered, was logical in view of the declining maritime industry and would provide for a healthier city while reinforcing commercial potential in the city centre.

But even when certain factions of society endeavoured to create parks along the waterfront, citing Riverside Park as an example, their plans were outgunned by a stronger voice for railways, warehouses and highways. These developments only made the waterfront seem less attractive. Another deterrent was the filth and stench that pervaded rivers and harbours from decades, even centuries, of built up debris, sewage and oil from the ports.

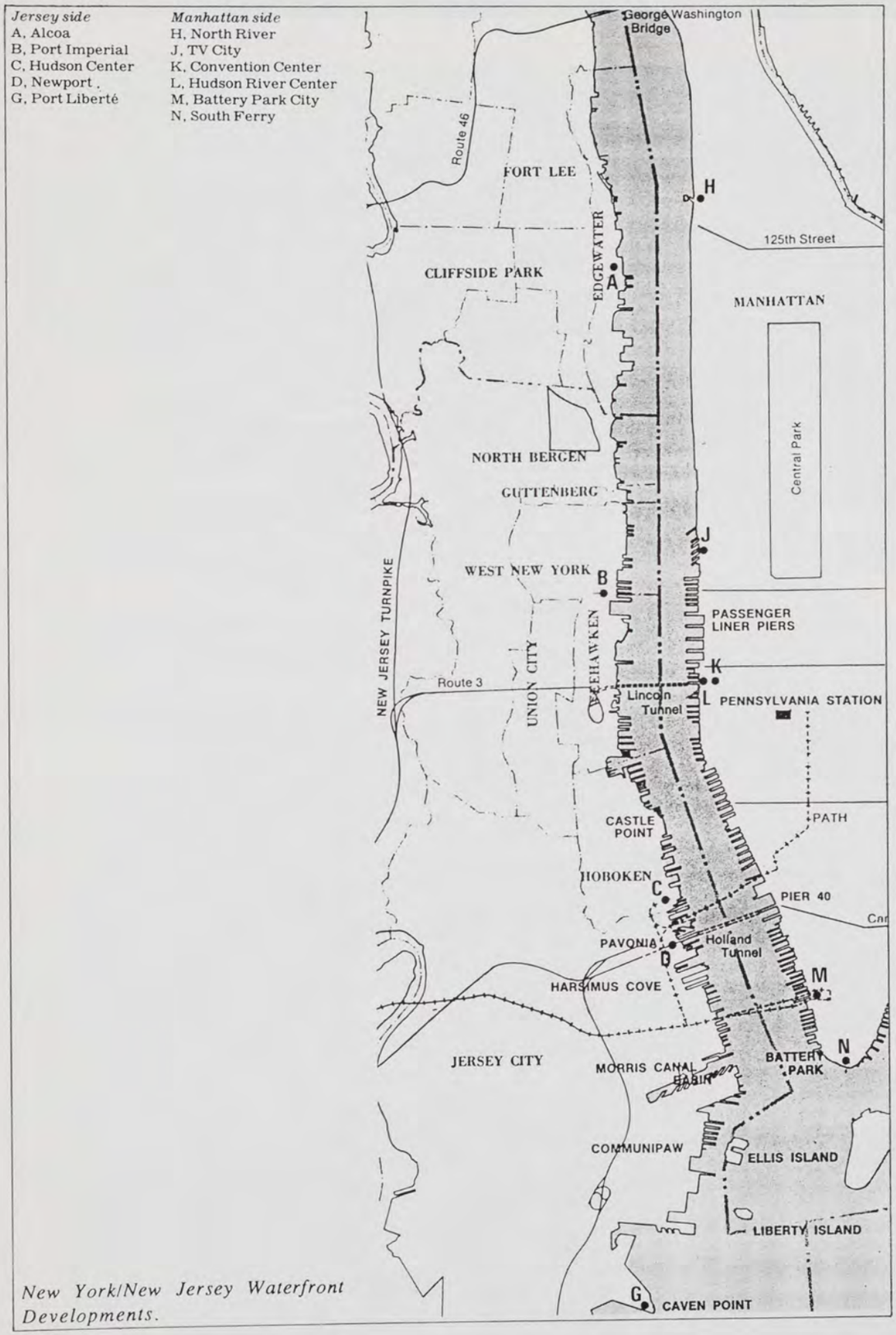
The event which dramatically changed Americans' attitude to the waterfront was the nation's bicentennial in 1976 which concentrated celebrations on the only wide open expanses that cities had to offer - the vacated waterfronts. In New York, the biggest celebrations were held on Battery Park; in Baltimore, on its inner harbour and in St Louis on a former steamboat pier. The focus of the bicentennial display was the parades of antique ships and barks, the only surviving relics of America's discovery since almost all of its waterfront buildings had been demolished. (9)

Suddenly, Americans became aware that they had a precious historic resource to preserve in the waterfronts and that it was a resource which could contribute to their lifestyles. The plans which have eventuated with waterfront developments interestingly and almost without exception, depict open spaces as contained plazas which, for all intents and purposes, are more like European squares than anything America has previously produced. Rector Place in Battery Park City is an obvious example of this. Another is the waterfront square in Boston's Rowes Wharf development.

What these types of plazas really show is that there is a new acceptance of open space as a participatory element in the urban waterfront environment, rather than as a 'backyard' to the city or as parkland separate from it. The majority of new developments incorporate plazas and promenades; some include small parks, but the point is that these components have become the essential feature of virtually every scheme underway. The next section examines some of these schemes.

1.5 WATERFRONT REDEVELOPMENTS IN NEW YORK

There are two common threads which characterise the current redevelopment of New York's waterfront, one causal, the other physical. The causal aspect is that virtually all new developments are developer-driven rather than government-sponsored. The physical aspect is



New York/New Jersey Waterfront Developments.

the provision of publicly accessible open space in a number of forms - continuous waterfront promenade, plazas, parks or sidewalks. Yet historically these two occurrences are almost contradictory. They do, therefore, demonstrate a complete change in attitude to waterfront development in America.

On New York's waterfront there are at least 32 significant projects in development comprising over 39,000 residential units, two million square metres of commercial space and 1500 hotel rooms. On the New Jersey shoreline opposite Manhattan's western edge are at least a further 22,300 residential units, 1.2 million square metres of commercial space, 3000 hotel rooms (overlooking Manhattan) and 5000 marina berths (10). While each project is being planned under intense scrutiny of numerous government authorities, there is little evidence of any overall planning structure relating projects together either in terms of use, or in terms of waterfront philosophy. There is nevertheless strong evidence of government support for redevelopment of what must be the last real estate frontier of New York and New Jersey, ironically the first frontier two hundred years previously.

A major government catalyst to new development has been the provision of promenades and road and public transport infrastructure. In New Jersey, government planning for a 24 kilometre Hudson Transitway trolley and bus system, running on rights of way purchased from the railroad company Conrail, began in October 1986. The system is planned to link the foreshore with Jersey City and Manhattan via the existing Port Authority Trans Hudson (PATH) rail system. Another catalyst is the provision of a 10 metre wide continuous walkway along Jersey's entire waterfront from Bayonne in the south to George Washington Bridge in the north, to be implemented incrementally with developments.

In New York, a $2.5 billion elevated and tunnel highway proposal called Westway was abandoned in 1985, but a task force is completing new plans for a six lane on grade boulevard between West 59th Street and Battery Park, with some pedestrian bridges but mainly pedestrian crossings. This project is in parallel with a light rail proposal called West Side Transitway from the northern to the southern tips of Manhattan along the Hudson River.

While these developments are intended to both facilitate access to, and therefore promote, real

Waterfront Projects Manhattan 1986

1. Dyckman Street
2. Riverbank Park and Waste Treatment Plant
3. West 125th Street Redevelopment
4. Riverside, Fort Washington,
5. Television City
6. Pier 95–7 Cement Batching Plant
7. *Intrepid* and Circle Line Piers
8. Hudson River Center, Chelsea Walkway, and Javits Convention Center
9. Morton Street Pier
10. West Side Highway Replacement
11. Battery Park City
12. Fireboat Pier Redevelopment
13. South Ferry Plaza
14. Wall Street Heliport
15. East River Landing
16. South Street Seaport
17. Riverwalk
18. Water Club Restaurant
19. Heliport
20. 60th Street Heliport/Hotel
21. Fireboat House Environmental Center

estate development along the waterfront, as well as to relieve traffic congestion generally, it is evident that New York is still reinforcing the barrier to public access from inner Manhattan. The result will essentially be a corridor of development along the waterfront with superb access along the corridor but difficult access across to the established city. Some of these movement proposals still rely on land fill where land is not available. It is therefore evident that, while urban waterfront redevelopments may become vital civic precincts in themselves, the existing city has been treated as a hinterland removed from the waterfront, instead of achieving the much anticipated re-integration of the city with its shoreline.

The new 'wall' is not only a physical barrier, it is a social one as well. With the majority of development being developer-initiated, the tendency is to provide apartment housing for middle and upper markets, and office development which is by nature exclusive. An example is Battery Park City where government plans originally provided for a proportion of affordable housing. Now, the total development is aimed at the luxury market, with the surplus government profits being redirected to improve housing conditions for low income earners elsewhere in Manhattan.

Waterfront Planning

There is little evidence of comprehensive planning for New York's waterfront, unlike, for instance, San Francisco's Mission Bay. Whether this produces a positive result is debatable (11), but it is apparent that New York has such a complex structure of authority that overall planning is not even possible (12). With the exception of Battery Park City, virtually all new developments are instigated by private developers and the government sees its role as one of reacting to their plans rather than directing them (13).

Some attempts have been made to analyse changes on the Hudson and to prepare guidelines. In 1966, New York's Regional Plan Association report 'The Lower Hudson' called for a 'comprehensive plan of the city' and in 1971, the City Planning Commission published a waterfront supplement to New York's 1969 Master Plan. But with over 50 authorities in existence, and the problems of outdated zoning and building codes, these attempts were inevitably fruitless.

As previously noted, the incapacity of government to plan for the waterfront is further aggravated by government, in a number of cases, acting as developer or as joint venture partner with developers, usually by the vehicle of the 'Public Authority'.

Another complexity is the variety of types of development sites and constraints. These range from disused tracts of railway land to historic piers, from sensitive marine environments to slushy landfill, and from prime real estate zones to delapidated highway routes. While some potential sites are sought after in intense competition, others are not wanted at all. Despite the massive redevelopment programmes underway, there are still some 72 piers virtually abandoned. Even the first and most successful major development completed to date, Battery Park City, could not interest one developer in the 1970s and did not proceed until government intervention in the 1980s.

The quality of plans for individual developments also differs dramatically. Battery Park City endured 10 years of a planning process before the master plan firm of Cooper Eckstut and Associates working for the Battery Park City Authority combined with the developer's architect, I.M. Pei and Partners, to produce that remarkable development. On the other hand, the developer Donald Trump's plans for TV City drawn up by Helmut Jahn as a group of exclusively high rise towers spread around his proposed world's tallest tower, appears totally disrespectful of urban or waterfront context. The level of opposition of government and public organisations has now led to abandonment of that proposal and the appointment of Cooper Eckstut to develop more acceptable plans.

There is also such an enormous variety of development types and uses proposed that no-one can foresee what type of development is appropriate at any particular geographic position. The developments currently proposed or under construction which were specifically examined on the study tour in mid-1988 included:

22. East River Esplanade
23. East 107th Street Recreation Pier
24. Washburn Wire Works
25. Sherman Creek Resource Recovery Plant

A Riverbank State Park - West 137th to West 145th Street

This is one of the few 'urban' park developments proposed on the waterfront. Originally designed in 1968 by Philip Johnson, the park is now being designed by its third architect, Richard Dattner. It will cover the 11.3 hectare surface of the North River Water Pollution Control Plant, one of the greatest blights on the Manhattan waterfront. It is a project of the New York State Office of Parks, Recreation and Historic Preservation and is funded through city, state and federal programmes. Unlike the more typical passive recreational space, Riverbank proposes an athletics and football field, performance amphitheatre, Olympic pool, cultural centre, restaurant and skating rink distributed around gardens and waterfront promenade.

It is a highly commendable proposal in terms of reorientating the waterfront to a maximum of public interest and accessibility, but it was never a potential development site for private development. As evidenced by the length of its planning process (some 20 years), it demonstrates the complexity of debate still persistent in even the most publicly beneficial developments, the difficulty of approval and the difficulty of directing funds to minimal revenue earning development.

B Battery Park City - Battery Park to Chambers Street

Battery Park City is widely regarded as Manhattan's model waterfront urban redevelopment as it successfully achieves a number of objectives:

- integrates urban ingredients of housing, workplaces, plazas, squares, foreshore promenade and shops;
- represents cooperation between government authorities and private investment;
- responds to a master plan comprising several tenets of contemporary urban planning philosophy, in particular continuation of existing street grids and view corridors, public accessibility, compatability of use with neighbouring precincts, streetwall development and pedestrian street scale;
- is architecturally powerful and identifiable;
- generates enormous profits for the developer, and revenue to the government, creating a catalyst for future developments.

That it doesn't necessarily fully achieve these objectives and in some instances falls well short, is discussed in the Case Study. Nevertheless, the development engenders great hope after decades of frustrated planning for the New York waterfront for the future of planning and revitalisation of waterfronts away from the cliched 'amusement park' type developments.

Basically, the development process followed the following sequence:

1. Preparation of a 1969 Master Plan for a 'megastructure' development of pods linked on an elevated linear spine by Battery Park City Authority.

2. Failure of that plan to generate private interest due to unfamiliarity with the type of development, impossibility of packaging development parcels, and economic downturn.

3. Formation of a new Authority and preparation of a 1979 Master Plan by Cooper Eckstut alleviating the problems of the former plan.

4. Offering of the commercial component in seven parcels with one developer, Olympia and York, successfully bidding for the total component encouraged by government incentives.

5. Developer-initiated limited architectural competition with I.M. Pei and Partners successful with a scheme that generally conforms to master plan but converts seven parcels to four towers.

6. Release of southern residential apartment sites in two stages, but with different developers and architects encouraged.

7. Refinement of northern residential apartment precinct plan learning from previous stages but changed to include fifth large office tower.

Relationship between Battery Park City and South Ferry Plaza Manhattan.

C South Ferry Plaza, Staten Island Ferry Terminal and Battery Maritime Building, Battery Park

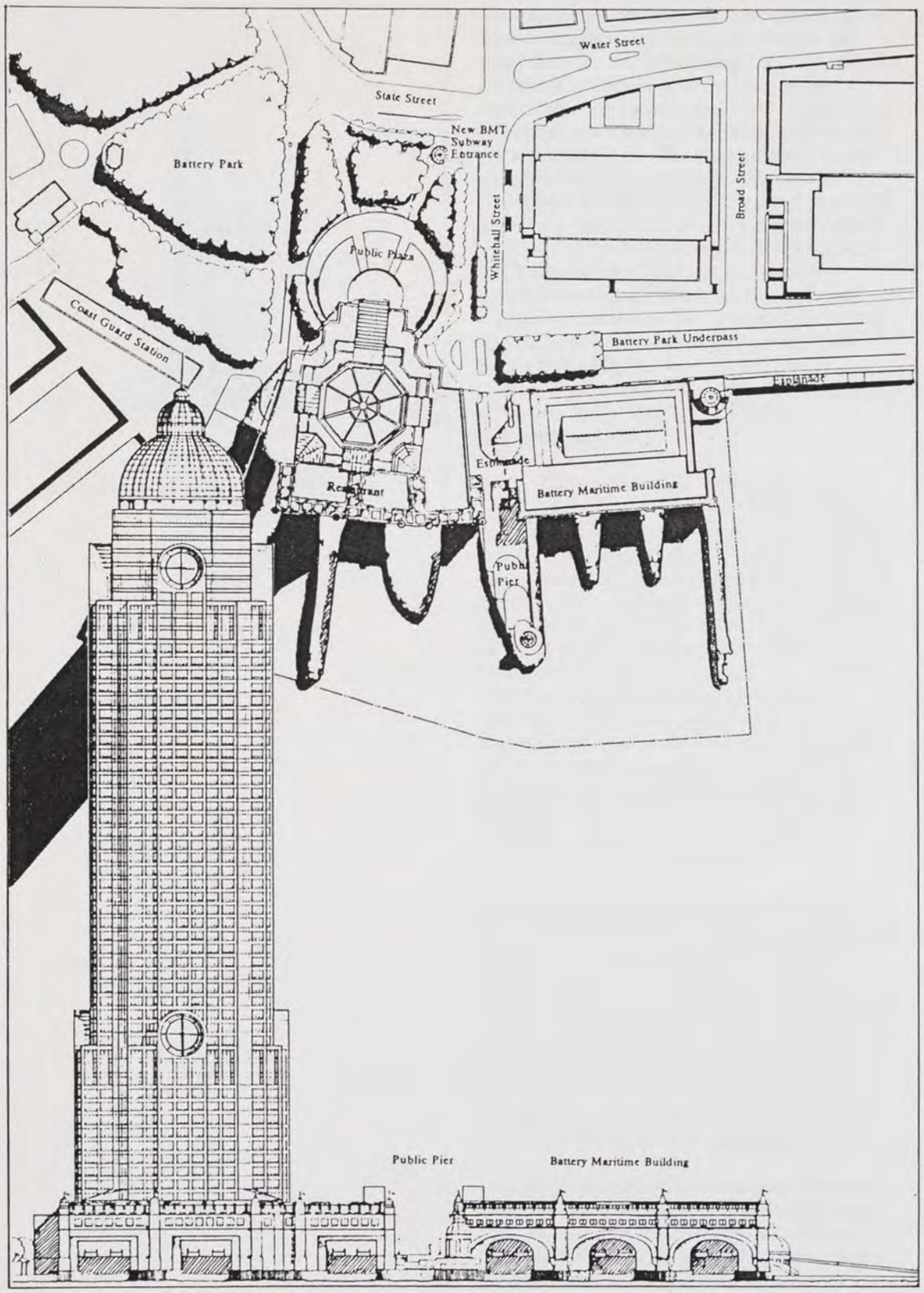
This proposal currently under review would dramatically change the waterfront character of lower Manhattan. It follows a government-initiated Request for Proposals in 1985 in which seven private developers submitted plans to the Public Development Corporation for a new gateway into Manhattan. The developer, Zeckendorf Corporation, were selected in July 1986 and Fox and Fowle appointed by the developer as architects.

The site is the extreme southern tip of Manhattan and forms the eastern edge of Battery Park. The development proposal absorbs and reconfigures part of that park which is the third great urban parkland in Manhattan after Central and Riverside Parks. The development takes in the historic Battery Maritime Museum which it proposes to restore and convert into the New York Children's Museum. Features of the plan are a vast circular plaza on the landward side of a 60 storey office tower, a new Staten Island Ferry Terminal within the tower's lobby and a new viewing pier. Components effecting changes to surrounding context include a waterfront promenade from Battery Park to the redeveloped South Street Seaport on the East River downtown edge, renovated subway stations and a reconfiguration of adjacent roads around Battery Park. It is important to note the poor condition both of Battery Park and the existing Ferry Terminal which occupy the site and of the historic building.

Two aspects of the proposal stand out.

1. <u>Clarity of and conformity with the Development Guidelines</u>

The project was initiated and controlled by the Department of Transportation and Department of Ports and Terminals which are responsible for its approvals since the land lies outside the Corps of Engineers' jurisdiction. This limitation of authorities enabled clear Development Guidelines to be prepared. The guidelines required the restoration of the Battery Maritime Building, the provision of a new Ferry Terminal Facility, the provision of a significant open space, subway improvements, no on-site parking, and pedestrian amenities, all being benefits to the public. In exchange, the guidelines offered substantial



development floor space of 140,000 square metres.

The guidelines also required adherence to all current zoning and building regulations as well as to draft waterfront development guidelines. In many aspects, the guidelines approximated those of the Cooper Eckstut guidelines for Battery Park including streetwall development, extension and rationalisation of the city grid, public access to and along the waterfront.

A distinct feature of the Request for Proposals is that it was not a Request for Bids (which almost exclusively means the highest bid succeeds no matter what the architectural proposal contains). As such, it was a request for urban design and architectural proposals along with evidence of the developer's financial capacity and his approach to funding the development and financially benefitting the city. This is a highly superior approach to the Bid method and one which ensures competition is on a non-financial basis with benefits to the city and its waterfront being paramount.

The selected scheme, judging by their competition submission document, appears to conform strictly with all the guidelines. This is of credit to both the developer/architect and the City of New York. Unlike the Battery Park City Authority, the City does not intend to participate in the development, rather to seek revenue from taxes and leasing rights.

2. <u>The Monumentality of the Architecture</u>

The Fox and Fowle Scheme includes all the required public benefits. It proposes as well a slender tower maintaining view corridors, a low level scale related to the historic buiding, viewing terraces and so on. Its elements are, however, all monumental. The tower is a typical Manhattan skyscraper, stepped in elevation and completed by a cupola. It lacks the graduation from base to body to top that distinguishes the Battery Park City Towers. The plaza is comparable in size to St Peters in Rome. Its great curved amphitheatre is simultaneoously a great civic gesture and a scaleless hole unrelated to Battery Park and unrelieved by other spaces. By building out over the old piers, it loses any possibility of waterfront promenades and compensates by providing a new promenade away from the site.

South Ferry Plaza, Manhattan.

The public can penetrate the development to the waterfront either to board ferries or view the water from elevated platforms, but essentially the scheme is a rebuilding of the 'wall' to the waterfront. No longer will people be able to access the water level (as has been achieved at Battery Park City). The responsibility for this situation lies both with City, who offered developers the ability to build a tower above the new Ferry Terminal instead of setting it behind at the streetfront and placing the plaza between the Tower and the Terminal, and with the developer/architect. This would have allowed continuity of a promenade between Battery Park and the East River which should surely have been a high priority. It would also have permitted sun penetration of the plaza which will obviously be blocked by the tower in its proposed position.

D Television City (Trump City) - West 72nd to West 59th Street

Now labelled Trump City, this development is proposed to occupy a 30 hectare disused railroad yard which is the largest undeveloped land parcel in Manhattan. Although the project is virtually entirely developer-initiated, redevelopment of the area was suggested by the Regional Plan Association as far back as 1931. Since 1962, there have been five proposals by private developers. The most prominent is a plan by Helmut Jahn for Donald Trump which proposed the world's tallest building, seven apartment buildings with nearly eight million units, a shopping centre, television studio, office and production space, and public park and a continuous waterfront promenade.

The New York Times of 20 November 1985 foresaw the difficulties of obtaining approvals for a developer-driven megastructure that had not followed a process of seeking government or public support. It stated that before Trump could build "... either the world's tallest building or the rest of the sprawling complex he envisions for the rest of the Upper West Side Waterfront, he will have to work his way through a sometimes humbling city approval process that has led to the overhaul of many a sweeping plan" (14).

Trump's Jahn proposal has been abandoned and is in the process of being replanned by the Battery Park City master planners Alexander Cooper & Associates who basically lower heights, integrate city grids and insert parks and plazas on European themes. Unlike the Jahn plan which proposed a scheme of Le Corbusier principles - individual towers set apart in vast parks - the Cooper proposal is for a dense grid of lower towers with the 'tall' tower growing out of the grid. The scheme seems to have much less open space but concentrates on the waterfront promenade and on creating an ambience of mid-Manhattan rather than of a unique development.

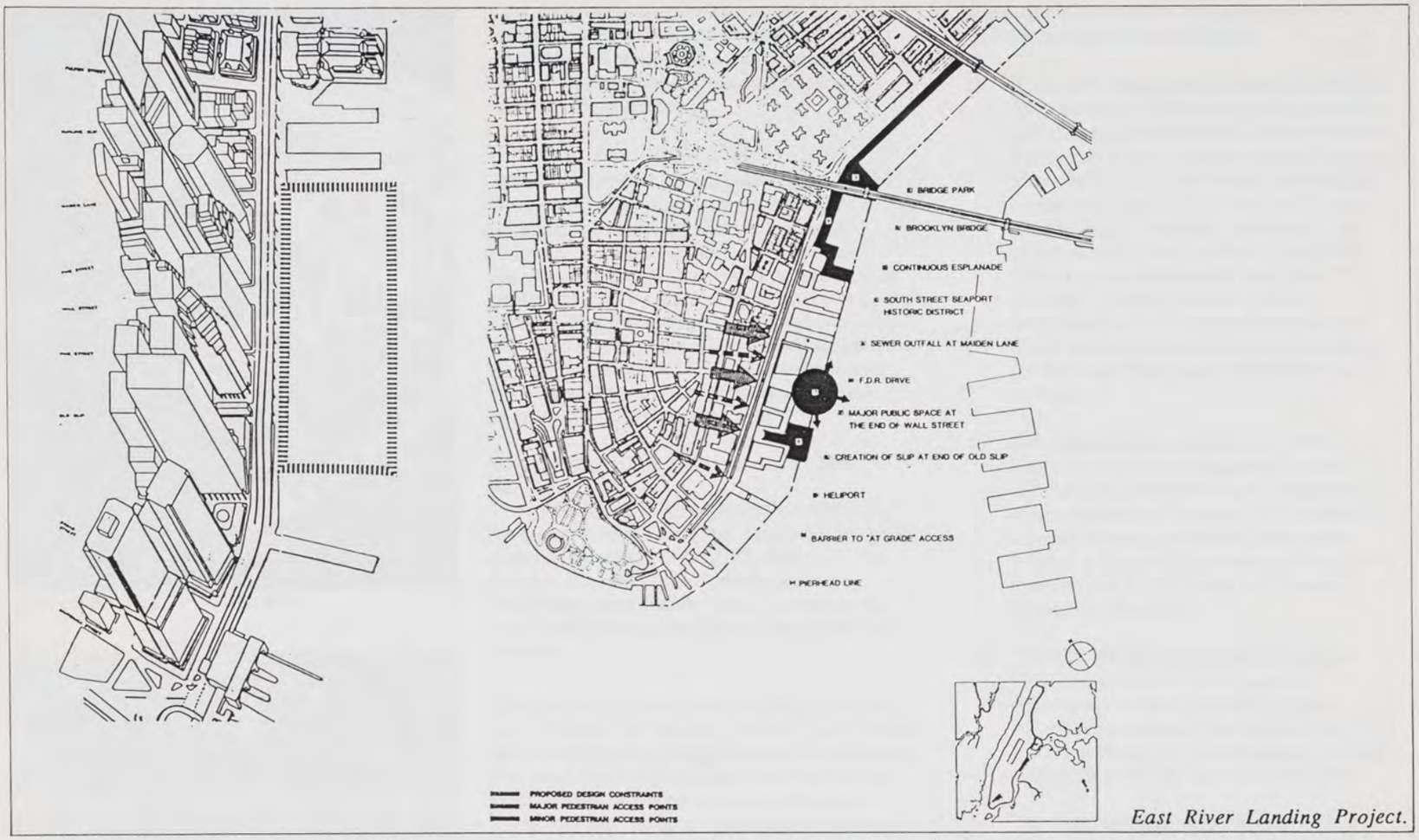
E East River Landing, Governors Island Ferry Terminal to Manhattan Bridge

The East River Landing project was in 1966 foreseen as the Battery Park City of eastern downtown Manhattan. Called Manhattan Landing in 1972, it envisaged construction on about 45 hectares between Manhattan Bridge and the Battery. With the exception of the South Street Seaport component completed in mid-1985, the project was delayed by New York's economic recession in the seventies (15).

The October 1986 preliminary proposal devised by the N.Y. City Department of City Planning and the N.Y. City Public Development Corporation reduces the development area to about 9.3 hectares bounded by South Street Seaport in the north and the Port Authority Heliport in the south. It revives the historic tendency toward reconfiguring Manhattan's shoreline between its outdated piers, creating a new platform-on-piling site which it believes is capable of supporting 700,000 square metres of office, hotel, retail and residential development. Its primary aim is to 'ensure New York City's preeminence as a world financial centre ... East River Landing will help address the important expansion needs of the financial industries in the next decade.'

The draft guidelines require a continuous waterfront promenade from Manhattan Bridge to the proposed South Ferry Plaza project at the tip of Battery Park, as well as a great plaza at the waterfront intersection of Wall Street. The process from preliminary analysis to Request for Proposals for Developers is interesting, particularly as it will require developers to pay for an Environmental Impact Statement to be prepared by government-chosen and controlled consultants rather than by developer consultants who might 'rig' the statement's findings. Generally the process is:

1. Planning Department requests proposals from



East River Landing Project.

private Master Planners to prepare detailed master plan requirements based on their previous Environmental, Infrastructure, Subsurface Conditions, Urban Design, Market and Feasibility studies.

2. Master plan prepared and issued as Request for Proposals to developers with all environmental, zoning, infrastructure and urban design approvals in place for one 100% commercial scenario and one 50/50% commercial/residential scenario.

3. Developer reimburses City for Environmental Impact Statement and makes any required amendments; plans, constructs and pays for all on and off-site works, the latter including ramps to existing main roads subway improvements and waterfront promenade.

Of the almost uncountable proposals for other major waterfront developments, not specifically examined on the study tour, the following are exemplary of varying planning processes:

Hudson River Centre - West 35th to West 40th Street

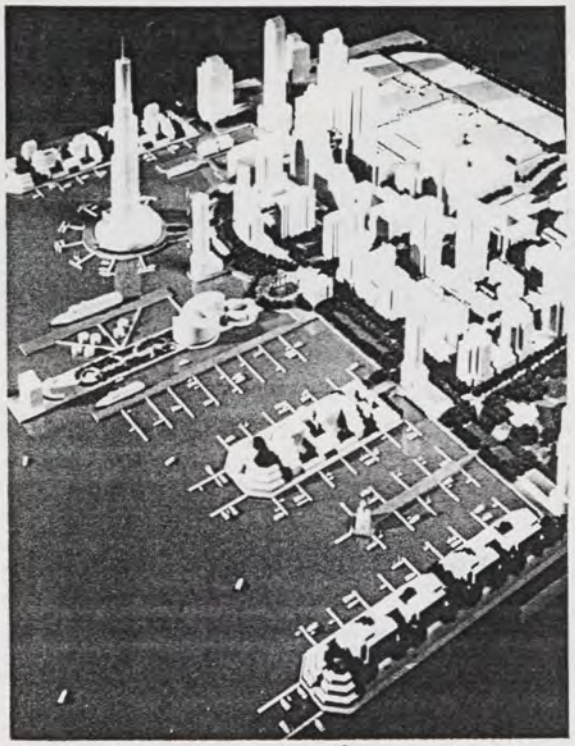
This project will cover the waterfront strip alongside the completed I.M. Pei designed Convention Centre one block inland. It is being initiated by government through the City's Department of Ports, International Trade and Commerce (formerly Marine and Aviation and then Ports and Terminals). The project is being offered to developers in the form of a Request for Proposals (RFP), its tourist catalysts being the existing Circle Line Round Manhattan tour terminal, the USS Intrepid mooring and the Convention Centre. Suggested uses include a towaway car pound which is a dubious waterfront use, a hotel, offices, marina and heliport.

Pier A, Battery on Lower Manhattan

The city is seeking interest from restauranteurs to renovate this nineteenth century pier along with restoration of the adjacent fireboat and fireboat station.

Marina/Apartments Development, Immediate north of Battery Park City

This is a developer-generated proposal for low scale apartments built on existing pier decks out into the Hudson with intervening marinas. The promenade is proposed to continue behind the



Newport development master plan

The Port Liberté proposal

piers, and, while the pier apartments can be accused of exclusivity, the project would successfully find new uses for the piers instead of the more usual specialty shopping/tourist orientated conversions.

Heliport Hotel - East 60th Street

This is a combined project between the Public Development Corporation and a private developer for a high rise hotel adjacent the existing Heliport. It is an example of the previously discussed blurring of the role of government as public benefactor-cum-real estate developer. This is particularly highlighted by the intervention of two voluntary organisations, the Municipal Arts Society and the Parks Council, which propose removal of the hotel and replacement with a multilevel public recreation space.

Riverwalk, East 14th to East 23rd Street

This project was initiated in the late 1960s and the current Davis Brody and Associates design for a private developer is the fifth proposal. The scheme surrounds one of Manhattan's two remaining coves and includes housing, shops, hotel, public parks, esplanade, lagoon and two marinas.

These proposed and current projects represent only a fraction of the changes which will, within two decades, reform the entire face of Manhattan. The views from these developments across the Hudson to New Jersey, and across the East River, will also be unrecognisable from those that exist today.

Like New York, New Jersey has no comprehensive plan for its Hudson River frontage. Unlike New York, it has no real historic context, little zoning, and planning responsibilities lie with the 11 municipalities that make up the 30 kilometre coastline. In 1983, New Jersey set up its Waterfront Development Office to establish infrastructure and advise on the inland ripple effects of river development. The State's Department of Environmental Protection can refuse building permits up to 150 metres of the shoreline, a leverage which it uses to create a continuous water's edge walkway. But unlike some of those New York developments where government initiates development through master plan and Request for Proposals - a protracted process - in New Jersey there is only a reactive process (16).

Consequently, there is a veritable boom of development proposals including:

i) RTKL's Newport development master plan for 100 hectares of abandoned freight yards opposite mid-Manhattan. The proposal has a riverside park and walkway, an 80 storey tower by S.O.M., residential shopping and commercial uses. It has scale and layout similarities to Trump's Television City proposal and is really a Manhattan-scaled project in the forefront of New Jersey's flatlands. It does, however, make interesting use of the riverfront with the tower built over water and bridge-linked to the land, and finger piers redeveloped as marinas.

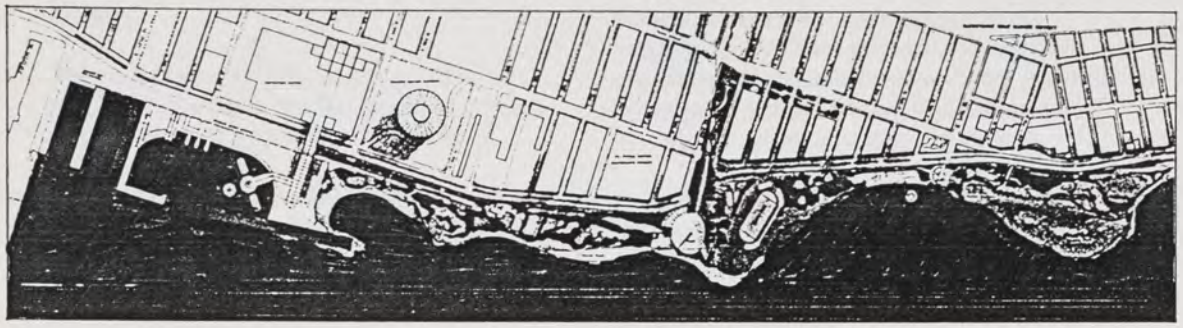
ii) The Port Liberté proposal by Francois Spoerry, who was responsible for Port Grimaud in southern France, couldn't be in more contrast to Newport. It is essentially a pseudo-vernacular marina resort to be located at the river's southern extremity and resembles a doll's village - it is not an 'urban' development.

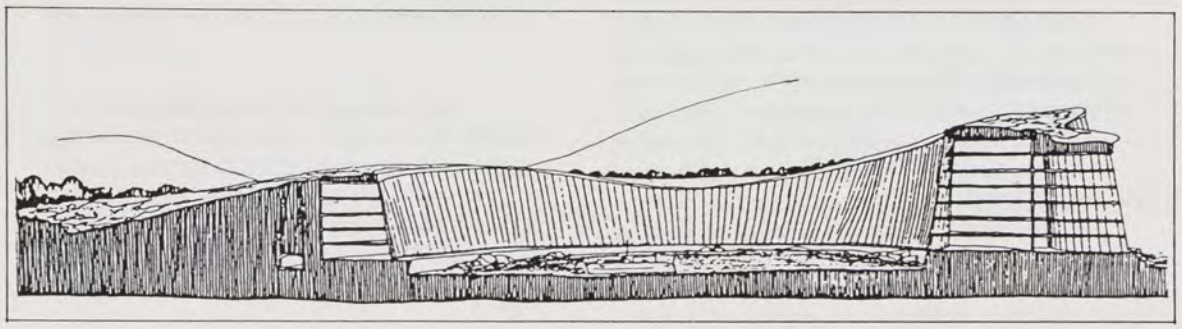
iii) The Port Authority's Hudson Centre in Hoboken just above the Newport development is designed as a gigantic transport interchange for road, rail, ferry and PATH systems. It does, however, contain pedestrian walkway and marina facilities.

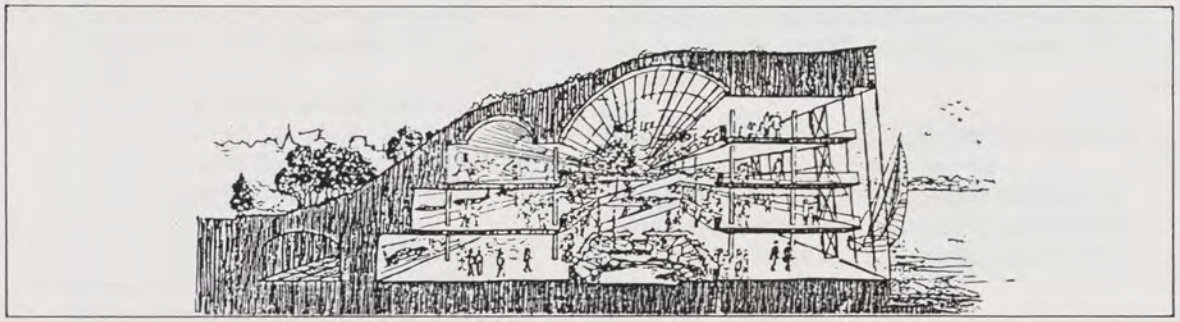
iv) The Port Imperial proposal originally by Battery Park City's architect Cesar Pelli and Associates, for a large site west of Manhattan's upper midtown. It extends the Weehawken city grid down its cliffs to the foreshore and comprises residential/commercial uses with a new ferry service to Manhattan.

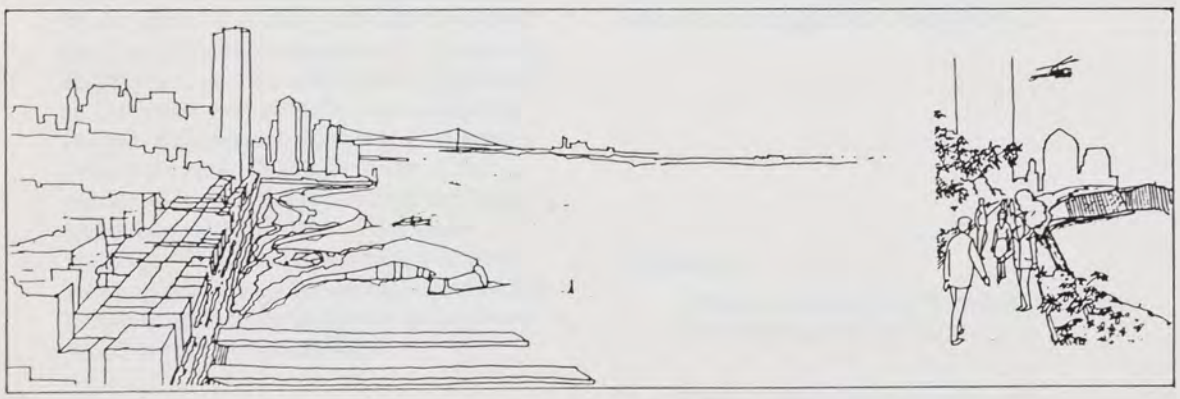
v) Liberty State Park which is extended into the former Central New Jersey Rail and Ferry Terminal. It exemplifies the contemporary situation where it is easier to resume disused land for parkland, unlike earlier decades where the same land was vital economic ground and attempts to return it to public use were always thwarted, such as occurred in the Riverside Park scenario.

While New Jersey is experiencing an equivalent waterfront resurgence to New York, these









Prize winning scheme by Scott Sutherland School of Architecture recommending Manhattan be submerged under parkland along the Hudson River.

developments evidence in fact that Manhattan has finally leapt over its waterfront boundary, made possible by increased crosslinks. In effect, the Hudson River is being absorbed within the city and will no longer be the frontier edge of it. Surprisingly no text or comment has recognised this obvious and most significant trend in waterfront development - the making of the water and shore into part of the overall urban context.

Competitions and Public Initiative

Apart from government and private-initiated proposals, there is, as always in New York, enormous public interest in what is occurring on its waterfront. In the past, public lobby groups often engaged their own architects to prepare alternative schemes to put to government as, for instance, the Regional Plan Association did with proposals for waterfront parks, and the Women's League for the Protection of Riverside Park did in 1916 when they hired Victorian landscape architect Jens Jensen to replan Riverside Park (17).

One of the best means to achieve public recognition of other public visions for the urban waterfront is to hold a competition. This has been done on both vast and small scales and on both regional and international levels:

(i) The Municipal Arts Society recently held a competition based on the tenet 'New York has a once in a lifetime opportunity' (18). Won by Scott Sutherland School of Architecture of Scotland, it recommended a proposal for 56 hectares from Battery Park City right through to 44th Street in the north.

The scheme fundamentally reversed current urban design principles (as advocated by Cooper-Eckstut Associates) which emphasise extension of the neighbouring city context and use patterns into the waterfront. The proposal builds layers of commercial, cultural, retail and residential use from three to ten storeys back from the waterfront and roofs the entire complex with a sloping undulating park thus turning the entire site into parkland and headlands overlooking the water. The park is proposed to be paid for out of development funds. The undulations are intended to create a similar cove and headland geography to that which previously

existed.

This is a visionary plan needing much technical resolution but has received public as well as some government interest.

ii) The magazine Au Arredo Urbano dedicated its July-October 1988 edition to this same competition under the title 'New York Wanted a Waterfront' and thus gave impetus to renewed public debate. The competition had 500 responses from planners, architects and the general public demonstrating people's keen awareness of what is happening to the shoreline.

The magazine noted in particular the difference between the professionals' approach which indicated that 'even the architectural culture may be influenced by utilitarian considerations and not always does it follow the needs of common feeling' (19). It grouped projects into three principal trends:

- those proposing no intervention
- those proposing intervention only to enhance the best existing structures that exist and giving them new roles and forms
- those proposing a landfill of the piers to create new land primarily for public use, and indicating that the greatest desire for New Yorkers is to 'green' the city.

It is important to note that the site had, as its major existing impediment, the six land highway running parallel along its entire landward side (20). The site consisted also of 26 hectares of land and 31 hectares of rotten piers. It is also prime development land lying between major new development to the north and the new Battery Park City to the south, and as such is in impending danger of piecemeal redevelopment attacks from both ends. Virtually none of the entries addressed the problem of the highway and concentrated instead on the water interface. The exception was a first prize winning scheme by Italian architects which reconnected the city grid over the highway which would be buried below.

Conclusion

It is apparent that government and developers in New York want to return people to the waterfront, the latter primarily to use their creations. The public however want generally an urban parkland, set among those remnants of history that retain a nostalgic romance.

Unfortunately, no matter what development form is proposed, New York is always thinking of new ways to rebuild the 'wall' whether on the ground, in the air, by social preference or by economic pressures.

If New York's waterfront has a positive future, then it is only by apropriate redevelopment processes that it will be achieved. It is apparent that the city is too complex and authorities too abundant, for a single waterfront visionary plan to emerge. But the city has recognised that competent, responsible and environmentally sensitive development requires the release of land parcels in as large a quantity as possible is necessary to attract financially cpapble developers with architects of brilliance. The current method - that of developing master plan guidelines then seeking Planning and Design Proposals along with statements of financial capacity from the developer - is far preferable to the previous tender and design bids which inevitably resulted in the highest tender succeeding.

An additional safeguard is provided by requiring the successful developer to pay for Environmental Impact Statements prepared by government-chosen private consultants seems to have minimised bias either by developers or government.

This process has reached its most sophisticated form in the San Francisco Mission Bay project which is the subject of Case Study 2.

Footnotes

1. Urban Land Institute: 'Urban Waterfront Development' pp 10-11

2. Urban Land Institute: 'Urban Waterfront Development' p 216, p 18

3. Au Arredo Urbano p 68, p 151

4. Ann L Buttenweiser: Manhattan Waterbound p 200

5. Ann L Buttenweiser: Manhattan Waterbound p 202

6. Ann L Buttenweiser: Manhattan Waterbound p 206

7. New York Times Sunday December 1987

8. Au Arredo Urbano pp 54-56

9. Ann L Buttenweiser: Manhattan Waterbound

10. Architectural Review February 1987 p 75/2

11. Architectural Review February 1987 p 75/2, 81/2

12. Ann L Butterweiser: Manhattan Waterbound p 211

13. Architectural Review February 1987 p 85/2

14. New York Times 20 November 1985. In Ann L Buttenweiser 'Manhattan Waterbound' p 206

15. New York Dept. of City Planning and New York City Public Development Corporation: Request for Proposal for Master Plan 'East River Landing' October 1986.

16. Architectural Review February 1987 p 78/2

17. Ann L Buttenweiser: Manhattan Waterbound' p 22

18. Proposals for New York Waterfront. Scott Sutherland Consultants. Aberdeen Scotland. July 1988.

19. Au Arredo Urbano. "New York Wanted a Waterfront'. Editorial. p 53

20. The replacement of the underwater superhighway 'Westway' defeated in the courts in 1985.

A1 INTRODUCTION

Apparently, Battery Park City embodies virtually all the ideals of urban designers throughout North America. Both collectively and individually its completed components - the World Financial Centre, the Waterfront Esplanade and the residential neighbourhood focussed on Rector Place - have been frequently cited as models for other American cities to emulate.

There are many reasons for such praise, on many fronts:

1. It is the first major expansion of the Central Business District of Downtown Manhattan since the economic recession of the seventies, and represents the revival of lower Manhattan as the centre of world finance.

2. It is an extension, both functionally and physically, of the existing urban fabric, rather than an imposition of tourist or shopping centres more recently associated with waterfront redevelopment.

3. It represents the successful partnership between government and private sectors in simultaneously producing benefits to the city as well as to the developer.

4. It demonstrates the return to government initiative in redeveloping the waterfront and to government control on what occurs there.

5. It is an accurate reflection of its preconceived master plan, where both the developer and his architect have cooperated to create a vibrant sub-city on par with the Rockefeller Centre in mid-Manhattan.

6. It puts into practice, for the first time on a grand scale, many of the catchcries of the eighties' urban designers - the extension of the city, the use of streetfront walls, the design of contained and thematic plazas, the formation of an urban waterfront promenade, the interrelationship of built forms, the provision for public enjoyment, the recognition of pedestrian scale, the use of time-honoured materials, the definition of corners and gateways, the maintenance of vistas and viewing corridors, even the subjugation of buildings of poor design into relative obscurity, in this case the World Trade Centre towers.

7. It returns people to 'their' waterfront and commences the government's undeterrable objective to make Manhattan's waterfront accessible to all New Yorkers.

8. It avoids the traps of Post-Modernism, almost inevitably afflicting every other tower development in cities across the United States.

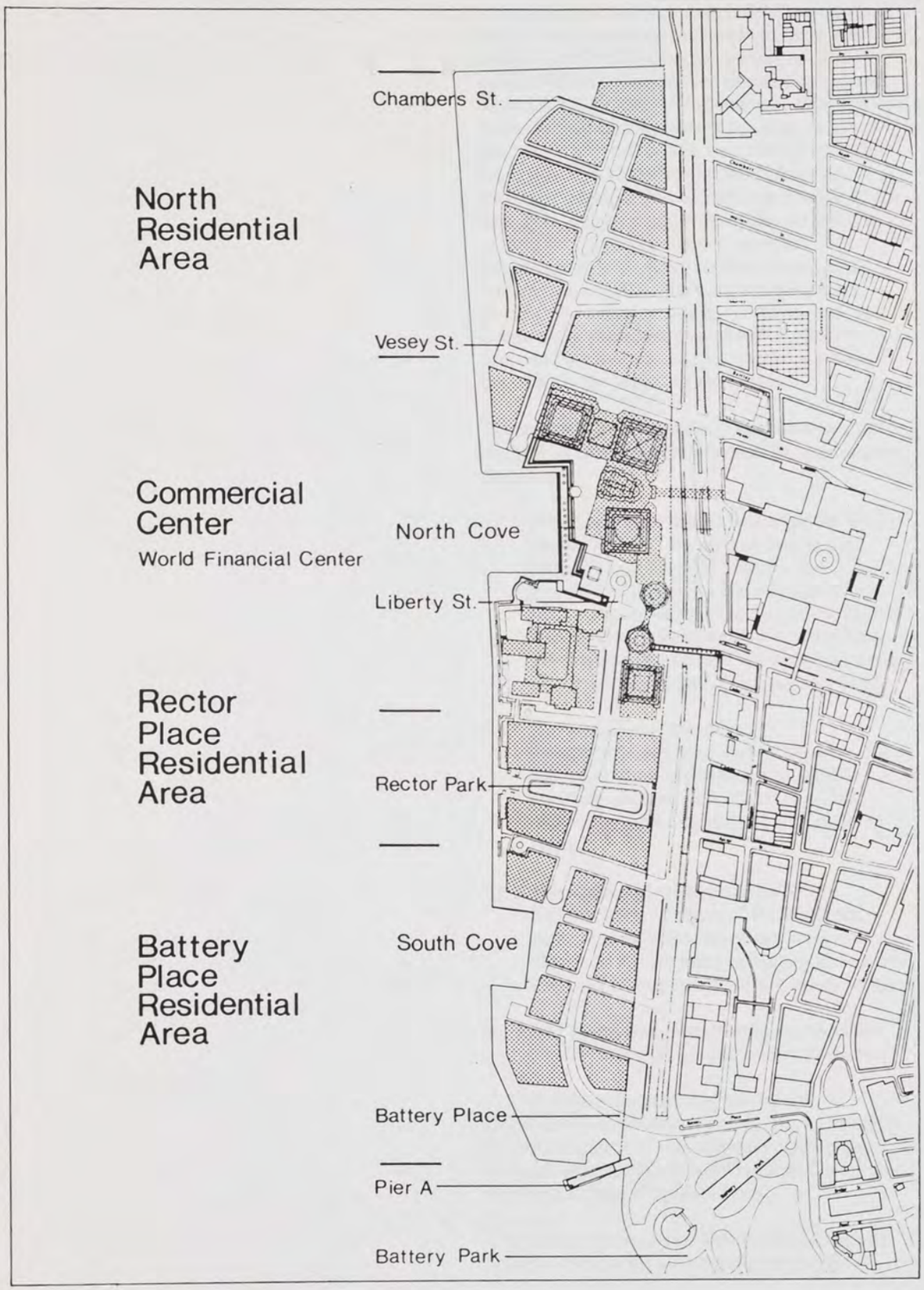
Close examination of this much-appraised development reveals a number of aspects which mitigate against its proposed role as a model for others. While it reveals particular characteristics which are certainly lessons for any major redevelopment of the urban waterfront, many of these are characteristic only of this development or are peculiar to New York, its political and planning history and process.

The range of attitudes expressed by critics on Battery Park City is exemplified in the following remarks:

"... But there have been some good things happening. One of the happiest is the long overdue opening up of the waterfront to the public. ... Battery Park City is a notable example of a creative and enlightened partnership among city government, architects and developers resulting in a new and vital city precinct with a delightful squares and esplanade" (1).

"... An exception is Battery Park City. But it was conceived as a mixed income project and based on the best of New York's vernacular design. It could only be built as luxury-land. How good should we feel about that?" (2)

This case study endeavours to isolate the successful aspects from the failures int he development and design processes of Battery Park City. Of the failures, one of the most outstanding is that Battery Park City does not belong to the water at all; it is simply an extension of Manhattan with a waterside promenade in front. Only its giant 'Winter Garden', a steel and glass vaulted public area, recalls the industrial use of the waterfront, or the waterfront expositions of Chicago in 1893 or San Francisco in 1915. Elsewhere, it is prime example of the latest urban design philosophies, but there must remain reservation as to whether it represents good urban waterfront design.



A2 SUMMARY OF DEVELOPMENT

The Battery Park City site has an area of approximately 37.2 hectares bounded by Battery Park to the south, the Tribeca residential neighbourhood to the north, the Hudson River to the west and by West Street freeway to the east. This freeway is the alignment of a previously proposed tunnel and elevated freeway project known as 'Westway', now abandoned. West Street still cuts Battery Park City off from Manhattan.

In the sixties, the Battery Park City site was formed by landfill partially provided by excavation from the adjacent World Trade Centre. For this reason, the site had little historic association or built environment. Landfilling has since been largely outlawed in American cities, primarily because of its effects on marine environments, its alienation of cities from the water and the loss of natural waterline commonly accepted as the boundary of urban cityscape.

In 1968 State Legislature invested ownership of the site in the Battery Park City Authority whose role was to interest private development to participate in the development of a 'megastructure' concept and master plan which it devised in 1969. Inducement to developers was to be provided by the construction of streets, utilities and parks by the Authority, with the finance being provided from a bond issue in 1972.

Until 1979, the development languished in obscurity with little private interest, partly a result of economic downturn and uncertainty, but specifically because the master plan failed to define development parcels, was unfamiliar in the context of traditional city development and was virtually unstagable. The Authority was close to a state of financial collapse.

In that year, control of the Authority switched to the New York City Urban Development Corporation which appointed the planning firm of Alexander Cooper and Associates (later Cooper Eckstut Associates) to help prepare a new physical and economic master plan. This plan became the basis for the current manifestation of Battery Park City.

In planning and financial terms, the Cooper-Eckstut plan abandoned the previous strategy

although it reconfirmed that the earlier proposed mix of development remained feasible at between 465,000 and 565,000 square metres of office space, 90,000 square metres of retail space, and between 12,000 and 16,000 units of both assisted (low-income) and unassisted housing. It added that about 30% of the site be reserved for public open space. It removed the rigid planning, architectural and administrative framework which had previously deterred developers and set up a system of a small number of essential requirements with other preferred constraints undergoing a review process as development proceeded. A major change was to relocate the commercial component from the originally proposed southern end to the centre of the site opposite to the World Trade Centre.

The current situation is the completion of three of the four major components of the master plan, as follows:

1. The World Financial Centre adjacent World Trade Centre, consisting of four towers ranging from 33 to 51 storeys, two 9 storey gateway buildings, an 1800 square metre glass enclosed Winter Garden, and a 14,000 square metre waterfront plaza. The Centre was designed by Cesar Pelli and Associates for the one developer, Olympia and York.

2. The Rector Place Residential Neighbourhood, south of the World Financial Centre, consisting of 2,300 dwelling units in 12 buildings on 3.6 hectares around a square named Rector Place.

3. The Battery Place Residential Neighbourhood, south of Rector Place, consisting of 3,500 dwelling units in 9 blocks on 4.8 hectares extending to Battery Park. This area is now under construction.

4. The North Residential Area, north of the World Financial Centre, not yet underway.

A fifth zone is the existing residential development known as Gateway Plaza (formerly POD3), a legacy of the original master plan situated between the World Financial Centre and the Rector Place Neighbourhood.

There is evidence of two significant differences between the master plan and the eventual development:

i) There is no assisted housing in Battery Park City; the City is using its profits from leasing and development rights and taxes to upgrade and provide assisted housing inland and not on the waterfront, bringing an exclusivity to Battery Park City.

ii) The unbuilt North Residential Area is to be shrunk to allow for a massive expansion of the commercial precinct into it, reflecting market rather than community forces.

In order to assess properly the success of Battery Park City, it is appropriate to examine the entire evolution of the project beginning with its 1979 Master Plan review of the original 1969 Master Plan.

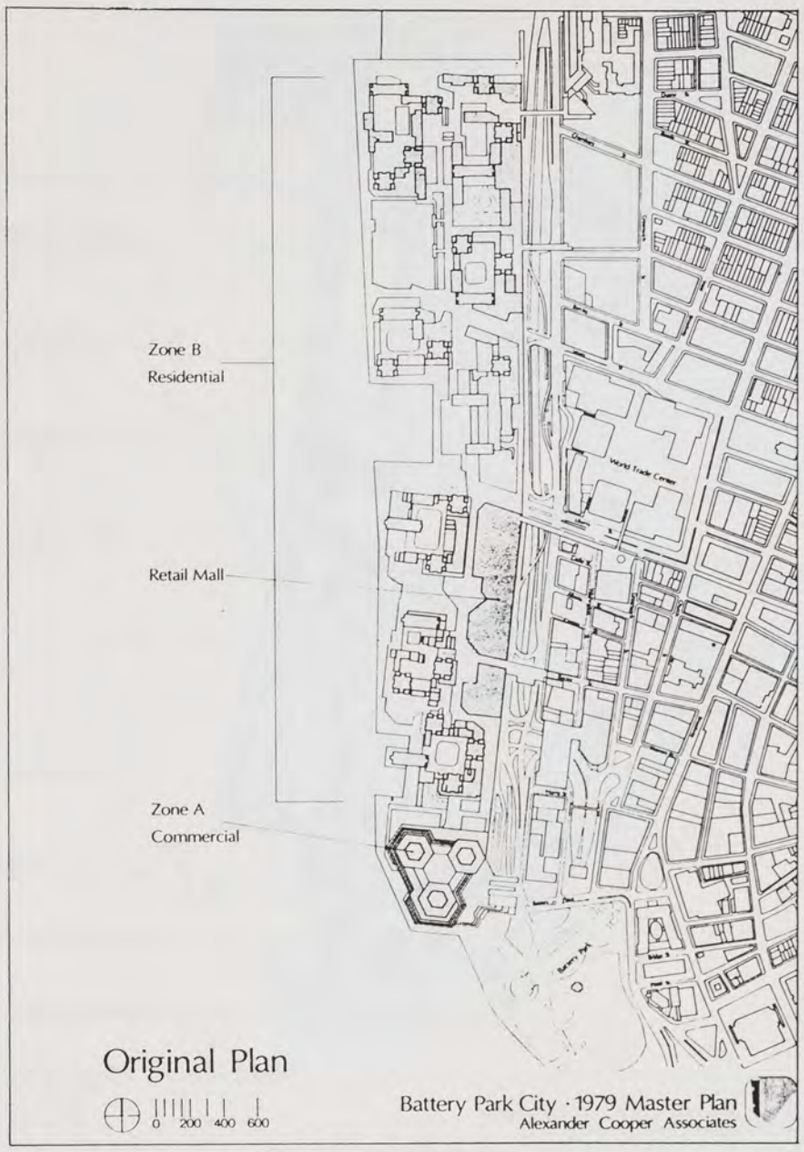
A3 1969 to 1979 - THE FAILURE OF PLANNING

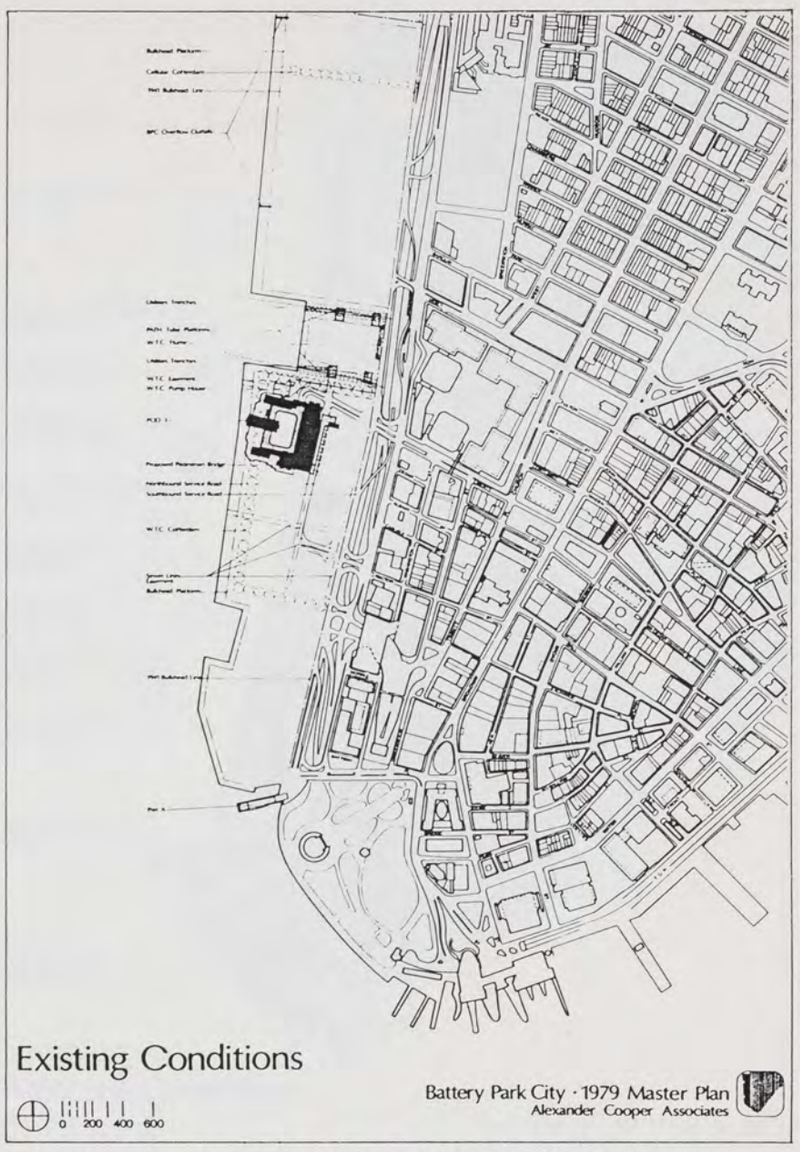
By the end of the seventies, Battery Park City had become a paradox. Here was one of the largest unencumbered and potentially valuable development sites, situated on one of the world's most spectacular water frontages, but no one was interested. Development was considered vital to restoring Downtown Manhattan and Wall Street as the hub of the city's economy in competition with progress in mid-Manhattan.

A combination of factors had left the site's future in doubt, so much so that it was considered to abandon a coordinated planned approach to the waterfront altogether to let the market fight it out. The decade's economic recession had rendered developers either incapable or nervous of being a forerunner in an unknown market. The 1969 plan only served to complicate their concern:

1. It had been confident of enormous interest and so set down an excessively rigid system of controls and approvals.

2. It had envisaged the development as a single 'megastructure', viewing buildings as similar 'pods' interconnected by walkways elevated over freeways, but eliminating certain freedom of developer input and suggestion, as well as of architectural expression.





3. It was appropriate only to the huge development corporations with multidisccipliinary capabilities, eliminating the vast majority of medium and small developers.

4. It was not accompanied by strong State or City commitment, and had been poorly marketed.

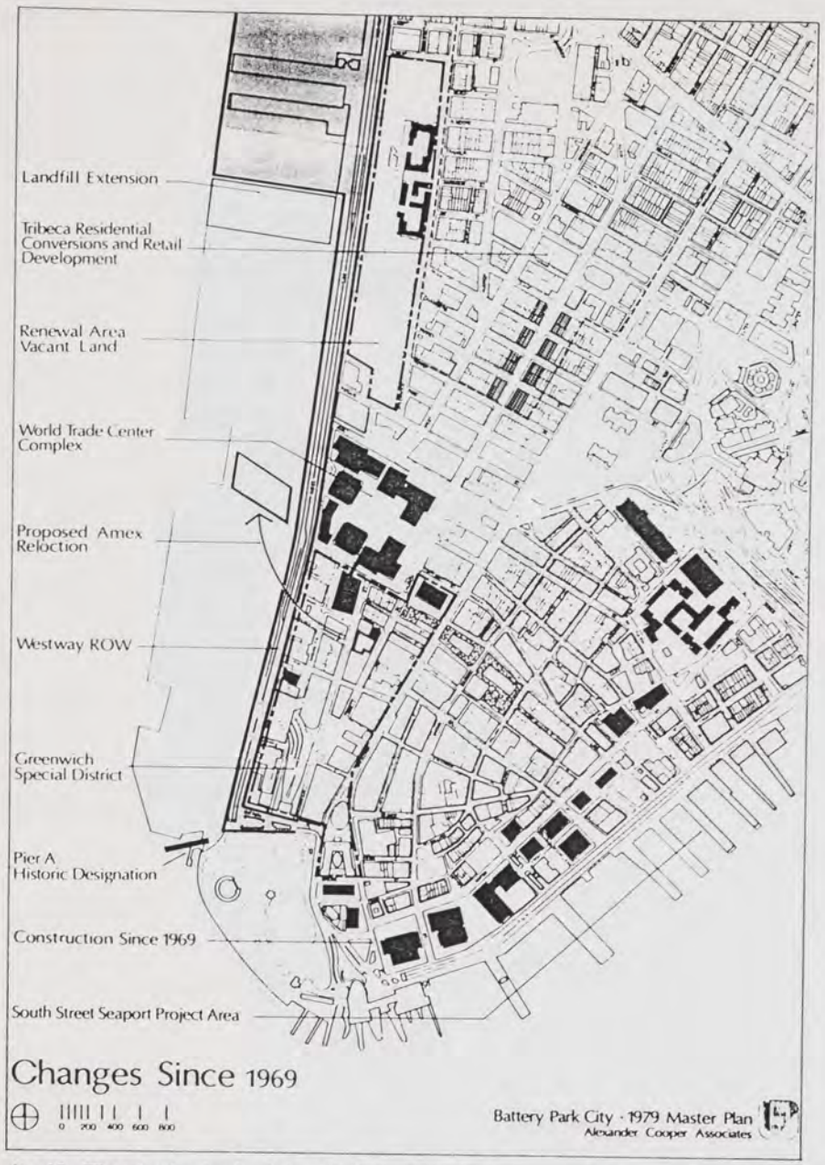
5. It required complete changes to traditional zoning and building codes which were not in place.

6. It placed its offices components away from any area of nearby commercial activity and recommended a vast shopping centre in the centre of the site for which there was no known demand.

The 'megastructure' concept had been a futuristic one, made popular in the early sixties and exemplified by Boston's City Hall, Kenzo Tange's Tokyo Bay Plan and Yamanashi Press Centre and other unrealised plans (3). In this plan, it meant a continuous single structure built over and adjacent to a retail and circulation spine. As such, it could not accommodate incremental development. The costs of government to finance and build the infrastructure required were prohibitive and the definition of private development parcel and government infrastructure responsibility was unclear.

One element of the plan, the unsightly POD3 (now Gateway Plaza), was built during the seventies, but even it failed to meet the guidelines of the master plan. Some other proposals were received but these tended to satisfy the guidelines in such a literal manner that they had no design or development quality acceptable to the Authority.

The final blow to this master plan vision was the imminent financial collapse of the Authority



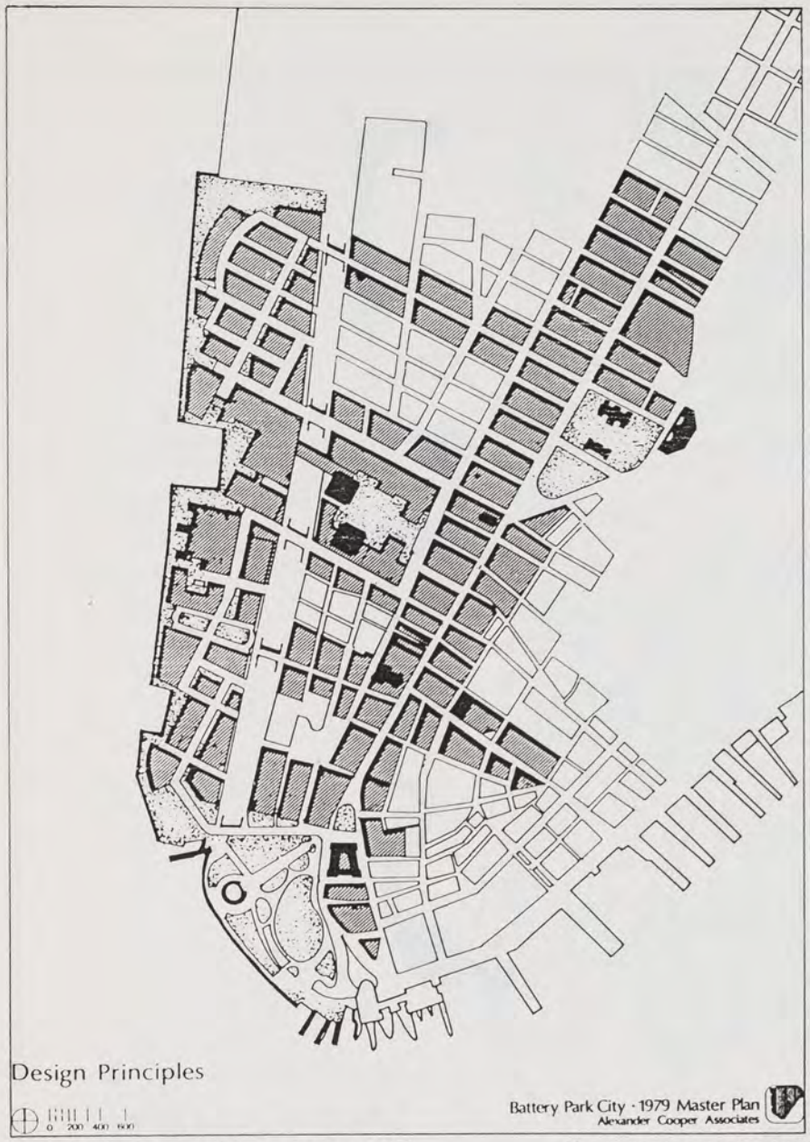
itself. The Authority had, by 1979, weakened to a point where it was no longer able to fund the major catalyst it had proposed to induce development, its infrastructure.

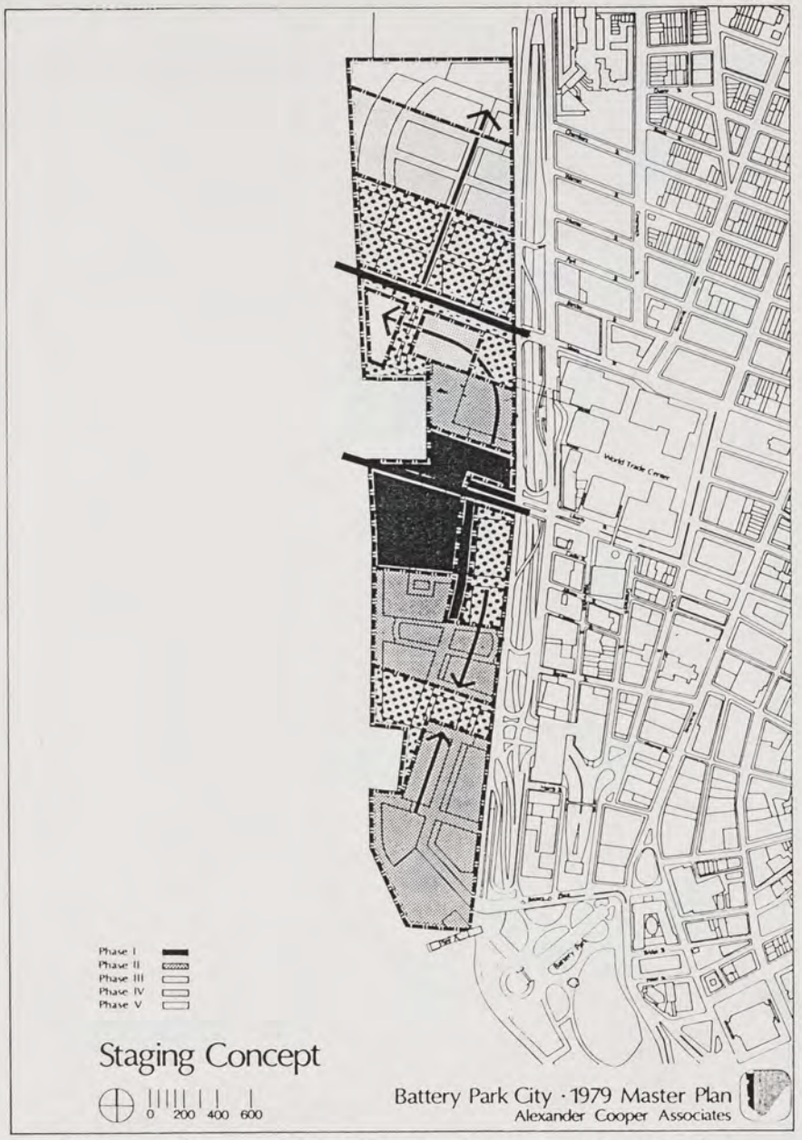
A4 THE 1979 MASTER PLAN - REVIVAL OF PLANNING

Together with a dramatic reformation of the Authority, the new master plan sought to reverse both the physical content of the previous plan, and the development's image. It recognised the original 'megastructure' plan as a potential social, urban and financial catastrophe, as well as being unbuildable and unfinanceable. It demanded the government's commitment and flexibility to enable a variety of economic proposals to be incorporated.

These demands were aided by certain changes in the broad economic climate. Finally, the World Trade centre had been fully leased and there were indications of a rising demand for commercial space. The South Street Seaport on the opposite riverfront had been successfully completed and evidenced the eagerness of New Yorkers to come down to the waterfront. To the immediate north of the Battery Park City site, a massive community based regeneration programme was underway to convert decaying offices into residential apartments in the neighbourhood known as Tribeca. These developments supported the original feasibility for a mixed commercial, retail, recreational and residential development, which the master planners recognised as an essential combination for Battery Park City to become a diverse urban precinct.

The strength of the new master plan lay in its ability to simultaneously integrate desirable urban design parameters with improvements in economic feasibility. For instance, by retaining the traditional street grid and streetfront development of Manhattan, it not only reproduced the best of Manhattan's urban fabric, it reduced the government's infrastructure costs to streetscape funding, it disassembled the





project into developable packages, and it maximised development within each package. As this example shows, the planners believed that if the new management could demonstrate its capacity to construct infrastructure, if planning guidelines were less complex, and if there was a renewed commitment to the financial stability of the Authority, the lack of developer enthusiasm could be reversed, while still achieving a planned development.

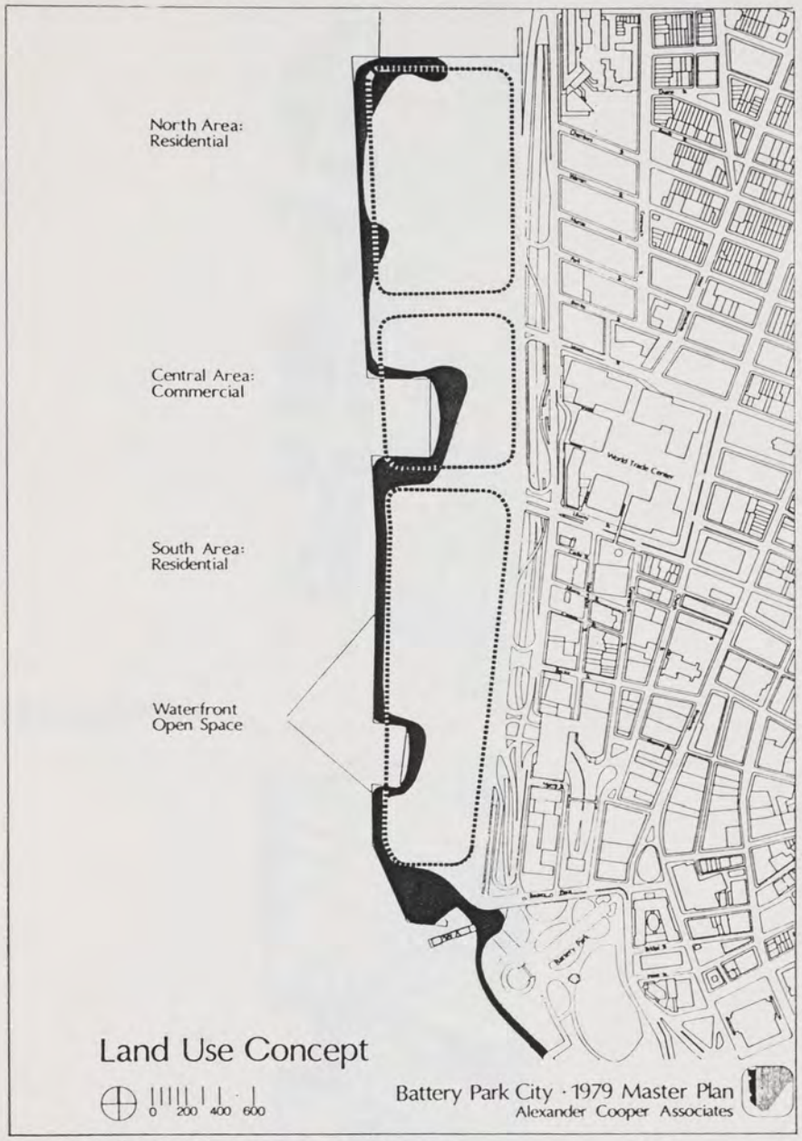
Physically, the plan repositioned the proposed office developments against the World Trade Centre, where it could tap into its market, and link into its subway and mass transit network. It eliminated underground commuter parking and the shopping centre as inappropriate to an urban environment. It created three distinct residential neighbourhoods, one to the north against the backdrop of the burgeoning Tribeca community, the other two to the south aimed at the rising class of young professionals seeking urban lifestyles near their places of work.

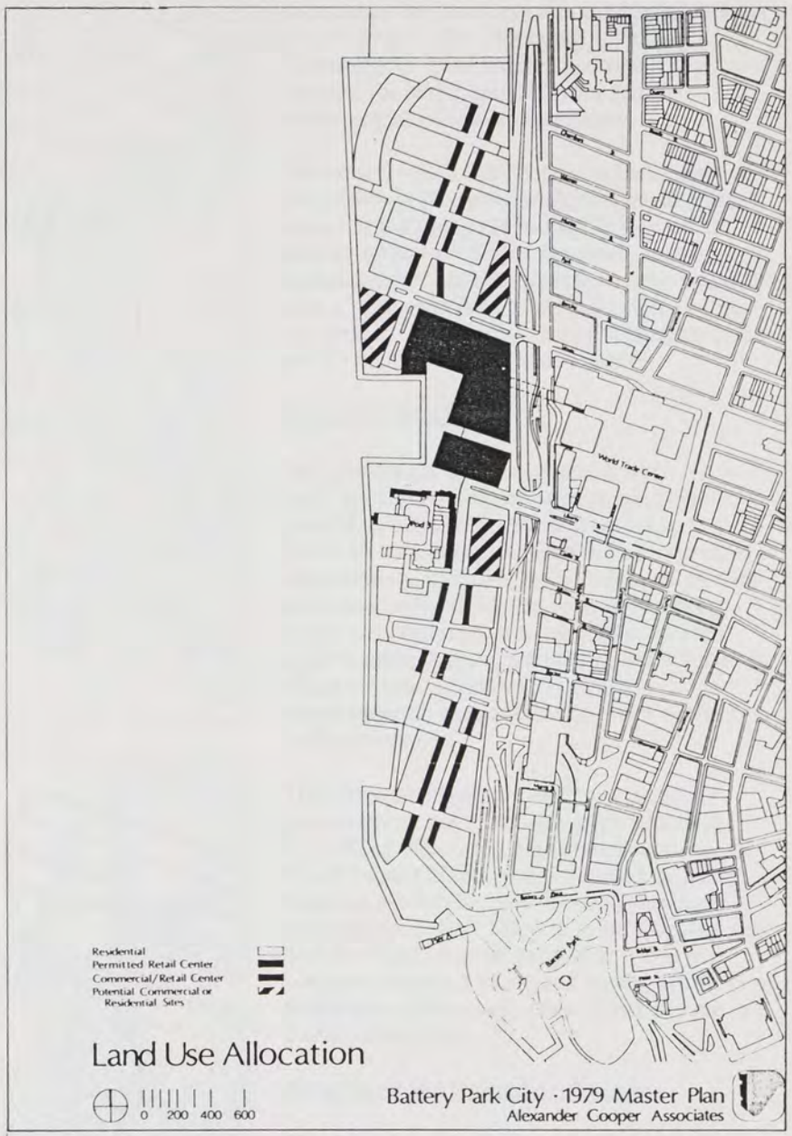
Planning Principles

In spite of the strategy's primary requirement to return the project to economic viability, the new plan did not deviate from its stated purpose to create an exciting, diverse urban environs. It was to embody "... acceptance of all that is desirable about New York's basic pattern of development. Included are the city's system of streets and blocks, its prevalent building forms, its density, its mixed land use and its efficient transportation systems. The consultant's objective has been to refine and develop these familiar elements of New York's environment and to adapt them to the unique opportunities presented by a magnificent waterfront site." (4)

The plan began with eight organising principles, in summary:

1. Battery Park City should not be a self-contained new town-in-town but a part of Lower Manhattan.





2. The layout should be an extension of Lower Manhattan's streets and blocks generating an 'organic' appearance, maintaining vistas and identifying precincts.

3. An active and varied set of waterfront amenities should be provided.

4. The design should take a less idiosyncratic, more recognisable form than that of the 1969 plan.

5. Circulation should be at ground level without vehicular/pedestrian separation, but vehicular access is to be limited to essential services and residents and public transport is to be optimised.

6. The development should have ability to develop and redevelop parcels and have an intensive usage mix as in traditional New York neighbourhoods.

7. The commercial centre component should be the focus of the project.

8. Land use and development controls should be sufficiently flexible to accommodate fluctuating market requirements.

Land Use

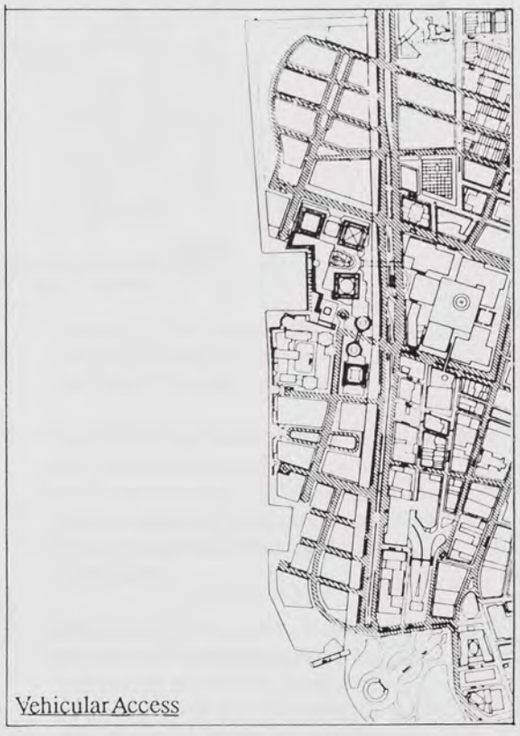
The plan broadly distributes land use into three zones. The commercial centre is located between Liberty and Vesey Streets on a site area capable of accommodating all required office space. These streets also form the southern and northern boundaries of the adjacent World Trade centre.

The zones to the north and south are contrasting types of residential neighbourhood and are desirably separated. The northern zone lies

Streets and Blocks

Open Space

Pedestrian Movement



Vehicular Access

adjacent to the Tribeca residential neighbourhood and the city's Urban Renewal project. Continuity to these areas is maintained by catering for larger units in lower scale development with more open space.

The zone to the south is better orientated to employees in the financial district having direct access to their place of work. This entails smaller units with higher densities. Open space is concentrated onto the waterfront promenade and onto a large contained space called Rector Place, intended as urban active spaces in contrast to the north's community orientated spaces.

Streets and Blocks

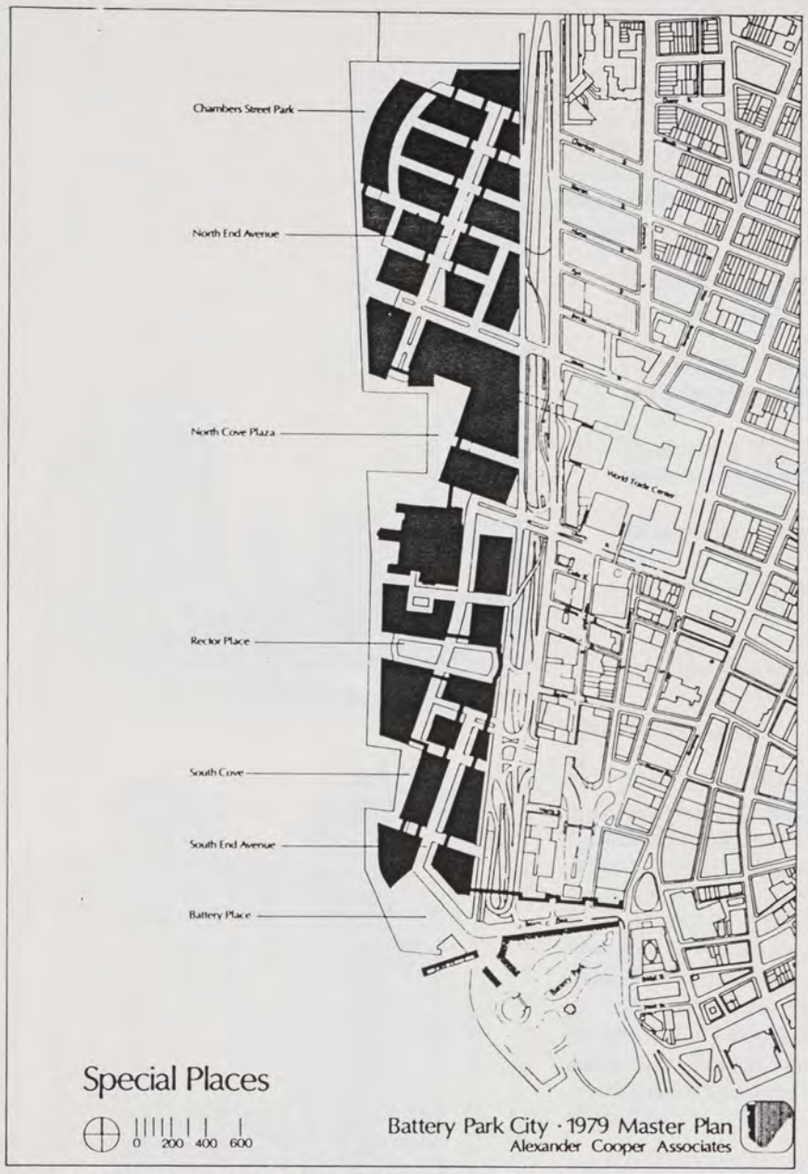
Each residential neighbourhood is served by a main avenue running north to south, roughly parallel to Broadway. These have limited vehicular access, are one-way and are orientated to retail activity, community facilities and prestige addresses. All side streets connect with the avenue and extend to the waterfront. In each neighbourhood, the street pattern is a microcosm of a traditional neighbourhood. Each neighbourhood has at least one major connection to the downtown.

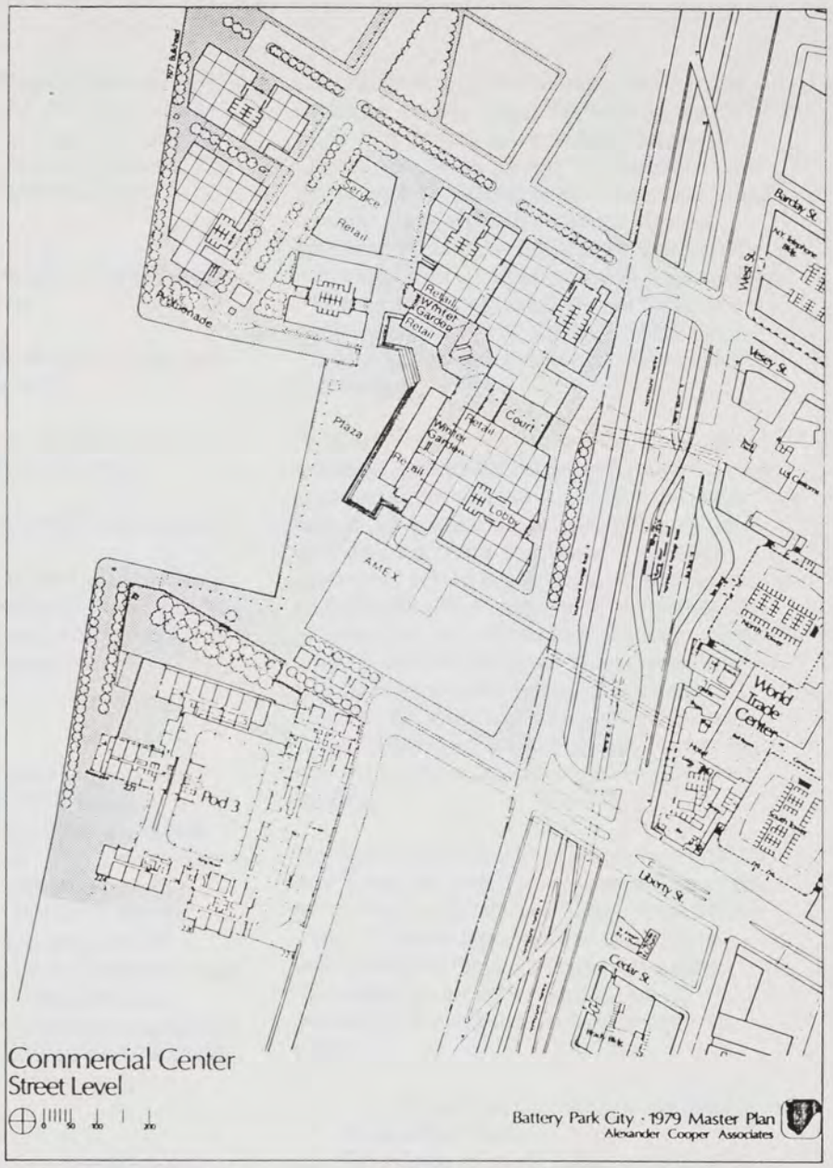
The commercial centres streets are basically private streets not accessible to general traffic. By shifting the commercial zone to adjacent the World Trade Centre reduces the need for heavy traffic as the World Trade Centre gives direct access to the Lower Manhattan subway systems and the PATH movement system. The two bordering streets, Liberty and Vesey, are the best distribution points onto West Street and out of Battery Park City.

Open Space and Pedestrian Movement

The provision of a variety of streetscapes, plazas, coves and of a wide waterfront promenade is a basic element of the plan. The plan envisaged 70% of the total site as open space of one form or another, stating open space to be New York's most valuable resource.

The waterfront promenade was foreseen as the organising element of the open space system, along which a series of seven spaces would be distributed, each thematically based according to the related use:





1. The Commercial Centre's great plaza, focus of the entire development and reconfirming water as its raison d'etre. It would consist of a harbour indentation forcing movement around it, a wide open promenade, and a gigantic glazed all-weather space called 'Winter Garden'.

2. Battery Place Park, at the extreme southern end, a transition from Battery Park into the development, more 'urban' than Battery Park, focussed on a restoration of the historic Pier A wharf and housing an art gallery or museum.

3. Chambers Street Park, the northern end 'magnet', to be used by the new residential neighbourhood and by the existing Tribeca community further north.

4. Rector Place, centre of the new Rector Place neighbourhood based on traditional European squares. It would also form a visual break and pedestrian connection between the waterfront and lower Manhattan.

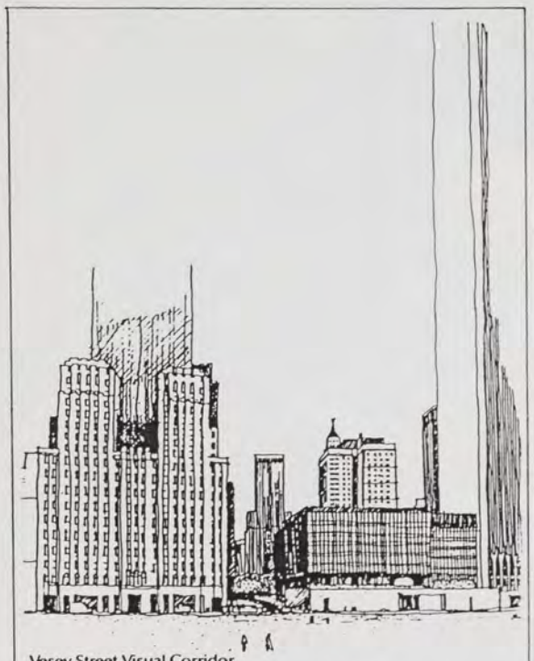
5. North End Avenue, the 'main street' of the northern residential neighbourhood and the organising element linking the neighbourhood into the great plaza. It would parallel Broadway thereby extending the Manhattan grid.

6. South End Avenue, the 'main street' of the southern residential neighbourhood, serving the same function and also as a landscaped boulevard. Primarily orientated to the same grid, it had to turn to its north to avoid the existing POD3 residential block.

7. South Cove, the waterside centre of the south residential neighbourhood at the end of the South End Avenue.

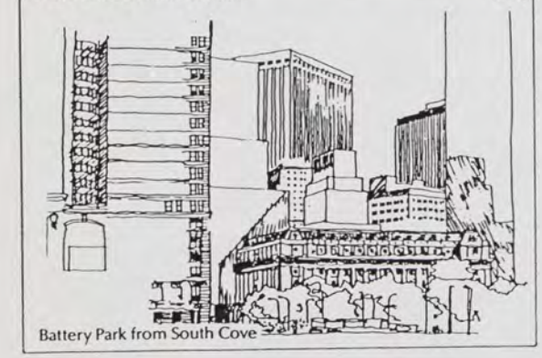
Commercial Centre

The Master Plan recognised that the commercial



Vesey Street Visual Corridor

Rector Street Visual Corridor



Battery Park from South Cove

centre would dictate the 'image' of Battery Park City. It had to compete with the World Trade Centre's powerful image yet avoid the scaleless inhospitable character of that development. The Plan set the following commercial centre guidelines:

1. Maximum building height of half that of the World Trade Centre.

2. Use of a podium base of human scale with uniformly set back towers.

3. Graduating of building heights from the water to the World Trade Centre.

4. Incorporation of the glazed 'Winter Garden'.

5. Segregation into seven development parcels to accommodate different developer/architect combinations with guidelines for an upper level internal walkway system.

Implementation

The 1979 Master Plan proposed that existing zoning classifications and street mapping methods be used in order to facilitate proposal development and approvals. This is in contrast to the 1969 Plan which proposed a Special Zoning District. The plan identified the Commercial Centre as an area requiring an overall density of FSR 15:1 pooled between each development. This would favour the first developer but must certainly in the outcome have encouraged Olympia and York to take the whole development knowing the total floor space allowable.

One of the most important recommendations, however, of the plan was for the Battery Park Authority to take the lead in facilitating development proposals. It recommended that it be seen to be actively committed, by providing the street layouts, by opening up the access and egress points from Lower Manhattan, by agreeing on bulk and density controls and by determining where flexibility would be permitted to encourage innovative proposals.

A5 THE WORLD FINANCIAL CENTRE - THE PLAN IN ACTION

Based on the Cooper-Eckstut Master Plan, 12 competitive bids for either full or part development rights in the commercial centre were received. At this stage, the winning bid had little to do with design, but reportedly because Olympia and York (O and Y) guaranteed the Authority's 1972 bond repayment schedule and because they agreed to complete the total commercial centre in half the anticipated time, at the end of 1986. But at least two major hurdles had been surpassed, the financial status of the Authority would be revived and a fast, large catalyst for following development would be underway.

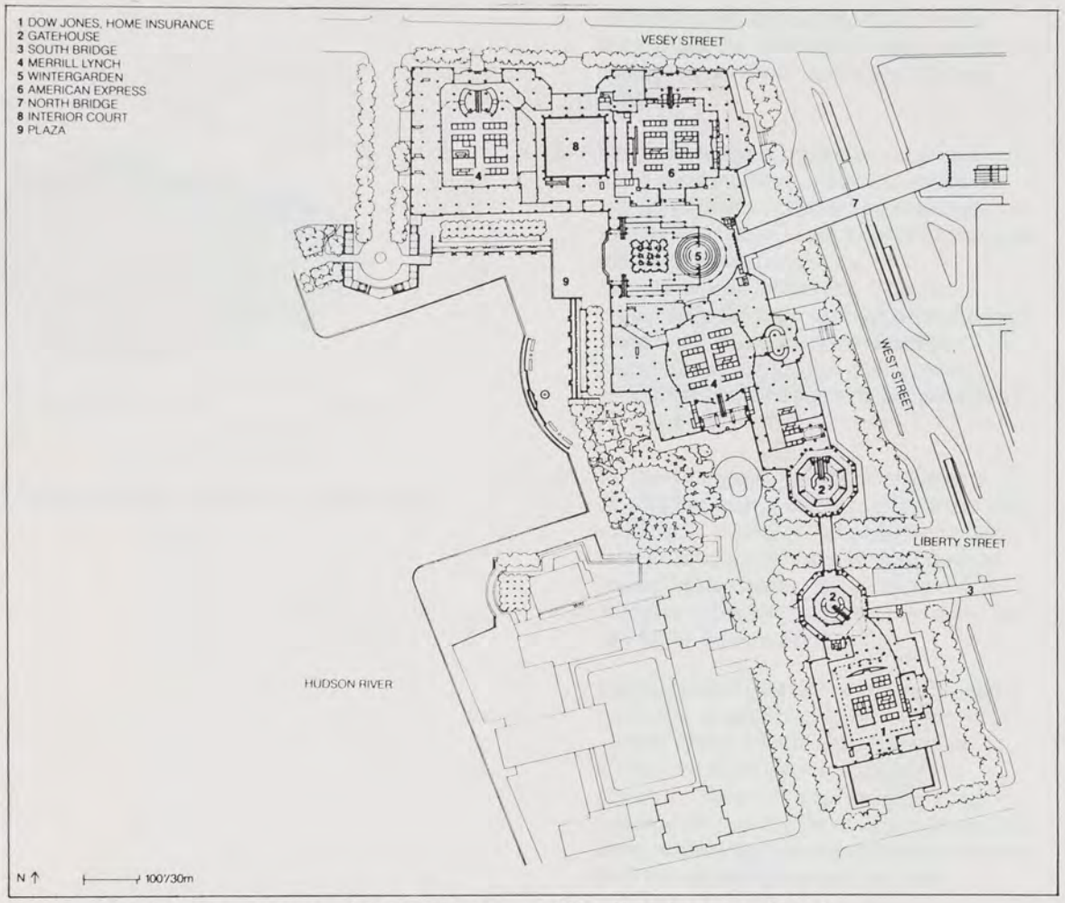
In return, the government agreed to vary the master plan requirement for individual building parcels, approve O and Y's bid for the entire $1.5 billion 5.6 hectare site and grant O and Y a 10 year deferral on tax payments. This latter agreement was to later cause an important change to the Master Plan and one of its failures - to provide low income housing at Battery Park City. It enabled the government to prolong its objective to provide such housing until it received the taxes and then to divert its use to finance housing elsewhere in Manhattan, thus making room on the site for more upmarket housing.

Having secured the site in November 1980, O and Y held its own limited competition to select an architect and a scheme based on the Master Plan. With the agreement of the Authority, O and Y selected Cesar Pelli and Associates, interestingly, for their combination of development and design achievements. They cited:

1. An architectural consistency comparable to Rockefeller Centre;
2. Repetition of tower elements making them easily buildable;
3. Avoidance of Post-Modernist pastiche which they felt would have been quickly out of date.

The Authority too recognised a number of other benefits in the scheme, meeting and refining the Master Plan guidelines:

i) the strong collective identity of the towers having similar but slightly varied expression;
ii) the response to the setback guidelines where a constant low scale parapet continued in front, and the towers successively set back from the street line;



iii) the stepping of towers from the waterfront up to the World Trade Centre towers so that those buildings became anchored back to reality;
iv) the incorporation of the PATH and subway links and of elevated bridges over the mammoth West Street freeway;
v) the design of the 'Winter Garden', not just on the Great Plaza but extending through the development to face lower Manhattan;
vi) the provision of an alternative walkway system to the ground, at first level linking all the building lobbies and climaxing in the Winter Garden.

However, there were also a number of significant departures from the Master Plan and a number of refinements not previously conceived, which demonstrate the importance of the contribution made by the developer and the architect in the overall development process.

The Developer's Input

A major change to the Master Plan was Olympia and York's requirement for the number of development parcels to be reduced from seven to four, in order to allow them much larger floor areas within the overall floor space allowance. This was based on a belief, which later proved correct, that the development could be aimed at the highest corporate level, not as thought by the Authority, at Wall Street institutions wanting back up space on cheaper land. This change had two major impacts:

- it established waterfront sites as the future prime commercial real estate and upgraded the general image of the waterfront;
- it determined that the site would have 'bulky' rather than slender towers.

It is worth noting O and Y's method to induce tenant interest in the project. They offered to take over the Manhattan office building of City Investing Company at its asking price in return for that company agreeing to a long term lease in Battery Park City. Having secured this one prestigious tenant, as early in the project as 1981, they were able to arrange a similar exchange with American Express and changed the project name to World Financial Centre. This led to the signing up of Merryl Lynch in 1984. Thus, the second major input of the developer was to generate their own interest in the project, something which the Battery Park city Authority had spent 12 years unsuccessfully endeavouring to do.

The third input of the developer was to hold its own initial architectural design competition. This gave both themselves and the Authority a choice and meant a smoother acceptance of their proposal. It is also a preferable method to that in which developers submit schemes with their bid in the first instance, which inevitably leads to the highest bid rather than the best design succeeding. By O and Y's method, competition is based strictly on urban design and architecture.

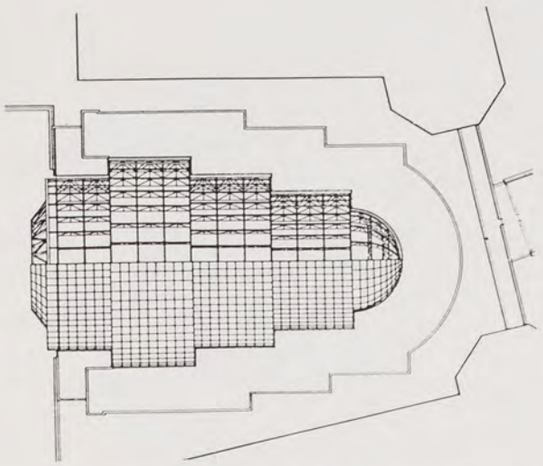
Fourthly, by attracting such high value leases, they were able to inject enormous capital into the project, thus upgrading the quality of development to establish the vast Winter Garden, to use granite and marble extensively and to create generous foyers and public spaces.

The Architect's Input

While Pelli adopted the principle design guidelines, with the exception of the change to four towers previously mentioned, his scheme is an extremely clever refinement of the plan. In particular:

1. He not only clearly established a continuous nine storey parapet, but also set back the tower facades as if they had a succession of 'peeled jackets'. This visually reduced the mass of the towers.

   From ground to top, each 'jacket' has a reduced solid/glass ratio so that the base is a masonry colonnade, the mid-height scale is defined and the top recedes into the sky. This technique also casts the homogeneous World Trade Centre towers into the role of a background curtain.



Proposed Winter Garden glazed roof.

2. He maintained this architectural system throughout the scheme, giving it an identity through consistency rather than through height.

3. He resolved the complicated intersection of street axes meeting at the site, which the master plan had not done, by rotating some towers in relation to the base orientation so that two orientations could be simultaneously addressed. This is particularly the case with the Merryl Lynch Building B where the tower faces down Vesey Street and its base addresses the waterfront plaza on one side and the freeway on the other.

4. He used the glazed 'Winter Garden' as a divider between buildings, at the same time extended it through the development into one of the main elevated bridges into the World Trade Centre. By these means, he provided unimpeded public access from the city to the water's edge.

5. He established two low octagonally-shaped buildings as gateways on either side of Liberty Street which is the only main downtown street into the commercial precinct. These perform the important function of drawing the tower scale down to street scale using similar distinctive tops on both towers and gateway buildings.

6. He developed the first floor level as an exclusively public movement area so that it would not be necessary, unless desired, to descend from the level of the elevated bridge links in order to access the entire complex.

Critical Appraisal

In terms of physical urban design, there can be little question that Battery Park City's World Financial Centre represents the fruition of a sensitive Master Plan. It reads as a city extension to the waterfront, makes the water openly available, maintains streetscape and streetscale, meets commercial demands and provides diversity of space.

There, however, are some valid criticisms of the development:

1. In producing development of such prestige quality, there is little place for retail. What little there is faces inwards and the great plaza fails to be activated.

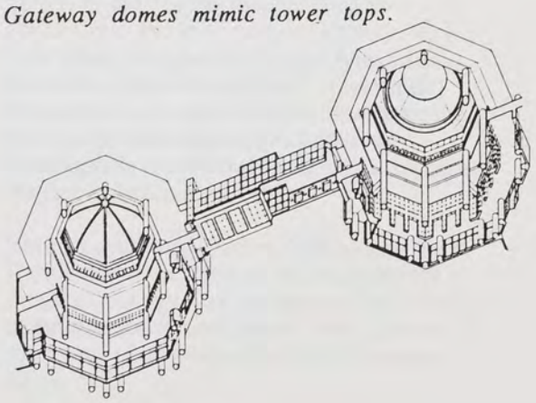
2. The plaza is designed in two tiers further excluding general public from the buildings on the water side of the development.

3. The West Street (expressway) side is peculiarly non-urban with its wide lawn appearing rather like a backyard, activated only by two monumental building entrances, which would be seldom used by those few who would brave a freeway crossing.

4. The 'Winter Garden' glazed atrium is a monumental space with little public activity save two 'white tablecloth' restaurants, and it is difficult to get out of or more importantly, to get into from the waterfront. This reinforces the exclusivity of the development.

   It is apparent that the primary purpose of the World Financial Centre is to be used by its occupants but viewed by everyone else. In this sense, it represents the 'rebuilding of the wall' described by Buttenweiser in 'Manhattan Waterbound'. While the primary step of creating a continuous public waterfront promenade has been taken, New York will have to wait for another development to break down the intervening barrier from city to promenade, if it ever happens. History suggests that it won't.

Gateway domes mimic tower tops.



A6 THE RESIDENTIAL NEIGHBOURHOODS - THE PLAN ALMOST WORKS

In various stages of progress, Battery Park City has three residential precincts:

1. The Rector Place precinct, south of the W.F.C., completed in 1988
2. The South precinct, south of Rector Place, in mid-construction in 1989.
3. The North precinct, north of the World Financial Centre, not yet commenced

In essence, the physical Master Plan guidelines for each of these neighbourhoods are similar to those for the commercial centre, adapted to the different use and with some guidelines and provisions specific to the particular precincts. Above all is the repeated desire to recreate what is best about New York - the residential neighbourhoods around Gramercy Park, along the western fringe of Central Park and along Riverside Park. What was determined to be the best was the dominance of the square or park with the buildings receding into background.

A major requirement was that each apartment block be developed by a different developer, or where that failed, by a different architect, giving the neighbourhoods a distinctive and 'organic' character, as if created at different times. Scale, variety of form and building to the streetfront were the predominant requirements to be achieved by a number of rules, in summary:

1. Blocks should not have open spaces; these were to be provided by the Authority in predetermined places;

2. High towers are only permissible at defined points to identify corners or gateways into the neighbourhood;

3. All buildings are to have stone bases and masonry walls and are to be articulated by 'expression' lines, roof modulation and small windows;

4. The main boulevard in each precinct is to have retail activity on the western sides only at ground level and protected by colonnades;

5. No one building is to appear to dominate the others;

6. The base, middle and top of each building is to be defined;

7. A variety of brick surfaces is required and spandrels are to be concealed;

8. Balconies are generally to be contained behind the external walls;

9. Height and bulk controls are specific to each block and based on sunlight and view requirements;

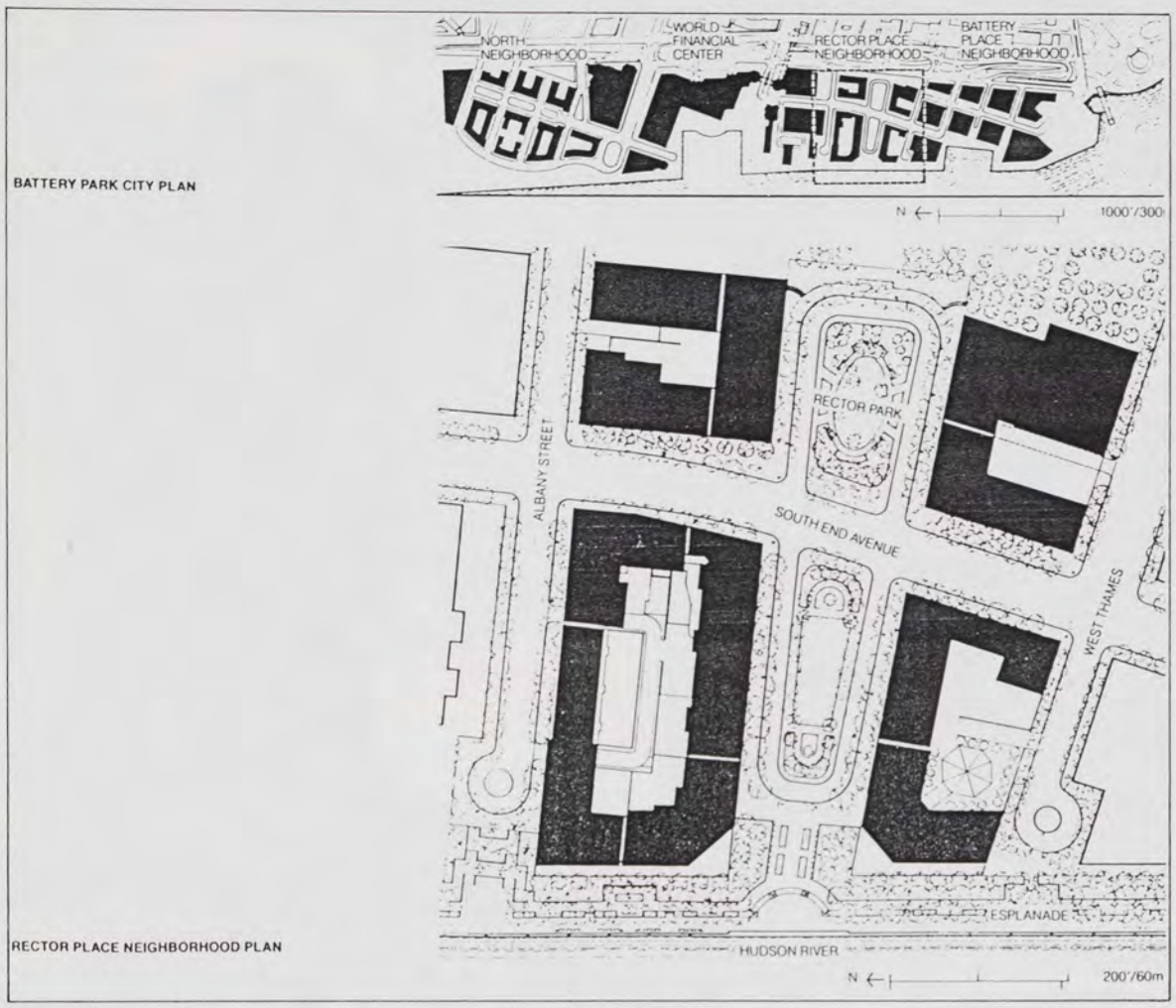
10. The plan forms are to follow those of the master plan unless there are exceptional circumstances.

The intent of the guidelines is clear. The master planners were not after a distinctive waterfront character, but simply another piece of Manhattan. The same could be said of the commercial centre, but it was more important to the planners that the residential neighbourhoods had an 'established' character. So where the planning Authority allowed a single developer/architect combination to impose its own vision on the master plan of the commercial precinct, here it required strict adherence, despite the inevitable attitudinal conflicts and different expertises of the developer's architects.

Unfortunately, it didn't quite work out. In many cases, the developer/architect complained that the plan forms did not suit residential proportions, the predetermined entrances were far from their appropriate positions and the restrictions on materials forced them to seek cosmetic methods in order to give their developments an image.

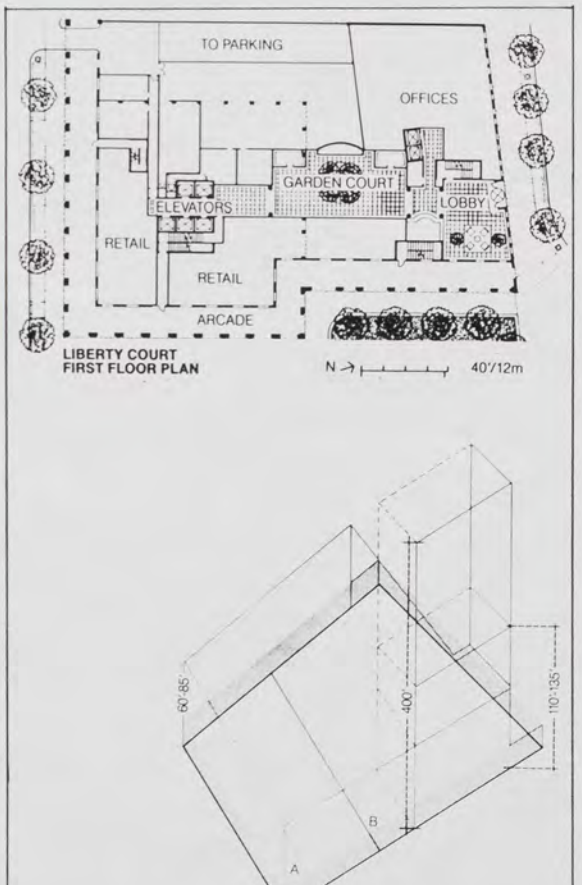
Where the Authority has succeeded is in providing the 'special' places of character - the South Cove, the 'main streets', Battery Place Park (being designed by Cooper Associates themselves) and Rector Place. It has in fact succeeded in its intent to make open space the linchpin of each neighbourhood but the buildings, far from being background, appear as the result of frustrated minds.

There is apparently, for the forthcoming North Residential Area, a review of the guidelines in progress, but this may not prove to be beneficial to the neighbourhood, rather it may destroy it by the proposed intrusion of a fifth office tower block.



BATTERY PARK CITY PLAN

RECTOR PLACE NEIGHBORHOOD PLAN



LIBERTY COURT
FIRST FLOOR PLAN

BULK GUIDELINES

As previously noted, there is to be no low income housing in the neighbourhoods, as envisioned in the Master Plan. It is to be housing at market demand, a community of professionals seeking a combination of house, city, workplace and waterside. Much of the additional income that the Authority receives is channeled into housing rehabilitation programmes elsewhere and to help it repay borrowings used for the construction of streets, squares and plazas. Developers are required to pay in three ways to the Authority - rents for land derived from 99 year leases, direct development fees of up to $60,000 per unit sold, payments in lieu of sales and real estate taxes - and while the Authority did not reach profitable status until 1987, it now expects a profit around $10 billion on completion.

It is difficult to criticise the shift of low income housing as undoubtedly other needy areas in Manhattan will benefit. But the fact remains that the Master Plan was not followed by its own Authority and Battery Park City is to become the domain of the elite.

Rector Place and South Residential Neighbourhoods

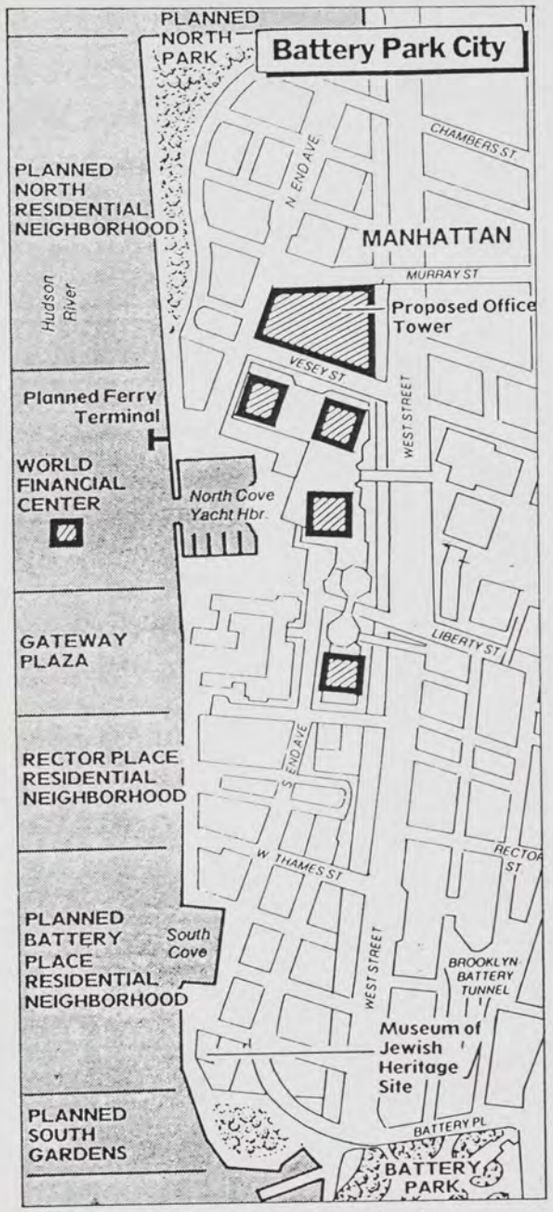
Rector Place consists of 10 buildings containing 2210 apartments on four street blocks which face onto a pedestrian square extending from the promenade to West Street. The buildings are direct reflections of the master plan and the 'Place' is richly landscaped and highlighted by experiential artworks. It is sufficiently wide not to deter people from entering it, but there is a notable change of level in front of the buildings to keep them at bay. There is also a disturbing abruptness as the buildings meet the waterfront promenade.

The existing POD3 (Gateway Plaza) built on the old 1969 Master Plan remains stolid and forbidding to the north and no attempt has been made to reduce its impact by new buildings.

Restricted by aesthetic controls, architects have looked to applique for expression - hence the ornamental arches halfway up Charles Moores 'Park Rose River Rose' Apartments and the ziggurat atop Urich Franzer's Liberty Court. Inside the spaces are tight and narrow suggesting a quick rise to the apartment. Without restrictions on apartment quality, and with most finance put into the stone facades, the apartments are mostly small and cheaply finished.

It would appear here that the relaxation of planning controls, which ironically the Master Plan demanded in criticism of the 1969 plan, has not occurred. The lesson is that restrictive planning controls do not necessarily produce good architecture, even if they achieve good open spaces.


ACADEMY
CONNECTICUT AMERICAN



The South Residential Neighbourhood is following this same pattern with only its two 'special' places - the South Cove and Battery Place Park being exceptional. South Cove is focussed on an artist-designed helical wharf descending from a viewing platform right down to the water surface. It is possibly the only element in the entire development to embrace the water, certainly the only place to touch it. Battery Place Park is to be the Manhattan equivalent of Sissinghurst. It will contain 24 220 square metre garden 'rooms' each with a theme-colour, apple orchard, water park and so on. It is in a sense an 'urban' park in that it promotes active participation rather than passive recreation. It is to be focussed on a cultural facility, the Jewish Heritage Museum, which, while not in the park as Cooper-Eckstut hoped, is at least in the base of the closest residential building.

The North Residential Neighbourhood

Since the release of the 1979 Master Plan, development of Battery Park City moved so rapidly that the plan remained fairly well intact. With 10 years past, it was perhaps inevitable that any still undeveloped area would have to change to suit new market influences. The Master Plan had even predicted this.

But there must be a point at which change causes the Master Plan to no longer be a Master Plan. The current proposal to infiltrate this residential precinct with 186,000 square metres of office space over three of its fourteen street blocks, generating $1 billion more in government revenue, may be a case in hand. Even the Authority's president declared the site as a 'lousy site for an apartment building' (5), in defiance of his own Master Plan. The planners have responded by reconfiguring the remaining residential precinct to orientate its focus northward to a larger, serpentine-shaped park and to increase activity along the water with a ferry landing, ice rink and hotel.

This departure from the Master Plan demonstrates that development of the waterfront in Manhattan directly reflects, as it has done from the 18th century, commercial demands. Regarded at last as a precious public resource, the waterfront nevertheless remains the domain of exploitation. The only truly perceptible gain is approximately 30 metres of waterfront strip that channels people along the foreshore, if they can get there.

The government will redirect $600 million of its billion dollar additional profit to housing rehabilitation in Harlem, the Bronx and other far away areas, but development on the waterfront still retains social, economic as well as physical barriers to public use. Buttenweiser concludes her book on Manhattan's waterfront with: "History, which has shown countless revivals of the city's waterfront, has also a haunting aspect." (6)

Footnotes

1 Lewis Davis FAIA in Architecture. April 1988. p 67

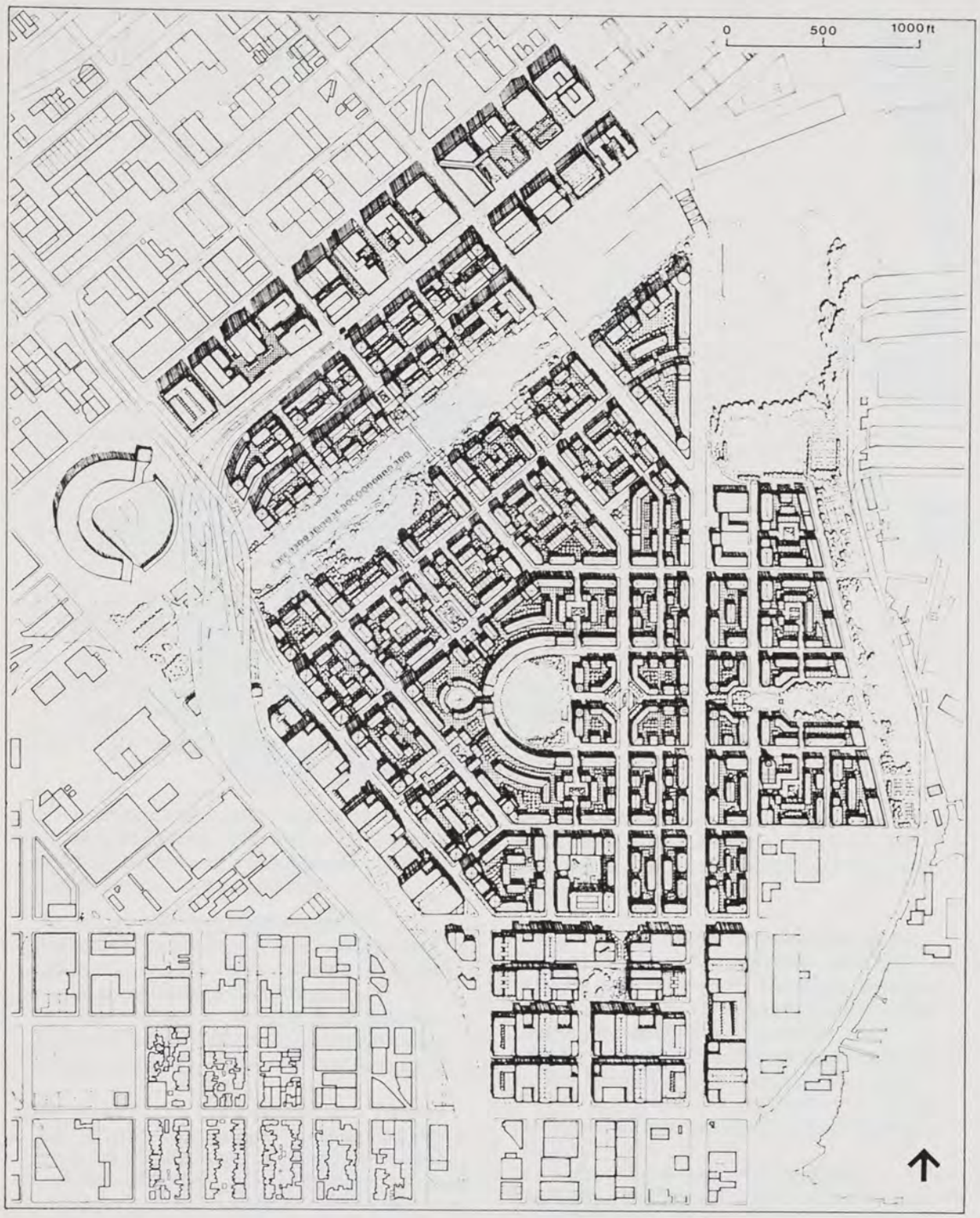
2. Carter Wiseman. Architectural Critic for New Yorker Magazine. In Architecture. April 1988. p 93

3. Jencks, C. Modern Movements in Architecture. University Press Oxford. 1973. pp 339-341

4. Master Plan 1979 for Battery Park City. Alexander Cooper Associates

5. New York Times 'Battery Park City: A new phase begins'. Sunday June 19, 1988

6. Ann L. Buttenweiser: Manhattan Waterbound. p 219



Current Mission Bay Master Plan.

The redevelopment of Mission Bay makes a good comparison to Battery Park City. It shares the same time frame as Battery Park City; it also involves rejection of a previous Master Plan; and it is planned as an extension of the city, though quite a different city to New York.

It also makes good contrast. It is not recent landfill as is Battery Park City's site, it is genuine redundant rail and dock land. It is not government land seeking private development, but mostly private land being developed by its historic owner. It has historic associations whereas Battery Park City had none. And it is predominantly low and moderate income housing meeting crucial city needs, whereas the other involves upmarket housing and prestige offices meeting a market rather than a social demand.

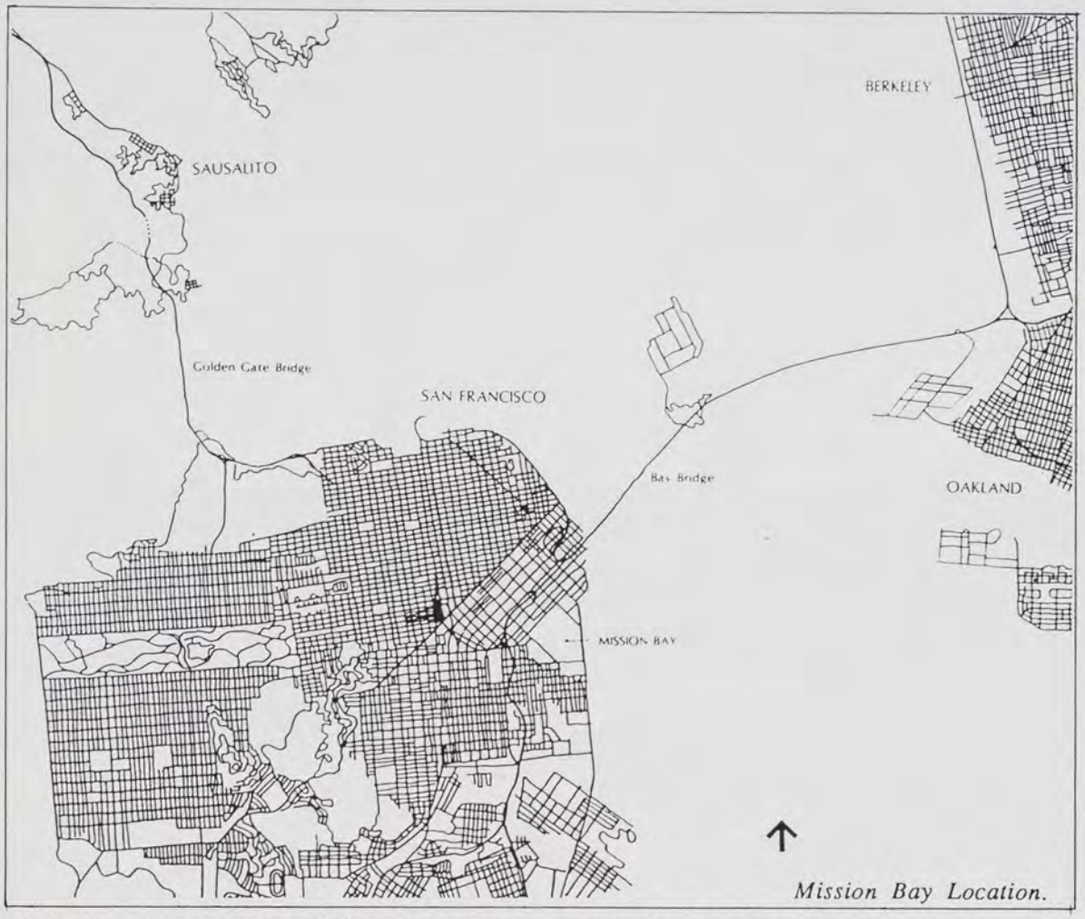
Its development process also differs significantly. No special participatory Authority was established to develop guidelines. The City's Planning Department prepared guidelines with the advisory assistance of several private planning and architectural firms inputting particular expertise. The City does not directly derive financial benefits for channelling elsewhere, only for the development itself.

It is unfortunate that, unlike Battery Park City, there is no development yet on site to assess. But the very nature and extent of this project, and the thoroughness and political history of the development process, mark it as probably the most significant waterfront redevelopment in this period of world waterfront revitalisation, along with London's Dockland redevelopment.

B1 BACKGROUND

Mission Bay occupies approximately 120 hectares of disused railway land on the eastern foreshore of San Francisco. It is 3.2 times larger than Battery Park City, but over 18 times smaller than London Dockland's 2200 hectares. It lies in proximity to the city centre about the same distance as Docklands from London.

It is bounded to the north by China Basin, the only remnant of the original bay, which separates it from downtown San Francisco. The basin is lined with partially renovated warehouses on its northern edge. Between the warehouses and the city centre is the downtown area known as South of Market, a downmarket area of light industry,



Mission Bay Location.

wholesalers, cheap housing and shops but having a vitality of its own. This area is experiencing rezoning as a secondary office precinct with nightlife entertainment facilities.

The eastern boundary is formed by Port Authority waterfrontage to San Francisco Bay, and there is consideration of whether port uses should consolidate or diminish along the foreshore. At present, the waterfront does not form part of the development area and the only directly accessible waterway is the China Basin.

The western boundary is the Interstate Freeway 280 linking southern residential areas with the city, with a small corner of the site lying on the other side of the freeway. The freeway, combined with railway and port lands, have historically cut off San Franciscans from the water. Here the history of public waterfront alienation is clearly illustrated - firstly by sea cargo, secondly by rail cargo and finally by the automobile.

The southern boundary is the smallest and least clear, where the site drifts into light industrial areas before meeting the established Potrero Hill residential neighbourhood.

Mission Bay falls under the jurisdiction of the City and County of San Francisco which has planning authority over it. The major portion of 69 hectares is owned by Sante Fe Pacific, a joint company created by the merger of the two railroad companies Santa Fe and Southern Pacific Realty Company. 32 hectares are City owned, 17 are State land held in trust by the Port of San Francisco, and two are owned by private groups.

Much of the site is now barren wasteland. Originally a bay formed at the mouth of Mission Creek, it has been gradually reclaimed over the past 100 years. Its underlying surface is fill and sedimentation caused by sewage sludge and tidal mud flows making it poor foundation material.

Unlike the Battery Park City site, which was formed by recent landfill operations, Mission Bay's history is relatively typical of most port/railyard tracts across America. Before 1850, it had been swampland supporting varieties of marine and bird life. It was first used for brickworks and a bridge called Long Bridge was built for transport over the channel. Intensive development began in 1868 when the Southern Pacific and Central Pacific Railroads built a railroad terminus and railyards, warehouses and finger piers along the waterfront. At this time, nearly half of the city's sewage ws drained into the bay. Following the 1906 earthquake, enormous lumber and millyard operations expanded industry inland and shipyards occupied most of the forehsore. The bay was used as a major dumping ground for earthquake debris.

Complete severing of the bay area from San Francisco occurred in the mid twentieth century with construction of the elevated Interstate Freeway, some thousand metres from the shoreline. When containerisation and industrial decline, together with competition from nearby ports, destroyed the economy of the bay area, the site fell into almost total disuse with the exception of the immediate waterfront. Most of the area has been used for carparking over the last two decades, and little historic building stock remains.

B2 REDEVELOPMENT HISTORY - EARLY PLANNING FAILURE

Like Battery Park City, Mission Bay had been the subject of a previous Master Plan, developed for Southern Pacific in 1980 by I.M. Pei and Partners, and Wall, Roberts and Todd. This plan proposed the site for a second central business and high density residential district to San Francisco. It would have produced, albeit on a larger scale, a similar development mix to the final resolution for Battery Park City. It has also been noted to have similarities with the I.M. Pei/Skidmore Owings and Merrill proposal for Canary Wharf in London's Docklands (1).

The Mission Bay plan was blocked partly by the existing financial district, fearful of competition, partly by residents of Potrero Hill to the south whose city views would have been impaired, and partly by the developer, concerned at the cost of bearing high rise construction on the sludge and mud landfill. Community groups also opposed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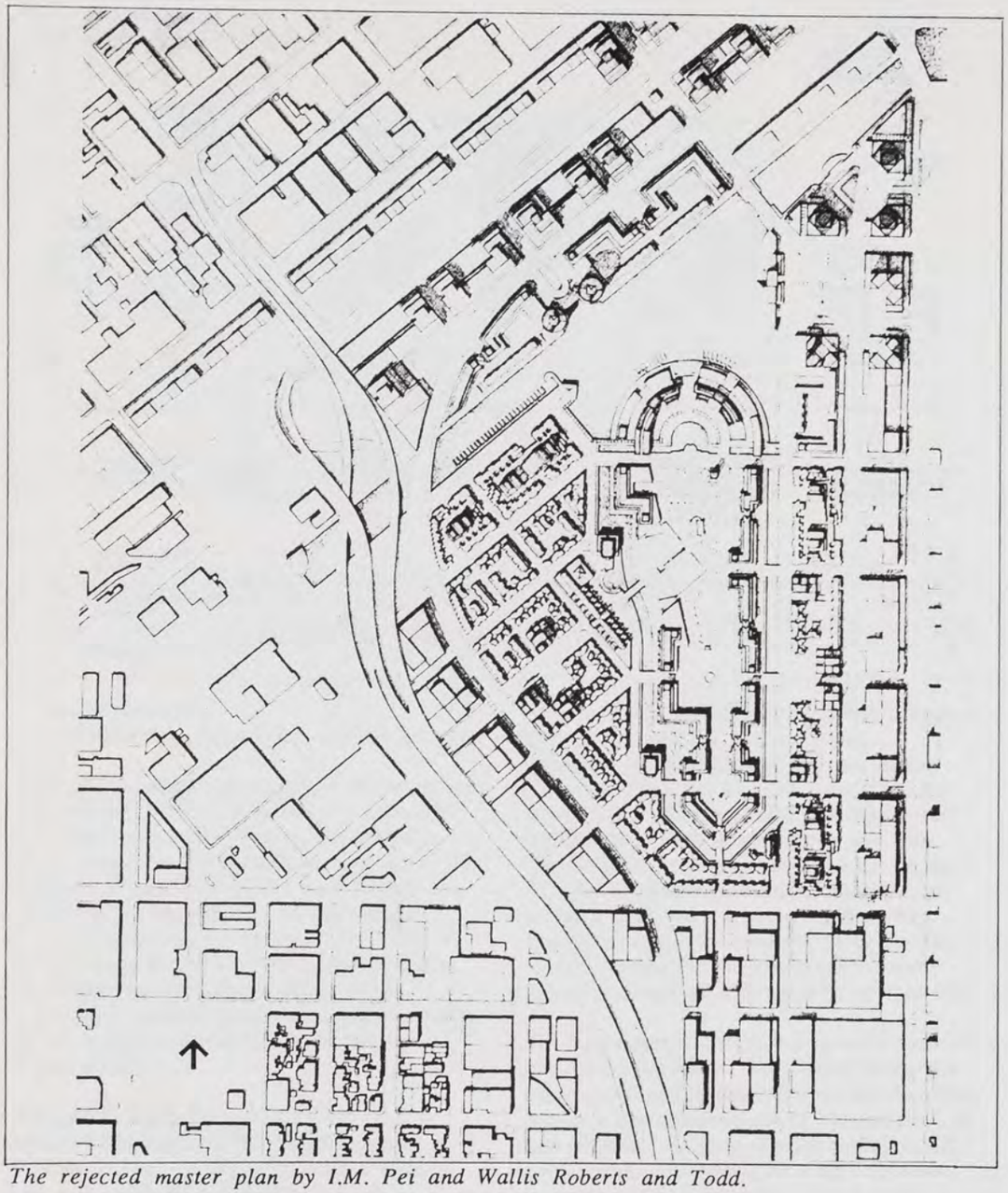
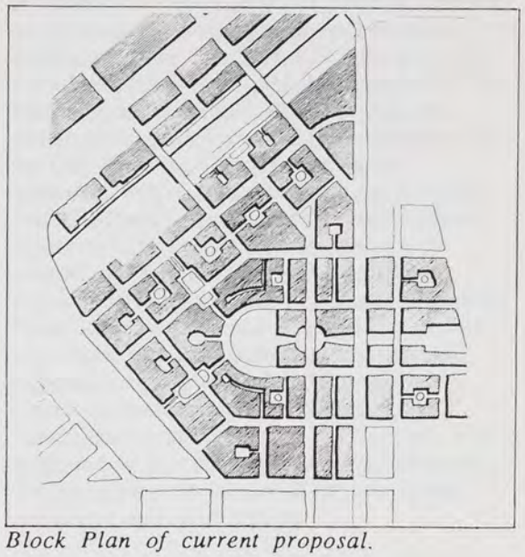


The rejected master plan by I.M. Pei and Wallis Roberts and Todd.

the plan which would not have solved the city's acute housing deficiency, nor would it have maintained the traditional neighbourhood pattern unique to San Francisco.

This latter opposition shares direct similarities to the redevelopment of Sydney's Woolloomooloo in the late seventies where union-supported public opposition prevented development of a high rise office and residential precinct in favour of maintaining existing low income housing. Mission Bay also compares to Woolloomooloo in that both are urban waterfront redevelopments, yet neither involves revitalisation of the waterfront itself, at least, in the case of Woolloomooloo, not until this year (2).



Block Plan of current proposal.

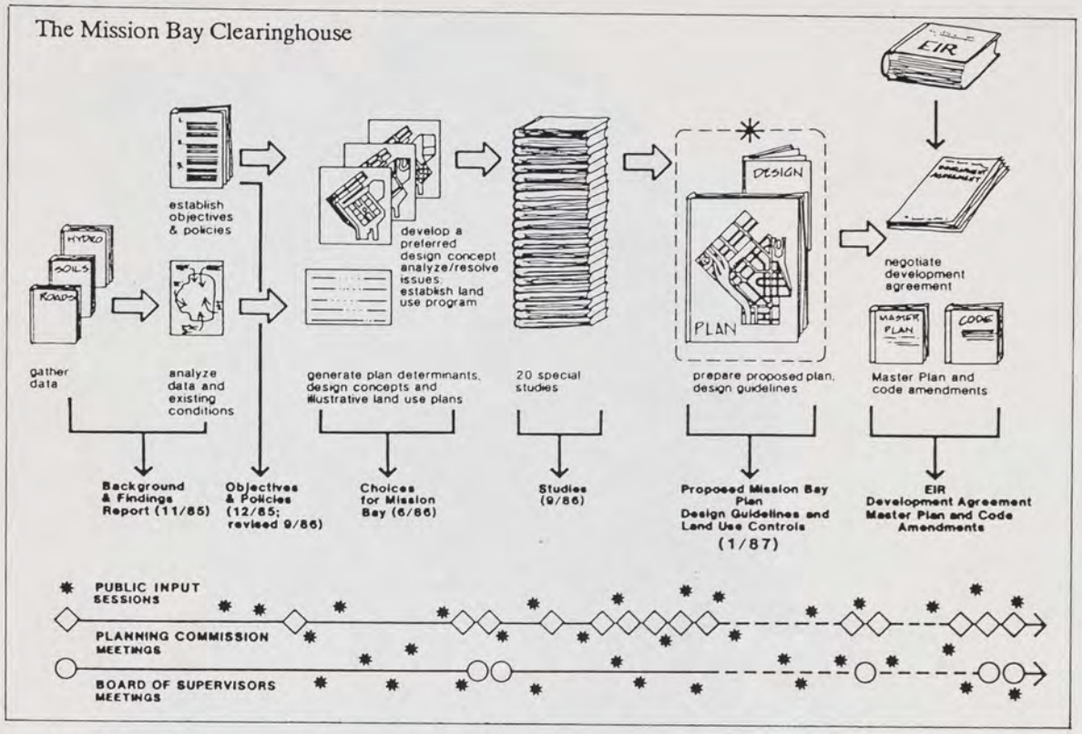
Opposition to the Pei plan grew sufficiently strong to force its abandonment and to force Santa Fe Pacific into a process of negotiation with the City's Planning Department leading to preparation of a completely new strategy.

B3 THE PLANNING PROCESS - AN UNPRECEDENTED APPROACH

The negotiations resulted in a unique process whereby Santa Fe Pacific would fund the City Planning Department to hire planning and architectural consultants to develop a new master plan and development guidelines. The principal consultants chosen were ELS/Elbasoni and Logan Architects, and Daniel Solomon and Associates, the latter firm being renowned for developing housing guidelines that preserve traditional San Francisco neighbourhood characteristics (3). A prototype for the Mission Bay plan was their Amancio Ergina affordable housing project in San Francisco's Western Addition.

A letter of agreement between Santa Fe Pacific and the City's Mayor was signed in October 1984 calling for:

- a minimum of 7,577 dwelling units, one third to be affordable housing with 50% of that housing financed by Santa Fe and 15% by the City
- 371,600 square metres of office space
- 232,250 square metres of research and



development space
- a maximum building height of eight storeys

With its consultants, the Planning Department's task was to evaluate alternative strategies and to develop guidelines for housing, commercial space, research and development, open space, transport and traffic facilities, with the objective of submitting its proposals to public and community groups for review. Some 1200 groups, agencies and individuals participated in the strategy preparation through over 40 community and professional organisations, under an information network called Mission Bay Clearinghouse.

This phase resulted in publication of 'The Mission Bay Plan - A Proposal for Citizen Review' in January 1987, following a series of interim reports entitled Background and Preliminary Findings Report (November 1985), Objectives and Policies Statement (September 1986), and Choices for Mission Bay (June 1986), along with 20 special issue-orientated studies released in September 1986.

The second phase in the Master Plan process was production of the 'Mission Bay Draft Environmental Impact Report (EIR)1 in August 1988, based on the public responses. Interestingly, the Draft EIR does not directly assess the impact of the Plan Proposal in the 'Proposal for Citizen Review' but objectively analyses three broader alternatives, one (A) similar to the Plan in use mix and layout, one (B) virtually deleting commercial activity and increasing housing, open space and wetland conservation, and the other (N) being the 'No Project Alternative' proposing extension of current port and industrial activity over the site.

The third alternative (N) was required because of an existing document, 'The Central Waterfront Plan', developed by the Port Authority to revive maritime and industrial use of Mission Bay. In this proposal, rezoning of Mission Bay would not be required providing for a rapid approvals process. Both Alternatives A and B would require rezoning, but like the preliminary Master Plan, were developed to permit use of all existing planning and building codes in order to expedite approvals.

The Draft EIR is currently undergoing a period of public review. Publication of a Final EIR will follow, combining the Draft with public comment. It is envisaged that majority approval of Alternative A would lead to endorsement of the Master Plan. The Draft EIR does not make recommendation on the preferred alternative. The Final EIR and its proposed Master Plan and development guidelines will require approval of the City Planning Commission, and an agreement will be signed between the developer, Santa Fe Pacific, and the City's Mayor defining the terms of approval. The agreement will include the Preferred Plan which will detail requirements for amending the Central Waterfront Plan, Planning Code and Zoning Map. It will also define physical constraints, phasing and construction programmes, and financial and economic instruments. It is expected that construction will commence in 1990/1991 with a proposed 30 year construction period, allowing for cumulative assessment of environmental, social and economic impacts.

This process has several advantages over traditional planning and approvals methods used elsewhere:

1. The planners are not influenced by the developer - rather than being employed by the developer, they are under the City's jurisdiction but funded by the developer.

2. Public participation is systemically sought and integrated into the process, unlike virtually every other waterfront and unlike the previous proposal for Mission Bay.

3. The Environmental Impact assessment is independent of the developer, and assesses relative impacts of other alternatives.

4. The developer's input is recognised but the City can exercise its planning control to prevent undesirable developer requirements.

5. The City Planning Department is not only an approval mechanism but also has a participatory role, and uses the best of private planning firm advice rather than relying solely on its own resources.

B4 THE MASTER PLAN - A PRAGMATIC VISION

The Mission Bay 'Proposal for Citizen Review' is a visionary plan. It anticipates a solution to the city's critical needs for housing and for employment. It envisages a new residential

neighbourhood based on a tradition of such neighbourhoods unique to San Francisco. It considers the site as a potential 'knuckle' connecting the southern residential areas of the city with the city centre via the waterfront. It sees itself as a catalyst for the return of San Franciscans to waterfront living.

It is widely recognised that San Francisco already makes considerable public use of its waterfront through Fishermans Wharf, Pier 39 and the Embarcadero Centre in the city centre; as well there are several internationally recognised waterfront redevelopments close by - the Embarcadero in San Diego and Sausalito to the north. These developments are, however, tourist orientated and rarely used by San Franciscans. Mission Bay is the first genuine attempt to physically and socially revive the waterfront for the city's benefit.

Physical Planning

Mission Bay lies at the juncture betweeen the two dominant planning grids of the city. To the south is the tight north-south orientated grid of residential Potrero Hill, a grid of similar grain to most of San Francisco. To the north is the diagonal grid of the 'South of Market' district, more open (about four times the Potrero block size) to suit the semi-industrial activity of that area. Both grids were originally laid out in 1847 by the engineer Jasper O'Farrell.

China Basin, the major physical feature of Mission Bay, follows the 'South of Market' grid, separating most of the site from that area.

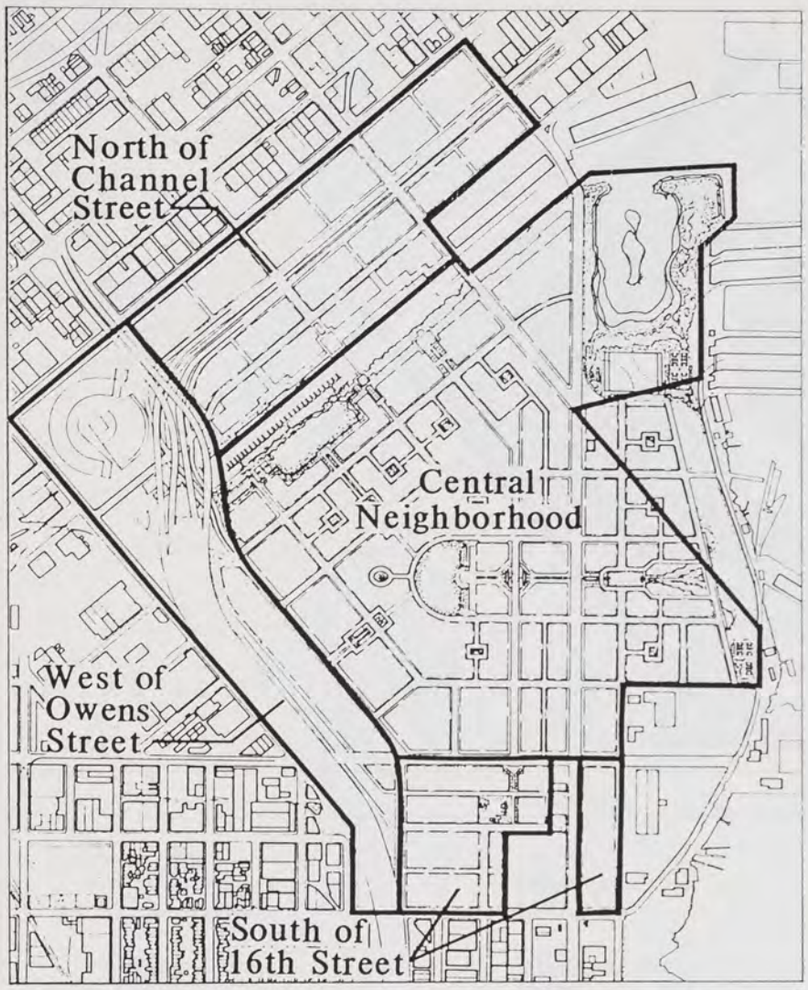
Continuation of either grid exclusively through Mission Bay would have been problematic. Extending the Potrero Hill grid would have produced a difficult interaction with China Basin and with the 'South of Market' grid. Extension of the diagonal 'South of Market' grid would have connected Mission Bay directly with the city downtown, but would have produced difficult junctions with the waterfront and with Potrero Hill; it would also have required smaller subdivisions for residential purposes.

The Plan not only resolves these two established grids within the site but in effect brings the neighbourhood of Potrero Hill to the city and vice versa. The pattern is a weaving of the two grids so that neither dominates, nor is there an abrupt line of juncture. It is a clever piece of geometry that produces continuity of streets between north and south neighbourhoods as well as producing a major focus, a crescent-shaped residential park axially orientated toward the waterfront from well back in the site.

It is a pattern which also accommodates the required number of dwelling units (approximately 7500) by suiting a variety of densities and housing types either already found in established city residential neighbourhoods like North Beach or Telegraph Hill, or the result of studies like the Cambridge Land Use and Built Form Studies, or found in other areas like the South Park in South of Market, a site developed in the 1890s based on London patterns of Belgravia and Bloomsbury. The house types include stacked walk-up front and back viewing flats, stacked walk-up single view corridor flats, stacked two storey units over flats, luxury townhouses, houses with rental units, housing units above shops and offices, and family houses. The general average density is planned at about 210 units per hectare but the mix of types ensures considerable diversity within the predetermined framework.

Planning Zones

The Mission Bay Plan is subdivided into five



Zoning Plan.

zones, one Central Neighbourhood zone and four perimeter zones, these being transitional zones between existing neighbouring precincts and Mission Bay. The zoning principles not only allow transition of building form into Mission Bay, producing urban continuity, but also permit infiltration of light industry and commercial uses aimed at providing employment and at boosting local economy. The perimeter zones also buffer the Central Neighbourhood from outlying areas enabling it to develop its own character and environment.

The Central Neighbourhood consists of 42 blocks containing a minimum 6200 residences of between 160 to 40 units per hectare, comparable to Nob Hill and North Beach in the city centre. The zone is bounded by Channel Street to the north-west, Third Street to the north-east and east, Owens Street to the south-west, and Sixteenth Street to the south. The zone is intended to form a neighbourhood focussed on the semi-circular bounded Crescent Park, and on a new street called Long Bridge Street. This stretch which will be a retail, community and cultural strip, a version of that street type found elsewhere in San Franciscan neighbourhoods, such as Union Street. A further focus is established to the north in the form of the existing China Basin Channel improved to provide waterfront housing and publicly accessible foreshores.

One area outside the street boundaries but within the zone is located at the mouth of the China Basin where it is intended to rehabilitate the deteriorating wetland habitat that once existed there.

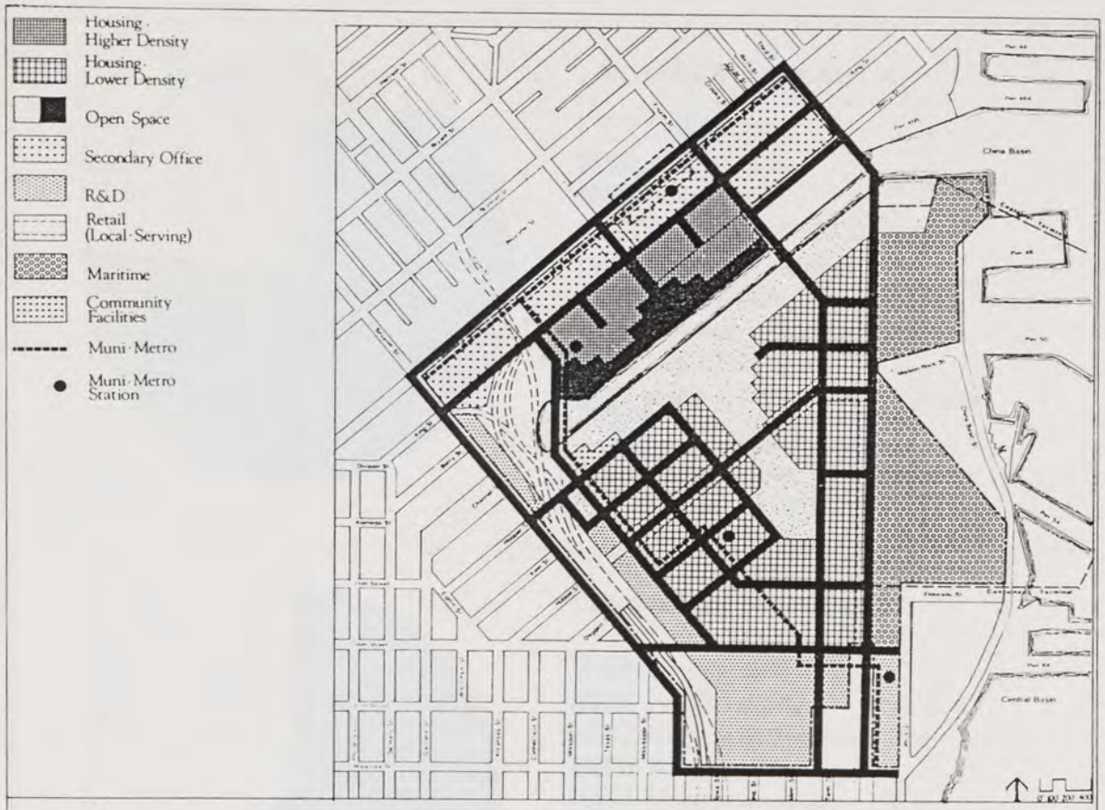
The perimeter zones include areas entitled North of Channel Street, West of Owens Street and two smaller areas South of 16th Street.

The North Channel zone consists of eight blocks along the northern edge of China Basin Channel, connected to Mission Bay by the bridge at Fourth Street and a new bridge at Fifth Street, but otherwise separated from Mission Bay. This zone is planned to be an extension of the South of Market pattern with extensive commercial space graduating to residential on the channel edge. The built environment in this zone is to be the highest of all densities with office buildings up to the eight storey limit and housing orientated to the office worker or residents requiring less private open space. These include housing for single people, childless couples and senior citizens. The zone has a focus in King Street, which currently distributes traffic from the I-280 freeway. It is proposed as a major link route for the Muni Metro service, a light rail system similar to that incorporated into London Dockland. The zone also includes a proposed 500 room plus hotel on the Channel edge adjacent to Fourth Street.

The West of Owens zone is primarily a transportation corridor for the existing I-280 freeway and for the Caltrain and Muni Metro rail links. Owens Street too will remain a major through traffic route. By concentrating major traffic and transport in this zone, the plan enables the remainder of Mission Bay to be largely free of these functions, although detrimental to the zone itself. Advantage is taken of this, however, by developing the zone for service, light industrial and research and development uses needing access to transportation routes. Built form is to be six storeys generally forming a noise buffer between traffic and the Central Neighbourhood zone to the east.

The zone also includes a leftover space west of the I-280 sufficient to accommodate a baseball stadium with good access to transportation facilities, and with little impact on the overall Mission Bay plan.

The two South of Sixteenth parcels are also designated for service, light industrial and research and development uses. These parcels appear to be the weakest part of the plan in that the immediately neighbouring Potrero Hill grid to the south, a residential-sized grid, is



Use	No. or Area	Land Take Ha.
. Housing		
Higher Denisty	3900 units	13.4
Lower Density	4060 units	19.9
. Offices	380,890 sq. m	6.4
. Retail	27,900 sq. m	In other uses
. Service, Light Industry, Research/ Development	241,540 sq. m	8.5
. Community/Cultural	18,600 sq. m	1.8
. Hotel	37,000 sq. m	0.5
. Stadium	42,500 seats	4.7
. Open Space		
Major Parks		22.0
Housing Parks & Courts		0.8
Office Parks		2.0
China Basin Channel		4.7
. Infrastructure		
Streets and Footpaths		29.0
I-280/Caltrain		7.9
Channel Pump Station		0.9
Total	1,328,470 sq. m	122.5

compromised into a larger industry-suited grid. In this aspect the plan appears to have succumbed to the need for employment-orientated uses without resolving the built environment, particularly as an existing residential neighbourhood is located directly to the south-west.

Land Use Proportions

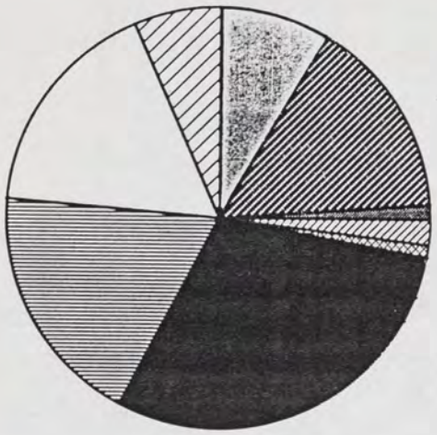
The following table summarises approximate proportions of land use within the overall Mission Bay Plan. It includes a 5.6 hectare parcel of land under Port of San Francisco ownership which may be eliminated should the Port Authority exercise its right to retain it for maritime industry.

B5 THE ENVIRONMENTAL IMPACT REPORT - THE PLAN ASSESSED

The Environmental Impact Report assesses a facsimile of the Master Plan as well as two alternative scenarios and ten variations on the alternatives. It makes no recommendations but presents impact assessments in various categories, leaving individual and overall decisions to public review.

- Alternative A basically encompasses the mix and proportions of development contained in the Proposal for Citizen Review, that is, a mix of commercial and residential uses.
- Alternative B is similar in plan to A but significantly increases housing, open space and wetland areas at the expense of commercial uses.
- Alternative N is called the No Project Alternative as it is the version which does not require rezoning, continuing the existing M-2 (Heavy Industrial) zoning and Central Waterfront Plan policies for the site. This alternative reduces the new development precinct to exclude the area east of Third Street which would be redeveloped into a multi-berth container facility proposed under a separate plan called the Seaport Plan.

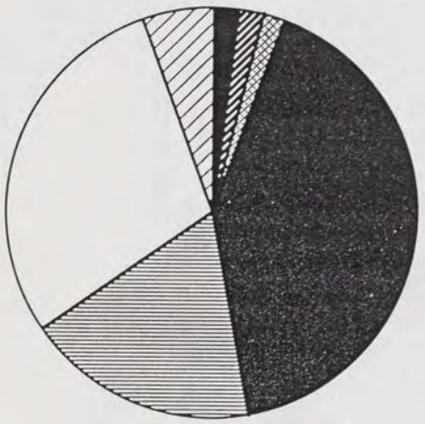
Each alternative is assessed for two time frames, the year 2000, an arbitrary choice, and the year 2020, the anticipated completion date of development. The assessment categories considered are as follows:



LAND AREA: Alternative A

- Office (8.2%)
- S/LI/RD (15%)
- Hotel (1.1%)
- Port Related/M-2 (2.0%)
- Community Facilities (0.7%)
- Housing (30%)
- Streets/Infrastructure (19%)
- Open Space (17%)
- Rail/Pump Station/Vacant (6.8%)

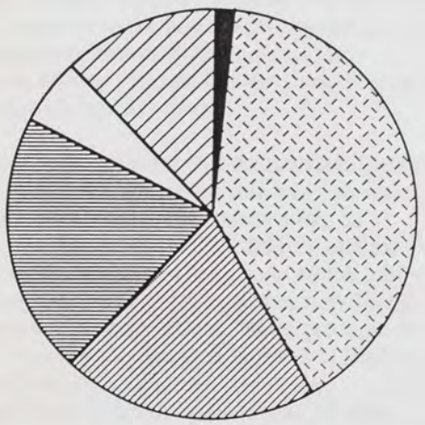
NOTE: Structures with retail uses only would cover less than 1% of land area.



LAND AREA: Alternative B

- Office (1.8%)
- S/LI/RD (1.8%)
- Community Facilities (1.7%)
- Housing (41%)
- Streets/Infrastructure (18%)
- Open Space (29%)
- Rail/Pump Station/Vacant (5.9%)

NOTE: Structures with retail uses only would cover less than 1% of land area.



LAND AREA: Alternative N

- Office (1.6%)
- M-2 Industrial (40%)
- Port Related/M-2 (20%)
- Streets/Infrastructure (20%)
- Open Space (5.3%)
- Rail/Pump Station/Vacant (12%)

NOTE: Community facilities and structures with retail uses only would cover less than 1% of land area.

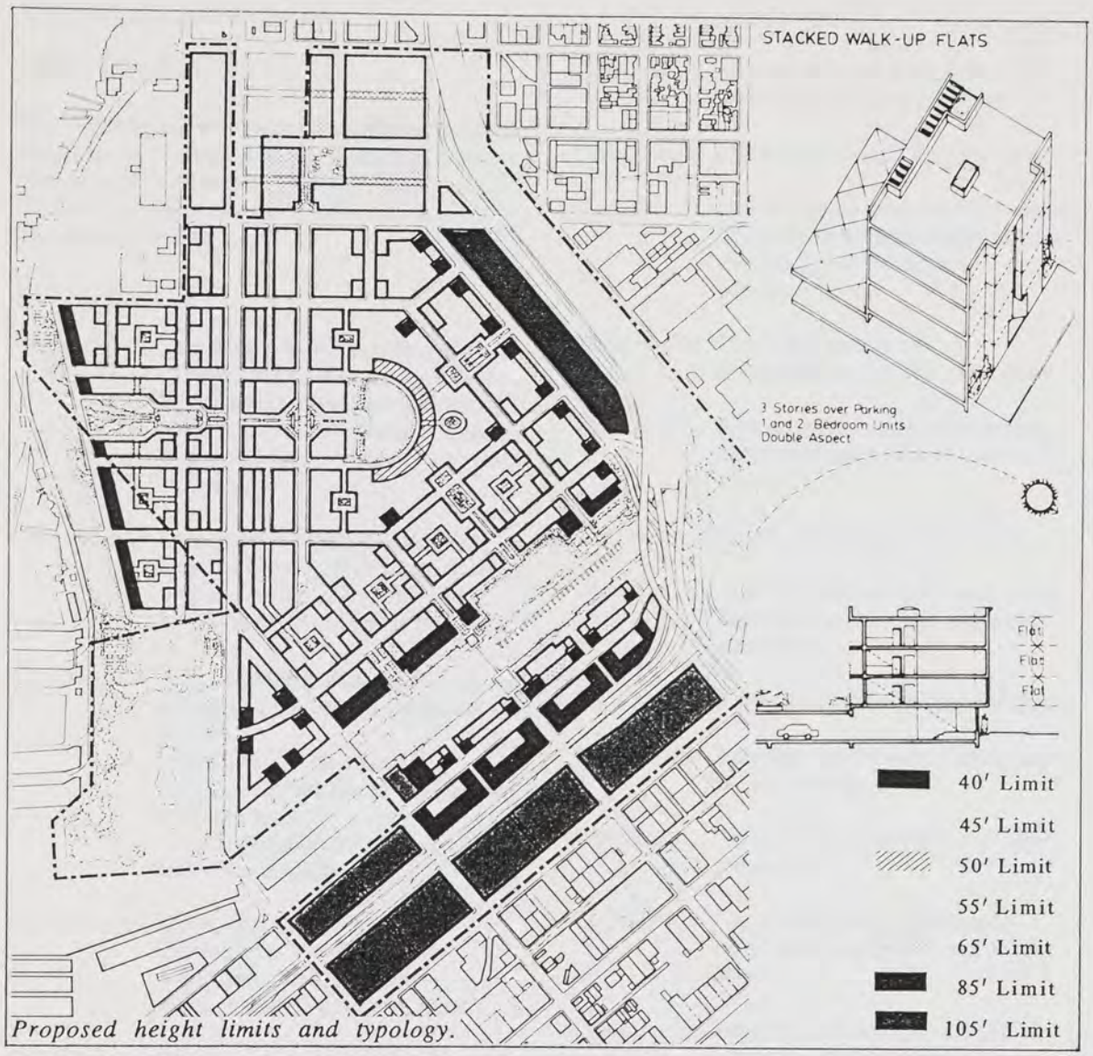
- Business Activity and Jobs
- Housing and Population
- Community Services
- Transportation
- Air Quality
- Noise
- Energy
- Architectural Resources & Urban Design
- Cultural Resources
- Geology and Seismicity
- Hydrology and Water Quality
- Vegetation and wildlife
- Hazardous Wastes
- Construction
- Growth Inducement

B6 CRITICAL APPRAISAL

The urban design, feasibility analysis, environmental impact assessment and approval processes proposed for Mission Bay are unique in the redevelopment of urban waterfronts examined in this paper. The planning process is a sophisticated one, endeavouring to provide San Francisco with a traditional cityscape adapted and orientated to its waterfront. The plan is designed to accommodate the city's people, to employ them and to return profits to the city as well as to the developer. It attempts to solve existing problems outside the immediate site, by incorporating new transport networks and by finding discreet sites for outside activities. It extends the planning role into architectural vision by developing designs for housing consistent in form, material and detail with traditional San Francisco neighbourhoods. It optimises public enjoyment and residential use of what little waterfront is available, and proposes to regenerate part of the decayed natural wetland habitat that remains. It is an holistic plan, considering environmental, social, physical and economic opportunities simultaneously and without bias.

It is therefore not easy to criticise, and the lack of actual development inhibits proper assessment of the plan. The most obvious misgiving is the inability of the city to absorb into the plan the port facilities along the waterfront in order to open up public access onto San Francisco Bay. There must be a concern that either the industry expanding Central Waterfront or Seaport Plans will destroy the plan.

There is a danger that the visionary plan



Proposed height limits and typology.

presented in the Proposal for Citizen Review will lose its integrity in the bureaucratic processes of Environmental Impact Statements and it is unclear as to why the plan has not been directly assessed in the impact study.

There is a further danger that the plan has tried to do too much. Not discussed above is a series of variations presented in the Master Plan, an attempt to cover possible alternative scenarios which might arise, depending upon which lobby groups or government authorities have political persuasion. These variations, while practical to include, weaken the strong principles of the plan. They include expanding the Port of San Francisco's maritime operations into Mission Bay and extending the privately run 'Caltrain' service through a right-of-way bisecting Mission Bay in order to link San Jose to the south into San Francisco city. They do, nevertheless, offer improvements to the city in the form of employment and transport benefits, and it could be argued that one role of waterfront redevelopment is to improve the quality of life of whole cities rather than of waterfront precincts alone.

The project differs from almost all other major waterfront revitalisations in that its current private owner intends to develop the land. This has enabled a Master Plan to be prepared by agreement with the owner, unlike more common situations where the master plan is drawn up as guidelines for future developers to follow. In addition, the partial government ownership of the site allows the development to take advantage of government financial utilities to assist in funding. Various forms of funding - mortgage revenue bonds, tax funds derived from the project, long term repayment schemes, and funds provided by Santa Fe Pacific in exchange for other benefits - are proposed to be used to provide one third (2300 units) of housing at affordable prices. It is remembered that a similar plan was proposed at Battery Park City, but there project-derived funds were used to finance housing rehabilitation elsewhere and not on the waterfront. It is likely, however, that public pressure as well as contractual agreement, will ensure the provision of affordable housing within Mission Bay.

Unlike New York, which is confronted with the continual problem of freeway barriers at the waterfront, the Mission Bay freeway is well inland and is not a barrier to access from the city in the north or residential districts to the south.

The design of a development type and character which utilises existing approval processes is admirable as it avoids the need to set up special Development Authorities which, in other countries, have fallen into conflict with existing authorities (4).

But the most significant aspects of the Mission Bay plan are that it proposes to be a balanced mix of existing social and physical infrastructure of the city to satisfy the critical needs of the city and to extend the city fabric to the waterfront. While time will evidence whether the plan is implemented, it has all the ingredients of a realisable, viable and sensitive project and makes a more appropriate model for other waterfront redevelopments than the more celebrated Battery Park City project.

Footnotes

1 Architectural Review Vol. CLXXXI No. 1080 February 1987 p 65/2

2 The current proposal, some ten years after the completion of the housing redevelopment of Woolloomooloo, is to redevelop the waterfront for a new hotel and shopping, commercial and apartments in an existing historic pier.

3. Architectural Review. February 1987 p 66/2

4. Skirmishes between existing local authorities and new state-run 'Redevelopment Authorities' are frequent and destructive - the conflicts between Sydney City Council and the Darling Harbour Authority helped to abolish the Council, similarly conflicts occur in Liverpool, Manchester and in London with local boroughs.

APPENDIX 1: MISSION BAY

OBJECTIVES AND POLICIES

The Mission Bay Plan was developed using a statement of objectives and policies, really sub-objectives, under several groups. These formed the basis of project planning decisions and are summarised below:

Urban Design

Objective 1: Emphasise in Mission Bay the characteristic development pattern which gives to the city and its neighbourhood an image, a sense of purpose and a means of orientation

Objective 2: Preserve notable landmarks and areas of historic, architectural, or aesthetic value ... and provide continuity with Mission Bay's past

Objective 3: Acknowledge and take advantage of the unique features of the Mission Bay area
- the bowl like character
- views into San Francisco Bay and China Basin
- relationship between open space and water amenities

Objective 4: Relate the scale of new development to the adjacent waterfront and to existing development where appropriate

Objective 5: Create a variety of uses in Mission Bay with housing as a high priority

Objective 6: Create distinctive visual character for the Mission Bay area that is compatible with other districts

Objective 7: Relate height and bulk of new buildings to important attributes of Mission Bay.

Residential Neighbourhoods

Objective 1: Increase substantially the City's net supply of housing

Objective 2: Increase housing in a manner compatible with adjacent neighbourhoods

Objective 3: Provide housing affordable by a wide range of income groups

Objective 4: Provide maximum housing choice

Objective 5: Develop residential neighbourhoods of the character and quality of traditional San Francisco neighbourhoods

Objective 6: Develop a pattern of neighbourhood scaled open spaces

Objective 7: Encourage development ensuring health and safety of residents and visitors

Commerce, Industry, Health & Education

Objective 1: Maintain and enhance a sound and diverse economic base and fiscal structure

Objective 2: Expand employment opportunities

Objective 3: Maintain and enhance a favourable business climate

Objective 4: Enhance San Francisco's maritime potential

Objective 5: Create viable neighbourhood commercial districts in residential areas

Objective 6: Provide opportunity for health and educational institutions

Objective 7: Avoid hardships imposed by displacing existing businesses

Transportation

Objective 1: Meet needs of Mission Bay residents, working population and visitors for safe, convenient and inexpensive travel

Objective 2: Expand transit services to, from and within Mission Bay

Objective 3: Establish a street system consistent with character and use of adjacent land

Objective 4: Provide only the amount of parking and loading necessary to serve Mission Bay

Objective 5: Provide for convenient, safe and pleasant pedestrian circulation

Objective 6: Provide for convenient, safe bicycle routes

Objective 7: Establish significant entrances to Mission Bay and links to surrounding districts

Objective 8: Create a hierarchy of pedestrian and vehicular routes clearly linking land uses

Objective 9: Create a pleasant, functional pedestrian environment

Recreation & Open Space

Objective 1: Maintain and enhance significant segments of the central waterfront bay and China Basin shoreline for public access

Objective 2: Achieve a balance between conservation, utilisation and development of Mission Bay's natural resources

Objective 3: Maintain and improve quality of the Bay and China Basin waters

Objective 4: Assure use of land resources which preserve natural values of the land

Objective 5: Provide a major open space area and a variety of open spaces

Objective 6: Locate parks and open spaces well distributed throughout Mission Bay

Objective 7: Create an open space network linking different recreational areas

Objective 8: Differentiate kinds of use by design

Environmental Protection

Objective 1: Ensure strict environmental quality standard

Objective 2: Minimise transport noise

C1 INTRODUCTION

This study examines briefly the urban waterfront redevelopment strategy for Boston, concentrating on two of its eleven current major redevelopment projects, at Rowes/Fosters Wharf, and at the Charlestown Navy Yard.

The Boston waterfront is America's oldest and possibly best preserved. Rejuvenation of the waterfront, beginning with the specialty retail/restaurant conversion of the Faneuil Hall marketplace, was the first attempt in America to reutilise the waterfront for the people of the city, at the same time boosting overall economy through tourism.

Boston enjoys the country's minimum commercial office vacancy, and leads the nation in information-based economy (1). Its severest problems are high poverty levels and unemployment rates and it seeks to improve these conditions through reconstruction of its waterfront and adjacent downtown. The city's initiative to reclaim the waterfront for public use and to sponsor high quality development along the waterfront is called 'Harborpark.' The Rowes Fosters Wharf Redevelopment is one significant project of the Harborpark programme.

Control of the Rowes Fosters Wharf project is under the auspices of the Boston Redevelopment Authority. The authority retains ownership of the site. It prepares guidelines for redevelopment for the project in conjunction with the Urban Design Committee of the Boston Society of Architects, prescribing design and use constraints and required public benefits. A two stage financial/design competition based on the guidelines led to selection of Beacon Companies to redevelop the two adjacent wharves, with Skidmore, Owings and Merrill as architects.

The project is a mixed use development of housing, underground service and parking, hotel and office space. The guidelines specifically required:

- masonry and stone building materials
- a contextual urban design approach sympathetic to neighbouring historic waterfront buildings
- a 55 metre height limit
- unimpeded pedestrian access to the waterfront

Current Boston Waterfront Redevelopments.

Harborpark

- 65% of the site built as open space with landscaping funded by the developer
- two 9 metre wide landscaped and furnished public easement from Atlantic Avenue (the landward boundary) to the water's edge
- off-site pedestrian improvements to enhance connections to the Downtown Financial District
- a colonnaded walk through the development activated by retail
- an increase in commercial docking space.

The development is substantially smaller than the Battery Park City and Mission Bay developments but is examined here as an example of a different waterfront redevelopment process, because of its intense maritime historical context and because of its high acclaim in the architectural media.

The Charlestown Navy Yard Redevelopment has a history of previous master plans and a current development process not unlike Battery Park City. It too is being sponsored and controlled by a public authority - The Boston Redevelopment Authority - with one major developer, Immobiliaire New England. The current redevelopment includes:

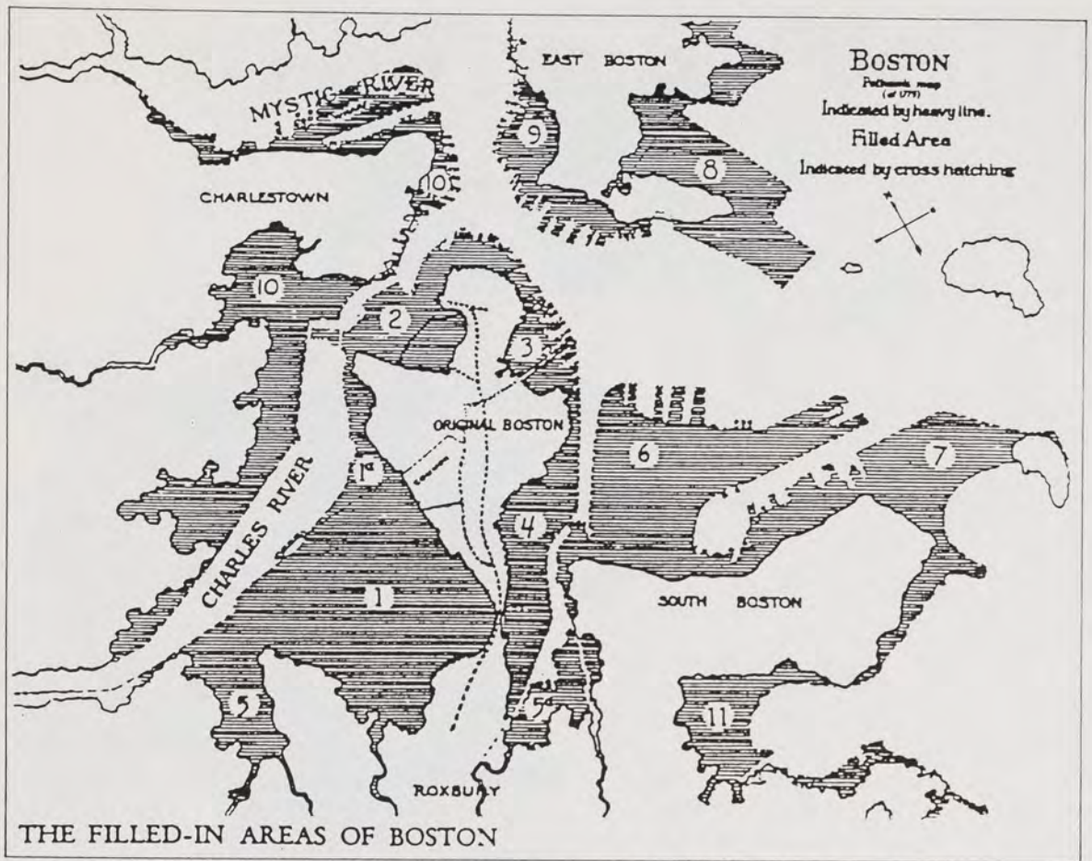
- 2,500-3,000 residential units of which 30-40% are to be affordable housing for aged and family groups
- a 200 room tourist, recreation and boating market hotel
- a 150 room medical and business conference hostelry
- a medical research centre as a major focus
- a series of office buildings up to 18 storeys, around a waterfront park and 'winter garden' (a concept borrowed directly from Battery Park City)
- 186,000 square metres of commercial and research space, the majority to service the medical research centre
- a 500 berth marina focussed on 12-metre yacht racing
- a Charlestown to city (Long Wharf) ferry service
- an 18,500 square metre retail boulevarde
- transformation of a significant historic building, 'The Ropewalk' into a naval history museum
- a 12 hectare landscaped park with 5.3 kilometres of linear public walkways

The redevelopment of Charlestown is a cooperative effort between the Authority and the developer where the developer, through its architects The Architectural Team of Cambridge, proposes the master plan which is reviewed by the Authority following public response. However this process would appear to favour the developer since he takes the initiative. There is little difference between the site's geographical relationship to Boston and Mission Bay's relationship to San Francisco, and there would have been a similar opportunity to redevelop Charlestown in order to form an integral part of the city. As was discussed earlier, Charlestown is an example of the all too frequent developer-driven waterfront redevelopment, where the city is in a reactive rather than 'pro-active' position.

The Boston Redevelopment Authority's area of jurisdiction extends well beyond the waterfront. Its usual process is to provide prospective developers with a 'Developer's Kit' setting out planning and design constraints, with the developer unable to purchase the particular site until final design approval of the project is given. This is a more 'pro-active' process, but suffers where particular sites are not competitively sought. It is, nevertheless, a highly coordinated system aimed at a set of known city objectives, some of which are met by developer's provision of public benefits, required in the kit which may not have otherwise been provided.

The review process is also thorough, undergoing four stages and involving citizen advisory groups, the Boston Civic Design Commission, professional associations and others. The stages are Development Concept (privately or publicly initiated), Schematic Review, Design Development and Contract Documents.

In each year, the Boston Redevelopment Authority issues a 'Planning for Boston' document setting out, amongst other objectives, its plans for Waterfront Redevelopment. In the



THE FILLED-IN AREAS OF BOSTON

most recently obtainable document in 1987, these were:

- to maximise public usage of and access to all waterfront areas
- to ensure sensitivity and benefits to areas neighbouring waterfront redevelopment
- to maximise housing along the waterfront for all income levels
- to redesign the Charlestown Navy Yard Mster Plan with more focus on affordable housing opportunities and more public open space
- to complete design standards for an unbroken waterfront walk and for reintroduction of water transportation as a primary mass transit system within Boston
- to increase neighbourhood participation in waterfront planning.

The Authority also released publicly the eleven major waterfront projects it had approved to proceed and detailed its required financial and public benefits of those projects deemed to constitute well-considered urban waterfront redevelopment. These were:

- Rowes Fosters Wharf
- Charlestown Navy Yard
- Long Wharf
- Lincoln Wharf
- Sargent's Wharf
- Port Norfolk
- Rose Kennedy Garden
- Harborwalk
- Water Transportation
- Fort Point Channel
- Commercial Wharf

As the projects indicate, most of Boston's urban waterfront redevelopment involves the reuse of historic wharf structures, buildings and warehouses, or at least sensitive infill between such structures. This separates the case study from Mission Bay and Battery Park City where little historic waterfront stock remained and new development was based on different forms of environment and context.

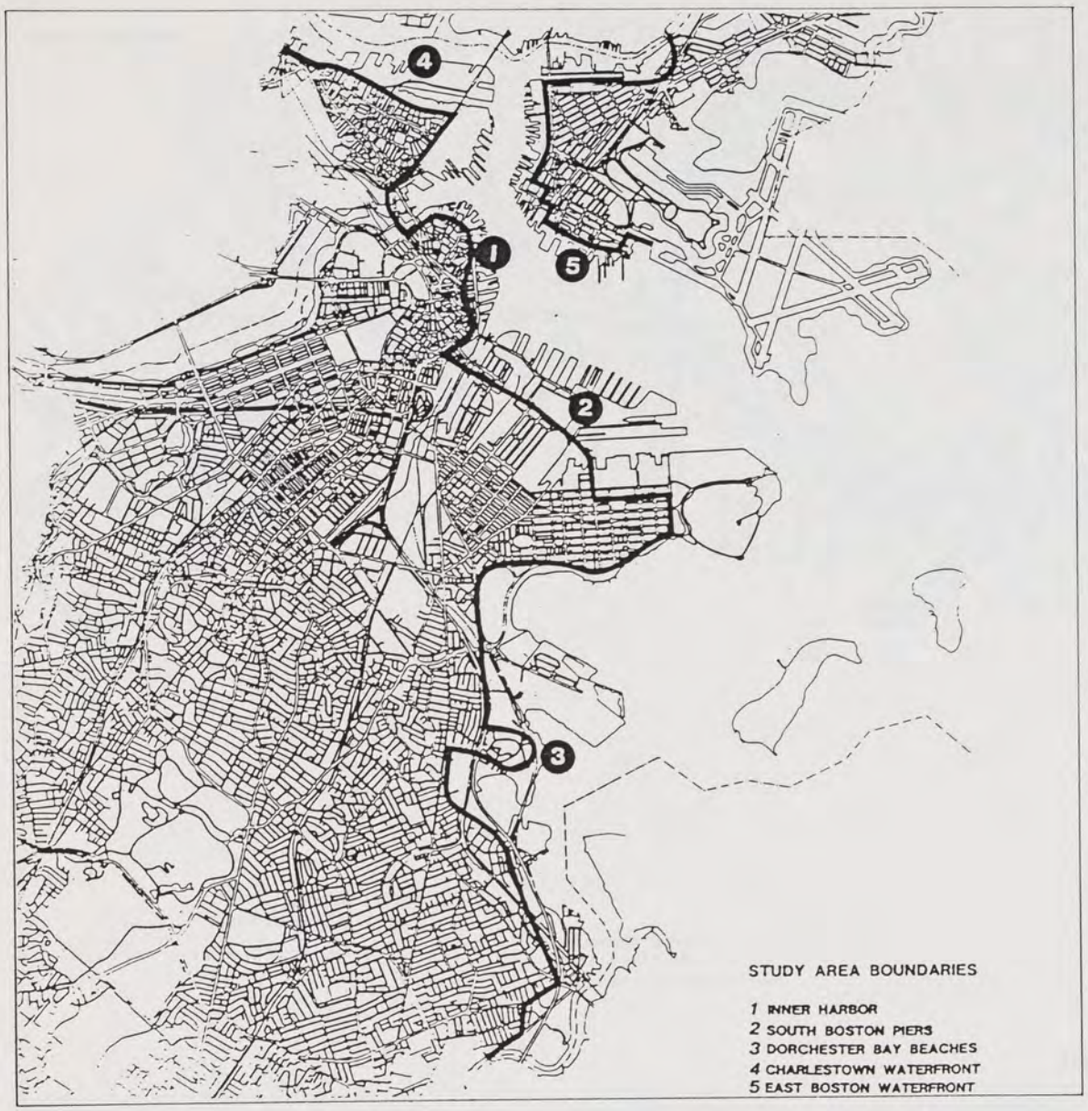
C2 The Context for Waterfront Redevelopment

Boston Harbour had been the country's leading port until the mid-nineteenth century, generating such economic prosperity that Boston became the world's richest city for its size. The city was the catalyst for the Industrial Revolution both in New England and across America. Growth was maintained until 1930, establishing Boston as one of America's leading financial centres.

From 1930, the harbour experienced complete reversal. Starting with the creation of canals and railroads in the previous century, and with the St Lawrence Seaway, Boston's trade shifted dramatically to non-maritime transportation systems. The south and west induced major textile and shoe industries away and coupled with the Great Depression in 1930, these losses caused the financial downfall of the whole city. Virtually no new urban development occurred until 1960 and the waterfront fell into disrepair. The period was one of suburbanisation but not urbanisation.

As in most waterfront cities, an elevated highway encircling the city at its waterfront was built around mid-century. Boston's was called the Central Artery constructed in the 1950s. This completely severed the city from the waterfront and, no longer visible, the waterfront was left neglected. But recognising the long term problem, the Boston City Planning Board (later the Boston Redevelopment Authority) in 1956 commenced a plan for redevelopment of 100 acres of waterfront known then as the '100 Acre Project'. Since maritime industry was no longer viable the plan recommended residential and public uses along with historic preservation. It was not approved until 1964 when federal funding became available to stimulate redevelopment.

Since 1960, a concentration on fostering higher education, medicine, professional services, financial management and research activities had stabilised the city's economy. After 1970, the city invested the major proportion of its revenue to regenerating the waterfront, particularly to solve housing demands and to generate employment. But by 1984, one third of the waterfront's 800 hectares lay vacant and only 18% of the area was publicly accessible. Little



Boston waterfront neighbourhoods under study.

attraction to redevelopment could be generated due to the delapidated state of the structures, sewage effluent and poor water quality after years of decay. Unlike other cities at that time, prime real estate was inland.

The '100 Acre Project' nevertheless had found its catalyst in the 1978 opening of the redevelopment of Faneuil Hall, Quincy, South and North Markets, federally funded but leased for 99 years to a developer given long term tax abatements. While overwhelming in its popularity, the project had an initial negative effect on other redevelopment since, to cover the tax concessions, the residential neighbourhood taxes were raised and their redevelopment became unattractive. A massive restructuring of the system of encouraging waterfront redevelopment was undertaken, but it was not until 1984 that a comprehensive redevelopment programme inducing private investment was commenced.

In that year, the waterfront comprised four neighbourhoods, as follows:

- East Boston, with 200 of its 400 hectares vacant in 1984, never recovered from the decline in manufacturing and shipbuilding and is now severely affected by existing unreusable infrastructure

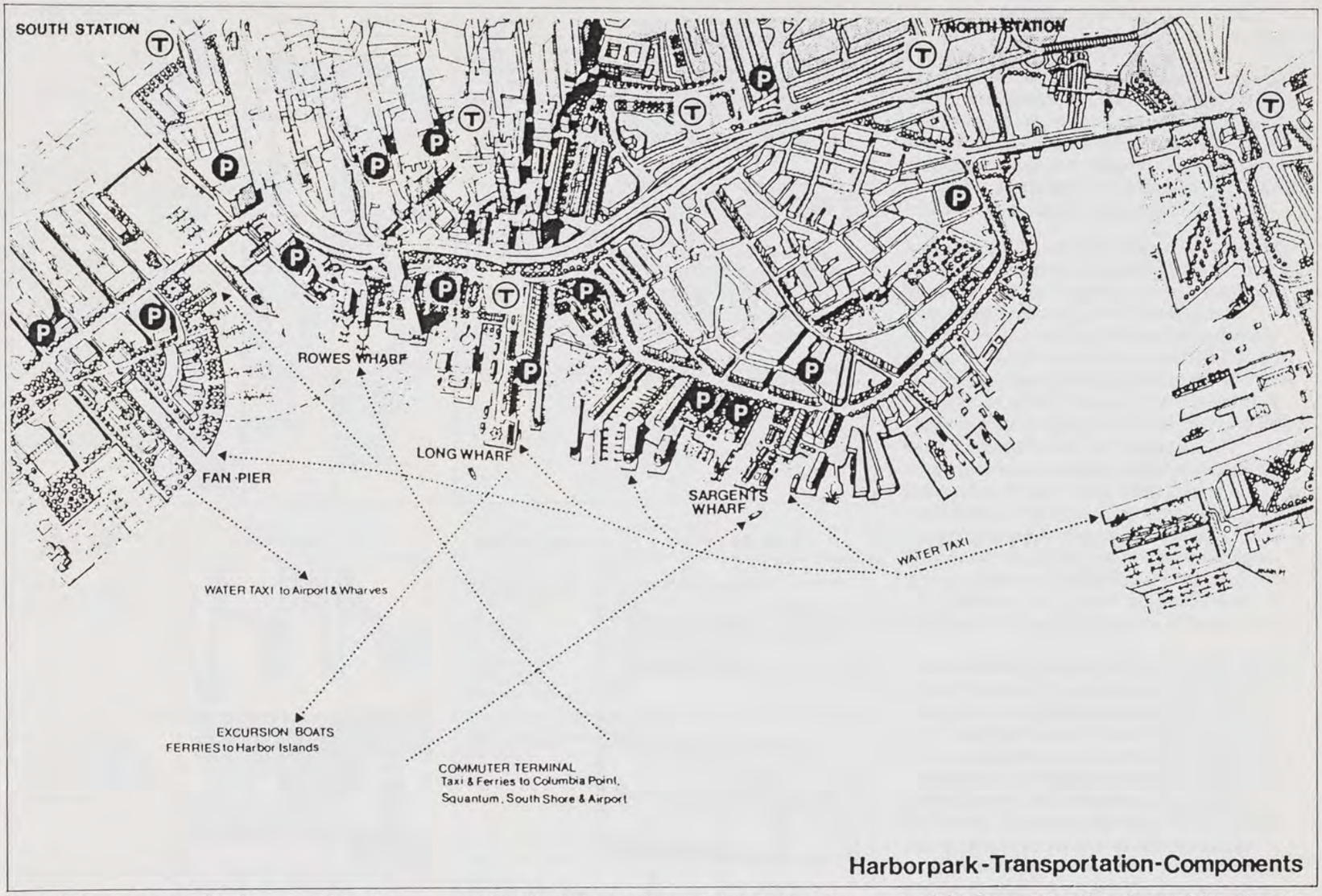
- Charlestown, with about 140 hectares, was previously the city's major employer in its Navy Yard, which is now defunct.

- South Boston, with about 240 hectares, became a centre for public recreation following the decline, but this is marred by competing commercial and industrial uses.

- Dorchester, with about the same area as South Boston, but further south, has one half of the area vacant.

Since 1970, intense urban development behind the waterfront had exacerbated environmental problems of wind, automobile pollution and shadows, as well as industrial reuse of waterfront buildings continued pollution deterioration of the water.

In 1984, the City of Boston and the Boston Redevelopment Authority announced its waterfront regeneration programme called Harborpark to alleviate all of these problems



Harborpark - Transportation - Components

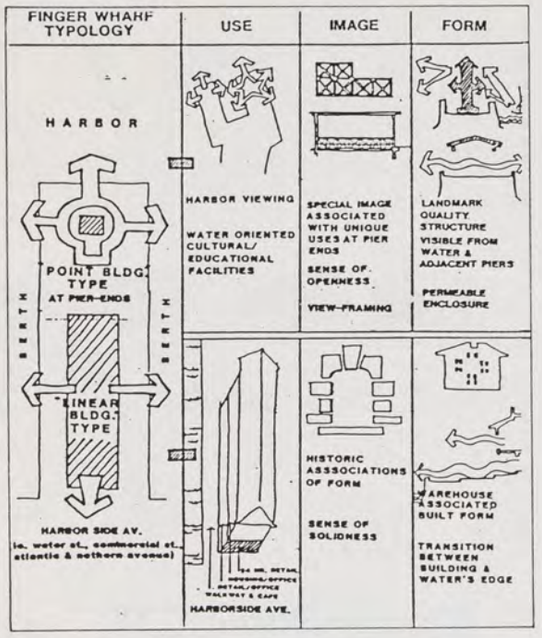
through new extensive developments along the entire waterfront, with the primary goals of turning it into residential neighbourhoods and for employment benefits. Almost all of the land within the Harborpark area belongs to the BRA, given by the State to allow the BRA to control all new development and to sell or lease land parcels as it sees appropriate.

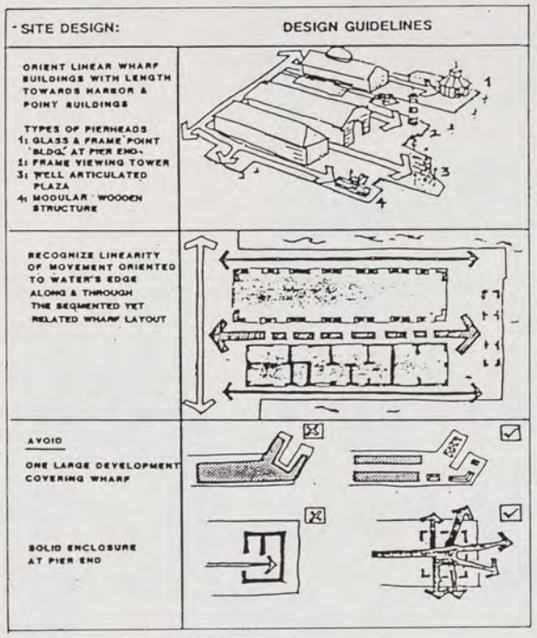
C3 Harborpark

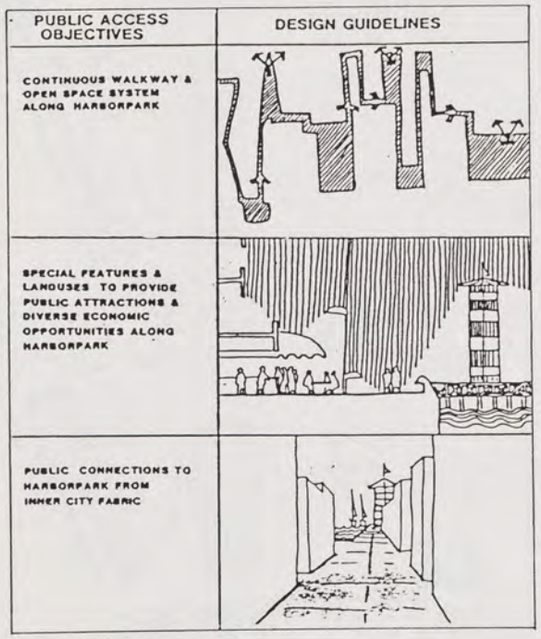
Harborpark appears to be the only coordinated urban waterfront redevelopment plan in the country. It requires compliance of new development parcels along the waterfront and provides for these developments to be undertaken more or less simultaneously so that the plan is not undermined over time. Its stated policies are:

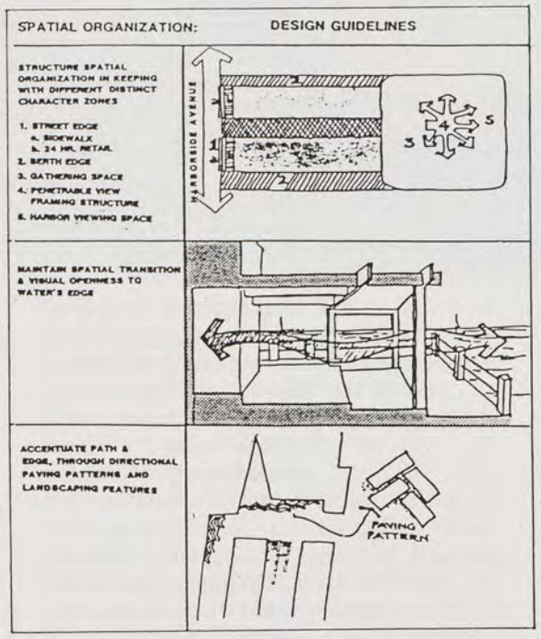
- to encourage a mix of private development and public improvements
- to create a continuous waterfront walkway coupled with reforestation
- to establish guidelines and criteria for private developments to ensure compatability and to minimise environmental impact
- to provide a series of recreational public spaces

Preparation of the plan had as its basis public participation and therefore the provision of public benefits such as affordable housing required of developers, recreational activities and spaces, Harborwalk, employment schemes and improved water transportation. This latter benefit exemplifies a fundamental difference in attitude from other cities which are endeavouring to rescue waterfronts primarily for visual benefits. It is a requirement of the Harborpark plan for each major development to include a form of water transportation service such as ferry or water taxi services, in order to relieve pressure on existing land-based mass transit systems. The plan thus encourages a return to commercial use of the harbour itself and to public use of









Sample Urban Design Guidelines for Boston projects.

waterways as well as waterfronts.

The major barrier to previous waterfront development had been the existence of over 100 government authorities responsible for authorising development. The proliferation of authorities still afflicts Manhattan where new development can only proceed on a singular basis. The Harborpark plan contains a system to facilitate approvals without this obstruction.

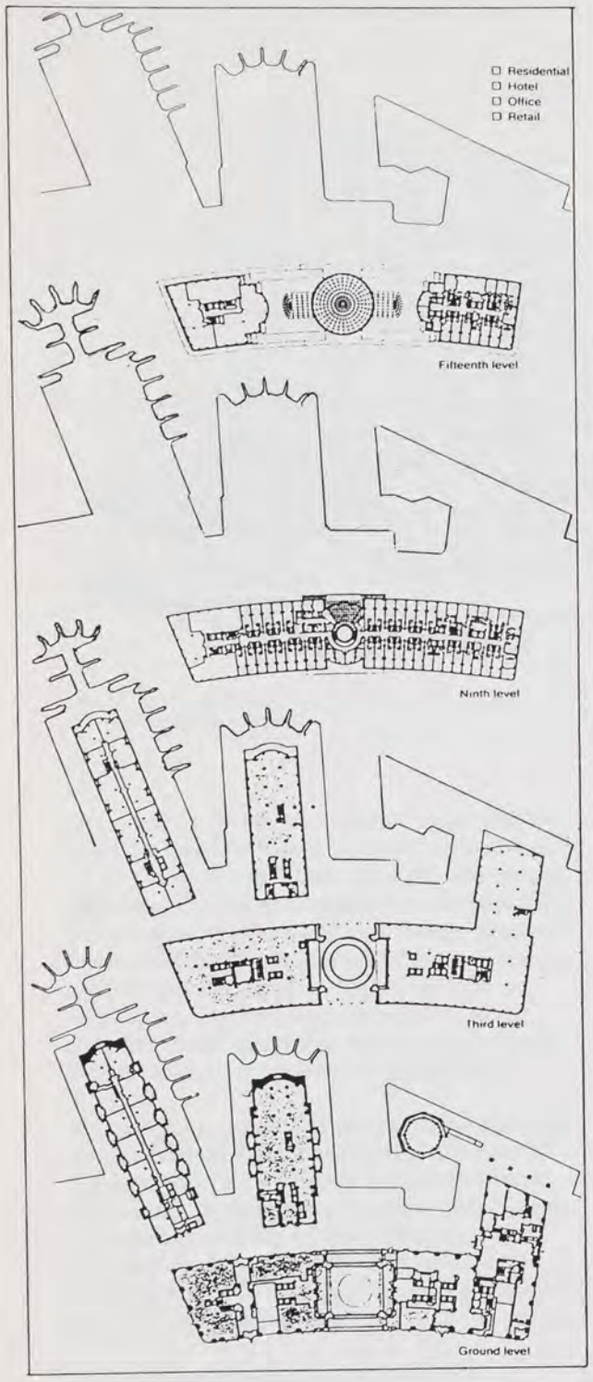
As with virtually all waterfront cities, Boston's city centre will remain alienated from the harbour by its continuous elevated freeway system. The Harborpark plan does nevertheless take the opportunity of creating a pedestrian underpass system between the waterfront and the Faneuil Hall marketplace constructed from the 1960s on the city side of the freeway. The Faneuil Hall marketplace is without doubt one of the country's most successful urban revitalisation developments of historic structures and unlike Fishermans Wharf in San Francisco, is consistently used by the city and not solely by tourists. New development around the marketplace in this decade has intensified the urban experience, diminished the intrusive effect of the freeway and given direct, rather than perceived, extension of the city to its waterfront.

Had other cities suffered such an absolute decline of their ports as Boston experienced, they too would have had greater opportunity to replan their waterfronts in an all-encompassing way. Without retention of industrial uses, there is no impediment to obtaining waterfront land and so a comprehensive redevelopment plan can be facilitated. There is sufficient evidence of that plan to assess its success to date, primarily through the Rowes Fosters Wharf Development and the Charlestown Navy Yard Development.

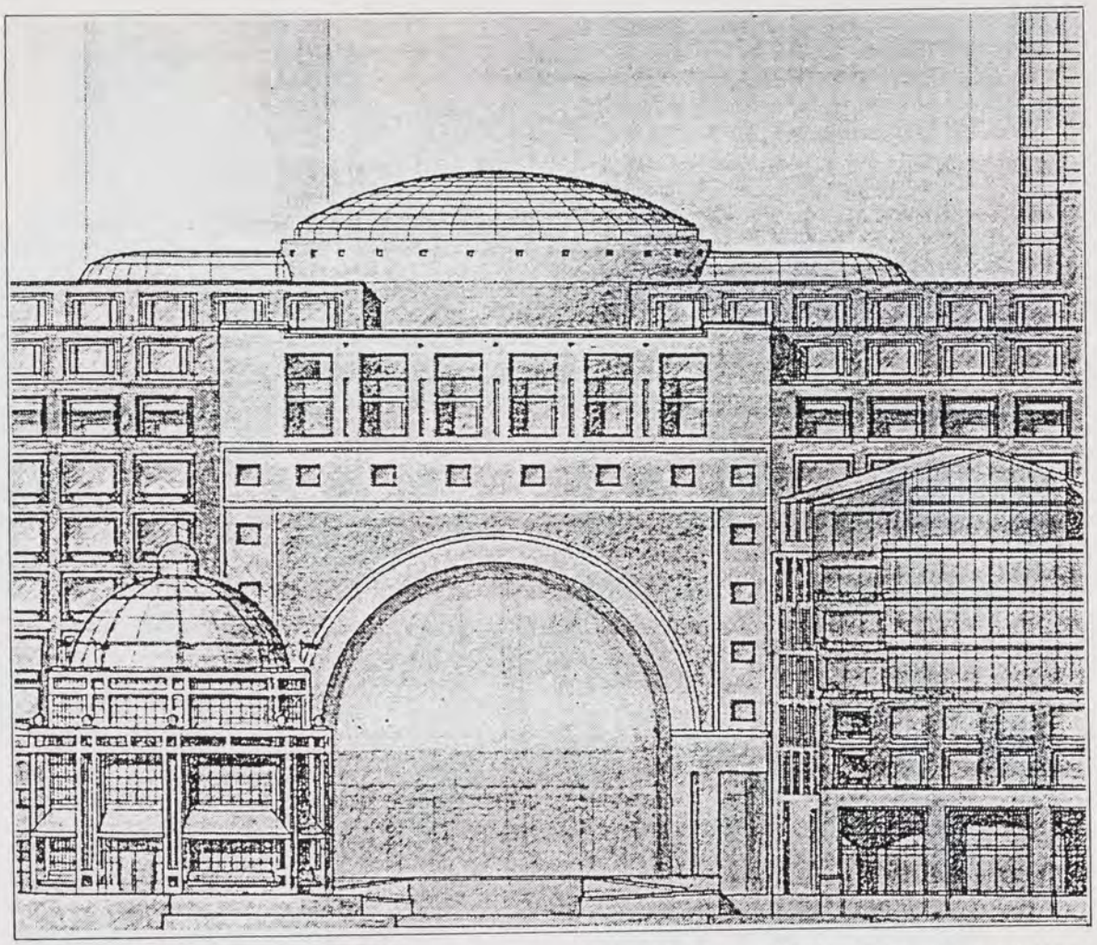
C4 Rowes Fosters Wharf Redevelopment

The Rowes Fosters Wharf redevelopment has been hailed as a model for new waterfront development where the once prevailing historic pier environment remains intact (2). Its site is two abandoned finger piers and a foreshore strip connecting rude block-shaped warehouses of the last century. The acclaimed ingredients of its success are:

. it maintains the tradition of finger piers that



Rowes Fosters Wharf Plans.

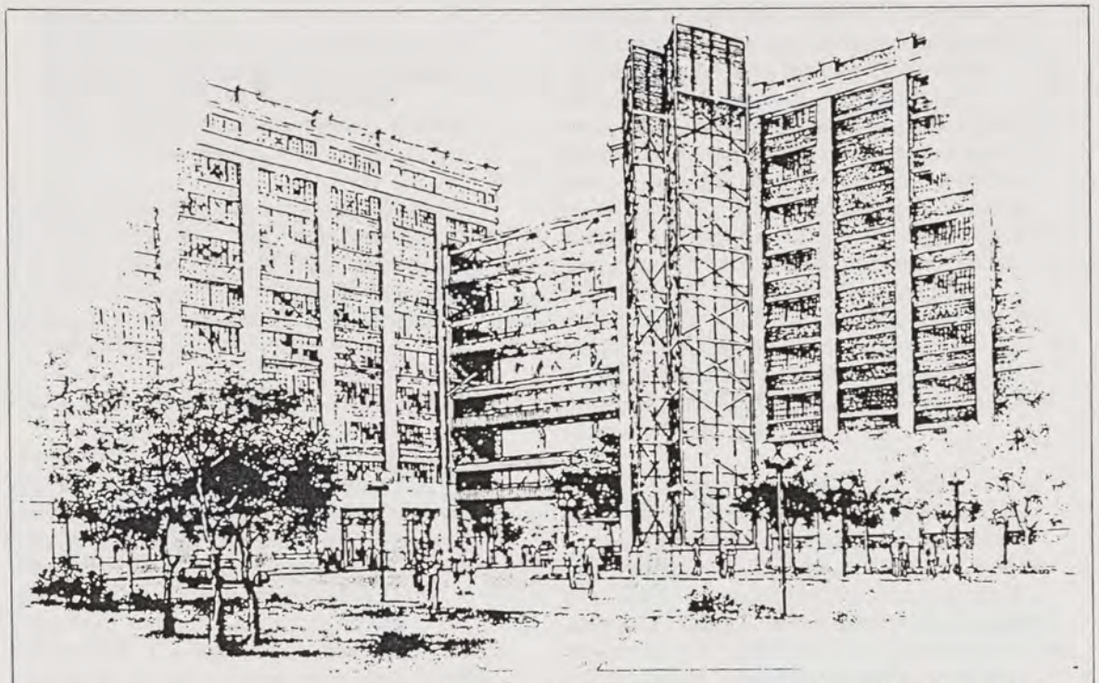


have given Boston's inner harbour its recognisable serrated waterfront appearance;

- it recreates a working waterfront focussed on its ferry terminal and water taxi service;
- it is relatively low in scale displaying good manners to towers behind and to neighbouring warehouses;
- it permits water to intrude inside the site forming a contained basin and public plaza;
- it is rich in the fabric of urban life, grouping residential, commercial, retail and hotel functions behind a series of facades which, like the old pier buildings, don't necessarily reveal differences in use;
- it reinforces the strong curvilinear streetscape on the avenue side as previous warehouses had done;
- it conceals all carparking from the waterfront;
- it scales down subtlely from the city edge to the water.

Each of these ingredients, on view, is genuinely evident. The project maximises water frontage for its components and each component has a thematic focus in the plaza and domed ferry landing, reinforcing the public accessibility of the develoment. It combines all uses, on a small site, regarded as being important to urban life-condominiums, offices, restaurants, shopping - with uses embracing waterfront life - service, hotel, marina and promenade.

It respects its historic waterfront context, reusing proportions, details and colours of adjacent buildings, particularly evident on the continuous wall of the Atlantic Avenue side. Its great domed entranceway, while out of immediate context, recalls the old cranage archways of traditional port buildings. It is a direct interpretation of the Harborpark guidelines, and most of the aforementioned ingredients were required in those



Two of the largest structures in the Charlestown Navy Yard, Buildings 149 and 199, would be the nucleus for a medical research center.

guidelines.

It is possible, however, to mount a case that the mimicking of historical context is not a direction for all such infill to follow. The old warehouses pale into insignificance beside the lavishness of the new development. The new crudely executed ornamental detail, while copied from the past, overwhelms the simple rugged detail of its neighbours. It is not a reinterpretation of the past, in abstract terms, but an attempt to recreate the past so that its presence is diminished.

This project is a valuable lesson in one aspect of urban design in that it demonstrates a means of sensitive infill in an historic waterfront context. But it is not new architecture and is certainly not a confident statement of new architectural philosophy. It is essentially a Post-Modernist building, if that term is simply interpreted as the recreation of classical form.

The development demonstrates one of the common dangers of restrictive guidelines for urban waterfront redevelopment, that there is little opportunity to create new forms appropriate to the waterfront. This project represents the safe approach to planning for urban waterfronts. Where the great Chicago and San Francisco glass and steel exposition buildings of the turn of the century were waterfront precedents at that time, these guidelines fail to permit such vision in ours, seeking to recreate historic form as their primary physical objective. It is an attitude which seems to prevail in virtually every waterfront city's planning guidelines, yet it is often seeking to recreate a past which was never there to begin with. It may be argued that Boston has such a special maritime history that both new and old building development should enhance that history, but it is doubtful that this approach should be a model elsewhere.

C5 CHARLESTOWN NAVY YARD

Charlestown Navy Yard is a 42 hectare land tract to the north of Boston downtown, distinguished by water boundaries - the Charles River, the Inner Harbour, the Mystic River. It is listed in the National Register of Historic Places as a National Historic Landmark because of its history as a shipyard for naval vessels, for its contributions to industrial technology and because of its nineteenth century granite buildings - the 'Ropewalk' in particular. The Navy Yard was closed in 1974 and 12 hectares containing 25 historic buildings were reserved for preservation and an historic vessel tourist park. The Boston Redevelopment Authority gained responsibility for redevelopment of the remaining Navy Yard in 1976, identifying three parcels:

- Historic District, to be maintained and restored, given at no cost to the BRA
- Recreational Parcel, also transferred at no cost, to be maintained
- Development Parcel, sold to the BRA by the General Services Administration for private redevelopment (3).

The BRA is responsible for the design and execution of all improvements and public development activities. The majority of the Navy Yard falls under restoration programmes. One section, the Shipyard Park, is being restored as a public recreation area. Another, the Historic Monument Area, is being privately restored to BRA standards into commercial, residential and institutional uses.

The new Development Area occupies 23 hectares and development rights were given to one single developer, Immobiliare New England. While there is still little progress in the redevelopment area, the BRA's rapid restoration and recycling of the adjacent Shipyard and Historic Monument precincts has moved so rapidly that the impression of the total area is one of significant waterfront revitalisation. In spite of enormous complexity in funding arrangements, the restoration/recycling aspects of the project demonstrate the highest quality of restrained conversion without the gimmickry commonly associated with historic waterfront building conversions in other cities. However, the restoration will have little impact on waterfront revitalisation until the Development Area is developed. Providing that area is redeveloped into the mixed urban fabric of affordable and market rate housing, office, research and waterfront recreaton space proposed, the Charlestown Navy Yard could become a genuine model for other redevelopment. Separation into precincts of Restoration zone, Recycling zone and Development zone is an effective means of waterfront redevelopment as:

- each zone can act as an attraction in itself and can indirectly attract people to the adjacent zones
- the integrity of the real preservation areas is

maintained
- the Development Area can be redeveloped with more inspiration and freedom than if the whole area had been designated for redevelopment, in the knowledge that the other zones at least will be preserved.

In the latter instance, there is much historic building stock within the Development Area but, unlike the Rowes Foster Wharf redevelopment, it is hoped new building can depart from purely historic reference so that exciting waterfront revitalisation can be obtained.

C6 CONCLUSION

Boston's waterfront redevelopment programme is the only known example of a coordinated government-initiated approach to redeveloping its defunct waterfront. Unlike other cities, this allows an overview of usage patterns as well as enabling a consistent quality and type of waterfront walkway and parkland to be maintained. The Harborpark plan however lacks some opportunity for innovative ideas, seeking primarily to enhance "its connections with Boston's architectural and maritime heritage ... and to preserve and build upon its special aesthetic characteristics" (4).

The responsibility for new waterfront redevelopment lies with the Boston Redevelopment Authority, one of the public authorities criticised in such critical analyses as Ann L. Buttenweiser's Manhattan Waterbound for blurring the distinction between public and private development. However, unlike the Battery Park City Authority, there is little evidence of developer bias in the BRA's charter and the authority seems to be an effective controller of urban waterfront redevelopment.

The two examples examined, Rowes Fosters Wharf and Charlestown Navy Yard, are part of the most advanced waterfront revitalisation programmes apparent in any American city. While there are drawbacks of overprotectiveness in the programme, these projects demonstrate a genuine reuse of the urban waterfront and an endeavour to bring the city back to its water edge in social, economic and physical terms.

C7 APPRAISAL

Boston is one of the few waterfront cities anywhere to have endeavoured to make the waterfront the culmination of a sequence of public domains from the city to the water. It has had similar problems to other cities - a continuous mid-century freeway ringing the city, a deserted maritime industry and a multitude of authorities vying for control of the waterfront ribbon - but has had the foresight to combine planning visions for the city with those for the waterfront. Where other cities concentrate on waterfront land (and landfill) as potential goldmines for real estate detached from the city, the Boston Redevelopment Authority selects waterfront development propositions on their promised value to the city and on their degree of fit into a future image of the city.

The civic centre of the city is the beginning of the sequence, leading via Faneuil Hall and the Quincy marketplace to a foreshore park at the unobstructed water's edge. From there, in both directions new developments form a chain of activities - entertainment, hotel, office, museum, residential - to 'magnets' at each extermity of the urban domain, Charlestown in the north and Rowes Fosters Wharves in the south. Because of the broadness of the plan, it doesn't matter so much which of the diverse activities go where, as long as the overall mix is achieved and developers are free to suggest appropriate uses for any particular parcel. Therefore, unlike other cities which concentrate on projects on a singular basis where there is no overall result and each development is required to include almost all the abovementioned activities, Boston allows for the qualities of 'organic' growth which determined the city form historically.

The development guidelines established for each parcel seem to back the research and urban philosophical base that generates the plans for developments such as Mission Bay or Battery Park City, but there is a danger that the 'whole' will be successful but the 'parts' will fail. There is evidence of architectural and planning disappointments both at Charlestown and Rowes Fosters Wharves, as well as in previous waterfront developments such as the monolithic concrete aquarium at the end of the markets walk and the equally cumbersome fake piers of the residential buildings lining the walk. But at the very least, the City has realised, and is determined to maintain, the finger pier character of the harbour which most distinguishes the image of Boston.

Footnotes

1 Downtown Projects - Opportunities for Boston

2. Robert Campbell - 'Multi-Use Complex that Feels like Boston's Waterfront' in Architecture May 1988

3. The Urban Land Institute: Urban Waterfront Development. p 133

4. Interim Design Standards for the Inner Harbour. City of Boston/Boston Redevelopment Authority - November 1984

While the preceding studies re-examine American urban waterfront developments that, with the exception of San Francisco's Mission Bay, have been publicised as models for the future, there has been little acknowledgement of the efforts of less glamorous cities facing similar, if not worse, problems. Toronto and Vancouver are cities scarred by the remnants of past transport and port industrial eras, where the drive to resume the waterfront for economic gain has not yet reached full throttle.

Along Lake Ontario in Toronto, up to sixteen railway tracks together with the F.G. Gardiner Freeway and Lake Shore Boulevarde, form an impenetrable barrier to visual and pedestrian access to the water. In spite of its islands and headlands, the Lake Ontario waterfront is flat, expansive and characterless. The city, pushed relentlessly back over time from the water's edge by landfill and industry, is introspective and the residential upmarket areas are at the opposite end of the city from the water.

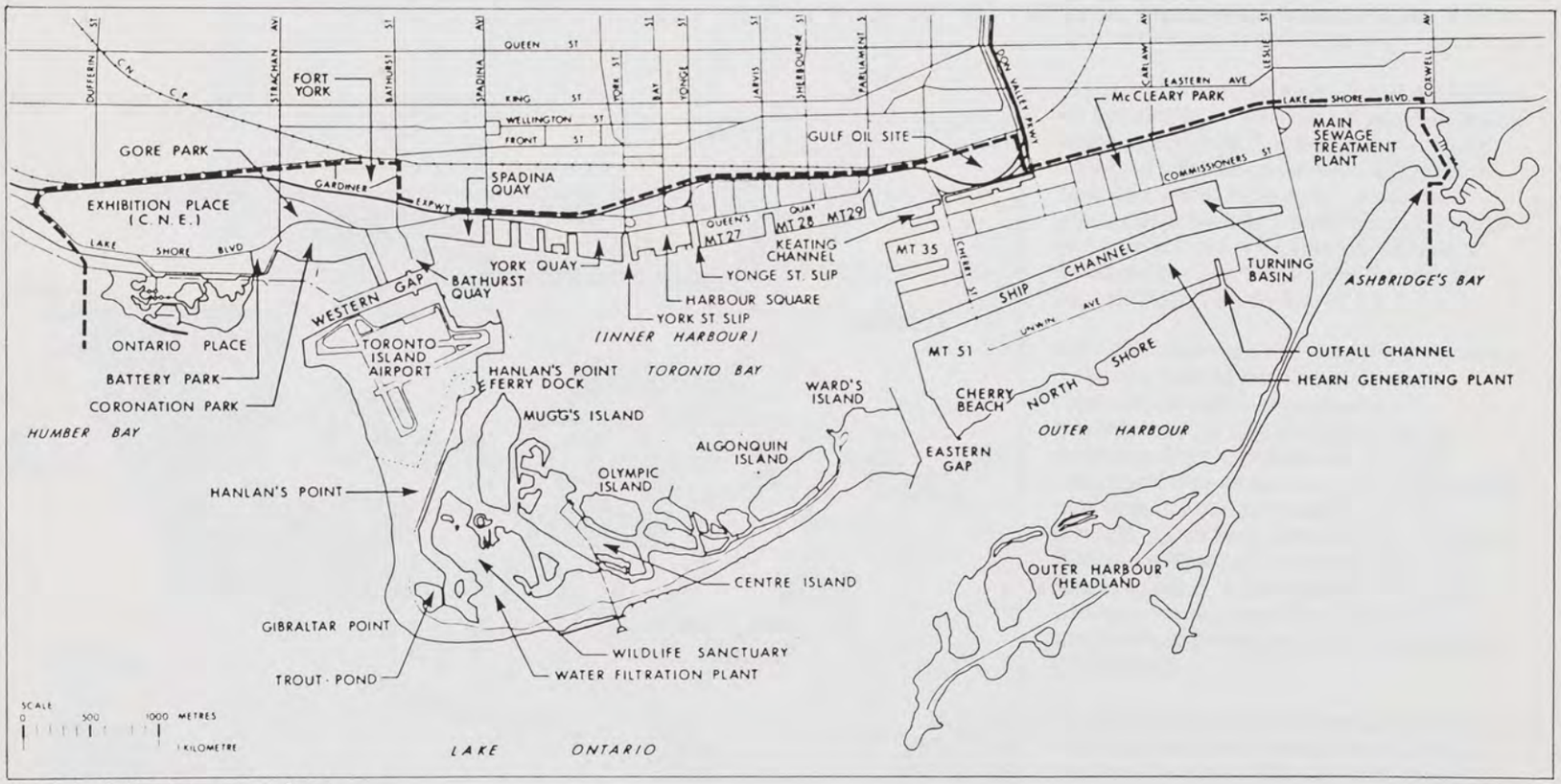
Vancouver, on the other hand, has one of the world's most spectacular harbours, its water views framed by snow-capped mountains. The city founders, who reserved Stanley Park at the north-eastern end of the city, created a unique phenomenon that other cities have struggled to achieve with little success, the urban waterfront park (cf. the battle for Riverside Park, Manhattan). Yet the city is equally severed from the immediate waterfront by railyards and vast carparks, with the added problem of the cliff edge which physically separates the waterfront land from the city. Careless uses for the waterfront, such as the B.C. Place Stadium on False Creek, have also detracted from the water as a place of visual and pedestrian enjoyment.

Both cities are further afflicted with the problem of what to do with the decaying remains of Expos, with their artificially contrived futuristic shapes and landscapes. In Vancouver, one Expo development was planned for future waterfront use - the multi-use Canada Place Development on the city's immediate urban waterfront. It is examined in this study in isolation from the city's waterfront revitalisation programme as it is one of the few waterfront projects anywhere to create an architecture of belonging to the water, which neither Manhattan, San Francisco nor Boston has yet achieved.

As evidenced by Toronto's waterfront planning policies, this city's waterfront is destined for further obscurity and is one of the few North American waterfront cities to have no genuine vision for waterfront revitalisation. In spite of some enthusiasts who would turn the drab forsaken land into a vital centre of city life, the resultant policies are a capitulation to the political and economic pressures which all cities have had to confront.

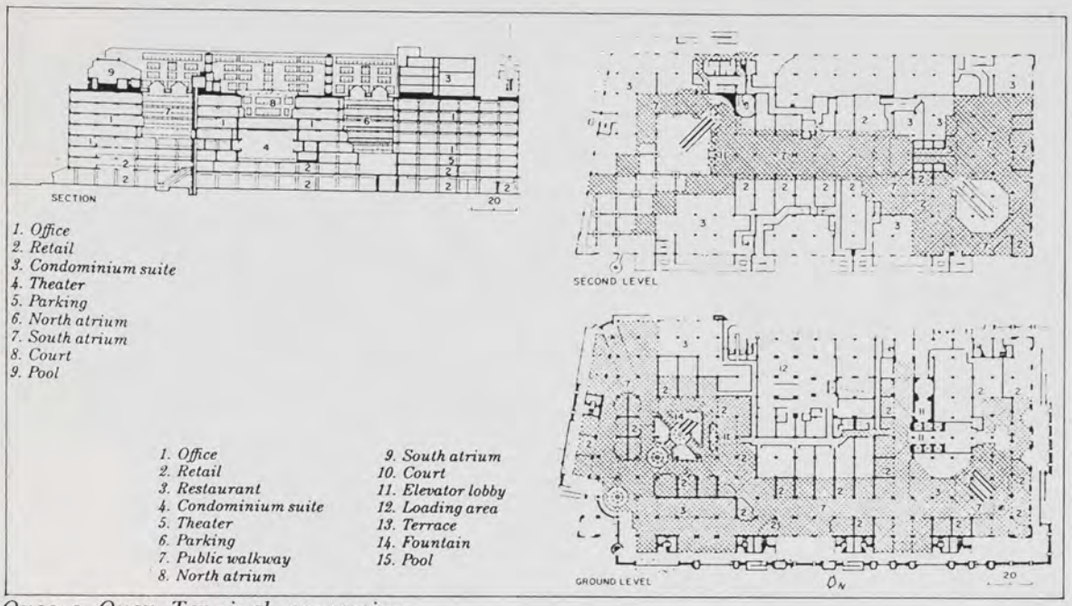
D1 TORONTO - A WATERFRONT WITHOUT A FUTURE

In spite of comments to the contrary, Toronto's



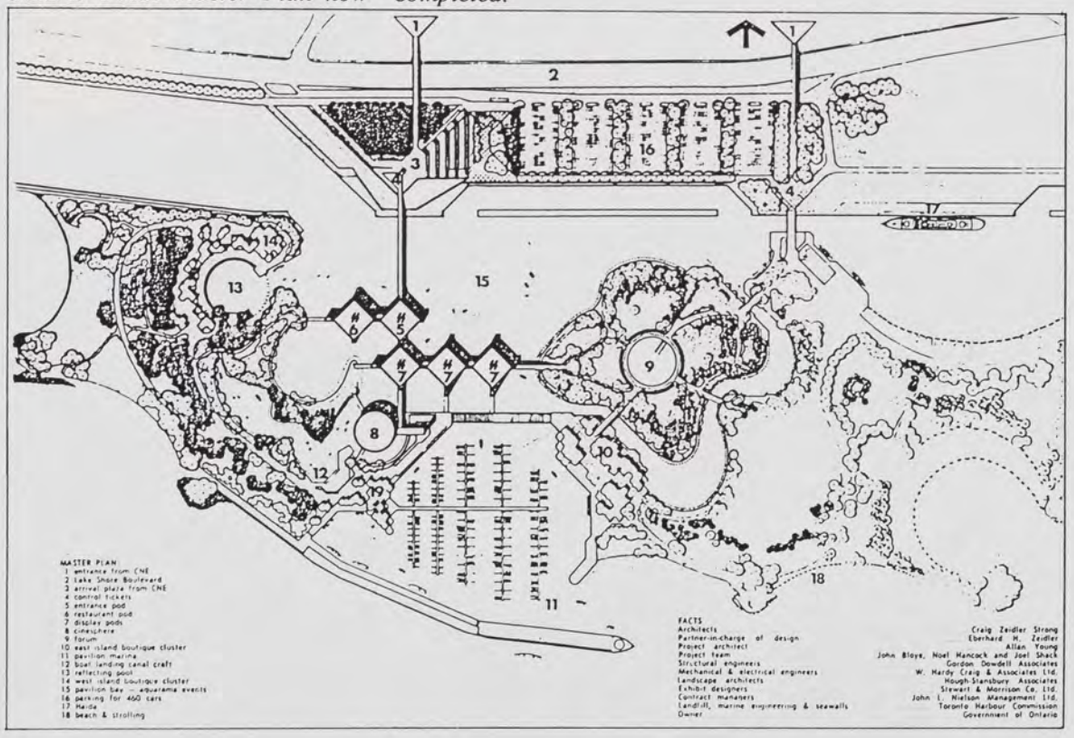
Extent of Toronto waterfront.

Colour Page: Toronto Waterfront showing extent of railyards and Queens Quay Terminal on right.



Queens Quay Terminal conversion.

Ontario Place Master Plan now completed.



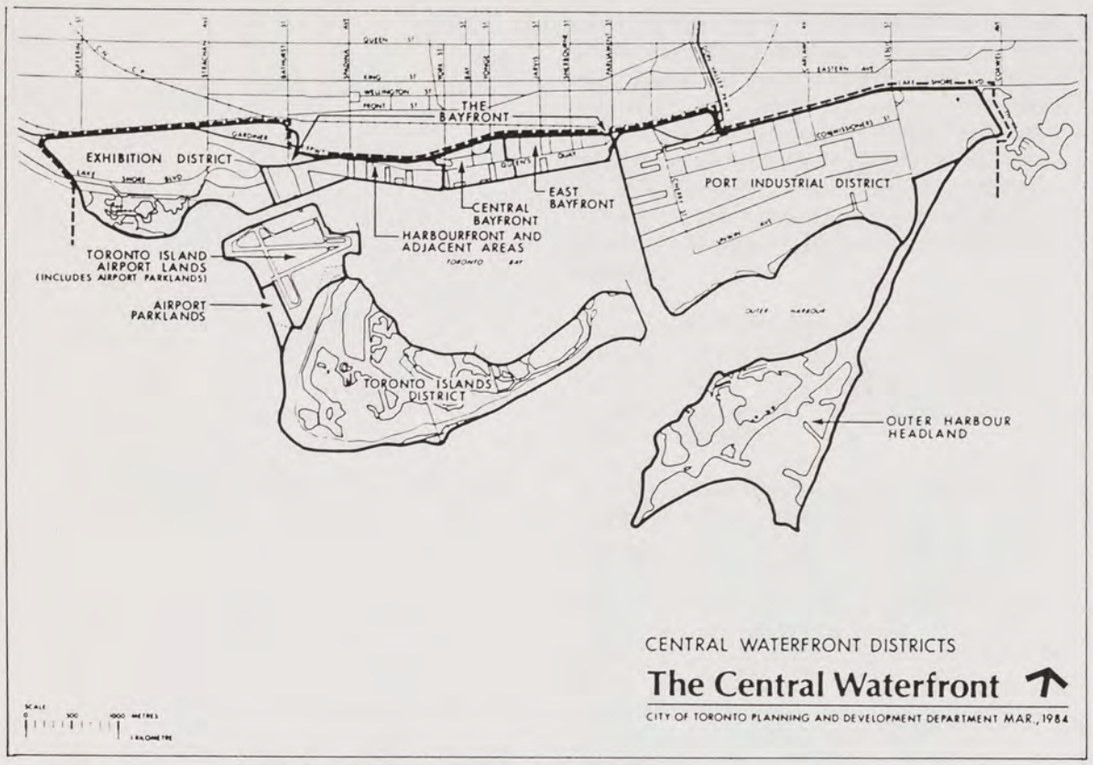
waterfront is probably the least remarkable of all urban waterfronts. Not only has it been ravaged by railroad, automobile, industrial and storage uses, it lacks geographical distinction. It is vast, unvegetated and without topography. There is little definition of the water's edge by historic pier or by harbour shape, rather the edge is formed by the spill of landfill operations.

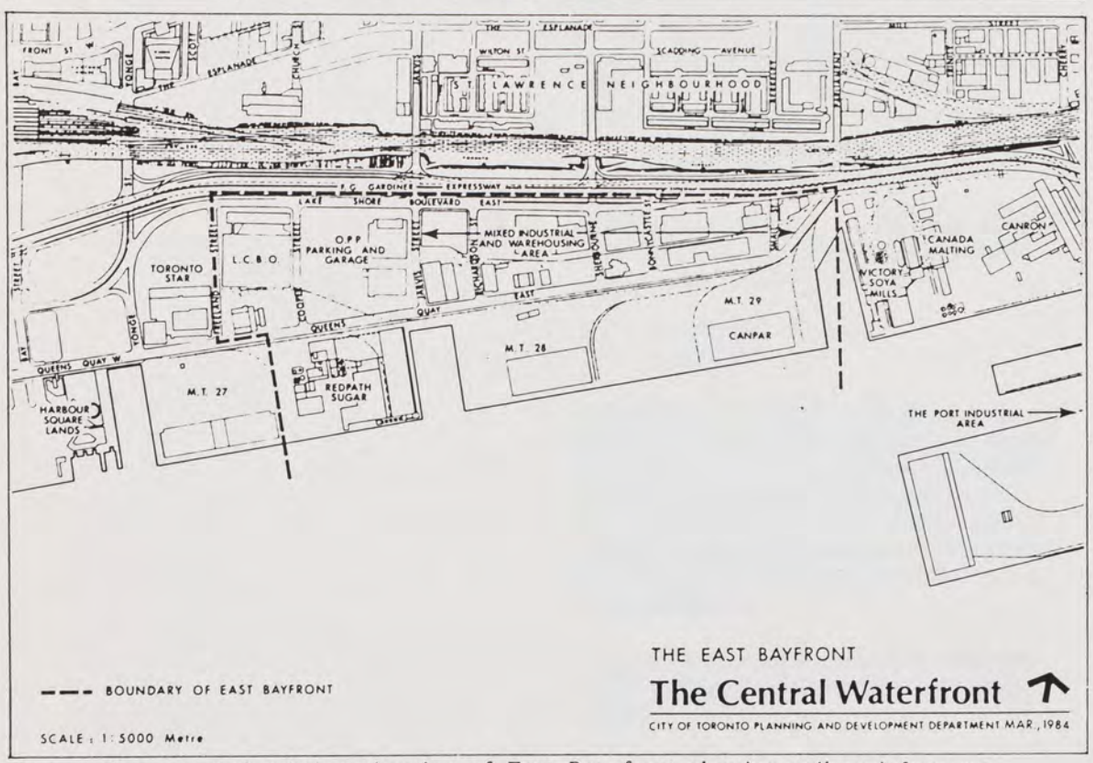
Revitalisation of the waterfront has not been assisted by the two major waterfront projects completed. Opposites in position at each end of the urban foreshore line, these buildings are also opposites in philosophical approach (even though both were executed by Zeidler Roberts Architects). One is Queen's Quay Terminal, a renovation of last remaining warehouse into a multi-use development, surrounded by open carparks and, were it not for retention of the old building, would have made a fine suburban shopping centre. The other is Ontario Place, a mini 'megastructure' of bridge-linked pods cast out over the waterline, and built partly on landfill, to form an artificial world screened from the city by man-made hillocks. Of this fun fair development one critic wrote:

"Thus, in Toronto, we have five oil drilling rigs off the lake front. We have a Cinesphere bubble with a superscreen. We have some very nice additional parkland on the water with pleasant boutiques and so forth ... So we may have gravel pits behind the screen of trees, and scum on our rivers, but in the fine old tradition of *bread and circuses* we are given the ultimate baroque folly: Ontario Place" (1).

From these develoments, it is difficult to assess where the Toronto waterfront will end up, physically as well as conceptually. Nevertheless, the City of Toronto has the advantage of seeing other cities strive for waterfronts appropriate to the year 2000, and the time to assess how its waterfront should develop. As far back as April 1976, the Central Waterfront Planning Committee published a document called 'Waterfront Precedents' as an information base, one of the most well-structured and publicly readable investigations yet produced.

The history of Toronto's waterfront generally follows that of other harbourside cities across America. Between 1800 and 1850, the port was intensively developed. In 1850, an esplanade





Zoning diagram and existing situation of East Bay front showing rail and freeways.

was built by landfill between the port and the waterline to restore public access. From 1850 to 1880, the railways took over half of the esplanade and continued filling the lake. The Harbour Commission continued filling to create new industry and port land as well as parkland.

Toronto Island, which lay offshore and was a rich wetland habitat, was transformed into a residential community. The island was connected to the mainland and formed the safe Inner Harbour where most of the port activity was concentrated. In 1912 the shape of the inner harbour was remodelled by massive landfill operations. But subsequent changes in the nature of shipping trade, particularly containerisation, induced the Harbour Commission to plan for port expansion in a newly created and larger Outer Harbour, leaving the Inner Harbour redundant. The Gardiner Freeway, Lake Shore Boulevarde and redundant railway land now make the Inner Harbour foreshore inaccessible to the public. 1000 metres of landfill separates the current shoreline from the original waterfront.

In addition to examining its own history, 'Waterfront Precedents' examined the development, albeit superficially, of both historic and modern waterfronts such as Valetta in Malta, Zurich and Stockholm. But it recognised that unlike other waterfront cities, Toronto had completely lost its character. It recognised that there was virtually no commercial interest in the waterfront. Its options were completely open but the commitment of government was the only means of reviving the harbour.

In March 1984, the City of Toronto Planning and Development Department released its 'Final Recommendations: the Central Waterfront Report' which contained the usual proposals for public access, parkland, transit connections, boating, recreational facilities, affordable housing, commercial and retail facilities to enliven the waterfront. It primarily endeavoured to rationalise the vast expanse of waterfront land by zoning it into various districts - the Exhibition District, The Bayfront, the Toronto Islands District and the Port Industrial District.

The proposals, however, are opposite to those promoted in most other cities. They intensify, rather than decrease, waterfront industry. They

eliminate housing in the major Bayfront area on grounds of incompatability with industry. They capitulate to industrialist pressure where other cities have not. The plan is as previously noted, an all-encompassing strategy of the waterfront. But instead of pursuing the goals described in the 'Waterfront Precedents' analysis, it redirects Toronto's waterfront back to a state of public alienation, in spite of its stated intentions to the contrary.

No more recent proposal for the Toronto waterfront has been prepared. It is clear that the City of Toronto has no vision for the future of what is an already the most inhospitable of urban waterfronts.

In this light, the developments at Queens Quay and Ontario Place are positive improvements. The quay building is the city's only successful attempt to provide residential use for the waterfront and to give the city public and retail activity at the waterfront. But it is a lonely edifice in an otherwise barren environment. The architect Zeidler for Ontario Place saw his development as the catalyst 'from which we can commence an orderly pattern within the framework of our economy' (2). It is, however, unimaginable how such an unfamiliar type of development can become the catalyst for what other cities regard as vital elements toward waterfront revitalisation - extension of the city fabric, housing, shopping, maritime character - none of which are evident in Ontario Place.

Toronto, it would seem, is a lost cause unless a comprehensive vision shared by government, planners and architects is established.

D2 CANADA PLACE, VANCOUVER

Canada Place is a multi-use single complex with hotel, convention, cruise ship terminal, theatre and exhibition facilities. Designed by Zeidler Roberts Partnership of Toronto and Downs Archambault Musson Cattell of Vancouver, it replaces a decayed 335 metre pier that protruded into Burrard Inlet from the foot of the Central Business District.

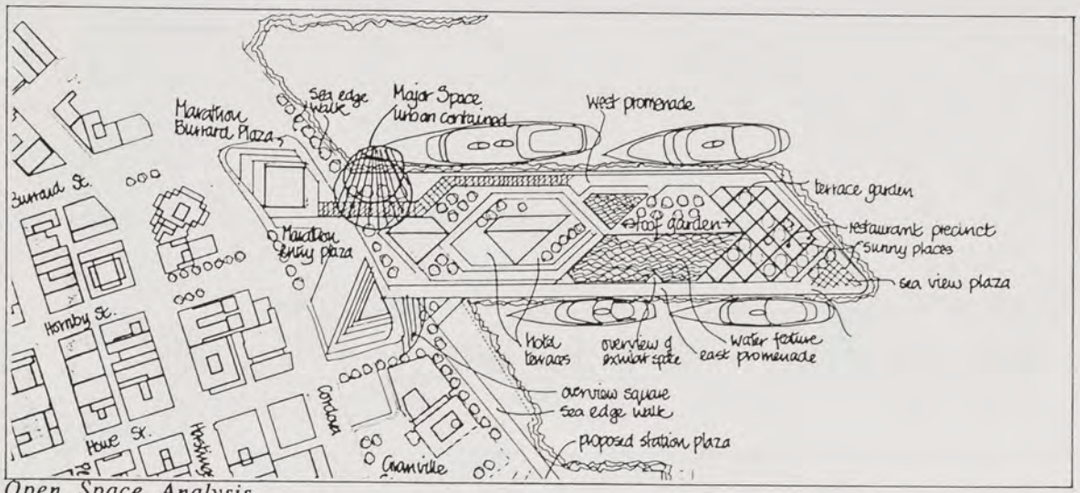
There are several aspects of this development which distinguish it from others previously studied:

- it does not retain the old pier but replaces it completely, although the existence of an old pier was essential for development rights in the first place;
- it is not part of an overall urban waterfront design policy, having been conveived as a focus of Vancouver's Expo 86;
- it neither reflects historic waterfront character, no incorporates social benefits such as affordable housing or public waterfront access;
- it seeks to make maritime reference through new forms and to express the technology of modern port use rather than to recapture the spirit of past maritime history.

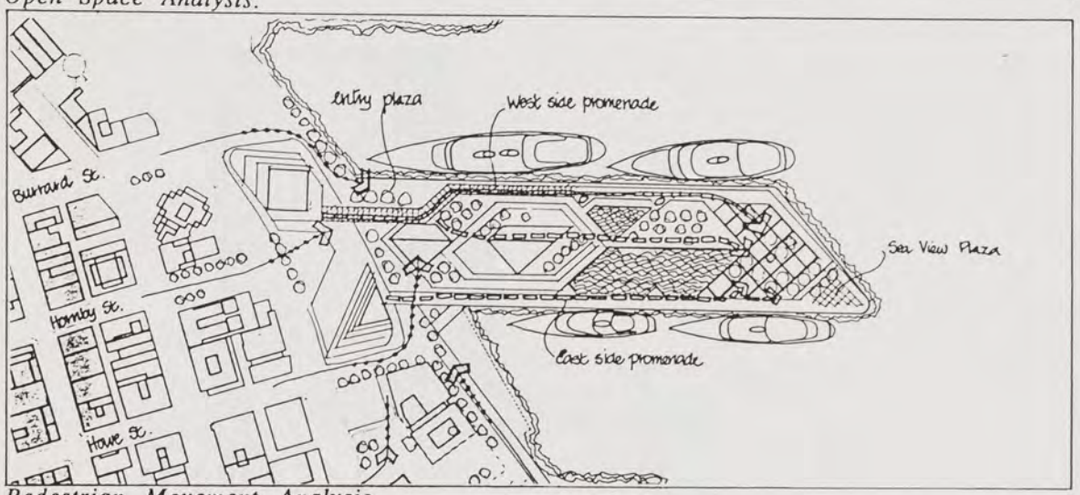
The development's history reveals problems similar to any environmentlaly sensitive location. Conceived in 1980, its scope was continually debated because it threatened to block the city's mountain views from the main Howe Street. At that time it was intended as a cruise ship terminal and a convention centre for the Provincial Government. The economic recession deferred it indefinitely until Vancouver suceeded in its bid to stage Expo 86 and the Federal Government committed funding to create the development as a focus and passenger arrival point for Expo. Its scope increased to provide hotel and exhibition facilities and the site was released for design and tender bids. Of five shortlisted bids a company called Tokyu Canada won the development rights to the hotel and convention centre. Zeidler Roberts Architects were brought in to redesign the characterless embryonic Downs Archambault concept.

The Original Proposal

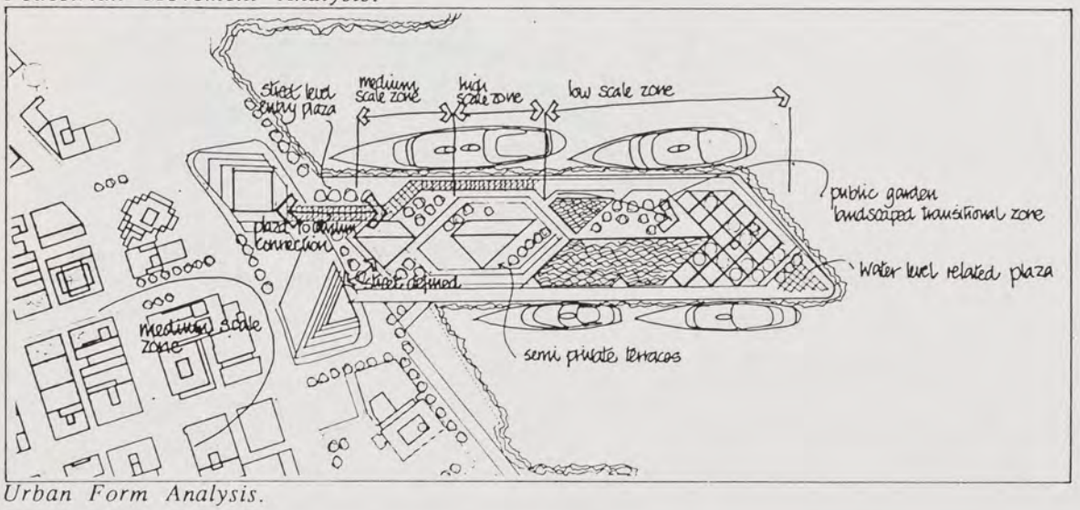
In 1980 Vancouver had in place its Central Waterfront Development Plan which regulated development of the urban waterfront. The Canada Place project, known at that time as Pier B.C., was one of three major downtown projects anticipated to be developed simultaneously as key elements of the city's Development Plan. The site was owned by the Port of Vancouver, but all the adjacent land was owned by Canadian Pacific Rail who were intent on developing air rights over railway land through its development arm Marathon Realty. Many authorities and companies had a participatory role in the Pier B.C. development, with varying objectives:



Open Space Analysis.



Pedestrian Movement Analysis.

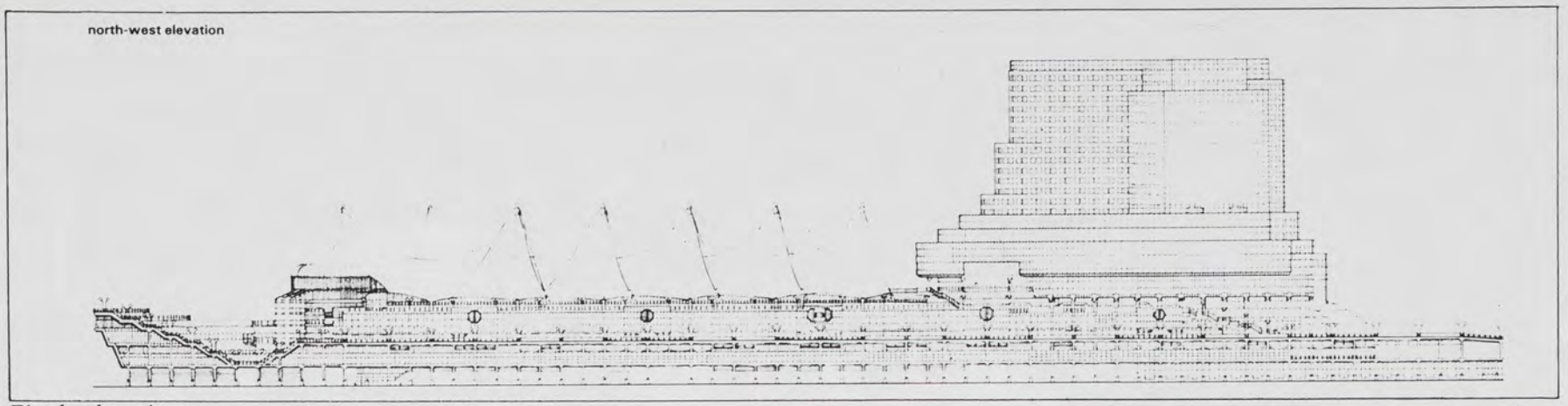


Urban Form Analysis.

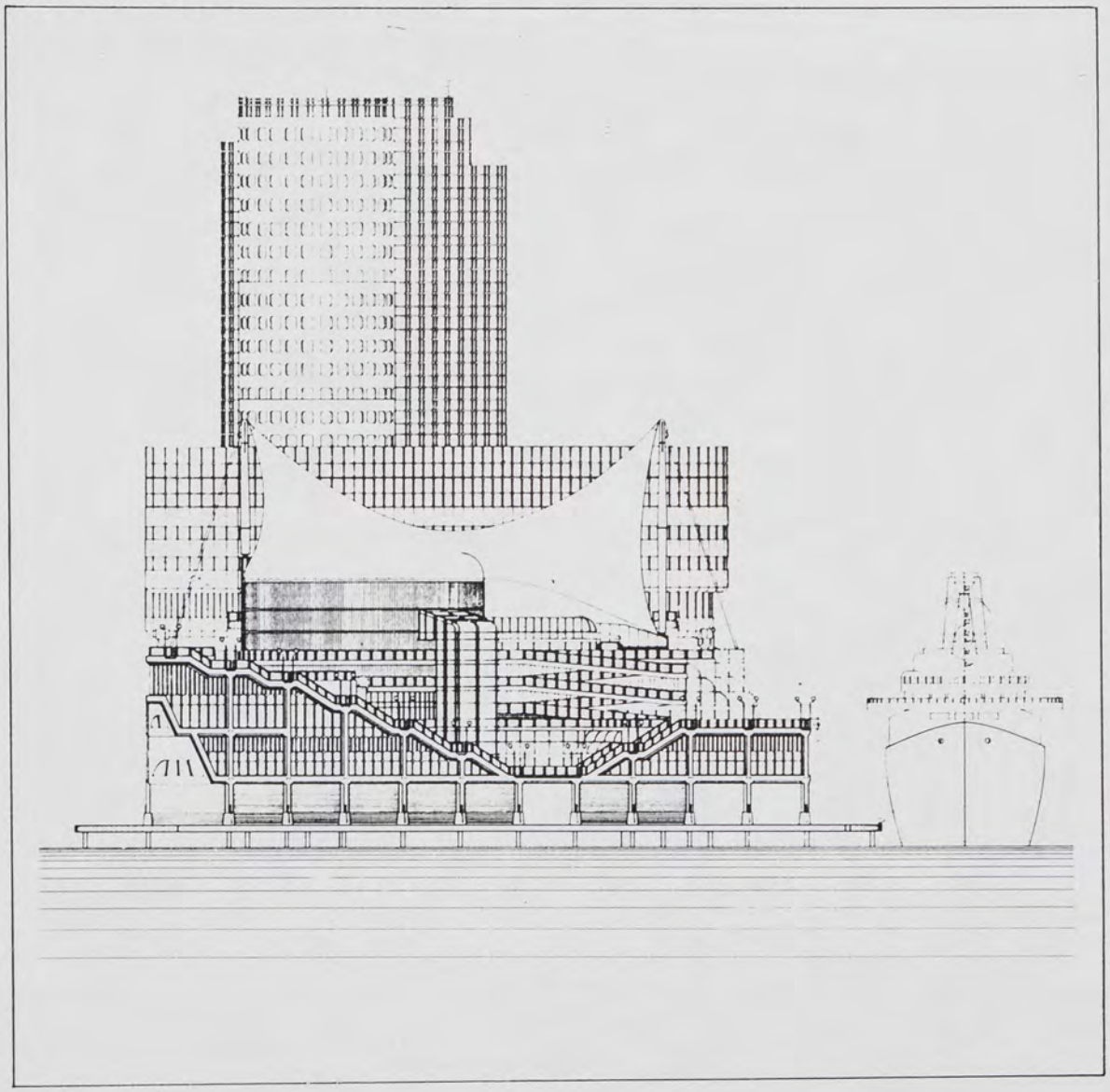
- The Pier B.C. Development Board, to provide a major Trade and Convention Facility as a boost to the city's international trade industry
- The Port of Vancouver, to provide a modern cruise ship passenger terminal to handle the cruise ship trade expanding from California to Alaska
- The Provincial Government, to promote tourism in British Columbia and strengthen its economy
- CP Rail - to ensure waterfront development strengthens port and rail uses into the future, and to develop adjacent land for revenue from office/retail development.

Downs Archambault/Musson Cattell and Partners prepared a development proposal combining the requirements of each participant in August 1980, for approval by the City of Vancouver. For the city's benefit, the proposal described the development as a 'gateway' to the city, a rejuvenation of waterfront accessible development and a catalyst for future revitalisation projects (3). The proposal examined the urban form of the city and endeavoured to resolve the pier's diagonal orientation to the city grid by establishing a diagonal geometry of development. It proposed a series of buiding forms stepping down from the city edge to the waterfront preserving and enhancing vistas.

The proposal located the two major facilities, the Trades Exhibition Hall and a 500 room motel at the land end of the pier, and the Convention Centre, Cruise Ship Terminal and Parking base underneath stretching along the pier. This strategy took advantage of the fact that the city was elevated some four storeys above the water level, making room for the development to accommodate several layers without rising above city grade level. These layers included the cruise terminal, parking, meeting rooms and convention facilities. The next layer was the Exhibition Hall, with the two low rise towers for the Hotel and Trades building rising against the city backdrop. The proposal also included an upper deck promenade giving people access to cruise ships at their deck level, as well as affording elevated views of the harbour. A great plaza was proposed at the pier end near water level, but the main idea of the raised promenade was to separate shipping activity below from public activity above.



Final elevations.

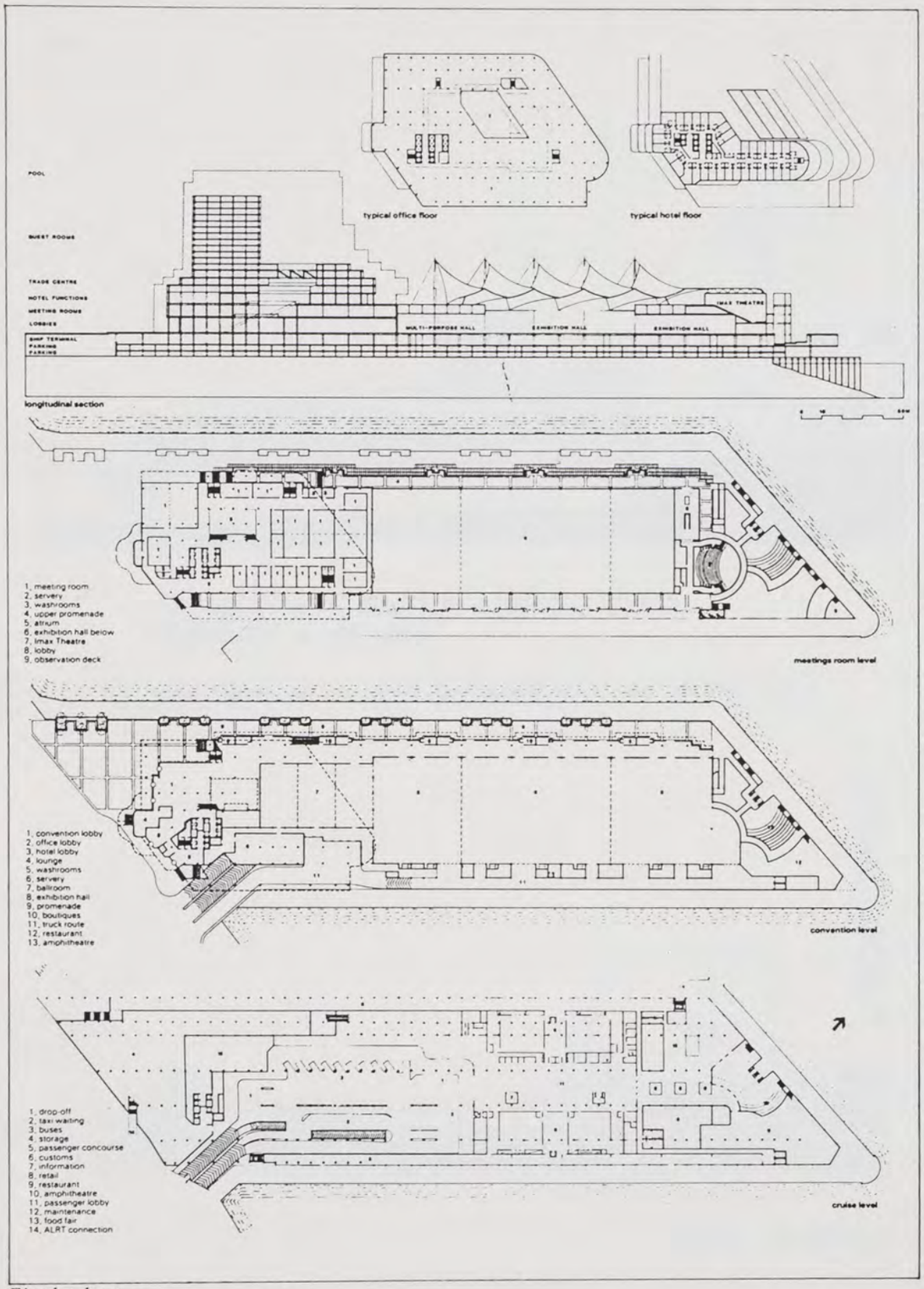


Apart from the endeavours to include public activity and from the segregation of uses into horizontal layers, the scheme was generally weak and lacked image. While it demonstrated compliance with the city's general waterfront planning objectives, it also demonstrated the failure of urban planning controls to generate exciting waterfront development.

Canada Place

In June 1982, the Federal Government revived the project to house the Canada Pavilion for Expo 86 with the pavilion intended as the future Vancouver Trade and Convention Centre. The government established the Canada Harbour Place Corporation to design and construct the development which was to include a 505 room hotel. It created new titles for the development's components - the hotel was to be the Pan Pacific Vancouver; the office, convention and exhibition facilities to be part of the World Trade Centre. The development ws financed by $144.8 million from the Canadian Government to fund the public portion and by $140 million from Tokyu Canada Corporation for the Hotel and World Trade Centre. Tokyu Canada also paid $30 million to purchase a 99 year lease for their components.

The new architects, Zeidler Roberts Partnership, redesigned the Downs Archambault/Musson Cattell proposal. While they maintained much of the previous functional disposition, their major contribution was to instill it with an image. The Exhibition Hall developed as a series of tensioned Teflon sails, twisted diagonally to match the city's planning grid, at the same time creating a dynamic sense of space



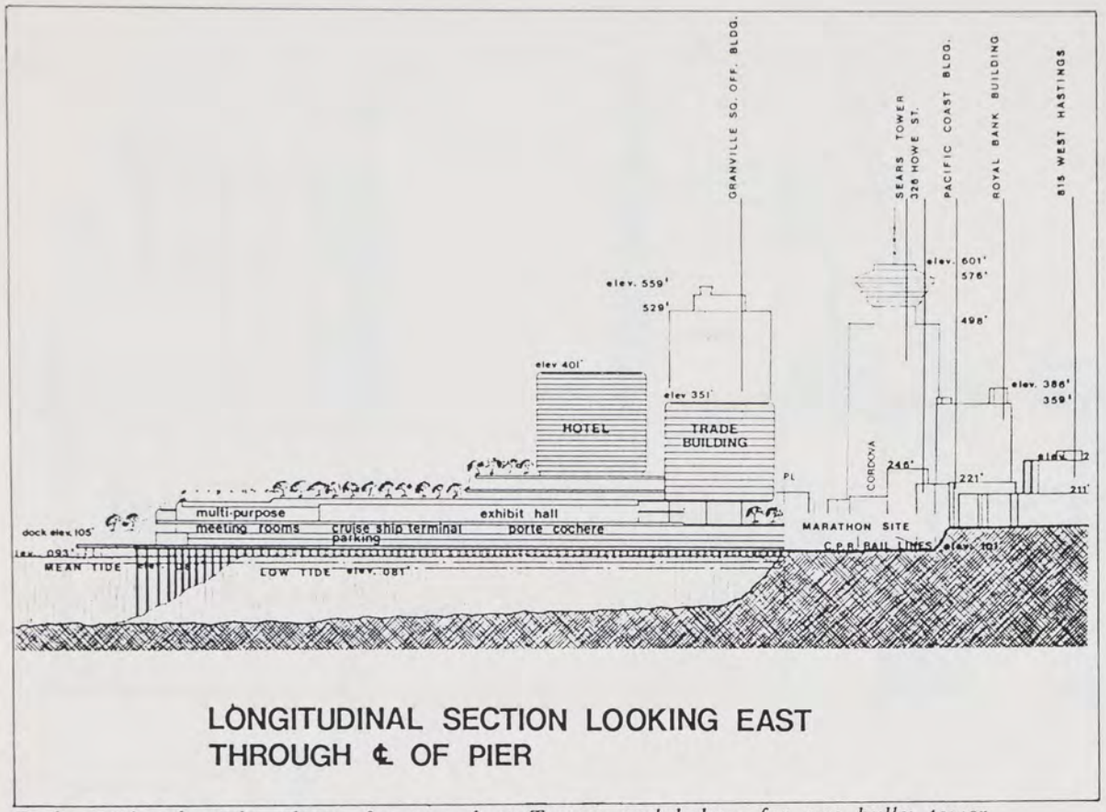
Final plans.

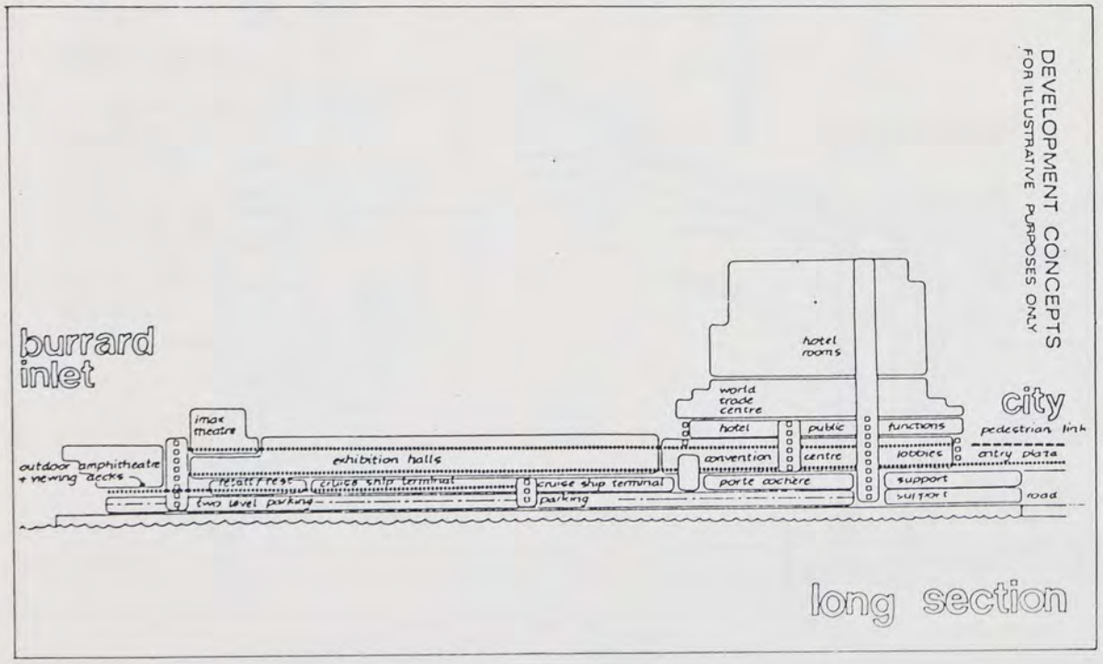
and a dramatic nautical imagery.

Exposition events by their nature were testimony to man's technological achievements. Paxton's Crystal Palace for the Great Exhibition of 1851 was followed by 30 international expositions in the nineteenth century, each of which produced new structural feats. In this century, they became exhibitions more of the state of modern art and architecture and involved the Constructivists, Suprematists, Futurists, De Stijl, the Bauhaus and CIAM in contributing to international fairs. Examples were Bruno Taut's Glass Pavilion at the Werkbund Exhibition in Cologne in 1914, Tatlin's unbuilt Monument to the Third International in 1919, and Le Corbusier's Le Pavillon des Temps Nouveau for the 1937 Paris World's Exhibition. This period was followed by a return to themes of science and technology, as evidenced by the buildings by Le Corbusier and others for the Brussels Universal and International Exhibition in 1958, and the 'megastructure' phase in the 1960s conceived by the Archigram Group. Expositions in the late sixties and seventies established new themes based on man and environment but their forms were no less inspiring, including Kenzo Tange's Osaka 70 megastructure and Buckminster Fuller's USA Pavilion at Montreal's Expo 67.

The Zeidler Roberts Partnership Canada Place exposition building does not quite match up to these great exhibition structures. It is compromised by a theatre (CN-imax) structure forced clumsily into the sail system, and by poor detailing in the substructure and promenades. But it does reconfirm a theme on urban waterfront redevelopment previously discussed - that inspired waterfront redevelopment needs an 'event' to generate fine waterfront architecture through its associated government commitment, public support and demand for the best of designers to create it. This was the case with the United States Bicentennial in 1976 which directly generated waterfront revitalisation from New York and Baltimore to St Louis (4). It was the case more recently with Australia's Bicentennial in 1988 which reshaped Darling Harbour in Sydney and gave impetus to Expo 88 in Brisbane.

Canada Place is one of the most identifiable and spectacular pieces of urban waterfront architecture, its soaring white teflon and steel





Early sectional study, above, for two short Towers and below, for one bulky tower eventually adopted.

structures seen in silhouette against either the dark hills of North Vancouver, or the formless grey office buildings of the city. It is apparent that without the backing of Expo, the sombre earlier proposal would have destroyed any concept of waterfront revitalisation.

It is, however, important to note a number of serious faults in the Canada Place project that reduce its application for other waterfront cities.

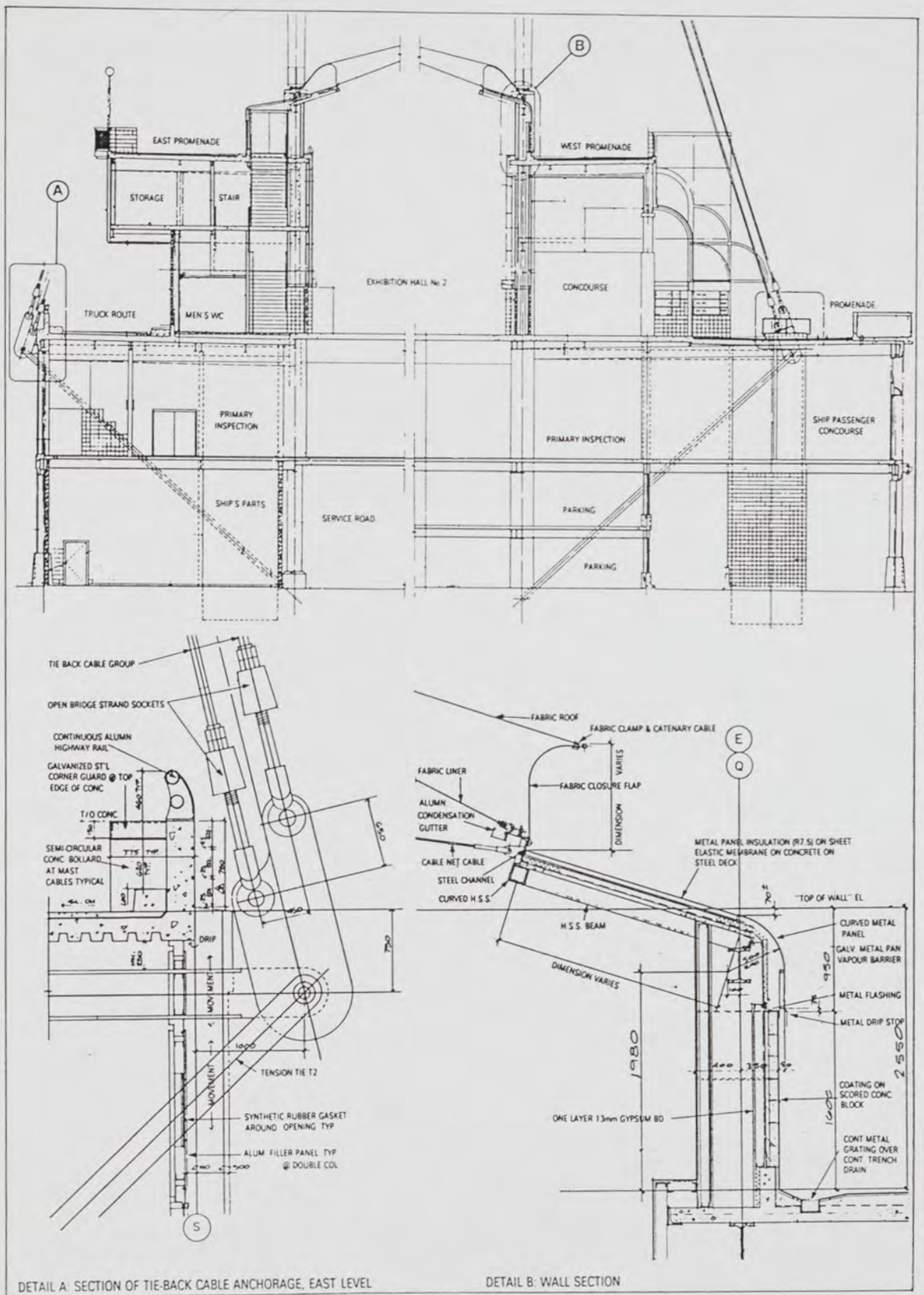
Firstly, it fails to bring people to the water's edge. By carrying people at the city grade level onto an upper deck it gives views over the harbour but reinforces the separation of people from it. Railway land and a wharf road still continue below, and a look in either direction reveals how much that railways and carparks are entrenched in North American urban infrastructure. This is not so much the error of the architects as of the City's planning philosophy.

Secondly, the hotel and World Trade Complex behind the Expo structures have been designed as a 'steamship' metaphor with a stretched metal skin punctuated by porthole windows and capped by an inappropriate glass dome. It is not so much an example of bad architecture for it at least conveys a maritime image where other city buildings are lifeless. But it is a jarring image against the sailship image of the pier building in front.

The nautical metaphor is carried to extreme in the prow-shaped pier end and below the deck level, the architecture reverts to a repetitive concrete structure reminiscent of any modern container pier.

Thirdly, the quality of waterfront public space is so poor as to confirm that the building's purpose is a commercial one. The elevated public promenade is lined by the impenetrable wall of the exposition building. The city approach is a competition with service vehicles and general traffic. The amphitheatre at the pier end is unactivated and introspective. The bus terminal, which the architect describes as part of a dynamic transition for ship to land, is buried in a maze of mirrors and concrete.

It is remarkable that the principal architect, Eb Zeidler, considered his building as a superior nautical metaphor to Sydney's Opera House on



DETAIL A: SECTION OF TIE-BACK CABLE ANCHORAGE, EAST LEVEL

DETAIL B: WALL SECTION

Sectional details of new structure.

the basis that the use of concrete was inappropriate for sails (5). In the words of the Architectural Review editor, Canada Place "... can scarcely be said to have the iconic power of the concrete sails diametrically opposite the Pacific in Sydney (6). Canada Place lacks the quality of abstract metaphor that makes great urban waterfront architecture enduring at various levels of response. It is a far too obvious metaphor, or more accurately a confusion of metaphors, and it is debatable whether a 'ship' is an appropriate metaphor for a building meant to moor ships, not to be one.

In the final analysis, Canada Place has numerous lessons for waterfront redevelopment projects. It is exemplary in integrating a diverse range of seemingly incompatible uses, each of which has either a functinal place or an historic precedent on the urban shoreline. It has responded to the great tradition of waterfront expositions expressing technology while still producing a contextual focus.

It seriously alienates people from the water itself and as a stated catalyst for future development, is a dangerous precedent. Its nautical metaphor gives it its vitality, at the same time producing the image of a structure that is water-based rather than one which joins water to land, which after all should be the ideal of any urban waterfront architecture.

Footnotes

1. James H Acland. 'Ontario Place: an excess of hubris' The Canadian Architect June 1971. p 44

2. E.H. Zeidler: 'Ontario Place: Needs for a New Society'. The Canadian Architect June 1971.

3. Musson Cattell and Partners/Downs Archambault. Report for Area Development Permit Application. August 1980

4. Ann L Buttenweiser: Manhattan Waterbound. p 204

5. Eb Zeidler. Canada Place Design Report. April 1986

6. Architectural Review. Canada Place. November 1987. p 83/2

It is with the advantage of the study of North American urban waterfront developments that this investigation of the English situation ensues. There are several obvious differences between the two, the first being the sheer extent of history that distinguishes the English dockland. The second is the existence of much of the historic building stock remaining in the English docks and the necessity for urban waterfront renewal to concentrate on conservation and redevelopment rather than on new development (1). The third is the framework under which dockland renewal is undertaken, almost exclusively under the auspices of a government-controlled 'Development Corporation', although this is similar to the North American 'Public Authority' specially structured to initiate many individual waterfront redevelopments. Lastly, there is the virtual absence of town planning in the English method, although this has been readdressed of late, and is perhaps not so different from New York or New Jersey.

There are, of course, intrinsic historical links between English and North American ports and, during the eighteenth and nineteenth centuries, the very existence of modern America depended upon material transport to and from England. Prior to 1870, the London and Liverpool ports were the centres of world trade. They were the most active, most prosperous and the largest until, after 1870, the port of New York surpassed their combined trade. Interestingly, it is the ports of London and Liverpool that are now undergoing the most dramatic transformations of any major former dockland (2).

The decline of the English docklands occurred in the nineteenth and twentieth centuries, following a pattern not dissimilar to that of the American port although with different emphases. In London, the port had been historically concentrated on the Thames north bank below London Bridge but during the eighteenth century, it moved westward into the West India Dock and later the East India Dock. Massive as these docks were, they were unable to cope with containerisation and the enormous bulk of modern twentieth century vessels, with the eventual redundancy of London Docklands following the closure of the East India Dock in 1967. The rise of the automobile and of the railway never reached such proportions in England as in America, and the elevated freeway was a distinctly North American phenomenon, but in the sixties and seventies the vacated ports of English sea and river cities were no less a barricade to public waterfront access than in America.

It is worth stating at the outset of this discussion on England's current attempts to revitalise its abandoned docklands, that the processes of development and design lack the sophistication of American strategies, pay little heed to public opinion, and place expedience and pecuniary interest ahead of environmental or architectural value. The renewal programme in London Docklands is only half complete, in Liverpool less than that and in Gloucester, Salford/Manchester and other places still less, but enough has been done, with few notable exceptions, to suggest that the country is pitching its waterfronts into irreversible chaos. It is incredible in a city whose grand plans of the past, of Wren and Nash, are still maintained as the models of urban planning, that an area equivalent to the area of London itself should have no visionary plan nor even a semblance of a physical one. In the waterfronts outside London where parochial plans have been prepared, they are mediocre extensions of 'new town' environments with the docksides softened by cottage gardens and winding cobbled paths. Only the renovation of Liverpool's Albert Dock stands out with any sort of intellectual base and there no new built form has had to have been introduced.

While there are positive and negative lessons in the American examples, the English condition must be examined from a 'what not to do' viewpoint, but it is possible that such examination will prove equally beneficial to future urban waterfront development.

Background

At 22 square kilometres, the redevelopment of London Docklands along the serpentine banks of the Thames River, east of the city centre, is by far the largest urban renewal programme ever undertaken. Marketed by the specially devised London Dockland Development Corporation as 'The Exceptional Place' it consists of four zones defined by the Thames and by residential boroughs. From west to east, the zones are Wapping/Limehouse, Rotherhithe/Surrey Docks, Isle of Dogs/Enterprise Zone and Royal Docks. Generally, the zones have been released for development in that order since viability initially depended upon proximity to London centre.

All but the Royal Docks were by 1989 substantially developed, with few controls other than zoning maps defining use configurations. The Royal Docks may be regarded as the only planned precinct of the redevelopment and there is significant interest is being generated in the issue of planned versus unplanned development of urban environments.

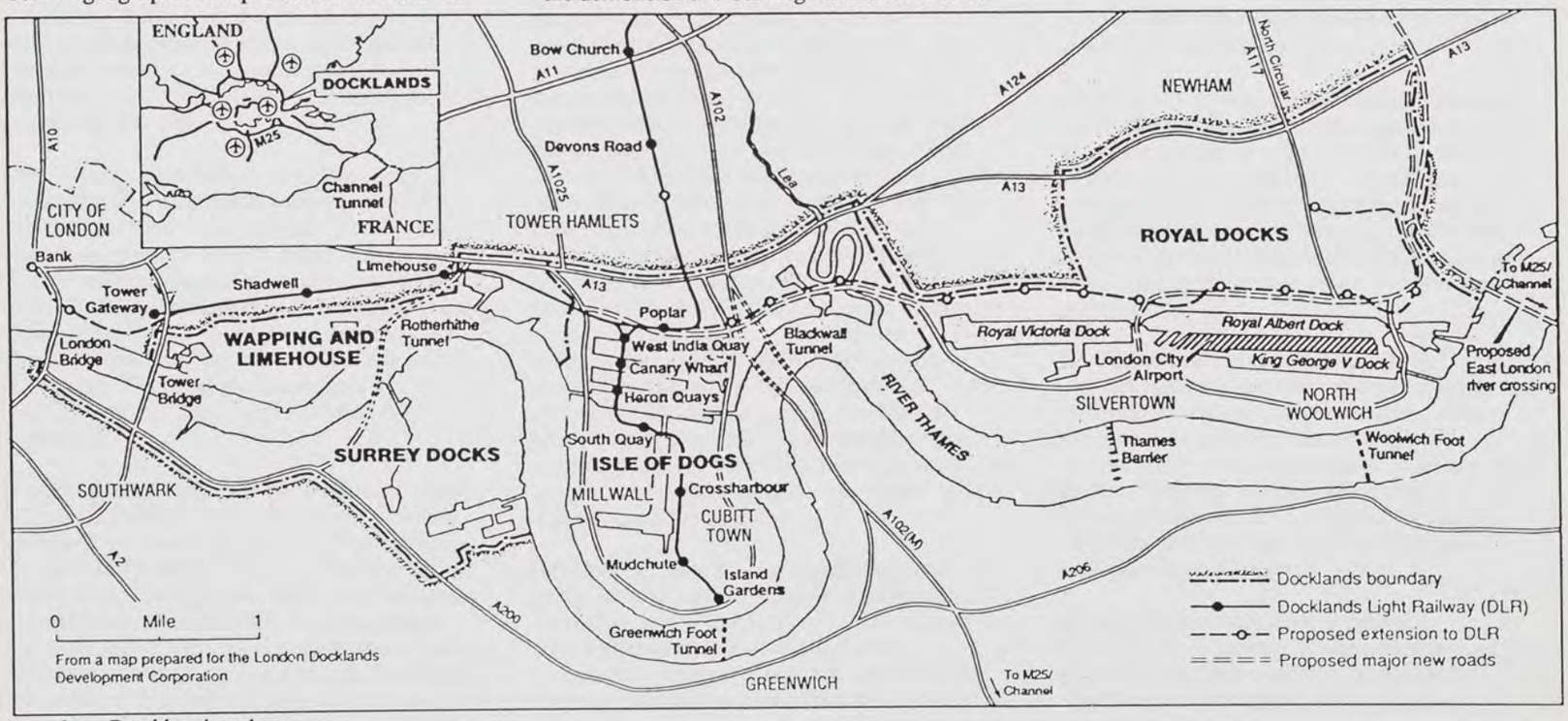
The focal zone of Docklands is the Isle of Dogs, both in geographic and promotional terms. Its focus is the enormous Canary Wharf scheme which since 1987 has largely reshaped development of much of the earlier developed areas. Of particular interest in this zone is the so-called Enterprise district, of which Canary Wharf is a part, where major tax and other benefits were offered to lure developers and almost no restriction on development was incurred. The significant feature of the Docklands urban waterfront redevelopment approach is the provision of a high powered development strategy coupled with an absence of planning and design strategies.

The redevelopment of the Docklands has come under attack from nearly every quarter - from planners, from architects, from historians. In order to set the picture for examination of this area, the following exemplifies the disparaging attitudes:

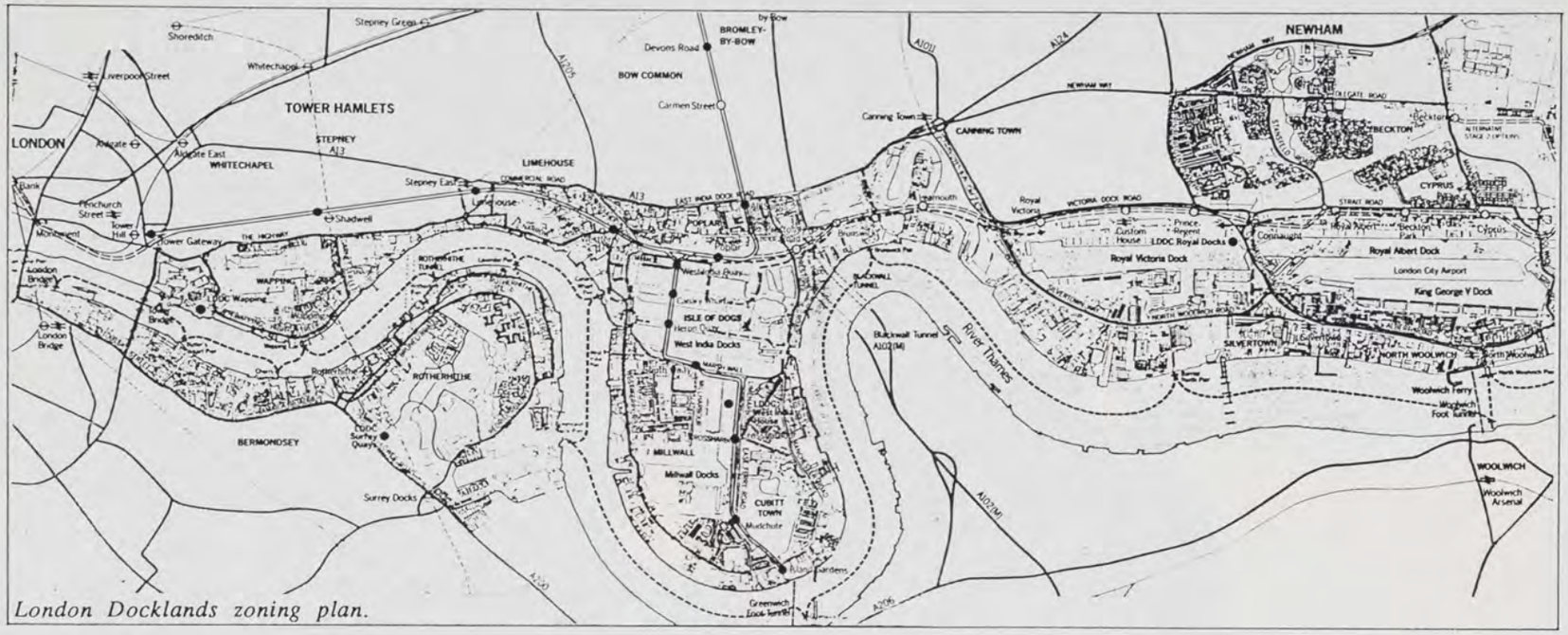
"What should have been a long anticipated, carefully planned and sensitively controlled restructuring, looks in retrospect more like a collapse. Opportunities were squandered. No census was made of the sound, adaptable buildings being vacated in their thousands. As the demolition and burning went on and as the waterways were filled, a living part of a great city was turned into a wilderness. A pathetic handful of listed buildings ... stood as lonely monuments.

Even where, as at the St Katherine Docks, an isolated enclave has been given some kind of new life and achieved noticeable commercial success, it has taken on the character of an artificially created historical 'theme park' ... Farther down river, remarkable buildings like the Skin Floor ... have been left stranded and disused. On the Southwark side, Shad Thames, one of London's most dramatic streetscapes, decayed for years.

The remedy imposed on London - the creation of a democratically unaccountable authority (ie London Docklands Development Corporation) - was the beginning of a process which we are now seeing driven to a bitter conclusion, with the capital city itself plunged back into its mid-nineteenth century condition, fragmented, controlled not by a unified elected government but by a muddle of quangoes and joint boards. .. The truth is that Docklands is up for sale to the highest bidder. A great opportunity for Londoners has been lost." (3)



London Docklands plan.



London Docklands zoning plan.

This extract is reprinted from the 1986 publication 'Dockland', a comprehensive study of the history and remains of the maritime activity of London. It is a record of the place, necessitated because its writers knew that the docklands were in the throes of a rape and at worst the book would stand as testimony to the severity of that assault.

There would, nevertheless, have been little excitement in a pure conservation exercise for, like most dockland environments, funding for revitalisation could not take place without tourism or business commercial potential. Much of the Dockland has in fact been redeveloped into highly successful commercial ventures and the absence of planning has been cited as the secret of success. The development process has been called at times 'ad hoc', 'opportunistic' and 'organic' (4).

There is some justification for the loss of respect for urban planning in the UK. Town planning legislation produced the 'new town' phenomenon exemplified by Milton Keynes, Runcorn and others, which for most are social, environmental and architectural wastelands. In some regards too, planning as a function is synonomous with constraint and so uninviting were the Docklands that any form of constraint would have meant no development at all.

When the London Docklands Development Corporation was established with omnipotent power over the Docklands in 1980, its sole purpose was to manipulate perception of the place thereby artificially creating value. This was achieved by intensive marketing, aided by the process of 'pump-priming' - the method of pouring public money to establish infrastructure for development such as roads, drains, a light railway link to the CBD, an airport (now London Airport) and a fibre optic main. The marketing campaign called it 'The Exceptional Place', depicting the end package as a recreational paradise. It was an exceedingly successful deception, for developers vied for the first two of the four main precincts - Wapping and Rotherhithe - until by 1987, four hundred companies had moved into the Docklands. Added to this, the impetus for further development caused by Olympia and York's agreement to redevelop Canary Wharf (5), said to be the largest single urban development ever instigated in Europe, is immeasurable.

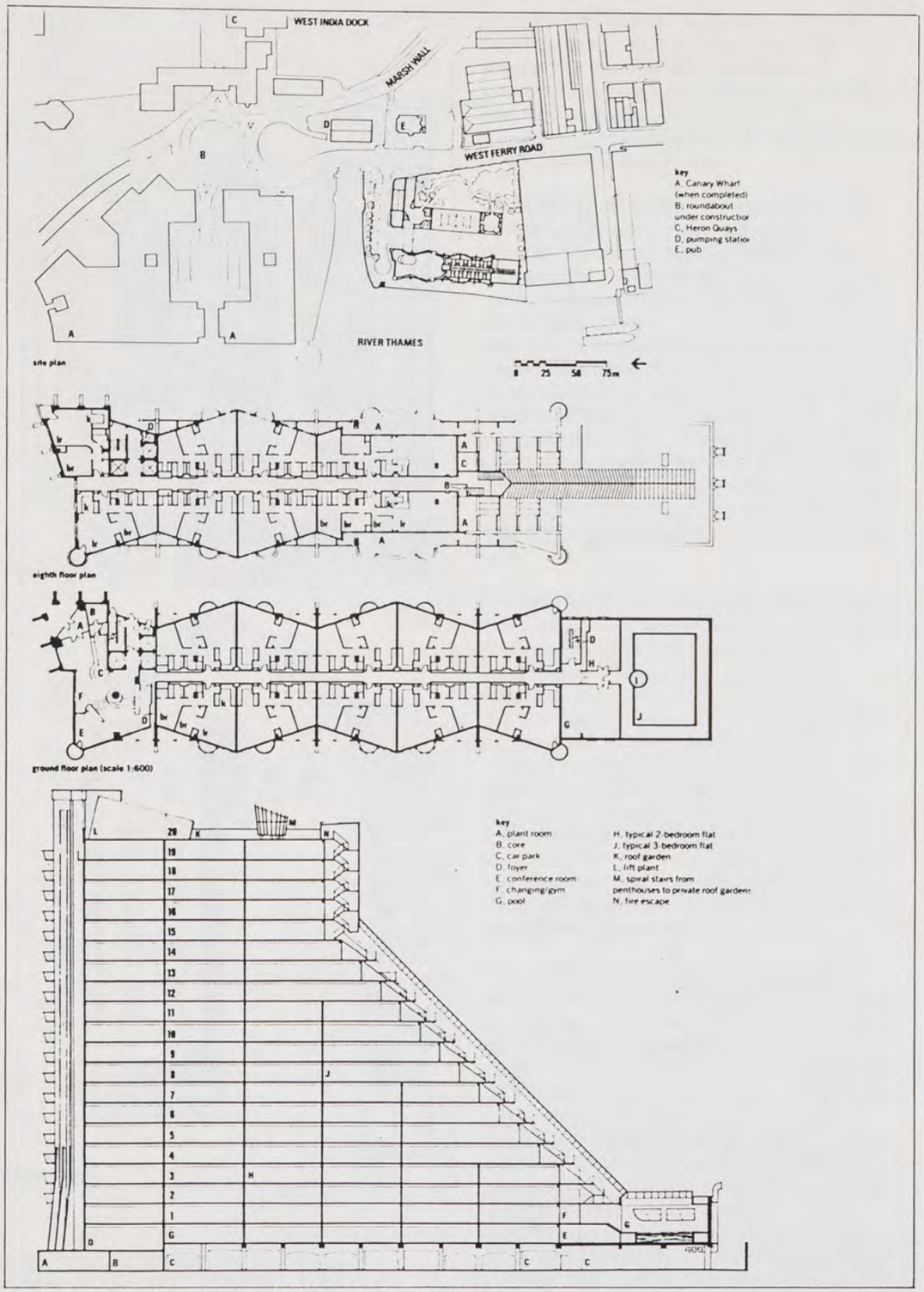
Whether the same success could have been achieved with a grand plan is indeterminable. Certainly, in the Corporation's view it could not, as it would have been associated with bureaucracy, delay and expense. But ironically, having generated the demand for development, the Corporation has insisted that developers now submit plans for the last two precincts to be released - the Royal Victoria and Albert Docks - and this says something about their feelings towards the previous process.

The largest and possibly most historic precinct of the Dockland (6) - the Isle of Dogs - was subject to a planning report commissioned by the LDDC in 1982 and undertaken by Gordon Cullen. It is now painfully evident that the Corporation had no intention of enacting its recommendations, and the framework suggested could not have been more contrary to the endeavour. It envisaged a pattern of:

"... those elements that make up the public realm - streets, squares, parks, water areas, quayside and riverside, as well as public transport ... The Corporation's own investment will be concentrated on these elements in order to provide serviced development sites in a strong and attractive framework. Within this framework buildings will have the role of defining and enclosing the public space." (7)

Nowhere in the Docklands is such an environment apparent. Without singling out any particular precinct, the entire portion of the Docklands so far completed is a planning,


A&B KINGHEN



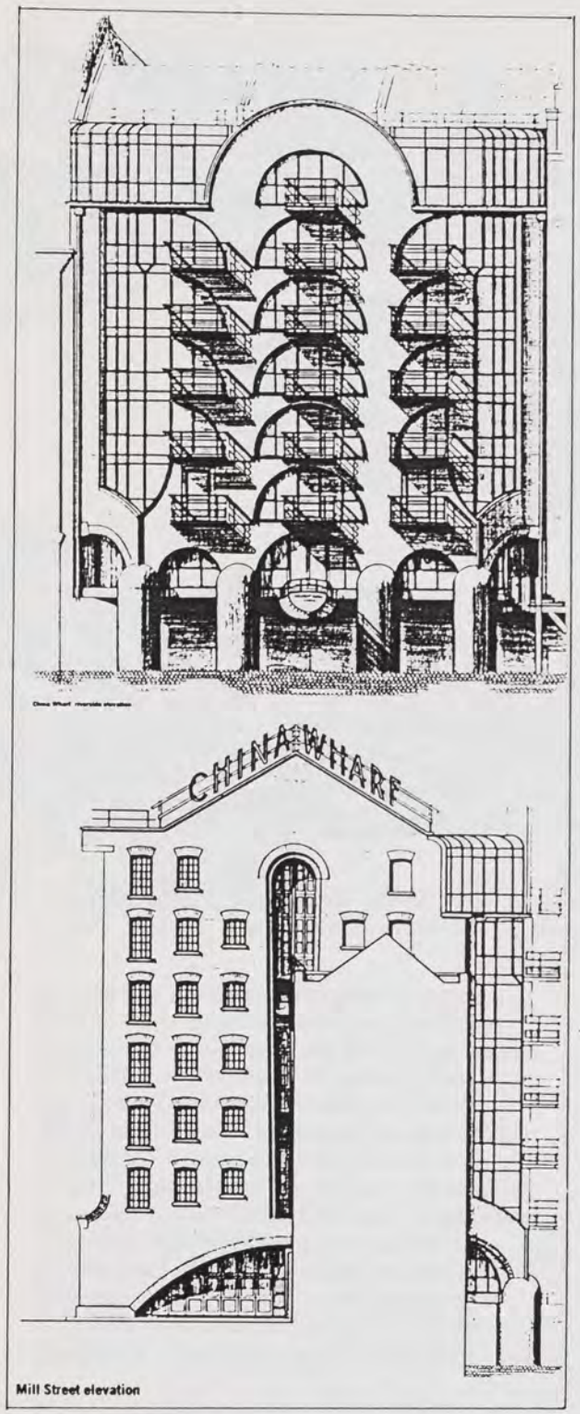
'Cascades' development by CZWG for Isle of Dogs.

architectural, social and environmental farce, with new buildings wedged in wherever old buildings allow, and old buildings frequently eradicated to make way for new. There has been virtually no attempt at creating waterfront public access, the least common denominator of overseas waterfront development. There are no community spaces, no streetfront activities and hardly any landscape.

Where residential development has occurred, it is either a pseudo-vernacular pastiche of rural village architecture - such as Jeremy Dixon's Dudgeon Wharf Housing in the Isle of Dogs, the housing on Waterman's Quay in London Dock, or the estates at Beckton and Surrey Docks - or a pastiche of the remaining Victorian warehouses on the shoreline - such as the Wates-designed Towerside apartments between Wapping High Street and the Thames, the competition-winning design for Elephant Lane Housing at Rotherhithe by Corrigan, Soundy and Kilaiditi, or the APT Partnership-designed Harrison Wharf development for the European Community Trademarks Office at St Katharine's Dock.

In spite of the praise lavished by The Architectural Review April 1989 on the more adventurously designed housing blocks - CZWG's Cascades on Isle of Dogs and China Wharf housing at Bermondsey, these take no cues from their humble neighbours, announcing their presence either by grotesque appendages or by loud colouring. Only the Danish architect designed Greenland Passage housing at Surrey Docks (which the Architectural Review summarily condemned) seems to have avoided both pastiche and individualism to create a contemporary docklands architecture of inspiration for others.

As in American waterfront development, the incorporation of affordable or low rent housing has become seemingly a social necessity. Whether such housing has a place in waterfront development, which commonly commands the highest land of urban land values, is a vexed question. However, before the Docklands redevelopment, the land had very little value and the adjacent suburbs of Newham and Tower Hamlets were among the poorest in London. If one accepts the current American philosophy that urban waterfront development should be an extension, socially and physically, of the immediate urban context, then at least a reasonable proportion of Docklands should have



China Wharf elevations by CZWG-the building is painted vermilion red.

been affordable or assisted housing. But the experience has been that what little cheap housing has been provided has almost automatically been sold on at market prices to second purchasers. Just as there is no development master plan for the Docklands, there is also no control on usage.

The majority of housing developments do not provide public space, either waterfront or internal. When spaces are provided they are typically secreted behind security fences and gates, or the waterfront is made inaccessible by the buildings themselves. In no other waterfront redevelopment is public access to the water's edge so prevented - any view along the Thames reveals the exclusive hold that the new infill pseudo-warehouse blocks have on that domain. If urban environment is about the diverse use of space, community sharing of facilities and accessible streetscape, then Docklands is not an urban place at all. The exclusivity of domain is much more akin to the suburban ethic of 'owning one's own plot'.

Commercial development in the Docklands is no more successful. Nor is there any real attempt to distinguish commercial from residential development into precincts and one finds suburban or rural housing types standing in juxtaposition with so-called 'technology park' development. It must be remembered that although the lack of planning has caused such chaotic interweaving of use, and therefore to some extent planners cannot be blamed for it, each development within Docklands is architect-designed, often by credible firms. Docklands is as serious an indictment of the architectural profession in England as it is of the quality of government that created it.

The quality of architecture in commercial development is the worst aspect of all. Much of it would seem to have been built for a maximum ten year life span; (perhaps this is the best aspect, for at least second time around there may be an opportunity to reverse some of these barren cityscapes). Some of the most devastating proposals or completed projects are the Seifert-designed Greenwich View offices on Millwall Dock, monolithic glass outcrops on one of the most visible turns in the river; the Swedish-designed Scandinavian Trade Centre on West India Dock, a singular mass clad in curtain glass and lightweight walling; and London Bridge City

Commentary on commerical development in Docklands from A.R. April 1989.

further downstream which lumps low and highrise masses into an incomprehensible puzzle of style and form. As with the majority of housing, most commercial architecture is more appropriate to suburban locations, is cheap and fragile, with open space either used for parking or solely for tenant use. The appeal of both commercial and residential architecture is directed toward the middle class virtually without exception, yet urban environments typically contrast high and low classes, with the middle classes preferring outer conurbations.

The exception to this is the massive Canary Wharf proposal in the geographic centre of the Docklands, which in the latest proposal provides 1.13 million square metres of office space with separate residential precincts. Virtually on its own, Canary Wharf will transform the image of the Isle of Dogs from an architectural jungle into an international landmark. A Beaux-Arts version of New York's Battery Park City, it is significant not only for its size and monumentality, but

Future view of Docklands and the Isle of Dogs focussed on the three Canary Wharf Towers.

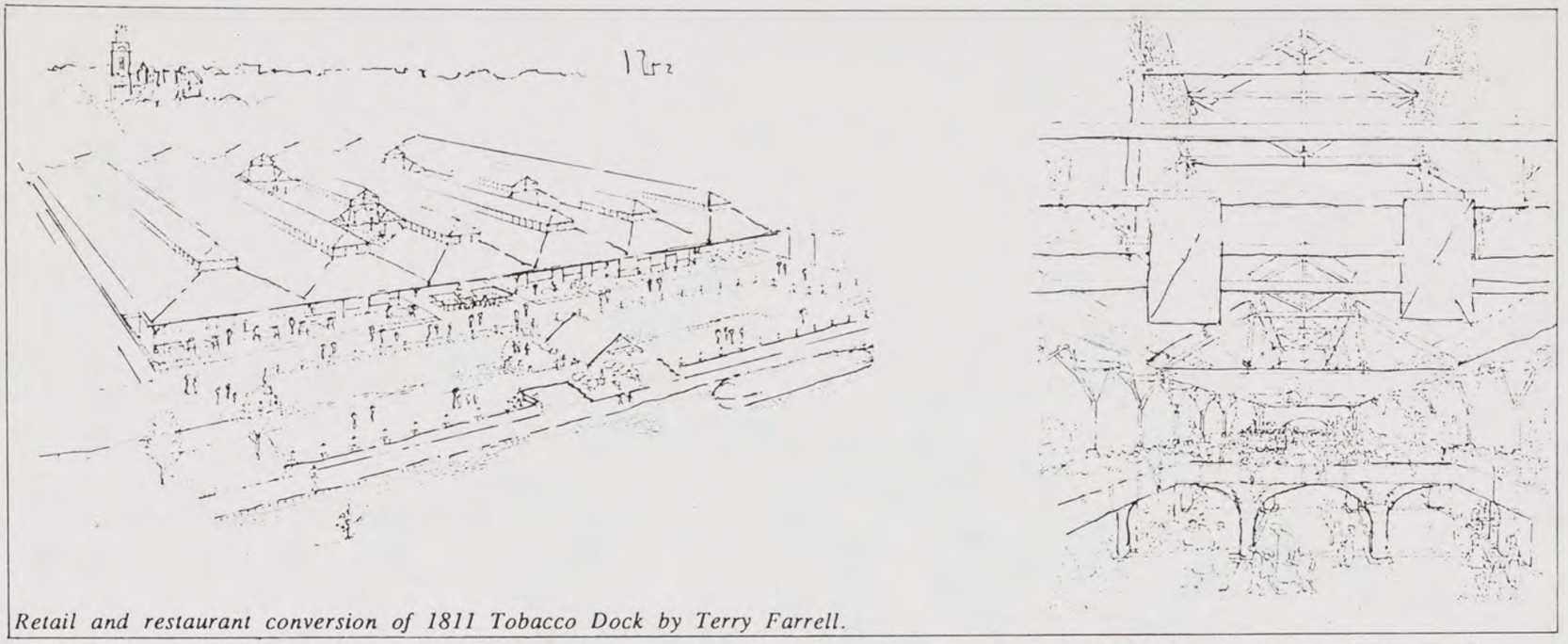
because it is affecting developments around it, even to the point where those, such as Heron Quays to its south, are being demolished for new lookalike developments. Whether by fortune or fate for the Docklands Corporation, Canary Wharf just happened to interest America's largest developer, Olympia and York, who in the unfamiliar position of having no constraints, proceeded to overwhelm their site. So unfamiliar were they, that they eventually insisted that planning and form guidelines be prepared and imported S.O.M. for the purpose, marking the beginning of planned redevelopment for the Docklands. This development is discussed later.

In the few instances where mixed multi-purpose development has occurred, that is, the type of development which has positively contributed to American urban renewal, it too has failed to address social issues and architectural identity.

An example is the development by Campbell, Zogolovitch, Wilkinson and Gough for Black Eagle Wharf, High Wapping Street. Despite the fact that it comprises 68 apartments, 1500 square metres of shops and restaurants, it appears as four identically treated sham warehouses. The same architects designed the previously mentioned Cascades residential apartment block on the Isle of Dogs, a sloping 20 storey tower which so far is the only identifiable landmark on the Docklands skyline. This building has nautical reference in its porthole windows, but otherwise has absolutely nothing in common with its warehouse context, looking more like the Cape Canaveral rocket ship launching pad.

It must be pointed out that there are occasional exceptions to the monofunctional superficial type of development previously discussed. One is the Terry Farrell Partnership's proposed conversion of the 1811 Tobacco Dock on London Dock for 13,000 square metres of restaurants and shops. The proposal includes a waterfront promenade and retains both the outstanding internal and external building fabric but simply cuts mezzanines through the tobacco floors to visually interrelate spaces. This also reveals the structural variation from basement to roof which is the most exciting architectural aspect of these warehouses. But, other than bastardising these wonderful buildings, it would have been difficult to have destroyed their existing urban waterfront integrity.

The only new development to give credence to such basic urban design issues as urban open space, diversity of public use, public accessibility and water interface would seem to be Lacey, Jobst and Hyatt's Heron Quay scheme on the Isle of Dogs immediately to the south of the

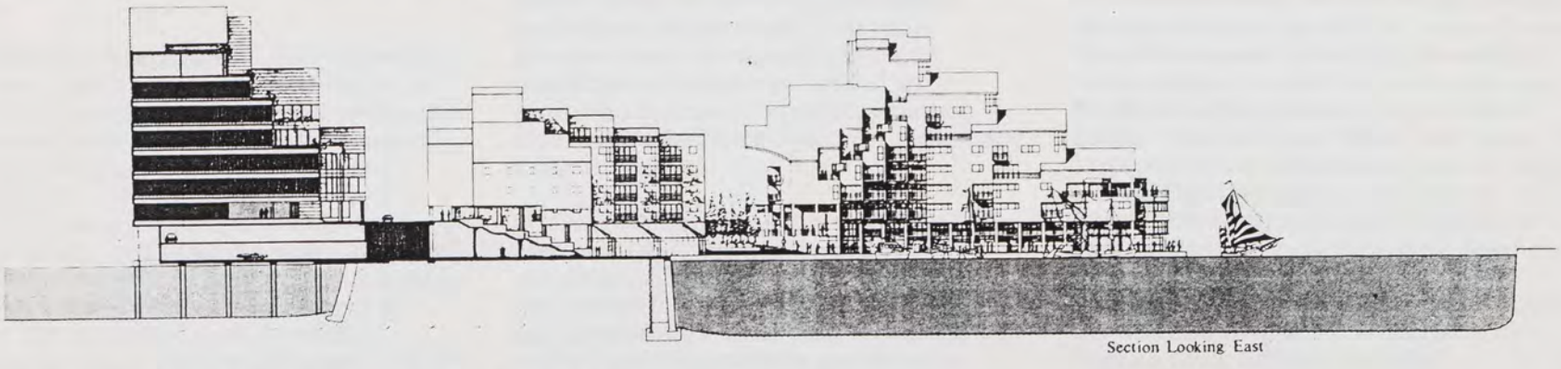


Retail and restaurant conversion of 1811 Tobacco Dock by Terry Farrell.

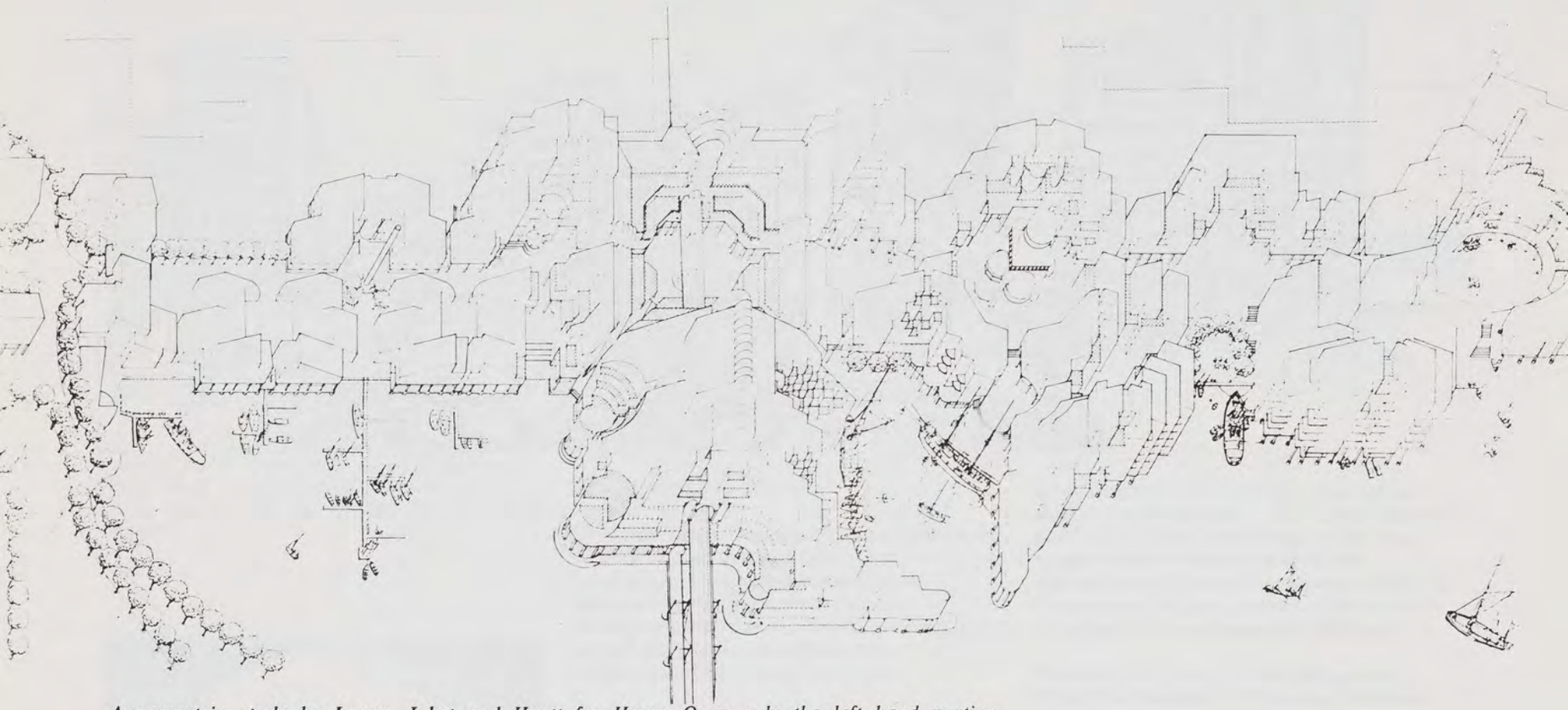
future Canary Wharf scheme. While it is possible to criticise the lightweight and temporary quality of the architecture, the appropriateness of skillion metal deck roofs to historic waterfront and the disintegration of the simple pier form, there are positive aspects of use, design and space. The buildings are grouped around a linear sequence of contained open spaces and are designed to be adaptable to uses such as shops, cafes, workshops, offices or dwellings. The waterway is also articulated into contained spaces, related to the land spaces and embracing use of the waterfront for marinas, historic vessel display and sailing inlets. Ironically, it is this development which is most threatened by demolition to make way for the expansion of the Canary Wharf development onto Heron Quay.

Nevertheless, Tobacco Dock and Heron Quay do demonstrate that there was an alternative to the sterile environments provided elsewhere, both for recycling of old buildings and for new development, had there been encouragement by planning visions and architectural inspiration.

It is impossible to criticise a development and planning process that does not exist, and in fact was deliberately discarded to eliminate constraints on developers. But there has been a significant change in atitude by the LDDC to the future development of the as yet unstarted redevelopment of the Royal Victoria and Royal Albert Docks precincts to the far east of Docklands. This attitudinal change is confession to the urban tragedy of the rest of the Docklands, for in these Docks developers have been required to respond to a set of planning guidelines, drawn up by private consultants, which constrain use, height, bulk and waterfront access and vehicular movement. In one case, the guidelines planners were subsequently appointed by the developer to design the development and this may be the first



Section through Heron Quay scheme by Nicholas Lacey.



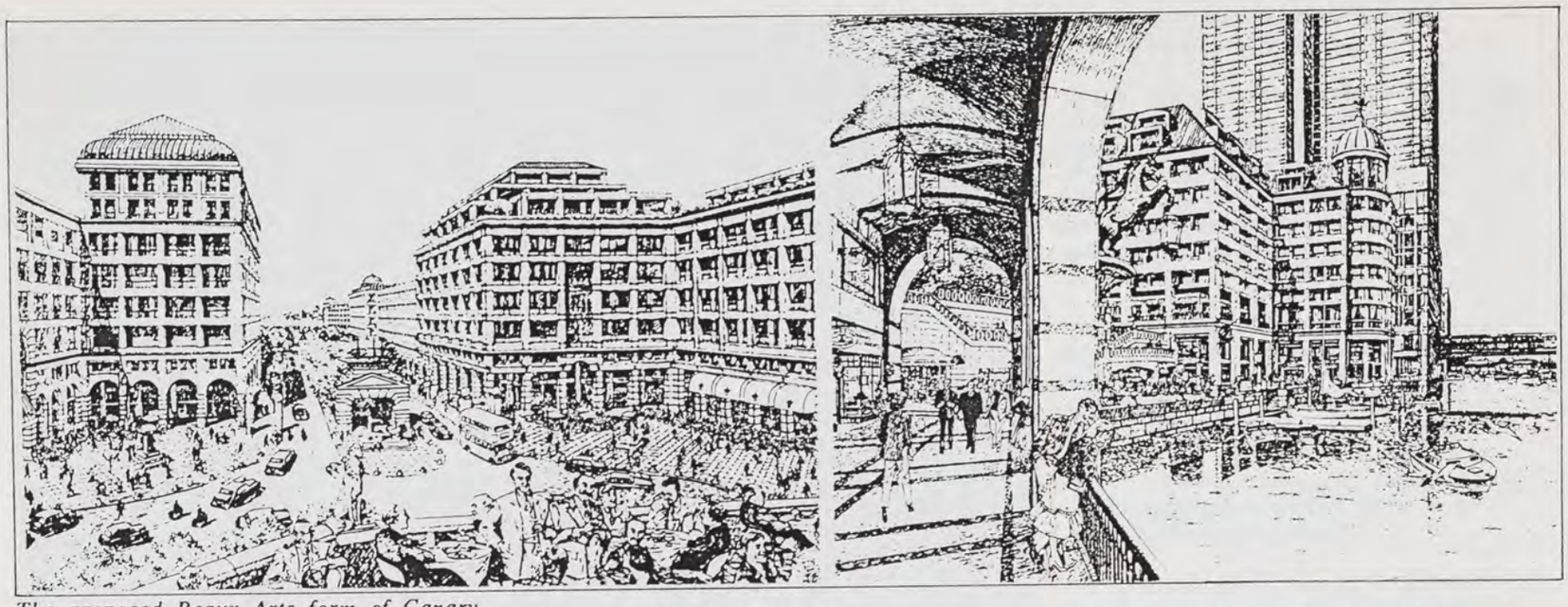
Axonometric study by Lacey, Jobst and Hyatt for Heron Quay–only the left hand portion is completed but the project is one of the few schemes to embrace the waterfront.

opportunity to witness planning in action in the Docklands. The project, by Richard Rogers and Partners for Rosehaugh Stanhope, is discussed later.

A further aspect of the overall redevelopment is the type of urban infrastructure provided by the LDDC to encourage development of vast tracts of abandoned docks and backwaters, the so-called 'pump-priming' process. There are several components of that infrastructure, primarily related to access and transport, which were the real retardants on new development. The major installations were an elevated Docklands Light Rail system which curls its way through as many sites as possible in an irritatingly incomplete loop to and from the London Tube system, an almost prohibitively expensive ferry system along the Thames, a fibre optic main intended to attract high technology commerce, and the London City Airport runway acting as the 'magnet' at the far eastern end of the redevelopment area and giving international credibility to the Docklands. This latter provision bisects the whole Royal Docks precinct and is located on an isolated pier surrounded by water. It is probably the most insensitive form of urban waterfront renewal that could be imagined.

Within individual parcels of land, the LDDC has introduced service roads to access development and within precincts streets have been incorporated to create accessibility. But while such provisions are undoubtedly necessities, they are configured more to define parcels and to service buildings than to create urban streetscape quality, and it should be noted that other developments such as Battery Park City in New York have managed to do both.

There are two developments, both uncommenced, which rival Battery Park City or Boston's Rowes Wharf development in size, that are worthy of further comment because they are the only large developments that promise any kind of urban quality. They are Canary Wharf in the Isle of Dogs zone which will become at least the visual focus of Docklands, and the redevelopment of Royal Docks based on the Richard Rogers and Partners Master Plan. Unfortunately, however, both of these megastructure proposals fail to comprehend urban waterfront context, so severely that where planning has been undertaken the results are only different, not better.



The proposed Beaux Arts form of Canary Wharf with colonnades, European-style plaza and follies, but no specific maritime imagery.

E1 CANARY WHARF

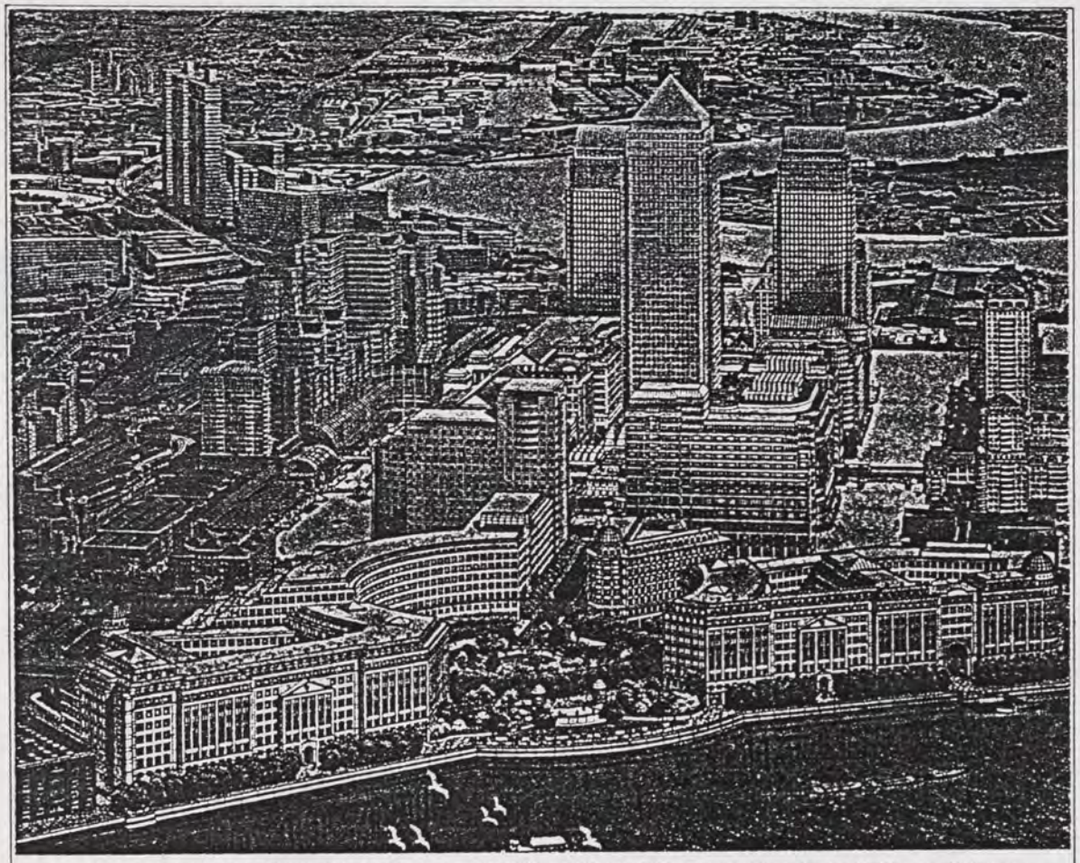
The massive redevelopment of Canary Wharf was the great catalyst that the London Docklands Development Corporation needed. To be developed by the largest North American development corporation, Olympia and York, it brought both foreign investment and international flavour to the Docklands.

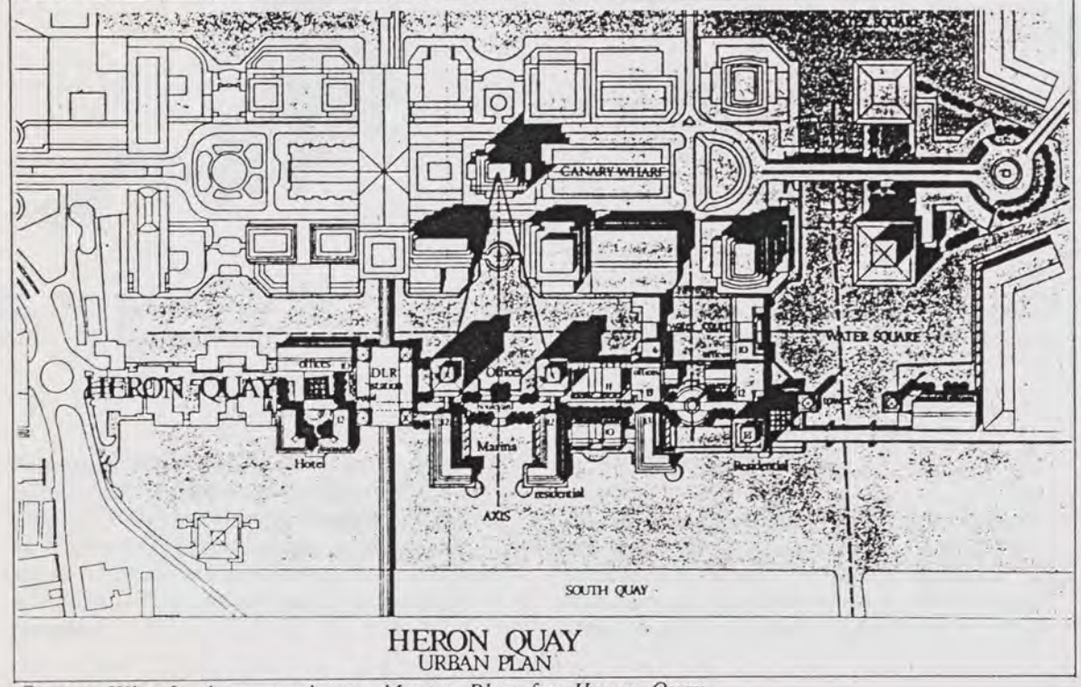
Olympia and York signed the Master Building Agreement for Canary Wharf in July 1987. In less than two years, the project moved from concept to construction with a five to seven year envisaged construction programme. It is proposed to completely absorb and eradicate the wharf pier to provide over one million square metres of offices with state of the art telecommunications facilities, making it the largest and most advanced commercial development in Europe. Yet it will stand cheek by jowl with the pathetically suburban commercial development around it previously discussed. Even its lowest 'pedestal' buildings will be taller than any other development completed to date.

As a catalyst for the Docklands it has been marvellously useful for the LDDC. Part of the Light Railway system was financed by it and it has enabled the Corporation to bring forward development initiation of the Royal Docks. In the Corporation's own words "... it is the one scheme that has transformed Docklands' image of itself" (8). This is undoubtedly so, but what image is created has nothing to do with waterfront interface, so the comment made by the Corporation is in fact a denial in their view that waterfront is of any relevance to Docklands.

The scheme for Canary Wharf responds to a Beaux Arts mentality. It is an axial, historically referential proposal terminated by a formal circular garden facing the Thames. An opposing mentality has produced the tower blocks which, by I.M. Pei and Partners, are virtual replicas of their Battery Park City project, creating for London a mini-Manhattan. Its effect on adjacent development is more than that of a catalyst, "... the grossly misnamed Canary Wharf has arrived as a whopping carnivore, encouraging half built developments around it to be cannibalised half grown and before completion by its voracious siblings." (9)

Urban planning guidelines did not generate Canary Wharf. But at least the developer, having secured the rights to produce a complex of unprecedented size and prestige, has been sufficiently responsible to hold architectural competitions for parts of the development. (This was also the case with their Battery Park City and Boston Rowes Wharf developments). So both the developer and the LDDC have had the





HERON QUAY
URBAN PLAN

Canary Wharf, above, and new Master Plan for Heron Quay.

opportunity to review the schemes and to undertake a selection process.

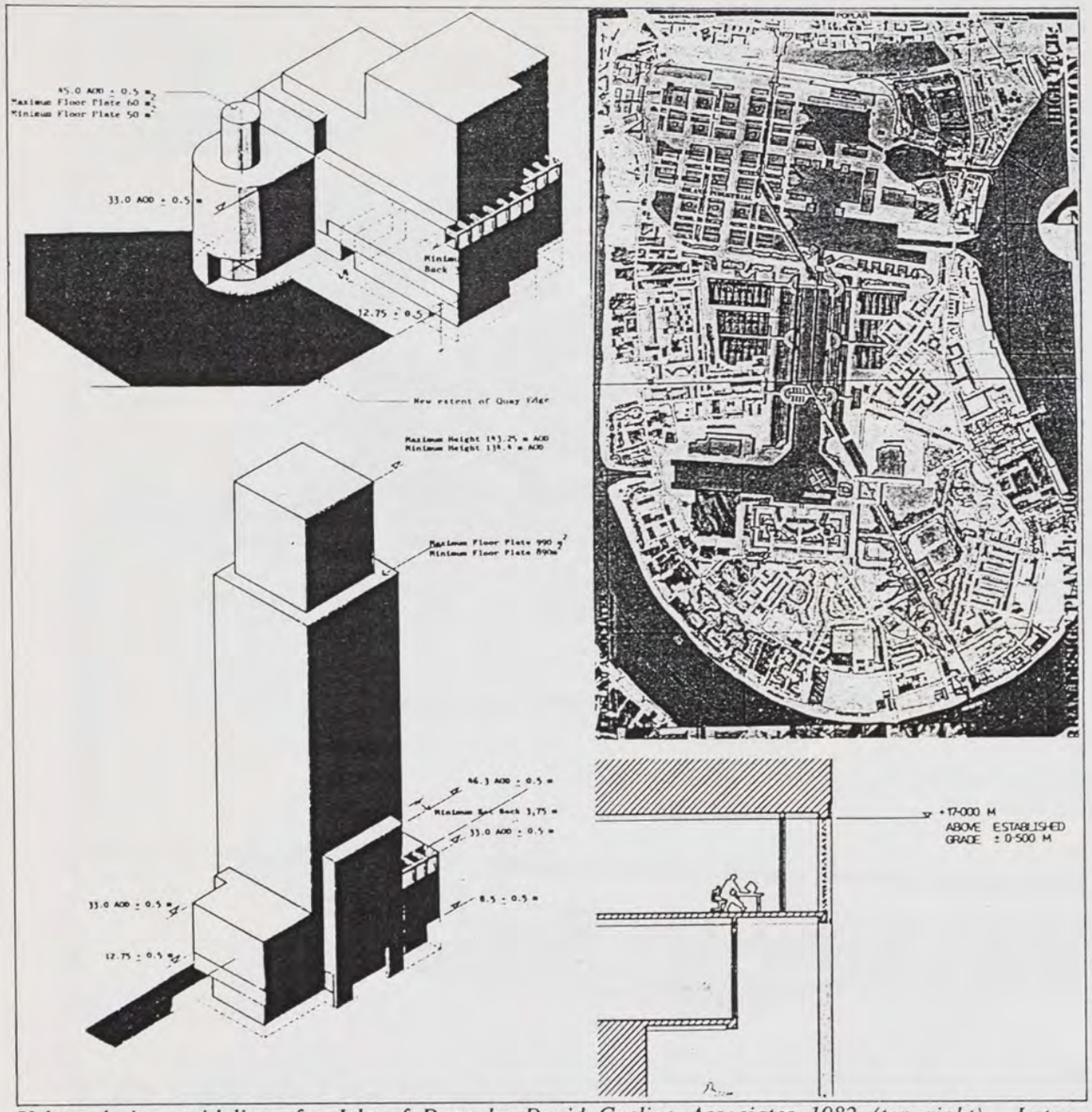
Despite its phenomenal size, it is unquestionably an urban development. It occupies a sufficiently large parcel to generate its own pedestrian and vehicular systems, open space configurations and waterfront promenade on some faces. Its Beaux Arts vocabulary also generates an urban quality and its Thames frontage is some reflection on Greenwich down the river.

The impact that this architectural style has on adjacent developments is important. Heron Quay to the south is being replanned as a complementary series of building masses. Similar forms are being proposed to the north, but the danger is that instead of producing a coherent whole, pockets of urban intensity will rise intermittently to conflict with their already established flimsy neighbours.

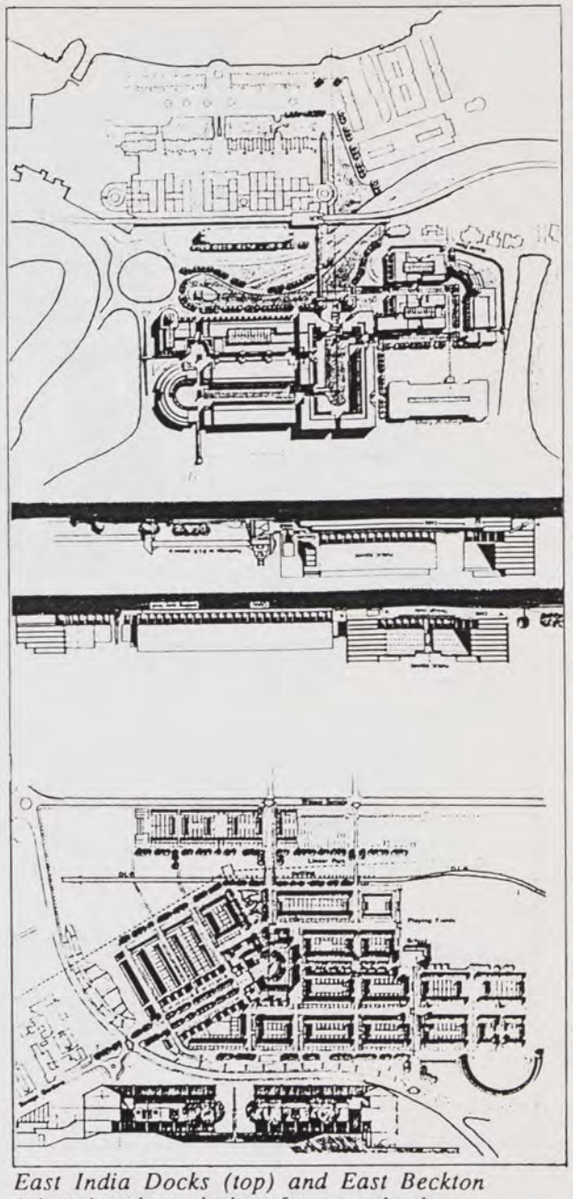
Nevertheless, some of these developments are required to respond to urban planning guidelines, taking their cues from Canary Wharf, necessitating axial planning, contained water courts and plazas, waterfront promenades and defined pedestrian avenues. Finally, there has been recognition that London is part of Europe and that there are urban models for such development not far over the English Channel rather than on the outskirts of English villages and satellite towns.

If little else is achieved, the master plan for Heron Quay, for instance, avoids the formlessness of other development even if it has gone too far on the Beaux Arts theme. Quashing the preceding Nicholas Lacey development, the plan was drawn up by Gosling and Proctor as LDDC consultants, to a level of constrictive detail, so confident was the Corporation of the commercial demand. The plan basically extends the Beaux Arts theme of Canary Wharf but makes water courts as well as landscaped spaces follow the axial formal planning. Hence it is probably the first time in the London Docklands that water has become a significant urban entity. The American planners Eherenkrantz and Eckstut (of Battery Park City fame) have now taken over the master planning since Olympia and York have been awarded the new development rights.

Gosling and Proctor's influence has, however, continued in the planning of East India Docks and of East Beckton housing, the latter for housing and a school for the local Borough of



Urban design guidelines for Isle of Dogs by David Gosling Associates 1982 (top right). Later guidelines by Gosling and Proctor in response to Canary Wharf development (left and below).

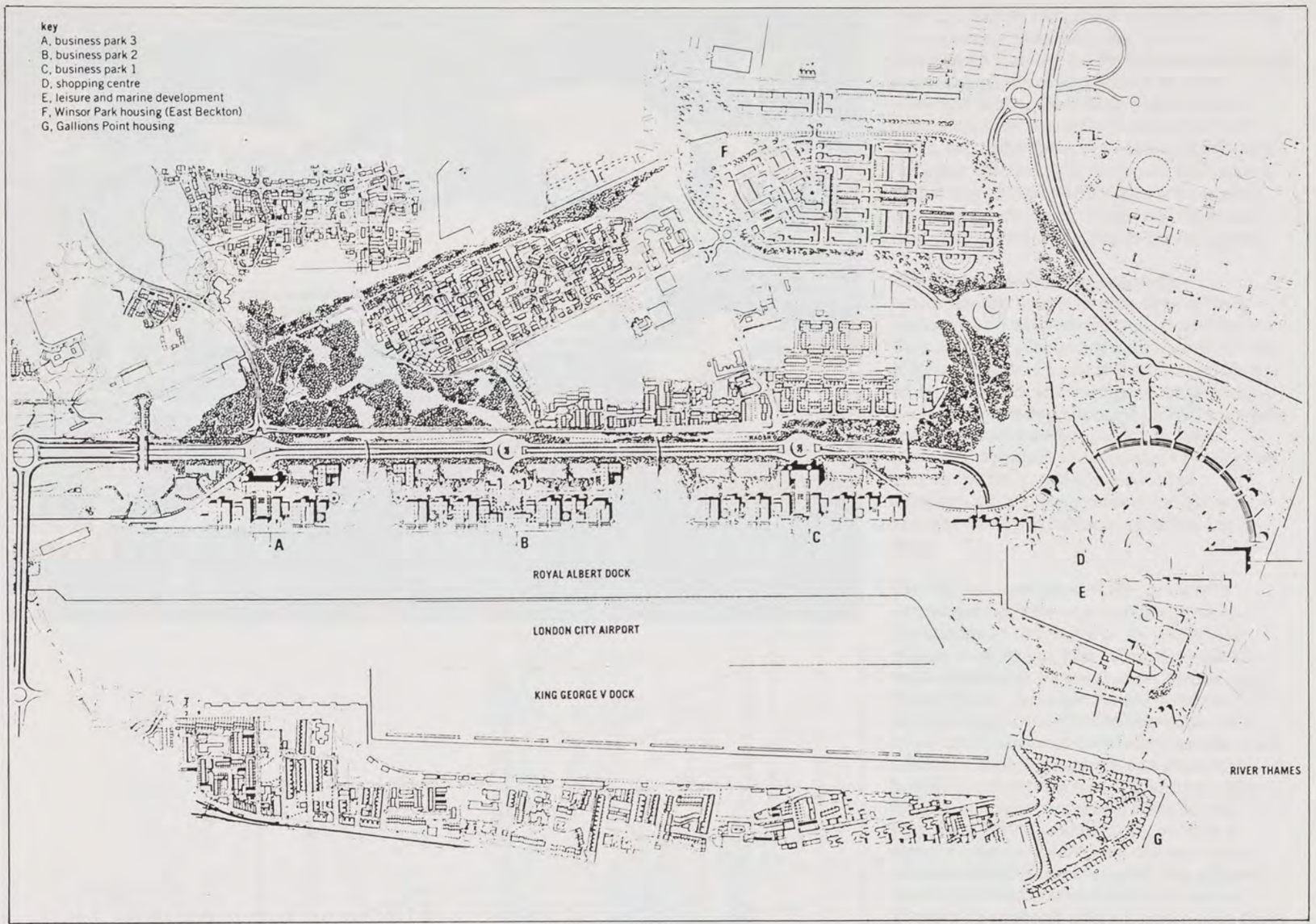


East India Docks (top) and East Beckton (above) urban design frameworks by Stephen Proctor for LDDC.

Newham and for housing associations, to be developed by Rosenhaugh Stanhope. These are potentially the first master plan guidelines to be developed away from developer influence and appear to establish a hierarchy of space and form as well as to lead into and out of surrounding context.

E2 ROYAL DOCKS

Whereas previously the LDDC claimed that it was impossible to plan the early stages of Docklands without the knowledge of private sector interest, the Corporation is, for the final stages, in a more credible position to predetermine controls to govern the Royal Docks zones. The Richard Rogers and Partners' master plan is the opposite in composition to the landscape romance of Gordon Cullen's original visions for Docklands. It is essentially a framework for movement systems with notional building positions but with little reference to



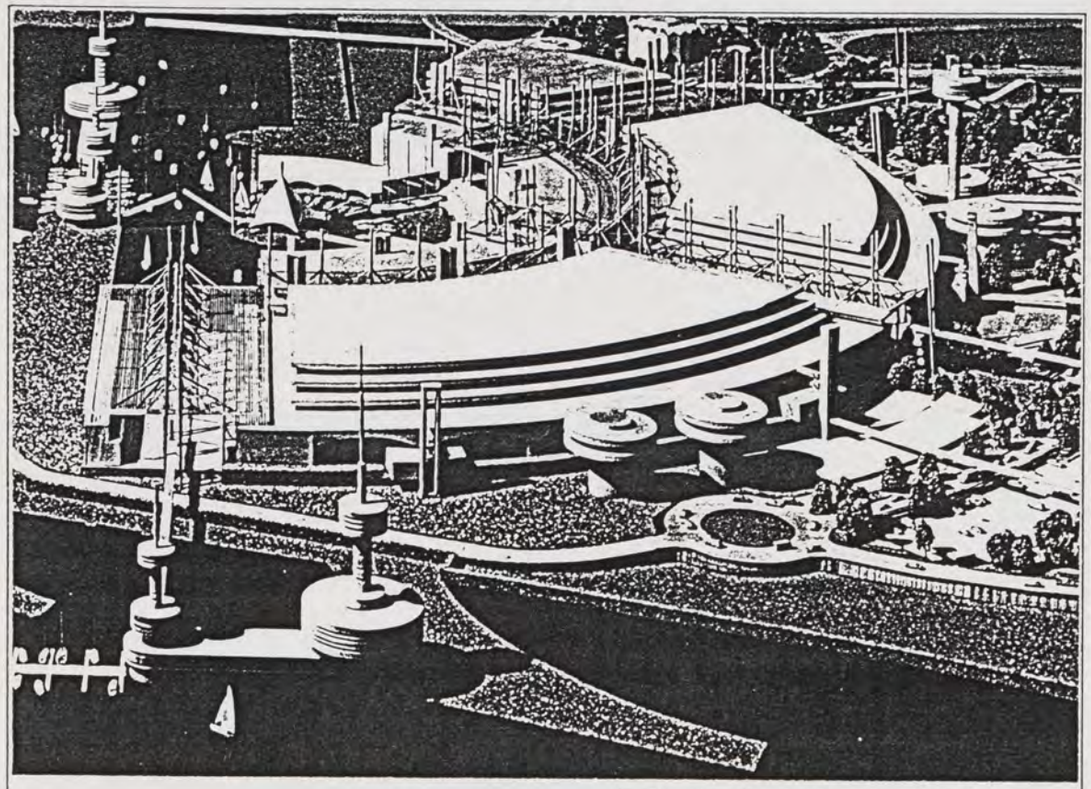
Richard Rogers Master Plan for Royal Docks.

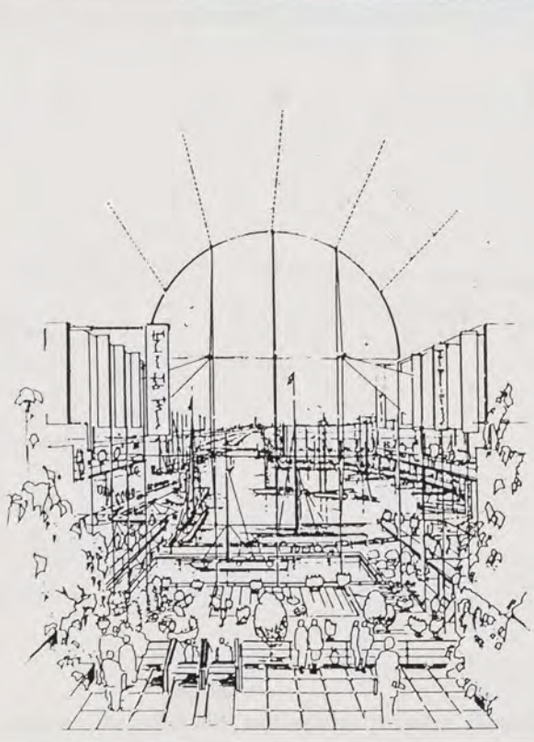
spatial quality or urban experience.

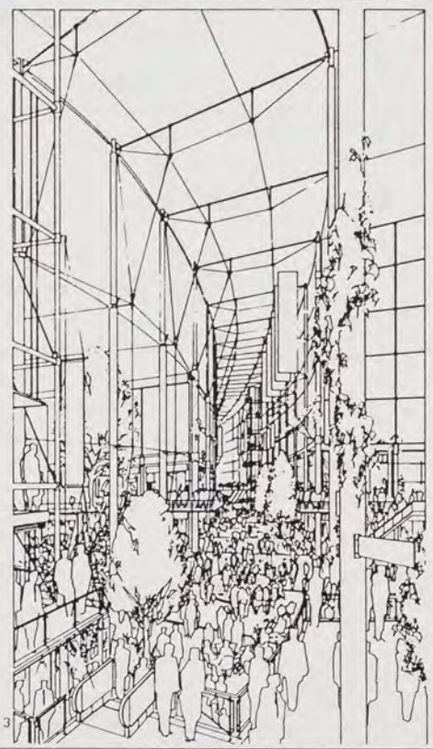
These Docks had originally been master planned as the site for the London candidacy for the Olympic Games and it was at that time that the London City Airport was incorporated on the central wharf to facilitate international access. The Rogers master plan was therefore already constrained by this intrusion. A further constraint was the opposition of the neighbouring poverty level residential Boroughs which had to be campaigned to permit new development. The effect was the inclusion in the plan of affordable housing projects, such as Proctor's East Beckton scheme, along the Docks supporting the main Borough of Newham. The plan results in a partial extension of context into the Docks.

The master plan took advantage of the site's proximity to Europe by proposing a Thames bridge linking into the English Channel Tunnel. It guaranteed commercial viability by restructuring roads to link the development area with the M25 and M11 highways, thereby creating a nodal point to London and outer regions as well as to the continent. The plan forms sub-nodes within its linear format with a magnet at the western end formed by a proposed stadium and concert venue, and at the eastern end by a gigantic shopping complex. The intervening nodes along the northern edge are formed by business park centres separated by green spaces extending up to the docksides.

It is a vast improvement on the previous laissez-







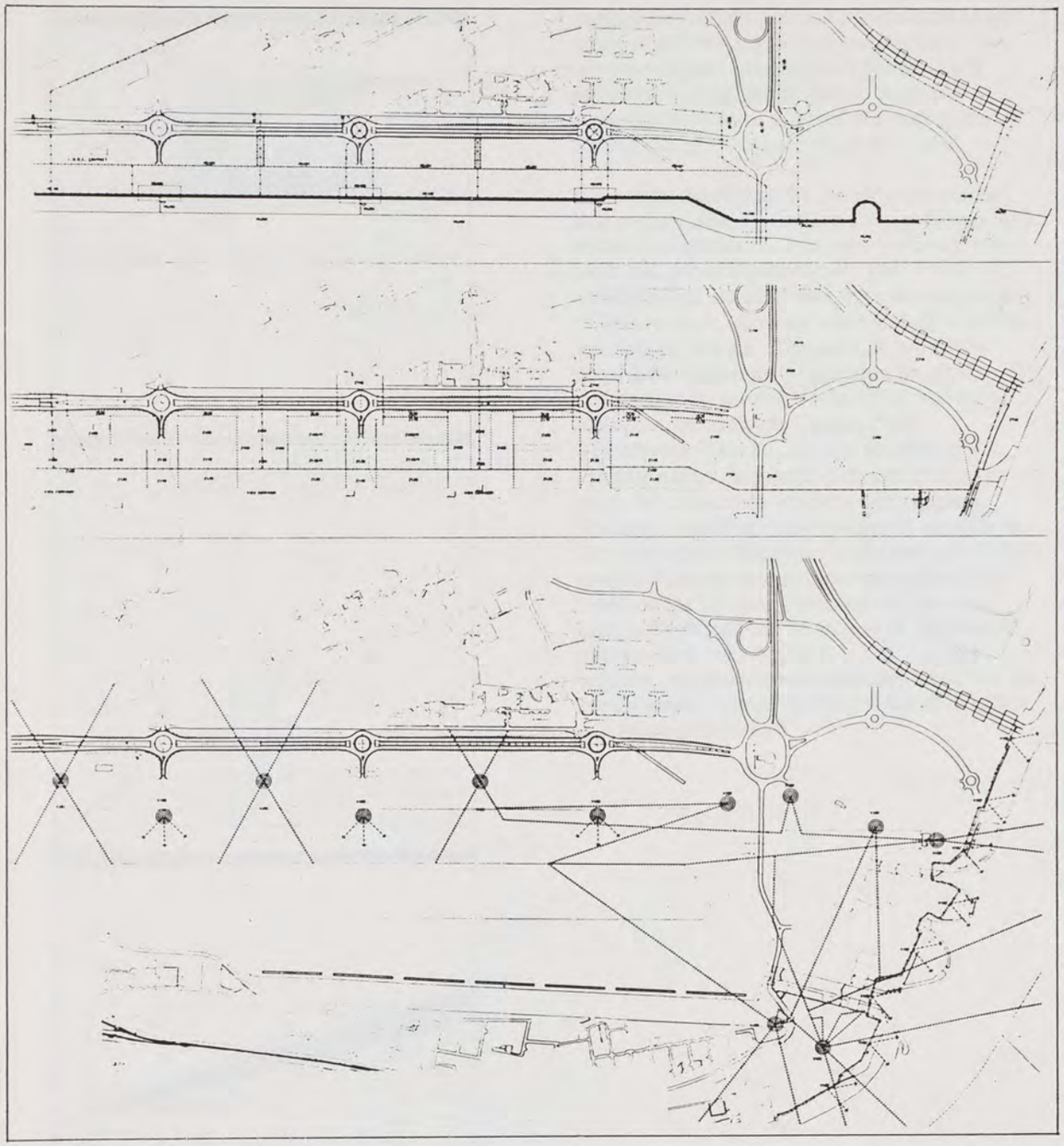
faire approach to Docklands redevelopment. But it is an overly simplistic plan, aimed at establishing viability for development rather than at creating public experiences of an urban waterfront realm. Few urban waterfronts are characterised by undulating parkland on their edges, and these diminish instead of reinforcing the water interface. The European water square philosophy of Heron Quay does not reappear here, and the shopping centres and technology park idea is a suburban, not an urban, concept.

The Rogers team was subsequently commissioned by one of only three winning tenderers who will redevelop the Royal Docks. This approach of selecting such a small number of developers for an area about one third the size of the Docklands is a reversal of the previous piecemeal mentality but could probably not have been achieved in earlier phases. It was a successful approach to Manhattan's Battery Park City in that the result was a cohesive development, and the precedent for it may have been the Canary Wharf scheme on the Isle of Dogs.

The Rogers' component is the gargantuan shopping complex at the eastern extremity. Unfortunately, the firm was not prepared to release its plans but their concept is basically a snail-shaped plan focussed on an internal ring-shaped plaza. A unique feature is the positioning of carparking above the retail elements, much more economical than excavating into the water table, but giving the complex an alarmingly brutal outside appearance. It is an expectedly high-tech scheme, but where Piano Roger's Pompidou Centre worked partly because it injected cultural viability and dramatic urban contrast into an historic context, this scheme stands alone and unconnected to its context, focusses inwards and presents supermarket backs and cars to its residential neighbours.

No doubt, the development will be designed and detailed with panache and, as with Canary Wharf, the LDDC is fortunate to have world-renowned architects involved. But the whole concept is a mega-scaled extension of the suburban mentality that already pervades London Docklands.

Richard Rogers Partnership design for Royal Docks shopping centre.



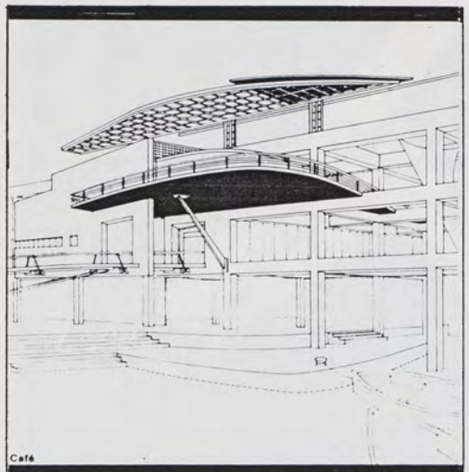
Richard Rogers Partnership movement systems diagrams for Royal Docks.

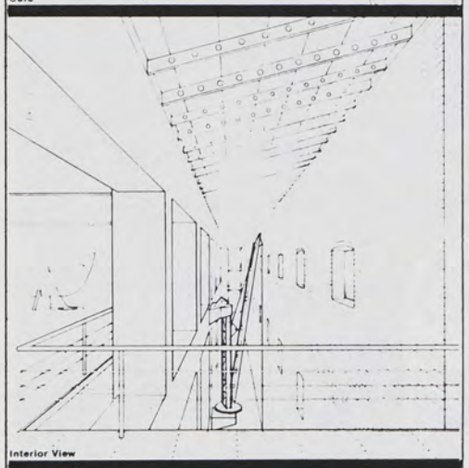
E3 THE DOCKLANDS MUSEUM COMPETITION

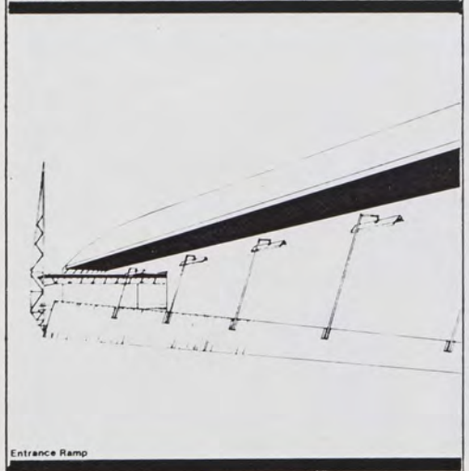
Planning or architectural competitions are seldom tried methods for actually redeveloping urban waterfronts. Such competitions are difficult to implement without a developer in place. Mostly sites are subject to 'tender and design' competitions, forcing potential developers to submit their physical proposals for review. However, almost inevitably it is the highest tender rather than the preferred design that wins, and there is little likelihood that the two will coincide. The need for governments to maximise revenue from such highly marketable land ensures that money is the prime factor.
An alternative to the pure design competition, or the tender and design competition, was demonstrated at Battery Park City, Manhattan, where the developer was chosen primarily because of his financial capacity and contribution based on a known development potential of the site, with the developer then holding a limited design competition based on planning and architecture, thereby removing the financial aspect from the design. Such a method would seem to be the ideal means for achieving responsible urban waterfront projects, particularly if a condition in the developer's competition brief is to involve the planning authority in the selection process.

Nevertheless, there have been some open architectural competitions for docklands renewal which, without much chance of leading to real projects, have demonstrated intense interest in the future of urban waterfronts. Mostly they have been sponsored by architectural magazines or publishers, with no intention of generating viable schemes, but aimed at promoting intellectual debate. One was the competition sponsored by Au Arredo Urbano magazine for New York waterfront, published in October 1988 with the entire issue devoted to the results from world-wide entries. Another was the Architectural Review/Heuga competition to establish a London Docklands museum in a non-descript 1930s warehouse made redundant by the containerisation revolution.

While the competition brief was based on producing schemes which had generative ideas for other buildings, that is, contributed an overall concept of waterfront development, it was functionally specific. It demonstrated that







competitions could perform a useful role in the urban waterfront redevelopment process. They have the distinct advantages of being widely publishable, heightening public interest, removing notions of political corruption, and of forcing designers to perform at their best.

It is worth examining the winning scheme for that competition, by London Design Group, as it resolves a number of simultaneous issues where most real projects pathetically fail. Firstly, it embraces and includes water by removing some of the envelope, allowing water already under the building to be seen. Secondly, it avoids the usual kitsch attempts to recreate a nautical architecture by turning the building into a boat (compare, for instance, Canada Place, Vancouver). Thirdly, without destroying the existing edifice, it created sufficient change to make the conversion to a new use apparent. Fourthly, it reinforced the industrial strength of the existing building with details and materials to create a dynamic new architectural expression based on the building's existing architecture. Lastly, the design can be seen to be appropriate to the waterfront whether it is a new or old building, and therefore the existing fabric has not been allowed to compromise the future of urban waterfront architecture.

London Design Group competition entry.

Footnotes

1 See also 'Waterfront' in Process: Architecture No. 52 which classifies urban waterfront revitalisations into Conservation, Redevelopment and Development.

2. Ann L. Buttenweiser: Manhattan Waterbound. p 56

3. Dockland - An Illustrated Historic Survey of Life and Work in East London. Published by N.E. London Polytechnic and Greater London Council 1986. p 8

4. Colin Davidson. 'Ad Hoc in the Docks'. In Architectural Review February 1987. p 31/2

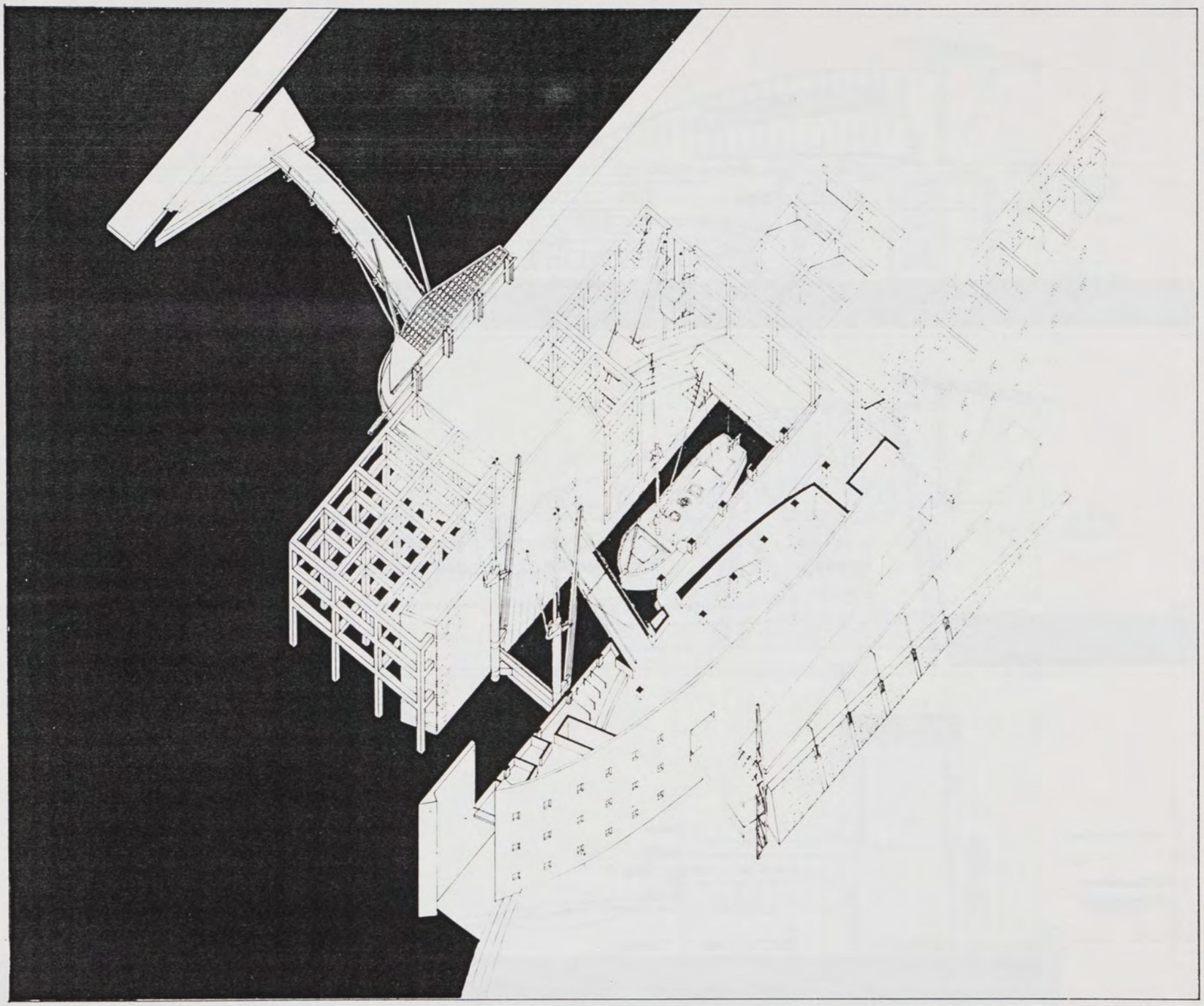
5. Olympia and York are the Canadian-based developers responsible for Battery Park City, NY and Rowes Wharf, Boston, previously studied.

6. The book 'Dockland' 1986 considers the area around the West India Dock entrance in the north west corner of the Isle of Dogs is the most significant surviving feature of London's Dockland. p 202

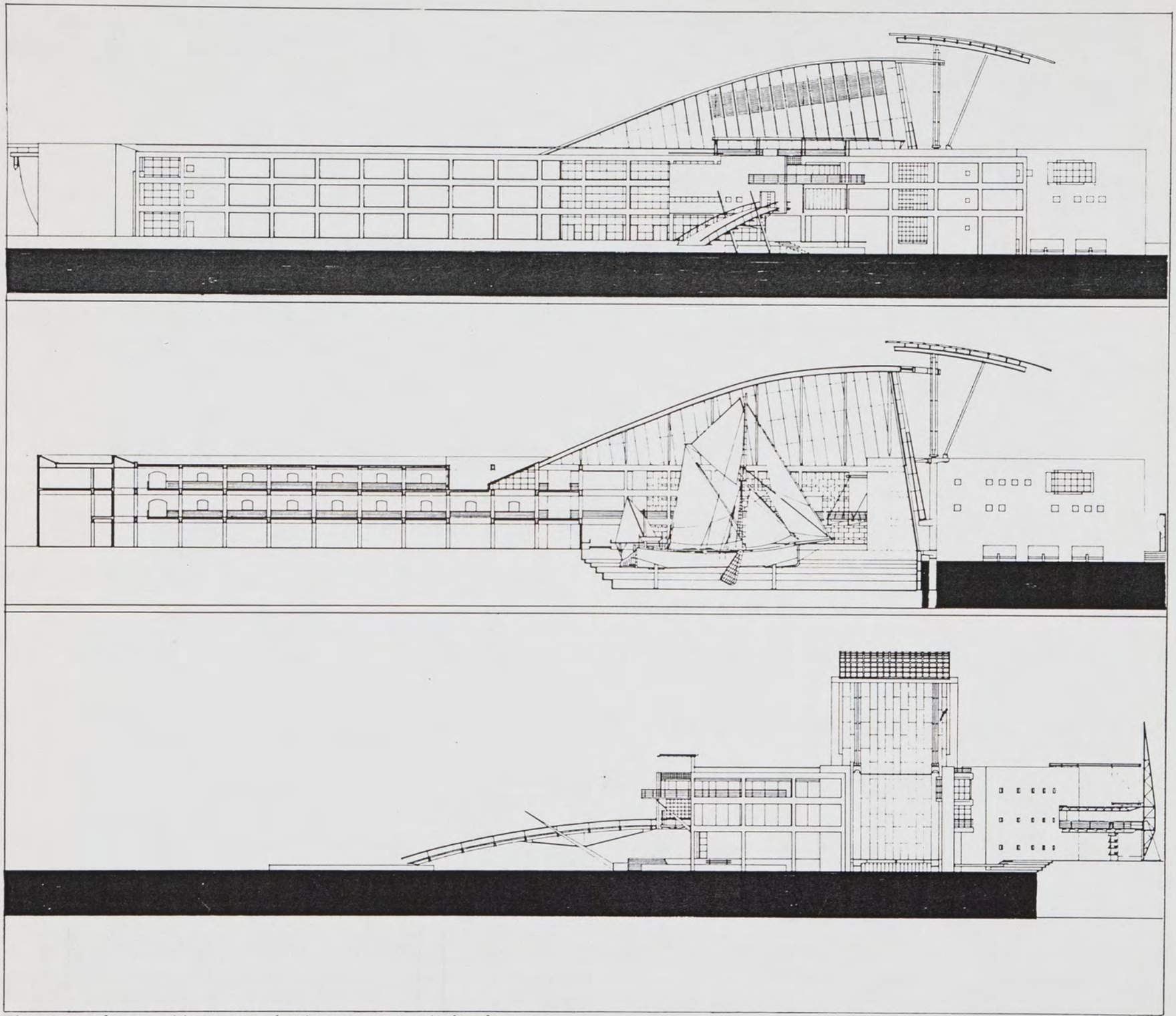
7. Colin Davies. Ad Hoc in the Docks. Architectural Review February 1987. p 31/2

8. Canary Wharf. London Docklands Development Corporation Brochure. 1987

9. Peter Buchanan. 'What City - Docklands?' Architectural Review November 1988. p 38/11



London Design Group competition entry axonometric.



Elevations of competition entry showing strong nautical reference.

Liverpool Dockland waterfront development areas.

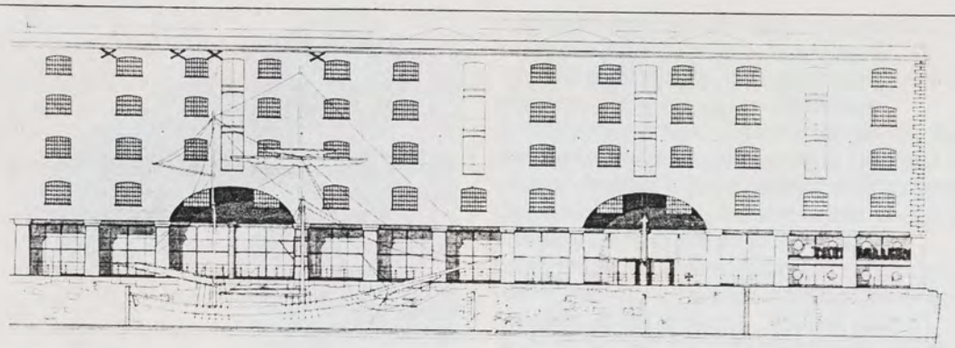
F1 INTRODUCTION

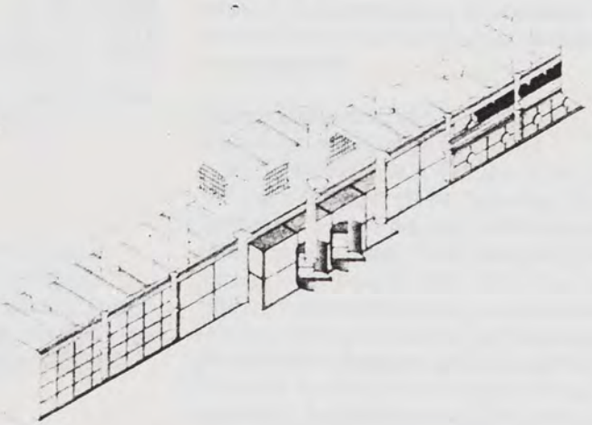
Nowhere in the world is the contrast between the old and new ages more apparent than at Liverpool. The sight of gargantuan cargo tankers gliding silently through crumbling stone villages towards Manchester is both breathtaking and disturbing. Yet, despite the struggle to retain the viability in the ports of western England, most of them are being turned into vast building sites in a competitive flurry to revive city economies through waterfront regeneration.

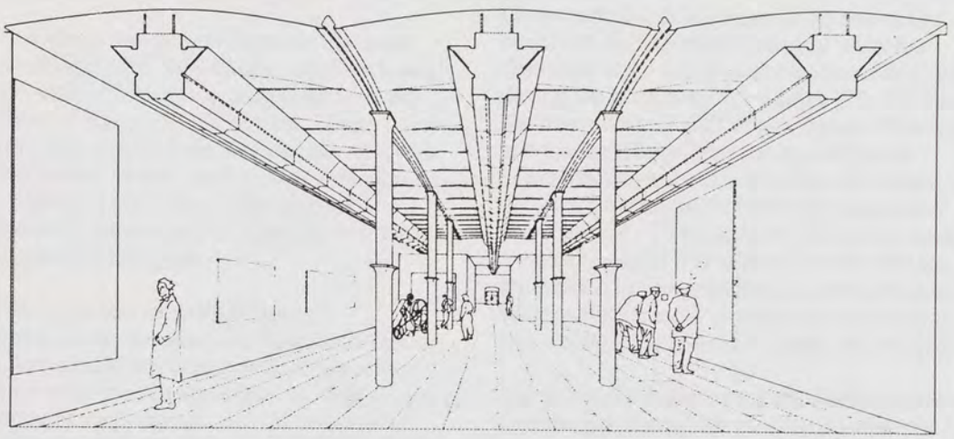
Within a remarkably small radius from Liverpool are Salford, Trafford Park, Manchester; and Preston. To the south are Swansea, Cardiff and Gloucester. Each of these cities is undertaking major government-motivated urban renewal programmes focussed on their docklands in a coordinated endeavour aimed at boosting local commerce and industry, encouraging tourism and solving housing crises.

With the exception of Salford, where local government rejected national government intervention in their docklands, each of these programmes is being instigated and controlled through specially devised Urban Development Corporations, similar to London Docklands Development Corporation, who are charged with the responsibility to establish infrastructure, attract developers, do deals and monitor progress. Most of these authorities face seemingly insurmountable difficulties in attracting private investment to already decaying cities, particularly with the simultaneous competition from London Docklands. Even there, the initial answer had been to release land at low values with tax and other incentives thrown in, and without planning controls, just to initiate any sort of development. There would seem to be little hope for provincial cities to induce private investment, let alone to produce a rich urban fabric of cultural, commercial, residential and recreational activity sensitively integrated into their Victorian settings. But that is the measure of success on which this paper is based, as well as on the processes which generate them.

Most of the redevelopments are, in fact, failing, ending up with mini-London Docklands of suburban and fake rural villages jammed against slick, paper-thin offices and factories strewn haphazardly across piers and docksides. This includes Manchester, Salford and Preston.







Views of the Tate of the North Art Gallery by Stirling and Wilford - elevation, colonnade and typical gallery space.

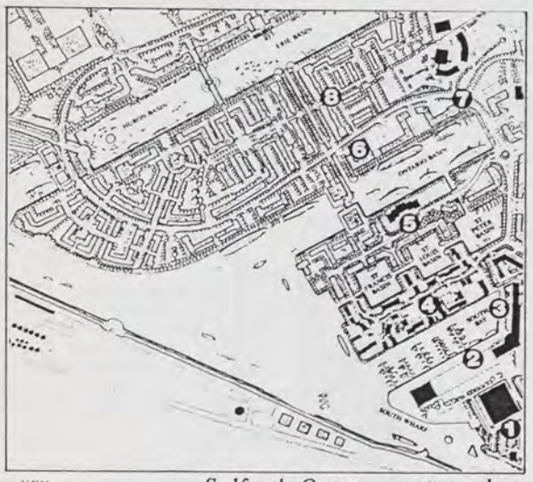
view, this part of the dock is the important feature of the redevelopment. Although the least successful architecturally, with pseudo-period timber detailing and mezzanines pushed out into the colonnades, the changes have not diminished the existing architecture.

The northern half of the docks has been converted into two major cultural facilities and tourist attractions. Warehouse D is the Merseyside Maritime Museum, and the northern arm of C houses the Tate of the North. Although having no private development involvement, these conversions are superb models of architectural conservation and new use integration. In particular, in the Maritime Museum, the essential additions of waterfront glazing, staircase and display units are detailed in fine steel components that demonstrate methods of combining contemporary architecture with historic fabric to enhance rather than detract from that fabric. Similarly, the exposure of the complex system of services, the fireproofing by intumescent paint of varied dark colours, and the cutting of mezzanine floors is uncompromisingly contemporary but serves to reveal structure and space without destruction.

The Tate's treatment is not less impressive from an historic renovation viewpoint, except for the bright blue signage within the colonnade. Rather, criticism is warranted at the less successful sequencing of gallery spaces than in the Maritime Museum and at the unnecessarily individualistic and adventurous detailing which competes with existing forms.

But the success of the Albert Docks lies in the coordinated endeavour of different architects, private and public developers, to produce a harmonious mix of architecture and use. It is unmistakably urban, combining cultural activities with shopping, housing and office uses; it focusses its spaces to the water court; and if its life as a working monument to the functional design of the maritime era has been diminished, the ability to adapt historic urban waterfronts to new activities has been demonstrated without loss of original functional elements.

It has performed a vital role in the economic revival of Liverpool. People do now use their waterfront, some now live on it, only eight years from a time when trespassing on it would have



KEY –
1 Cannon Multiplex Cinema
2 Toby Inns Restaurant
3 Copthorné Hotel
4 Merchants' Landing
5 Waterfront 2000
6 Pub Competition Site
7 Project Office
8 Grain Wharf

Salford Quays master plan.

endangered life. As a test-bed for conservation and conversion techniques, it is most important, particularly considering that more than ten times the quantity of historic building stock remains in a state of decay to the north and south of Albert Docks.

F7 SALFORD, PRESTON AND GLOUCESTER

Three smaller urban waterfront redevelopment areas examined were Salford adjacent Manchester, Preston north of Liverpool, and Gloucester on the Severn to the south of England. These cities represent only a part of the nationwide endeavour to revitalise the British waterfronts, with similar redevelopments occurring in Portsmouth, Southampton, Bournemouth, Cardiff, Swansea, Manchester and Glasgow.

The redevelopment of Salford Quays is interesting if only because it is being undertaken by the local authority in rejection of the central government's desire to establish one of its urban development corporations. It is an example of uncoordinated and opportunistic urban waterfront redevelopment, based on a well-devised master plan which has not been followed.

In 1981, the Salford City Council purchased most of the 60 hectare land and 30 hectare water area from the Ship Canal Company, and developed with the London planning firm of Shepheard, Epstein and Hunter a strong axially-arranged master plan for redevelopment. The broad form of the plan had strong civic planning qualities - the breaking up into defined developments around distinct water courts, the circular boulevardes reminiscent of Nash and the counter-thrust of a linear pedestrian street through the scheme. But the planners' layout of sites and precincts failed to adhere to the broad configuration, and development has tended to follow the detailed layouts such that the overall geometry is not apparent. Without central government assistance, Salford Quays was an ambitious venture by local government. But the lesson is that government intervention is essential to the success of urban waterfront redevelopment.

Preston is a smaller city waterfront redevelopment different from other redevelopments in that it is almost entirely developer-initiated. Here, however, the result is the same. Success has only been achieved in the gathering of commercial development closest to the city away from the residential development which possesses most of the waterfront edge. But the clearing of historic buildings has left a site devoid of character, and new development, ironically by the same architects who performed admirably for the Merseyside Maritime Museum, has done little to recreate a maritime architecture.

Gloucester Docks shares with Liverpool the benefit of an important listing of Victorian buildings and a precinct almost intact as it was during the Industrial Revolution. The 9.6 hectare site containing 27,000 square metres of vacant historic buildings is owned by the British Waterways Board and it is being redeveloped by the Board in conjunction with the Gloucester City Council. To date, development has been owner-orientated with a new Council Offices established in four warehouses, and a National Waterways Museum incorporated in one of the best warehouses called Llanthony Warehouse.

The docks are distinct geographically from other docklands in having all warehouses arranged around one main basin rather than several smaller ones. The planning method is also distinct from other docklands which have been prevented from establishing master plans because of unknown development interest. The City Council has formed a number of optional master plans, each resolved in terms of use mix, traffic, pedestrian movement and conservation guidelines. The most promising plan is a comprehensive proposal for the Main Dock and refurbishment of seven listed buildings into shops, housing, offices, workshop and leisure uses, with an agreement signed with the private developer, Pearce Developments of Bristol.

While private redevelopment is yet to start, the options approach to planning gives both developers and authority flexibility while ensuring development can proceed on a certain set of planning guidelines. It may not be a practical process for large cities with complex docklands to follow, but Gloucester Docks is likely to become the model for provincial urban waterfront redevelopment.

F7 CONCLUSIONS

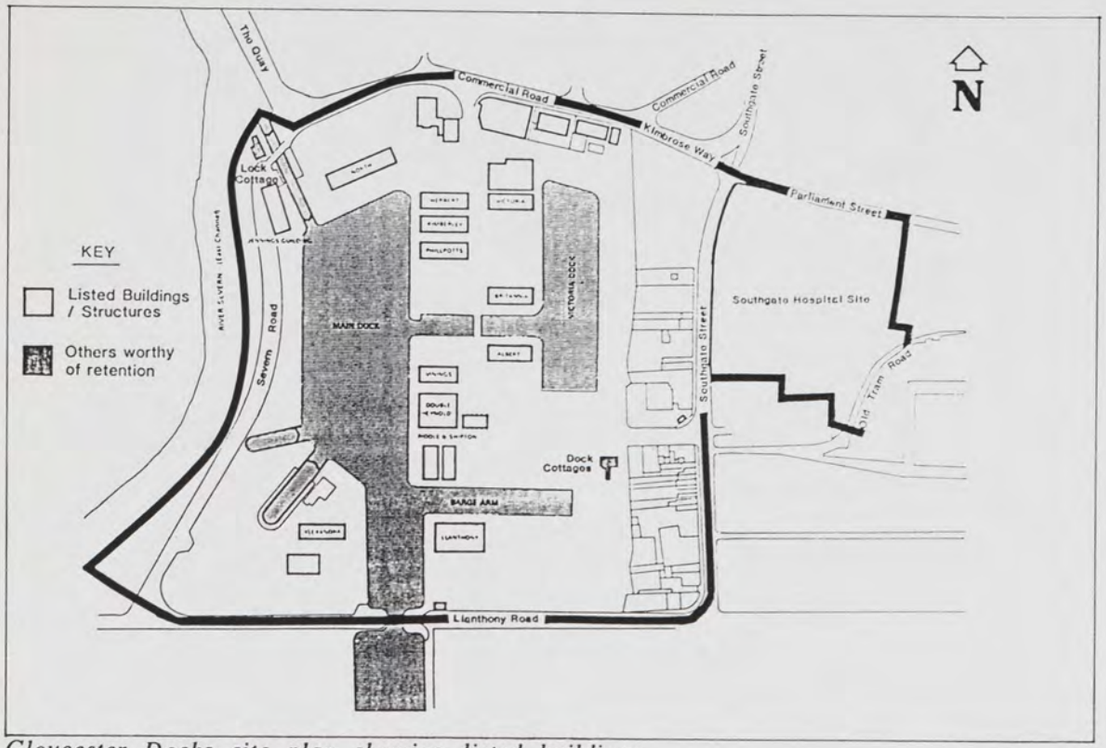
There are numerous lessons to be learned from the current wave of English dockland redevelopments, and a number of observations relevant to dockland redevelopment elsewhere can be made:

- There is a need for major government intervention and commitment in order to induce private investment at a level where planning can be undertaken and guidelines for development established. This can only be achieved where a competitive developer climate is reached, where developers are beholden to the authority rather than the reverse.

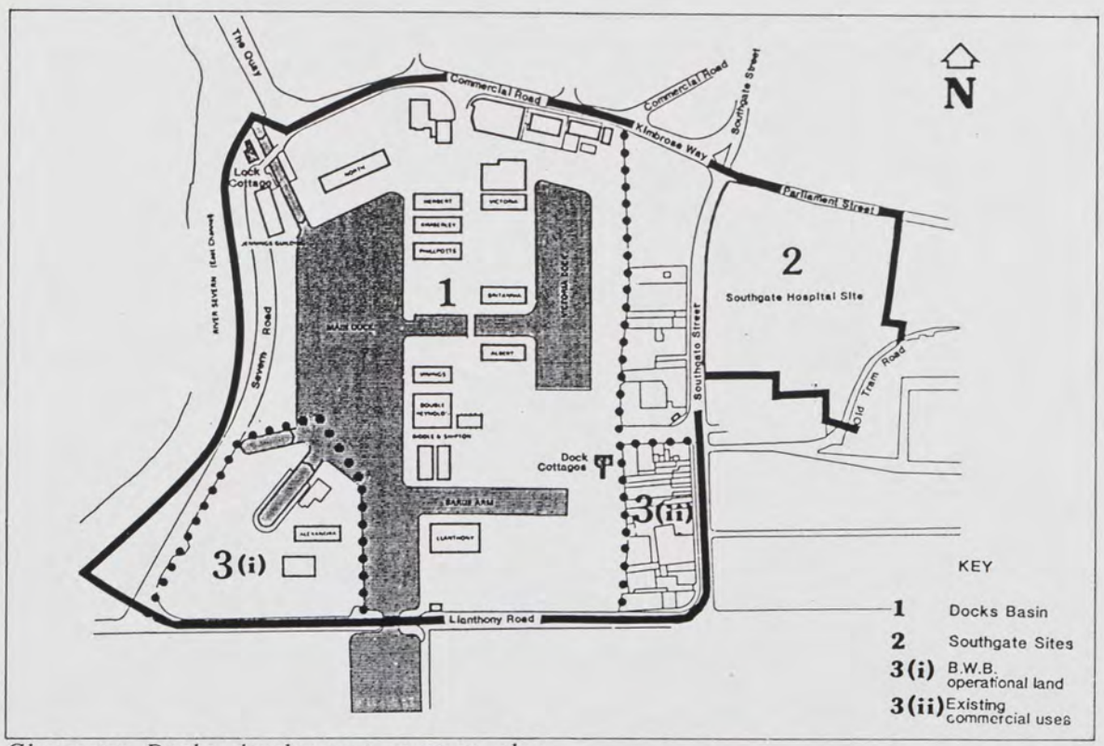
- Redevelopment areas which are not particularly attractive to developers should have in place a series of optional plans of researched environmental impact, or at least a plan with built-in variations, so that when proposals are put forward their qualities of integration, conservation and urban design can be assessed.

- Provision for public accessibility to the water's edge is essential so that developers do not permanently gain a stronghold on the waterfront. In years to come, some development may in hindsight have been myopic, and the ability to keep the waterfront in public ownership may have been lost.

- Waterfront redevelopment should be a gradual, rather than a singular process, where new development occurs as an extension, not only of the city and its urban fabric, but of



Gloucester Docks site plan showing listed buildings.



Gloucester Docks development strategy plan.

previously established patterns, thereby ensuring urban continuity.

- Conservation of historic buildings must be recognised in the context of potential uses, and there is considerable evidence, particularly in Liverpool, that almost any new use can be sensitively incorporated into heritage buildings without penalty to existing fabric. Such incorporation can only be the result of highly researched conservation and redevelopment policies.

- Urban Development Corporations are sometimes the only means of fostering waterfront redevelopment, particularly where there are political conflicts between local, regional or national governments retarding or prejudicing development. Joint ventures between public and private developers can achieve sensitive and satisfactory results, but are not the ideal method as government is prone to change, is not equipped to take continuing equity, and is subject to prejudicial authority approvals.

Footnotes

1. The museum is under the direction of Richard Forster who advised on the formation of the Australian National Maritime Museum brief for Darling Harbour. The architects were Brock Carmichael Associates.

2. Dan Cruickshank. Vision of Mersey. In Architectural Review February 1987. p 62/2

3.1 APPRAISAL OF NORTH AMERICA AND ENGLAND

It is apparent that the greatest single change occurring in the world's major cities is the renaissance of their waterfronts. Without exception, every sea or river bound western city suffered at some time between 1950 and 1970 the wholesale collapse of waterfront industry. After several ensuing years of decay, cities have almost simultaneously sought to rejuvenate their vast tracts of disused ports, railway yards and warehouses either for political, financial, environmental or social gain. The degree to which each of these factors plays a role in urban waterfront renewal varies from city to city, and the particular type of gain that is actually achieved, does not necessarily relate to the initial objective.

The preceding report and case studies have examined the history of waterfront development in the United States and the United Kingdom in order to identify the sequence of events leading to the present situation, and to reveal any socio-cultural influences that have shaped attitudes to either past or present uses. One such attitudinal observation is the difference in attitudes to public accessibility and open space between England and America and between past and present. Where, for instance, the American historic precedent has been to create urban open space as sprawling rural parkland, representative perhaps of the emancipation of Americans from their European shackles, the contemporary waterfront open space closely follows European plaza themes. By contrast, the traditional English square or court has been frequently abandoned as the major element of contemporary open space, the preference being for undulating greenfields such as those at Liverpool and proposed for the Royal Docks in London Docklands.

History has repeatedly shown that urban waterfront development has been primarily influenced by commercial exploitation. On few occasions until the 1980s has the notion of waterfronts belonging to people emerged. The conflict between private and public interest reigns as the largest problem of urban waterfront renewal. Consistently, government has had to mediate between interests, acting in some cases as controlling authority, but more commonly as a financial participant in redevelopment (usually in the form of 'public authority' or 'development corporation'), thus prejudicing the position of impartial mediator.

In England (as in Australia), public participation or even knowledge of the urban waterfront redevelopment process is rarely considered other than by statutory requirements. In America, it can be said that public participation in the review process is as effective in forming the nature of new development as is the role of the developer or of government. Several massive redevelopment schemes have been quashed by public antagonism including the initial plans for Mission Bay, San Francisco and for Trump City, New York. Whether it is by public apathy or by political concealment, no such action has taken place in the United Kingdom and as a result it is inflicted with the disastrous pseudo-city of London Docklands. Only in this last year have the local boroughs mounted sufficient collective muscle to influence the shape of development in the Royal Docks zone, but not its type.

Of such magnitude are the differences between the existing conditions of waterfronts in cities across Europe and America that it would be misleading to suggest that there is a uniformly appropriate type of development or approach to urban waterfront renewal. Some of these differences are either physical or readily identifiable:

- the area of the land tract (London Docklands 2200 ha, Battery Park City 37.2 ha, Mission Bay 120 ha, Liverpool Docks 150 ha)
- the state of industrial decay or prosperity
- the nature of the land whether reclaimed or original
- the quantity, form and quality of historic building
- the historic pattern of previous development
- the topographical form (although almost all zones are flat)
- the nature and form of immediate urban context
- the ownership of the land whether government or private and the number and size of parcels
- the prevalence of an overall master plan or urban planning or waterfront planning strategy for the city
- the number and relative powers of approving authorities over redevelopment
- the number and nature of vested interests in the land or water tract.

Should an attempt be made to compare the

relative success between developments, other distinctions that are circumstantial and less tangible would be encountered, including:

- the degree of governement commitment to the particular project in hand
- the degree and type of need of the city whether for housing, employment, tourism, commercial gain or physical infrastructure
- the prevalent political purpose of government whether electoral, economic, environmental or a combination
- the viability of various development opportunities depending upon economic situation of the city and the financial stability of government
- the level of commercial demand for the particular site and therefore the degree of private developer interest
- the availability and diversity of funding mechanisms
- the existence of special catalysts such as bicentenaries or expositions
- the availability of visionary planners and expert architects, and their degree of autonomy in the development process
- the attitude of developers (or government) to commercial exploitation, quality of architecture, environmental considerations
- changes in social structure (such as in America in the 1970s, where suburban neighbourhoods were abandoned by professional and middle class families seeking new lifestyle opportunities), coupled with the rising fitness movement chasing healthier habitats by the sea.

No doubt these are not the only variables which affect redevelopment of the urban waterfront, and even within these variables there are minute complexities and contradictions which can arise at different times to have awesome impacts. Many of these have been discussed in following the case histories of selected developments.

However, there are certain bases for criticism of waterfront redevelopments and it is possible to identify a particular development/design process or sequence which would eliminate a number of the negative aspects encountered. Identification of such a process would be timely. Most of the case study and other major waterfront redevelopment is at mid-stage and it will not be until well into the next century that the broad effects of current waterfront planning philosophy will be evident.

Mission Bay is an extremely promising redevelopment of San Francisco's docklands but as yet is unrealised. It is widely considered that London's Docklands redevelopment is a venture of political and commercial expediency, suffers from a lack of any planning guidelines (at least until 60% was completed) and lacks both urban qualities and waterfront affinity. Liverpool's Docklands redevelopment is only about 10% complete although what has been achieved is of an exceptional standard. Battery Park City in Manhattan is only one completed major waterfront redevelopment of at least 30 comparably sized projects along the Hudson and East Rivers. Canada Place occupies a fractional proportion of Vancouver's vacant foreshore, and Toronto's scarred waterfront is virtually untouched. Redevelopment along Boston's shoreline is possibly the most advanced of any city and, under a coordinated waterfront development policy, some sensitive developments have been generated.

In attempting to summarise the appraisal of the several redevelopment areas studies, the following criteria are perhaps relevant.

Firstly, it is the waterfront edge which often defines the character and image of the city; it forms its natural boundaries; the water zone is generally the only free use part of a city, hence the widespread call for the water's edge to be equally publicly accessible. Just as in the natural environment, the abundance of uses at the narrow junction of land and water in urban environments forms probably the most intensive geographical confrontation in the world. In urban situations, much of that confrontation is now between those who would exploit the edge for profit, those who seek it as their exclusive domain, and those who regard it as everyman's land. Given the fact that commercial exploitation of the waterfront is an historic condition, the successful and enduring project is more likely to be one which resolves the conflict rather than one which particularly satisfies one or two interests.

Secondly, the tradition of waterfront uses is one in which industry and transport built up an impenetrable wall to public access from the city to the water. With the exception of the specialty tourism and retail developments, such as Fisherman's Wharf, Baltimore Inner Harbour, and South Street Seaport in America, many of the waterfront redevelopments praised for their continuity of existing urban fabric to the water's edge have only intensified the wall. Where, for instance, Battery Park City has supplied New York with a generous waterfront promenade, the development behind it and the adjacent Westway distributor act as barriers to public access onto the promenade. The development itself is barely accessible, evidenced by changes in level and by deliberate lack of accessways. The barrier is reinforced socially by market demand which dictates use of the residential precincts by upper middle income earners and professionals rather than by diverse groups as was initially conceived. In London's Docklands, the prevalence everywhere of gates and security guards is further evidence of public alienation from the waterfront.

Thirdly, the current tenet of contemporary urban waterfront design philosophy is to bring the fabric of existing cities back to the water. Possibly best emphasised by the planning of Cooper Eckstut Associates (1), there are two aspects of this approach:

1. The continuity of existing street patterns, building scale, streetfront walls, materials, details, vistas, on-grade pathways and the like to the edge, coupled with a graduating of heights down to a human scaled interface at the water maintaining existing views and preventing overshadowing;

2. The creation of a usage mix and a diversity of activity common to the city. This includes housing, working places, markets, institutions, cultural centres, civic spaces, recreational facilities, public artworks all occurring together to recreate the quality of 'urbanism' found in the best of city precincts, if not in the immediate context.

This philosophy eliminates those single use tourist/retail developments as models of genuine urban waterfront planning, such as those mentioned above as well as Boston's markets redevelopment, Sydney's Darling Harbour and Toronto's Ontario Place. The philosophy would, however, be best interpreted by allowing that in certain circumstances such amusement-orientated development is valid provided that it forms part of a richer integrated whole and for that there would need to be a strong overall waterfront planning policy in the city.

So vast are the tracts of waterfront land and the spaces within disused warehouses that there is a limit to the number of tourist/recreational

environments a city can support, and this fact alone mitigates against these developments being role models. While the Rouse Corporation formula applied to Baltimore, Boston, South Street Manhattan and Darling Harbour Sydney has done much to revive urban economy, the type of development is essentially escapist, producing a relief valve for oppressed city workers rather than a genuine urban environment integral with the city.

In contrast, London Docklands incorporates a mix of commercial and residential uses but there it is sprinkled haphazardly without examination of existing urban patterns, nor with any concern for the architectural relationship between individual developments. Liverpool Dockland's more carefully incorporates a mix of cultural institutions (art gallery and maritime museum), offices, shops and housing within the relatively small Albert Docks and is exemplary of creating a harmonious urban mix, but it has not yet had to cope with devising a new architectural fabric.

Fourthly, a criteria not often considered is the quality of relationship between the water and the development itself. The aforementioned contemporary philosophy is concerned mainly with the relationship of development to the city, that is, in taking the city to the water. Historically, and even recently (2), this has been physically achieved by landfill operations extending the city limits into the waterways and altering the natural boundaries. Few contemporary developments are concerned with bringing water back into the city, nor with utilising water as an integral component of the city. Battery Park City is basically a wall of built form set back a mandatory distance from the water to allow public movement. Its rapport with the water is partly established by some artificial coves and a marina basin indentation which deserve merit, but neither the World Trade Centre nor the residential zones have any sense of belonging to the waterfront physically, architecturally or otherwise. Mission Bay is denied genuine waterfront contact by continued port activity, but at least the ports have a real purpose on the foreshore. London's docklands have all but ignored the Thames and its basins, the giant Canary Wharf development on the Isle of Dogs devouring, like some bird of prey, its pier structure and spreading its wings to adjacent piers with little regard for the dock edges (3). Canada Place lurches out over the water in the odd form of a steam-powered sailship but denies public access to the water - at least its primary purpose is a passenger liner terminal, thus it is inextricably linked with water use. Boston's Rowes/Fosters Wharf redevelopment is the exemplary project, focussing all of its components on a cut-in water court and using the court as a major ferry terminal. Boston's requirement for all waterfront redevelopments to incorporate water taxi or ferry landings is the first policy for such development to reutilise the waterways, albeit minor compared with past port uses.

Fifthly, new developments should be considered in the light of the existing waterfront character and how positively that character has been maintained or modified. This has little relevance perhaps to Toronto, Battery Park City and Mission Bay, which were virtually flattened by landfill or demolition long ago. Nor is it perhaps relevant to Canada Place, the existing pier having been all but removed as the pier had been an unsightly blemish on the picturesque Burrard Inlet. But it is notable that the Mission Bay redevelopment, and to a lesser extent Battery Park City's residential precincts, have as underlying philosophies the sympathetic relationship with existing form and use patterns. In Boston, there are urban development controls on architectural form, scale and detail which should have related infill buildings well within the existing serrated character of the harbour edge. But the Rowes/Fosters Wharf mimicry of existing masonry building stock serves to diminish their integrity, and the pseudo-historic embellishments only reinforce the potential dangers in recreating the past and in overstating the importance of history.

Attitudes to conservation and preservation have considerably altered within two decades, from the seventies bulldozing mentality to the eighties 'preserve anything' righteousness. In Liverpool, Grade 1 heritage listings saved the Albert Dock from demolition although it was seriously debated. In Sydney, the Darling Harbour Authority identified a number of existing structures of 'major architectural significance' but considered that while these buildings "... may be of historical interest in their own right, within the overall developmental objectives of Darling Harbour everything except the Pump House would have to be demolished" (4). While London Docklands authorities have largely preserved the Thames building edges, feasibility analyses dictated clearing of the Royal Albert Dock pier for London City Airport. Some of the most impressive docklands renewals have taken place within existing historic structures where heritage authorities have relaxed conservation controls to permit recycling. Two outstanding examples are Liverpool's Albert Docks and Boston's Faneuil Hall/Quincy Markets development. There is, however, no global rule which will determine a basis for heritage conservation, reuse or removal and undoubtedly the subject will remain a political, commercial and environmental issue. It perhaps suffices to remark that most docklands have a wealth of historic pier and warehouse stock, the major remnants of the functional traditions of their cities.

Sixthly, it would seem at the time of redevelopment there has seldom been regard for the impact of massive urban waterfront renewal on the social, economic or environmental condition on surrounding context. Only the Mission Bay Study is exhaustive in its analysis of ramifications on adjacent neighbourhoods and city precincts, and that has arisen largely from the severity of public reaction to earlier proposals. In Battery Park City, there is a spin-off attribute, that moneys originally intended to subsidise affordable housing on the site itself have been redirected to improve Harlem, the Bronx and other poverty areas. One fundamental reason for providing developer incentives and subsidies to undertake waterfront redevelopment is to boost city economies either through tourism, lease and tax payments, or promises to improve nearby areas in return. In Boston and Baltimore, urban waterfront redevelopment has been virtually the single catalyst in reviving those cities' failing commerce. London's Docklands redevelopment, while environmentally and architecturally mediocre, and Liverpool's Docklands redevelopment, promise to perform feats of similar magnitude for their cities. But whether, at a social level, isolated reformation of disused waterfront precincts will prove equally successful is a matter for time. So exclusive are many of the redevelopments, and frequently so much public funding is required, that there must remain doubt on the future of other urban precincts. The depressed boroughs to the north of London Docklands could be one case, lying untouched just outside the development zone.

In some cases, where government is battling to recover from its massive public funding programmes, it often changes the patterns of original concepts to the detriment of adjacent areas and even to the development itself. The release of the south-western blocks along the historic Rocks precinct in Sydney for high rise commercial uses, and the release of air-rights above roadways along the eastern and western extremities of Darling Harbour, are cases in point.

Seventhly, urban waterfront redevelopment is consistently a political issue. There is great variety of political attitude between the particular case studies. In Mission Bay San Francisco, the early proposal for a second Central Business District was only defeated through public pressure on government and the direction has changed from commercial gain to solving housing and employment crises. In Battery Park City, the early 'megastructure' proposal was dropped because it failed to ignite commercial interest, sending the Authority close to insolvency, and threatening to overthrow the State and City governments. Yet, in the unprecedented success of the ultimate develpoment, government has chosen to ignore public demand for affordable housing and has even reduced the residential neighbourhoods for more commercial buildings aimed at higher revenues from the developers. In London, Liverpool and other seaports, public awareness and participation is seemingly non-existent; the government does not seek to satisfy public interests, merely to give them what it believes they want or can afford to include, such as waterfront promenades or squares. In Sydney, public and union pressure managed to completely revise the redevelopment of Woolloomooloo basin into low cost housing in the seventies, but huge demonstrations over the monorail 'people mover' for Darling Harbour failed to deter the government and it is a matter of debate whether such obstinacy assisted in bringing down that government after the Australian Bicentenary opening.

The one constant political factor in urban waterfront redevelopment is that the intervention of government is essential to initiating, controlling and monitoring development in order to achieve optimum conditions. Canada Place would not have occurred without federal government intervention and if earlier proposals had been realised, it would have produced mediocrity of design and development quality. Battery Park City only happened because State government intervened and committed funds as well as overthrowing the City's development structure. London Docklands is evidence of government creating demand through marketing and through creating infrastructure. Often, Acts of Parliament are required to resolve conflicts, giving force to sub-authorities to resume land and water, determine allowances and constraints, and expedite approvals. Such is the case with the English Development Corporations, the Darling Harbour and Sydney Cove Redevelopment Authorities, the Battery Park City Authority in New York, and the Boston Redevelopment Authority. These organisations are most probably necessary for redevelopment to occur at all, but they are entirely undemocratic by their very nature. Their ability to joint venture in private development further questions their motives.

The large scale redevelopment of Mission Bay is the exception to this structure. There the development process falls under the jurisdiction of the City and County of San Francisco, which appoint private consultants to plan and design development for the private developer, in this case the owner of most of the land. The City is restricted to channelling profits from its own land directly into the development, and the developer is required to include certain public benefits. Government is not in a position to lose money, nor is it required to provide vast physical infrastructure at public cost as happens elsewhere.

In the case of London Docklands, the type of government commitment, that is as a marketing tool and infrastructure supplier, the physical and environmental results are unsatisfactory. Where government intervention is not required, such as along the New Jersey coastline where no incentives are necessary to attract developers, the results are equally mediocre. That natural coastline is now being ravaged by unrelated developer-driven commercial and hotel projects with no environmental consideration save a narrow foreshore strip. It is clear that government must play a pro-active rather than a reactive role in urban waterfront redevelopment, and should not have a participatory role.

Finally, there is the question of how well master plan and urban design guidelines succeed in generating diverse urban environments on the water, assuming this is the most common objective. The major part of London Docklands - Wapping, Surrey, Isle of Dogs, Enterprise Zone - was developed without any master plan. Liverpool Docklands is proceeding on an ever changeable plan. New York's developments are planned and urban design guidelines prepared on a site by site basis rather than to an overall strategy. Boston has an overall planning vision and sites are released to developers depending on their degree of compliance. Mission Bay, after a planned false start, is proceeding on lengthily prepared development guidelines.

Battery Park City is an interesting case. Where the commercial component is developed on a flexible master plan with the principal architectural guidelines enunciated, the residential component is developed on a relatively strict planning and architectural manual. The commercial component is distinctly more successful, adventurous and appropriate as has been previously demonstrated in the case study. In London's Isle of Dogs, the London Docklands Development Corporation has finally realised that large developers want tight urban design prescriptions and well-defined constraints. These safeguard their investments by guaranteeing that they are part of an attractive and viable environment and by preventing stupid substandard development from following nearby to sabotage that environment and investment (5). Hence, Canary Wharf was planned to guidelines set by the developer's own consultants, Skidmore Owings and Merrill, in the absence of government regulations. For the Royal Docks, the LDDC brought in Richard Rogers and Partners to plan the infrastructure (6), and they convinced the Corporation that a few large development parcels would produce higher quality development than the previous piecemeal releases. Subsequently, the major successful developer, Rosehaugh Stanhope, appointed Richard Rogers to plan and design its retail and industrial park development stretched along the extent of the Royal Albert Dock.

While some experts have argued that planning and design guidelines fail to approximate the urban qualities generated by slow organic growth (7), the problem seems to be not whether a coordinated plan should exist at all, for it is demonstrably essential, but what form that plan should take. It should be visionary, that is,

capable of producing a usage pattern and an architecture going beyond repetition of existing form. It should respect and integrate with the existing environment, context and water. It should state objectives, consider all attributes of urban living and urban form, and establish development and design principles. It should not be restrictive but be sufficiently flexible to permit the input of both the developer and his architect which proved so valuable for Battery Park City. It should be unbiased, that is, prepared by private consultants neither belonging to the developer nor any financial participant.

The only urban waterfront redevelopment seeming to have fully achieved these criteria to date is San Francisco's Mission Bay, although Boston's strategy is similar. Unfortunately, Mission Bay is yet to be evidenced on the ground, but its plan has a recognisably imaginative insight, a sound viability basis profiting the city and the developer, can accommodate subtle change and is democratic in its preparation. If it fails - economically, environmentally, socially or politically - it is difficult to be optimistic for the future of the world's water-based cities.

None of this should under-estimate the importance of architectural design in producing quality development. Urban waterfront redevelopment is the major, but nevertheless only one, of the arenas which generate cities as art forms. Whether on the waterfront or not, mediocre architecture predominates and escapes criticism, but the urban waterfronts are generally receiving greater interest because of their value, limited extent, visual exposure and environmental sensitivity. Criticism of the architecture of the case-studied developments can only be subjective but it is apparent that, for instance, had Boston's Rowes/Fosters Wharf development avoided historic pastiche and classical applique, it would have been in this study considered as a model for other developments to follow. In Battery Park City, the vision and talent of Cesar Pelli has left the World Trade Centre as a New York landmark at the same time fitting in with its environment. Nobody would now deny the input of Utzon in creating our greatest icon on Bennelong Point, even though it is a constant reminder of the stupidity of government, the jealousy of the profession, and the lack of public taste and sensibility (8). Apart from its lack of water access for people, the primary mistake of Canada Place Vancouver is its confused architectural metaphor.

There must always be room for the designer to perform the 'great design act' as did Michelangelo for Florence, Hausmann for Paris, Nash for London, Utzon for Sydney. The possibility of creative genius should never be discounted, for where one does emerge, he or she can transcend the master plan produced by less enlightened planners. Planners rarely see their role as artists, and rarely consider cities as art. The decayed or vacant urban waterfronts of our great cities give the greatest current opportunity to express the city as art, to hide or heal past failures, and deserve the participation of our great designers.

Footnotes

1. Now separated, Alexander Cooper and Stanley Eckstut have master planned Battery Park City and Trump City in New York, and Canary Wharf and Heron Quays redevelopments in London Docklands.

2. For instance, Battery Park City, Manhattan

3. This situation has finally been recognised, and the London Docklands Development Corporation has had prepared by two consultants - David Gosling and Stephen Proctor - urban design guidelines for Heron Quays adjacent Canary Wharf, east Canary Wharf and other precincts which not only require paved squares on land but water courts penetrating development. Notably, the Battery Park City and Canary Wharf developers - Olympia and York - have recently bought Heron Quays and West India Quay either side of Canary Wharf, and have hired the American planners Eckstut and Eherenkrantz to prepare more flexible urban design guidelines to submit to the LDDC. It must be doubtful whether such 'luxuries' as water squares will remain, judging on past performance, but there have been few more responsible developers of the waterfront than Olympia and York. Interestingly, Gosling assisted Gordon Cullen in the first 'Isle of Dogs: A Guide to Design and Development Opportunities' in 1982, which has been long abandoned.

4. E.M. Farrelly. 'Out of the Swing of the Sea, Darling'. The Architectural Review April 1989. p 65

5. Peter Buchanan. 'Quays to Design'. The Architectural Review April 1989. p 40

6. Had an urban development plan been prepared, it would have provoked opposition from adjacent boroughs. The infrastructure plan is nevertheless still unsatisfactory in failing to tackle issues of open space, land use, built character, scale, density and so on.

7. Bryce Mortlock. 'The Failure of Planning'. Architecture Australia July 1983.

8. Philip Cox. 'The State of Architecture'. Financial Review April 1989.

3.2 REVIEW AND ANALYSIS OF DEVELOPMENT AND DESIGN PROCESSES

The methods that governments have adopted to foster and then control urban waterfront development vary markedly between the case study areas. This section endeavours to identify the ideal process although it is recognised that development conditions also very significantly and affect the type of process applicable, for instance, whether the particular site is sought after by private interests as in New Jersey, is already owned by private interests such as Mission Bay, or is avoided as was the early case with London Docklands. Other variables are the size of the site, the size and nature of potential development, the historic condition of the waterfront, and the government's objectives. The accompanying matrix illustrates in summary some of the major comparisons and differences between the study areas.

The following is a summary of the development processes which governments have undertaken in the case study precincts:

1A London Docklands - Wapping and Surrey Docks, Isle of Dogs

- Land defined and incorporated into London Docklands Development Corporation
- Massive marketing campaign and provision of infrastructure and transport links to generate interest
- Release of small parcels for lease/purchase based on zoning plan
- No planning or architectural schemes necessitated
- Tax and other incentives particularly Isle of Dogs
- Corporation receives major boost through Canary Wharf lease for huge development
- Corporation begins to impose constraints on nearby development as market demand established by Canary Wharf development
- Some new developments already redundant as underutilising now valuable land and so-called 'second wave regeneration' commences (1).

1B London Docklands - Canary Wharf and Heron Quays

- As above until developer selected on bid
- Developer imposes own guidelines through private consultants
- Government appoints private consultants to prepare Heron Quays.

1C London Docklands - Royal Docks

- Development Corporation appoints private consultants to prepare infrastructure plan
- Consultants convince Corporation to release only large parcels, demand already has been established by prior development
- Parcels tendered to developers based on infrastructure plan
- Appointed developer commissions same consultant to prepare master plan and design
- Corporation approves plan.

2A Liverpool Merseyside Docklands

- Land defined and incorporated into Merseyside Development Corporation
- Corporation and Government join to establish single development in prime historic building group as catalyst to attract other developers and to set standards
- Master plan loosely defined without known development potential or interest
- Target sites and buildings released to developers and companies with incentives to relocate
- Slow development rate but generally quality development.

3A Battery Park City, NY World Financial Centre

Phase 1

- State Government establishes Battery Park City Authority as vehicle for interesting private development in 'megastructure' concept based on new zoning classifications
- Authority plans to construct infrastructure financed by bond issues
- General economic downturn coupled with unfamiliarity of development proposal deter developers
- Project nearly abandoned and Authority finances collapse

Phase 2

- NYC Urban Development Corporation

Gloucester Docks, with a wealth of historic warehouse stock, has more potential if only because renovation is less offensive than new building.

Compared with London, Liverpool dockland revitalisation has been sluggish. While its marketing campaign aimed at inducing private investment has been similarly glittery and false, actual development on the ground is much more thoughtful. Instead of accepting any type of development, the Merseyside Development Corporation chose to redevelop a single project, on the Albert Docks, jointly with a developer and institutions, to produce an example of what could be achieved. This project is without doubt the best model for historic waterfront building recycling.

F2 BACKGROUND

The Liverpool Dockland Redevelopment area was defined in 1981 with the establishment of the Merseyside Task Force and the Merseyside Development Corporation. The area has been extended over the decade to include some 350 hectares, including a small portion at Wirral on the western side of the River Mersey. The principal area is a strip of varying width up to a kilometre wide along the city edge, acting as an impenetrable barrier for Liverpudlians almost the entire length of their city.

Liverpool shared with London the position of being the two leading ports in the world, its closer proximity to America giving it a major advantage. As in most waterfront cities, the advent of containerisation in the sixties rendered traditional port facilities redundant. In Liverpool, these facilities were located to the north of the docklands and are the most modern container and bulk handling facilities in the United Kingdom.

By 1980 almost all the water courts making up the docklands had filled with silt and sludge due to the river gates being permanently left open. The dockland buildings and docksides had reached a state of decay worse than any other waterfront situation, and demolition of even the most meritorious warehouses along Albert Dock was a serious consideration. A number of lesser buildings were cleared and some of the basins filled in.

The initial impetus for the dockland regeneration seems to have been the failing economy, exemplified by the Toxteth riots, rather than a result of the waterfront decay. The central government established the Task Force to revitalise the city through building rehabilitation, employment, tourism, land reclamation and housing schemes. Two now famous projects were the 50 hectare International Garden Festival which attracted 3.4 million visitors to the city, and the Tall Ships display held in 1984 to promote tourism to Liverpool.

As part of the rejuvenation programme, the government set up the Merseyside Development Corporation specifically to rehabilitate the derelict docklands. The Corporation is essentially a sub-component of the Task Force from which it derives its funding. The Task Force directs funding, seeks European and other investment sources and oversees the Corporation's activities.

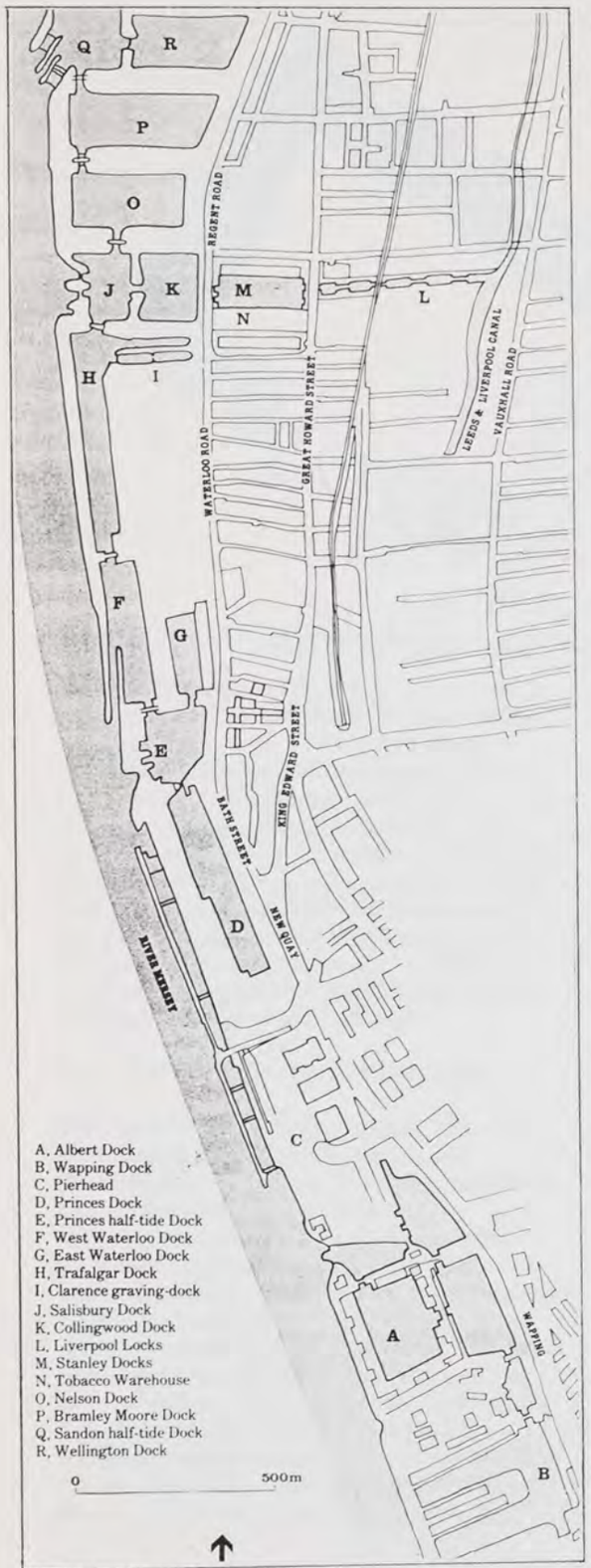
As with the London Docklands Development Corporation, the Merseyside Development Corporation was given wide ranging powers to assemble, reclaim and service land within its designated area, and to undertake development either directly or in conjunction with private developers. By 1989, the Corporation had injected 168 million pounds into Merseyside, reclaimed 150 hectares of land, and refurbished 140,000 square metres of derelict buildings on its own or jointly with the private sector. Its primary activities have been toward establishing sites and infrastructure for developers, marketing campaigns, cleaning waters and docksides and clearing land. It has one advantage over London Docklands in that 95% of the land was in public ownership and therefore land consolidation was much easier to facilitate.

There is little semblance of a genuine urban redevelopment plan. But unlike London, where vast tracts were released for almost any purpose, the Corporation has had to take a more restrained approach and Merseyside is much the better for it. The development method has been to establish a major catalyst and to monitor the effects of the catalyst in order to discern where and what type of future development would naturally follow.

The catalyst was the Albert Dock redevelopment in the centre of the docklands, a mud-filled basin surrounded on four sides by 93,000 square metres of redundant masonry warehouses. Widely regarded as the finest example of Victorian maritime architecture in Europe, the Albert Dock contains the largest collection of Grade 1 listed heritage buildings in the country. Most of the Dock's buildings were renovated into offices, shops and apartments in a joint venture between the Corporation and a private developer, Arrowcroft Group, making it an ideal promotion for the future. One of the remaining warehouses was converted into the Merseyside Maritime Museum, probably the best such museum in the world (1), as well as probably the most sensitive waterfront historic building conversion despite the complexity of the problem. The other warehouse portion was converted by James Stirling Michael Wilford and Associates into the Tate of the North, approximately half the size of the London Tate, financed by a combination of Government (4.5 million pounds in 1984) and private contributions (5 million pounds). Slightly less successful as a model conversion because of its external treatments, it was opened in 1988.

The commercial success of the Albert Dock conversion and the previous success of the International Garden Festival convinced the Corporation that the future of Liverpool Docklands rested primarily on tourism and recreation uses. Master plans have now been firmed up on this basis although the plans have had to retain flexibility of use and placement. Certain areas have been designated for housing and for industrial uses, the latter being located around existing industrial or active port areas to the far north and south of the zone.

In judgement of the Corporation's methods, a number of the criticisms directed at London are equally applicable here. In spite of the vastness of potential sites available, the Corporation has filled several dock basins to create larger sites even when the future development was still unknown. Massive open carparking areas have been formed, for instance, south of Albert Docks, and in the future these will hinder qualities of urban continuity. There is virtually no new building development to date anywhere on the docklands and it must be feared, with the Corporation's approach of spot-locating elements on the plan, whether there will ever be a sense of urban integration. In one regard, the area may prove to be simply too large to control. The initial idea of concentrating on one small



Docklands central area.

portion, the Albert Docks, was a sensible one and it would appear prudent to continue redevelopment on a 'piece by piece' basis rather than letting go as currently seems to be happening.

But so far, Liverpool Docklands is being managed in a far superior manner to its sister redevelopment in London. Where that city fails to open the Thames and docksides to public access, Liverpool's Riverside Walk was commenced at the beginning of the redevelopment process and the future reconnection of Liverpool city with its waterfront seems assured.

F3 GEOGRAPHICAL DISPOSITION

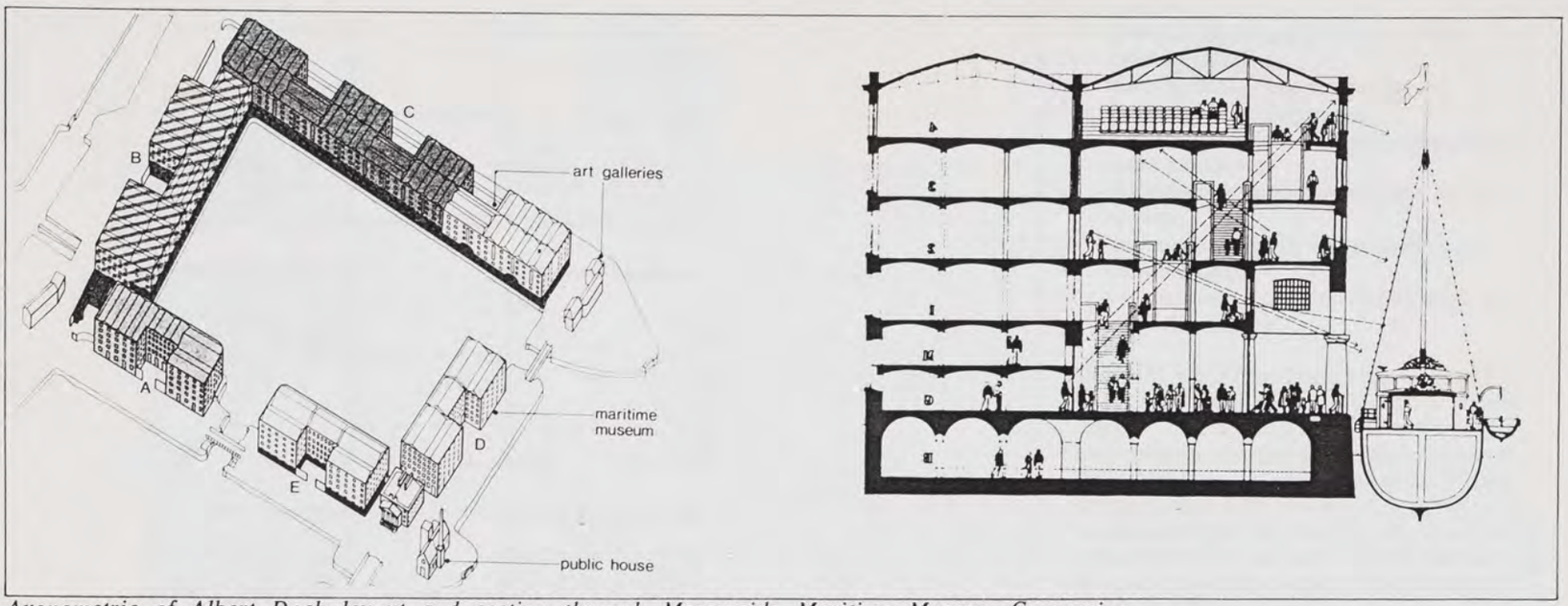
The Merseyside Docklands generally fall into four zones. Two of those, Wirral across the river and Bootle, north of the main area, do not directly relate to the city and are therefore not examined. The main area is divided into North and South Docks by Liverpool's Pierhead which contains the city's primary civic buildings including its celebrated Liver Building. Pierhead is not redundant dockland and is the one existing zone of public accessibility to the river.
The South Docks have in place development 'magnets' at each extremity. To the south is the 100 hectare manicured parkland called Festival Gardens, of which about half were displayed for Britain's International Garden Festival. The remaining half is proposed to form a garden setting for commercial, housing and leisure-based development. The gardens still attract half a million visitors a year and are focussed on an indoor exhibition centre designed by Arup Associates. To the north, just below Pierhead, is the Albert Docks Redevelopment which attracts 40,000 visitors on peak tourism weekends.

The South Docks area can be considered in two sub-zones. The northern portion, known as Liverpool Waterfront, is a series of water basins and piers aimed at housing and tourism uses. The great Wapping Dock warehouse has been successfully converted into apartments both commercially and architecturally. The Corporation renovated the warehouse's exterior as a development incentive, so that the private developer, Barratt Urban Renewal, could concentrate finance on interior fitout. The Kings Dock has been partially converted into the Liverpool Marina, intended to link the Albert with the Wapping Docks, but most of the land area remains undeveloped. The reasons for the lack of response, according to the Corporation's Chief Architect, Mr Peter Edwards, has been the concept of large scale tourism-based facilities which the Corporation hoped to establish with private development. Recently the Corporation has switched its approach to small developer packages, offering less risk, with uses such as an aquarium, imax theatre, sailing centre and shopping enclaves proposed.

The southern portion down to the Festival Gardens, is known as Brunswick where the Corporation has planned the Brunswick Business Park containing general and light industry over 40 hectares. Notwithstanding the possible viability of such development, and the absence of any quality existing building stock, it seems that light industry will inevitably alienate the Festival Gardens from Liverpool waterfront. The Corporation has provided the Riverside Walk here, but has also filled in several dock basins to provide carparking, which it curiously describes as environmental improvement.

The North Docks, north of the Pierhead, have possibly a more interesting future in that they contain a dominance of historic docks and warehouses of almost unprecedented scale. Still owned by the Mersey Docks and Harbour Company and theoretically still in use as a port, the North Docks is rapidly falling into redundancy. While the company endeavours to retain control of the port, it is apparent how impenetrable is the barrier between city and water.

The North Docks has a focus in the Liverpool Locks, an inland series of basins linking the River Mersey to the Leeds and Liverpool Docks, and forming an east-west axis. To the north of the axis are the Sandon half-tide and Wellington Docks, and the Bramley Moore and Nelson Docks. To the south of the axis running down to Pierhead are the Trafalgar, East and West Waterloo and Princes Docks. Around Liverpool Locks are the Clarence Graving Dock, Salisbury, Collingwood and Stanley Docks, which now represent the last historically important docks complex in Britain to remain untouched by regeneration programmes (2). Most were designed by Jesse Hartley, who collaborated on the design of the Albert Dock and on St Katharine's Dock in London, which in transition from warehouses to tourist precinct suffered enormous loss of integrity.



Axonometric of Albert Dock layout and section through Merseyside Maritime Museum Conversion.

How the Corporation will attack the conversion, renovation and conservation of the North Docks will largely determine whether the Liverpool Docklands Redevelopment will become the model for historic waterfront revitalisation which the Albert Docks conversion promises. So varied are the building forms, from the step-sided Clarence Graving Dock to the pseudo-mediaeval dockmaster's office at Salisbury Dock, and to the two soaring warehouses astride Stanley Dock, that there is a variety of potential suitable uses which could engender the North Docks with the necessary qualities of urban diversity.

F4 DEVELOPMENT PROCESS

When in 1981 the Secretary of State and Environment established the Merseyside Development Corporation, Liverpool intended to be the second model urban waterfront redevelopment after London. Where London Docklands seems to have only needed an intensive marketing campaign to generate private interest, and no master plan, Liverpool Docklands needs stronger government financial resources by way of grants, joint ventures and other incentives. Liverpool has had a semblance of a plan from the outset but this has been continually revised to the point where it seems that the plan follows development rather than the reverse. The Albert Docks, for instance, had been originally considered for the London Polytechnic but the proposal was abandoned as an unlikely catalyst for future development.

As in London, the Urban Development Corporation approach is generally to form development sites, create streets and landscape, provide services, provide development grants and enter into joint ventures. The problems of government acting as both general authority and as joint developer have already been enunciated in regard to other cities and the potential for quality urban development by such a process is no more promising here. Coupled with this problem is the inability of the government to act as operator of the end package, so that there is no guarantee of maintenance quality essential for any historic building.

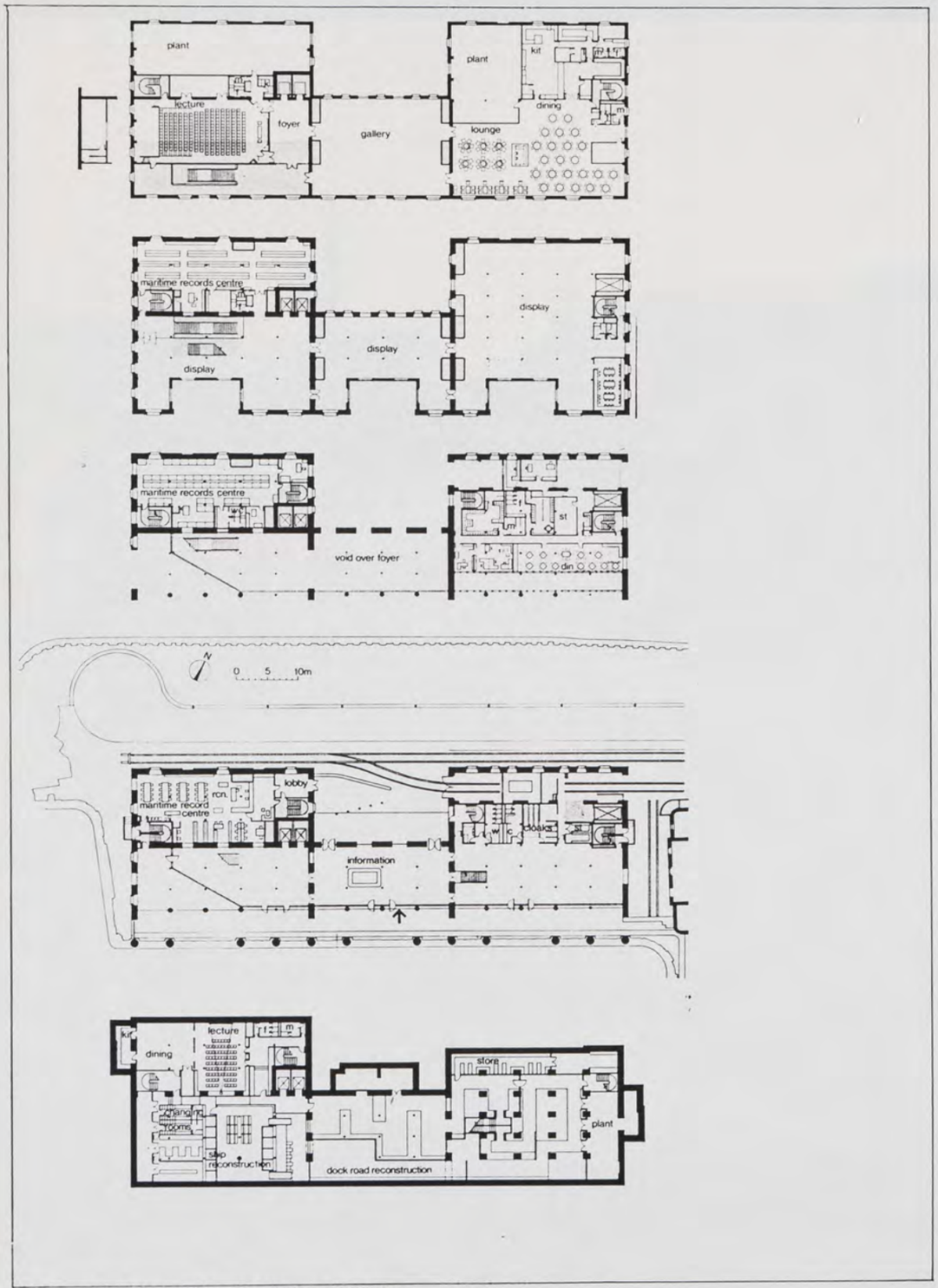
A separate problem is the conflict between the Labour-controlled City Council and the Central Government, which places politics at the forefront of decision-making, as has occurred to the detriment of cities around the world, in particular, Sydney.

But generally, the catalyst initiative is a promising method - to establish at whatever cost a high quality development, change the docklands image and offer financial incentives for others to follow. In the South Docks, redevelopment of Wapping Docks by joint venture, and Kings Dock nearby, into housing and marina uses, has enhanced the catalyst. In the North Docks, the Princes Dock is now subject to a highly competitive development bid situation, with the P and O group favoured to produce a tourist venue modelled on New York's South Street Seaport.

Assuming that the docklands have now reached a stage where developers are in competition, what is urgently needed is a master plan based on a vision of what Liverpool Docklands could be. Whereas the Corporation has tended to concentrate its efforts on inducing development, changing planning to suit whatever use it attracts, a visionary plan could also be used to initiate development, and planning controls imposed to ensure historic fabric retention, diversity, public space quality, waterfront accessibility and other necessary elements. The Corporation has not yet taken that essential step, and the future quality of the docklands will remain uncertain until such a stage is reached.

F5 ALBERT DOCKS MODEL REDEVELOPMENT

What makes Albert Docks a model of urban and historic waterfront conversion can be considered under several categories:



Plans of Merseyside Maritime Museum.

- historic quality and importance of the existing building
- involvement of private investment, development and operation
- applicability of the redevelopment process to other situations
- integration with aspects of urban life and quality
- architectural quality and sensitivity to existing fabric
- commercial success and improvement to overall economy

Generally, the Albert Docks redevelopment fulfils these requirements, although to varying degrees. Its place as an historic monument is unquestioned. Designed by Jesse Hartley and Philip Hardwick between 1841 and 1845, the Docks pioneered the concept of building warehouses right onto the dock edge using large arched crane recesses to facilitate single handling of goods from ship to store. This concept had been a significant improvement on even Thomas Telford's and Hardwick's 1827-29 St Katharine's Dock in London which set back the buildings from the basin so that goods had to be double-handled between ship, wharf and store. Other features of the Albert Dock buildings were the first large scaled use of fire-proof construction using thick brick walls and floors formed by tiles laid on brick jack arches tied by iron rods; the use of an inverted ship hull shape for roofs, using riveted metal plates over lightweight iron trusses; and the use of cast iron columns with capitals cast at half-height to allow for temporary mezzanines when expanded space was required.

These features produce the powerful distinctive architecture of the Albert Dock. The impressive scale of the warehouses around the water basin adds to the distinction, and the incorporation of a colonnade supported on massive cylindrical concrete columns provides pedestrian accessibility to the inner water edge.

Redevelopment of the Dock commenced in 1983 when the Merseyside Development Corporation acquired it from the Mersey Dock and Harbour Board. In July 1983, the Corporation signed a joint agreement with the Arrowcroft Group to restore and renovate the southern half of the dock buildings, known as warehouses A, B and part of C, into a mix of shops, restaurants, offices and apartments. From a private investment point of


MERSEYSIDE MARITIME MUSEUM

SUMMARY MATRIX OF CASE STUDY DEVELOPMENTS: COMPARISON

Redevelopment	Approx Area	Initiative	Historic Issues/ Preservation	Previous Land Type	Type of Development	Primary Theme/Use	Major Development Process	Approx. Development Scope	Investment/Return	Authority
Battery Park City, NY	37.2 ha	Government (State/City)	None	Fill	1 large & 20 small parcels	Commercial/Residential	Design/develop Bids - open	650,000 sq m & 12,000 units	Govt & private inv. Lease, rent, fax	Battery Park City Authority
South Ferry Plaza, NY	4.6 ha	Government	Small	Part water/existing land	1 large parcel	Commercial/Ferry Terminal	Design/develop Bids - open	140,000 sq m	Private/rent, lease	City of New York
Trump City, NY	30 ha	Private	None	Railyards	1 large parcel/several buildings	Commercial/Residential	Land purchase/ Traditional	Not known	Private	City of New York
Rowes Wharf, Boston	1.5 ha	Government/ Private	Context important	Piers/existing land	1 large parcel	Commercial/Hotel/Residential	Design/develop Bids - open	52,000 sq m	Private/lease	Boston Redevelopment Authority
Charlestown Navy Yard, Boston	52.6 ha	Government (State/City)	Separate Preservation/ Development Zones	Naval Yards	Several parcels	Commercial/Research/Marine	Development Bids - open	200,000 sq m & 3000 units & 2 hotels	Government & Private/ purchase, lease	Boston Redevelopment Authority
Mission Bay, San Francisco	120 ha	Private initially	None	Industrial	1 large parcel, numerous buildings	Residential/Commercial/ Light Industrial	Owner/developer Planning by City	604,000 sq m & 7,500 units	Mainly private/ some lease	City of San Francisco
Canada Place, Vancouver	3.4 ha	Government (Central)	None	Pier	1 large parcel	Commercial/hotel/liner terminal/exhibition	Development Bids on Approved Design - selected	90,600 sq m	Govt & private	Canada Harbour Place Corporation (Crown)
London Docklands 1. Wapping, Surrey, Isle of Dogs	2,200 ha	Govt (Central)	Yes	Docklands	Numerous small & medium parcels	Commercial/Residential	Development offers - open	Not known	Govt & private/ lease, rent	London Docklands Development Corporation
London Docklands 2. Royal Docks		Govt (Central)	Yes	Docklands	3 large parcels	Retail/light industrial	Design/development Bids - open	Not known	Govt & private/ lease, rent	
Liverpool Merseyside	340 ha - 650 ha	Government (Central)	Important Buildings	Docklands	Numerous parcels	Cultural/Residential/Retail	Deisgn/Develop Bids & Construction tenders	Not known	Govt & Private/ lease, rent	Merseyside Development Corporation
Darling Harbour, Sydney	54 ha	Govt (State)	Buildings removed	Docks & Railyards	Few large parcels	Tourism/Recreational/ Hotel/Commercial	Construction tenders or Design/Develop bids	Not known	Govt & private/ lease	Darling Harbour Authority
Walsh Bay, Sydney	Not known	Govt(State)	Important Buildings	Piers and Wharf Bldgs	1 large parcel, several buildings	Tourism/Residential/Hotel /Commercial	Design/Develop Bids - selected	75,000 sq m - 125,000 sq m	Private/lease	Maritime Services Board & City Council

The table sets out comparative characteristics of the urban waterfront redevelopments studied, as well as other waterfront redevelopments, and makes comparison with some Australian redevelopments.

assumes control of Authority
- Private planning consultant appointed to prepare new physical and economic master plan
- Previous strategy abandoned and reorganised into familiar development packages and traditional urban forms
- Planning framework and guidelines relaxed; parcels for developer bids identified; areas of flexibility identified
- Existing zonings and codes enforced, floor space ratio defined
- Open tender bids sought for all or part of development
- Selected tenderer takes total development offering attractive financial proposal
- Developer holds limited architectural competition based on maximum development potential, and reaches agreement with Authority and its consultants to alter size and number of development parcels.

3B Battery Park City, NY - Residential Zone

- NYC Urban Development Corporation through the Authority appoints same private planning consultants as for World Financial Centre
- Planners define development packages requiring separate developer/architect teams for each package
- Strict planning and architectural guidelines imposed
- Sites tendered on financial bids and financial capacity
- Selected developers nominate architects who design buildings within known guidelines
- Authority monitors design to ensure compliance with guidelines.

4 Rowes/Fosters Wharf, Boston

- Boston Redevelopment Authority establishes development strategy for downtown Boston and Waterfront (100 acre project)
- Authority devises Harborpark Master Plan governing public access and open space for the project area and identifies a selected list of priority projects under its Urban Renewal Plan
- Authority devises Developer Kit for particular projects for issue to prospective developers
- Authority seeks interested public or private development and design proposals for selected projects
- Authority reviews proposals and selects developers based on financial capacity, compliance with master plan and return to government, and publicises proposals for citizen review
- Selected developer submits detailed design proposal and Authority negotiates with developer to reach optimum solution
- Approvals given and agreement reached on 'final designation' and Authority sells land to developer at reasonable cost to ensure development rents are affordable.

5 Mission Bay, San Francisco

Phase 1

- Existing landowner appoints private planning and architectural consultants to master plan downtown business district on site
- Public opposition to advertised plan nullifies development proposal.

Phase 2

- Landowner seeks City Council assistance
- City Council selects and appoints private planning and architectural consultants to prepare new master plan and development guidelines, funded by landowner
- Development scope identified and agreement made with City
- Alternative plans and strategies prepared by City Planning Department and all options presented to public in Proposal for Citizen Review
- City establishes organisation to facilitate public review and response
- City prepares Environmental Impact Statement based on public comment for each alternative
- EIS issued for public response and preferred proposal identified
- City consultants develop preferred master plan and development guidelines, using existing zoning regulations, for agreement between landowner and City
- City establishes cumulative environmental, social and economic impact assessment programme for duration of project.

In Australia, the development process for urban waterfront areas intended for private development follows a pattern that differs from each of the above, exemplified by the Darling Harbour and Walsh Bay projects in Sydney.

Darling Harbour, Sydney (Examples: East Promenade and Corn Exchange projects)

Taken back to its beginnings, the process has been generally as follows:

- State Government establishes Darling Harbour Authority as public authority with jurisdiction over all development within designated area exempt from Environmental Planning & Assessment Act, Local Government Act, Heritage Act and Height of Buildings Act
- Authority resumes all lands required in designated area not currently owned by government
- Authority appoints private consultant firm to master plan and develop guidelines for project (Project Design Directorate)
- Authority establishes group of eminent architects and professionals to review planning and individual proposals (Quality Review Committee)
- (Authority appoints Managing Contractor to develop designs and document public projects using private architectural consultants, then to coordinate and supervise construction contracts for those projects)
- Through PDD, Authority develops design and development guidelines for individual private and public projects
- Authority calls for 'expressions of interest' from private developers based primarily on financial and technical capability, and on design team qualifications and selects shortlist for design and development tenders
- Authority receives tenders for particular project, negotiates with tenderers over qualitative and quantitive issues of proposals, and awards project for long term lease.

Walsh Bay, Sydney

This process differs from the Darling Harbour procedure as no public authority was formed, and therefore the project was subject to all current Acts. The project falls into two jurisdictions - the water based component into the Maritime Services Board, the land based component into Sydney City Council. The MSB owns and offers virtually all of the development area.

- Maritime Services Board appoints private planning consultant to prepare master plan, use, design and conservation guidelines for

entire development area
- MSB seeks and receives expressions of interest from prospective developers and design teams and culls expressions into a shortlist of four developers
- Developer/design teams prepare detailed financial and design proposals for submission to Board
- Heritage Council intervenes as unsatisfied with conservation controls. New heritage constraints imposed and new tender/design proposals prepared by shortlisted teams
- MSB selects successful tenderer based on conformity of offer, financial bid and compliance with development guidelines.

Each of these processes can be criticised in one respect or another; some have led to abortive situations, others place reliance on financial offers or spin-offs rather than on environmental or design considerations. Political bias, financial aspects and developer greed will probably always dictate the form of development processes. Yet there are vast amounts of time and money spent on planning, environmental analyses and approvals in Australia as well as overseas, which prove toothless in the final projects delivered.

Public reaction and involvement in design processes in England and Australia have not yet reached the level of organisation and power that they have in America. Possibly such involvement is endemic in American society, but if waterfronts are to be considered at least partially as public domains, processes must be perceived as being democratic and publicly responsible.

To this end, the objectives of such a development process would be as follows:

- To enable imaginative vision and inspiration to participate
- To enable public participation in and review of proposed developments before they are committed
- To provide for environmental impact statements outside the control of developers or interested parties
- To utilise the highest available levels of expertise for planning and design guidelines, and for review procedures
- To ensure developments are appropriate to the particular waterfront sites and do not proliferate globally homogenous developments as has occurred with 'modern architecture'
- To avoid government bias either for political or financial reasons
- To avoid wasteful time and money spent on preparation of competing proposals, reviews and approvals
- To resolve conflicts between commercial realities, public benefits and environmental impacts.

Undoubtedly, there are other goals, but considering these as the major objectives and analysing the processes previously outlined, the following process would meet these aims and eliminate the negative aspects of past developments:

1. Utilise existing relevant government authorities to form special project teams having control over master plan and development guidelines alone.

2. Government body appoints private planning and architectural guidelines.

3. Government body openly canvasses public response from organisations and individuals, analyses responses and consulting firm incorporates recommendations into development control plan.

4. Control plan and development offer openly advertised seeking expressions of interest from developers. Offer should indicate to what extent freedom to alter development and planning guidelines would be permissible.

5. Selection of shortlisted consortia based on financial and technical capabilities.

6. Shortlisted consortia prepare development proposals and financial bids and submit. Developer selected.

7. Selected developer required to hold, at his own cost, limited architectural competition between national firms based on known development potential and on established guidelines.
8. Planner/architect jointly selected by government and authority to design and document proposal, with minimum quality control over construction.

9. Government's private consultant prepares Environmental Impact Statement. Developer's consultant incorporates required changes and proposal re-advertised for public comment.

This process most approximates that used in the World Trade Centre, Battery Park City, with review processes taken primarily from the Mission Bay process. It is a process applicable where the land is government-owned and is to be privately developed. Where land is to be owner-developed by government or private developer, the Phase 2 Mission Bay process could be applied directly.

Obviously, there are other circumstances which can alter situations as previously noted, such as dramatic changes in economic climate, lack of development interest and so on. But even in London Docklands where aggressive marketing campaigns were needed to change perceptions of wasteland, these campaigns could have been carried out prior to commencing the development process rather than concurrently with piecemeal release of development sites. Where international developers are involved, there should be a requirement for them to utilise national architects, and so avoid the dumping of unfamiliar development without regard for context, such as has occurred at Canary Wharf, London and arguably with Festival Markets, Darling Harbour.

The process proposed may not be foolproof, but unless governments recognise the accountability of their actions, avoid bureaucratic delays and foster public awareness, then the future of urban waterfronts as harmonious public and private domains, with rich urban diversity and appropriateness to the waterfront, will be forever jeopardised.

4.1 INTRODUCTION

"The harbour has withstood the mangling hands of developers and increased population with her charm still undiminshed. We will find eulogies about her ranging from governors, soldiers, sailors, artists, great writers to ordinary citizens. She is eternally mercurial and a place of solace to those who pause to share her joys" (1).

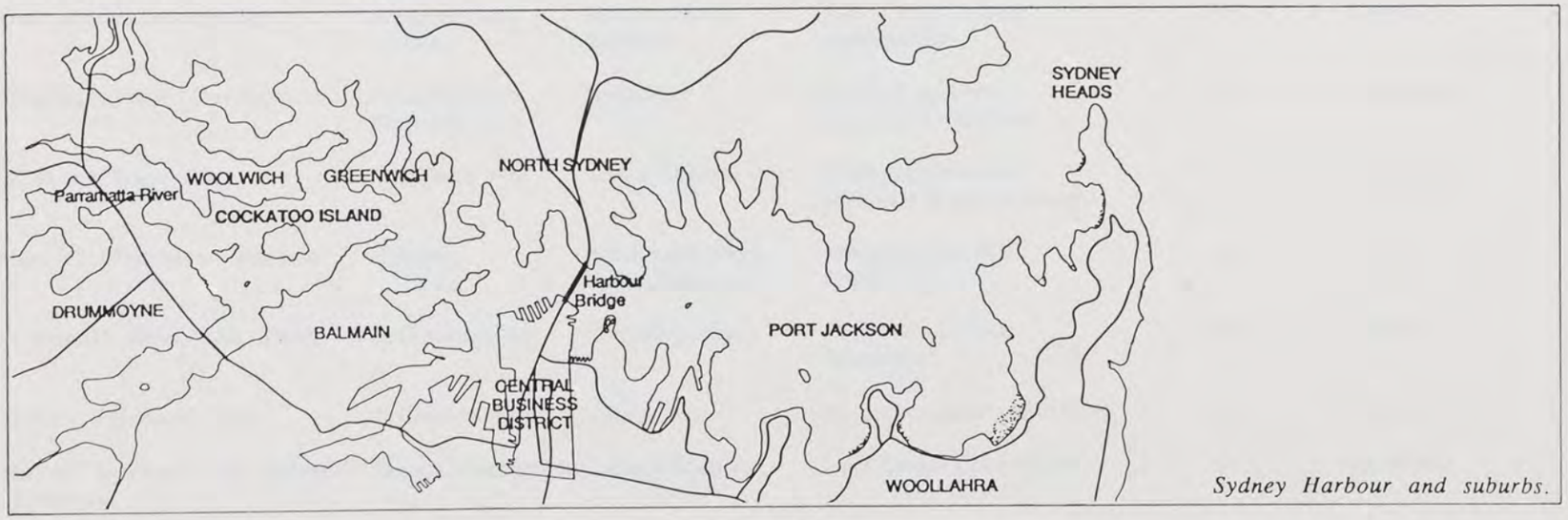
So wrote the artist John Olsen in 1979. At that time Olsen could not have foreseen the theatrical facelift that the harbour would experience in the next two decades - the rebirth of Darling Harbour and the cosmetic upgrading of Circular Quay in particular. Now there is also the pending sales by government of Cockatoo Island and Goat Island to private developers, the imminent rejuvenation of Walsh Bay wharves and surrounds, and the reshaping of Woolloomooloo Bay, both by private development. There have been several proposals to remodel the buildings along Circular Quay East and to redevelop the entire Pyrmont Peninsula. The 1988 Central Sydney Strategy recommends the redevelopment of the docksides linking Darling Harbour to Walsh Bay (2). If all of these developments were completed, not one piece of Sydney's 17.2 kilometre urban waterfront would be left unaffected within a twenty year period; only the frontage of Royal Botanic Gardens has been spared the rapacious attentions of government and developers (3).

Just beyond these limits, the inner city suburbs are encountering less dramatic foreshore treatment for high density housing - at Camerons Cove Balmain, Birchgrove, Balmain Power Station, Pulpit Point Woolwich and other strips of redundant industry.
Commerical or Tourism development promises to rearrange the faces of Luna Park North Sydney, Manly Pier and Manly Quarantine Station, Nestles Abbotsford property, Blackwattle Bay's Fishmarkets, and Parramatta on Parramatta River.
The major cities along the east coast of Australia are all endeavouring to repeat the circumstance. The struggling yet massive proposed redevelopment of the City of Port Melbourne, World Expo 1988 on Brisbane River, the proposed redevelopment of Newcastle dock and railyards along the city edge, the nervous incursions into Sullivans Cove Hobart, combine to demonstrate a scale of urban waterfront revamping comparable to Manhattan and London, and certainly more intense than any other city previously described. The accompanying matrix illustrates the type and extent of urban waterfront redevelopment either completed, underway or proposed in the last 10 years alone.

As with Manhattan's waterfront, most Sydney redevelopments are master planned and guidelines are established as they occur, but it seems incomprehensible that there is no coordinated development philosophy for our total waterfront, no predetermined concept of what should go where, no overall consideration of the resultant urban fabric. Each development parcel acts as a catalyst for another to occur - for instance, Pyrmont via Darling Harbour, Woolloomooloo Bay via Walsh Bay - yet little physical or philosophical connection is made between developments. Other than mentioning the possibility of certain waterfront developments, the 1988 Central Sydney Strategy has virtually no recommendations for how the waterfront should be developed, nor does it suggest whether or not a comprehensive waterfront policy is desirable. Yet it has the audacity to romanticise:

"The harbour is the city's most outstanding feature. Sunlight and sea breeze combine to create sparkle, the movement of ships and boats creates a lively scene and the City Centre is seen against this most vivid setting."

More puerile escapism could hardly be imagined. The opportunity for the Strategy to definitively describe, criticise and replan this 'most outstanding feature' in a time of such intense onslaught is not even mentioned, save the Strategy's repeated notion to upgrade the western city dockside, the last remnant of the shoreline not yet tackled by others. Even there, where it's one of only two stated objectives for the harbour to 'extend public access to the waterfront', it proposes an elevated deck preventing forever direct public accessibility (4). Its reasons for maintaining the dock as a working port are romantic; there is no study of whether the docks will remain viable, as virtually every other port city has done (5).



Sydney Harbour and suburbs.

COMPLETED, CURRENT AND PROPOSED WATERFRONT REDEVELOPMENTS, AUSTRALIA 1980-1990 (AT MID-1989)

	Status	Primary Purpose	Development Process	* Size	Developer/ Financier
Sydney					
Darling Harbour Redevelopment	50% complete	Recreation, tourist, Business, Hotel	see below	L	Government & Private
. Sydney Exhibition Centre	Completed 1988	Exhibition/Banquet	Govt contract	M	State Govt
. Sydney Convention Centre	80% complete	Convention/Banquet	Govt contract	M	State Govt
. Chinese Gardens	Completed 1988	Recreation	Govt contract	-	State/Chinese Govt
. Festival Markets	Completed 1988	Retail/Restaurants	Govt sought exclusive developer	M	Private
. Australian National Maritime Museum	80% complete	Recreation/cultural	Govt contract	S	Commonwealth Gov
. Casino/Hotel Development	Abandoned	Recreation/Hotel	Design/develop bids selected	L	Private
. East Promenade	At tender	Retail/Office/Hotel	Design/develop bids selected	L	Private
. Corn Exchange Development	Tender awarded	Hotel	Design/develop bids	M	Private
. West Side Hotel Development	Tender awarded	Hotel	Design/develop bids	M	Private
. Sydney Aquarium	Completed 1988	Recreation/Education	Design/develop bids selected	S	Private
Walsh Bay Redevelopment	Design Development	Tourist/Office/Hotel/ Residential	Design/develop bids off Selected list	L	Private
Woolloomooloo Bay Redevelopment	Design Development	Hotel/Retail/Residential	Private negotiation with govt	M	Private
Circular Quay Upgrading	Completed 1988	Recreation	Government	-	State Govt
. Overseas Passenger Terminal	Completed 1988	Passenger terminal	Government contract	S	State Govt
. Campbells Cove Hotel	70% complete	Hotel	Design/develop bids off selected list	S	Private
Circular Quay East Redevelopment	Abandoned	Office	Owner negotiation with govt	L	Private
Cockatoo Island Redevelopment	Expression of Interest	Residential	Sale or lease to open developer bids	M	Private
Goat Island Redevelopment	Awaiting Govt initiative	Museum/Hotel/ Yachting	Sale or lease to open developer bids	M	Private
Pyrmont Peninsula Development	Awaiting Govt Response	Residential	Owner & developer negotiation with Govt	L	Private/Govt
Brisbane Expo 88	Completed 1988	Tourist/Recreation	Managing Contractor appointed by exp. of interest	L	Government
Port of Melbourne Bayside	Delayed	Residential/Office/ Tourist/Recreation	Design/develop bids Selected list	L	Private
Newcastle Dock/Rail Yards	In Consideration	Hotel/Recreation	Design/develop bids Selected list	M	Private
Hobart Elizabeth Pier	In Consideration	Tourist/Retail	Private negotiation with Govt	M	Private
Hobart International Antarctic Museum	Design Development	Cultural/Tourist	Open Design Competition	S	State Govt

* Large: Over 100,000 sq m; Medium: 10,000-100,000 sq m; Small: Below 10,000 sq m Development or Site

Currently underway urban waterfront developments in Sydney.

This section does not give a detailed description of the history of waterfront use in Australian cities, as has been provided for the American studies, for our historic development parallels the American situation and is generally familiar. The city's early reliance on ports and trade, the construction of wharves and piers of various configurations, the landfilling for railways and yards for transporting of goods from and to Darling Harbour, the encircling of the city at the water's edge for vehicular flow exemplified by the Cahill expressway, the advent of containerisation rendering traditional wharves and port industry redundant, the rapid deterioration of the waterfront, closely follows the broad timeframe of American port cities like San Francisco, Boston and New York as well as Liverpool and London.

What is important, with some hindsight, is the state of the waterfront and the city itself, when redevelopment began to occur for Darling Harbour in the early 1980s. Some previous important waterfront redevelopments had occurred prior to that time, and Sydney's foreshore along Circular Quay and Darling Harbour has continuously redeveloped since settlement. In the late 1970s, the redevelopment of Woolloomooloo basin into low rent housing after an unprecedented public and union-led upheaval would seem to have had little ripple effect on other waterfront development, either because the union movement has lost or had diluted its power base, because of general public apathy, or because the objectionable nature of the original Woolloomooloo commercial proposal in an established neighbourhood, has never re-emerged.

A comparison of the 1980 and 1988 City Strategy plans is relevant in order to assess government policy to the waterfront. The decision to recreate Darling Harbour for the Australian Bicentenary occurred separately to strategies, and it is the process of development for that major event which is most discussed, as well as the development itself, in order to assess its merits in terms of contemporary overseas urban waterfront philosophies. An objective is to determine whether an alternative approach to the present piecemeal, uncoordinated urban redevelopment methods could have, or can still, work and what such an approach might produce in planning and design.

4.2 SYDNEY STRATEGY PLANS

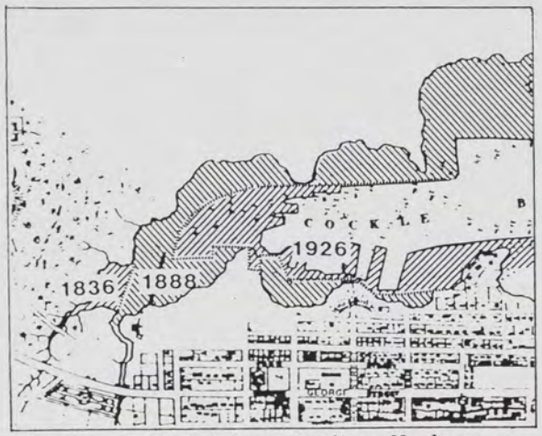
There have been several grand plans for Sydney. The first was that of Governor Arthur Phillip lining the military on one side of Circular Quay with official residences on the other. The second belonged to Macquarie's architect Greenway whose arcadian vision, based on 18th century romanticism, of the city as an ordered garden was partly realised. The third was the result of the gold boom, coinciding with the period of Victorian eclecticism, which saw much of Georgian Sydney replaced by a 4-5 storey scale and most of the grand civic gestures - Queen Victoria Building, Bridge Street Government offices, the Town Hall and Cathedral - constructed.

In 1909 the Royal Commission of Enquiry sought to substantially overhaul previous concepts and establish a new vision for Sydney. For the waterfront, much of the present form of Circular Quay, and the acquisition of headlands and foreshore for parkland and recreation, date from this period.

Since then, there has been little endeavour to make holistic plans for the city. The 1956 Cumberland Plan sought to impose constraints on development and to establish green belts. Controls were reinforced in the 1971-1972 strategic plan but there was little emphasis on the Central Business District, rather on suburban growth. The most devastating redevelopment of Sydney followed in the 1960s building boom, and without a plan, government was unable to resist the indiscriminate ravaging of Victorian Sydney.

Some comment was made that Darling Harbour had redevelopment potential and subsequent studies investigated various recreational and residential opportunities. The 1974 Sydney Area Transportation Study reinforced the redevelopment potential and in 1978 a NSW Government study initiated redevelopment of the adjacent Haymarket area.

The 1980 Strategic Plan prepared by the City Council recognised the importance of harbour front for tourism, and the need for public accessibility to the foreshores by open space creation (6). It was orientated toward the Central Business District and encompassed an area

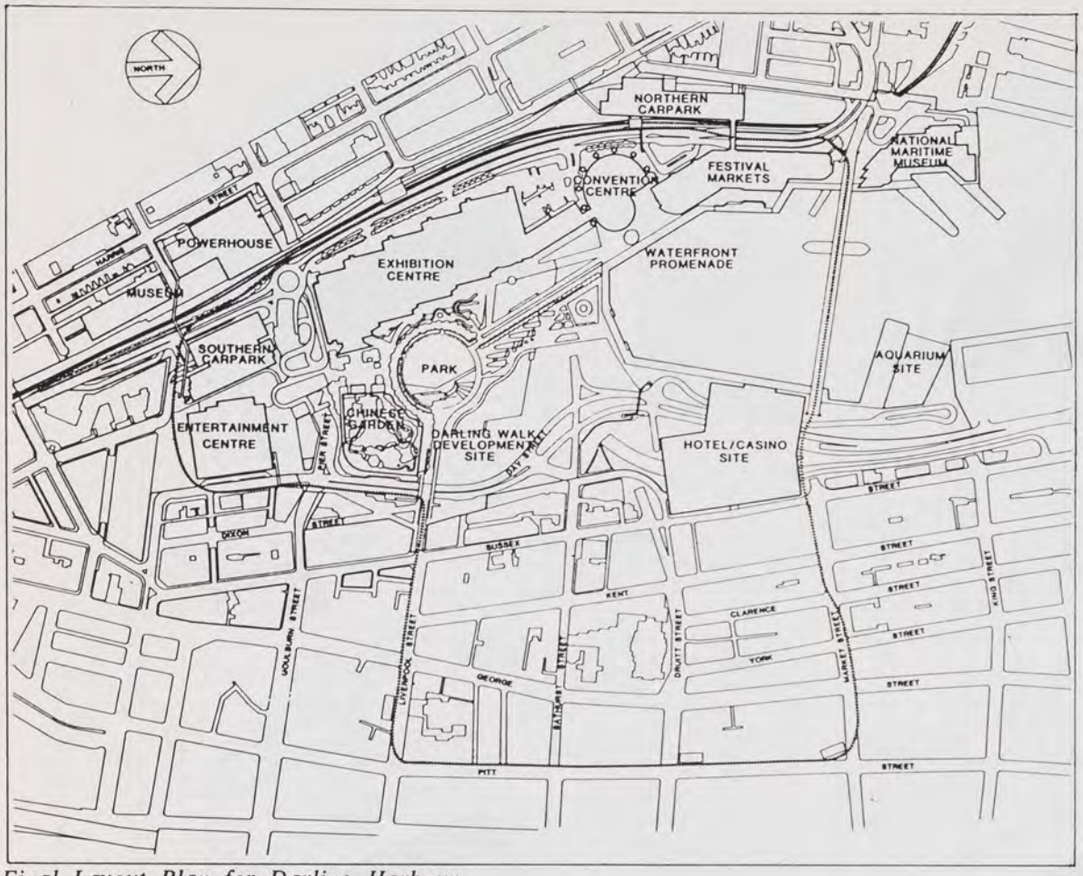


The stages of infilling Darling Harbour, formerly Cockle Bay.

containing all of Sydney's urban foreshore. In 1980, over 60% of the urban foreshore was in either port, industrial or defence use, less than 25% was accessible open space, and less than 5% residential. The plan noted Council's limitations on foreshore control because of Maritime Services Board authority, but recommended removal of Woolloomooloo pier to create accessible public space on the waterfront, and recommended Blackwattle Bay be made into a waterside park (7). It placed particular emphasis on the potential for Darling Harbour as a Bicentennial Park for Expo 88, with housing and some commercial uses (8). Meanwhile, the Maritime Services Board still planned to demolish the old Pyrmont Bridge and extend the longshore wharfage further inside Darling Harbour. In 1982, the Premier had the State Department of Environment and Planning prepare a plan for medium density residential development around a central open space. The plan was revised in 1983 to include some of the current elements of Darling Harbour in addition to residential uses, and the Maritime Services Board and railway authority were subjugated. The Darling Harbour Authority was established in October 1984 to control and oversee the redevelopment.

The 1988 Central Sydney Strategy exhorted government to complete the Darling Harbour Redevelopment, and described the Pyrmont peninsula as being contiguous with Darling Harbour, 'the most exciting city edge redevelopment possibility in Australia' (9). The principal recommendations were for the foreshore to become an 'urban park' linking Pyrmont Bridge to the Fish Markets on Blackwattle Bay, and for the hinterland to become a mix of housing and office development. The plan also called for the maintenance of the visual importance of Woolloomooloo Bay, Sydney Cove, Walsh Bay and Darling Harbour (10), whatever that means, and the implementation of the Darling Harbour Authority's Concept Plan. It supported the 'balanced revitalisation' of Walsh Bay finger wharves for 'residential, recreational and commercial activities' (11) and recommended the linking of Darling Harbour to Walsh Bay by public terrace over the western dockland (12). It supported retention of that dockland (13) as part of the city's urban fabric.

Each of these recommendations is laudable in itself and, in keeping with urban waterfronts elsewhere, its emphasis on creating waterfront walkways along the entire foreshore is also commendable. The plan recognised that there are opportunities to finish the waterfront redevelopment at Woolloomooloo and Walsh Bays, and Pyrmont Peninsula, but could not even approach the concept of an integrated waterfront approach. It failed to appraise any previous foreshore development and essentially praised the status quo. The plan's most sweeping recommendation was for the CBD to reinforce its north-south tower spine along the natural ridgeline, by grading building heights down to the water's edge especially along Darling Harbour. How absurd this great gesture will seem when the towers of Darling Harbour's East Promenade and Corn Exchange redevelopments march obstructively along that edge, under the autonomous control of the Darling Harbour Authority.



Final Layout Plan for Darling Harbour.

4.3 THE DARLING HARBOUR PROCESS

In a familiar reflection on the lack of urgency with which cities have viewed the need to revive their obsolete waterfronts, Ann L. Buttenweiser wrote in 'Manhattan Waterbound':

"Then an event occurred that provided the extra impetus needed to translate dozens of new waterfront visions into reality - the nation's bicentennial ... Citizens of waterfront cities across the United States suddenly awoke to the possibilities of recapturing their ugly, dirty shore" (14).

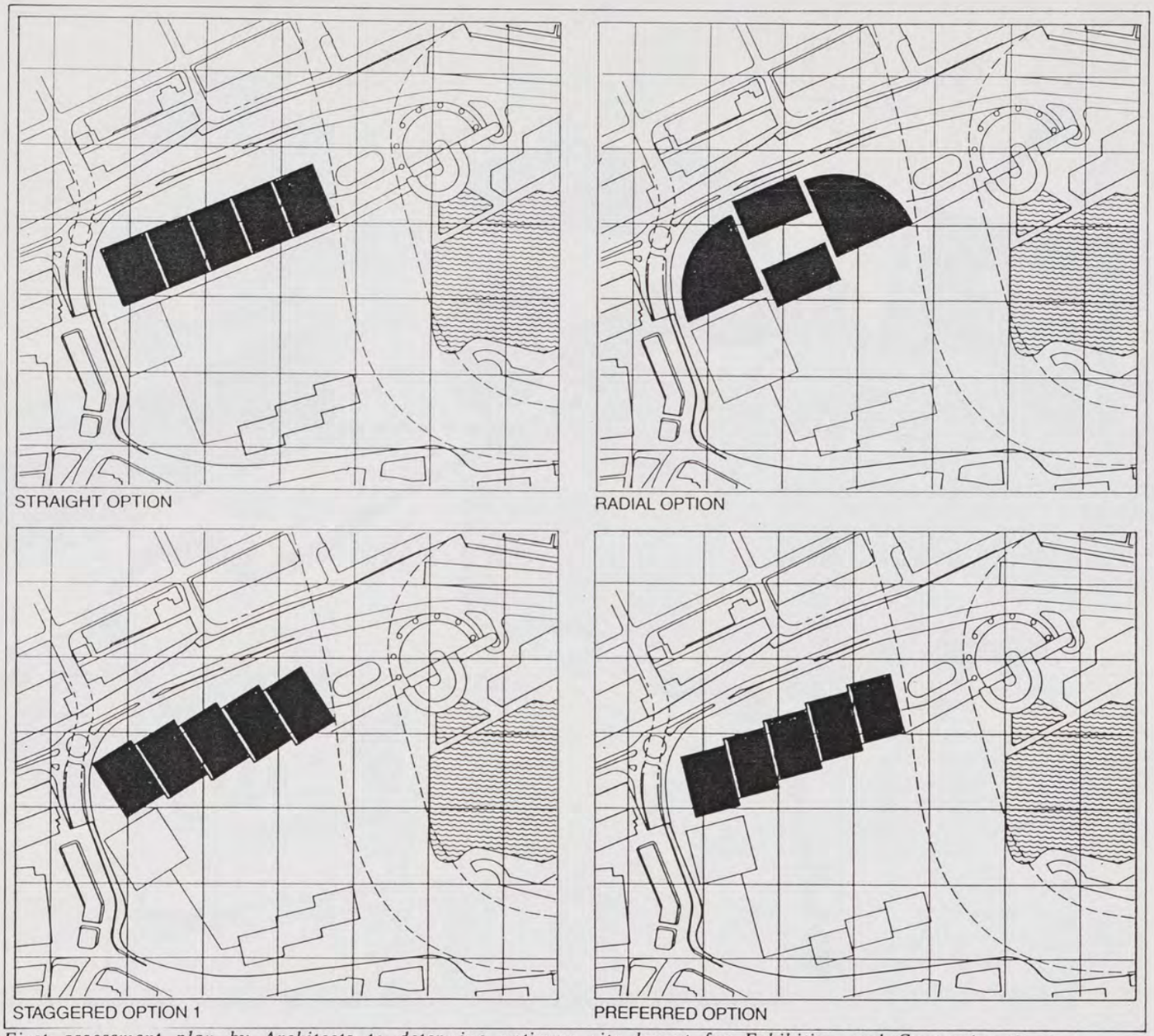
While the resumption of Darling Harbour Goods Yards had been mooted for a Bicentennial Park in the 1980 Strategic Plan for Sydney, it was not until May 1984 that the Premier publicly announded that Darling Harbour would be redeveloped as Sydney's bicentennial gift to the nation. Most of the present buildings were announced at that time - the exhibition centre, convention facility, park and foreshore promenade, Chinese garden, National Maritime Museum, harbourside market, 'people mover', and commercial and hotel development (15).

It is a remarkable achievement that only 3-1/2 years later the Bicentennial celebrations would be opened there, even if only the Chinese Gardens and Festival Markets were complete (16). The achievement reinforces the previously discussed conclusion that government commitment and intervention is essential for any major waterfront redevelopment to occur. The major intervention was the establishment of the Darling Harbour Authority in October 1984 under the Minister for Public Works, Mr Laurie Brereton. It was this particular project which cruelly resulted in the sacking of Mr Brereton just prior to its opening, presumably because his 'megalomaniac' attitudes were considered too risky to take into forthcoming elections (17).

By the end of December 1984, the Authority had appointed private consultants - the MSJ Group - as its Project Design Directorate (18) to research and master plan the new redevelopment, and a private construction company - Leighton Contractors - as the Managing Contractor to undertake project management, financial and construction programming, preparation of contracts and supervision of the whole. As a check on their activities, the Authority also established a Quality Review Committee consisting of eminent architects and society representatives. Barry Young, the Directorate's leader, describes the system of creating a 'public authority', exempt from all existing development control legislation, as '... an efficient method for the short term development of a specific area that is government owned' (19). While this has proved true in comparable overseas developments, it has not yet been seen to produce effective urban design quality, particularly where existing development controls are abandoned.

The development process for Darling Harbour, for the State-funded buildings is documented by Barry Young in 'The Design of Sydney' as follows:

- 'determination of land uses by Authority;
- interpretation of the proposed activities into a development strategy and preparation of design guidelines by the PDD;
- critical review of concept design proposals by the Quality Review Committee;
- acceptance by the Authority, or revision;
- for State-funded public buildings (Exhibition Centre, Convention Centre) transmission of design concept at brief from the PDD to the Managing Contractor;
- design development and documentation by the Managing Contractor;
- review by the Project Design Directorate and Quality Review Committee to ensure that the essential integrity of the concept is retained - decision by the Authority;
- cost estimates, programming, tender preparation and tender calling by the Managing Contractor;
- tenders called and reviewed, Authority approval, construction contracts awarded;
- coordination and supervision of construction contracts by the Managing Contractor - final control by the Authority.' (20)

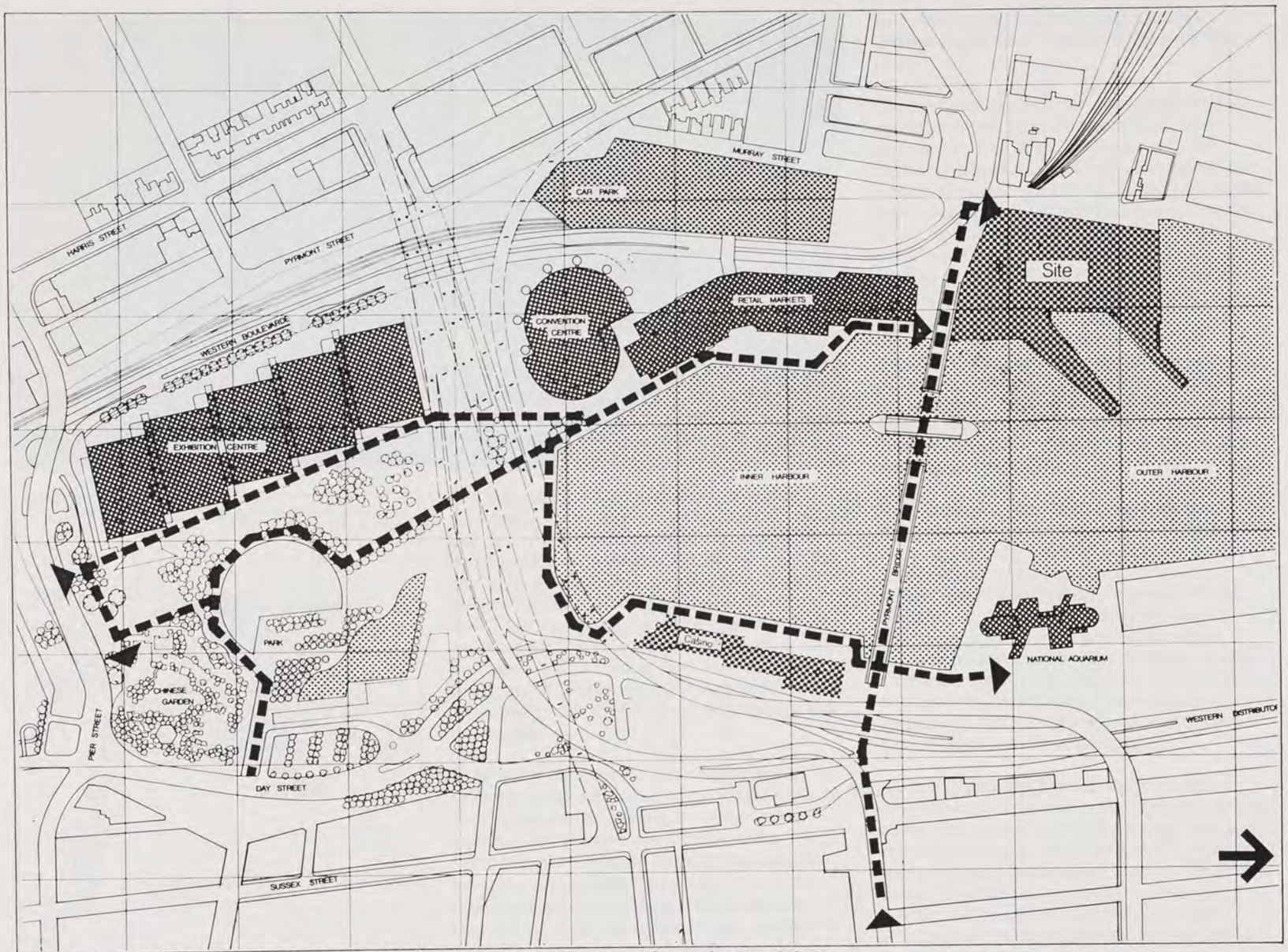


First assessment plan by Architects to determine optimum site layout for Exhibition and Convention Centres.

Mr Young notes that the Project Design Directorate took on the public open space as its responsibility 'to ensure that the project as a whole is held together to produce its special identity.' He glosses over the process for private development components, noting that the Managing Contractor does not have a role, and that expressions of interest are culled into a shortlist with selection of a developer arising from detailed proposals, his financial track record, his development track record, design quality and functional viablility. He does not enunciate the fact that all of the private developments - Aquarium, Festival Markets, the aborted Casino project, Hotels - were chosen on the basis of their development package rather than on their design qualities.

4.4 THE PROCESS CRITICISED

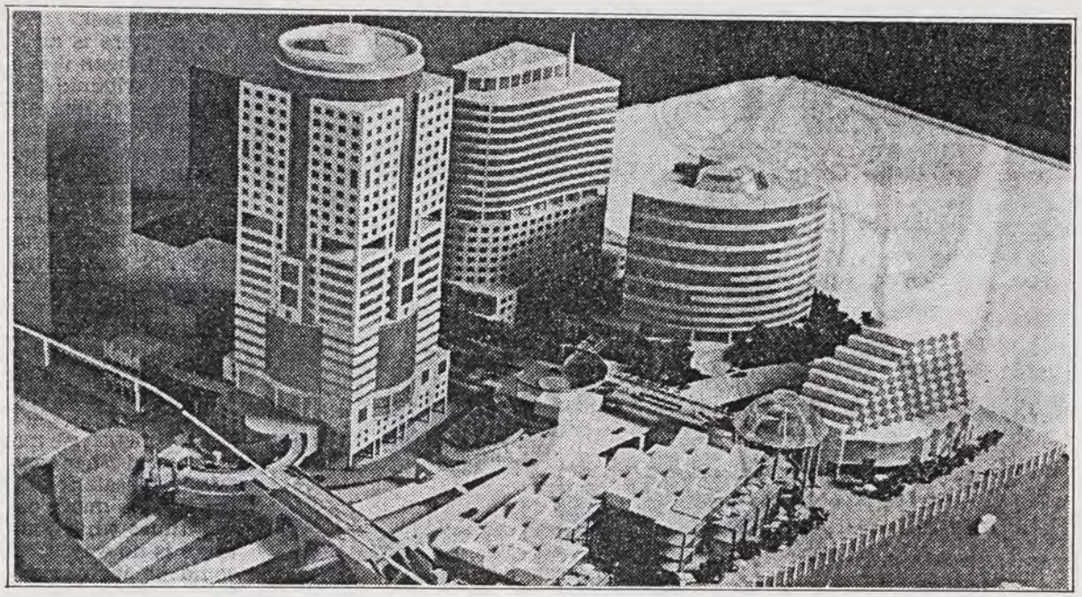
What Barry Young failed to point out was the way the process should have worked. Superficially, the various steps were generally followed. However, he embarks on a lengthy

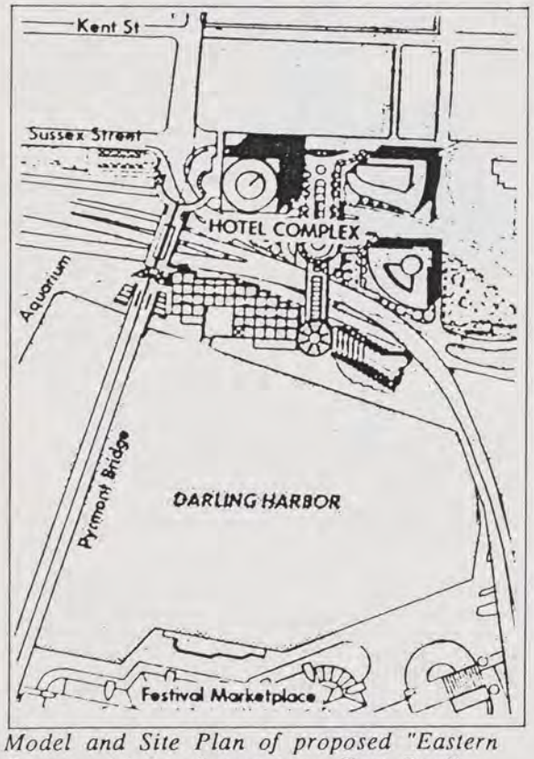


Site Analysis for Australian National Maritime Museum showing relocated site definitions.

description of how the Project Design Directorate organised its design teams and projects, and how the design process arrived at the preferred option in 'truly an ongoing iterative process' (21). He provides a detailed description of the alterations to the approved planning concept between December 1984 and July 1985, but does not recognise that most of these changes resulted from previous injudicious decisions (22).

The most severe change to the PDD concept plan occurred with the appointment by the Managing Contractor of two private architectural firms to design the first projects, the Exhibition and Convention Centres - Philip Cox, Richardson, Taylor & Partners, and John Andrews International. What they found was a plan that simply couldn't happen. The Exhibition Centre Halls were proposed as an amorphous collection of quadrant shapes, totally inappropriate to exhibition functions as evidenced anywhere overseas. Further, the proposed 30,000 square metres site along the western edge of the southernmost zone was intended to accommodate an Exhibition Centre of 25,000 square metre footprint and a 3,500 seat convention centre, a physical impossibility. To make matters worse, the Authority had not yet obtained ownership of





Model and Site Plan of proposed "Eastern Promenade' Development on East Darling Harbour by Ancher Mortlock and Woolley -almost no waterfront nor city rapport save the mandatory promenade setbacks. The results of a design development tender contest for the fourth time around with economics dictating design.

part of the land, a Mr Yates sternly resisting resumption. It was the private consultant, Philip Cox, who rescued that calamity. He proposed the Convention Centre be relocated off the Yates land to its present position to the north of the western distributor, simultaneously solving the ownership and the site area problems. He regulated the Exhibition Centre into five equivalent halls providing it with the necessary flexibility of use that the PDD form had ignored. Thus, the 'grand plan' along the western edge had to be recast.

Even worse has been the eastern experience. The originally proposed 'international village' resulted in debacle when the private sector showed no interest. The planners quickly moved the international hotel to fill the large gap but that too never eventuated. On the other side of the distributor, the proposed gigantic casino-hotel project has proved the ultimate farce. Intended to fulfil 'the important design requirements for that complex - that it successfully bridge the expressway barrier and link the city to the harbour' (23), this project underwent no less than three design and development tender scenarios, at immeasurable cost and time loss to the private sector, before being finally abandoned. The only elements to have weathered the process occur at the extreme southern and northern extremities, the Chinese Garden and the Aquarium. Even the aquarium was aborted at one stage to help facilitate government spending cuts, and was only resurrected by private developers, who perhaps should have been involved in the first place.

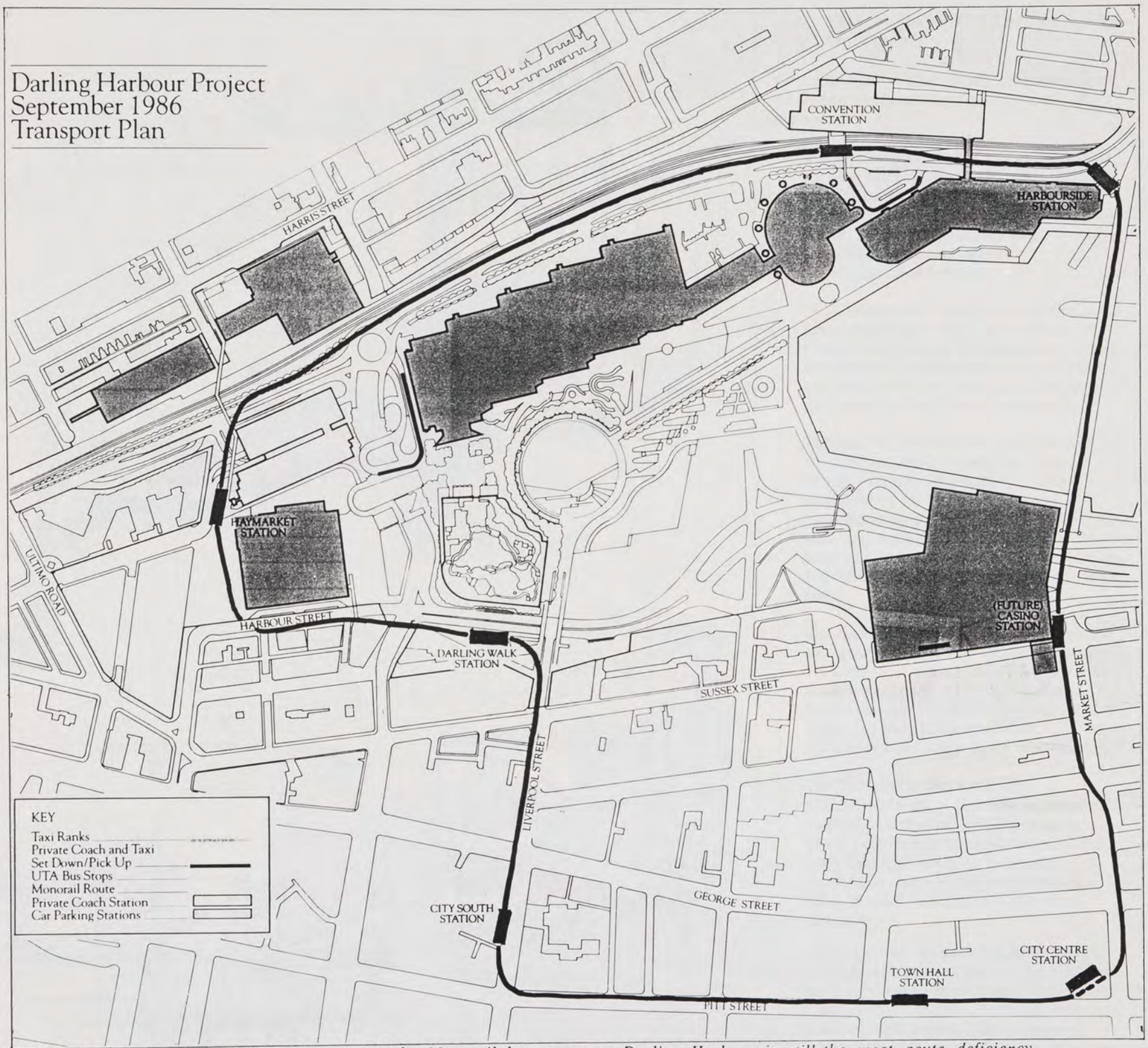
The kind of urban waterfront development that results from this ad hoc process is one of expedience. The blame lies partly with the Authority and its Project Design Directorate for its lack of research and foresight, and partly with the Government for its vacillating commitment. It was nevertheless fortunate that two halls of the Exhibition Centre were available come January 1988 to stage the bicentennial opening, albeit in a costly and hastily prepared Stage 88 exhibition.

The Government did not waver in its commitment to the 'people mover', the one element of Darling Harbour to cause dramatic public unrest. With pedestrian links between Darling Harbour and the Central Business District almost non-existent, what else could it do but push on regardless.

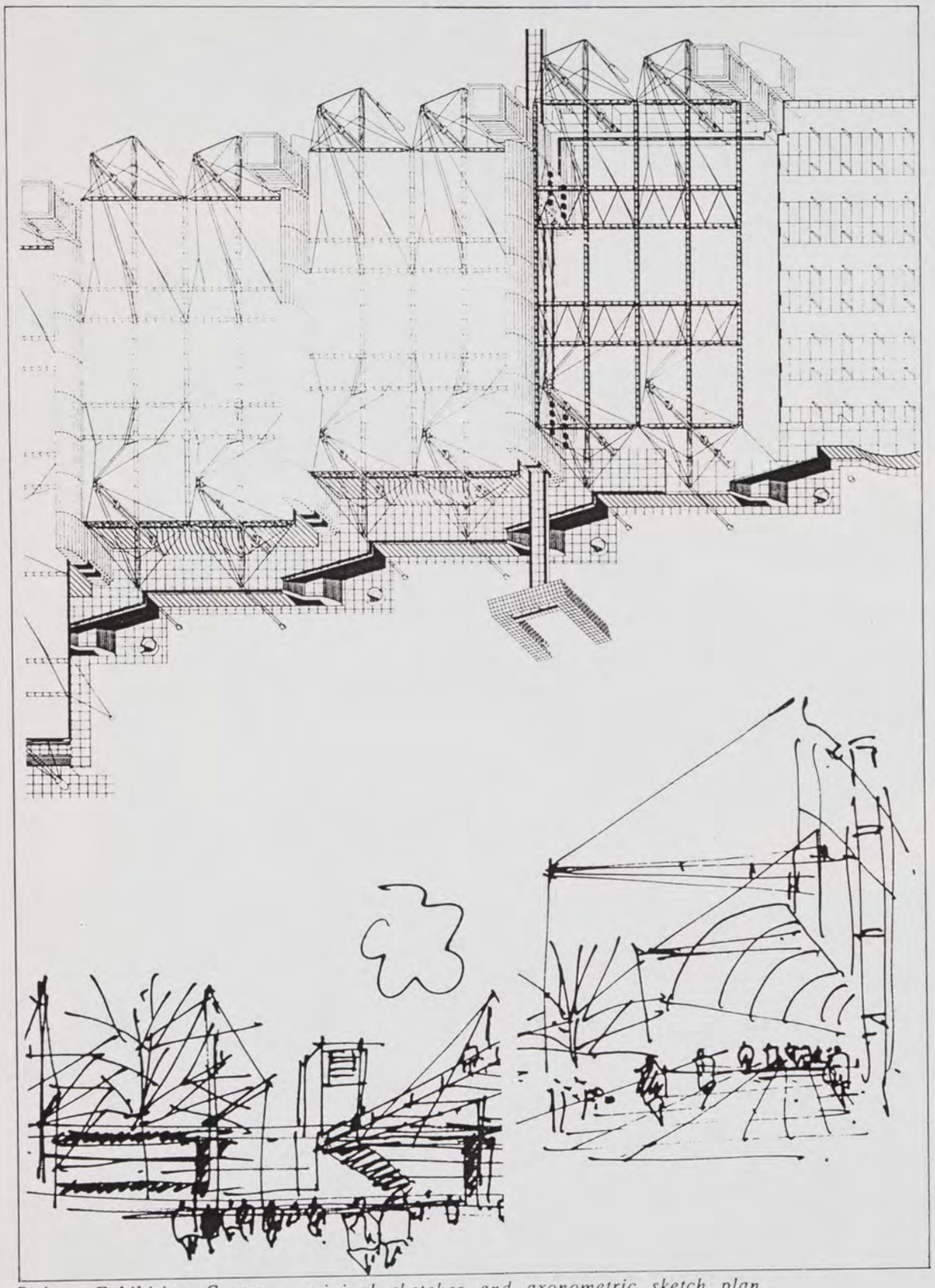
In order to recuperate from massive financial outlay, the Government has now commenced the release of virtually every remaining undeveloped area by tender to the private sector for megastructure development. A hotel over the northern carpark looming behind the markets, another massive hotel on freeway air-rights between the aquarium and the diminutive historic Corn Exhange building (24), and an even larger hotel and commercial development on the old casino site, will collectively make the present Darling Harbour into a 'toy town'.

To the Government's credit, Darling Harbour may still have wallowed in obsolescence, or been turned into a set of suburban playing fields, had it not intervened in the City Council's plans and given Sydney a Bicentennial facelift. The Project Design Directorate too should not be overly condemned, faced as it was with such tight programmes, changing government attitudes and unknown feasibility. Darling Harbour is a resoundingly popular place even if the only available entertainment is provided by the Festival Markets, Chinese Garden, Aquarium, park, waterfront promenade and occasional exhibition.

What is important is the farcical nature of the development and design processes that generated Darling Harbour, and the haphazard development form that is produced by them.



PDD PLanning Layout for linking components by Monorail but access to Darling Harbour is still the most acute deficiency.



Sydney Exhibition Centre - original sketches and axonometric sketch plan.

4.5 THE FORM OF DARLING HARBOUR

One year after the Bicentenary, the present form of Darling Harbour's built components is as follows:

- The Exhibition Centre is a superbly elegant series of staggered halls and masts, reflecting appropriately nautical themes, defining the park's western edge, maintaining a scale as human as possible, and providing a foil of materials and articulation to the uncompromising freeways.

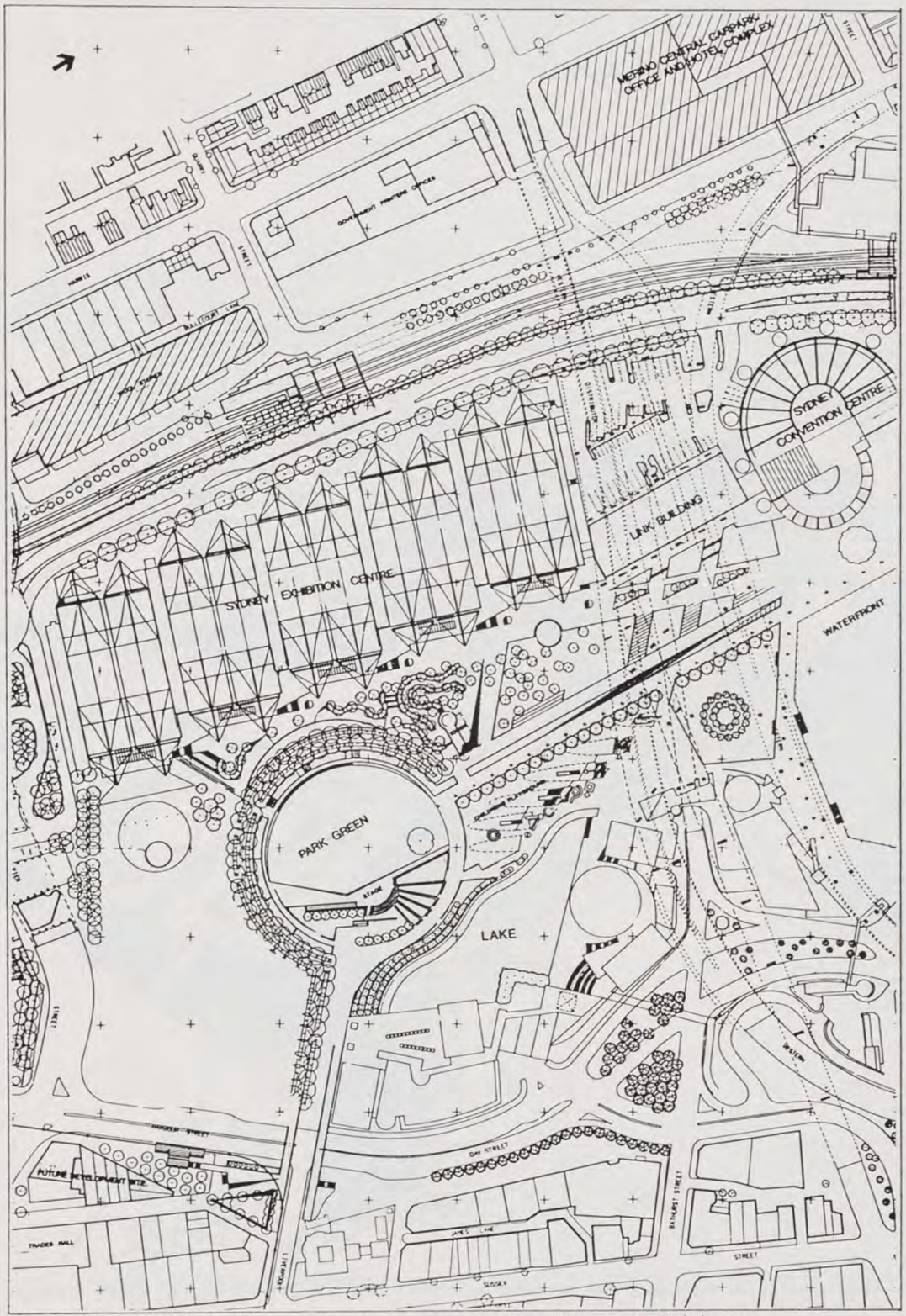
- The Convention Centre reflects its functional requirement, has a muscular composition endeavouring to defy the brutish freeways, is unfortunately but necessarily introspective, but stands defiantly among its exclusively steel and glass neighbours, unfinished.

- The Festival Markets is the one private development along the western foreshore, seeming to have been shipped in from Baltimore by the Rouse Corporation, sprawled along the waterfront in cheap steel structure, but immensely appealing to the suburban shopping centre mentality wanting fast food, distracted pedestrian flow and folksy crafts.

- The Australian National Maritime Museum, an ingeniously thematic and crafted series of cut-away steel vaults, rising from low scale at the water's edge to express its presence behind the old Pyrmont Bridge, orientated in theme and form to the waterfront, but wallowing from union action incomplete.

- The Chinese Garden is the city's acknowledgement of the Chinese presence in Sydney, visually linking Chinatown to Darling Harbour, necessarily but sadly walled from Darling Harbour by symbolic requirement, and questionably appropriate either in public parkland or in an urban situation.

- The Aquarium appears through its form to be the baby brother of the maritime museum, but it is primarily an underwater facility and is aptly understated above ground, is the harbour's only genuine pier component reminiscent of the past, and helps define the northern edge of the redevelopment area.



Final plan of Darling Harbour southern zone showing 'Urban Park ' layout.

The 'urban park' was intended to be "the focal place in Darling Harbour with clear and strong connections east to the city along Liverpool Street, north to harbour and south into Chinatown" (25). Together with the waterfront promenade, it was to create Darling Harbour's 'special identity' and tie the other disparate elements into a unified whole. As E.M. Farrelly remarked in The Architectural Review, however, everything in Darling Harbour has a special identity:

"Everything at Darling Harbour is special. It is all sixpences and no pudding. That is not to say it is not enjoyable, or popular, or appropriate, or Australian. It is in many ways, all of these things. But it is not in any of the usual senses of the word, urban." (26)

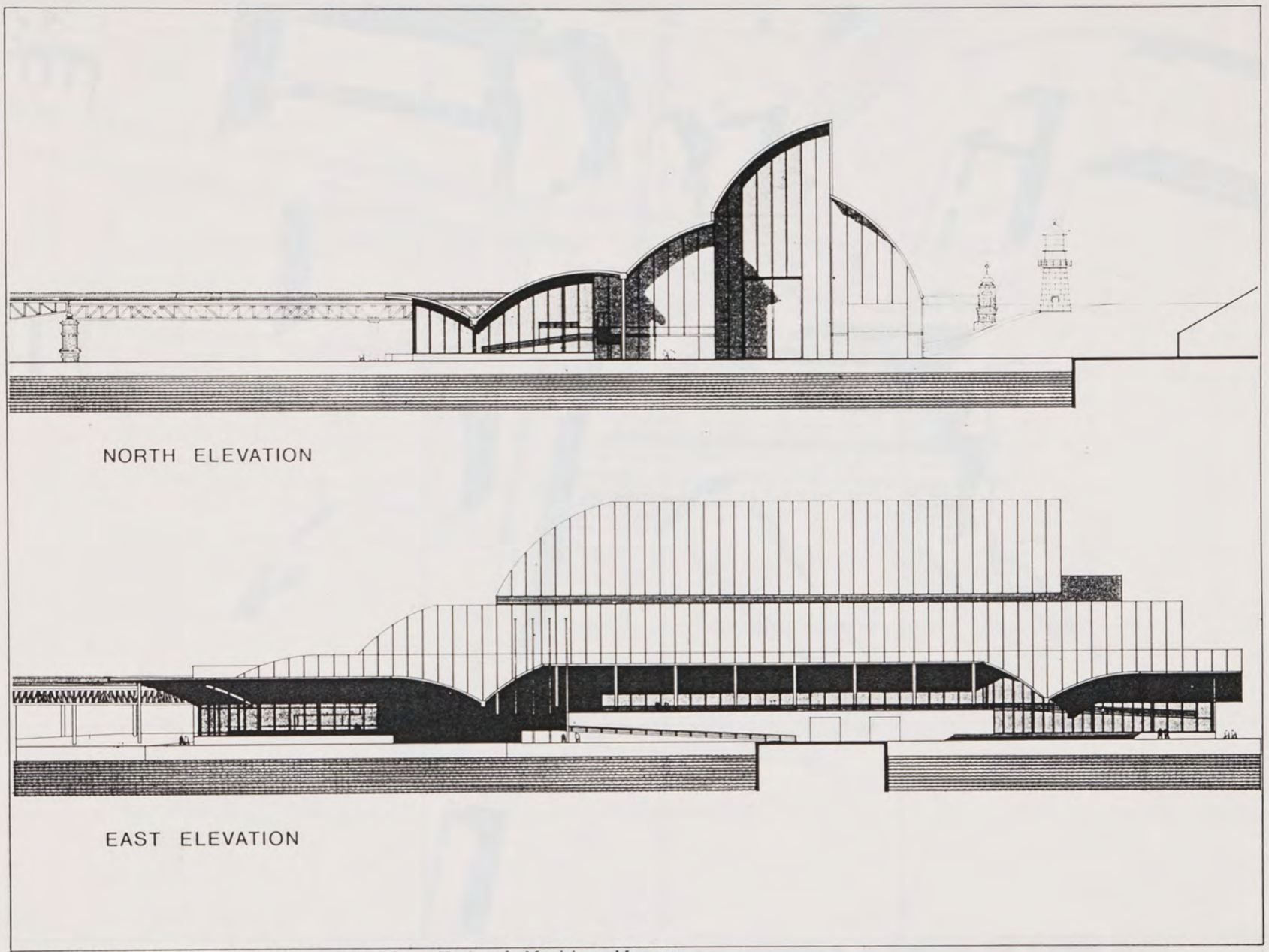
Nor is the Park urban; it definitely is not the place Barry Young envisaged - "a softly landscaped city mall like Martin Place", even though his team designed it. Unlike Hyde Park, which is formally disposed, or Centennial Park which is informal, Darling Harbour Park is a confusion of both.

Coming from the Project Design Directorate, the park symbolises what is wrong with the whole causal mentality behind Darling Harbour. Where cities like San Francisco are reconnecting city precincts together with their urban waterfront redevelopment at Mission Bay, or like New York are pulling urban fabric back to the waterfront at Battery Park City, Sydney's planners have done the opposite. They have in Farrelly's terms created 'an exclusive, populist, escapist fun-zone, turning even citizens into tourists' (27).

Darling Harbour has no elements typical of urban environments. It has no twists or turns, no intimate contained spaces, no system of vistas, no pedestrian walks defined by built form, no diversity of use, no surprises, no changes of scale, no interconnections; even traffic, if undesirable, belongs somewhere in urban places. Its functions are equally non-urban - there are not as yet any residential, office, educational or general retail functions. Except for Pyrmont Bridge, there is also no remnant of history or urban growth to link the place with its 200 years of urban development.

Unlike urban environments, Darling Harbour is comprehensible in one view, all assembled as one might lay out clothes for a dinner party, and

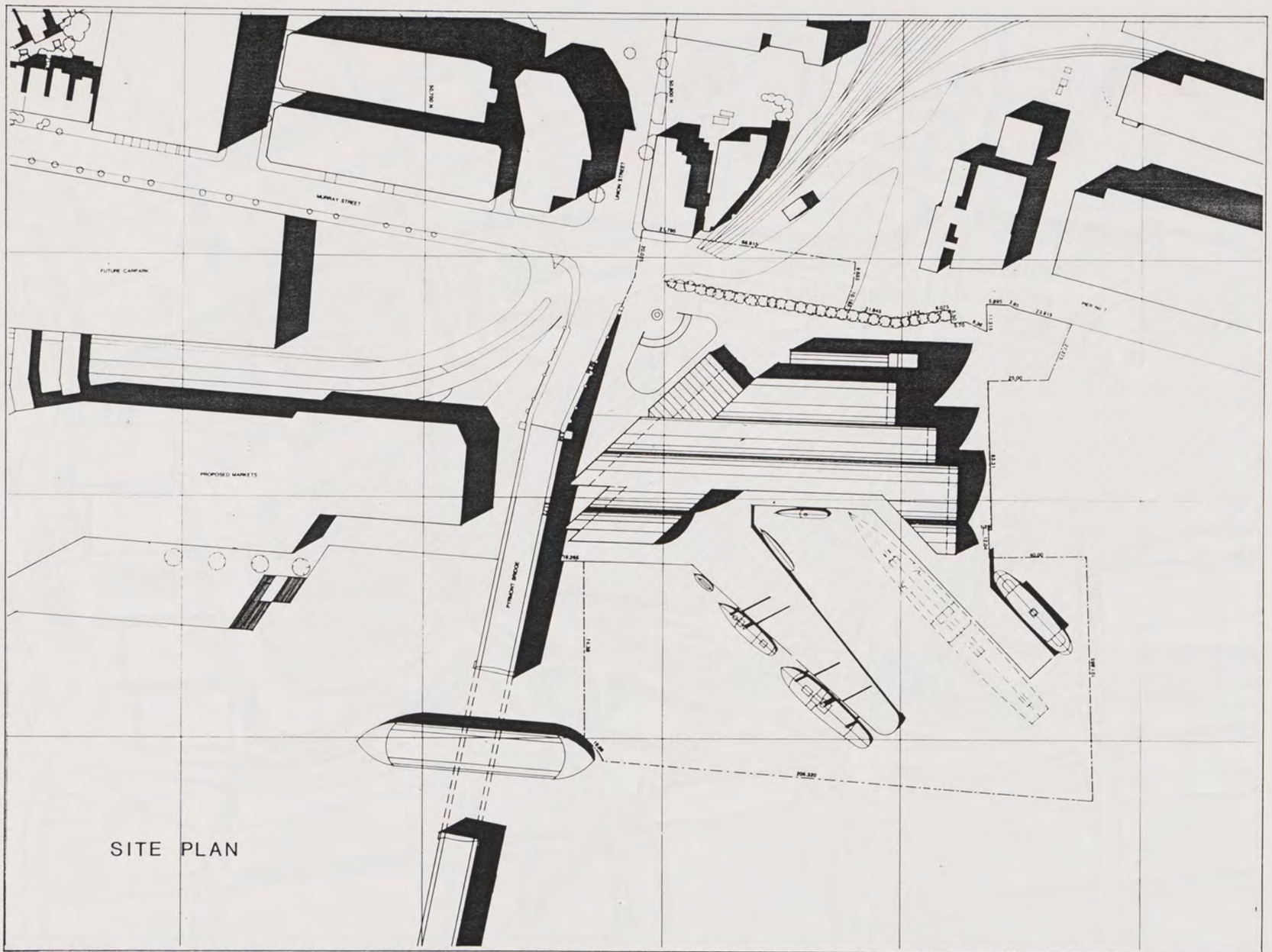
Perspective sketch design by Philip Cox of Darling Harbour for Aquarium project in 1987.



Final Architects' sketch plans for Australian National Maritime Museum.

it is precisely for that purpose that it was created. As the party is now over, and momentarily considering that it might have been intended to become a rich urban waterfront environment lasting generations, it is possible to reflect on what the Mission Bay or Battery Park City planners could have done.

Although the motorway distributors remain as visual barriers between the land and water zones, and are very definite physical barriers to pedestrian access from the city, there could have been more effort to visually, and in places physically, link the city and Pyrmont streets through Darling Harbour. Even the PDD had as a stated objective 'to overcome the road and rail barriers around the site with convenient pedestrian walkways, at ground level where possible to avoid going up, across and down, overhead walkways' (28). The fact is that there is no way of accessing Darling Harbour from the central city other than by elevated walkway or monorail. The resolution of the angled connection between Pyrmont and the CBD streets at Darling Harbour could have generated one of the most exciting and meaningful integrations of urban fabric (29). A link could have been

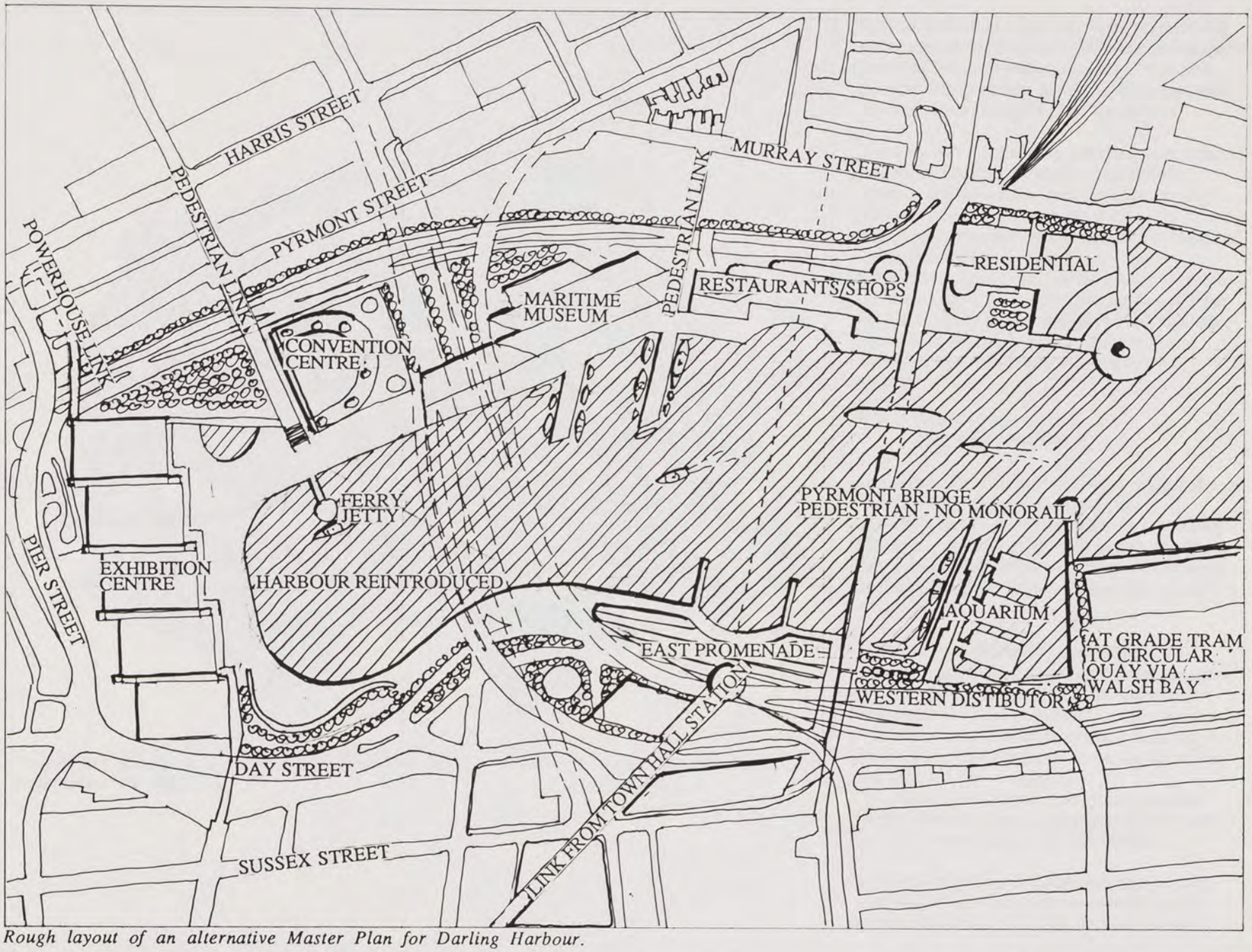


Architects' site layout plan for Australian National Maritime Museum showing relationship to waterfront and Pyrmont Bridge.

established from Town Hall Station over Kent and Sussex Streets into the proposed East Promenade (former casino) site and directly down to the waterfront promenade.

It must be considered how much the PDD held onto their precious 'urban park' as their baby, since much of their master planning had been revised for them by others. Should not the opportunity have been taken to bring the harbour back south to the extremity, given that there were no commercial influences, and in spite of underground services? Would this have not better integrated the harbour redevelopment through the freeway barrier? It would have reduced public open space, but would have channelled people into more dense patterns of movement, characteristic of city life. If the raison d'etre of Darling Harbour was the water, then why wasn't the water maximised?

The exhibition centre could have been rotated to run along the southern edge and thus preserve City/Pyrmont street vistas as well as providing a climax at the head of the harbour. This, too, would have provided space for high density housing along the western edge, bring Pyrmont



Rough layout of an alternative Master Plan for Darling Harbour.

down to the harbour. It would have displaced the Chinese Garden, but the worth of that component has already been disputed. More housing could have been provided along the eastern edge, and this would have given Darling Harbour a permanent population and a less touristy and transient image.

North of the distributor, it is admirable that Pyrmont Bridge is retained as a pedestrian link across the harbour, but then there is the intrusive and slug-like monorail on its gross substructure lurking overhead. With a pedestrian link established from Town Hall station to east Darling Harbour and onto Pyrmont Bridge, would a monorail have been necessary at all? Could not, if necessary, the transport system been better served by an on-grade light rail or tram link from Circular Quay around the back of the waterfront? Surely this would have provided a more scenic route than the monorail capsule, from which people stare into the first floor offices of city buildings. The monorail's savage incursion into the city fabric may not have ever been needed.

Another appropriate link to the Quay, and to the harbour suburbs, could have been provided by

Preliminary planning assessment of Cockatoo Island prepared for the Commonwealth Government in 1989.

ferry or water taxi, using the water purposefully rather than merely visually, as has been organised for all of Boston's redevelopments. Why this obvious transportation mechanism has not been developed is a source of great amazement.

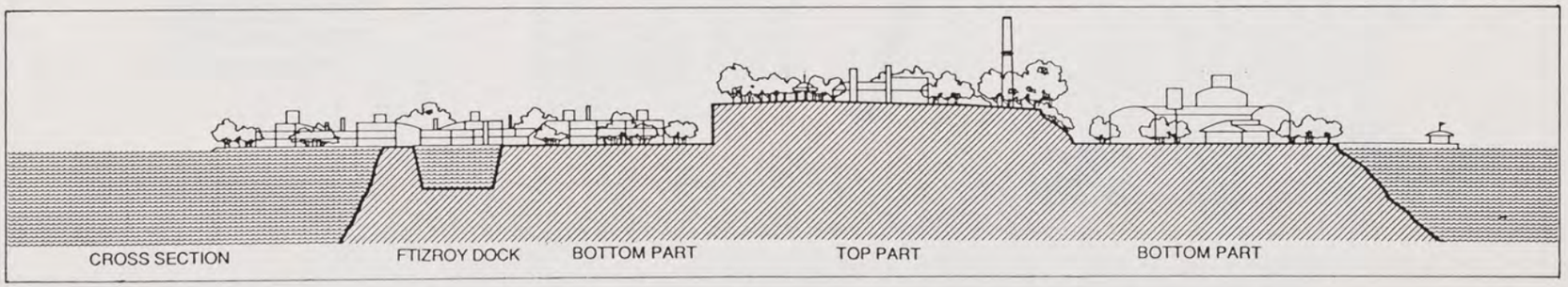
The only two recognisably educational or cultural entities in Darling Harbour - the maritime museum and aquarium - were banished to the northern perimeter, the centre stage being occupied by specialty shopping and a convention centre that cannot by nature be publicly accessible. Should not these elements have been reversed to give some more rich quality of urban life? Could not the same people work in Darling Harbour in offices, live in it and share its amenities and views with the visitors and tourists?

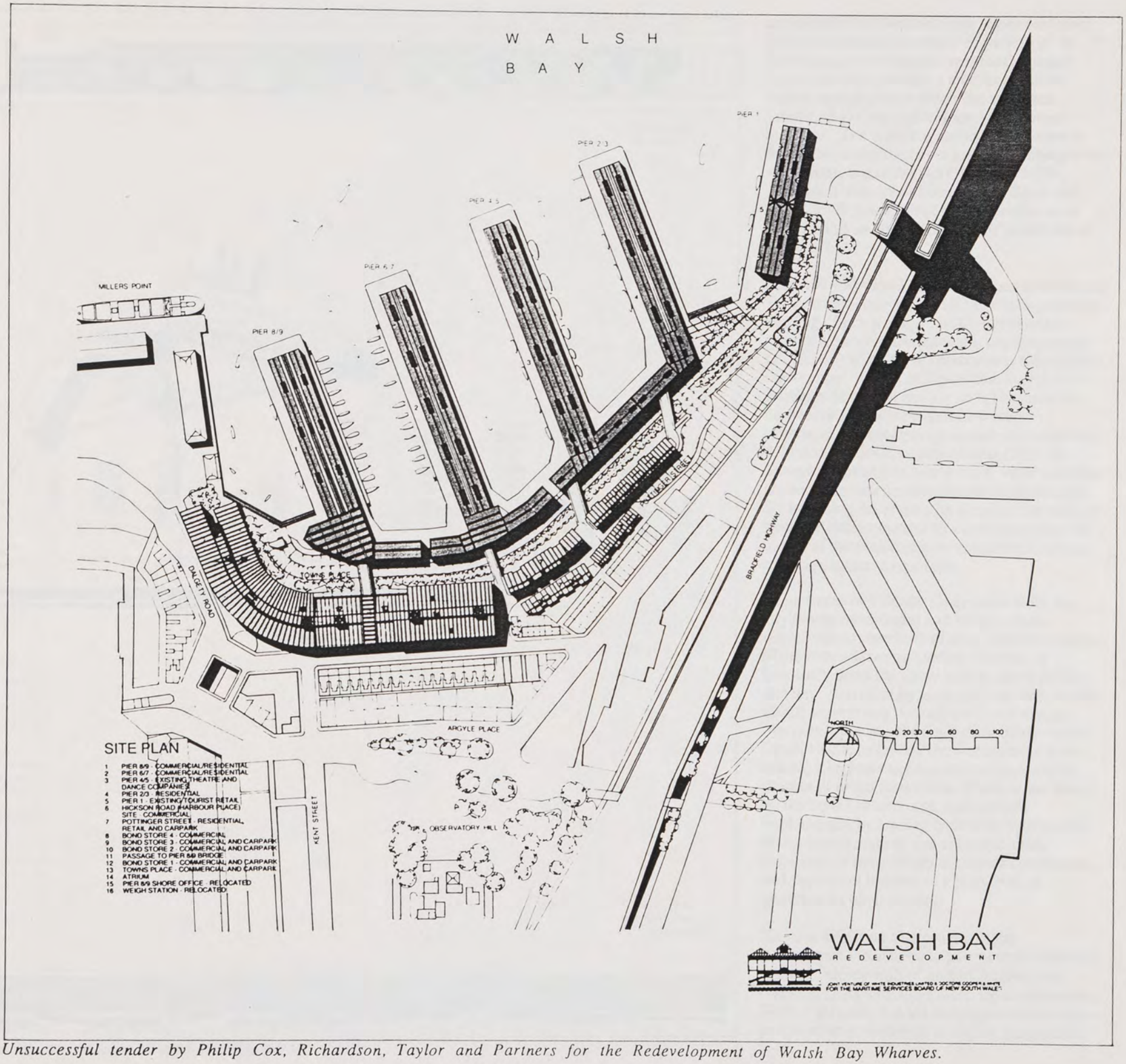
4.6 OTHER SYDNEY DEVELOPMENTS

The disposal of Cockatoo and Goat Islands forms part of the Commonwealth and State Governments' strategies to realise its redundant assets. It has little motive for improving the urban waterfront environment but it is too early to comment on the future of these focal islands of Sydney Harbour.

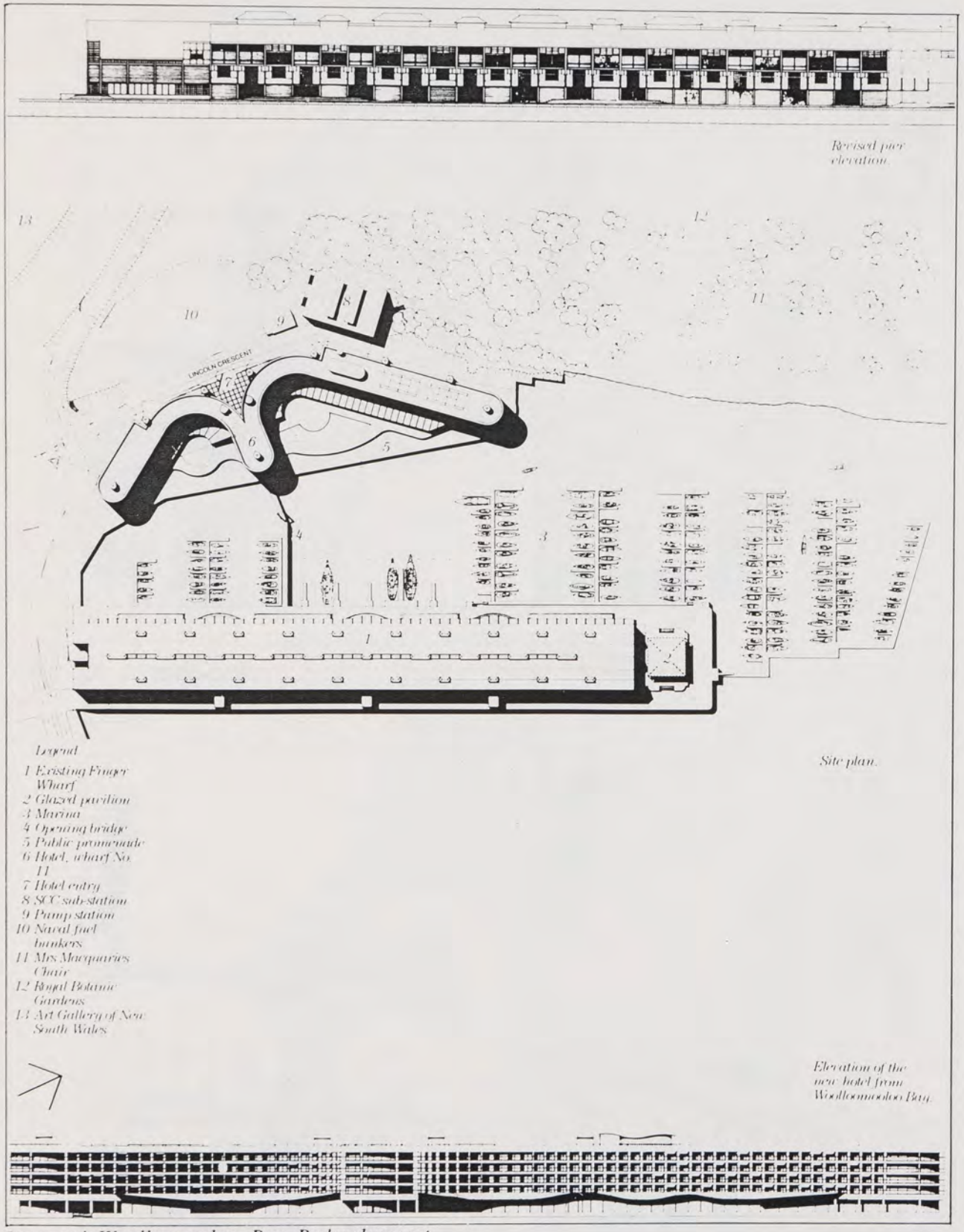
The release of Walsh Bay also reflects this strategy, but the redevelopment has the greatest potential for creating a fertile, diverse urban environment on the waterfront, mainly because it involves the renovation of exisitng building stock. As in most disposal cases, the developer was selected from a shortlist of development/tender packages rather than from design qualities alone, although it is interesting that the second highest bid was chosen.

In Woolloomooloo Bay, the State government wavered between retaining or demolishing its single large finger pier, then decided to keep it,





Unsuccessful tender by Philip Cox, Richardson, Taylor and Partners for the Redevelopment of Walsh Bay Wharves.



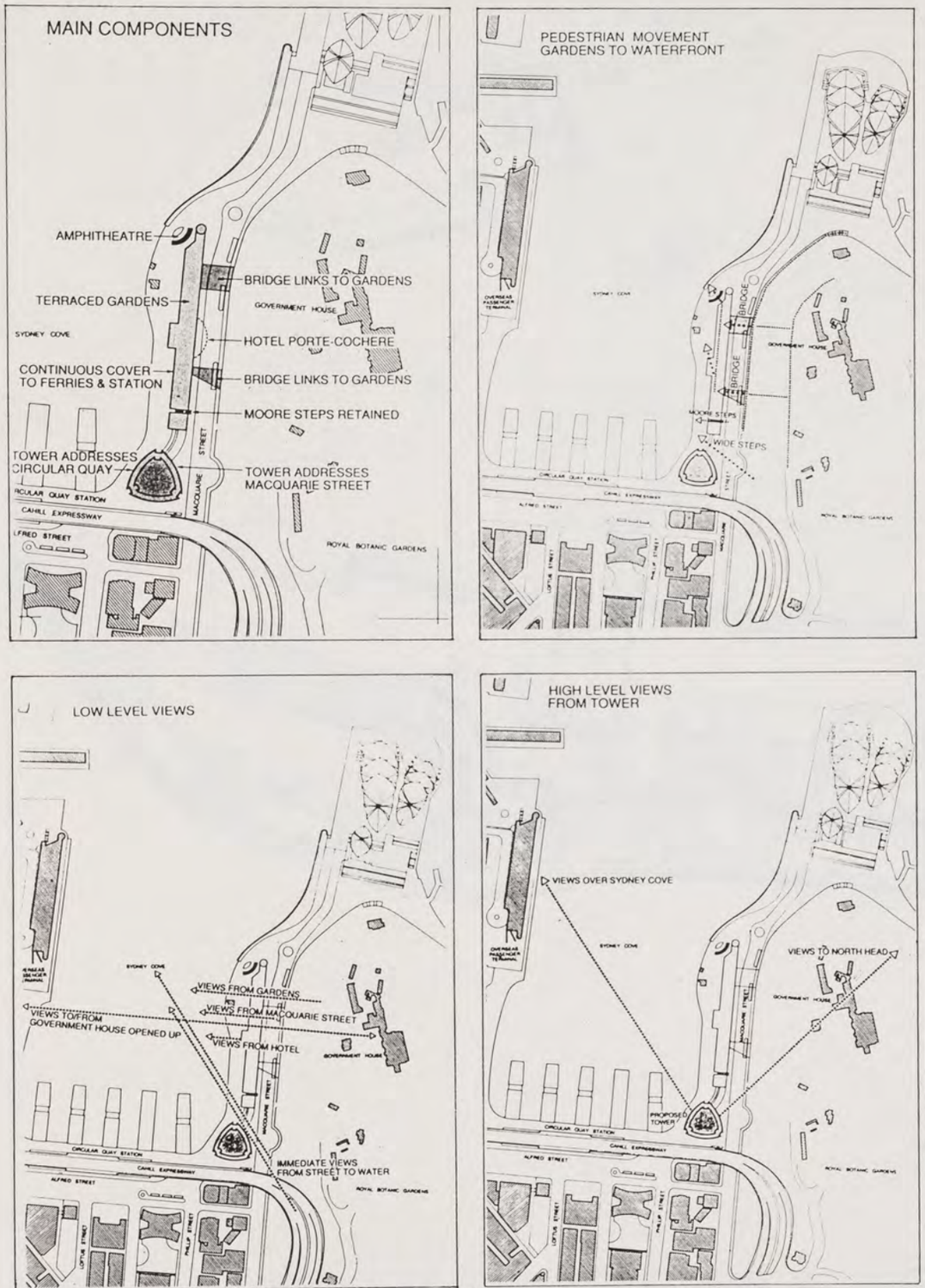
Proposed Woolloomooloo Bay Redevelopment.

and awarded on financial tender alone exclusive rights to a private developer to recycle it. In return the government allowed the developer rights to build a new five level hotel on the vacant west platform which has now been submitted to City Council for development approval. The hotel has caused antagonism to the public, concerned over private grabbing of the waterfront, and to the Art Gallery of NSW, concerned over loss of bay views. Some still object to the retention of the finger pier as an eyesore and an obstruction to free public use of the foreshore.

In March 1989, the Federal Treasurer endeavoured to thwart the redevelopment by blocking foreign funding. Such a misuse of Commonwealth powers in urban development is unprecedented, particularly when State Government fully backed the venture. The Woolloomooloo Bay project promises to reopen the bay to public use after decades of redundancy, to re-activate the waterway, but yet again government conflict self-destructs the development process (30). The process, in principle, was a more sound one than the conventional development/design packages. By awarding the project on a cost tender basis, it removed design aspects to a later time when the merits of the project can be considered in terms of design rather than money.

The revamp of Circular Quay is possibly the city's most meaningful and lasting urban waterfront achievement to date. Modest in terms of the expenditure on Darling Harbour, it genuinely turns the Quay into an urban public domain. Activated by restaurants tucked into the Cahill expressway, linked to the city along Macquarie Street - the city's civic focus - to the Opera House and along the western edge to the Rocks, it represents a humble yet purposeful process of urban integration. Planned and funded by the State Government, and partially implemented by leading architectural firms, the development process was uncomplicated, cognizant of the abilities of private consultants, and successful because of a high level of government commitment.

The one blight on this process is the government's resistance to permit redevelopment of the 17 storey wall of undistinguished and outdated office buildings along the eastern shore. Several privately funded developments have been proposed to government to restore the physical



Studies for redevelopment proposal for East Circular Quay now abandoned.

and visual relationship between the Royal Botanic Gardens and the Quay in return for permission to build a single high rise office tower against the Cahill expressway. The tower could have reinforced the Quay as 'gateway' to the CBD, which the nondescript so-called Gateway project at the Quay centre certainly does not achieve. The city's most magnificent icon, the Sydney Opera House, would have breathed freely away from its mediocre neighbours. The proposals also included underground provision for the much-needed Opera House carpark instead of the government's risky intention to carve out and underpin below the Botanic Gardens. Time will tell whether such staunch political resistance is environmentally irresponsible.

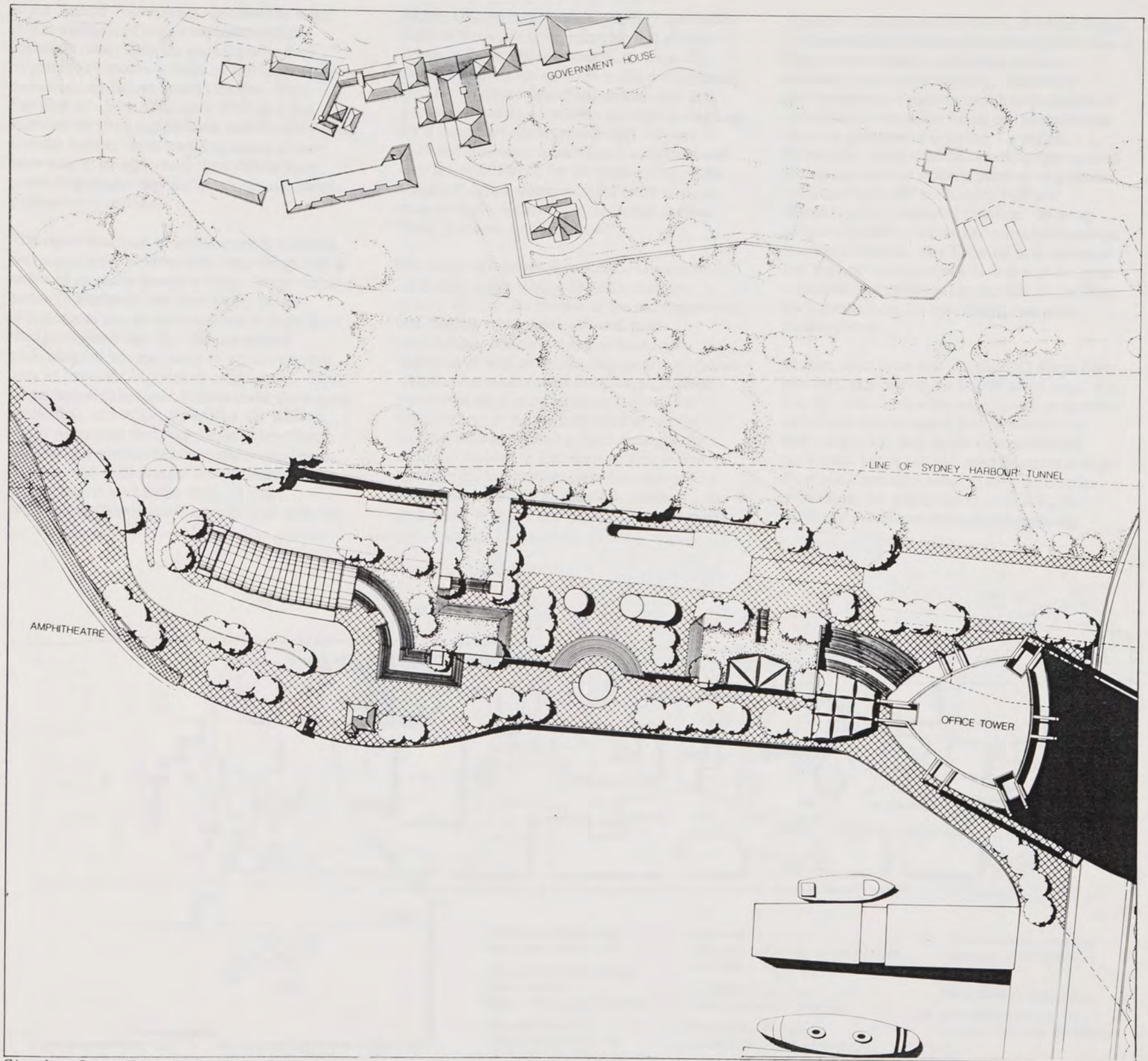
Michael Dysart, who will now undertake the master planning of this significant area for CML, the current landowner, stated in the Saturday May 6 Sydney Morning Herald "It won't be just my decision. There will be an enormous amount of dialogue between government, various interested bodies and the public, of course."
The question remains - when has the public ever been asked what it wants for its waterfront? Mr Dysart's altruistic comment really underlines what is wrong with Australian redevelopment processes.

Sydney's urban waterfront redevelopment is decidedly better off than London with its illgotten and formless dockland, and its redevelopment processes are less mercenary, but it has a long way to go to match the sophistication of its American counterparts in San Francisco, Boston and New York. Possibly, the future redevelopment of Pyrmont peninsula is the best chance for the city to right that situation.

4.7 OTHER AUSTRALIAN CITIES

Within Australia, Sydney is experiencing the most intense pressure to redevelop its waterfront, initiated firstly be a motivated Labour Government in the early 1980's and continued by the Commonwealth Labour and State Liberal Governments eager to dispose of redundant properties in order to rescue burgeoning financial deficits. Nevertheless, Brisbane, Newcastle, Wollongong, Hobart and Melbourne are each probing into waterfront regeneration on unprecedented scales.

Brisbane's Expo 88, based on the theme 'Leisure



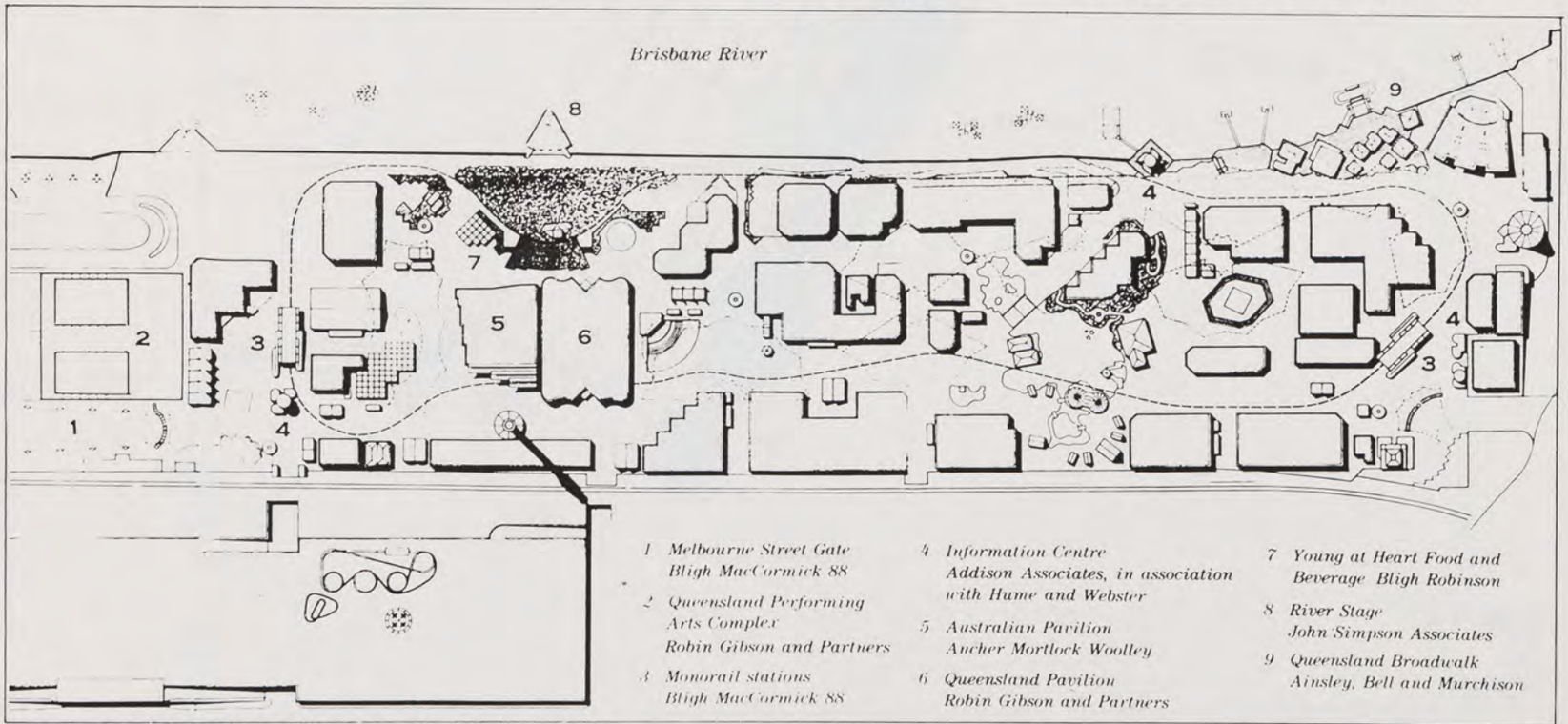
Circular Quay East as it might have been, with one tower and the remaining space open landscaped.

in the Age of Technology', follows the more recent tradition of expo's as demountable carnivals rather than the established one of structures themselves forming the focal exhibits, evidenced by Bruno Taut's Cologne Glass Pavilion of 1914, Chicago's 1893 and San Francisco's 1915 expositions, and Paxton's great Crystal Palace. That tradition seems to have been lost to an age where the exhibits have prime importance and the envelopes are merely protective coverings.

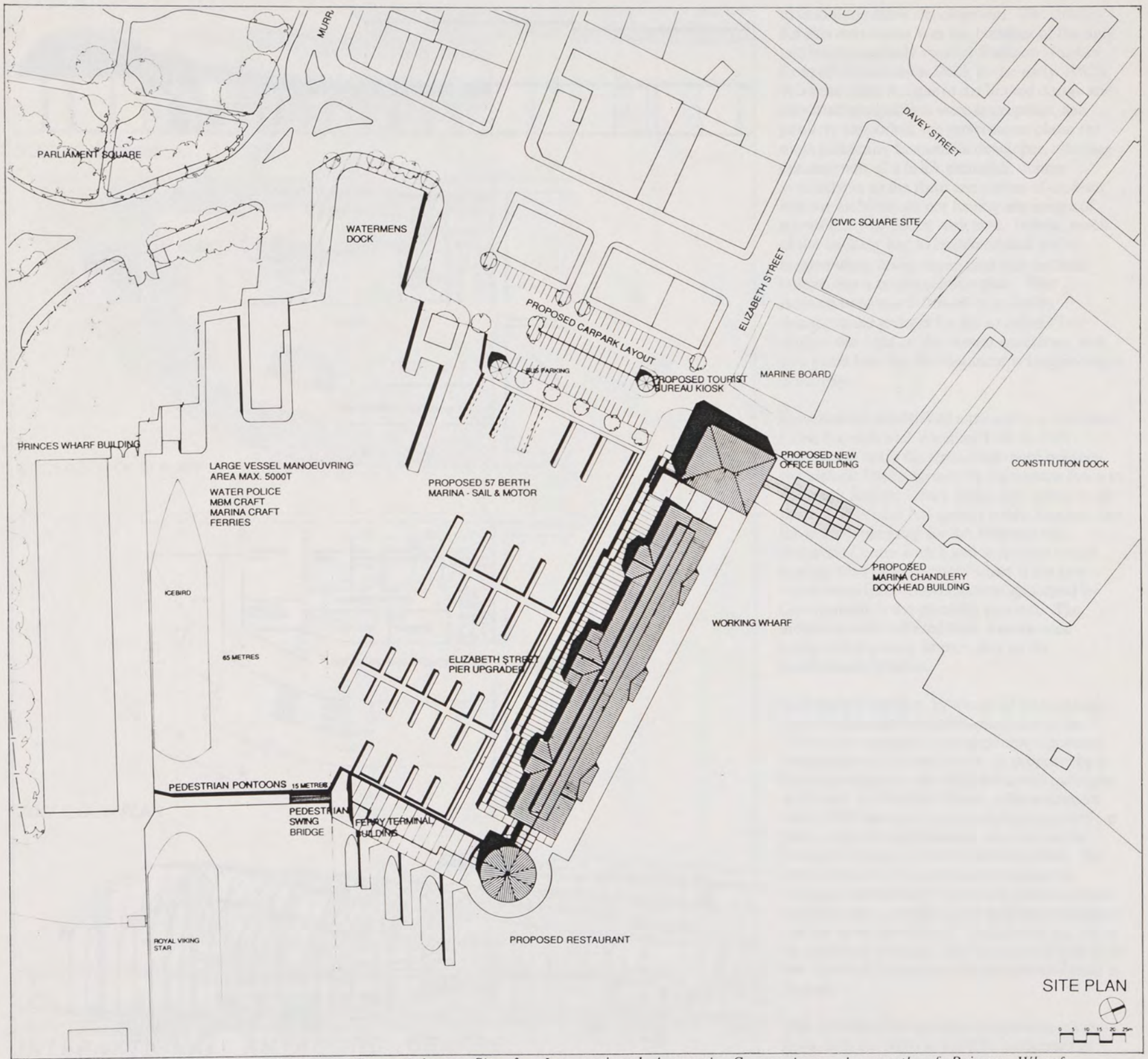
The capricious lack of architecture at Expo 88 was supposedly to have been camouflaged by a series of modular hovering tents, that perhaps honestly interprets the uncertainty of our architectural era, as well as shade visitors from the Queensland sun, but did not extend technological advancement of structure in the way of previous exposition architecture. Most of the 'sub-architecture', hidden under these great umbrellas, was relatively mediocre. Almost every Australian designer seems to have been trapped in a conflict between endeavouring to express high-tech images concomitant with Expo's theme, and being seduced into interpreting Queensland's architectural style for which, with no better reference, they have fallen back on the water tank, verandah and skeletal frame of the northern vernacular. Expo '88, therefore, offers no solution to the problems of creating an urban waterfront architecture as it does not try to do so, merely to create a stage set for a temporary showground fair. At best, it focussed attention on Brisbane's waterfront and may act as a catalyst for the rediscovery of the virtues of urban waterfronts for other uses, as occurred with America's bicentennial in New York, St Louis and Baltimore.

The Expo development process is consequently irrelevant to this study. Nevertheless, the process did contain several of the inconsistencies and dangers which have afflicted most government - sponsored redevelopment in Australia as well as reinforcing the parochialism which constrains much Australian endeavour. Having let the feature structures, the fabric canopies, out to design and construct tender through their appointed project manager, the authority decided to abandon that process and have the project management firm construct it themselves, wasting an expensive effort by the tenderers. With the exception of the Australian Pavilion, the architecture is exclusively designed by Queensland architects, even though the idea of Expo is presumably the sharing of ideas nationally and internationally. Hence the predominance of post-modern interpretations of Queensland vernacular where one is confronted with the prospect of entering, for instance, a lightweight metal shed decorated by Queensland lattice and circular cutouts, perched atop timber stilts, as evidenced by Ainsley Bell and Murchison's Queensland Pavilion. In being affected by both political and parochial interests, it is small wonder why Expo 88 is unmemorable and the opportunity either to continue the great exposition tradition, or to establish an enduring civic precinct on the waterfront, was never contemplated.

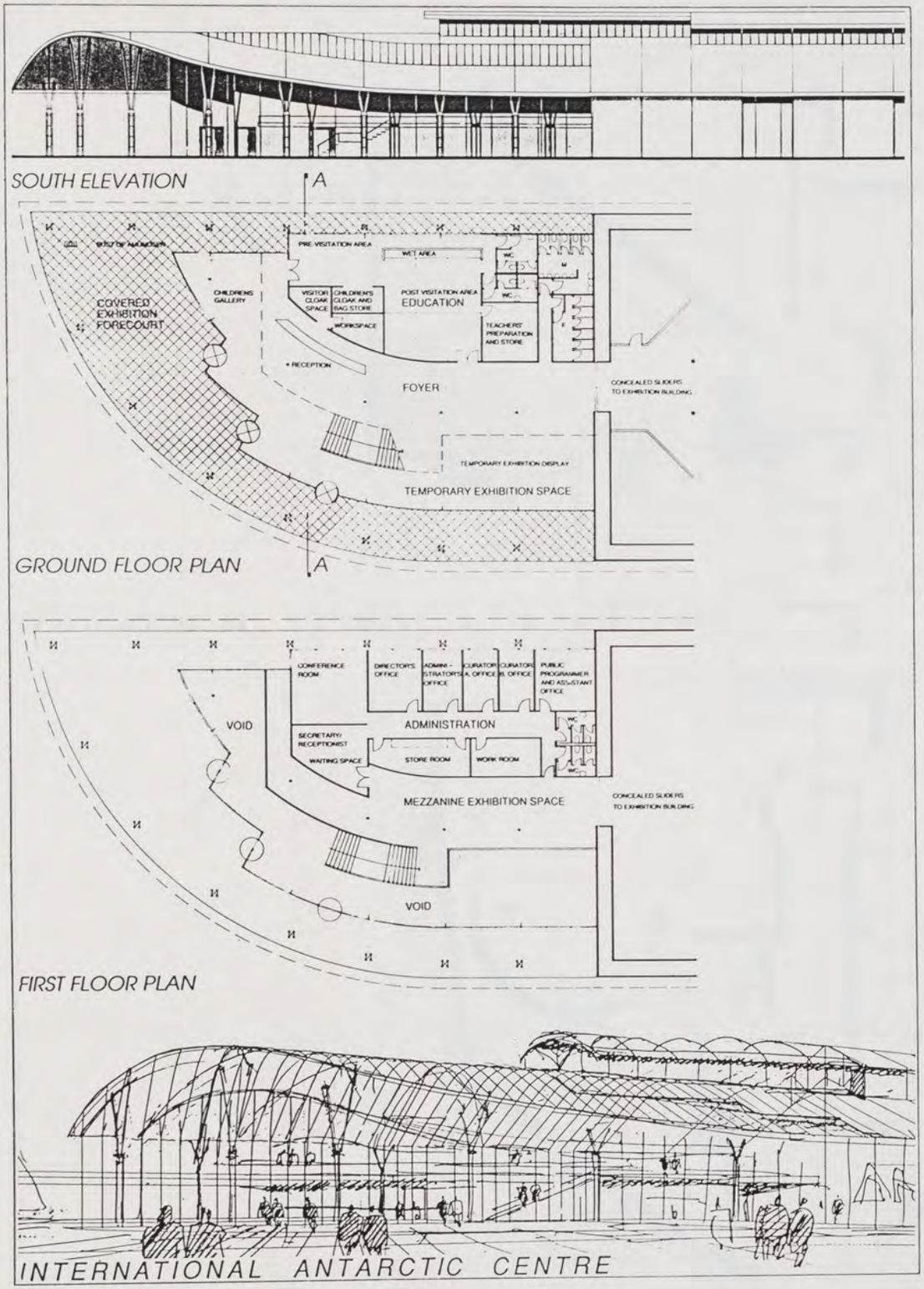
Hobart, apart from hosting the Tall Ships fleet, was forgotten during the Bicentennial year. Yet it is the only Australian waterfront city to have significant public imput into its waterfront redevelopment. Just as the conservationist movement has at last enforced its strength in the Tasmanian political arena to save the state's wilderness, the public say in preserving the quality of urban environment is becoming



Layout of Brisbane Expo 88 under the fabric canopies.



Proposal for Redevelopment of Sullivans Cove Hobart; Site for International Antarctic Centre is to the north of Princes Wharf.

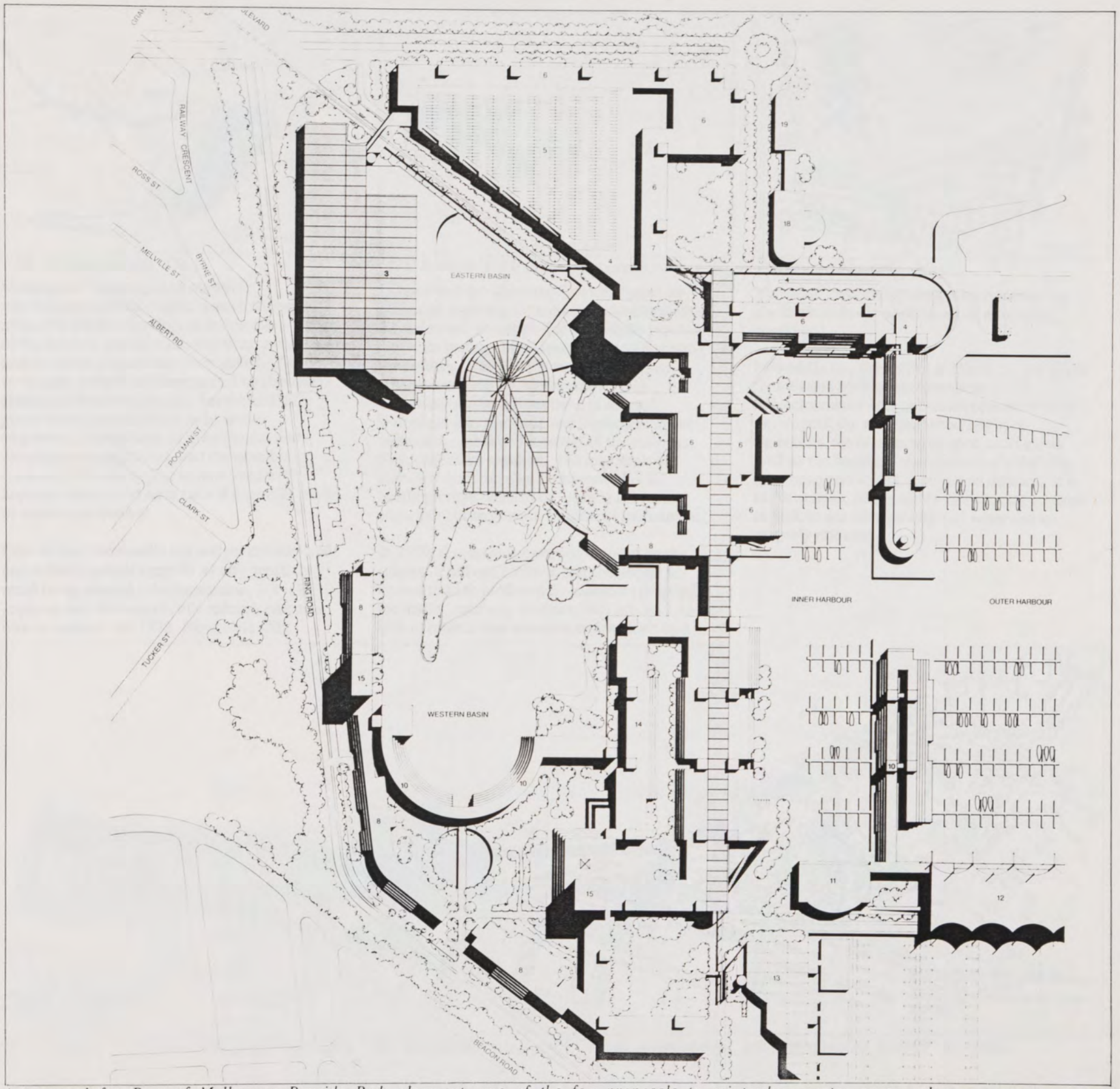


essential to permit development. The catalyst for this movement was the building of the ugly and inappropriately massed Sheraton Hotel in front of Constitution Dock in the early 1980's. Whereas other designs in the limited design and construct competition were appropriate, and publicly supported, the government chose the most politically favourable developer, allowing construction of a brick monolith, neither sympathetic to the form and colour of Hobarts' historic architecture nor having any image of accessibility or public welcome. Indeed, much of the building had to be demolished and re-erected when it was discovered that the brick colour was a bright salmon pink. This development was followed by a similar design/tender process for the so called Civic Square site right on the central waterfront, and two years later the development is languishing in obscurity.

Government established a policy for a Sullivan's Cove Bicentennial Walking Trail in 1987, intended to unify the remarkable cove between the historic flanks formed by Salamanca Place to the south and the Henry Jones IXL stores to the north. This plan has gained public support, and the current planning for the International Antarctic Centre within and in front of an old storage shed called Princes wharf is the first major waterfront redevelopment sponsored by Government in the planning precinct. The architects were selected from a nationwide competition giving impartiality to the development process.

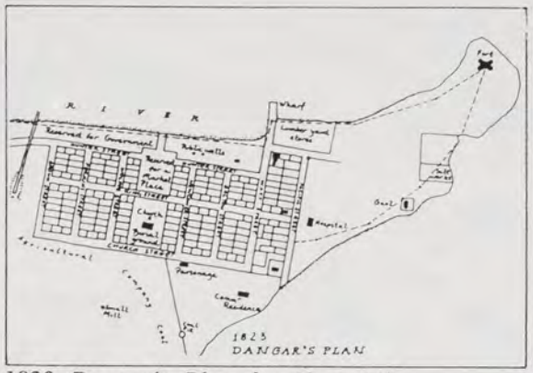
Sullivan's Cove has, by virtue of its escaping commercial redevelopment pressures in the 1980's, the opportunity to experience genuine integration of city and water. A proposal by a local developer to refurbish the cove's main pier at the end of Elizabeth Street, reflects concern over public reaction, the pier being upgraded for public, tourist and business uses not unlike Boston's Quincy Markets redevelopment. For once, there is a scheme that endeavours to integrate surrounding waterfront characteristics. - by landscape, pontoons, and building orientation - at the developer's cost. The scheme has yet to be exhibited publicly, but this appears now to be the key to all future waterfront redevelopment in Hobart.

This promise of a sensitively rejuvenated city-front does not seem to have been repeated in



A proposal for Port of Melbourne Bayside Redevelopment, one of the few proposals to reintroduce water as an urban component.

1826 Topographical Plan.



1823 Dangar's Plan for Newcastle.

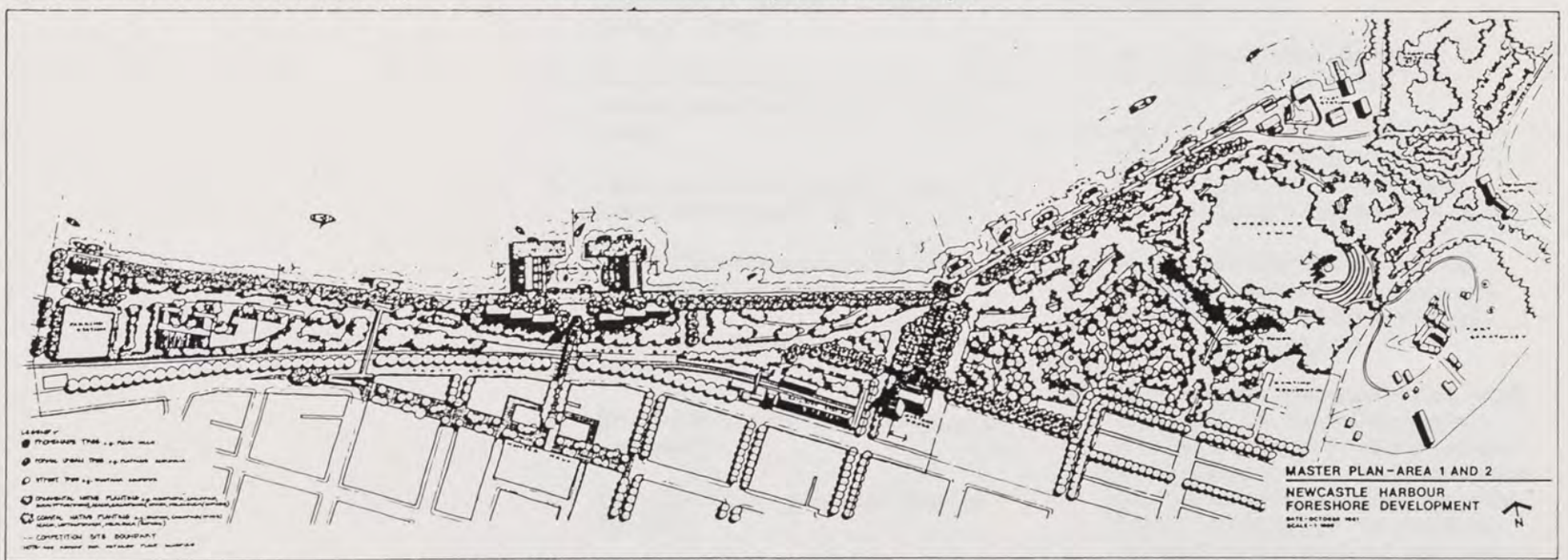
Current Newcastle Plan.

Melbourne. The proposed massive redevelopment of the largest waterfront parcel offered to private developers in Australia, at Port of Melbourne, remains idle two years after design and construct tenders were first called. The port is virtually defunct and surrounded by depressed residential neighbourhoods, but the lack of government commitment to its initial objectives, the inability of government and developer to agree terms, and the unstable economic climate, appear to have rendered hopeless what could have been the world's model of waterfront renewal.

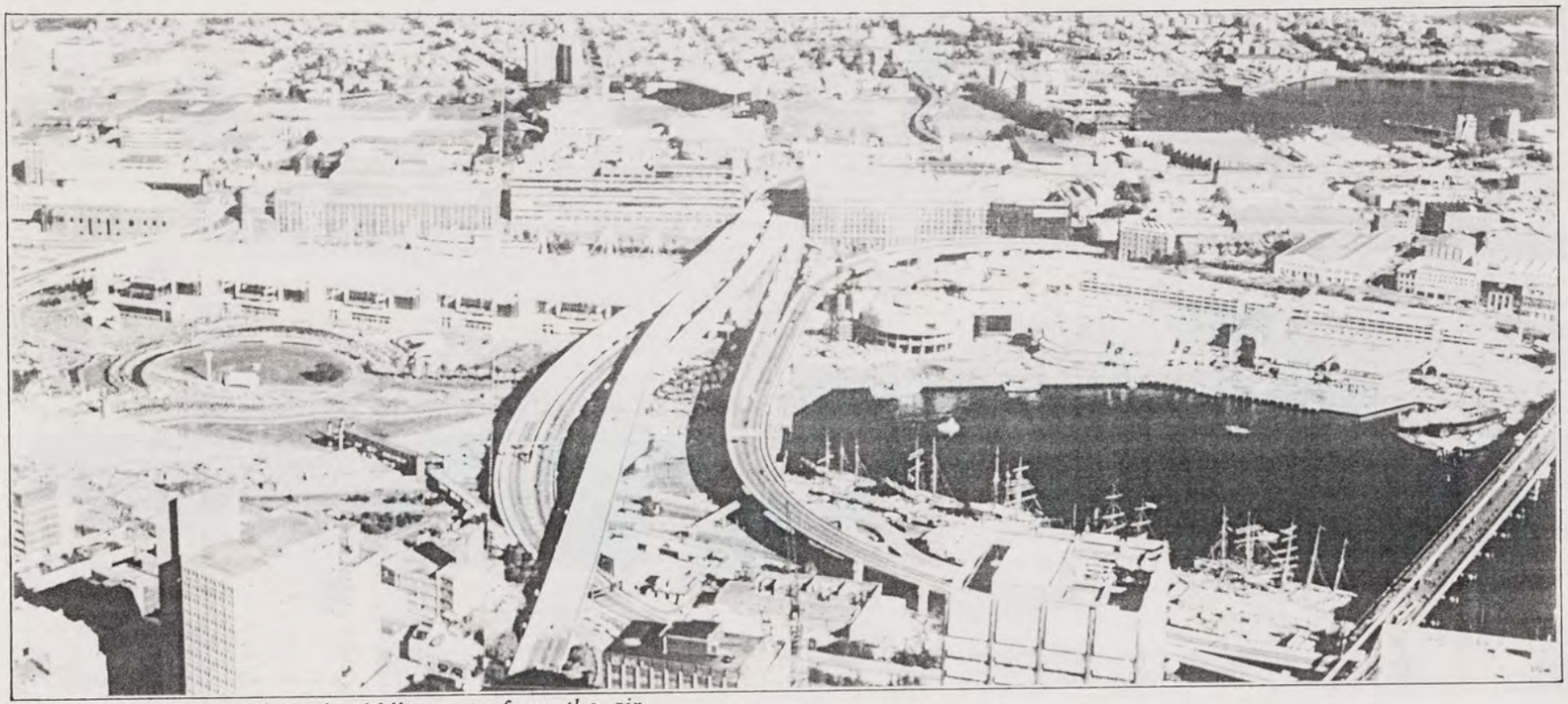
Like Hobart, Newcastle has not yet encountered any redevelopment surge in its city heart, the trend being toward suburbanisation, but it is apparent that the waterfront's redevelopment is now imminent. In 1975 Newcastle City Council and the Maritime Services Board co-ordinated to permit recreational redevelopment of the redundant foreshore that historically separated city from harbour by railyards and roads serving the colliery. The 1979 international design competition won by Melbourne's Tract Consultants to turn 9 hectares of disused waterfront into parkland was implemented but without the proposed removal of the railways. Two conditions resulted. The city remained alienated from the water, and instead of a bustling urban waterfront, there is now an attractive but semi-rural foreshore environment.

In 1989, discussions have commenced on the subject of railway removal and developers are known to have proffered development proposals for hotels, specialty shopping and offices. An idea to replace lost transport connections by a 'Novorail' monorail system, where pedestrians could move freely underneath, is also being considered.

Newcastle has the ability to assess the pitfalls of Sydney and Melbourne waterfront redevelopments - the one-sided opportunism of developers, the environmental blight of monorails, the blandness of open parkland as well as the benefits - the creation of a thriving integrated public and commercial domain. It is to Newcastle, and possibly Hobart, that we have to look to see whether city and water can be properly rejoined.



1981 Scheme by Tract Consultants for Newcastle Foreshore parkland - actual development left railways as barrier to access.



Darling Harbour south and middle zones from the air.

Footnotes

1. John Olsen in "Sydney Harbour Paintings from 1794" by Sandra McGrath and Robert Walker. The Jacaranda Press. 1979

2. Council of the City of Sydney, The Department of Planning "Central Sydney Strategy". 1988

3. Even the Gardens precinct is in the process of being gouged into the Sydney Harbour Tunnel.

4. Lawrence Nield and Partners. Central Sydney Strategy 1988. pp 30-31

5. On p 109 there is an analysis of shipping trade statistics for Sydney.

6. 1980 City of Sydney Strategic Plan. p 141, 153

7. Blackwattle Bay still remains an industrial wasteland.

8. 1980 City of Sydney Strategic Plan. pp 163-166

9. Central Sydney Strategy 1988. p 32

10. Ibid p 88

11. Ibid p 82

12. Ibid pp 41, 30, 31

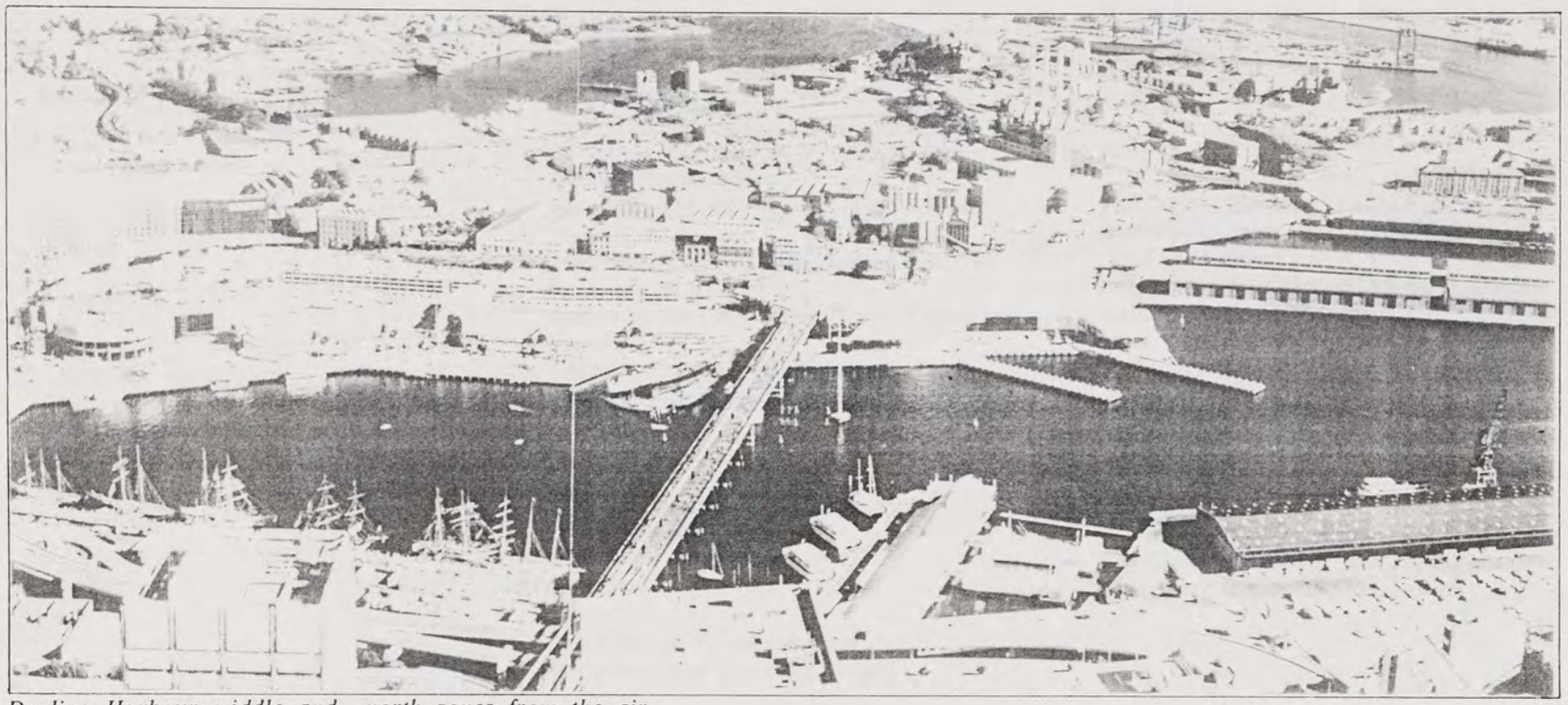
13. Ibid p 29

14. Ann L. Buttenweiser 'Manhattan Waterbound' Ibid pp 204-205

15. Barry Young. 'Darling Harbour: A New City Precinct'. In Peter Webber 'The Design of Sydney'. The Law Book Company Limited. Sydney 1988. p 193

16. In April 1989 the National Maritime Musuem, Convention Centre were still incomplete, and hotel and commercial development not begun.

17. The Labor Government fell to the Liberals in any case. The Labor Government preferred to make Mr Brereton a scapegoat for its supposedly irresponsible expenditure programmes, rather than tackle immediate issues of public antagonism such as the 'monorail', which was already committed to private developers.



Darling Harbour middle and north zones from the air.

18. The Pocket Oxford Dictionary appropriately defined 'directorate' as, among other definitions, 'elaborate gun-sight for coordinating fire of several guns.'

19. Webber 'The Design of Sydney'. Ibid p 195

20. Webber 'The Design of Sydney'. Ibid p 195

21. Ibid p 197

22. The first of these may have been Premier Wran's invitation to the American developer James Rouse to advise the Government on how Darling Harbour could become the financial boon that his developments for Baltimore, Boston and Manhattan had been. Rouse's architect, Mort Hoppenfield, produced not only a sketch layout but defined the government organisation required to implement the redevelopment.

23. Webber 'The Design of Sydney'. Ibid p 201

24. The project is embarrassingly called the Corn Exchange project.

25. Webber 'The Design of Sydney'. Ibid p 199

26. E.M. Farrelly 'Out of the Swing of the Sea, Darling'. The Architectural Review April 1989. p 65

27. Ibid p 65

28. Webber 'The Design of Sydney'. Ibid p 198

29. As it will do at Mission Bay.

30. The Campbell's Cove Hotel on a far more prominent and pedestrian-orientated foreshore continues construction undaunted by political conflict, yet shows similarities of use and form.

NEW YORK

- Geoffrey Baker, Planner, N.Y. City Dept. of City Planning, N.Y.
- Bonnie Harken, Senior Planner, Cooper Robertson Architects, N.Y. (Battery Park City and Trump City)
- Greg Hodgkinson, Engineer, Ove Arup and Partners, N.Y.
- John MacMillan, Planner, Battery Park City Authority, N.Y.
- Robert Stevenson, Planner, Travis Partners, Sydney
- Stephen Tsou, Project Architect, Fox and Fowle Architects, N.Y. (South Ferry Plaza)

SAN FRANCISCO

- Lilia Madeina, Planner, San Fransisco City Planning Department.

BOSTON

- Jim Kostaris, Planner, Boston Redevelopment Authority, Boston

VANCOUVER

- Ron Lee/Ron Beaton, Directors, Architects West, Vancouver (Canada Place)
- Alan Munn, Associate, Zeidler Roberts Partnership, Architects, Toronto (Canada Place)

TORONTO

- Alan Munn, Associate, Zeidler Roberts Partnership, Architects, Toronto (Ontario Place, Queens Wharf)

LONDON

- John Fairclough, Rosehaugh Stanhope, Developers, London (Royal Docks)
- Tony Fitzpatrick, Engineer, Ove Arup and Partners, London
- Andrew Morris, Associate, Richard Rogers and Partners, Architects (Royal Docks)

LIVERPOOL

- Peter Carmichael, Partner, Brock Carmichael Associates, Architects, Liverpool (Albert Docks)
- Peter Edwards, Chief Architect, Merseyside . Development Corporation, Liverpool
- Richard Foster, Director, National Museums and Galleries on Merseyside, Liverpool
- David Morrison, Director, Merseyside Task Force

SYDNEY

- Philip Cox, Principal, Philip Cox, Richardson, Taylor & Partners, Sydney (Darling Harbour)
- Robert Pentecost, General Manager, Darling Harbour Authority, Sydney (Darling Harbour)

NEWCASTLE

- Garry Fielding, Chief Planner, Newcastle City Council

HOBART

- Roy Cordiner, Project Manager, Department of Housing & Construction, Hobart

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