

## **Interconnecting Urban Planning with Multi-Scale Urban Quality: Review of Macro Scale Urban Redevelopment Project on Micro Scale Urban Quality in Shenzhen**

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### **Abstract:**

*The Shenzhen planning system has been effective in promoting economic growth through the prodigious urbanization of land. It has given priority to the macro-level plan growth through physical development. Questions can be raised about the physical and social outcomes from the development process at the micro-level, not least in the level of the physical environment at the micro scale and the creation of a place identity (Chen, 2010; Hang, 2006; Wu, 2012). This paper examines these questions in the redevelopment of the metropolitan area, drawing a case study of the Sungang-Qingshuihe (SQ) district in Shenzhen. We have established criteria for evaluation of the planning and implementation of redevelopment, with reference to both macro-level economic goals and micro-level urban spatial quality objectives. We explore the approach taken and the reasons, outline its strengths and weaknesses in relation to the criteria, and define the apparent limitations.*

*The findings point to critical features of planning and development practice in Shenzhen which make a significant contribution to the creation (or destruction) of micro-level spatial quality and place identity, including the lack of an independent quality control authority and the close processes of decision-making. This paper concludes by examining the problems of transferring practice from elsewhere and challenges the priority given to national economic growth over the local public interest. It recommends strengthening the role of coordinator, to balance macro and micro-level objectives, to expose the interests of all affected parties.*

Keywords: Urban redevelopment, Local Quality, Planning Tool

### **1. Introduction**

Urban development and planning of cities in China has made a fundamental contribution to meeting national economic and social policy goals at the macro-level and with significant urbanization rate in China reached 53.73% in 2013, achieving the fastest urban growth worldwide (UN, 2014; UN Habitat, 2014). More recently, increasing attention has been given to transformation of existing urban areas and urban redevelopment, since peripheral expansion of cities has become more difficult, as well as the ageing of urban development schemes from the 1980s and the need for renewal. The commodification of housing and land, since 1980, helped to initiate large-scale urban redevelopment. Within the interaction between the state and the market, the rationale of urban redevelopment in China has changed from the alleviation of dilapidated housing estates as a means of social welfare provision, to state-sponsored property development as a means of growth promotion (He, 2009).

Questions have been raised about the physical and social outcomes from the redevelopment process at the micro-level, not least in the level of quality of the physical environment and the maintenance of a sense of place or place identity (Chen, 2010; Hang, 2006; Wu, 2012). Studies of the performance of urban development have concluded that, whilst standardized planning and

design has enabled rapid urban development and achieved huge economic growth, it has also contributed to poor spatial and environmental quality - meaning for example, the dominance of mono-functional urban neighborhoods and the loss of street vitality, the erosion of cultural heritage, local distinctiveness and place identity, poor accessibility to services and widespread negative externality effects such as noise and pollution.

This paper contributes to the debate of urban redevelopment and evaluates the impact of macro-scale urban redevelopment project and planning policy on the micro-scale urban quality and place identity. It draws the regeneration of the Sungang-Qingshuihe (SQ) district in Shenzhen as a study case, to evaluate its plan and implementation process, and provides recommendations on integration of different scales of urban quality through urban planning.

## 2. Theoretical Framework

Many developed countries have had similar problems. For example, in her seminal text, Jane Jacobs (Jacobs, 1961) criticized urban planning practice in the USA, which she argued was creating characterless, and mono-functional neighborhoods and undermining the livability and attractiveness of cities. She helped to define the essential ingredients for the vitality and viability of cities and called for urban planning to recognize and promote their importance. Charles Landry (Landry, 2008) explains how in Europe, planning has often achieved qualities of mix of functions, diversity of uses and cultural identity of cities. However, these qualities have been under threats from planning approaches that prioritize macro-level objectives with insufficient attention to the local micro-level effects. While there is great variety in planning systems and cultures in Europe (Nadin, 2008), there is a general trend towards 1) more strategic approaches that integrate the objectives of competing policy sectors and levels of government in territorial governance (Nadin, 2007, Zonneveld, 2012); 2) adaptive and locally responsive planning tools that can reconcile both macro- and micro-level objectives in urban planning (Halleux, 2012; Rauws, 2014); and 3) collaborative planning processes that engage with stakeholders in an inclusive way (Healey, 2006).

There is potential for China to learn from the experiences of integrating macro and micro concerns in territorial management and urban planning in other countries. This study brings this knowledge into the Chinese context, and sets up an analytical framework to review the redevelopment case of the SQ district. The study considers urban redevelopment as a dynamic and collaborative process, and thus the social, spatial and political context, the involved actors, and the planning and implementation process of the redevelopment project are given great attention.

## 3. Urban context Shenzhen

### 3.1 Context and trends

Shenzhen is located in the Pearl River Delta (PRD) region adjacent to Hong Kong. Prior to 1979, it was a small fishing village with a population of only 20,000 people (Zacharias, 2010). This all changed in 1978 with the creation of China's first Special Economic Zone (SEZ) as part of the Opening up policy. The SEZ is an area of relaxed financial regulations and government autonomy (Ng, 1999). The creation of the SEZ led to staggering economic and population growth. From 1980 to 2001, the annual GDP growth rate was 38.9% per capita (Ng, 2003), while the population has grown to 10.47 million as of 2011 (Shenzhen Information Network Center, 2012).

Shenzhen has grown through a land-based economic development model. The planning system of Shenzhen has been very successful in promoting economic growth, where the urbanization of land and

the redevelopment of existing areas has been used by the Municipality as a means to gain capital for regional development (Lin, 2011). In 1987, the paid leasing of land use rights began in Chinese cities with the leasing of land quickly becoming a significant source of income for local governments. This new land policy has changed the form of urban areas leading to land speculation, price increases and a land rent gradient that had previously not existed in Chinese cities (Yeh, 1996). Combined with pressure for economic growth, this system of land leasing encourages development projects that will achieve high economic returns in well located urban areas, often pushing out the existing residents (Yeh, 1996).

Shenzhen now is undergoing a new wave of economic restructuring. Due to the cheaper labor in many inland cities and other countries, Shenzhen has lost the competitive advantage it once had and much of the light manufacturing and industry has now moved away (Zacharias, 2010). To promote the economic growth of the city during its development, urban planning focused on the development of large land parcels (Zacharias, 2010). However, as industry relocates, the previous focus on large urban parcels means large areas of the city are now vacant.

In addition to economic restructuring, Shenzhen is being defined by new urban scales, rising levels of competition and increasing regionalization. The Pearl River Delta Region, encompassing the cities of Guangzhou, Dongguan, Foshan, Huizhou, Hong Kong and Macau, has an estimated population of 27 million people (Woetzel, 2009). The delta cities are becoming increasingly more connected through the development of major new infrastructure projects (Ye, 2012), driven by the National and Municipal governments. At the same time, competition between the cities in the PRD, as well as intra-urban competition between the city districts, intensifies (Zacharias, 2010; Bruton, 2005) as areas seek investment and connection to the international, national and regional networks.

Driven by the departure of industry, rising land price, political and economic pressure to attract foreign direct investment, high-profile redevelopment projects which are often designed through international competitions are becoming a common development response. As a result of the fast urban construction, the city also is outdated extremely fast. However, more attention is given to the new development, instead of regeneration. There are a number of recent examples in Shenzhen of new business districts (Shenzhen bay Super city - 2014), new towns (Guangming Gateway), science (NFU and SZU Advanced Technology Park - 2010) and large new urban areas (Qianhai water city - 2010). The regeneration of SQ is one of the few and the biggest regeneration projects in the city. However, the ambition and planning procedure for this area is not much different than building a new district, as the paid leasing of land use rights encourages development that achieve high economic returns to ensure profitability. The brief for the SQ reflects the international aspirations of the local and municipal government calling for an international consumer center .

### **3.2 Challenges of local scale pressures**

The current planning approach has, however, not effectively reached to local scale urban environments and many workers and migrants are left feeling that they are not seeing their share of the economic benefits. While cities have been developing, the provision of adequate public services has not kept up with this economic growth. According to Ye (2012), this lack of public service provision, together with income gaps, social stratification and housing price spikes, leads to widespread social unrest in Chinese cities .

## 4. Regeneration Case Study of SQ District, Shenzhen

### 4.1 Site

SQ district is a 540-hectare outdated logistic center in Shenzhen. It represented the manufacturing history of the city, and witnessed the dramatic urbanization of Shenzhen in the past 30 years. The site is centrally located in the Luohu district, the first city center, and is well connected to the city infrastructure and transportation networks as shown in Figure 1. The former North station in the site connects Hong Kong and Mainland China, making the site a gateway of Shenzhen.



Figure 1: Location of SQ in Shenzhen. Source: A. Reynolds based on Open Streetmap data

Compared to other parts of Shenzhen, where high-rise towers play a dominant role in the city image, SQ presents unique character and quality due to its diverse urban structure and lively social lives. Warehouses, urban villages, modern residential communities and office buildings are mixed in the site. Several major infrastructure runs through the site, including urban highways, large areas of disused railway and railway yards. In addition, a city park, Honghu Park, is situated on the east of the site, and a significant green corridor, Honggang Mountain, is running east west dividing the site into half. Densities, uses, nature and infrastructure are mixed into what could be understood as an unpolished paradigm of the ultimate contemporary urban condition shown in Figure 2.

Now the site sits functionally obsolete, as the warehouses and urban facilities cannot fulfil the contemporary usages, and the pressure of transforming this area increases due to its central location. In addition, the road and traffic system on the site is disorganized, making the site fragmented and segregated from other parts of the city. Therefore, the Luohu District Government (District Government) and the Urban Planning, Land and Resources Commission of Shenzhen Municipality (SZPL, Municipal Government) have initiated the regeneration project for the SQ area in 2010. The plan aims to turn the site into a new international commercial center and creative hub, with housing capacity for 20,000 people (Sasin, 2012).



Figure 2: Three dimensional visualization of the existing urban conditions. Source: sz.chachaba.com

## 4.2 Project Process

The redevelopment of SQ has experienced conceptualization, legalization, and implementation phases since 2010.

### International masterplan competition

Luohu government and SZPL organized an international competition for the regeneration masterplan of SQ in 2010. The winning proposal from a Dutch planning company, named KCAP (Kees Christiaanse Architects and Planners), is progressive in terms of urban development in Shenzhen as it seeks to create a framework to facilitate an incremental development process and to upgrade the site by working on the existing urban fabric. The approach of the masterplan derived from European experience is socially and contextually sensitive. The new interventions are based on the acceptance of the current urban condition, in order to continue the urban history of the site, as well as that of Shenzhen. It has defined the primary principles for the regeneration, such as fine-grain and walkable urban fabric, intermodal public transport for seamless transition, connective and multi-scale public space, mixed use program, characteristic urban typology by keeping building footprint, sustainability and low carbon city, as well as collaborative implementation through phasing. It also proposed a series of planning strategies for different topics, following the above principles. Some may criticize the winning masterplan not ambitious enough for a city like Shenzhen, where the spirit is to look forward instead of backward and where magic is made daily to achieve the prosperity of the city. However, this plan has brought tremendous quality for the regeneration of SQ and more importantly, a new mindset to the development of Shenzhen, to value its own physical and social structure, and to turn the seemingly outdated into unique identity.

While the masterplan unfolded great potentials and drew desired perspective of the site, the reality is much more complicated when regenerating this 540 ha area. The site is currently leased to more than a dozen of companies, who can be considered as the temporary landowners of the site. Many of them also become the developers during the regeneration. In order to maximize their profit, they started to approach the local government even before the masterplan was launched, with grand projects of super high density and ambitious commercial program. When mutual benefits are reached, some projects had been approved and signed off by the government before the masterplan was finished. However, the approved proposal for some of the key areas did not fit in the planning vision of incremental development. Consequently, instead of being proactive to guide the site's re masterplanner has to modify their plan in order to integrate those already-designed plots.

### Statutory plan

In August 2012, based on the refined masterplan, a statutory plan was created by the municipal government and announced to the public. This document abstracted the factorial information of urban planning to control the subsequent urban and architecture developments on the site. It touched different elements of urban planning, including land use, the main road network, public transportation, municipal facilities, as well as the green structure and density. Although the information provided by the statutory plan was highly abstract, it had a dominant impact on the site because it defined the most important factors of the plan, such as property line, municipal road and infrastructure, density for every sub-district, public facility, some big public spaces and so on as shown in Figure 3.

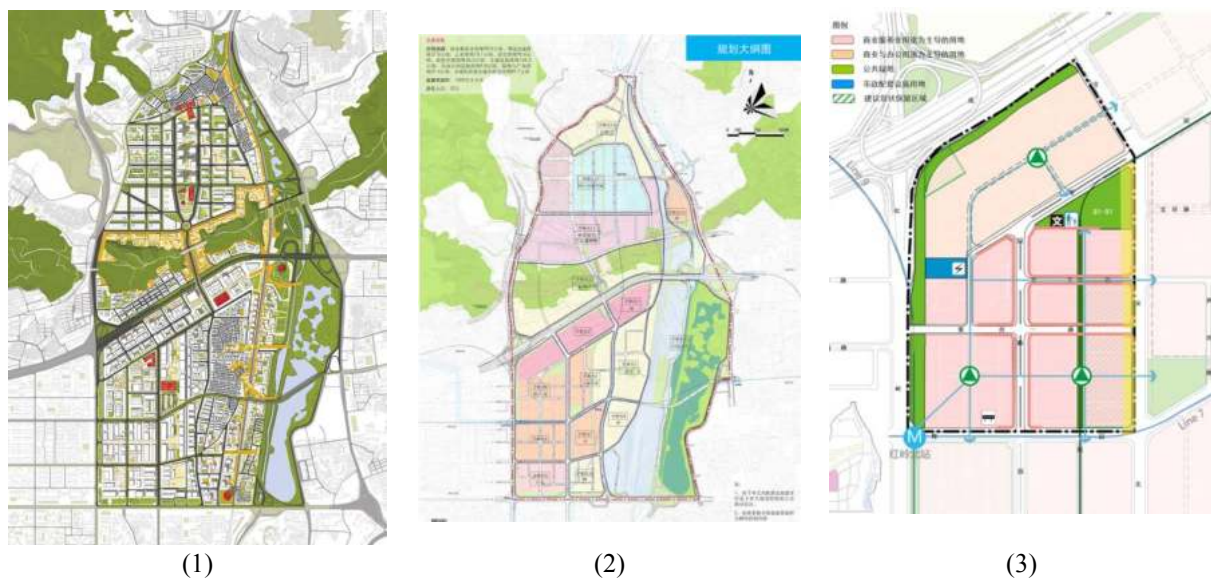


Figure 3: The three phases of the redevelopment process. (1) Masterplan prepared by KCAP, (2) Statutory Plan and Subunit Division, (3) Detailed subunit control plan.

Following the Shenzhen planning regulation, the draft of statutory plan had to be shown to the public for 30 days. During this period, anyone could deliver a written feedback to it. The planning department in the municipality would review the feedback, and decide if there were any necessary modifications. After that, the final statutory plan would be approval by the city as a legal document, which in principle, must be followed by all the subsequent developments.

Although the statutory plan included a number of elements from the original masterplan, there were essential differences between these two. Instead of regenerating the site based on the existing spatial and social context, the statutory plan put economic benefit and practical feasibility as a priority, making some major modifications on the masterplan due to practical concerns. Consequently, the spatial qualities provided by the original plan were lost in the translation to the legal document.

### **Overall urban design guideline and sub-unit design**

As the statutory plan provided new conditions to the plan of SQ, Luohu district government initiated another round of design tenders, in order to develop more comprehensive urban designs for SQ, and to make planning guidelines for the entire site and its sub-units. The project brief stated:

*We hope that a unique and charming city image, and forward-looking, implementable sub-unit planning schemes for SQ and its construction can be plotted with international visions and innovative ideas, so as to drive it to take the first try and become a demonstration area for building Luohu into the international consumer center (People's Government of Luohu District, Shenzhen & Urban Planning, Land and Resource Commission of Shenzhen Municipality 2012).*

The tenders consisted of two packages - one was urban design guidelines for the entire site, and the other was sub-unit planning for the first phase. Both documents were supposed to be developed under the framework of the statutory plan, and used by the district government to control the developments on the sites. The urban design guidelines for the whole site were asked to enrich and improve the statutory plan, producing detailed and feasible planning guidelines and referential spatial results to guide the future plan implementation.

The sub-unit design would be assigned to different design entities. It was expected to serve as an intermediate level between the overall urban design guidelines (upper plan) and development for each plot. It should provide a more detailed urban design following the guidance of the overall masterplan, and more importantly, tackle the practical issues, like land ownership, compensation policy, and to coordinate the ambition between the upper plan and the developers' vision on the

While the original masterplan for Sungang-Qingshuihe district did develop a framework that could allow for incremental growth, the plan was unable to realize its ambition when it was transformed into the statutory planning system. The following overall urban design and sub-unit design guidelines were not given space to improve upon the statutory plan. When comparing the plan of the SQ district between the conceptual competition phase and the overall design guideline phase, although one may still recognize the urban structure from the two-dimensional map, it is difficult to find coherence in the three-dimensional bird-eyes view as shown in Figure 4.



Figure 4: (1) Birdseye view of conceptual masterplan for SQ. (2) Three dimensional volumes of overall urban design guideline. Source: [www.kcap.eu](http://www.kcap.eu)

#### **4.3 Challenge for planners and limitations for the current planning practice**

During the process from design to implementation in the past four years, several problems regarding the current planning practice emerged, challenging the planners:

##### **Time pressure and inefficient planning process**

Similar to most of the urban projects in China, the redevelopment of SQ district is planned into a very tight schedule. Both the government and the developers would like to reach a prosperous result overnight. The planning process has been largely condensed, therefore creating a number of problems. For example, the overall urban design guidelines were supposed to guide the sub-unit design. However, in the case of SQ project, the overall guideline and first phase in the sub-unit design are being implemented simultaneously. This means the sub-unit designers started out without an overall picture of the entire site, making the overall design guideline powerless to control the development of the sub-units. Furthermore, this cost extra time and energy in coordination among the designers of the guidelines and sub-units, which in the end slowed down the process of the entire project.

##### **Striving for economic benefit and sacrificing socio-spatial qualities**

There are complicated partnerships in the project among the different levels of government, developers, local residents and landowners. Each group is seeking to maximize their economic benefit during the process of regeneration while not considering socio-spatial qualities, creating a dilemma for the guideline and sub-unit planners.

##### **Rigid statutory planning based on technical indices**

The statutory plan for the SQ district is the most powerful document to control the development of the site. However, as discussed previously, it sacrificed a great deal of spatial quality for the so-called economical and technical feasibility. For example, the statutory planning has defined the density for every sub-unit. However, the density was not defined based on the desirable city image or planning rationale; instead, it was defined according to the extent of difficulties of implementing

transformation. As a result, the urban villages are given the highest density, since the village owners are not willing to transform their homes unless the government gives them a very large amount of extra square meters. Furthermore, as the statutory plan has been already approved by the Municipal Government and published to the public, it was nearly impossible for the guideline and sub-unit designers to make any necessary changes.

#### **No formal system for the local government to enforce the guidelines**

The overall urban design guideline provides detailed, refined and thoughtful rules that should guide the development of the entire site. However, the legal power of the guideline is much less than the statutory plan's legal power. In addition to the items that already appeared in statutory plan, the contents in guideline are indicative and referential. There is not a formal system to ensure the execution of the guideline.

#### **Unclear or little benefits to socioeconomically weaker groups and local residents and workers**

The redevelopment of the SQ district is focused on international visions: it was to become an international business and retail center for the region (Shenzhen Information Network Center, 2012). While the current development approach may achieve such objective of boosting the regional economic competitiveness as the process of development is focused on regional ambitions, it is unclear how it can benefit the existing local actors if the needs of the local residents and the socioeconomically weaker groups are excluded from the process.

### **4.4 Evaluation**

To evaluate the effect of the redevelopment on macro- and micro-levels, the study categorizes the development of the site into XL, L, M, S, XS scales. They represent respectively:

- XL (eXtra Large) Shenzhen
- L (Large) overall site of SQ
- M (Medium) sub-units within SQ
- S (Small) individual plot
- XS (eXtra Small) individuals

The planning and intervention of redeveloping SQ happens at L, M and S scales, while the influence covers from XL to XS scales. From the macro-level, which is at XL, L and M scale, the redevelopment of SQ has largely improved the competitiveness of Luohu district in the city. It turned a brownfield into lively and prosperous urban quarters, with its creative program and atmosphere that complement the whole city's urban landscape.

At the micro-level, however, the redevelopment has not given sufficient consideration to the local environment and residence. For example, the introduction of public space, especially those at the neighborhood scale are lacking; the plot division is also relatively big without having enough local road; the street prioritize automobile use instead of being pedestrian-friendly, so on and so forth. Although the government is supposed to represent and fight for the public's interest on balancing the financial interests of stakeholders, instead of prioritizing social needs.

## **5. Conclusion: How to interconnect urban planning with multi-scale urban quality?**

As outlined in the paper, with competing interests and spatial demands, as well as time pressures, it is no easy task to bring together urban planning and multi-scale urban quality. However, some key lessons can be learned from the redevelopment of the Sungang-Qingshuihe district and the method proposed in this paper.

### **Creation of an independent quality control authority**

To enable the approach proposed in the case study, the creation of an independent quality control authority by the Municipality is proposed. This authority would coordinate and oversee the negotiation and implementation process. As there are many internal competing interests within the Municipality e.g., the Planning, Infrastructure, Environment and Economic Departments, it is considered that a separate authority could deal with these competing interests better, provide a more transparent process and gain trust from all actors, allowing for the formalization of the negotiation process.

### **Early involvement of planners and designers with a proactive coordinating role**

The involvement of designers and planners from the initial stages of the process and brief would allow the designers to contribute to defining the brief, providing a more strategic and broader vision from the beginning of the process. This could also help the planning and organization, allowing for a better understanding between the clients and the designers in terms of planning and coordinating timelines. There is also a need for the planner to move towards a new role as key coordinators to find a better balance between the interests of the various parties. This puts the planner, with their professional knowledge and ability to cross sectors in a unique position which should be recognized and encouraged.

### **Change of focus from short term economic and political impact to long term quality**

The development focus of the National, Municipal and Local Governments must shift from seeking short term financial and political gain to promoting long term socio-spatial quality. Therefore, it is important not to start with a quantitative goal, i.e. amount of financial investment, but instead begin with processes that aim to achieve certain agreed qualities and principles that result in qualitative and quantitative improvements.

### **Accept a broader range of development possibilities moving from a single render to layered stories**

The process for large-scale planning project is highly dynamic and a fixed masterplan can never be fully implemented. Therefore, it is important to provide a planning framework which can guide the plan and promote key qualities as well as have the flexibility to adapt potential changes in the future. The approach requires the National, Municipal and Local Governments, as well as developers, not to focus on a fixed vision, but on principles, qualities and a broader range of development possibilities. This will require the National, Municipal and Local Governments and individuals to sacrifice some of the current control they have on the final image of the project, and focus on the process. If all the actors, including residents and those directly affected by the development are confident in the process, have the basic trust on one another, then a project can achieve the agreed-upon goals and can be more inclusive of local needs.

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