Hong Kong: City of Edges

South East Kowloon Development

by Wai-Kuen Chan

B.S. Arch, City College of New York, 1992
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Signature of Author:

Wai-Kuen Chan
Department of Architecture
May 9, 1997

Certified by:

Julian Beinart
Professor of Architecture and Planning
Thesis Supervisor

Accepted by:

Roy Strickland
Associate Professor of Architecture
Chairman, Department Committee on Graduate Students
Readers

Reader: John DeMONCHAUX
Title: Professor of Architecture and Planning

Reader: Michael Dennis
Title: Professor of Architecture
Many extraordinary cities are developed along the edges of water into different directions. Yet, the city of Hong Kong has been formed along narrow strips of scarce flat-land around the harbor and from reclamations of land-fills. Urban fabrics are stretched along water edges of the Victoria Harbor with distinct characters. For the rapidly developing cities, these urban fragments are elemental and essential to sustain.

The objective of this thesis is to re-examine the water front urban fabrics, and their organizations, within the context of East Kowloon, including the Kai Tak Airport site. This thesis is structured through a parallel urban analysis and design proposal contrasting with the government proposal. The proposal will focus on the issues of urban plan, district characters, block types and, most importantly, utilization of water edges.
Dedication

To

my dearest Parents and Brothers

Acknowledgments

I would like to gratefully acknowledge my advisers Julian Beinart and John DeMonchaux for their valuable advice. Thanks also to Professor Michael Dennis, Mr. Tunny Lee and Mr. Michael Mckinnell, who have been very helpful.

Much gratitude to all my friends for their unfailing support: Cyril Chong, Christina Lo, Singh Intrachooto, Bundit Kanisthakhon, Hsuyuan Kuo, Janice Li, Rochelle Nagata, Malina Palasthira and Jesse Wu and JJJ.

Very special thanks to my great brother, Wai-Ping Chan, for everything.
**Hong Kong: City of Edges**

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Chapter 1  CITY AT THE EDGE

1.1 Introduction

Is there such thing as the "model of Hong Kong" for urban design and housing prototype? For the urban designers in Singapore and Australia and other parts of the world, the jungle of residential towers is far more than just a solution for an over-populated city. In the eyes of the residents of Hong Kong, the mile-long columns like cityscape is the only way a city of six millions can be operated.

In 1998, six hours before the opening of the new Hong Kong International Airport, at Chek Lop Kok, the fifty-year-old Kai Tak International Airport will be closed. Leaving not only an extravagant piece of land for redevelopment but also a new physical edge within the heart of a highly developed city along the Victoria Harbor. In order to obtain the maximum amount of land, the Government of Hong Kong has already proposed, as part of the Metroplan\(^1\), reclamation to land-fill the entire Kowloon Bay area. Although thickening the
water edge\textsuperscript{2} fabrics will quickly comply with population growth, but will destruct the harbor environment. Urban life will be pushed further and further away from the water where most development of Hong Kong was generated.

This thesis is design proposal that inquires the government's justification for extensive reclamation for the Kowloon Bay area through an alternative urban plan in which the Long Term Development\textsuperscript{3} goals can be fulfilled.

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1. *Metroplan, the Selected Strategy Executive Summary*. Planning Department, Hong Kong Government, 1995
2. *edge* \(\text{Ed}\text{d}\text{e}\text{j}n\) [ME *edge*, fr. OE *ecg*, akin to L *acer* sharp, Gk *akme*-] point
   
   \(1a\): the cutting side of a blade \(1b\): the sharpness of a blade \(1c\): penetrating power: KEENNESS
   
   \(2a\): the line where an object or area begins or ends; also: the narrow adjacent part: BORDER
   
   \(2b\): a point near the beginning or the end
   
   \(2c\): a favorable margin: ADVANTAGE: ANXIOUS, NERVOUS - edged \(a\) - on edge

*Webster Dictionary, Wester, New York*, 1995

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**Figure 1** Kowloon City water front in 1890's.

**Figure 2** A water fall on Hong Kong Island, 19th century.

3. *Planning Department of Hong Kong*. 

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1.2 A Brief History Of Hong Kong:

Before British colonization, Hong Kong was a small fishing community and a haven for travelers and pirates in the South China Sea. During the Opium Wars with China in the 19th Century, Britain used the island as a naval base. Following the end of the first Opium War, the Treaty of Nanking ceded the territory to Britain in perpetuity. Following additional conflicts with the Chinese in 1860 Britain gained Kowloon and Stonecutters Island. In 1898 Britain acquired the New Territories on a 99-year lease. During the 1910s and 1920s, Hong Kong served as a refuge for political exiles from China following the establishment of the Chinese Republic in 1912.

After the Japanese seizure of Manchuria in 1932 and the subsequent Sino-Japanese war in 1938, China turned to Britain for supplies. As a result of this
new tie, relations between Britain, Hong Kong and China became warmer. Throughout the late 1930s, as Japan advanced into China, hundreds of thousands of Chinese took refuge in Hong Kong. To defend against the specter of Japanese attack, Britain began to further strengthen Hong Kong's military defense.

The second World War once again disrupted the social and economic life of Hong Kong. On December 8, 1941, Japanese aircraft bombed Kowloon and Japanese troops pushed out the British defenders from Kowloon and the New Territories. On Christmas Day of 1941, the British army surrendered Hong Kong to the Japanese. However, following Japan's surrender on August 14, 1945, Britain once again reclaimed the island of Hong Kong.

The Nationalist/Communist Civil War in China and the subsequent Communist victory in 1949 led hundreds of thousands more refugees fleeing into Hong Kong.

Although after the second World War Hong Kong was once again a major trade hub, the 1950 US-led ban on commerce with Communist China began to slow down Hong Kong's economic growth. The colony was forced to develop its domestic industries by taking advantage of local and regional resources in order to continue to grow. The constant influx of capital and manpower from China sparked the establishment of light manufacturing throughout the city during the decades of the 1950s and 1960s. At the same time, Hong Kong's relatively unrestricted tax policies began to attract growing foreign investment, further adding to the colony's rapid economic growth.
Hong Kong was once again thrown into turmoil in the spring and summer of 1967 as the Communists instigated riots throughout the city. The flow of refugees from Communist China continued unabated throughout the late 1960s and into the 1970s, adding to the human resources of Hong Kong. During the 1980s Hong Kong started to work with China on a series of joint projects that brought the two countries closer together again. In 1984, Britain and China reached an agreement that Hong Kong would revert back to the Chinese authority in 1997. However, the commercial, social and legal aspects of Hong Kong will remain as is until 2047 by which time China will be able to exercise its full authority.

Since the 1980s, Hong Kong has developed in a phenomenal way economically and urbanistically. This development has been influenced by China's economic ‘Open Door’ policy, which has stimulated rapid economical growth particularly in the Pearl River Delta (PRD), in southern China. As the city progresses into the 21st century amid such rapid development, we will need a new vision of the role Hong Kong should play to keep pace with changes in China and sustain our own prosperity and stability. Architecture and urban design should be acknowledged as essential professional input in this increasingly commercial market.

Today, Hong Kong has a population of more than six millions. Within the next fifteen years or so, we might need to provide for between seven million and eight million people, depending on the interaction between a number of...
demographic factors, especially net migration. With growing prosperity, expectations are rising for improved layouts, city forms and environmental standards.

Figure 1 Airplane taking off from the Kai Tak Airport runway. Photo source: Hong Kong Government.

1.3 Density

In Hong Kong, residential density is a quantitative measure of the intensity with which land is occupied by either development or population. Control of residential density is a fundamental component of Hong Kong’s land use planning, given that the population distribution has major implications on the provision of public facilities, particularly transport, utilities and social infrastructure.

Until the ten years ago, the developed urban environment on the Island has accommodated most of the business districts needs. There are more and more moderate size of business centers developed in Kowloon and New Territories. Some successful cases, such as Tsim Sha Tsui, services the urban purposes of accommodation as well extension. South East Kowloon will apprehensible become another center of commercial activities for East Kowloon.

Density Zoning policy, approved by the government in 1966 and incorporated in the HKPSG, limits the densities of residential and other development in the urban areas in the city. The areas of developed parts of Kowloon has been divided into Zone 1 where domestic building intensity is limited to plot ratio of 6 -8. Moreover, the population, more than 200,000 people, in the districts of South East Kowloon will clearly consume much more than that of the existing development areas such as Tsuen Wan where the ratio is six to seven and one-half. While the ‘day-time’ population of this area is competitive to that of the

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5. Hong Kong Planning Standards and Guidelines, Hong Kong Government, 1995
6. Planning Department of Hong Kong.
north side of the Hong Kong Island, the density zoning is comparatively conservative.

**Figure 1** Land reclamation in Hong Kong through the century. Figure source: the Architecture Department of Chinese University, Hong Kong.

**Figure 2** Public housing in a new town in the New Territory region of Hong Kong. Typical prototype with low podium of facilities and transportations supporting the high-density housing towers above. Source: Hong Kong Government, 1995
1.4 Land Reclamation And Water Edges In Hong Kong

The famous Hong Kong skyline often appears as a bright specter of stunning high-rises and skyscrapers, tenuously hovering above its water-edge which connects to Victoria Harbor. Much of the city has steep hillsides with only a narrow flat coastal lines which hardly comply with population growth. Consequently the city started to gain quick new land by reclamation-building out into the Harbor. By 1920’s, more than 500 hectares of reclaimed land had been added to the original water edges in Hong Kong. After the 1960’s, the government proceeded to add more new land of 4000 hectares for purposes such as housing. With the proposed south east Kowloon reclamation projects that will make the Kowloon Bay disappear, there might be more than 10,000 hectares of land fill by the year of 2010. Consequently, within one hundred years, at least twenty percent of water surface in the Victoria Harbor will be eaten away for commercial and residential developments.

However, most of the successful harbor cities - San Francisco, Sydney, Rio de Janeiro - exhibit stunning combination settings of mountains and their skylines.

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In the past, some of the reclamation proposals have been operated according to many constrains but architectural and urban design imperatives. Much of larger areas are taken by major infrastructures while urban developments are disjointed. Future reclamation into the Victoria Harbor should respect the harmonious relationships between the natural/agricultural environment... ‘and to recognize Victoria Harbor as the most valuable heritage of the City to be preserve’.

Figure 1  Public housing project built after 1995. Photo source: Hong Kong Government

1.5 Public Housing

Hong Kong’s public housing program has achieved remarkable results since its inception in 1954. However, since the 1980’s, the housing cost in private developments went up about 300 to 600%. There are more than just economical factors. Population growth has been expected only worsening this estimation.

The districts of Kowloon have been demanding enormous development of public housings. By December 1994 about 3.1 million people, or 51% of the population, were living in various types of assisted housing: 41% public rental and 10% Home Ownership Scheme (HOS) and Private Sector Participation Scheme (PSPS). Hong Kong remains firmly committed to its public housing programs. In the current financial year, HK$8.0 billion is estimated to be spent on constructing new public housing. The Long Term Housing Strategy (LTHS), approved in 1987, provides a framework for the development of future housing programer up to 2001. It aims to satisfy substantially the outstanding demand for public rental flats and that for home ownership by the turn of the century. This will mean the construction of an additional 336,000 homes between 1994/95 and 2000/01. The aim of the department is to clear all urban squatters on Government land by 1996. Rural squatters affected by Government’s development program will also be cleared and rehoused. There are about 654,900 Housing Authority flats in 151 public rental estates and 187,000 home

Figure 1 Aerial view of mixed-use areas in West Kowloon. Old and new block types laid side by side along the oldest commercial street, Nathan Road. Source: Hong Kong Government

10. Government. Public Housing in Hong Kong. Housing Department of Hong Kong, 1994
ownership (HOS/PSPS) flats in 122 courts. About 3.1 million people, or 51% of the population, are now living in various types of assisted housing, comprising 41% in public rental flats and 10% in home ownership flats. Under the LTHS, the basic policy objective of providing adequate housing at an affordable price or rent to all households is reaffirmed. This policy is reinforced by increasing the opportunity of assisted home purchase and extending the redevelopment program. The Strategy provides for: redeveloping older public rental estates in a more comprehensive manner; increased opportunity for the purchase of home ownership flats; and the introduction of a Home Purchase Loan Scheme to low and middle income families to purchase private sector flats. The projected demand for flats from 1994/95 to 2000/01 amounts to 525,000 units from all sectors. In order to satisfy the projected housing demand, the public sector production target has been set at 375,000, comprising 175,000 rental and 200,000 sale flats. The remainder of the demand is expected to be met by the private sector. By 2001, it is estimated that about 51% of households will be living in subsidized housing, where the split between public rental and assisted home ownership is likely to be 33% and 18%.

Tremendous housing demand for the districts of Kowloon have been pointing toward this reasonably large piece of flat land that may serve a lot more than just opened-spaces. More importantly, the quality of public housing should be redeveloped within the context of harbor life.

11. Hong Kong Government. 1996
12. Planning Government of Hong Kong
Chapter 2 DISAPPEARING EDGES

2.1 Proposed Plan Of The Planning Department

The South East Kowloon Development Proposal from the Planning Department of Hong Kong government has been publicly criticized since its release in 1994, for its amount of landfills and the destruction to the harbor.

The Hong Kong Planning Department’s development on new urban areas generally follows the broad pattern of land-use and guidelines in the Metroplan and integrates with the re-planning and redevelopment of adjoining old areas in a co-ordinated manner. After the relocation of Hong Kong International Airport to Chek Lap Kok in 1998, an area of about 670 hectares in South-East Kowloon will be released for

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1. HKIA
development following Metroplan\textsuperscript{2}. Of the 670 hectares, 300 hectares will be reclaimed from Kowloon Bay, about 100 hectares will be obtained from the existing airport site and 100 hectares will be reserved for the proposed typhoon shelter and cargo-working area at Cha Kwo Ling. The adjoining 260 hectares of existing urban areas at Hung Hom, To Kwa Wan, Ma Tau Kok and Kowloon City will also offer opportunities for urban restructuring. The development and restructuring of South-East Kowloon will require a vast amount of land reclamation; highway construction and the provision of drainage, sewerage, sewage treatment and other public utilities. The development will be implemented in phases continuing into the next century. Upon completion, it will accommodate approximately 285,000 people and provide about 110,000 jobs\textsuperscript{3}.

Under the government's proposal, the entire Kowloon Bay will be fill-in. Not only will we lose about 200 hectares of water surface, also the harbor width will be shrink to 1300 meter\textsuperscript{4}. While many other cities in the world widening their harbors, the government plans to shrink the Victoria Harbor into a river\textsuperscript{5}. In addition, land fill the polluted Kowloon Bay will not resolve the problems of the Kai Tak Nullah and other industrial discharge into the harbor. Heavy pollution will only

\begin{enumerate}
\item Hong Kong Government, \textit{Hong Kong 1995}. Hong Kong Government, 1996
\item Metroplan
\item Planning Department. \textit{The Shape of Things to Come}. Hong Kong Government, 1995
\item Lo, Christine. \textit{Asia GSD Conference}. Harvard University. April, 1997
\end{enumerate}
stay while new towns being built on top of the new plan. More importantly, this scheme pushes a major public park away from the water but leaving the public exposure along the edge minimum. Similarly, infrastructure is designed to dissect the central park, which carries the most valuable element for the public. This potential urban center for Kowloon will no longer function as a coherent public place.

Figure 1 As parts of the new Airport Core Projects, the West Kowloon reclamation has been planned to be finished in 1997. Picture source: Hong Kong Government.
Table 1: Statistic Comparison. Source: Planning Department

<table>
<thead>
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<th>Proposals</th>
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<tr>
<td>Development Area</td>
<td>670 hectares(^a)</td>
</tr>
<tr>
<td>Public Facilities</td>
<td>80 hectares</td>
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<tr>
<td>Water Front opened to public</td>
<td>3.7 km</td>
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<tr>
<td>Jobs</td>
<td>110,000 positions</td>
</tr>
<tr>
<td>Population</td>
<td>285,000 people</td>
</tr>
<tr>
<td>Land Fill</td>
<td>350 hectares</td>
</tr>
<tr>
<td>Harbor area</td>
<td>-350 hectares</td>
</tr>
</tbody>
</table>

\(^a\) Kowloon Bay=300 hectares; Airport=270 hectares; Ajoining Area such as Hung Hom=260 hectares

Figure 1 Current map of South East Kowloon area in Hong Kong. Picture source: Hong Kong Government, 1995
Chapter 3  SUSTAINING THE CITY EDGES

3.1 Urban Design Proposal

In light of the Hong Kong government’s proposal for the South-East Kowloon development\(^1\), this proposal offers a counter-plan that meets the same long term goals assumed by the Planning Department while avoiding many of the environmentally hazardous elements. Furthermore, the project also establishes an urban prototype for the water edge fabrics for harbor city. The design is focused on the utilization of public water edges and opened spaces, urban residential redevelopment and block prototype.

The first step toward a integrated harbor\(^2\) will be making and keeping it cleaner. Then, the public needs to be able to access the water front. In order for the scheme to be marketable, the real estate value also have

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1. Planning Department of Hong Kong. The Shape of things to Come, Planning, Environment and Lands Branch, Hong Kong Government, 1995
2. Wang, pp-76
to be carefully elevated. Thereupon, the increased public services can be established accordingly.

The urban design principles for the South East Kowloon Development have been incorporated with the following categories:

- the Event: Hierarchy of the Kowloon Bay Park
- the Places: District Identity and its Programs
- the Guidelines: Block Design
3.2 the Concept

The design is generated by the simple concept of a Bay Park, which preserves the harbor front and reutilizes the urban environment. The scheme provides a pollution-free Kowloon Bay Park that acts as a centralizing urban element not only for the South East Kowloon District but also for the rest of the city.

With the underlining goal to accommodate as much as the proposed population growth in the area, the urban design strategy has been driven with the purpose of reutilizing traditional local blocks, such as those in West Kowloon along Nathan Road. Further, the Kowloon Bay Park functions as a district center of the public realm. While the new fabrics are design toward the maximum value of harbor view, the coast line also has been preserved for the use of the public. With dynamic public programs surrounding the Bay, prominent connections among old and new urban fabrics are strengthen through tree-lined pedestrian linkages.

Figure 3.1 Geometric diagram of South East Kowloon

3.3 the Event

The Kowloon Bay will be established as the public domain for the development districts with the creation of the Bay Park, with continuous pedestrianized water edges surrounding the Bay and with the elongated Boulevard and the grand Central Park. The Bay Park, serving not only the Kowloon Peninsular but also the whole city, will be enhanced by new ferry services as well as numerous dynamic public programs such as an aquarium.

The character of the Bay Park drew upon the qualities of the Tokyo Marine Park in Japan and the Harbor Place development in Baltimore and other successful harbor cities. Instead of a large and singular park dissected by elevated infrastructure, this is a predominant urban place that offers varieties of public functions. With comprehensive programs and their connections, the Kowloon Bay Park is designed to become a coherent urban core that draws citizens toward the Bay. As Bernard Tschumi, in Event City, suggested:

"the static notion of form and function long favored by architectural discourse need to be replaced by attention to the actions that occur inside and around the buildings - to the movement of bodies, to activities, to aspirations; in short, to the properly social and political dimension of architecture."  

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4. Planning Department of Hong Kong. Metroplan. Planning Department, 1994
Existing Fabrics
Mixed Use:
Typical commercial podium with residential towers above.

Commercial
Business districts with commercial and office-industrial buildings.

Opened-Spaces
Public park, promenade, facilities and boulevard and etc.

Residential
Residential only areas with separate commercial facilities.

Land Use Plan
Pedestrian Linkage
Kai Tak Central Park
- Circular park with major public programs such as gymnasium, swimming pool and running tracks

Airport Boulevard
- 2.5 kilometer long boulevard with park in the middle and local commercial podium on both sides

Hung Hom Ferry Park
- with transportation and public facilities

Kowloon Bay Promenade
- Public broad walk with ferries services and public pavilions

Hung Hom Point
- High-end high-density residential ratio = 4 - 6

New Kowloon City
- FAR = 6 - 10
- Mega development of High Density Residential and Mixed Use

Kai Tak District
- Ratio = 4 - 10
- Medium to High Density Residential with Restricted Block Type
- Podium of commercials with gardens on top supporting residential towers

Mega Private Development
- High Density Residential
- Ratio = 6 - 10
- Estate-type of residential towers with minimum facilities

Multi-Purpose Docks

Development Plan

Chapter III. Sustaining the City Edges

Hong Kong: City of Edges
The public realm will be fostered by a series of city-scale open spaces and supported by animated pedestrian passages: park extends itself into the residential blocks along Kai Tak Districts; tree-lined boulevard introduces fresh new public experiences for citizens both inside and outside of the areas; major harbor functions occur in the stage set over the water and a low-scaled bridge connected both sides of the areas with pedestrian-friendly walkways. Furthermore, high-density commercial district, with integrated light-industrial zones, will be developed surrounding the circular Central Park and along the Kai Tak Boulevard. Park view-oriented commercial buildings will be implemented according to the new urban design guideline in which buildings should be well oriented toward the connection between the new and existing waterfront programs. In a simpler term, from district planning strategies to building height restrictions: there is no urban fabric without waterfront connections and no waterfront without urban connection. And, all these fabrics orchestrated by the device of the Bay Park to create a coherent harbor city.
3.4 the Places

This new South East Kowloon will contribute to the spatial quality of Victoria Harbor with a linear facade of residential high-rises along the western edge of the Kai Tak City. Public access along the waterfront are networked with the connection between the Promenade, the Bridge, the Hung Hom Point as well as the redeveloped areas of East Kowloon. This five-kilometer subsequential broad walks will create the identity for the missing urban links of the east and west sides of the Kowloon Bay. ‘Layers of visual connection inside an urban settings plays an important role in city life’

The Bay area is a place accommodates the successful commercial elements of Tsim Sha Tsui East, the humane pedestrian

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7. Tsim Sha Tsui East is a district in Southern tip of Kowloon Peninsular, Hong Kong.
connection of the Mission Bay\(^8\), as well as the distinct residential orientation of the Back Bay\(^9\). Developers will be able to produce successful projects that offers maximum real estate value. The Urban Council will be able to provide about 150% more park spaces than the current planning strategy of the Planning Department\(^10\). More importantly, residents will find their valuable homes and their working places surrounding with boulevard and parks and harbor views.

**New City of Kowloon:**

The new City of Kowloon, named after the demolished Kowloon Walled City, is a district located to the northern tip of the site which bounded by Ngau Chi Wan, San Po Kong and Ma Tau Kok, where the building Kai Tak Airport is located. High density commercial development surrounds Few mega sized private residential development take place at the east side of the district. The means of the commercials and mixed use serve most of the job requirement in the area. Infrastructure runs along the perimeter of the Park instead of cutting through it. Bay Park activities also opens toward the southern corner of the Park and extending into the Kai Tak City North and South.

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8. Mission Bay area is in downtown area of San Francisco, U.S.A.
9. Back Bay is a land-filled area in the northern side of downtown Boston, U.S.A.
10. Urban Council is a government department that manages public facilities in Hong Kong.
Kai Tak North and South
New district located at the northern part of the Airport runway and the west of Kowloon Bay district. Residential densities go up toward the sky within highly restricted blocks. Streetscapes of podium and towers are lined-up with either boulevard or waterfront or both. Such streets are perpetually tree-lined, shaded and pedestrian active. With the exceptions of the alley street inside the great blocks, all streets are oriented toward bay view connections. Hong Kong has not built enough such streets for the past twenty years, not in new towns, nor redevelopment areas. Kai Tak Cities will sure be a new urban model for the 21st century.

New district located at the southern part of the Airport runway and the west of Kwun Tung district.

The Bay Point
Bay Point is a new reclaimed district extended from the east of Hung Hom district. High end residential buildings occupy about sixty percent of the new peninsular while public and semi-public facilities are planned around and inside. Citizens will find this is an intimate place viewing toward the Island and the new Kai Tak Cities. The visual experience is intelligently amiable in a city that only provide tower skylines for its postcards. The new bridge finally complete the broad walk from the Bay Point with the Kai Tak Cities to allow pedestrian as well as secondary traffic.
Kowloon Bay Park
The Bay Promenade

New linear water front of two kilometer long promenade along the edge of the Kai Tak City North and South.

The Boulevard

A north-south oriented boulevard stretched between the Central Park to the Typhoon Park, with neighborhood-scale of commercial activities on either sides.

The Cove

New water front along the eastern edge of Hung Hom district.

The new Bay Park is the largest opened Park consists of the Kowloon Central Park, the Promenade, the Cove as well as the Bay Point Front and the Marine facilities. The Central Park locates at the middle area of the New City of Kowloon; with gymnasium, swimming pools and other park facilities. It extends itself into the Boulevard and the promenade with green ways and pedestrian links. The Cove is a redeveloped parts of the Hung Hom district offers local community
functions and transportation. Marine Park will set the stage in between and will draws in all parts of the Bay Park.

Figure 3.1 Sketch of water front organizations from residential blocks to Bay Park and Ferry. (Illustration by Singh Intrachooto)
3.5 Basic Design guideline: Blocks, Streets and Water Edges

With the longitudinal side of the Kai Tak Airport runway and the newly reclaimed Kowloon Bay Point, the amount of water edges will be increased to more than eight kilometers long for the public use. Series of dynamic program will allow complete pedestrian connections from the Kai Tak Central Park to the Promenade, the Cove and To Kwa Wan Park and the Kowloon Bay Point Waterfront.

New urban prototypes on the runway site are accomplished through the reuse of post-war urban blocks on Hong Kong Island and West Kowloon. The urban design restriction scheme has been generated from reevaluation of post-war and current local urban model of Hong Kong.

New Kowloon City:

Average Plot Ratio = 6 - 8

Approximately 300sq.meter lots for medium to large private developments
Kowloon Central Park and commercial districts

Average Plot Ratio = 6 = 10
Development lots between 2 - 18 hectares each

Kai Tak City North: and South
Average Plot Ratio = 4 - 8
Blocks 125M x 85M and variations

Kowloon Bay Point:
Plot Ratio = 4 - 6
Blocks 125 x 85 and variations

The new city of Kowloon Bay
• the new city...the new edges

A new edge creates new skin that allows the city breathes through living envelope of membrane. That reveals order of organism.
As the public utilizing the harbor with more intimacy, the new city grows with a balance of fast development and environmental intimacy.
<table>
<thead>
<tr>
<th>Density Zone</th>
<th>Type of Area</th>
<th>Location</th>
<th>Maximum Domestic Plot Ratio</th>
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<tr>
<td>R1</td>
<td>Existing Development Area</td>
<td>Hong Kong Island</td>
<td>8/9/10</td>
</tr>
<tr>
<td>R1</td>
<td>Existing Development Area</td>
<td>Tsuen Wan, Kwai Chung &amp; Tsing Yi</td>
<td>6/7.5</td>
</tr>
<tr>
<td>R1</td>
<td>Existing Development Area</td>
<td>Kowloon</td>
<td>6/8</td>
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</tbody>
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General Building Height Guidelines

Kai Tak Cities

A variety of block size and building height will be developed which emphasizes the quality of residential units. In order to maximize the Bay view, residential towers are responsive in height along the waterfront. Building height will be reduced along the commercial streets three layers away from the promenade. Podium height is directly proportional to the quantity of commercial street fronts needed. Building height can be maximize to the ratio of 8 toward the east side of the Kai Tak Cities where the district meets the highways.

New Kowloon City

Commercial zones allows building ratio to reach that of 10. Tower height will rest one layer between the residential area and the new central business district. Mega size developments holds general ratio of 6 to 10. Plot size can be range between 2 to 18 hectares each or combined.
Section 2 A/A

Plan 1 A/A

Residential Towers
Plot Ratio = 6 - 8

Residential Towers
Plot Ratio = 4 - 6

Public Pedestrian Bridges
Kowloon Bay Promenade
Star Ferries

Commercial Street
shopping mall
5 - 6 Stories

Boulevard Public Park
New M.T.R. Stations
Stations located

Block Type 2A
Example Type 1
120 x 85 M
Podium footprint 80 %
Plot Ratio = 5
Suggested Stories = 20

Block Type 2B
Example Type 2
120 x 85 M
Podium footprint 80 %
Plot Ratio = 8
Suggested Stories = 38

Side Walk
15 M Wide
Treed lined Streets
connecting the West and the East of the Boulevard

Commercial Streets
District Scale shopping malls,
Modeled after Nathan Road
Block Type A
Example Type I
120 x 85 M
Podium coverage 80 %
Plot Ratio = 6
Suggested Stories = 30

Block Type A
Example Type II
120 x 85 M
Podium coverage 80 %
Plot Ratio = 8
Suggested Stories = 38

connecting the Wei
District Sc
Modeled
Plan 1 A/A

85 M x 120 M

Block Type C  Block Type B  Block Type C
Width = 80 M  Width = 80 M  Width = 80 M

Public Water Front
Width = 100 M

Kai Tak Boulavard
Park
60 m

10m 3.5m 113 m
3.5m 18m 3.5m
113 m

Chapter III. Sustaining the City Edges
Residential Towers
Medium to high priced private development
Example Type A-D
30 - 40 stories, Plot Ratio = 4 - 8

Public Pedestrian Bridges
Privately and Publicly Funded
- Connecting Podiums and Private Development

Kowloon Bay Promenade
Public facilities with Bay Broadwalk and Marine facilities

Star Ferries
- Routing between Kowloon and Hong Kong Island

Section 3 A/A

District scale shopping mall
Podium
- Commercial, Transportations Community Facilities
  5 - 6 stories

New M.T.R. Stations
Stations located along the Boulevard
Residential Towers
Plot Ratio = 6 - 8

Residential Towers
Plot Ratio = 4 - 6

Public Pedestrian Bridges
Kowloon Bay Promenade
Bay Bridge

Commercial Street shopping mall
5 - 6 Stories

Typhoon Park
Mega-Size
Private Development
Plot Ratio 2 - 4

Section B/B
Kowloon Central Park
Public Facilities of Sports and others

Commercial Area
Plot Ratio = 5

Tree-Lined Boulevard

Commercial
with Shopping Podium and Office Towers

Mega-Size
Private Development
Plot Ratio 3 - 4

Community Center
and Sport Facilities

Section C/C
Hung Hom Point
high-end residential providing public park on both sides of the man-made island

Kai Tak Cities
accomodates high density
mixed use buildings with varieties of opened-spaces

New infrastructure
with minimum interference with the boulevard and water edges

Partial Rendering of an Aerial View
Chapter 4 SUMMARY

This proposal accommodates around eighty percent of the population and provides three hundred percent more water edges for the public. Block types have been re-examined for the goal of maximizing view to the Bay as well as the living quality. Reconsidering building height and orientation for the purpose of maximizing water views and real estate value. However, only minimum land reclamation will be used in the zoning of residential density. The harbor is brought to the public and vice versa. The public can clearly experience the Bay from all different scale and points of view.

In addition to the programmatic dimension, the new Bay Park will provide a new place for the whole peninsular as well as for the city. This proposal virtually meets what the Planning Departments plan of the South East...
Partial view toward the new Kowloon Bay with residential and Parks.

Kowloon: City Within the City. Importantly the thesis presents a new alternative for the urban design model for the city, especially toward the 21st century. The urban environment and city scale is dynamic and sufficient. At the same time of fitting itself into the planning system and urban model, the new districts attracts new economy and different urban model. This thesis is meaningful, first satisfy the growth but also accommodate needs of new challenge.
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