Hong Kong - Shenzhen Metropolitan Park Development: a sustainable and mutual benefit development plan for the cross-border area between HK and SZ
09. 2009 ~ 06. 2010
Final Thesis Report

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Cover:
Image of Luomazhou Loop in the cross-border area between Hong Kong and Shenzhen
(Hong Kong Planning Department 2009)
Preface

Study abroad was one of my dreams when I studied bachelor of architecture in Shenzhen, especially when I had a chance to participate in the summer school of TU Delft in 2006. It is really hard to imagine how I could come to Netherlands and switched my major from architecture to urbanism. After five years study in architecture and one year work experience, I was wondering what and how could an architect could contribute his or her profession to society and make a better environment to people. The answer was not clear to me and that became one of the most important reasons I would like to seek abroad with a broader view and to discover more and more possibilities. These two years just like an adventure to me in discovering the world and friends, but also in finding more and more possibilities and responsibilities for what I can do through the urbanism study. The life in the Netherlands is so vivid which made me feel so grateful and joyful. If I didn’t come to the Netherlands, I wouldn’t have the chance to meet so many friends from different countries, I wouldn’t have the chance been to Buenos Aires and South America, and of course also other counties in Europe, and I wouldn’t have the chance to meet so many great mentors who helped me to discover the wonders of urbanism which I haven’t thought about how urban planning and design can be so close to the daily life of people and how to develop a city and society towards a better tomorrow.

Hong Kong – Shenzhen Metropolitan Park Development is not only a graduation project, but also a seeking journey in terms of my interests in the vanishing culture landscape in Hong Kong and Shenzhen where under the rapid urbanization. It is also an exploiting process to me for a new perspective which inspired and cooperated from different urban planning approaches. Through the knowledge generated from the western academic disciplines and the wisdoms behind Pearl River Delta landscape context also gives me the light to rethink the role and potential of landscape in urban planning process to generate from the new possibilities for a better development vision. I want to share this discovery to you. Wish you will be enjoying in reading this booklet also inspiring you in appreciating the beauty and culture of landscape simply next to our cities.

I am so grateful that so many wonderful people who gave me and accompanied me walking through the whole two years. My dear parents and husband fully support my study abroad. My mentors, Diego is always so helpful, his comments, feedback and huge knowledge have helped me to overcome many difficulties to manage the project from initial concepts to final work. Luiten lighted me up a new world in cultural landscape planning and design and helped me clarified the confusions I had during the process which let me stuck and couldn’t go further. Nijhuis shared the landscape architecture design and helped my project become integrity. I am so grateful the mentor team I have, without their guidance this project will never be done.

Meanwhile, I want to give thanks to my friends who helped me passing through many frustrations and shared so many joys together during the life in Delft. Moreover, one of the best places to me in the Netherlands, our faculty, Bouwkunde, gave me so many great memories during these two years master study.

Huiyi Lin
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>3</td>
</tr>
<tr>
<td><strong>Part 1: Introduction</strong></td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td>8</td>
</tr>
<tr>
<td>1.1 Motivation</td>
<td>10</td>
</tr>
<tr>
<td>1.2 Problem Statement</td>
<td>12</td>
</tr>
<tr>
<td><strong>Part 2: Project Overview</strong></td>
<td></td>
</tr>
<tr>
<td>2.1 Aim</td>
<td>16</td>
</tr>
<tr>
<td>2.2 Research Question</td>
<td>17</td>
</tr>
<tr>
<td>2.3 Societal and Scientific Relevance</td>
<td>17</td>
</tr>
<tr>
<td><strong>Part 3: Methodology &amp; Structure</strong></td>
<td></td>
</tr>
<tr>
<td>3.1 Research Approach; Methods and Techniques</td>
<td>20</td>
</tr>
<tr>
<td>3.2 Literature Review</td>
<td>24</td>
</tr>
<tr>
<td>3.3 Time Working Plan</td>
<td>30</td>
</tr>
<tr>
<td><strong>Part 4: Research and Analysis</strong></td>
<td></td>
</tr>
<tr>
<td>4.1 Inevitable Urbanization and Conurbation Process</td>
<td>32</td>
</tr>
<tr>
<td>4.2 Vanishing Landscape and Cultural Assets Identity</td>
<td>58</td>
</tr>
<tr>
<td>4.3 Missing Link in two Governances and New Urban Model</td>
<td>62</td>
</tr>
<tr>
<td><strong>Part 5: Vision and Strategy</strong></td>
<td></td>
</tr>
<tr>
<td>5.1 Cross-border Past and Present</td>
<td>68</td>
</tr>
<tr>
<td>5.2 Cross-border Vision</td>
<td>74</td>
</tr>
<tr>
<td>5.3 Cross-border Strategy</td>
<td>77</td>
</tr>
<tr>
<td><strong>Part 6: Design</strong></td>
<td></td>
</tr>
<tr>
<td>6.1 Urban Park Master Plan</td>
<td>90</td>
</tr>
<tr>
<td>6.2 Strategic Project in Urban Park</td>
<td>103</td>
</tr>
<tr>
<td>6.3 Urban Park Implementation</td>
<td>126</td>
</tr>
<tr>
<td><strong>Part 7: Conclusion</strong></td>
<td></td>
</tr>
<tr>
<td>7.1 Evaluation</td>
<td>132</td>
</tr>
<tr>
<td>7.2 Conclusion</td>
<td>134</td>
</tr>
<tr>
<td><strong>Part 8: Literature &amp; Reference</strong></td>
<td></td>
</tr>
<tr>
<td>Literature &amp; Reference</td>
<td>136</td>
</tr>
</tbody>
</table>
1. Introduction

Summary ........................................................................ 8

1.1 Motivation .......................................................... 10

1.2 Problem Statement ............................................. 12
This final thesis report is a specific plan and research project of the cross-border area between Hong Kong and Shenzhen metropolis. The aim is looking for a sustainable and mutual benefit development strategy of cross-border area between the metropolitan area which is under highly urbanization and conurbation process.

The main approach is using the analysis of governmental vision, regional and local contexts and theories study to generate an alternative plan which is aiming to offer a mutual benefit and sustainable vision and strategy for the long term development. The strategy is defined by the integration of the area from a regional to a local perspective, top down approaches as well as the bottom up ones and the challenges of combining both.

In the planning context of China today, landscape is not well performing as an active role and design element within the whole planning process and there is lacking of regional vision to city integration and cooperation. For instance, the constitutive elements of landscape such as ecological lands, risky area, and topography features were just urbanized and transformed into urban land by municipals extension plans without careful considering the potential and values of them. In order to find out a better framework and vision for the cross-border area between Hong Kong and Shenzhen, I tried to reinforce the landscape status as an active role of metropolis which plays as a platform to integrate the multiple design approach from regional, city to local scale.

Hong Kong is under economic restructuring which is from service-oriented economy to knowledge-based service economy. While Shenzhen also need knowledge to upgrade their high-tech industries and service economy. Shenzhen and Hong Kong have strong economic and social ties after the launch of the China Open Door policy in 1978.

I name this project as Hong Kong – Shenzhen Metropolitan Park Development. It is a strategy for cross-border area of Hong Kong and Shenzhen Metropolis and it is aiming to fulfill the two cities knowledge-based light industry, recreation and housing demands. And improve the cities ecological system and active preserve the precious society value behind the culture and nature landscape. It has great potential for city development when urban planners can reconsider the role of landscape and give it a balance weight to the urban development, the wilder sustainable perspective might be opened toward a better harmonious tomorrow and this what I project want to performance.

Key Words:
Cross-border Area, Hong Kong, Shenzhen, Metropolitan Park Development Strategy, Sustainable, Landscape, Urbanization
Fig. 1.1 Inevitable Urbanization, Shenzhen, China (Hong Kong Planning Department 2009)

Fig. 1.2 Inevitable Urbanization, Hong Kong, China

Fig. 1.3 The Landscape Value is Gradually Vanishing Today in Shenzhen and Hong Kong (Hong Kong Planning Department 2009)
1.1 Motivation

The Vanishing Culture and Nature Landscape under the Inevitable Urbanization

The beauty and the value of culture and nature landscape is gradually vanishing around the cities where are under highly inevitable urbanization today in China.

Hong Kong is a former British colony in China, today a Special Administrative Zone (SAR) located on the southern border of Shenzhen. In the frame of Deng Xiaoping’s doctrine: "one country, two systems", Hong Kong has preserved its own economic and political systems, while the mainland China remains a socialist country, albeit with an increasingly free-market economy. Hong Kong’s separate status is expected to persist next to China’s socialist system for at least 50 years. Hong Kong is regarded as a world city and is one of the Asia’s financial centers. After the World War II, the urbanization rate is extremely high during the 1960s and 1990s accompanied by the global trends. The rapid population growth, industrialization and the migration were the main phenomenon in this period. The rapid urbanization not only transformed the geographical landscape, but also seriously influenced the ecosystem when people hadn’t been aware of its importance. With the shrinking agricultural economy and the booming industrialization, the value of landscape disappeared unconsciously among the people during the rapid economic growth period.

Shenzhen is situated in the Pearl River Delta of the Guangdong province in southern China, immediately to the north of Hong Kong. Shenzhen is under dramatically urbanization from the launch of the China Open Door policy in 1978. Owing to China’s economic liberalization and its proximity to Hong Kong, the area became China’s first and arguably one of the most successful Special Economic Zones. The shrinking agricultural economy, the booming industrialization and the young generation from mainland to the special economic zone, the value of culture and nature landscape also disappeared unconsciously during the rapid economic growth and urbanization in the past 30 years.

Behind this landscape value, it was not only influenced by the households, but also can be found the reflections behind the urban planning process by municipal government. Under this inevitable urbanization, can we see the importance of culture and nature landscape and do something for change?

Fig. 1.4 The Location of Shenzhen and Hong Kong
How Important the Nature and Culture Landscape are

As an urbanism master student, I am eager to find out how urban planners and designers can contribute their professions to this context and how can I use my master study to comprehend it and find out the potential and possible solution for this rapid urbanization and conurbation process? How the concept of sustainable development can be realized through urban planning and landscape design and the integration between top-down and bottom-up approaches.

When the beauty of culture and nature landscape is no longer next to the city, when the traditional life style is gradually forgotten by the young generation, do the planners have the ability to evoke and bring back the awareness of beauty and cultural value of landscape to the city dwellers? How does ecological development can be interpreted by the design approach? There are still dozens of questions I want to know. For this project, it is a starting point for me to seek the answerer of one of them.
1.2 Problem Statement

Inevitable Urbanization and Conurbation Process

The inevitable urbanization and conurbation process of Shenzhen and Hong Kong are still going on. To meet the challenges of globalization and regional economic integration, the closer economic cooperation with increased global competitiveness is gradually becoming a consensus among the government, enterprises and society of the Shenzhen and Hong Kong. Based on the premise “One Country, Two Systems” and the cross-boundary cooperation, these two cities have promoted a regional cooperation and development through providing conditions for the flow of key resources (people, goods, capital, information and services, etc), strengthening the synergy between the two cities.

Due to the limitation land in Hong Kong, the Hong Kong government has begun to develop the cross-border area which was kept undeveloped in the past 50 years due to the illegal immigration and activities. In January 2008, the Hong Kong Government announced that about 24 km² of land will be released from the cross-border area in phases. Only areas around border control points will be kept in the cross-border area. Because of the freezing development and the lack of human activities in the area, the cross-border area became a natural habitat for animals and plants. Some environmentalists have pointed out that the reduction of cross-border area would affect the ecological environment.

Now that the urbanization is inevitable, how can we define and transform the released cross-border area in a sustainable way by respecting the environment, social, culture and economic development?
Vanishing Landscape and Cultural Assets Identity

The urbanization of Hong Kong from 1960s till now has brought serious environmental and cultural problems. Hong Kong has small land but densely populated. In order to keep the fast economic growth and competitiveness in the region, they reclaimed land to develop, which give serious damages to the water environment. Meanwhile, because of the images of the city, lots of traditional villages in the valuable land have to be demolished in order to give way to the new city development projects. This is not only demolish the buildings but also the culture—one kind of life style. Furthermore, a lot of nature land has to transform to constructed purposes due to the market demands.

The urbanization of Shenzhen is inevitable as well. Shenzhen develops dramatically from a fish village to a modern financial and ICT centre in China in the past 30 years due to the national policy and rapid economic growth. With the rapid urbanization and population growth, a lot of environmental and cultural problem has come. A lot of lands were fast transformed into industrial, commercial and residential purposes due to the market demands. However, the nature landscape and some traditional culture have vanished day by day. For instance, there is little nature recreation value but more constructed ones. The traditional life style has disappeared gradually and more and more gated communities appear. People are lacking of nature landscape value and traditional life style value——more neighborhood communications and interactions.

How do we see the cultural and nature landscape value in the rapid urbanization process?

Missing Link in two Governances and New Urban Model

Although Hong Kong and Shenzhen have geographical proximity, due to the different economic and political systems, there are still some gaps in two governances. Although each city has its own vision in cooperation with another, there is no metropolitan vision plan to integrate two cities development. In 2047, after Hong Kong is back to China 50 years, the border will not exist, how to see these two cities? What is the new urban model of these two cities? Does two become one?

Based on these three main problems, it is important to think about a sustainable approach for the cities development in future by respecting the environment, social, culture and economic development.

Fig. 1.11 what is new urban model of Shenzhen and Hong Kong after the border vanishes? (image: Bolchover and Haedell 2009)
2. Project Overview

2.1 Aim ................................................................. 16
2.2 Research Question ........................................... 17
2.3 Societal and Scientific Relevance .. 17
2.1 Aim

Mutual Benefit and Sustainable Approach

The aim of this project is to define a mutual benefit and sustainable development plan and design for the cross-border area between Hong Kong and Shenzhen Metropolis, which is to provide a highly efficient functional linkage and a high quality living, working and recreation environment for the people of the two cities without damage the culture and nature landscape value. Creating a green open space belt between two cities facilitates cross-border activities and meets the recreation and housing demands and nature landscape ecological system of the two cities. The project is showing an approach in looking for sustainable development in rapid rapid urbanization and conurbation process. In terms of sustainable, it covers four aspects: economic, environmental, social development and cultural diversity.

For Shenzhen:
- making full use of Hong Kong mature economic market system to accelerate knowledge-based industry upgrading
- facilitating a well environment for the recreation and housing demands
- providing a high living and working standard for the dwellers

For Hong Kong:
- extend its knowledge-based service corridor to Pearl River Delta and China domestic market
- trigger the north part of Hong Kong New Territory development
- facilitating a well environment for the recreation and housing demands
- providing a high living and working standard for the dwellers

For the cross-border:
- active preservation of the existing culture and nature landscape value to support the two cities development
- providing a sustainable land use without damage the nature landscape and culture value
- sustainable development at each phases to enhance its identity

Metropolitan perspective:
In terms of the aim in strategy and design aspects, I am proposing a new metropolitan perspective which is an integration plan in different hierarchy with the landscape as the crucial element. Transiting scales is important because of the plans and designs are strong related from the top-down but also bottom up. Active preserving and retransforming the existing landscape is the most economic, efficiency, and also historical concerns way of development. These two focuses are also reflecting the ideas of mine in tackling with the main problems within China planning context.
2.2 Research Question

Main Research Question:
In the process of globalization due to the inevitable urbanization and the vanishing landscape value, how to develop the cross-border area between Hong Kong and Shenzhen in a mutual benefit and sustainable way?

Sub-research Questions:
1. What is the functional network of these two cities? (And Define: What kinds of collective and complementary functions are they have and how do they structure and work together? Which corridors need to be strengthened and enhanced?)

2. What are the functional demands and potentials of these two cities and the cross-border area? (And Define: Which functions are emergent and priority to develop in cross-border area in the short-term phases?)

3. What are the potential roles of nature and culture landscape of the cross-border area where are under highly urbanization pressure?

4. What kind of spatial design tools are able to integrate the cross-border physical and functional linkages with the crucial nature and culture landscape element?

5. How to transform the cross-border area in a sustainable way by respecting the economic, environment, social and culture development?

2.3 Societal and Scientific Relevance

Societal Relevance:
Hong Kong and Shenzhen are facing several urban problems due to the rapid urbanization. When the nature and culture landscape are losing their values in the metropolitan area, the dwellers who live in rural area are first group suffered. Lacking of management strategies and considerations by governments, rural and nature areas become the sacrificial lands for city development.

Reconsider the role of nature and culture landscape is not only aiming to create a new approach in the cross-border area between Hong Kong and Shenzhen, but also trying to put more efforts about alleviating the problems and needs from people live in a rural area who have less power in changing the development directions. A harmonious environment and society can be reached when the urban planning practice is no longer excluding the weakness groups and looking for equilibrium development strategies.

Scientific Relevance:
Hong Kong is under economic restructuring, which is from service-oriented economy to knowledge-based service economy. Shenzhen restructures to a high-end manufacturing and service economy which also need knowledge to support their ICT industry. My theory paper for the graduation project aims at studying the functional and spatial conditions for the knowledge-based urban development, especially see how important the nature and culture landscape values are in this kind of urban development. The nature and culture landscape value in the knowledge-based urban development is served as the crucial framework in the vision. The approaches and interventions will be well connected from metropolitan scale to local scale.
3. Methodology

3.1 Research Approach; Methods and Techniques ........................................... 20

3.2 Literature Review ................................................................. 24

3.3 Time Working Plan .............................................................. 30
3. Methodology

3.1 Research Approach; Methods and Techniques

The methodology of this project is divided into four parts, Comprehension, Vision and Strategy, Interventions and Evaluation. For more detail descriptions please refer to the contents below and the figure at page 22 and 23.

Comprehension:
In order to answer my research questions through the final design products, the methodology I used was starting from the top-down comprehension to documented Hong Kong and Shenzhen metropolis in three directions. Firstly, understand the inevitable urbanization and conurbation process (historic transition, economic restructuring, cross-border production structure, demographic structure); secondly, comprehend the vanishing landscape and cultural assets identity (green and water network, recreation value, flooding risky area); thirdly, understand missing Link in two governances and new urban model of Shenzhen and Hong Kong (Two municipal visions, new urban model).

Vision and Strategy:
Based on the findings of regional survey and theory study, I raise a new vision for cross-border area between Hong Kong and Shenzhen. The study about the functional and spatial conditions of knowledge-based urban development, especially how important the nature and culture landscape in this kind of urban development, Shenzhen 2030 vision plan and Hong Kong 2030 vision plan, I raise a new vision at regional level. To translate the vision and strategy into local interventions, landscape becomes the most important element in offering a basic framework to give them growth on it. Reframing the landscape, give new definitions to different zones of cross-border area and input multiple programs to sustain the development are made in the vision and strategy. The vision is aiming to improve the mutual benefit and sustainable development, to reach economy feasibility and enhance the social development especially in preserving the culture diversity. The vision and strategy of the cross-border area, the master plan of the most urban pressure area in one zone of cross-border are the final products at this stage.

Intervention:
For the intervention at local scale, I used the same logic to elaborate the design. The local intervention is an example in how to realize the whole strategy by more details and practical ways. The intervention chose one section of the master plan to show how the plan will be realized and what might be flexibility and potential for different development.

Evaluation:
To conclude the project, evaluate the design by being tested toward the existing governmental vision con and pro. Also recheck the research questions I asked in the very beginning, and then make the conclusion of the whole projects.
Reflection on the Complex Cities studio’s approach:

This Complex Cities studio approach the problems of urban and regional development and redevelopment, and the problems of making socially and environmentally sustainable urban places, through an comprehension of the special position cities occupy in the contemporary world.

• Conceptualize and visualize the processes, potentials and problems of cities
• Develop urban planning and design approaches appropriate to contemporary social, economic and technological conditions
• ‘Think strategically’ and formulate specific strategies for different cases

Understand the space through process mapping, system dynamics, network analyses, spatial modelling tools, spatial planning tools and spatial phenomenology. Knowledge gained at theoretical and methodological levels will be applied on a specific site as an urban intervention.
Methodology

**P1**
1. Research Objectives
2. Problem Statements

**Problem Statements:**
- Inevitable Urbanization/Conurbation Process
- Vanishing Landscape and Culture Identity
- Missing Link in two Governances/New Urban Model

**Regional Context (PRD, HK -SZ)**
- Historical Transition & Future Direction
- Cross-border Transition
- Two Municipal Visions

**Two Cities, Cross-border Context Recognition**

**Aims, Research Question & Sub-RQs**

**HK-SZ Metropolitan Region Analysis**

**Inevitable Urbanization/Conurbation Process**
- 1. Historic Transition
- 2. Economic Restructuring
- 3. Cross-border Industry Structure (Infrastructure Network/Function Centralities)
- 4. Demographic Structure (Density/Flows)

**Vanishing Landscape and Culture Identity**
- 1. Water and Green Network
- 2. Recreation Value
- 3. Flooding Risky Area
- 4. Local Inhabitants’ needs and constraints

**Global and Regional Metropolis Structure**
- Social-Economic Structure Transition
- SZ - Internal Radiating Power
- HK - External Radiating Power

**Redefine the Cross-border Role**
- Cross-border Conditions (potentials and restrictions: Pressure from Urbanization and Nature)
- Integration with SZ and HK

**Cross-border Vision**

**Two Municipal Vision Plans**
- Cross-border Vision Plan
- Mapping Analysis
- Theory and Case Studies

**Alternative**

**Cross-border Strategy: a Mutual Benefit Zone — HK-SZ Metropolitan Park Development**

4 parks with specific identities: Mangrove park | Urban Park | Cemetery Park | Country Park

**Circulation / Program / Habitat**

**Representative Area: Urban Park**

**Master Plan / Phasing**
- Circulation: Vehicle / Bicycle / Pedestrian Routing

**Program: HK-SZ Functional Corridors**
- 1. Knowledge/Education
- 2. Recreation
- 3. Housing

**Habitat:**
- Green Open Space Network

**Prototypes of Possible Intervention**
- Redefine Luomazhou Loop Area in the Urban Park

**Key Project & Design**
- Circulation / Program / Habitat

**Final Products VS Government Plan**
Plan and Design Methodology

Top Down Regional Park as a spatial strategy

Urban Park Master Plan (two-dimension, sustainable, landscape as a main element)

Design (three-dimension, spatial quality)
3.2 Literature Review

Hong Kong is under economic restructuring, which is from service-oriented economy to knowledge-based service economy. Shenzhen restructures to a high-end manufacturing and service economy which also need knowledge to support their ICT industry.

My review paper for the graduation project aims at studying the functional and spatial conditions for the knowledge-based urban development, especially see how important the nature landscape and culture value are in this kind of urban development.

The following is the selective part of my review paper which is most helpful for my future design. For the whole paper please check the MSC3 paper proceedings.

Knowledge-based Urban Development:
Urban Conditions for a Knowledge-based City

Abstract – The last few decades witnessed the rise of a new revolution, which is based on the rapid development of information technology and knowledge-based industries. This leads to a shift from service-oriented economy to knowledge-based service economy. Knowledge has become the engine of global and local development. This paper reviews the definitions of knowledge city and knowledge-based urban development. It also discusses the required urban conditions for a successful knowledge city and portrays its distinguishing characteristics. Functional and spatial conditions will be extracted to illustrate. The paper also provides some insights and recommendations for urban planners and designers in defining and evaluating the knowledge-based urban development and my graduation project.

Key words – Knowledge City; Knowledge-based Urban Development; Functional Conditions; Spatial Conditions

1 Introduction
2 Knowledge City
3 Knowledge-based Urban Development
4 Spatial and Functional Conditions for Knowledge-based Urban Development
5 Conclusions and Recommendation

4 Spatial and Functional Conditions for Knowledge-based Urban Development
4.1 Spatial Conditions
4.1.1 Scale (city size and hierarchy)
Winden and others (2004, 2007) mention that the sheer size of the city is an attraction factor for both knowledge intensive activities. The larger the city is, the easier to find specialized staff and suppliers and make connection. Besides, scale relates to attract and retain knowledge workers. This is because there are more various jobs and opportunities in the metropolitan area. Furthermore, the larger urban size has more abilities to support facilities and amenities which are attract for knowledge workers and firms. For instance, international air port and high speed rail can serve them from one node to another node in a shorter time. Generally, well developed larger cities have good public transportation networks. Abundant culture life in larger city also can attract knowledge workers. Meanwhile, the smaller scale cities which located close to these larger metropolitan areas can also benefit from these scale advantage.

Baum and others (2007) argue that the knowledge production requires a certain scale and infrastructure intensity. The optimal environment for knowledge production is the city embedded in functional urban region with global network. This is because much specialize knowledge must be networked from source around the world.
4.1.2 Urban Structure

With the industrial development of the 19th Century, there is a great impact on the urban structure. The mass labour in factories is organised by the new spatial order in the city. Their working places and living places are separated. Nowadays, the mass transportation development connects the dispersed land-uses. The separation of work, retail and residential activity has had lots of negative consequences, such as extended home-work and return commutes, unsustainable transport options and the isolation of child-carers in unidimensional suburban environments (Baum and others, 2007).

Baum and others (2007) propose that knowledge work needs mass organisation. Actually, knowledge work is produced in global networks the massing of labour in the 21st Century. This is not seen before in human history. However, the organisation of knowledge work occurs in virtual space – in electronic media – the need for the space to work is decreased. This context offers a real possibility to the re-integration of work place and domestic space.

On the other hand, the clustering phenomena happen in most well development cities nowadays. In the cluster competition theory of Porter (1998), it is considered that the link between regional clusters and industry production is the crucial factor for economic success. The geographic proximity can further amplify the productivity and innovation interests of the cluster. This helps to lower transaction costs and create the demands of housing. The local development can also meet the specific requirements of the cluster. The firms of the cluster can feel the peer pressure of competition. Porter’s augmentation about economic and urbanization is not just focus on clusters or agglomeration of economic activities in bigger scale, but also focus on the diversity and flexibility in the clusters themselves. This involves some small and flexible ones which can easy to adapt the rapid changing external market factors.

Larsen (1999), mentioned by Yigitcanlar (2008), proposes that knowledge-based urban development and clustering of knowledge institutions provide opportunities for interaction, building of relationships and fertilisation of cross fertilizing of ideas. Maldonado (2009) proposed that science parks and university campuses are considered as key-strategies for economic development. These strategies are spatially oriented. The proximity of firms and institutions generates innovation and economic growth.

4.1.3 Accessibility

Winden and others (2004, 2007) propose that the knowledge economy is a networked economy. A good global, regional and local accessibility is the crucial for success knowledge cities. A good and fast access to international airport and high speed rail station, a good regional linkage to urban knowledge clusters, and an efficient local infrastructure network to face to face contact guarantee the intensive knowledge activities. Admittedly, good ICT infrastructures also support vast and swift global communication. For those smaller cities, Lack good connections with regional and global context are a barrier for their economic development. A good accessibility guarantees the city ability to acquire, create, disseminate and use codified and tacit knowledge, which promote the economic and social development.
4.1.4 City Image
Evan and others (2006) propose that built form, public and natural spaces can express and stimulate a city’s creativity. A city can strengthen its creative spaces by preserving heritage buildings, promoting and financing art for public and natural spaces, as well as using well-designed built form to display its characteristic.

Creative urban spaces are not only involving large, high-profile design programs, but also include everyday and liveable built form. This means that design must be evaluated at an early stage in the development process, in order to promote interaction, liveable scale, heritage protection, aesthetic excitement, and a positive city image (Evan and others 2006).

Brownfields are under used in urban areas dating from first phase of industrialization. Many cities such as Chicago London and Toronto are regenerated the urban brownfields to lively spaces which involving in culture, business and education, because they are already in the city context and has the inherent connection with the urban area. The alternative of revitalizing the old urban area into an innovation one implicates the special quality of past-present-future link, which is also can intensify creativity (Dvir and Pasher, 2004). In a word, urban image is very important to stimulate knowledge and creativity for the people.

4.2 Functional conditions
4.2.1 Knowledge Base Activities
Winden and others (2004, 2007) argue that the main foundation for a knowledge city is its knowledge base. This involves tacit knowledge, codified knowledge, education level of the population and knowledge infrastructure. The knowledge infrastructure refers to the educational institutions and private R&D activities in the urban region. To a larger extent, the quality, quantity and diversity of the knowledge infrastructure determine the city starting position in the knowledge economy. Moreover, a solid knowledge base has become a more significant factor for urban economic growth and change.

Winden and others (2007) add new challenges for urban governance. One is to improve the alignment between knowledge infrastructure and the regional business sectors. The other is to counter the fragmentation within the knowledge base. These fragmentations include the missing links and overlaps between the knowledge infrastructures.

The education level of the population and the stock of knowledge are also curial elements in the knowledge base. It is believed that cities with a high share of worker with tertiary education show a better performance on economic activities. Florida (2002) proposed that the creative class plays a crucial role in the city economic. Creative class is a group of people who write software, songs and stories, creative designs and discover new ways to combine elements. Meanwhile these components can attract human capital and develop knowledge-intensive business. This results in a higher productivity.

4.2.2 Urban Amenities and Quality of Space
In order to be a successful knowledge city, cities has to attract and retain the talented people who create the new knowledge and ideas. Winden and others (2004, 2007) argue that urban amenities and quality of life are the key determinants to attract and retain knowledge workers. These involve an attractively built environment, high quality houses, attractive city parks, attractive natural surroundings, and a rich variety of cultural institutions. Furthermore, an agglomeration of good services and facilities is required, such as high quality hospital and (international) schools. Besides, in order to guarantee a good quality of life, traffic system such as highways and airports should not make too much noise and pollution.

“Talented people do not simply select a place to work based on the highest salary, they are typically concerned with a whole series of place-based characteristics” (Florida, 2000, p.6). In general, talented people tent to settle in a city where they can enjoy their life and work, and also have people they can communicate and interact. This also results in a positive effect as Florida mentioning “talent tends to attract talent” (Florida, 2000, p.15).
Yigitcanlar and other (2008) propose that recently urban and regional planning and development policies are interested in attract international investment and encourage economic growth in knowledge cities. These policies emphasize on creating a high level of social amenity. It is considered that creativity and culture are the providers of dynamic socio-cultural activities and infrastructure. This is because places with culture richness and substance can provide outdoor amenities and amenable places to attract talented people. That is to say, knowledge workers are attracted and gathered to places of cultural vibrancy and variety (Florida, 2002). These talented workers are a crucial component to be a successful knowledge city. Gathering, attracting and retaining these people will establish and cultivate a knowledge base and will encourage new businesses (Ergazakis et al. 2006; Yigitcanlar et al. 2007). As early as 1990s, Knight (1995, p.226) mentions about cultural requirements of a successful knowledge-based urban development by stating “the development of the knowledge base requires the strengthening of all aspects of a city’s culture base”.

However, there are kinds of people in the talented group. They have different occupation and ages. Different knowledge workers have different demands in urban amenities. Clark, mentions by Baum an others (2007), divide the amenities into two categories which are natural and constructed. Young people tend to enjoy the constructed one, while older people tend to have a balance between them (figure 7).

<table>
<thead>
<tr>
<th>Types of Amenities</th>
<th>Specific Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Amenities</td>
<td>climate, (lack of) humidity, moderate temperature, water access (i.e. waterfronts), topographic variation,</td>
</tr>
<tr>
<td>Constructed Amenities</td>
<td>sidewalk cafes, tattoo studios, yoga, coffee houses, bookstores, movie theatres, liberal arts, universities, opera, dance studios, juice bars, bike lanes and trails, gourmet restaurants, research libraries,</td>
</tr>
</tbody>
</table>

Figure 7/Types of Amenities Preferred by Knowledge Workers
Source: Based on Clark 2003. Quoted by Baum et al. (2007, p.23)

<table>
<thead>
<tr>
<th>Type of Workers</th>
<th>Knowledge Areas</th>
<th>Attraction (Hard and Soft Location Factors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientists, Engineers and Creative Professionals</td>
<td>Science, Technology, Innovation</td>
<td>Quality of university milieu, Leisure facilities, Hedonistic environments, Accessibility, Life style environments, Access to cultural facilities</td>
</tr>
<tr>
<td>Artistic/Creative People, Media/Journalists</td>
<td>Arts, Culture</td>
<td>Affordable space, Creative milieu, Entertainment, Creative spaces, Urban diversity</td>
</tr>
<tr>
<td>Students (Latent Knowledge Workers)</td>
<td>Education</td>
<td>Cost of living, Prestigious universities, Life style environments, Cheap accommodation</td>
</tr>
</tbody>
</table>

Figure 8 Hard and Soft Location Factors by Different Types of Knowledge Workers in Cities
Source: Derived from Kunzmann 2005; Van den Berg et al. 2004. Quoted by Baum et al. (2007, p.20)

Figure 9 Dimensions of Urban Quality
Source: Derived from Llewelyn Davies Yeang, 2006; Clark 2003; Florida 2002. Quoted by Baum et al. (2007, p.24)
Public Space
In knowledge city, exchanging knowledge is very important. Exchanging knowledge especially tacit knowledge mostly happens in public space. People through face to face contacts exchange their ideas and experiences.

Richard Florida (2002) mentions a quality public space not only to attract knowledge workers but to keep them productive. A good public space is attractive and liveable.

Florida suggests a set of desirable amenities include parks, bike trails, cultural amenities (such as museums and art galleries), a rich variety of cafés and restaurants, a vibrancy of street life, café culture, arts, music and people engaging in outdoor activities. These spaces should offer a good environment for people to communicate.

4.2.3 Urban Diversity and Equity
Urban diversity promotes creativity (Jacob, 1961). Winden and others (2004, 2007) argue that the diversity of inhabitants and types of economic activities facilitates the interactions which can trigger new ideas. Florida (2002) proposes that diversity is an indicator to see how extent the openness the system is. The places that attract diverse groups of people by different ethnicity, nationality, gender and sexual orientation are easy to attract talented people.

However, urban diversity on the one hand is source of economic activities. On the other hand it is a source of problems due to the segregation between different groups. Therefore, in order to promote sustainable urban economic growth, it is important to reduce poverty and inequality. This is because urban inequity will result in urban unsafety. Urban safety is regarded as a fundamental precondition for urban economic growth. A secure place is an important location for firms and citizens.

Bibliography


3.3 Time Working Plan

The phasing of this research project was defined by two axes, one is the time-line, based on presentation moments (P1, P2, P3, P4 and P5) and the other is based on the actions which should be developed during the research process. These actions are defined as follows: theoretical framework, research and analysis (empirical framework, city atlas), design (concept, scenarios, perspective, and key project - testing Intervention), conclusions and evaluation.

Besides, there are some important in-between products already defined and positioned in the time-line process. These products are: preliminary thesis plan; outline of Review paper; final thesis plan; review paper [Conference]; preliminary thesis 1; preliminary thesis 2; and final thesis.

![Fig. 3.1 Time working plan](image-url)
PART 4

4. Research and Analysis

4.1 Inevitable Urbanization and Conurbation Process ....................... 32

4.2 Vanishing Landscape and Cultural Assets Identity ..................... 58

4.3 Missing Link in two Governances and New Urban Model ............... 62
4. Research and Analysis

There are a lot of study and research mappings I have done for the problems statements. In this section, it shows the most important contexts information for this project which is the main design tasks I am facing. These were organized as follows:

4.1 Inevitable Urbanization and Conurbation Process
4.1.1 Historic Transition
   1a. Hong Kong - Shenzhen in Global context
   1b. Pearl River Delta Urbanism
   1c. Shenzhen and Hong Kong Urbanization
4.1.2 Economic Restructuring
   2a. Hong Kong Economic Restructuring
   2b. Shenzhen Economic Restructuring
4.1.3 Cross-border Production Structure
   3a. Infrastructure Network
   3b. Function Centralities Network
4.1.4 Demographic Structure
   4a. Density
   4b. Flow of people

4.2 Vanishing Landscape and Cultural Assets Identity
4.2.1 Green and Water Network
4.2.2 Recreation Value
4.2.3 Flooding Risky Area

4.3 Missing Link in two Governances and New Urban Model
4.3.1 Two Municipal Visions
4.3.2 New Urban Model

4.1 Inevitable Urbanization and Conurbation Process
4.1.1 Historic Transition
   1a. Hong Kong- Shenzhen in Global context

Hong Kong is regarded as an important hub for advanced service in the global network. Due to the geographic proximity with Hong Kong, Shenzhen plays more significant role in the corporation with Hong Kong in the coming future.

According to GaWC (Globalization and World Cities Research Network) 2008, Hong Kong is hierarchized as alpha+ city, which means Hong Kong is largely filling in advanced service needs for the Pacific Asia. The connectivity measures are used to classify cities into levels of world city network integration. These levels are interpreted as follows: alpha++ cities: in all analyses, London and New York stand out as clearly more integrated than all other cities and constitute their own high level of integration; alpha+ cities: Other highly integrated cities that complement London and New York, largely filling in advanced service needs for the Pacific Asia; alpha & alpha- cities: Very important world cities that link major economic regions and states into the world economy.

According to Richard Florida’s who is your city, Hong Kong and Shenzhen are seen as a mega region —— Hong-Zhen in the Asia and would play a significant economic power in the near future.
Cities, and some mega-regions, are the central engines of economic growth and development (Jacobs, 1961, 1969, 1984).

The connectivity measures are used to classify cities into levels of world city network integration. These levels are interpreted as follows:

- **Alpha++ cities**: In all analyses, London and New York stand out as clearly more integrated than all other cities and constitute their own high level of integration.
- **Alpha+ cities**: Other highly integrated cities that complement London and New York, largely filling in advanced service needs for the Pacific Asia.
- **Alpha & Alpha- cities**: Very important world cities that link major economic regions and states into the world economy.

---

**Fig. 4.1** Hong-Zhen mega region (Richard Florida 2008)

**Fig. 4.2** Hong Kong is largely filling in advanced service needs for the global and Pacific Asia 1 (GaWC 2008)

**Fig. 4.3** Hong Kong is largely filling in advanced service needs for the global and Pacific Asia 2 (GaWC 2008)

**Fig. 4.4** Precincts of Pearl River Delta

**Fig. 4.5** Pearl River Delta Network
4.1 Inevitable Urbanization and Conurbation Process

4.1.1 Historic Transition

1b. Pearl River Delta Urbanism

The Pearl River delta (PRD) has been one of most dynamic economic engines in China since the China Reform Program (Open Door Policy) launched in 1978. Since then, PRD has become world’s workshop and nowadays is a major manufacturing base for a grand range of products. The prefectures in the PRD have benefited from the proximity to Hong Kong.

“In 1979, the Central Government of the People’s Republic of China announced that Guangdong Province would be allowed to follow less restrictive economic policies and would be permitted to set up three Special Economic Zones (SEZs), including two in the PRD, Shenzhen and Zhuhai. Preferential policies in the SEZs included a number of features designed to attract foreign investment. They also included duty free treatment of imports of raw materials and intermediate goods destined for exported products, as well as exemption from export taxes.

Guangdong’s early experience with reform allowed a market-oriented culture to develop earlier than in other places in the Chinese Mainland. Starting in 1979, Guangdong Province and the SEZs were given greater political and economic autonomy than other jurisdictions in the Chinese Mainland. Areas of greater autonomy included finance and fiscal matters, foreign trade and investment, commerce and distribution, allocation of materials and resources, labor, and prices. In 1988, Guangdong was granted expanded powers to set its own economic direction, and was designated a ‘comprehensive economic reform area’. This gave rise to the creation of the Shenzhen Stock Exchange, as well as development of a land lease system and some privatization of housing. Shenzhen became a leader in terms of foreign exchange markets, operation of foreign banks, land reforms, and stock market development.

The economic development of the Pearl River Delta Economic Zone took off after the reform program was instituted. Since the onset of China’s reform program, the Pearl River Delta Economic Zone has been the fastest growing portion of the fastest growing province in the fastest growing large economy in the world. In the process, a region that was once largely agricultural has emerged as a manufacturing platform of global importance. It is a world leader in the production of electronic goods, electrical products, electrical and electronic components, watches and clocks, toys, garments and textiles, plastic products, and a range of other goods.

For the first ten years of China’s economic reform process, the internationalization of the Chinese economy was largely a Pearl River Delta phenomenon, with the export-oriented production of foreign-invested entities based in Shenzhen, Dongguan, and Guangzhou leading the way. In recent years, the development environment for indigenous private-owned enterprises has improved dramatically in the Pearl River Delta Economic Zone and local firms are now playing an ever-growing role in the region’s economy. In this regard, Shenzhen, Dongguan, Foshan, and other parts of the Pearl River Delta Economic Zone have been at the forefront of private sector development in China.” (quote by Wikipedia Web Services, 2009)
The Pearl River delta (PRD) has been one of the most dynamic economic engines in China since the China Reform Program (Open Door Policy) launched in 1978. Since then, PRD has become the world's workshop and nowadays is a major manufacturing base for a wide range of products. The prefectures in the PRD have benefited from the proximity to Hong Kong.

Fig. 4.6 Pearl River Delta in China
(Shenzhen Urban Planning and Land Resources Committee 2007)

Fig. 4.7 Space Structure Pearl River Delta
(map based on Shenzhen Urban Planning and Land Resources Committee 2007)

Fig. 4.8 Ecological Structure of the Pearl River Delta
(map based on Shenzhen Urban Planning and Land Resources Committee 2007)

Fig. 4.9 Pearl River Delta urbanization
(Wang 2008)
Fig. 4.10 The Pearl Delta Megalopolis, Population Densities, 2020 (Leman 2003)

Source: Chreod Ltd.

Fig. 4.11 Population Density in PRD, 1980s (Lin 2000)

Fig. 4.12 Population Density in PRD, 1990s (Lin 2000)


Fig. 4.12 Population Density in PRD, 1990s (Lin 2000)
4.1.1 Historic Transition
1c. Shenzhen and Hong Kong Urbanization

Shenzhen is situated in the Pearl River Delta of the Guangdong province in southern China, immediately to the north of Hong Kong. Shenzhen is under dramatically urbanization from the launch of the China Open Door policy in 1978, which is from a fish village to a national financial and ICT hub. Owing to China’s economic liberalization and its proximity to Hong Kong, the area became China’s first and arguably one of the most successful Special Economic Zones. The shrinking agricultural economy, the booming industrialization and the young generation from mainland to the special economic zone, the value of landscape also disappeared unconsciously during the rapid economic growth period in the past 30 years.

Hong Kong is a former British colony in China, today a Special Administrative Zone (SAR) located on the southern border of Shenzhen. In the frame of Deng Xiaoping’s doctrine: “one country, two systems”, Hong Kong has preserved its own economic and political systems, while the mainland China remains a socialist country, albeit with an increasingly free-market economy. Hong Kong’s separate status is expected to persist next to China’s socialist system for at least 50 years. Hong Kong is regarded as a world city and is one of the Asia’s financial centers. After the World War II, the urbanization rate is extremely high during the 1960s and 1990s accompanied by the global trends. The rapid population growth, industrialization and the migration were the main phenomenon in this period. The rapid urbanization not only transformed the geographical landscape, but also seriously influenced the ecosystem when people hadn’t been aware of its importance. With the shrinking agricultural economy and the booming industrialization, the value of landscape disappeared unconsciously among the people during the rapid economic growth period.

For more details please see the maps and figures.
<table>
<thead>
<tr>
<th></th>
<th><strong>Hong Kong</strong></th>
<th><strong>Shenzhen</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political system</strong></td>
<td>Special Administrative Region under capitalism</td>
<td>Special Economic Zones under socialism</td>
</tr>
<tr>
<td><strong>Economic system</strong></td>
<td>Highly-developed market economy system</td>
<td>Government-led market economy system</td>
</tr>
<tr>
<td><strong>Economic structure</strong></td>
<td>A highly-developed modern service sector, with a high degree of division of labor; and a competitive edge in the financial, transportation and high and new technology industries</td>
<td>A competitive edge in the manufacturing and ICT industries at the national level, floating labor force dominate in manufacturing industry</td>
</tr>
<tr>
<td><strong>Cultural</strong></td>
<td>Integration of eastern and western culture</td>
<td>Immigration culture (tolerance)</td>
</tr>
<tr>
<td><strong>Environmental /Geographic</strong></td>
<td>Small but densely populated, terrain is hilly to mountainous with steep slopes</td>
<td>Mostly flat ground in downtown area, and it is now expanding peripherally and the hills in surrounding areas</td>
</tr>
<tr>
<td><strong>Metropolitan area</strong></td>
<td>1,104 km² land (1,054 km²) water (50 km²)</td>
<td>2,050 km² urban (395.81 km²) rural areas (1654.19 km²)</td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td>6054.5 inh / km²</td>
<td>4,202.7 inh / km²</td>
</tr>
<tr>
<td><strong>Per capita GDP</strong></td>
<td>US $44,413</td>
<td>US $13,153</td>
</tr>
</tbody>
</table>

Fig. 4.15 the differences between Shenzhen & Hong Kong (Hong Kong Census and Statistics Department 2009; Shenzhen Municipal Statistics Bureau 2009)
Shenzhen

As Xinan County, basically poor rural areas
Lay along the Kowloon-Canton Railway, built in 1911
Renamed as Bao'an County in 1914

Establishment of
the People's Republic of China:
"closed-door", "self-reliant,
centrally planned economy

Collectivization process
in the rural sector

Cultural Revolution
on the mainland

Establishment of the
Shenzhen Special
Economic Zone

Bao'an County was divided
into Bao'an and Longgang Districts

Incorporation of Bao'an
and Longgang Districts
into the Shenzhen
Special Economic Zone


Hong Kong

Hong Kong under Japanese occupation

New Territory “leased” to British
government for 99 years

Kowloon peninsula was ceded to Britain

Hong Kong a small fishing village,
became a British colony

HK “transferred” industrialization
following the establishment of
the People's Republic of China
on the mainland

Open-door Policy
in China

Establishment of the
Shenzhen within the Bao'an County

Establishment of the
Shenzhen Special
Economic Zone

Bao’an County was divided
into Bao’an and Longgang Districts

Incorporation of Bao’an
and Longgang Districts
into the Shenzhen
Special Economic Zone


Deindustrialization and rapid economic integration with China mainland;
intensified economic restructuring (from a manufacturing economy
to a service economy) in the coming two decades

Economic restructuring
and tertiarization of the economy

Export-led industrialization

Reversion of Hong Kong
to Chinese rule and
establishment of the
Hong Kong Special Administrative Region
(HKSAR) under the unique framework
"One Country, Two Systems" (OCTS).
Establishment of the Shenzhen Special Economic Zone (SEZ) (1980)

Bao’an County was divided into Bao’an and Longgang Districts (1992)

Incorporation of Bao’an and Longgang Districts into the Shenzhen Special Economic Zone (1994)

Bao’an District
Functions: regional service production center, important high-tech industries and advanced manufacturing base

Longgang District
Functions: Integrated Services Center, important advanced manufacturing and hi-tech industrial base

Nanshan District
Functions: the city’s cultural and commercial center.

Yantian District
Functions: the natural ecological protection and international coastal tourist resorts, an important harbor logistics base and creative cultural industry park

Futian District
Functions: the city’s administrative, cultural, center.

Luohu District
Functions: the city’s financial and commercial center.

Fig. 4.17 The urbanization of Shenzhen and the functions of different districts
Fig. 4.18 The urbanization of Shenzhen and the functions of different districts (Shenzhen Municipal Statistics Bureau 2009)

Fig. 4.19 Population growth and gross domestic product in Shenzhen (1979 - 2000) (Shenzhen Municipal Statistics Bureau 2009)
Over the past two decades, the Hong Kong economy grew by an average of 4.1 per cent in real terms, outpacing the 3.4 per cent growth for the world economy. The local economy remained vibrant in 2008, with real GDP growing by 2.5 per cent.

Fig 4.21 The Gross Domestic Product of Hong Kong from 1988 to 2008 (Hong Kong Census and Statistics Department 2009)
Hong Kong & Shenzhen Urban Expansion

< 1970s
Hong Kong:
HK island
Kowloon

1970s
Hong Kong:
Shatian
Quanwan
Tunmen

1980s
Hong Kong: Dapu
Yuanlang
Shuangshui
Fenling

Shenzhen: Luohu
Shekou

1990s
Hong Kong: Tianshuwei
Jiangjunao
Dongchong

Shenzhen: Luohu
Futian
Nanshan
Bao'an
Longgang

2000s
Hong Kong:
Northern New Territory:
(Gudong North
Shuangshui North
Daguling/Pingche

Shenzhen:
Luohe
Futian
Nanshan
Bao'an
Longgang

Fig. 4.23 The Population Growth of Shenzhen and Hong Kong
(Hong Kong Census and Statistics Department 2009, Shenzhen Municipal Statistics Bureau 2009)
Hong Kong & Shenzhen Relationship

From a Small Fishing Village to an Industrial Center and A Regional Financial Hub

Shenzhen
From a Sleepy Border Town to an Expanding Special Economic Zone

Fig. 4.25: The Function Diagram of Shenzhen and Hong Kong
4.1 Inevitable Urbanization and Conurbation Process
4.1.2 Economic Restructuring
   2a. Hong Kong Economic Restructuring
   2b. Shenzhen Economic Restructuring

2a. Hong Kong Economic Restructuring
—— From Service-oriented Economy to Knowledge-based Service Economy

Hong Kong is a former British colony in China, today a Special Administrative Zone (SAR) located on the southern border of Shenzhen. In the frame of Deng Xiaoping’s doctrine: “one country, two systems”, Hong Kong has preserved its own economic and political systems, while the mainland China remains a socialist country, albeit with an increasingly free-market economy. Hong Kong’s separate status is expected to persist next to China’s socialist system for at least 50 years. Hong Kong is therefore able to maintain in its role as one of the Asia’s financial centers.

Hong Kong is undoubtedly a typical world city. Academics have identified two classes of world cities. The first class has a particularly strong service sector, being major nodes of the global economy. New York, London and Tokyo are clear examples. The second class belongs to regional nodes. Hong Kong is a typical one. Hong Kong is a regional node of Asia-pacific. Among the 500 major global multinationals, 8 have their headquarters in Hong Kong. Besides, statistics show that regional headquarters located in Hong Kong has risen to 1,167 in 2005. This demonstrates the growing significance of headquarters in the Hong Kong economy.

Hong Kong is currently undergoing its third round of economic restructuring. This appears to continue the restructuring towards a service-oriented economy commenced in the 80s. Yet, major changes have already taken place.

1> The service sector has already dominated the economy.
2> Restructuring in the service sector also took place evidenced by rising knowledge-based elements and reduced contribution from property-related activities.
3> Restructuring in trade has also begun, with offshore trade gradually becoming the dominant pattern.
4> Concerning high-tech, Hong Kong is weak in development, but good in application.

In general, Hong Kong has the largest service sector among world cities. Although currently Hong Kong is not yet a knowledge-based economy, development in knowledge-based services has still been remarkable. (Bauhinia Foundation Research Centre, 2007)

**Value added of KBI as a percentage of GDP at current factor cost**

<table>
<thead>
<tr>
<th>$ billion</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>227.1</td>
<td>10.0</td>
</tr>
<tr>
<td>277.1</td>
<td>11.0</td>
</tr>
<tr>
<td>256.7</td>
<td>12.0</td>
</tr>
<tr>
<td>243.0</td>
<td>12.0</td>
</tr>
<tr>
<td>216.8</td>
<td>11.0</td>
</tr>
<tr>
<td>239.9</td>
<td>12.0</td>
</tr>
<tr>
<td>248.4</td>
<td>12.0</td>
</tr>
<tr>
<td>259.5</td>
<td>12.0</td>
</tr>
<tr>
<td>330.7</td>
<td>12.0</td>
</tr>
<tr>
<td>414.3</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Fig 4.26 The value added of knowledge-based industry as a percentage of Hong Kong GDP (Hong Kong Census and Statistics Department 2009)
4.1 Inevitable Urbanization and Conurbation Process

4.1.2 Economic Restructuring

2a. Hong Kong Economic Restructuring

2b. Shenzhen Economic Restructuring

— From Low-tech, Labor-intensive Manufacturing and Service Economy to High-end Manufacturing and Service-oriented Economy

Shenzhen is situated immediately to the north of Hong Kong. Owing to China’s economic liberalization and its proximity to Hong Kong, the area became China’s first—and arguably one of the most successful—Special Economic Zones (SEZ).

Shenzhen is a leading city in China for ICT industries and new business ventures. The ICT and other electronics sector dominate the local manufacturing economy. Other leading sectors include electric equipment / machinery and printing / recorded media. Shenzhen accounts for almost 20 percent of the Chinese Mainland’s software output and 25 percent of its integrated circuit design business. Numerous foreign firms and leading firms from all over the Chinese Mainland have set up in Shenzhen to take advantage of the infrastructure, labor, and links to Hong Kong.

Shenzhen is also home to a number of international trade fairs and exhibitions covering a wide range of industries from nuclear power to food. Shenzhen’s China High-tech Fair, the largest of its kind in China, attracts participants from around the globe. Shenzhen is home to one of two stock exchanges in the Chinese mainland and has been a leader in the opening of China’s finance and insurance sectors.

The industrialization of Shenzhen is attributed to a large inflow of foreign direct investments (FDI) for low-tech, labor-intensive manufactures and service. It is also at a comparative advantage for being adjacent in proximity and culture with Hong Kong. As China further opens up to globalization, Shenzhen is recommended to reform its industrial structure from low-tech, labor-intensive manufacturing and service economy to high-end manufacturing and service-oriented economy according to the strengthening competition in world trade.


Fig. 4.27 The comparison of Shenzhen and Hong Kong GDP and per capita (Hong Kong Census and Statistics Department 2009, Shenzhen Municipal Statistics Bureau 2009)
### Education Conditions of the Temporary Labor Force of Shenzhen

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>2006</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No schooling / Pre-primary</td>
<td>423,310</td>
<td>7.1</td>
</tr>
<tr>
<td>Primary</td>
<td>1,084,112</td>
<td>18.3</td>
</tr>
<tr>
<td>Lower Secondary</td>
<td>1,124,583</td>
<td>19.0</td>
</tr>
<tr>
<td>Upper Secondary</td>
<td>1,579,774</td>
<td>26.7</td>
</tr>
<tr>
<td>Sixth Form</td>
<td>351,419</td>
<td>5.9</td>
</tr>
<tr>
<td>Post-secondary: Diploma / Certificate</td>
<td>232,714</td>
<td>3.6</td>
</tr>
<tr>
<td>Post-secondary: Sub-degree course</td>
<td>234,175</td>
<td>4.0</td>
</tr>
<tr>
<td>Post-secondary: Degree course</td>
<td>914,684</td>
<td>15.4</td>
</tr>
<tr>
<td>Total</td>
<td>5,924,671</td>
<td>100.0</td>
</tr>
</tbody>
</table>

### Education Attainment of the Registral Labor Force of Shenzhen

- Junior high school and below
- High school
- Vocational and Technical College
- University and above

### Visible Trade between Hong Kong and the Mainland

**HK $ Billion**

- Total Trade Value

**Percentage (%)**

- Year-on-year rate of change

### Breakdown of GDP by City in Greater PRD (2005)

Source: Guangdong, Hong Kong and Macau statistics departments, CBRE Research

Fig. 4.28 The education level of Hong Kong people aged 15 and over (Hong Kong Census and Statistics Department 2009)

Fig. 4.29 The education level of Shenzhen registral and temporary labor force (Shenzhen Municipal Statistics Bureau 2009)

Fig. 4.30 The visible trade between Hong Kong and the Mainland (Hong Kong Census and Statistics Department 2009)
4.1 Inevitable Urbanization and Conurbation Process

4.1.3 Cross-border Production Structure
(Infrastructure and Function Centralities Network)

Shenzhen and Hong Kong has a strong economic relationship and play as an engine for the national economic growth. Because of the complementary functions they have, nowadays, they are function as a well metropolis in the global and regional competition.

Hong Kong is a global city with mature service economy. It is a regional headquarter and financial hub with international producer services, important airports, international meeting and conventions, tourism and multi-culture character. Shenzhen is a national special economic zone with service and manufacturing economy. It is a regional finance, trade and shipping centre, national high-tech industry base, modern culture industry base and national transportation and border crossing.

Hong Kong has an external radiating power to the global market and Shenzhen has an internal radiating power to the domestic market.

Flow of Goods
Trade with Hong Kong in 2006 consisted of US$333 billion of imports of which US$298 billion were re-exported. Of these figures 94 percent were associated with China. Considering that 34.5 percent of the value of Hong Kong trade is air freight (only 1.3 percent by weight), a large proportion of this is associated with China as well.

In 2006, there were around 20,500 daily vehicular crossings of the boundary in each direction. Of these 65 percent were cargo vehicles, 27 percent cars and the remainder buses and coaches. The Huanggang crossing point was most heavily used at 76 percent of the total, followed by the Futian crossing at 18 percent and Shatoujiao at 6 percent. Of the cargo vehicles, 12,000 per day were container carrying and, using a rate of 1.44 teus/vehicle, this results in 17,000 teus/day across the boundary, while Hong Kong port handled 23,000 teus/day during 2006, excluding transshipment trade. (Bauhinia Foundation Research Centre 2007)

Flow of Service
Apart from the business and family trips, many visitors come from Hong Kong to Shenzhen for the shopping, where goods and services are assumed cheaper than those in Hong Kong. The other reasons for Hong Kong tourists to visit Shenzhen are the restaurants from many provinces, usually at a cost of one quarter that of Hong Kong, and the genuine massage and beauty parlors at about one tenth the cost of Hong Kong. (Bauhinia Foundation Research Centre 2007)

For more details please see the maps and figures.
SZ-HK Physical Network in 2030:
“SZ-HK 1 hour Metropolitan Life Circle”

GZ-SZ-HK High-speed Rail (under construction)
SZ CBD - HK CBD only 14 mins
HK Northern Development Axis
Non-intensive technology and business zones and other uses that capitalise on the strategic advantage of the boundary location

HK Central Development Axis
Community-type Housing and Education/Knowledge-building Facilities

HK southern development axis
Logistics and major Tourism Facilities

Metro Core
Intensive Commercial/Business Zones and Housing for Urban-style Living

Fig. 4.35  the function network of Shenzhen and Hong Kong 1
Economic Cluster of Shenzhen & Hong Kong

Western Industrial Area
Western development axis
Central development axis
HK Northern development axis
Community-type housing and education/knowledge-building facilities
Logistics and major tourism facilities
Non-intensive technology and business zones and other uses that capitalise on the strategic advantage of the boundary location

HK central development axis
Community-type housing and education/knowledge-building facilities

HK southern development axis
Logistics and major tourism facilities

Legend
The secondary sector of industry: manufacturing
High Tech Industry (manufacturing/research)
The tertiary sector of industry: service production
Main town
New development area of HK
University and institute of HK and SZ
Regional transport corridors
Shenzhen development axes
Hong Kong development axes

Fig. 4.36 the function network of Shenzhen and Hong Kong 2
Strengthen Knowledge-based Zones and Education Axises of Shenzhen & Hong Kong

SZ
HK Science & Technology Park
Tai Po Industrial Park
Yuen Long Industrial Park
SZ University
SZ Vocation Technology College
SZ Polytechnic
SZ University Town
SZ Educational College
SZ Normal College
SZ Science & Technology Park
SZ CBD
Nanshan
Bao'an
SZ tourism College of Jinan University
SZ tourism College of Hong Kong University
SZ tourism College of NTU

HK
Chinese University of HK
HK University of Science & Technology
HK University
HK Academy for Performing Arts
HK Shue Yan University
HK Polytechnic University
Open University of HK
City University of HK
HK Baptist University
Chu Hai College of Higher Education
Lingnan University

Fig. 4.37 Strengthen the Knowledge corridor of Hong Kong and Shenzhen
Fig. 4.38 New development area of Hong Kong near the cross-border
PRD (Pearl River Delta) & China Domestic Market

Internal Radiating Power

Manufacturing +++
Service +

Service +
Service +++

External Radiating Power

Global Market

Shenzhen as a National Special Economic Zone
From Low-tech, Labor-intensive Manufacturing and Service Economy to High-end Manufacturing and Service-oriented Economy

Redefine the Cross-border position
Cross-border condition: (potentials and restrictions: Pressure from Urbanization and Nature) Integration with SZ and HK

Hong Kong as a Global City
from service-oriented economy to knowledge-based service economy
4.1 Inevitable Urbanization and Conurbation Process

4.1.4 Demographic Structure (Density/Flow of people)

Flow of People

As of December 2007, there are six land crossing points on the boundary between Shenzhen and Hong Kong. From east to west these are Shatoujiao, Wenjindu, Luohu, Huanggang, Futian and Shenzhen Bay.

in 2006 the average daily passenger flow through the four connections open at that time was over 200,000 in each direction of which 63 percent used the Luohu rail connection and 33 percent the Huanggang road connection. As a point of comparison, Hong Kong’s Chek Lap Kok Airport, the 5th busiest international airport in the World, handled 59,000 passengers per day in each direction.

Hong Kong conducts regular surveys of cross-boundary passenger movements. In 2003 the boundary crossings for Hong Kong Residents living in Hong Kong made 78 percent of the trips, up by 33 percent from 1999, whereas Hong Kong and Chinese residents of China made up 20 percent in 2006, an increase of 140 percent above the 1999 figure. Since that time movement has been made much easier for China residents, and so that group have probably increased further yet. Other nationalities made up 2 percent of boundary crossings.

Of these trips 67 percent were associated with Shenzhen and 42 percent were for business or work purposes. Of the non-business trips about one third were to visit friends and relatives and the remainder for leisure. (Hong Kong Planning Department 2008)
Demography of Shenzhen & Hong Kong

**City Densities**

- **Hong Kong**: 6340 p/km²
- **Shenzhen**: 2790 p/km²

**City Populations**

- **Shenzhen**: 8.8 mil.
- **Hong Kong**: 7.6 mil.

**Population Density of Shenzhen & Hong Kong (2008)**

![Population Density Map](image)

- **Legend**: 1-5 (1-10 thousand people/square kilometre), 5-10, 10-15, 15-20, 20-30, 30-40, 40-50, 50-60

**Population Number of Shenzhen & Hong Kong (2008)**

![Population Number Map](image)

- **Legend**: <200, 200-300, 300-500, 500-550, 550-600, 600-800, 800-1000, 1000-2000, 2000-4000

Fig 4.42 Demography of Shenzhen and Hong Kong (Hong Kong Census and Statistics Department 2009, Shenzhen Municipal Statistics Bureau 2009)
Fig. 4.43  Border-crossing points and daily average passenger number between Shenzhen and Hong Kong (Numbers from Shenzhen Port Office 2009)
4.2 Vanishing Landscape and Cultural Assets Identity

4.2.1 Green and Water Network

4.2.2 Recreation Value

The beauty and the value of landscape is gradually vanishing around the cities where are under highly inevitable urbanization today in Shenzhen and Hong Kong.

After the World War II, the urbanization rate of Hong Kong is extremely high during the 1960s and 1990s accompanied by the global trends. The rapid population growth, industrialization and the migration were the main phenomenon in this period. The rapid urbanization not only transformed the geographical landscape, but also seriously influenced the ecosystem when people hadn’t been aware of its importance. With the shrinking agricultural economy and the booming industrialization, the value of landscape disappeared unconsciously among the people during the rapid economic growth period.

Shenzhen is under dramatically urbanization from the launch of the China Open Door policy in 1978. The shrinking agricultural economy, the booming industrialization and the young generation from mainland to the special economic zone, the value of landscape also disappeared unconsciously during the rapid economic growth period in the past 30 years.

Behind this landscape value, it was not only influenced by the households, but also can be found the reflections behind the urban planning process by municipal government.

For more details please see the maps and figures.
Green, Water and Recreation Network of Shenzhen & Hong Kong

Legend
- Cultural Scenic Spots
- Natural Scenic Spots
- Leisure Scenic Spots
- Tourist Service Center
- SZ Country Parks
- SZ Suburban Parks
- SZ Greenbelt
- SZ Green Scenery
- SZ Public Green
- SZ Mountain Area
- SZ Water
- Sea
- Urban Area
- HK High Value Landscape
- HK High (Qualified) Value Landscape
- HK Moderate Value Landscape
- HK Low Value Landscape

Fig. 4.44  Green, Water and Recreation network of Shenzhen and Hong Kong
The landscape type of this area are ponds, which cultivate mangroves, reeds and other natural ecosystems. They provides habitats for the birds (migratory and resident birds).

Artificial ecosystem includes farmland with dykes and paddy fields.
4.2.3 Flooding Risky Area

The Shenzhen River separates Hong Kong and Shenzhen. Shenzhen and Hong Kong is on the common track of tropical cyclones and can experience very heavy rainstorms at times. The annual average rainfall is about 2200 millimeters, one of the highest among the cities in the Pacific Rim. During these rainstorms, flooding in the rural low-lying areas and natural flood-plains in the northern part of the territory and in parts of the older urban areas will not be uncommon. To quote an example, the heavy rain brought about by Typhoon Dot in 1993 flooded over 1,000 hectares of land.

Over the years, intensive development associated with urban development has taken place in the flood-plains. This has turned large areas of natural ground into hard paved areas and rainwater, which formerly was retained, now quickly becomes surface flows. The extension of built-up areas in close proximity to the major watercourses has also reduced their flood carrying capacity and has further aggravated the flooding problem. (Hong Kong Drainage Services Department 2009)
4.3 Missing Link in two Governances and New Urban Model

4.3.1 Two Municipal Visions
4.3.2 New Urban Model

Future integration plans

In Section of the policy address on 10 October 2007, Hong Kong Chief Executive stated: Jointly developing a world-class metropolis with Shenzhen: “In my Election Platform, I have put forward the vision of developing the Hong Kong-Shenzhen metropolis and undertaken to strengthen our cooperation. My proposals met with positive responses from the Shenzhen authorities. We share a common goal and have had some preliminary exchange of views. Currently, we are discussing airport collaboration and the development of the Hetao area.”

On 21 November 2007, the Shenzhen Government officially endorsed this policy and included it in the Shenzhen planning blueprint for the period up to 2020. It was announced that Shenzhen mayor would visit Hong Kong in December 2007 to sign a metropolis agreement with the SAR government.

The plans were originally detailed by the Hong Kong non-governmental think tank, Bauhinia Research Foundation in August 2007, and covered such matters as financial services, hi-tech and high-end research and development, transport, environmental matters and ecology. It was claimed that Shenzhen-Hong Kong could be the third largest metropolis in the world in GDP terms by 2020, only behind New York City and Tokyo. The plan was also endorsed by the China Development Institute, a Shenzhen-based non-government think tank. (Hong Kong Planning Department 2007, Shenzhen Urban Planning and Land Resources Committee 2005, 2007)
Hong Kong & Shenzhen Vision

Hong Kong 2030

strengthening links with the Mainland to cope with the rapid growth of crossboundary interaction

Shenzhen 2030

linking North and South: through the construction of large-scale infrastructure facilities and ports, further linking with the southern Hong Kong, Northern Guangzhou, Dongguan and other cities to enhance city’s Status
Two Cities = SZ + HK

One City =SZHK

SZ + “Cross-border” + HK

Fig. 4.53 Scenario of new urban model of Shenzhen and Hong Kong until 2047
Fig. 4.54  Scenario of new urban model of Shenzhen and Hong Kong until 2047 (Bolchover and Hasdell 2009)
PART 5

5. Vision and Strategy

5.1 Cross-border Past and Present ...... 68
5.2 Cross-border Vision ....................... 74
5.3 Cross-border Strategy ..................... 77
5. Vision and Strategy

5.1 Cross-border Past and Present

5.1.1 Cross-border Past

The cross-border area (Hong Kong: Frontier Closed Area) is a 28 km² (2800 Hectare) area in Hong Kong along the border with Shenzhen, mainland China. It includes north-east of Yuanlang district and northern New Territory. It was established in June 1951 by the HK-British government, and expanded to its current limit in 1962. Although Hong Kong was handover to China in 1997, the size of cross-border area is without any changes.

It was set up to prevent the incoming illegal immigrants from mainland China, and to restrict illegal activities. It freezes development within the area during the last 50 years. Due to the lack of human activities in the area, the cross-border area became a natural habitat for animals and plants. Ordinary people who are not residents within the area cannot enter the area, except with a permit or when they are going to cross the border.

5.1.2 Cross-border Present

Reduction of Cross-border Area

On September 7, 2006 the HK Government has announced its proposal to reduce the size of the area to 8 km². Only areas around border control points will be kept in the cross-border area. In January 2008, HK government revised the cross-border area again to 4 km² (400 Hectare). That means 24 km² area from the original cross-border area is released. This new cross-border area will come into effect in 2010. Initially, most residents generally welcomed the proposal. However, some environmentalists have pointed out that the proposal would affect ecological environment.

Environmental Problem

Due to the freezing development and the lack of human activities in the area, the cross-border area became a natural habitat for animals and plants. Some environmentalists have pointed out that the reduction of cross-border area would affect ecology environment.

Border-crossing Points

There are five crossing points along the cross-border area. From east to west, they are Shatoujiao, Wenjindu, Luohu, Huanggang, Futian. Wenjindu and Shatoujiao are mainly designed for authorized vehicles, including container lorries, coaches and private cars. Luohu is connected by railway which is mostly used by travelers. As to Huanggang and Futian, they are very close but function differently. Huanggang mainly serves for cargos while Futian only served for travelers. Huanggang and Futian crossing points are just adjacent to Hetao area.

Border will not exist after 2047

By 2047, 50 years after the 1997 handover of Hong Kong to China, the border will no longer exist. This also will mean the dissolution of the economic and political zones of the “One Country Two Systems” policy. The Special Administration Region of Hong Kong and the Special Economic Zone of Shenzhen will be re-integrated. Currently, as part of the re-integration process, the potential impacts on the urban...
development on both sides of the border need to be considered with respect to cultural, social and economic fluidity in the creation of a Hong Kong-Shenzhen Metropolis. (Bolchover and Hasdell, 2009)

**Current situation:**

The area to be released from the cross-border area includes Luomazhou loop, Haohewei and Mipu in the west, Daguling and Luohu in the centre and Lianmakeng and Robin’s Nest in the east. Robin’s Nest is located in the eastern portion of the cross-border area bordering the Shatoujiao and it’s mainly comprised of hilly terrain. Since access to the area has been restricted for years its natural environment has been preserved with densely vegetated woodlands. To its North is the Wutongshan National Forest in Shenzhen and to its south is the Baixianling Country Park on the Hong Kong side. Together they form a natural linkage in the eastern portion of cross-border area.

To the northwest of Robin’s Nest is Lianmakeng. Lianmakeng village is one of the few villages with traditional village setting. Moving further west from Lianmakeng, there are older village clusters of Xiangyuanwei and Songyuanxia. Within these villages, there are a number of features with cultural heritage value, such as water towers, ancestral halls and Fengshui Woods. Most importantly, these walled village clusters have been well preserved.

The central portion of the cross border area is Daguling and Luohu Area. Located on flat terrain, there are still many villagers living in the village clusters in Daguling. Apart from the cultural heritage features found in the villages, there are other historic buildings within the cross-border area. Moreover, many fish ponds are retained within the villages, though most of them have been abandoned. There two important Border Crossing Points (BCP) in the central portion of the cross-border area. They are the Wenjingdu and Luohu BCP. Wenjingdu BCP is mainly used by good vehicles while Luohu is served by rail and it is the busiest BCP in Hong Kong.

In the western portion, there are Luomazhou and Luomazhou Spur Line. The Luomazhou Spur Line was open in the mid-2007. Luomazhou BCP is the only one in Hong Kong that operates 24 hours a day. It provides convenient access between Hong Kong and Shenzhen. As for the Luomazhou Loop, the Hong Kong SAR Government and the Shenzhen municipal Government are actively examining the feasibility of developing the Loop. Based on the principle of joints study development, land uses mutually beneficial to both cities to both cities will be explored.

The west portion of the cross-border area is Mipu, with half of the area being wetland, fishponds and mangroves. It is also one of the Hong Kong’s major habitats for egrets.

To the west of Mipu is the internationally recognized important wetland area the Ramsar Site. It is also designed as a Site of Special Scientific Interest. The extensive wetland attracts up to 90,000 migratory birds each year forming an important part of the eco-system that requires our uttermost attention in its conservation.

This vast area to be released from the cross-border area comprises about 2,400 hectares of land which features as scenic views and rich natural and culture heritage recourses. In planning for the area let us explore together to map out the future directions to guide the conservation and development in a sustainable manner.
Background:
The cross-border area (Hong Kong: Frontier Closed Area) is a 28 km² (2800 Hectare) (100 Hectare= 1 km²) area in Hong Kong along the border with Shenzhen, mainland China. It includes north-east of Yuanlang district and northern New Territory. It was established in June 1951 by the HK-British government, and expanded to its current limit in 1962. Although Hong Kong was handover to China in 1997, the size of cross-border area is without any changes.

It was set up to prevent the incoming illegal immigrants from mainland China, and to restrict illegal activities. It freezes development within the area during the last 50 years. Due to the lack of human activities in the area, the cross-border area became a natural habitat for animals and plants. Ordinary people who are not residents within the area cannot enter the area, except with a permit or when they are going to cross the border.

Reduction:
In January 2008, the HK Government announced that about 24 km² of land will be released from the cross-border area in phases. Only areas around border control points will be kept in the cross-border area.

Environment:
Due to the freezing development and the lack of human activities in the area, the cross-border area became a natural habitat for animals and plants. Some environmentalists have pointed out that the reduction of cross-border area would affect ecology environment.
While cross-border falls entirely within the territory of Hong Kong, Shenzhen is located to its north. The Central Business District (CBD) in Futian is close to the cross-border area and other residential and commercial uses are developed right at the boundary of Hong Kong and Shenzhen.

Hong Kong

The areas adjacent to the study area are predominantly rural in nature. The nearest New Town, Shangshui/Fengling, is about 6km away. Open storage and industrial uses are scattered in the Pingche and Daguling areas.

Shenzhen

Fig. 5.6 Cross-border area and its surroundings (all images and map: Hong Kong Planning Department 2008)
Landuse of Cross-border Area

Fig. 5.7 Land use of cross-border area (Hong Kong Planning Department 2008, map: ETH studio Basel 2005)

**Land use:**
- 57% Hilly Terrain/Natural Landscape Area
- 20% Agriculture and Flat Land
- 10% Wetland
- 7% Village Settlements
- 4% Cemeteries
- 2% Border Control Points

Ecological & Environment

The cross-border area consists of many ecological and landscape significance, which have been undisturbed for decades. These areas include primarily wetlands, fishponds, mangroves, woodland, hilly terrain, etc.

Border Control Points (BCPs)

There are 5 existing BCPs (Shatoujiao, Wenjindu, Luohu, Huanggang, Futian-Luomazhou) in the cross-border area, with the sixth being proposed at Liantang/Xiangyuanwei. There are the main land crossings (road and rail) for the movement of people and goods between Hong Kong and the Mainland.

Villages

More than 20 villages are scattered within the cross-border area. Most of these villages are rural mudhouses. The major land use near the villages are farmhouses. There is a major land use of residential buildings in some villages. The cultural heritage resources include traditional building patterns, traditional architectural styles, and cultural landscapes.

Fig. 5.8 Border control points of cross-border area (Hong Kong Planning Department 2008, map: ETH studio Basel 2005)

Fig. 5.9 Ecological and environment of cross-border area (Hong Kong Planning Department 2008, map: ETH studio Basel 2005)

Fig. 5.10 Villages in cross-border area (Hong Kong Planning Department 2008, map: ETH studio Basel 2005)
Cross-border Area Opportunities/Potentials

Natural Environment

Culture

Agriculture

Ecology

Border-crossing Points

Fig. 5.11 Opportunities and potentials of cross-border area (all images: Hong Kong Planning Department 2008)
5.2 Cross-border Vision

Cross-border area, a land area closest to the Mainland, is undoubtedly an important resource for Hong Kong. It is a large vacant area with enormous potential for development. Its value is manifested through the important role of its development in the regional cooperation. Along with regional development, the progress of the economic integration of Hong Kong and Shenzhen will significantly speed up. As such, cross-border area is an important guarantee for enhancing and maintaining Hong Kong and Shenzhen’s strength, competitiveness and influence in regional cooperation.

From the above interpretation of the existing conditions, the cross-border area requires a very different approach to develop. My position is to propose a sustainable and mutual benefit green open area between Hong Kong and Shenzhen metropolitan area. It is dynamic, systematic and integrated and permeable to the urban area. The main challenge in this regional scale is focus on the Hong Kong – Shenzhen ecological corridor and different border identities.

Environmental Corridor:

The proposition is to see the cross-border area as an urban ecology. Neither the front garden of Shenzhen nor back yard of Hong Kong. It is a central green open area between the metropolitan area. Cross-border area will be continued its ecological development and permeable to the metropolitan area.

Functional Corridor:

In the coming years, there will undoubtedly be a relatively greater improvement in the flow of key resources such as people, goods, capital, information and services between Hong Kong and Shenzhen. People from Shenzhen and even people from other parts of the Mainland will be able to move more freely into and out of Hong Kong. The cross-border area will provide an important substitute for living or working in Hong Kong or Shenzhen, and will also become an important area that connects Hong Kong with even larger regions of the Mainland.
Cross border Vision

Neither Front Garden of Shenzhen
Nor Back Yard of Hong Kong
But central green and public space
it is permeable to the Urban Area
5.3 Cross-border Strategy:
Hong Kong – Shenzhen Metropolitan Park Development as a spatial strategy

Summary
How to realize the vision? Hong Kong – Shenzhen Metropolitan Park Development will be proposed as a spatial strategy. The Hong Kong – Shenzhen Metropolitan Park is a whole comprising four specific parks—Mangrove Park, urban park, Cemetery Park and Country Park. It would use the three coordinated system—circulation, program, habitat to organize the vast landscape in three hierarchies—region, city, local.

Aims

- **Circulation:**
  In the regional scale, it is proposed a one week leisure tour through the scenic drive to improve the connectivity of the four parks.

- **Program:**
  The aim of program is maintaining the different border spatial and identity cultural identity, leaving space for different life style to create an attractive working and living space.

- **Habitat:**
  Active preserve as Hong Kong – Shenzhen Urban ecological system and keep the quality of the nature and urban landscape.

Hong Kong – Shenzhen Metropolitan Park as a whole comprising four specific parks

Because of the diverse of the site and the need of public space in Hong Kong and Shenzhen, the cross-border area can be transformed from a forbidden, encapsuled buffer zone in to an open pleasure ground. The new inter-space will link Hong Kong and Shenzhen like the neck links the head and body. Water will be linking element between the parks, which is also an important elements in the traditional Chinese gardens. Second important linking element is the scenic drive.

Why Four Parks?

A. Diversity of landscape, topography and program
The cross border area consists of a diversity of landscape, variety of topography and different usages. Therefore the new parks will base on these circumstances. Through analysis the cross-border area, it is potentials are new interpreted. The new parks will be developed by intensifying and strengthen the existing diversity and opening to the public. Hong Kong and Shenzhen are very dense metropolitan areas. They need more public space and recreation area with different attractions and facilities.

B. Various Attractions and sceneries
The site consists of a variety of difference landscapes including: mangrove, mud lands, fish ponds, reed field, different types of woods, high mountain. Rare types of flora and fauna (more than 400 species of birds) populate this unique environment.
C. Different Use
The different topics of the site are depending on the location of the cross-border area. The programs range from dealing with water on the bay up to hiking area on the hilly terrain. For example, fish farming in the west and the agricultural usages on the flat land areas in the middle–east. Also a cemetery is located in the cross-border area and shows its variety.

D. Variety of topographic
The topographic of the cross-border area varies from flat land (0m) in the west to the hilly in the terrain in the east (440m).

Hong Kong –Shenzhen Metropolitan Park as a whole comprising four specific parks

1. Mangrove Park
Mipo nature reserve is a restricted area with disuse fish and shrimp ponds. The area is one of international interest because of its rich of flora and fauna. It became under the Ramser Conservation 1971 a nature reserve. The limited access (about 4000 persons / year) helps to conserve this value of nature. The deep bay is a major stopover point of Asia’s migration route of birds.

Proposal:
Enlarge the area to the mangrove of Shenzhen. Public programs like fish restaurants, recreation areas and sightseeing events.

2. Urban Park (see more in next charter)

3. Cemetery Park
Near the Luohu Rail way station is a local Chinese cemetery called Shaling Cemetery. Next to this cemetery live moneys on the hills. There is also a historical site with one of the oldest way to Hong Kong. Therefore this site has touristic potential and it’s also a meeting point for local people for funerals.

Proposal:
The new park has two specific sites: the cemetery and monkey hills. Then people can go there for meditation or have a walk with monkeys. The terrain is not very steep. There are also little trails for recreation.

4. Country Park
This area is hilly arable and rich of traditional Chinese village. There is also some Fengshui Wood found which exists only in south China. These specific and very small woods are in the neighborhood of the small village and are planned with Fengshui traditions. In the eastern part of cross-border area is a hilly terrain up to 400m. Nowadays Robin’s Nest is a popular hiking trail with scenic views over the whole site from bay to bay.

Proposal:
The park is for remaining Chinese traditions with new program like meditation centre and enlarging the country park to the whole site. In the country park it is also propose hiking routes and sport trails. This park can become a clam location of the metropolitan area.
Metropolitan Park as a Strategy: 4 Parks with Specific Identities

- Mangrove Park
- Urban Park
- Cemetery Park
- Country Park

Fig. 5.12 Metropolitan Park as a strategy (map basic on: ETH studio Basel 2005)
2010 current shape of the cross-border space

2047 the border disappears and the new park define themselves the new metropolitan park between two cities

Fig. 5.13 Cross-border metamorphosis 2010 and 2047 (map basic on: ETH studio Basel 2005)
Strategy Hierarchy and Challenge

[Region]
Hong Kong - Shenzhen Metropolitan Park
HK - SZ Ecological Corridor
Different Border Identity

[City]
HK-SZ Functional Corridor,
More Urban Pressures,
Urban and Nature Landscape

[Local]
Luomazhou Loop
How to Activate the Park
(City and Park Entrance, Potential Program Area, Border Crossing Point, the Flooding Risky Landscape Visual Quality)
## Cross-border Development Strategy

### 3 Coordinated System Organize the Vast Landscape

<table>
<thead>
<tr>
<th>Hierarchy Layer</th>
<th>Region (L)</th>
<th>City (M)</th>
<th>Local (S)</th>
</tr>
</thead>
</table>
| **HK-SZ Metropolitan Park**<br>
01 | Mangrove Park<br>
02 | Urban Park<br>
03 | Cemetery Park<br>
04 | Country Park<br> | 02 | Urban Park | **Strategic Project:** Luomazhou Loop in the Urban Park |

### Circulation

- Scenic Drive (1 week leisure tour)
- Vehicle /Bicycle/Pedestrian Routing (2hr/ 6hr/ 1 day)
- 1. Park Routing Connects to the Local Vehicle /Bicycle/ Pedestrian Streets
- 2. Park Entrances

### Program

- 1. Different Border Spatial and Cultural Identity
- 2. Space for Different Lifestyles
- 3. Attractive Working and Living Locations
- 1. HK-SZ Education & Research Centre<br> 2. Park Supporting Facilities

### Habitat

- 1. HK-SZ Urban Ecological System<br> 2. Quality of the Nature and Urban Landscape
- 1. Urban Park Green Open Space Connects to Local Public & Green Space<br> 2. Fishponds Network<br> 3. Waterfront
Provide the attractive quality of nature and urban landscape environment and public open space network to support the knowledge-based economic development and reinforce the social cohesion.

Provide the infrastructure network to support the ecological environment and existing and new programs from regional level to local level.
### Cross-border Development Strategy - Region(L)

<table>
<thead>
<tr>
<th>Layer</th>
<th>Region(L)</th>
<th>City(M)</th>
<th>Local(S)</th>
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<tbody>
<tr>
<td>3 Coordinated System Organize the Vast Landscape</td>
<td>HK-SZ Metropolitan Park 01</td>
<td>Mangrove Park 02</td>
<td>Urban Park 03</td>
</tr>
<tr>
<td>Circulation</td>
<td>Scenic Drive (1 week leisure tour)</td>
<td>Vehicle /Bicycle/Pedestrian Routing (2hr/6hr/1 day)</td>
<td>1. Park Routing Connects to the Local Vehicle/Bicycle/Pedestrian Streets 2. Park Entrances</td>
</tr>
</tbody>
</table>
4 Parks | 01 Mangrove Park 20.8 km²

- Migratory birds
- Rare birds
- Viewpoint
- Fishing ponds

Shuttle Bus  Scenic Drive  Biking  Family Special

Fig. 5.14  Mipu Mangrove (WWF Hong Kong, 2009)
4 Parks | 03 Cemetery Park 3.9 km²

Fig. 5.15 Cemetery in the cross-border area (Hong Kong Planning Department 2008, map: ETH studio Basel 2005)
4 Parks | 04 Country Park 17.3 km²

Fig. 5.16 Mountain and traditional villages in the cross-border area (Hong Kong Planning Department 2008, map: ETH studio Basel 2005)
6. Design

6.1 Urban Park Master Plan ................. 90
6.2 Strategic Project in Urban Park ..... 103
6.3 Urban Park Implementation ........ 126
6. Design

6.1 Urban Park Mater Plan

The site is most potential to development as an Urban Park. It is surrounded by Shenzhen metropolitan area and Hong Kong main towns, three main border-crossing points (Futian, luomazhou and Luohu) and two main railways which connect Hong Kong and Shenzhen metropolitan area. Therefore, this area would be more detail planned, and see how the metropolitan park development functions in the regional, city and local level. The master plan would be described in three layers (circulation, program, and habitat), three hierarchies (regional, city a and local), and their inter-linkages.

6.1.1 Circulation Plan

The circulation plan optimizes connectivity, accessibility and movement. It responds to four primary goals:

- Optimize connectivity within and beyond the site, facilitating both local and regional access to major destinations in the park and alleviating cross-border traffic congestion. Allow all areas of the park to be accessible to all people; [Regional and City Scale]
- Integrate vehicular park drives into the landscape, using curvilinear geometry to follow the contours and create slow (35 km/h) scenic driving experiences connecting the other 3 specific parks; [Regional Scale]
- Enhance the park experience with an extensive intermodal circulation network, including multi-use paths and trails; specially designated paths for bicycles, mountain bikes and hiking; boating access; local bus connections; and a docking facility for passenger ferries; [City Scale and Local Scale]
- Use the drives and pathways to help orient visitors in the park through varied materials, signage and signature design, and provide pedestrian-friendly crossings; [Local Scale]

There are three types of paths suggested for the park:

**Scenic Drive** is the key connections to ensure vehicular linkages to three other specific parks area and ensure one week leisure time.

**Multi-use paths** accommodate a mix of non-motorized usage (walking, running, and cycling). These 13-metre-wide pathways create loops, allowing visitors to complete a measured circuit (ideal for walkers and runners). With signage, seating, picnic areas and lighting, these loops could be the primary activity paths in the park. These paths also accommodate service, maintenance and emergency vehicles. Specially designated paths and trails allow for separation of cyclists, mountain bikers, pedestrians and hikers.

**Waterfront access** is accommodated by some docks and launches around the Shenzhen River. A larger boat facility is proposed around the border-crossing point for boating west to the east.
6.1.2 Program Plan

The cultivation of Urban Park will help enhance the identity of the area as a place to live, visit and enjoy.

There is extraordinary potential at Urban Park for a wide range of active uses to be set within the diverse landscapes: a rich reserve for nature, cultural and social life, environmental education and outdoor arts, active recreation and sports, and alternative energy resources and experimentation. The Master Plan aims to promote the development of a lively mix of programs by creating extraordinary settings for a wide range of activities. Over time, the park program will become increasingly diverse and focused as the community to suit particular interests and needs. The program plan has five main goals:

- Identify opportunities for educational programs that will help meet two cities functional demand, generate revenue and sustain the park. [Regional Scale]
- Create a distinctive programmatic identity for the park that is contemporary, productive, active and green, incorporating nature, art, leisure, recreation, education and park commerce; [City Scale]
- Create neighborhood-scaled recreational facilities for local communities; [Local Scale]
- Design a durable landscape framework that is flexible enough to accommodate change;
- Organize and stage park programming around existing natural resources and site features;

The Urban Park can accommodate a range of active programs. At the same time, areas of the site can be preserved as quiet natural areas that are beautiful and scenic and improve regional environmental health. Active program and educational uses are concentrated in two high-intensity areas: the Luomazhou Loop and New Train Station Housing Area. Additional sports and recreation facilities are dispersed in the Park. All of these settings are nested in open landscapes laced with paths and trails.

The plan concentrates active programs in the lowland areas that do not have significant existing vegetation. The lowlands form a connective tissue between the mountains, the wetlands and waterfront. Relatively flat, the lowlands are suited to architecture, playing fields and other large surface programs. The Luomazhou Loop is the most flexible in terms of future active and educational development.
6.1.3 Habitat Plan

The site is currently a vast and varied landscape. It is a complex of artificial landscape and natural systems. The landscape and habitat plan has four main goals:

- Cultivate a diverse, resilient landscape that is a natural asset to the region in terms of ecological connectivity, water and air quality improvement, biodiversity and sustainability;
- Create meaningful habitat for the region and the estuary by building mangrove and wetland corridors linked to existing natural resources, taking into account not only plant life but also bird, fish, insect and microbial communities;
- Organize the park internally around existing natural resources and local opportunities for enhanced habitat creation;
- Design and stage ecological improvements so that the parkland can be understood and enjoyed in each phase of its development —— landscape in process, designed to promote diversification over time;

In keeping with the ecological goals of the Master Plan, three primary factors drive the organization of the habitat layer: 1) location of existing natural resources and opportunities for habitat creation, 2) connectivity with adjacent natural resources, and 3) desired spatial envelope and landscape setting for the park.
### Cross-border Development Strategy - City(M)

<table>
<thead>
<tr>
<th>Hierarchy</th>
<th>** layered**</th>
<th>Region(L)</th>
<th>City(M)</th>
<th>Local(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Coordinated System Organize the Vast Landscape</td>
<td><strong>Region(L)</strong></td>
<td>HK-SZ Metropolitan Park: 01</td>
<td>Mangrove Park 02</td>
<td>Urban Park 03</td>
</tr>
<tr>
<td><strong>Circulation</strong></td>
<td>Scenic Drive (1 week leisure tour)</td>
<td>Vehicle /Bicycle/Pedestrian Routing (2hr/ 6hr/ 1 day)</td>
<td>1. Park Routing Connects to the Local Vehicle /Bicycle/ Pedestrian Streets 2. Park Entrances</td>
<td></td>
</tr>
</tbody>
</table>
Existing Situation of Urban Park

- 1. Luomazhou Border Crossing Point (BCP)
- 2. Huanggang BCP
- 3. Luomazhou BCP
- 4. Mountains
- 5. Local Villages
- 6. Fishponds
- 7. warehouses
- 8. Shanghui Community Sports
- 9. Gudong Grass Pitch
- 10. Gudong Playground
- 11. Luohua BCP

Legend:
- Yellow Solid Line: Proposed Urban Park Site Boundary
- Dotted Line: Existing Boundary Fencing
- Yellow Dotted Line: Luomazhou Loop
- Red Line: Border Line
Fig. 6.1 Opportunities and potentials of Urban Park (all images: Hong Kong Planning Department 2008)
HK-SZ Metropolitan Park Development - Urban Park Master Plan

Existing: Shenzhen River/Water Features, Ponds, Natural Habitat, Forest, Agricultural Land, Orchard, Mountain/Silu Area


CIRCULATION

- Primary Entry - Vehicle, Pedestrian, Bicycle
- Secondary Entry - Pedestrian, Bicycle
- Parking Areas / Shuttle Stop
- Scenic Drive
- Shuttle / Service Road / Paved Footpaths, Bicycle Routes
- Street Tree Plantings
- New Route (Pedestrian, Bicycle)
- Footpaths / Paved Bicycle Routes
- Hiking Routes
- Routes / Greenways Connections
- Railway
- Underwater Railway
- Metro Line
- Train Station
- Release Border Zone

Scale: 0 0.5km 1km North
### Circulation

<table>
<thead>
<tr>
<th>City Entrance</th>
<th>Metropolitan Park</th>
<th>Urban Park</th>
<th>Luomazhou Loop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Owns</td>
<td>Private Investment</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Entrance: Park to River</th>
<th>Metropolitan Park</th>
<th>Urban Park</th>
<th>Luomazhou Loop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian Route is Connected, Recreational Facilities around it</td>
<td>Public Owns</td>
<td>Private Investment</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entrance: City to Park</th>
<th>Metropolitan Park</th>
<th>Urban Park</th>
<th>Luomazhou Loop</th>
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</thead>
<tbody>
<tr>
<td>Landscape Design to Create a Specific Image, Recreational Facilities around it</td>
<td>Public Owns</td>
<td>Private Investment</td>
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<table>
<thead>
<tr>
<th>Transfering Node(City to Park)</th>
<th>Metropolitan Park</th>
<th>Urban Park</th>
<th>Luomazhou Loop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Transportation Node, Offering Bike Rental Function</td>
<td>Public Owns</td>
<td>Private Investment</td>
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</tr>
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<thead>
<tr>
<th>Highway (8 Lanes)</th>
<th>Metropolitan Park</th>
<th>Urban Park</th>
<th>Luomazhou Loop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving the Image, Soften the Barrier Image, Lighting Design, Landscape Design</td>
<td>Public Owns</td>
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<td></td>
</tr>
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<table>
<thead>
<tr>
<th>Primary Road (4 Lanes)</th>
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<tr>
<td>Improving the Road Image by Street Trees, Plants and Light Design, Improving the Connectivity and Safety for Pedestrian and Cyclists</td>
<td>Public Owns</td>
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<tr>
<th>Railway</th>
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<tr>
<td>Improving the Connectivity and Safety for Pedestrian and Cyclists</td>
<td>Public Owns</td>
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<table>
<thead>
<tr>
<th>Circulation</th>
<th>Prototypes Images</th>
<th>Hierarchy</th>
<th>Function</th>
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<tbody>
<tr>
<td>Scenic Drive</td>
<td>Metropolitan Park</td>
<td>Urban Park</td>
<td>Luomazhou Loop</td>
</tr>
<tr>
<td>Pedestrian Priority, Street and Lighting Design, Follow the Landscape Patterns</td>
<td>Public Owns</td>
<td></td>
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</table>

<table>
<thead>
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<th>Urban Park</th>
<th>Luomazhou Loop</th>
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<tr>
<td>Cyclists and Pedestrian Priority, Street Design, Follow the Landscape Patterns</td>
<td>Public Owns</td>
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</table>

<table>
<thead>
<tr>
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<th>Metropolitan Park</th>
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<td>Pedestrian Priority, Street and Lighting Design, Follow the Landscape Patterns</td>
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<table>
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<td>Pedestrian Priority, Street Design, Follow the Landscape Patterns</td>
<td>Public Owns</td>
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<td></td>
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<table>
<thead>
<tr>
<th>Train Station</th>
<th>Metropolitan Park</th>
<th>Urban Park</th>
<th>Luomazhou Loop</th>
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</thead>
<tbody>
<tr>
<td>Improving the Connectivity and Safety for Pedestrian and Cyclists to the Railway</td>
<td>Public Owns</td>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Border-Crossing Point</th>
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<th>Luomazhou Loop</th>
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<tbody>
<tr>
<td>Improving the Orientation for Pedestrian and Cyclists to the Park</td>
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<thead>
<tr>
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<th>Urban Park</th>
<th>Luomazhou Loop</th>
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<tr>
<td>Improving the Connectivity and Safety for Pedestrian and Cyclists to the Railway</td>
<td>Public Owns</td>
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(Images: Hong Kong Planning Department 2008, Flickr 2010)
<table>
<thead>
<tr>
<th>Program</th>
<th>Prototypes Images</th>
<th>Hierarchy</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riverfront</td>
<td></td>
<td>Metropolitan Park, Urban Park, Luomazhou Loop</td>
<td>Natural Development Priority, Improve the Accessibility to River Front from Urban Tissues, Park Facilities Supporting</td>
</tr>
<tr>
<td>Green Open Space</td>
<td></td>
<td>Metropolitan Park, Urban Park, Luomazhou Loop</td>
<td>Natural Development Priority, Park Facilities Supporting</td>
</tr>
<tr>
<td>Wetland Park</td>
<td></td>
<td>Metropolitan Park, Urban Park, Luomazhou Loop</td>
<td>Natural Development Priority, Wetland Structure, Water Storage &amp; Purification, Park Facilities Supporting</td>
</tr>
<tr>
<td>Botanical Park</td>
<td></td>
<td>Metropolitan Park, Urban Park</td>
<td>Strengthen the Landscape Continuity</td>
</tr>
<tr>
<td>High Quality Housing</td>
<td></td>
<td>Metropolitan Park, Urban Park</td>
<td>New Housing Development, Middle-rise Modern Apartments and Houses, Landscape Design linking to the Urban Park</td>
</tr>
<tr>
<td>Monumental Park</td>
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<td>Metropolitan Park, Urban Park</td>
<td>Strengthen the Cultural and Historical Continuity</td>
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<tr>
<td>Eco-Lodge</td>
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<td>Metropolitan Park, Urban Park</td>
<td>Improve the Recreation and Weekend Tour Facilities</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Program</th>
<th>Prototypes Images</th>
<th>Hierarchy</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Program</td>
<td></td>
<td>Metropolitan Park, Urban Park, Luomazhou Loop</td>
<td>Hong Kong - Shenzhen Education and Research Centre</td>
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<tr>
<td>Park Facility</td>
<td></td>
<td>Metropolitan Park, Urban Park, Luomazhou Loop</td>
<td>Support the Park Administration and Maintenance</td>
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<tr>
<td>Cultural Program</td>
<td></td>
<td>Metropolitan Park, Urban Park, Luomazhou Loop</td>
<td>Improve the Park Events Functions</td>
</tr>
<tr>
<td>Historical Building</td>
<td></td>
<td>Metropolitan Park, Urban Park</td>
<td>Improve the Preservation and Maintenance, Improve the Accessibility with the Main Roads</td>
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<tr>
<td>Social Agriculture Housing</td>
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<td>Metropolitan Park, Urban Park</td>
<td>Land around Fishponds for Social Agriculture Housing Development, 30% for 2-4 Stories Traditional Apartment or Semi-detached House, 70% for Cycle Agriculture Use</td>
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<tr>
<td>Existing Traditional village</td>
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<td>Metropolitan Park, Urban Park</td>
<td>Urban Regeneration, Restructure the Landscape Framework into Urban Park and City Structure</td>
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<tr>
<td>Local Market</td>
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<td>Metropolitan Park, Urban Park</td>
<td>Improve the Local and Region culture integration</td>
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</table>

(images: Hong Kong Planning Department 2008, Flickr 2010)
### Elements — Habitat

<table>
<thead>
<tr>
<th>Habitat</th>
<th>Prototypes Images</th>
<th>Hierarchy</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangrove</td>
<td></td>
<td>Metropolitan Park, Urban Park</td>
<td>Preservation Area, Pedestrian and Cyclists Access Only, No Development Allowance</td>
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<tr>
<td>Wetland</td>
<td></td>
<td>Metropolitan Park, Urban Park, Luomazhou Loop</td>
<td>Wetland Structure, Water Storage &amp; Purification, Pedestrian and Cyclists Access Only, No Development Allowance</td>
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<tr>
<td>Fishpond</td>
<td></td>
<td>Metropolitan Park, Urban Park</td>
<td>30% Land around Fishponds for Social Agriculture Housing Development, 30% for Cycle Agriculture Use, 40% for Water Storage &amp; Purification</td>
</tr>
<tr>
<td>Mountain</td>
<td></td>
<td>Metropolitan Park, Urban Park</td>
<td>Natural Development Priority, Pedestrian and Cyclists Access Only</td>
</tr>
<tr>
<td>Woodland</td>
<td></td>
<td>Metropolitan Park, Urban Park</td>
<td>Public Owns</td>
</tr>
<tr>
<td>River</td>
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<td>Metropolitan Park, Urban Park, Luomazhou Loop</td>
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<tr>
<td>Agricultural Land</td>
<td></td>
<td>Metropolitan Park, Urban Park</td>
<td>Public Owns</td>
</tr>
</tbody>
</table>

#### Distribution of Program Areas and Landscape Types

**Program + Habitat + Circulation (1510 ha)**

- **Program (21%)**
  - Education, Social and Culture Program (220 ha)
  - Housing Program (50 ha)
  - Border Crossing (50 ha)
  - Open Water and River (130 ha)

- **Habitat (76%)**
  - Wetland and Ponds (280 ha)
  - Grassland and Open Public Space (110 ha)
  - Woodland (110 ha)
  - Mountain (520 ha)
  - Circulation (40 ha)

- **Circulation (3%)**

*Images: Hong Kong Planning Department 2008, Flickr 2010*
6.2 Strategic Project in Urban Park

Luomahzou Loop
To show how the Metropolitan Park strategy functions on the city and local scale, Luomazhou loop – a site of 87 hectares was selected to test the strategy. The island was generated because of the river drainage of Shenzhen River (flooding danger). There also many disused fishponds and wetlands.

Luomahzou Loop is situated on the Huanggang and Futian border crossing points (BCP), two of the main BCP serving as link between Hong Kong and Shenzhen. (Huanggang BCP is currently China’s largest integrated BCP for passenger and logistic. And Futian BCP is only served for passenger and it connects to Shenzhen metro line and Hong Kong east rail line.) Luomazhou Loop is closed to Futian CBD district which is centre for administration, business & finance and culture of Shenzhen. It also closes to new development areas of north part of Hong Kong New Territory.

The strategy of Luomazhou Loop development is basic on the urban park context and also the functional corridor of Hong Kong and Shenzhen.

Strategic Location:
1. the meeting point of Urban and Nature
2. the entrance of Urban Park in city scale and Metropolitan Park in Regional scale
3. the potential functional area

6.2.1 Design Concept
1. Continue the traditional Pearl River delta fishpond pattern (water + building +green)
2. Follow the land historical axes
3. Use three “faces” based on the site situation: urban face, water face and local village face.

6.2.2 Design Guideline:
Circulation: [User Experience]
1. Improved accessibility
2. Enhanced user experience from the city to the waterfront and park (from denseness to openness)
3. Animated Edge and Entrance

Program: [Border Identity]
1. Bring good and world-class educational resources from HK
2. Improve SZ higher education facilities and quality
3. Improve public education development

Habitat: [Landscape Visual Quality]
1. Keep the contrast between urban and nature
2. Keep the history and cultural landscape continuity
3. Active landscape preservation
6.2.3 Activator Actions

**Circulation: [User Experience]**
1. Park routing design connects to the local vehicle / bicycle/ pedestrian streets
2. One day main culture landscape routing
3. Park entrances strengthening design and new bridge connects to SZ waterfront park

**Program: [Border Identity]**
1. HK- SZ Education & Research Centre/
   HK- SZ International Training, Examination Centre
2. Park supporting facilities design
   HK- SZ Library/ HK -SZ Cross-border Museum/Wetland Museum
   another social & cultural programs

**Habitat: [Landscape Visual Quality]**
1. Urban Park green open space design connects to SZ local public &
   green space
2. Fishponds network active preservation
3. Waterfront design

6.2.4 Main Cultural Scenic Route
A Main Cultural Scenic Route would be proposed to see how these design elements function together.
## Cross-border Development Strategy - Local(S)

<table>
<thead>
<tr>
<th>Hierarchy</th>
<th>Region(L)</th>
<th>City(M)</th>
<th>Local(S)</th>
</tr>
</thead>
</table>
| **3 Coordinated System Organize the Vast Landscape** | HK-SZ Metropolitan Park  
01|Mangrove Park  
02|Urban Park  
03|Cemetery Park  
04|Country Park | ![Cross-border Development Strategy - Local(S)](image) | 02 | Urban Park | Strategic Project: Luomazhou Loop in the Urban Park |
| **Circulation**    | Scenic Drive  
(1 week leisure tour) | Vehicle /Bicycle/Pedestrian Routing (2hr/ 6hr/ 1 day) | 1. Park Routing Connects to the Local Vehicle /Bicycle/ Pedestrian Streets  
2. Park Entrances |
| **Program**        | 1. Different Border Spatial and Cultural Identity  
2. Space for Different Lifestyles  
3. Attractive Working and Living Locations | HK-SZ Functional Corridors  
1. Knowledge/Education  
2. Recreation  
3. Housing | 1. HK- SZ Education & Research Centre  
2. Park Supporting Facilities |
| **Habitat**        | 1. HK-SZ Urban Ecological System  
2. Quality of the Nature and Urban Landscape | 1. Urban Park Green Open Space Network  
2. Visual Quality of the Nature and Urban Landscape | 1. Urban Park Green Open Space Connects to Local Public & Green Space  
2. Fishponds Network  
3. Waterfront |
<table>
<thead>
<tr>
<th>Design Guideline</th>
<th>Local(S)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Activator Actions</th>
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<tbody>
<tr>
<td>1. Improved accessibility</td>
<td>1. Park routing design connects to the local vehicle / bicycle/ pedestrian streets</td>
</tr>
<tr>
<td>2. Enhanced user experience from the city to the waterfront and park (from denseness to openness)</td>
<td>2. One day main culture landscape routing</td>
</tr>
<tr>
<td>3. Animated Edge and Entrance</td>
<td>3. Park entrances strengthening design and new bridge connects to SZ waterfront park</td>
</tr>
<tr>
<td>1. Bring good and world-class educational resources from HK</td>
<td>1. HK- SZ Education &amp; Research Centre/ HK- SZ International Training, Examination Centre HK- SZ Library/ HK -SZ Cross-border Museum/Wetland Museum another social &amp; cultural programs</td>
</tr>
<tr>
<td>2. Improve SZ higher education facilities and quality</td>
<td>2. Park supporting facilities design</td>
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<tr>
<td>3. Improve public education development</td>
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</tr>
<tr>
<td>1. Keep the contrast between urban and nature</td>
<td>1. Urban Park green open space design connects to SZ local public &amp; green space</td>
</tr>
<tr>
<td>2. Keep the history and cultural landscape continuity</td>
<td>2. Fishponds network active preservation</td>
</tr>
<tr>
<td>3. Active landscape preservation</td>
<td>3. Waterfront design</td>
</tr>
</tbody>
</table>
Existing Situation of Luomazhou Loop Area

Fig. 6.2 Luomazhou Loop area is close to Shenzhen Futian CBD (Hong Kong Planning Department 2009)

Fig. 6.3 Futian border-cross point of Luomazhou Loop area (Hong Kong Planning Department 2009)

Fig. 6.4 Aerial Image of Luomazhou Loop area in the cross border area (Hong Kong Planning Department 2009)

Fig. 6.5 Huanggang border crossing point in the Luomazhou Loop area (Hong Kong Planning Department 2009)

Fig. 6.6 Fish ponds of Luomazhou Loop area (Hong Kong Planning Department 2009)

Fig. 6.7 Traditional village in the Luomazhou Loop area (Hong Kong Planning Department 2009)

Huanggang Border Crossing Point

Futian Port Connection Bridge

Luomazhou Loop

Fishponds

Villages and Farmland
Luomazhou Loop

Fig. 6.8 Shenzhen River Before and After Training (Savanties Policy Institute, 2008)
Design Concept: Historical Axis, Function, Fish Pond Landscape Pattern
Local Project: Luomazhou Loop Area

1. Parking lot
2. Non-vehicular entrance
3. Vehicular entrance
4. Ferroconcrete landing
5. Scenic drive
6. Primary multi-use recreational path (P+B)
7. Secondary paths + trails
8. Plantation forest
9. Orchard
10. Dry agricultural land
11. Wet agricultural land
12. Active fish pond
13. Inactive/preserved fish pond
14. Water courses
15. Border crossing buildings
16. New proposed buildings
17. Information centre
18. Bicycle rental area
19. Wooden bridge with scenic platform
20. Park administration and information centre
21. Eco-farming fields
22. Eco-farming exhibition centre
23. Evergreen lawn
24. Waterfront scenic area
25. Waterfront promenade
26. HK-SZ border museum
27. HK-SZ education centre and library
28. Art and community centres
29. Scenic route
30. Scenic terrace
31. Fish restaurants in the ponds
32. Proposed signature bridge
33. SZ waterfront park
34. Border fence monument garden
35. Family picnic area
36. Proposed scenic bridge
37. Scenic wooden bridge on the ponds
38. Border fence monument garden
39. Fish restaurants in the ponds
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100. Border fence monument garden

Legend:
- Parking lot
- Non-vehicular entrance
- Vehicular entrance
- Ferroconcrete landing
- Scenic drive
- Primary multi-use recreational path (P+B)
- Secondary paths + trails
- Plantation forest
- Orchard
- Dry agricultural land
- Wet agricultural land
- Active fish pond
- Inactive/preserved fish pond
- Water courses
- Border crossing buildings
- New proposed buildings

Scale: 0 100 500
Project: Luomazhou Loop Area - Region & Local

region + city level

local level
1. scenic drive in the Luomazhou Loop area

2. scenic drive along the Shenzhen River

3. bicycle and pedestrian paths in the ponds area

4. pedestrian path in the event lawn area
Luomazhou Loop: Functional Program

- HK-SZ Eco-Farming Exhibition
- HK-SZ Border Museum
- HK-SZ Urban Park Information Centre
- ART and Community Centres
- SZ Waterfront Park Museum
- Fish Restaurant
- HK-SZ Education Centre and Library

PROGRAM
Luomazhou Loop: Urban Park Public & Green Space

- Waterfront Promenade
- Open Square Looking to the Fish Ponds
- HK-SZ Eco-Farming Field
- Parking Lots
- Waterfront Event lawn
- Terraced Square
- Sport fields, running tracks, cycling, kids playgrounds
- SZ Waterfront Park
- Active Fish Ponds
- Fish Ponds Scenic Terrace
- Parking Lots
Luomazhou Loop: Main Cultural Scenic Route

Border Fence Monumental Square
Fishponds Scenic Terrace
Fish Restaurant
HK-SZ education centre and library
Eco-farming Fields
Waterfront Event Lawn
Entrance Wooden Scenic Paths
Culture Routing 1 | Wooden Scenic Bridge in the Entrance

Fig. 6.9 Hong Kong Wetland Park (flickr 2010)
Culture Routing 2 | Event Lawn in front of the HK-SZ Education Centre
Culture Routing 4 | HK-SZ Education Centre and Library

California Academy of Sciences
By Renzo Piano Workshop
(images: flickr 2010)

Culture and Convention Centre Lucerne (KKL Luzern)
By Jean Nouvel
(images: flickr 2010)

Semi-Public Space
Scenic Drive
Culture Routing 5 | Fishponds Area

Fish Restaurant

Fish Restaurant

Scenic and Fishing Terrace

Terrace

Fishing

Pearl River Delta typical waterside buildings
Culture Routing 6 | Picnicking Areas

Low Brick Wall
Culture Routing 7 | Docks for Fishing and Wetland Overlooks
Culture Routing 8 | Border Fence Monumental Square

Existing border fence

Berlin Wall

(images: flickr 2010)
6.3 Urban Park Implementation

6.3.1 Phasing

Phase 1: (2010-2030)

the beauty of accessibility, first part program, environment

Circulation:
- Entrances in the border crossing points and HK side
- The main connection from the city to the park
- The main connection from the SZ city to the Luomazhou Loop
- Repair the existing main roads in the park
- Build the missing links between the function nodes
- New train station stop in the HK side

Program:
- The first part of housing development around the new train station in HK side
- Luomazhou loop mix-use development
- Culture and Social program in the Urban Park
- Urban park supporting facilities
- Remove the unwanted warehouses in the site

Habitat:
- Activate the Fishponds along the Shenzhen River
- Restructure the Luomahzou Loop water network
- Shenzhen water front park development
- Agricultural landscape renewal
- New public green space in the park
- Plantation along the scenic drives and main pedestrian and bike routes
- Existing habitat preservation

Phase 2 (2030-2047)

the beauty of second part program, environment

Circulation:
- Entrances along the Shenzhen River (preparing for the HK-SZ border removing)
- New scenic routing in the fishponds area

Program:
- The second part of housing development around the new train station in HK side
- Eco-lodges program in the park
- Monumental Square in the park (preparing for the HK-SZ border removing)
- Local market around the existing villages
- Botanical visiting area in the park

Habitat:
- New public green space in the park
- Existing habitat preservation

6.3.2 Governance:

Due to Hong Kong and Shenzhen are under the different politic system now, in order to realize the project, a new broad at metropolitan scale should be created. It should be under the even larger scale – Pearl River delta system. And the Hong Kong and Shenzhen municipalities should have more cooperation and considerations in region integration plan. The consideration of cross-border area is not passive preservation. It should be consider the active preservation, cultural value, ecological development and risky area. Meanwhile, without the support from the national and government, only some parts of the local intervention might be realized by cities municipalities.

6.3.3 Stakeholders: Please see the table in page 129
**Phase 1 (2010-2030)**

- **Circulation:**
  - Entrances in the border crossing points and HK side
  - The main connection from the city to the park
  - The main connection from the SZ city to the Luomazhou Loop
  - Repair the existing main roads in the park
  - Build the missing links between the function nodes
  - New train station stop in the HK side

- **Program:**
  - The first part of housing development around the new train station in HK side
  - Luomazhou loop mix-use development
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- **Habitat:**
  - Activate the Fishponds along the Shenzhen River
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  - New public green space in the park
  - Plantation along the scenic drives and main pedestrian and bike routes
  - Existing habitat preservation

**Phase 2 (2030-2047)**

- **Circulation:**
  - Entrances along the Shenzhen River
    (preparing for the HK-SZ border removing)
  - New scenic routing in the fishponds area

- **Program:**
  - The second part of housing development around the new train station in HK side
  - Eco-lodges program in the park
  - Monumental Square in the park (preparing for the HK-SZ border removing)
  - Local market around the existing villages
  - Botanical visiting area in the park

- **Habitat:**
  - New public green space in the park
  - Existing habitat preservation
### Stakeholders

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- **very interested**
- **interested**
7. Conclusion

7.1 Evaluation ........................................ 132
7.2 Conclusion ........................................ 134
7. Evaluation

Compared with the Hong Kong Government Vision (HKGV) :< A belt of conservation, culture heritage and sustainable uses between Hong Kong and Shenzhen> with <Hong Kong – Shenzhen Metropolitan Park Development > (HSMP), there are some conclusions can be summarized.

For the Hong Kong Government Vision, although it considers the conservation, culture heritage and sustainable uses, it is still short-term, static and fragmental without a systematic approach. And it is more based on Hong Kong city development and not fully consider about Shenzhen real situation.

Hong Kong- Shenzhen Metropolitan Park is a new spatial approach in China planning context that the cities work together to generate a regional vision and perspective. It will be more dynamic, systematic and integrated in implementation, because the more kinds of stakeholders are involved the more powerful plan might be able to be generated.

Below, I evaluate HKGV with HSMP based on the four definitions of sustainability, economic development, environmental development, social development and cultural diversity.

1. Economic development

In terms of economic development, both of these two plans fulfill the demands of housing development. However, the HKGV is not considering about two cities the knowledge-based industry demands. Knowledge-based industry is not only the high-tech industry but also the public education for the people. HSMP is more contributing the effort for both cities knowledge facilities demands. When the cities are on the way to the knowledge-based service economy, the talents and public education are play an important role in cities economy.

2. Environmental development

In terms of environmental development, HSMP plays a crucial and indispensable active role in the Hong Kong – Shenzhen Metropolis. HSMP remains certain open space and landscape for nature and culture values and focus on active preserver and improve the city ecological system. The wetland development is also a more harmonious way in tackling with the flooding problem which can also create a self-sustain water system for the agriculture economy at the rural area between the cities area. The beauty of the nature and culture landscape will be more sustainable.

3. Social development

In terms of social development, HKGV doesn’t mention too much about it. For the HSMP, it relocated the welfare from the cities to the semi-nature area where is closely attached the city. This is the best location for social program development where is just society and the nature, but not segregated the people from the society. The active preservation and development of the in-between cities area is also showing the value behind the metropolis, that the people can experience by visit and travelling from cities to the river and meet with people live in there.

4. Cultural diversity

In terms of cultural diversity, both plans are thinking about the culture heritage. But the HKGV is more passive preservation; HSMP is more active and dynamic, not only culture heritage but also diversity. Such as the culture routing, people not only enjoy the “points” but also experience the “lines” connect to them. For HSMP, improving the culture diversity is one of the basic objectives to reach. The culture diversity will keep bring the vitality to Hong Kong – Shenzhen metropolis in functioning.
Hong Kong Government Vision:
A belt of conservation, culture heritage and sustainable uses between HK and SZ

Hong Kong – Shenzhen metropolitan Park Development:
Metropolitan Park as spatial strategy
7.2 Conclusion

For the problem statement I mention before, there are two missing links in China planning context, Landscape and regional perspective. In the rapid urbanization context, landscape is less being considered by the government. Moreover, the missing link of regional perspective result in the developments are lacking of integrated vision between different stakeholders and planning sectors. Nature and culture landscape value is only suffering behind this context. It would be too late until the day when people are awakened when the vernacular lifestyle and the beauty of landscape are no longer exists around our neighborhood and cities.

These two missing links are definitely crucial to China future urban development. It tried to start the research and design based on these two missing links. The evaluation of the plans has shown Hong Kong–Shenzhen metropolitan park development plan can bring the higher quality and influence to Hong Kong–Shenzhen metropolis towards sustainable development.

Without carefully considering these two missing links and without placed these two factors at right position in the governance, the degrading of the society can be expected. It might not de degrade the economy competitiveness in the short term, but also the quality of environment and society will definitely become worse and worse.

The cross-border area can be seen as the testing area and great opportunity for the urban development in Hong Kong and Shenzhen. If they can build up the regional governance and includes the nature and culture landscape development as an indispensible actor to drive the plans implementations from metropolis scale to city and neighborhood scale, the more beautiful and harmonious tomorrow will never be just a dream.
PART 8

8. Literature & Reference
8. Literature & Reference


Bolchover J. and Hasdell P., 2009, open the frontier closed area: a mutual benefit zone, The 4th International Conference of the International Forum on Urbanism (IFoU), 723-732


Hong Kong Planning Department Web Services, 6 March 2009, *Possible Future Land Uses for the Lok Ma Chau Loop*, Hong Kong Planning Department, accessed October 2009, <http://www.pland.gov.hk/lmc_loop/e_index.htm>

Leman E. 2003, *Can the Pearl River Delta still compete?*, the Chinese Business review, May-June 2003, 6-17


Wang V., 2008, *Hong Kong Fantasies*, Powerpoint presented in Hong Kong University of Hong Kong, Hong Kong PermaCity Master Class, Hong Kong


Website:
www.flickr.com
www.googlemaps.com