

RETROFITTING A CREATIVE PARK
USING FENG SHUI THEORY: M50 SHANGHAI, CHINA

by

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(Under the Direction of Sungkyung Lee)

ABSTRACT

The thesis shows a redesign of a 12-acre creative park on No.50 Moganshan Road by using feng shui theory to express respect for Chinese cultural values and to explore new concepts that adopt modern landscapes. Retrofitted from an abandoned factory in China into an art center, M50 Creative Park (referred hereafter as M50) is facing some problems such as infrequent customer flows and low occupancy that interfere with the potential for high-yielding commerce. This thesis explores a redesign in an attempt to stimulate economic development, to maintain the art space, and to provide recreational and educational space for the public. Research such as on-site investigation about the site's industrial history and current condition is studied to form design principles, from which a redesign can be generated to retrofit M50 into a historical, commercial corridor with good feng shui for public recreation and education, while keeping intact the urban art space.

INDEX WORDS: Feng Shui, Creative Park, Creative Industry, Industrial Retrofit, Urban Context, Art Space, Viable Economic Activities

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Bachelor of Engineering, Shanghai University, China, 2008

A Thesis Submitted to the Graduate Faculty of The University of Georgia in Partial

Fulfillment of the Requirements for the Degree

MASTER OF LANDSCAPE ARCHITECTURE

ATHENS, GEORGIA

2013

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ACKNOWLEDGEMENTS

There are a number of people without whom this thesis might not have been written, and to whom I am greatly indebted.

First and foremost, I would like to express my sincere thanks to my advisor, Professor Sungkyung Lee, for her continuous support, patience, and guidance throughout the past years. It has been a great honor to work with her. I would like to thank Professor Douglas Pardue, the chairman of my reading committee, for his constructive comments on my thesis. I am also very grateful to Professor Maureen O'Brien, one of my committee members, for her continuous encouragement, and diligence in reading and making suggestions to the drafts, and to Professor Mark Reinberger, another member of my reading committee, for his willingness to provide essential assistance.

I also wish to offer my deepest thanks to my boyfriend, Xiaomeng Wu, for his encouragement and support during my thesis writing. Most of all, I owe my sincerest appreciation to my family for all their love and care. I am especially grateful to my grandmother, who passed away because of a brain stroke. It was a great regret and sadness that I could not go back to see her during my thesis writing. I shall dedicate my thesis to my dearest grandmother for her 12-year care and consistent love and support for me. There are also many other people who helped me along the way, and I will limit myself to a few words: I thank you all.

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CHAPTER 1

INTRODUCTION

1.1 Background History

Located at the midpoint of China's coastline, Shanghai stands at the estuary of the Yangtze River (see Fig. 1.1). Once relying on its fishing and textile industries, Shanghai has now grown to be one of the most important business, financial, trade, and shipping centers in China. Due to the favorable location of its port and its policy of openness to the outside world, Shanghai contributes greatly to the whole nation's economy, enhancing the pace of the development of its society. With an area of 2,717 square miles and a population of over 19 million, Shanghai is also famous as a tourist destination (China Jue Travel).



Figure 1.1: Map of China (en.wikipedia.org/wiki/Shanghai)

1.1.1 History of Moganshan Rd.

In the past, Shanghai gave priority to advanced manufacturing industries in order to construct its industrial base. The manufacturing of automobiles, electronic equipment, petrochemicals, steel products, assembly equipment, and biomedicine were once promoted as the six core industries of Shanghai (Huang and Xu, 1998). Industry in Shanghai developed along the waterways in two directions: the Huangpu River in the east and the Suzhou Creek in the west. The industry along the Huangpu River, where many foreign companies were located, concentrated mainly on heavy industry, while the industrial companies near the Suzhou Creek focused on light manufacturing.

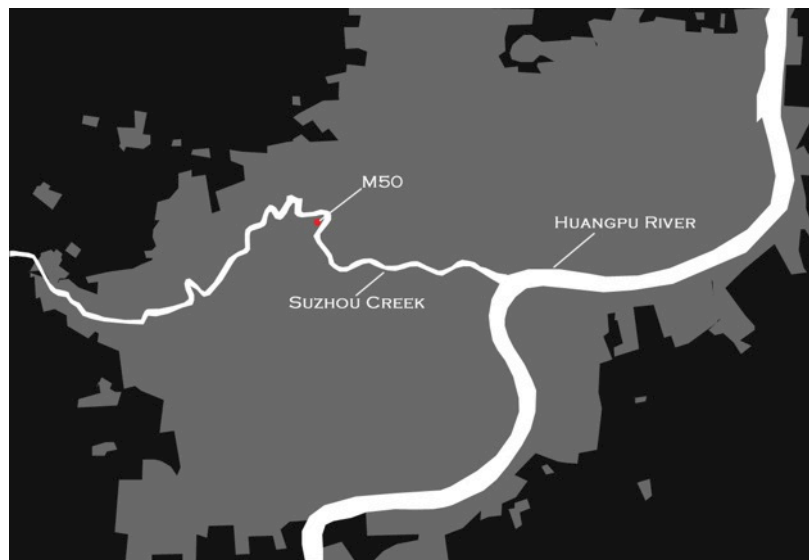


Figure 1.2: The Huangpu River and the Suzhou Creek divide the city into the Pudong and the Puxi areas.

From the end of the 1800s until the 1930s, national industry in China spread on both sides of Moganshan Road, forming one of Shanghai's biggest industrial areas (Chen and DAtrans, 2008). Shanghai Chunming Textile Factory is located at No. 50 Moganshan Road on the south bank of the Suzhou Creek. It owns 41,000 square meters of industrial buildings that have been built in different historical stages since the 1930s.

Shanghai Chunming Textile Factory grew out of the former Xinhe Spinning Mill, as an enterprise of the Zhou family, representative of the merchants from the Anhui province. It was renamed as Xinhe Cotton Mill in 1933, then as Shanghai No. 12 Woolen Spinning Factory in 1966, and then as Shanghai Chunming Textile Factory (a part of Shanghai Chunming Corporation) in 1994, with the latter renaming occurring after the liberation of Shanghai in 1949 (Chen and DAtrans, 2008). Situated in the national capital for textile and flour production, Chunming Textile Factory has played an important role in the industrial development of Shanghai. The British spinning machines were installed, and 147,000 dan cottons were spun there. By the early 1930s, it accounted for 20% and 80% of the country's total yield of spindles and looms respectively (Chen and DAtrans, 2008). With over 100 years of history, the factory has significance not only for the development of the Puxi area, but also for the rest of the city as a whole. In 1999, Chunming Textile Factory (a part of Shanghai Chunming Corporation) was closed because of the declining industries (see Fig. 1.3). After retreating from the historical stage, it became famous overnight for its innovative reuse. It was renamed Shanghai Chunming Urban Industrial Park in 2002 and Shanghai Chunming Arts Park in 2004 by the Shanghai Municipal Economic Committee. After that, in 2005, it was renamed M50 Creative Park (Chen and DAtrans, 2008).

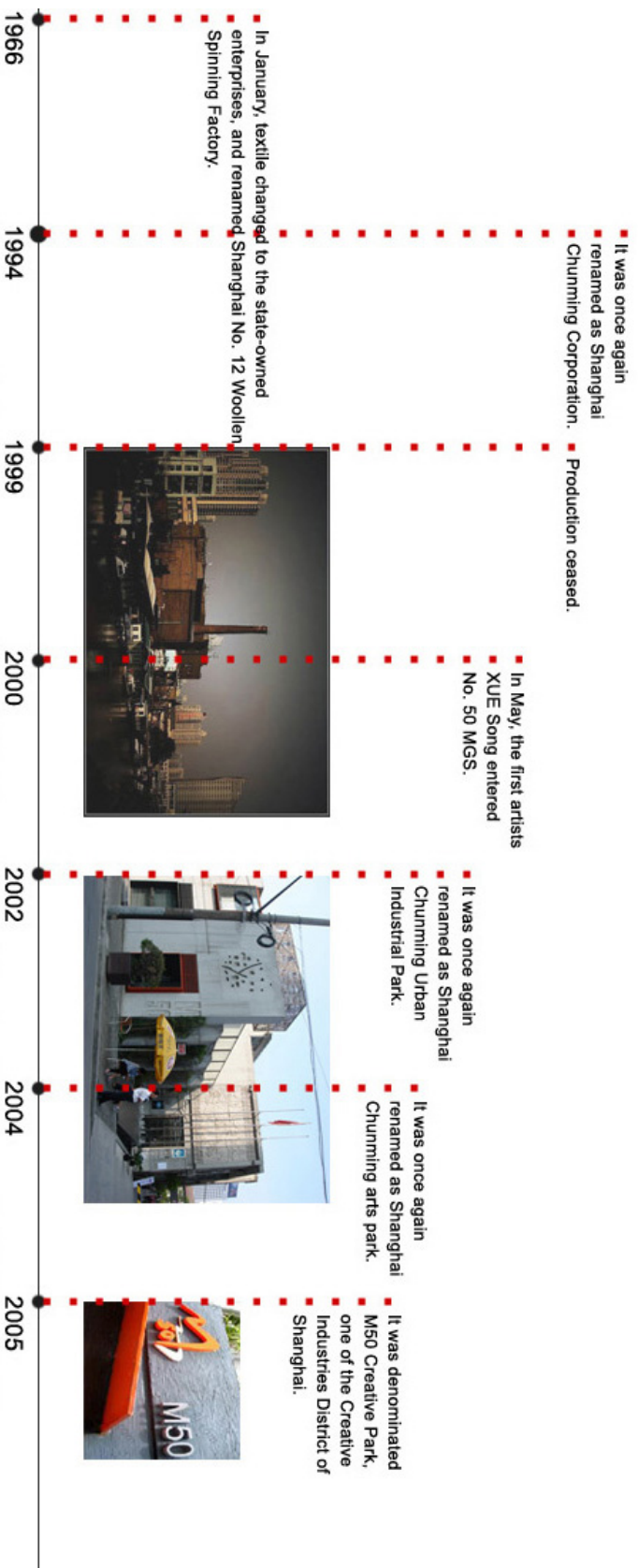


Figure 1.3: History of M50 Creative Park (Chen, 2008, p36)

1.1.2 Current Development of M50 Creative Park

Within a few years M50 Creative Park introduced more than 130 artists into various professions, such as painting, graphic design, architectural design, movie and television production, environmental artistic design, and jewelry design. The artists came from over 10 Chinese Mainland cities and 16 foreign countries, including the United Kingdom, France, Italy, Switzerland, Israel, Norway, and Hong Kong, which have enriched the cultural atmosphere of the Suzhou Creek (Chen and DAtrans, 2008).

Once known as a typical industrial site in an urban center, the Moganshan (hereafter abbreviated as MGS) district consists of old factory buildings and warehouses (see Fig. 1.4), some of which still remain with the Shikumen-style. Those buildings with the Shikumen-style architecture indicate respect for the Shikumen cultural values through their survival in the urban development.



Figure 1.4: Overview of M50 Creative Park (taken by Jianping Shen, 2009)

With its special geographic location, M50 Creative Park serves as an important landmark that is embedded in the urban center along the Suzhou Creek. Because of its

inexpensive land price that it was ignored and left to flourish as a haven for cutting-edge Chinese urban art space. However, what is striking about the rapid increase of high-rises is how at odds it is with current artistic sentiment. Although M50 Creative Park was defined as a public Creative Park, it is now no more than a neglected corner in the urban center.

Now M50 Creative Park has its own strategy, with some artists paying the lowest rental of 0.4 or 0.5 dollar per square meter per seven days, and others paying the highest rental of 5 dollars per square meter every week (Shanghai SoHo—50 Moganshan Road, *Shanghai Daily*). Some artists who moved to M50 Creative Park in its infancy, or those hot artists with high selling records, are able to get the cheaper rental fees. On the other hand, because some new artists can hardly sustain themselves, the landlord is ready to take action to retrofit the site into a commercial venue to make a profit.

Apart from economic difficulties, social problems have arisen during its development. Surrounded by different types of residential architectures where people of different social classes live, M50 Creative Park serves as a contemporary center for rich people to buy art works rather than as a public space for recreation and education. In addition, transition from traditional local culture to modernized urban culture has been missing in this joint venture. Therefore, M50 Creative Park does not live up to its intention to function as a Creative Park.

1.2 Definition of Terms

Shanghai Shikumen

As an industrial site in the past, M50 Creative Park has retained part of its local culture. The original architectural design, Shanghai Shikumen, symbolizes the harmonious community that existed before the establishment of M50 Creative Park, and also reflects Shanghai's Lòngtang Culture.¹



Figure 1.5: A typical Shikumen house (Zhang, 2001)

Shikumen refers to the architectural style of the residential buildings in Shanghai.

Shikumen houses are two- or three-story townhouses, with the front yard protected by a

¹ Lòngtang Culture is associated with the straight alley connecting the Shikumen residences. Shanghainese like to engage in outdoor activities such as sunbathing and playing chess in the Lòngtang. Lòngtang was the area where people could gather as a community, and it was unique to Shanghai and Shanghainese (Danzker and Lum, 2004).

high brick wall. The gates of these houses are made of solid and thick wooden boards, and the doorframes are also made of stone (see Fig. 1.5). Therefore, the houses are called Shikumen, which literally means, “stone gate houses” (Lou, 2004). Each Shikumen house is connected to and arrayed in straight alleys, known as Long-tang (see Fig. 1.6). A stylistic stone arch usually surmounts the entrance to the Long-tang. Shikumen-style houses form the basis of the Long-tang community where private spheres and public spaces overlap. In the Long-tang community, all share each other’s business and live as though they are part of a big family.



Figure 1.6: Stone arch of a Shikumen house (en.wikipedia.org/wiki/Shikumen)

The origin of Shikumen houses can be traced back to the 1860s. The typical Shikumen house is a brick-wood, two-story house, which includes a courtyard, a study room, a wing-room, a kitchen, a back door, a loft, and a flat roof. After the early 1900s, Shanghai’s households became smaller in size, and the residents’ living patterns

underwent major changes. As a result, the structure and the layout of the Shikumen-style houses also changed. At their peak, the Shikumen-style neighborhoods numbered more than 9,000 in Shanghai and took up 60% of the total housing space of the city (Lou, 2004). However, the Shikumen houses, which have survived for more than a century, are no longer suitable for modern urban living. With the improvement of living conditions, people have abandoned sharing their kitchens and are getting used to a life of high technology as they use their flush toilets and air-conditioning systems, which cannot be installed in the Shikumen houses because of their architectural structure. Since the 1990s, a new wave of renovation and urban development has begun in Shanghai and has led to the deconstruction of many Shikumen-style buildings.

The Shikumen house reflects the elegance and petty bourgeoisie of Shanghai life. It embodies the spirit of the modern metropolis and is a valuable architectural legacy that needs to be preserved and treasured. In addition, the Shikumen house adheres to *feng shui*—the ancient Chinese philosophy that relates nature to human beings by arranging the elements to receive benevolent energy or to avoid destructive energy. More details about the Shikumen house will be introduced in Chapter 3.

Creative Industries

The creative industries, also called the cultural industries or the creative economy, refer to a range of economic enterprises, which are engaged in the exploitation of intellectual property-based products and services. According to Howkins (2001), creative economy comprises advertising, architecture, art, crafts, design, fashion, film, music, performing arts, publishing, R&D, software, toys and games, TV and radio, and video games. They contribute significantly to the development of nations from economic, social

and cultural perspectives. The creative industries sustain diverse cultures and enhance social values by the attractiveness of their unique characteristics. Meanwhile, they generate wealth, provide employment opportunities, and promote trade continuously. More details about the creative industries will be explained in Chapter 2.

Feng Shui

Feng shui (pronounced “fung shway”) seeks to identify how the fate of human beings and nature are closely intertwined, and how any change in nature may be reflected in people’s life and well being (Rossbach and Lin, 1998). The basic premises of feng shui, which originated in early agrarian China, understand that survival and fortune depend on whether the earth is fertile or barren, whether the weather is gentle or cruel, and whether water and sunlight are abundant. Ancient Chinese utilized tools to observe the constellations and then analyzed the climate in order to prepare for their activities like eating and hunting during the upcoming drought or storms. From ancient times to the present, the key to discerning good feng shui has been the ability to detect, analyze, and harmonize with the breath and the energy of the earth and the cosmos—chi (Rossbach and Lin, 1998). Therefore, understanding the mystery of the powerful, intricate forms and forces of Nature and paying tribute to the laws of Nature are the most important requirements to be a master in feng shui. More details about feng shui and its application to landscape architecture will be provided in Chapter 3.

1.3 Research Problems

The Chinese concept of Creative Parks has been applied to many historic industrial sites in Shanghai. M50 Creative Park is a typical retrofit. It was once a cutting-

edge urban art-space, but now it has been left unmanaged due to several reasons, such as insufficient economic benefits and infrequent customer flows. Using feng shui theory, this thesis will address two main problems of the site: lack of economic growth and shortage of environmental health. In doing so, negative chi flow such as oppressive chi, rushing chi, and blocked energy, is replaced with positive chi in M50 Creative Park for the increase of economic results and the creation of harmonious environment.

Lack of Economic Growth

Because of the economic downturn, M50 Creative Park is currently in a financial crisis. In 2009, Shanghai's creative industry generated an added value of approximately \$17,271 per capita, and this estimate is lower than that of the Shanghai labor productivity index, which was \$19,942 (Creative Economy Report 2010, UNCTAD). Shanghai's manufacturing industry, therefore, still focuses on low value-added processing and manufacturing industries with relatively low productivity, most of which are labor-intensive. However, Shanghai's manufacturing industry does not cover much in creative industries that is prioritized by creativity and high added value. It seems that there is much potential for the manufacturing industry to develop through the creative industries. Although art has been a leading industry in the creative industries, people with average salaries cannot afford to buy the art works. Creative Parks seem to earn little money but invest an inordinate amount of creativity into the city of Shanghai. How to stimulate the economic development of the art venue become urgent affairs in the retrofit of an industrial site. Feng shui theory is therefore applied to direct more positive chi in order to invest more business opportunities for economic growth.

Shortage of Environmental Health

As an island embedded in the urban center, the insanitary environment around M50 Creative Park is another major concern. On the one hand, the streetscape along Moganshan Road is worrying. The graffiti wall at the entrance of Moganshan road is covered with drawings and slogans in indecent words (see Fig. 1.7). The public toilet in the middle section of Moganshan road is insanitary condition, emitting foul odors. A part of adjacent traditional brick-layered historic Shikumen houses beside M50 Creative Park (see Fig. 1.8) have fallen into disrepair, whereas some people are still living in those houses without some public routine services, such as Internet and air-conditioning. Other old houses turned into ashes and some residents had been encouraged to move under the municipal policy. On the other hand, a newly built residential community is on the other side of M50 Creative Park, forming a big contrast to the ruins of old buildings (see Fig. 1.9). Given the circumstances, it is urgent to build up a healthy environment to encourage more people to visit and to keep a balance between broken historic architectures and modern high rises. It is important to improve the environment around M50 Creative Park.



Fig. 1.7: The Graffiti Wall at the Entrance to Moganshan Road

Figure 1.8: Parts of the Shikumen buildings beside M50 Creative Park are about to be torn down.



Fig. 1.9: The Different Type of Architectures around M50 Creative Park

As the unique local architecture, Shanghai Shikumen adheres to feng shui theory, offering comfortable environment for local residents in decades of generations. Although Shikumen architecture has retired from the historical stage, it is imbued with educational value and cultural legacy in order for wide-spread and preservation. Feng shui theory is introduced not only to conduct research on Shikumen house, but also to explore its positive influences on the energy flow to improve poor environment around M50 Creative Park.

Lack of Uniqueness among the Retrofit Models

The rapid development of creative industries impelled sharp increase in creative parks. The Shanghai Economic Committee has authorized 82 Creative Parks; another 200 are awaiting approval (Shanghai UNESCO City of Design, UNESCO Creative Cities Network). Shanghai has 18 districts, 9 of which form the urban center of the city (see Fig. 1.10). The urban center has 68 creative parks, with two-thirds of them distributed along the Huangpu River and the Suzhou Creek (see Fig. 1.11).

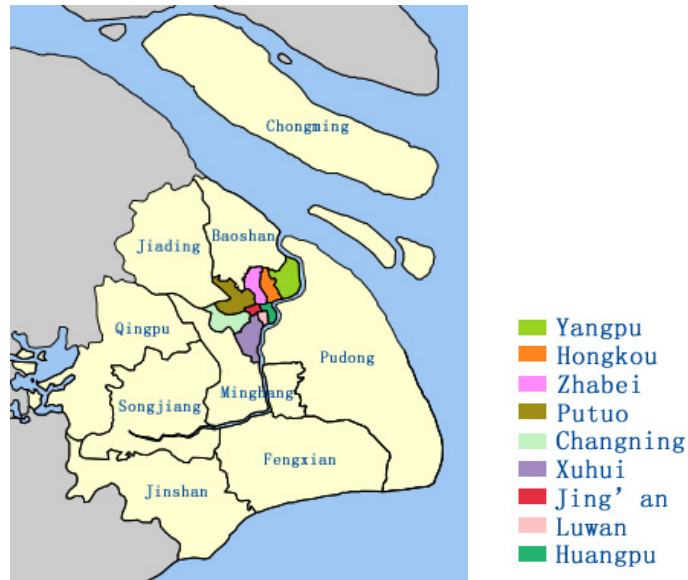


Figure 1.10: Shanghai District Map

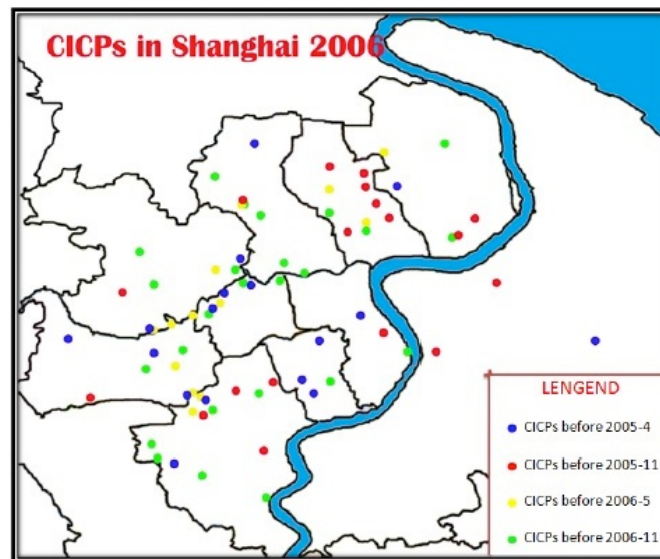


Figure 1.11: The map shows the distribution of the existing 75 Creative Parks in Shanghai in 2006.

However, faced by the economic downturn, some Creative Parks, established in old factory buildings, are worried about occupancy, rent, and customer flow. M50 is a typical one. Among the models that retrofit from industrial sites, into which one does M50 Creative Park fit? The thesis will also explore the key to answering this question.

1.4 Research Questions

- How to apply feng shui theory in design to enhance positive chi in order to stimulate economic profits in the retrofit of M50 Creative Park?
- How can feng shui theory exert good influence over M50 Creative Park to improve the surrounding environment along Moganshan road?
- Among the models that retrofit from industrial sites, into which one does M50 Creative Park fit?

Specific Questions

1. Once known as a key industrial site in Shanghai's industrial history, what kind of cultural values should be preserved in the retrofit of M50 Creative Park?
2. Among the 82 Creative Parks in Shanghai, what is the uniqueness of M50 Creative Park that differentiates it from the other Creative Parks in Shanghai?
3. By reusing the buildings according to the Shanghai Municipal policy, some of the Shikumen houses beside M50 Creative Park are preserved. How can the site be retrofitted by applying feng shui theory while also retaining some of the architectural elements that adhere to the theory?

1.5 Research Methods

Three major research methods will be used in the thesis. First, the interpretive historical research method will be used in order to investigate the changes of the industrial site over time and to further analyze its adaptive reuse. In chronological order, the historical aspects involved in the industrial history of M50 Creative Park along Suzhou Creek and Moganshan Road will be examined. Besides, the architecture in the

M50 Creative Park has changed in its appearance from the time of its industrial structure to the time of its modernized redecoration. Old maps and photos that reflect the context and provide background information of the industrial site will be introduced in chronological order as the pertinent historical events are mentioned. Along with the reform of policies and the adjustment of industrial structures, heavy industry was phased out in Shanghai, making tertiary industry play an important role in Shanghai's industrial community. Research on the industrial history and the industrial structure from maps, photos and historic events will help the designer better understand the contexts of the site and have respect for the cultural values of the site.

Second, case studies will be interpreted in order to help analyze the models of Creative Parks. Case studies were selected by focusing on the different properties of creative industries, which are economic, cultural, and recreational values. Comparison of different types of development will be analyzed through photos and direct visiting experience, which includes analysis in function, usage of space and preservation of cultural integrity. The direct experience of visiting the chosen sites as a tourist will help with evaluating the cases. Besides, through this evaluation, some good examples can be borrowed, and some bad examples be avoided as design guidelines are formulated.

Third, on-site investigation about the environment of the M50 Creative Park will be conducted to obtain both positive and negative feedback from targeted groups. The two-targeted groups include the people working in the M50 Creative Park and the residents living along Moganshan Road. Participants volunteered to answer the questions in the investigations and to give their opinions during the interviews. The data collected from the interviews will be incorporated into narratives and diagrams, and the

photographs will be reorganized and incorporated to illustrate the narratives. On-site investigation are conducive to evaluating the feedback obtained about the site from various perspectives, such as the physical condition of the site, public accessibility to the site, and availability to the recreational activities. In addition, getting the feedback from the targeted user group is helpful to set up proposed program based on the feedback.

After that, design principles and criteria will be extracted and applied to the M50 Creative Park to form a design plan of the site.

CHAPTER 2

CREATIVE PARK IN CHINA

2.1 Creative Industries Development

In an era of information and technology, knowledge and creativity are becoming powerful engines for driving economic growth and for maintaining cultural diversity. According to the United Nations Conference on Trade and Development, creative industries are estimated to account for more than 7% of the world's gross domestic product and continue to grow, on average, by 10% a year (Fu and Xu, 2009).

The concept of creative industries is thought to have emerged in Australia in the early 1990s. In 1994, the Keating Government released its cultural policy that was designed to help Australia confront the challenges in the revolution of information technologies and the ensuing mass-cultural wave (KEA European Affairs, 2006). During the late 1990s, the policy makers in the United Kingdom gave it a much wider exposure, and the Department for Culture, Media and Sport (DCMS) formalized the concept through setting up its Creative Industries Unit and Task Force and by publishing its Creative Mapping Document (United Nations Conference on Trade and Development, 2004). Despite various definitions of Creative Industries by the policy makers in different countries, all the definitions point out that creative industries are associated with activities to produce symbolic products with a heavy reliance on intellectual property and to serve the market as much as possible. According to the business analyst John Howkins, the creative industries consist of “advertising, architecture, art, crafts, design, fashion,

film, music, performing arts, publishing, R&D, software, toys and games, TV and radio, and video games” (Howkins, 2001).



Figure 2.1: Categories of Creative Industries

A strong and mutually reinforcing relationship lies among the different artistic and economic activities that comprise the cluster of creative industries, ranging from upstream activities, such as the performing arts, painting, and the visual arts, to downstream activities, such as advertising, publishing, and design activities (see Fig. 2.1). Such diversity coming from interdisciplinary activities not only contributes to generating employment and exporting resources from leading countries (see Fig. 2.2), but also serves as a vehicle of cultural identity and regional prosperity.

Despite the positive effects of the creative industries for their countries, they involve some high risks. Basic economic properties—demand, differentiated products, required diverse skills, time, durability of the products, and rents—pose unknown complications in the economic development of the creative industries. More strategic thinking from policy makers, both regionally and globally, is required to balance the fiscal investment in creative industries and its intangible assets, which is quite different from the investment in traditional industries. Besides, its properties in terms of the high mobility of its resources, the invisibility of instant reward, and the different pursuits of

the consumers and the creators produce uncertainty about the development of the creative industries and high risks for the local government, the policy makers, and the artists.

Industry	Contribution to UK GVA (%)	Annual rate of growth 1997–2004	Value of exports (£ million)	Number of people employed
Advertising	0.7	3%	1,100	223,400
Architecture	0.5	2%	570	108,200
Art and antiques	0.06	7%	2,200	22,900
Crafts	n/a	n/a	n/a	95,500
Design	0.5	n/a	550	n/a
Designer fashion	0.05	2%	n/a	115,500
Video, film and photography	0.3	0%	940	63,800
Music and the visual and performing arts	0.5	2%	150	236,300
Publishing	1.2	2%	1,500	253,300
Software, computer games and electronic publishing	2.7	9%	4,700	596,800
Radio and television	0.9	8%	1,300	108,700
Total	7.3	5% average	13,000	1,824,400

Figure 2.2: Economic Contributions of UK Creative Industries, 2004 (DCMS, 2007)

While people in many nations were developing creative industries, Chinese people also realized the importance of creative industries for the next generation. In 2006, the Chinese government listed creative industries in its development plan, and within one year, there were 219 creative industrial clusters all over China (Fu and Xu, 2009). Due to the efforts of different departments, corporations, and the government, the development of creative industries in China has entered into a new era of competition among different cities. At the present, there is an urban-based trend in the development of China's creative industries, especially in the costal areas where economic growth is more mature and faster than that in other cities. According to the National Bureau of Statistics of China, in 2009, there were 219 creative industries clusters in China. Of these creative industry clusters, 75 were in Shanghai and so comprised 34.25% of the total number; and 21 were in Beijing and so comprised 9.59% of the total number (see Table 2.3).

Table 2.3: The Accumulative Number of Creative Clusters in China in 2008

		2005	2006	2007	2008
Shanghai	35	75	75	75	
Beijing	8	10	10	21	
Total	53	125	162	219	

Although creative industries have vast potential for future development, their development has just begun in China. There are still problems waiting for settlements. Problems in terms of an imbalanced development between economic and cultural enterprises, a lacking sense of brand establishment, inadequate training for a professional creative workforce, the need for the placement of a public platform, the absence of an industrial alliance, and the need for the perfection of the Copyright Act and related laws, all pose threats on the way towards the maturity of China's creative industries. The explosive development of the creative industries in China is the trend of the times (Fu and Xu, 2009).

2.1.1 Development of Contemporary Art in China

As one of the major sectors among the categories of the creative industries, art serves as a profound tool for expressing what people see and hear. Contemporary art, defined as the creation of art in its various forms since World War I, plays a significant role in art history worldwide, especially for China—an ancient nation with a long and complex art history. The history of Chinese contemporary art is a matter of a couple of decades. Chinese contemporary art, which has developed since 1980, was an outgrowth of the development of modern art during the civil Cultural Revolution. Constrained

policies, stagnant economic growth, and civil turmoil against the government have brought double-sided effects to Chinese contemporary art. On the one hand, the prohibition of learning advanced technology and of expressing open-minded thoughts extremely slowed the pace of social advancement. On the other hand, the instability and the turmoil presented a strong wave against mind-controlling policies, and the conservativeness and backwardness in cultural policies, economics, and other fields.

After the famous Chinese Avant-garde Exhibition¹ in Beijing in 1989, Shanghai artists started to organize private exhibitions by using temporary spaces. However, these events rarely reached the wider public, and responded more to a need for self-expression than to the explicit desire to communicate with the wider public. The situation in Shanghai did not change until 1996. Lorenz Helbling, a Swiss gallerist, organized exhibitions of avant-garde arts works in Shanghai. The first exhibit was displayed in his house, and then exhibits were eventually held at ShangArt, as he named his space in Fuxing Park. Including political pop, abstract painting, and kitsch art, ShangArt (see Fig. 2.4) was thus the first private gallery devoted entirely to the promotion of avant-garde art. After the establishment of ShangArt, numerous other galleries flourished (Wu, 2002).



Figure 2.4: the ShangArt gallery in M50 Creative Park

² Chinese Avant-garde Exhibition: a woodcut movement that emerged during the 1920s and the 1930s in China. Its context includes a complex backdrop of political upheavals, institutional changes, and competing discourses (Tang, 2008).

Even so, after making its way to mature growth and public popularity, Chinese contemporary art is on the edge of a cliff. In the process of commercialization, Chinese contemporary art has lost its way. M50 Creative Park is a typical example. Around every nearby corner will be found an artist's studio, or an exclusive dealer who sells Chinese art pieces for thousands of dollars out of some dilapidated warehouses. Meanwhile, the public media directs attention to the exhibition of western contemporary art and thus has shifted the audience's focus onto the western art market (Sinha, 2008). Overexposure to foreign journalists, curators, and dealers has influenced the future of Chinese contemporary art to a great extent. Even young art graduates aim at exploring the western art market for promoting their career. Additionally, local non-profit artistic organizations need to promote the growth of local contemporary art, not just display traditional art. Many efforts are required to formalize and improve the development of Chinese contemporary art Events such as the Shanghai Design Biennale Exhibition, the annual International Creative Industry Week, and the exhibitions of various creative products reflect an increasing public awareness of art ventures.

2.1.2 Creative Industries in China

Clusters of creative industries had a nationwide, explosive development after the Chinese government listed the category of creative industries in its development plan in 2006 (Fu and Xu, 2009). Moving from a focus on state-owned cultural industries to a focus on market-oriented creative industries, China is expanding its domestic market by targeting specific cities and linking them to a largely cultural diaspora. The 11th Five-year Plan issued by the Chinese government that by the end of 2010, "the service industries'

share of the national GDP (Gross Domestic Product) will jump from 40% to 43%” (IVCA Report, March 2010). Besides, according to a recent UN report, China has become the third largest exporter of creative industries, following behind the United Kingdom and the United States (Fu and Xu, 2009). Many of China’s creative industries are experiencing rapid growth, which can be credited partly to a combination of state-driven and private sector investments in infrastructure and technology. This growth can be attributed to the acceleration of the digitization of information, the enhancement of communication, and a marked rise in the consumption of media, culture, and infotainment.

However, China has yet to undertake a comprehensive review in order to make a strategic plan for determining a sustainable course for its creative industries in the future. Problems pertaining to policymaking, data collection, liberal accessibility, IPR (intellectual property rights) protection, and public awareness need to be solved so that the goal of sustaining the development of the creative industries is reached (Fu and Xu, 2009).

2.1.3 Creative Industries in Shanghai

For most of the creative industries, opportunities will arise if they are located in the well-developed, large cities and in the coastal areas. At the present, China focuses on the development of urban-based creative industries even though the coastal areas, especially Shanghai and Beijing, have experienced a rapid growth rate. By the end of 2009, there were 219 clusters of creative industries in China, of which 75 were in Shanghai and accounted for 34.25% of the total number, and thus had the largest number

of creative industries nationwide (National Bureau of Statistics of China, 2008). Shanghai is implementing a series of strategies to promote the development of its creative industries, with the aims of building itself within ten years as one of the most creative centers in Asia and within twenty years as the one of most creative centers in the world (Yang, 2002).

According to the city-specific approach and the local government, Shanghai's creative industries can be divided into five categories, which include R&D, design, architecture, mass media, consulting services, and fashion design. There are a few activities subsidized in the five categories. Advertising, new media, and game designs are the fastest growing creative sectors, with their increasing popularity. Film and video production is on the rise but still accounts for a very small part of the market, due to its required expertise and the uncertainty of attracting an audience. Architectural design and construction keep shaping China's cultural identity while strongly contributing to the national revenue and the beautification of the city. Despite their limited share in the creative industries, music and the performing arts have undergone significant changes, with increasing public awareness of their creativity and their contributions to the protection of the global environment. The visual arts and arts & crafts continue to attract investors and tourists from all over the world and contribute to maintaining the regional legacy and the cultural heritage of China.

Under the organization and the leadership of the local government, Shanghai strives to arouse public awareness of creativity through a series of events, such as the Shanghai International Creative Industry Week, the Shanghai e-Art Festival, the Shanghai Design Biennale, China Joy, the Shanghai International Art Festival, and similar festivals.

The added value generated by the creative industries increased from 7.8 billion dollars in 2004 to 18.2 billion dollars in 2009, and its percentage in the overall GDP of the city has increased from 5.8% to above 7.7%. In 2009, the creative industries in Shanghai produced a total output of 61.9 billion dollars, with the added-value increasing 17.6% from the previous year, and 150,000 employees (Shanghai UNESCO City of Design, UNESCO Creative Cities Network). Besides, the regulations on the administration of audio-visual products and on the management of films, which went into effect in 2002, brought order and transparency to audio-visual production and led to greater commercial efficiency in accordance with domestic policies and WTO commitments. Furthermore, in cooperation with the Shanghai Intellectual Property Administration, Shanghai's Creative Industry Centre is currently conducting research on the creative industries sector as well as working on a research project on how to make full use of the IPR (Intellectual Property Rights) to promote the growth of creative industries (Fu and Xu, 2009). Although these moves have positively enhanced the development of China's creative industries, the ban on the distribution of politically sensitive materials and the intervention on the content of printed media have resulted in continued restrictions in the communication services. What is more, the simplification and the improvement of the regulatory business environment for creative industries call for the provision of a supportive regulatory framework and formalized management of the IPR (Sinha, 2008).

2.2 The Three Models of Creative Parks in Shanghai

The highly developed creative clusters prompted the formation of creative parks, which provide a specific environment for creative industries to thrive and a working

space for artists and workers at the same time. Seventy-five clusters of creative industry parks in Shanghai cover a total construction area of 2.5 million square meters, with over 5,000 enterprises and more than 80,000 employees from over 30 countries and regions around the world. They have attracted the accumulative total capital of over 15.9 billion dollars in the development of the creative industries (Shanghai UNESCO City of Design, UNESCO Creative Cities Network). Among the creative parks located in Shanghai, some of them have become cultural landscapes, decorating the city with their creative and cultural legacies. It is estimated that about two-thirds of the creative parks in Shanghai have been built or renovated through the protection and the creative regeneration of the old factory buildings, plants, and warehouses. Shanghai's creative industries have drawn the attention of 6,110 creative enterprises from over 30 countries and regions, and had created job positions for more than 114,700 employees by the end of March 2010 (Shanghai UNESCO City of Design, UNESCO Creative Cities Network). In addition, the creative parks, such as Xintiandi, Tianzifang, and M50 Creative Park, serve as stages for holding the art events advocated by the local government and bring about opportunities to establish their brands.

Although creative industries seem to thrive in China, especially in a metropolitan city like Shanghai, there is a long way to go to materialize the goal of developing sustainable creative industries. As one of the incubators of creativity, the creative parks play important roles in promoting economic prosperity and in establishing global brands for the creative sectors.



Figure 2.5: Xintiandi (topchinatrip.com/Shanghai)

According to the categories of creative parks in Shanghai, there are 3 models for creative parks. The first is that of a shopping and entertainment center targeted for a high-end consumption group, such as Xintiandi (see Fig. 2.5). Social elites or people who enjoy a fashionable life go to Xintiandi to purchase extravagant goods and services, and during the holidays they are required to pay a cover charge to be admitted into the bars and the restaurants at Xintiandi. Although the traditional Shikumen houses in Xintiandi (XTD) reflect the essence of traditional Shanghai architectures and their glorious pasts, the overexposure to products of luxurious brands alienates the working class from becoming involved in the creative industries. A park labeled as a creative industry park is more than a shopping mall with extravagant goods; it is an artful space for displaying talent and a recreational park for the public.



Figure 2.6: The five-star Xintiandi Hotel (house.china.com.cn)

The second model is the studio, which received its inspiration from the idea of the working studios. The Bridge 8 is one of them (see Fig. 2.7). The separate working studios constitute the whole creative “park.” People consider it an office building with a cool design rather than a public stage where people can participate in the exhibitions and some art-based activities. Its creative sectors mainly focus on design works, like architecture, landscape architecture, animation design, games development, and the like. Starting an exploration into this creative “park” can make someone feel unwelcome and bring a sense of invading private property.



Figure 2.7: The facade of the buildings of Bridge 8

The third model combines some new elements with the old ones to create an artful atmosphere and to adapt the old elements into the existing environment. Tianzifang is an example. It incorporates new elements, such as an elegant café and boutique shops, into the fabric of residential buildings with the architectural style of the late 1980s (see Fig. 2.8). Hundreds of tourists come from all over the world to experience the local Shanghainese life characterized by late 1980s style (Shanghai UNESCO City of Design, UNESCO Creative Cities Network). Because of its pleasant and unique landscape, this creative community fits perfectly into the urban center.



Figure 2.8: A View of Tianzifang, Shanghai (uutuu.com)

In considering the three models (or designs) of creative parks, M50 Creative Park does not belong to any of three above. According to the design plan of M50 Creative Park, it is meant to be an open plaza for people to participate in the cultural and art-based activities and to serve as a building complex to house the different galleries, the working studios, and the design firms (Chen and DAtrans, 2008). With the rise of several problems, M50 Creative Park has become an abandoned art center with a central parking lot (see Fig. 2.9). Those problems include conflicts between economic development and the atmosphere required to generate high-quality art works, insufficient fiscal support from the government and non-profit organizations, the lack of space to rest and to engage in recreational activities, and the inaccessibility of the artists to interact with potential consumers.



Figure 2.9: The Central Parking Plaza of M50 Creative Park

2.3 Public Participation in Creative Industries

With more and more creative sectors emerging and creative activities increasing in popularity, China's creative industry is on the rise. The series of art events, such as the Shanghai International Creative Industry Week (see Fig. 2.10), open the door to the outside community, creating opportunities for amateurs to get some inspiration and tutorial training through this platform and bringing the professionals together for technical discussion and the distribution of culture.

Although well-organized and diverse cultural festivals are held and supported by the Shanghai International Creative Industry Center and the Shanghai Municipal Government, the public lacks awareness of the creative industries. For example, people have lost interest in going to those creative activities because they are required to buy admission tickets to the occasions, which they may consider as too expensive. Fund raising in multiple channels might give hope to the artists and the investors and help attract more consumers and patrons. With financial support from the government and

some non-profit organizations, the burdens would be mitigated to increase the chance for people to gain access to the creative events as much as possible.



Figure 2.10: Shanghai International Creative Industry Week 2009

Besides, the scarcity of the workforce in the creative industries is another issue too. Education would be a way to resolve this deficit. There are 63 universities in Shanghai with majors or degrees in the pertinent fields, such as art and design. According to the estimates, however, almost two-thirds of the students shifted their interests in making a living through the creative arts when they were exposed to the realities of losing their job and of compromising themselves as artists to meet the demands of businessmen (Fu and Xu, 2009).

Additionally, lacking the sense of wanting to or knowing how to make a brand is a big obstacle in the development of creative industries because consumers tend to be attracted to purchasing the products with a specific brand (Fu and Xu, 2009). Sometimes they associate having the product with allowing them to share the identity of the social

elite and a life of good quality like theirs. For example, as one of the popular brand globally, the iPhone serves as vehicles for the pursuit of fashion, youth, and high technology. The awareness of the establishment of a national brand is required to receive both high-profit returns in the global market and opportunities to establish cultural identity. It is a long-term process to test the viability of the product in the market place, and the establishment of brands for the products includes creating unique products and extensively advertising not only the products, but also the creative parks.

2.4 Guidelines of the Retrofit of an Industrial Site

Among the current creative parks in Shanghai, two-thirds of them were built in or renovated from old factories or warehouses. Their architecture reflects the old days of Shanghai and is cultural symbols for regional legacy and heritage (Chen and DAtrans, 2008). Therefore, taking some measures and applying some guidelines are required, in order to pay tribute to that architecture in their retrofit. For example, several factors are taken into consideration, including cultural preservation, architectural models, and requirements for economic sustainability.

2.4.1 Cultural Preservation

Old buildings characterized by regional uniqueness not only evoke nostalgia in people, but also educate people about the history of the place, some event, or some people. Their cultural preservation can be realized through rehabilitation of the architectures, reappearance of some objects that bear significant meanings, and

interaction through some cultural activities. The success of Tianzifang, a world famous creative park in Shanghai, lies in that the parts of the Shikumen houses with Shanghainese still living there capture authentic local culture and showcases the interaction between native people and tourists all over the world. In Tianzifang, even native people can find the objects that had been produced in the past. For example, a spot in Tianzifang sells badges of Chairman Mao (see Fig. 2.11), which are barely possible to find in the common gift shop because they represent the devotion of a personal cult to Chairman Mao who had led a political revolution and caused the death of hundreds of innocent literati.



Figure 2.11: A Spot that Sells Badges of Chairman Mao (yasminsalfati.wordpress.com)



Figure 2.12: “Red” sells antique handcrafts of Buddhism at Tianzifang (tianzifang.cn).

2.4.2 Original Architectural Models

All the exterior and interior structures and decorations reflect the models of certain architects. Reconstructing a building with different architectural styles might mean a loss of cultural heritage, and it might require tremendous efforts and cost much money to imitate the architecture after destruction. As one of the traditional architectural models in Shanghai, the Shikumen house is unique and cannot be substituted. The Shanghai Municipal Government is working to protect the remaining Shikumen houses although many new buildings and skyscrapers have replaced Shikumen houses in the movement towards transforming the city (Lou, 2004). Some of the buildings in M50 Creative Park are quite stylistic, and some of them are Shikumen houses. Utilizing the unique architectural model might help establish a brand for the creative park as well as the sectors of the creative industries.



Figure 2.13, 2.14 Stone Gate of a Shikumen house in Xintiandi (xintiandi.com)

2.4.3 Requirements for Economical Sustainability

Establishing a creative industry is a long-term investment, especially when intangible assets such as intellectual property rights are involved. Creative activities, like the performing arts, paintings, and photography, sometimes do not receive benefits in proportion to their investments (Caves, 2000). However, other services like cafe shops,

bars, and restaurants are necessary in people's daily life and are quite profitable. Combining creative events with some businesses that attract instant financial remuneration would be conducive towards establishing a sustainable environment for economic growth and bringing about mutual benefits. Besides, rental rates are another problem to solve. The continuing increase of land prices imposes intense pressure on the real estate industry and on the landlords and renters as well. The establishment of some rental policies related to the creative industries would help release the burdens of both the landlords and the renters. Financial support from government and non-profit organizations would also help them solve their fiscal problems so they could focus more on their creative industries.

CHAPTER 3

FENG SHUI

3.1 Origin: *I Ching*

Feng shui, which literally means “wind” and “water,” is found in *The Book of Burial* (c. 3rd century A.D.). The author Guo Pu¹ states that chi, the vital cosmic current that runs the universe, can be scattered when it meets wind and can be stopped when it meets water (Stephen, 2009). *The Book of Burial*, the first book to define feng shui, laid a solid foundation for the development of feng shui theory. Guo Pu’s feng shui doctrine culminates in the history of feng shui theory whose origin can be dated back to the Chinese text called *I Ching*. Out of the oracle-bone tradition, as well as the observation of nature, came the *I Ching*, also known as *The Book of Changes*, which is considered the mother of Chinese thought and practice (Olshin, 2007).

The *I Ching* codified natural elements and forces to impart wisdom, philosophy, and the ability to tell fortunes to the user, thus further linking human’s fate to nature. By its very nature, the *I Ching* also expresses the basic Chinese philosophical concept of constant, cyclical change. The word “I” means simplicity, change, and invariability, which are the three principles underlying the *I Ching* (Dy, Chapter XX):

(1) Simplicity is the root of all substance. This fundamental law underlying everything in the universe is utterly plain and simple, no matter how abstruse or complex some things may appear to be (*The Chemistry Encyclopedia*).

¹ Guo Pu (276–324) was born in Yuncheng, Shanxi, and was a Chinese writer. He was also a natural historian. His book named *The Book of Burial* is an early source of feng shui doctrine (chinaculture.org).

(2) Variability refers to the use of a substance. Everything in the universe is continually changing. After a person realizes the importance of flexibility in life, that person may then cultivate the proper attitude for dealing with diverse situations.

(3) Persistency refers to the essence of a substance. A central principle, persisting in the midst of the changing tides, does not vary with space and time, even when everything in the universe changes.

The *I Ching* functions as divination to make people live better and longer, which to some extent, appears as the same function of feng shui theory. It is also the source of all spheres of learning and thought in Chinese history. The *I Ching* represents the wisdom and diligence of ancient Chinese people and was edited by several great historians. It is the earliest, most detailed, and most systematic book that refers to the unity of Heaven and humanity (Huang, 2010).

3.2 Current Development

Feng shui is pronounced “fung shway.” Its roots can be traced back to the beginning of agrarian life thousands of years ago when early settlers sought harmony with the natural forces to survive. In ancient times, the Chinese related their fate directly to the spiritual powers of Heaven and Earth. Before approaching any important event, they were bound to consult the will of Heaven and Earth through divination in order to resolve their doubts (Huang, 2010).



Figure 3.1: People crowded into the Luofu Mountain and hung their written wishes on the wishing tree (dianping.com).

Feng shui encompasses many areas, ranging from aesthetic assessment to metaphysical design. Its uses range from placing a piece of furniture in the living room to planning the region of a city. Three major interrelated themes run throughout feng shui, whether in an early Chinese palace, a farmhouse, a twentieth-century home, or an office (Rossbach and Lin, 1998):

- (1) First, humans are influenced by their surroundings. The siting of a building, in terms of its shapes, colors, lighting, and structure and furniture arrangement, all influence people's moods, habits, personalities, performance at home and work, and ultimately their lives and destiny.
- (2) Second, feng shui—as a language of symbols—interprets people's lives in expressive ways. Ancient Chinese masters skilled in analyzing feng shui would identify the meaning of geographic conditions and scrutinize the configurations of lakes, rivers, and streams.
- (3) Third, feng shui is a form of literal metaphysics. By understanding the workings of chi and nature, the feng shui master seeks to maintain or create balanced living environments to replicate harmony.

Over the millennia, feng shui has had a profound effect on China. For example, the ancient sages utilized the positive forces of nature to select sites for palaces and imperial cities. The chosen harmonious site would help the emperor bestow positive growing conditions and abundant harvests, and to govern wisely and powerfully (Rossbach and Lin, 1998). Nowadays, feng shui is the experience of living or working in any environment, outdoors and indoors, natural or man-made. It offers a methodology to identify and create a harmonious relationship between human beings, the living environment, the earth, and the earth's energy: sun, wind, and water (Too, 1996). It has influenced countless people in different walks of life throughout history. In more recent times, western artists and thinkers have used it in diverse fields such as psychoanalysis, music, film, drama, and fiction writing.

Yin and Yang Feng shui

The term “Yin” feng shui or “Yin house” feng shui is specifically used to refer to ancestral graveyards and is usually applied to select burial sites. On the contrary, “Yang” feng shui is for living people to apply in the designs of their commercial and domestic property.

“Yang” feng shui is applied in the interior design of places such as offices, residential houses, and shopping centers. From Singapore's Grand Hyatt to London's Bethnal Green City Challenge, and from Donald Trump's \$2.5 billion Riverside South in New York City to the Vancouver branch of the Hong Kong Bank of Canada, “yang” feng shui is helping to shape cities around the world (Rossbach and Lin, 1998).



Figure 3.2: Singapore Grand Hyatt (singapore.grand.hyatt.com)

3.3 Philosophy and Terms

- **Chi**

Translated as “breath,” chi is a life force or a cosmic energy. As a concept, chi is a force present in many Chinese pursuits, ranging from landscape painting and feng shui to medicine and the martial arts. It is the energy that links the mind to the heart, the heart to the body, and the body to the world surrounding each person. For example, in tai chi ch’uan, a kind of Chinese martial arts, chi is the controlled and concentrated power that is propelled through the body in blows, kicks, and other general movements. In Chinese medicine, the acupuncturist seeks the points and the flow of chi to analyze and cure patients. In feng shui, the master analyzes the exterior and the interior surroundings of the site to see how best to channel and enhance environmental energy, thus to improve the chi of the occupants.

The most important concept in achieving good feng shui is chi. There are three ways to adjust the chi in feng shui (Rossbach and Lin, 1998):

(1) The Connecting Chi Method

This method attracts the chi that lies too deep below the earth's surface, or too far from a building. For example, if a house has an irregular shape, the connecting chi method can be applied by laying a walkway with bricks or stones, or building a loggia that connects the house to a nearby shed (see Fig. 3.3). This walkway or loggia will symbolically supplement the seemingly incomplete shape of the house by drawing the shed back into it.

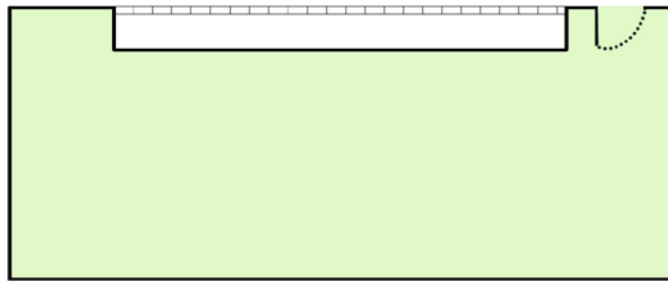


Figure 3.3: Laying bricks outside the area fills the missing area.

(2) The Balancing Chi Method

The balancing chi method adjusts an incomplete layout to create a harmonious environment. For example, a landscape or structural addition to an irregularly shaped building or site can balance the space as well as bring it in harmony with other external elements (see Fig.3.4). This addition occurs often in the design of architecture and landscapes.

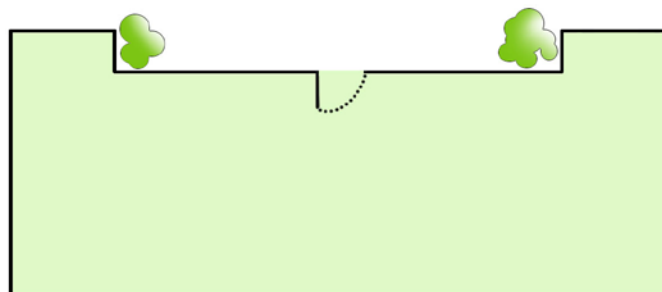


Figure 3.4: The hedges planted on each side fill the edges.

(3) The Outstanding Chi Method

This method helps to improve and channel chi flow. For example, a wall that closely faces an entrance will make people feel oppressed when they are coming up against the wall, and that feeling will block the residents' chi. By installing a mirror or a landscape painting on the wall, an appearance of greater depth will be created so that the occupants feel that a new road or view of sight has opened up. In this way, they will not feel as though they have reached a dead end (see Fig. 3.5). Thus, their chi will feel less locked and be improved.

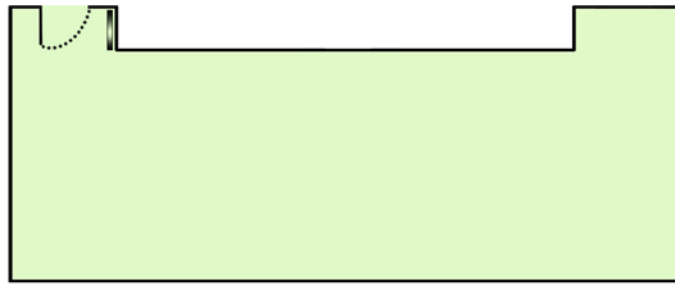


Figure 3.5: Hanging a mirror on the wall helps unblock the chi flow.

● Cures

The feng shui cures or remedies are the keys to solve design problems. Ranging from the practical to the psychological, the mundane to the mystical, the feng shui cures operate on two complementary levels: sying and yi. Sying, literally translated as “form” or “appearance,” encompasses the tangible and external elements of our environment (Rossbach and Lin, 1998). It deals with how we visually, emotionally, physically, and intellectually respond to our surroundings. By analyzing and changing the shape of a building and the layout of a house, the feng shui expert can improve the occupants' chi with sying cures. Yi, translated as “wish” or “intention,” represents both the intangible

and the intuitive aspects in feng shui (Rossbach and Lin, 1998). It is a spiritual process that encompasses blessings and rituals to adjust and enhance chi. Sying and yi together work on physical and metaphysical levels, and can positively adjust the environment to enhance human chi.

3.4 Introduction to the Shikumen House

In the given context of M50 Creative Park (previously discussed in Chapter 2), the existing architectural style is called Shikumen. Therefore, a brief introduction to the structure and the history of the Shikumen house will be provided in order to better understand the underlying feng shui theory applied in architecture.

As a response to the increasing housing demand caused by continuous rural-to-urban migration in a climate of domestic turmoil, rural depression, and urban industrialization, two kinds of lilong housing, with their neighborhoods, were commonly built: the Shikumen houses built during the early 1870s and the new-style houses built at the beginning of the twentieth century. With the urban development of modern Shanghai, these two types of architecture reached their pinnacle between the 1920s and the 1930s (Lou, 2004).

Literally, lilong is a combination of two Chinese characters: li and long. According to *The Great Chinese Vocabulary Dictionary*, “long” refers to a small street, an alley whereas “li” is associated with human settlements in several different ways: (1) the neighborhoods in cities; (2) a home town; (3) the dwellings in a neighborhood; (4) a basic organizational unit in residential management in ancient China, ranging from 25 households to 110; and (5) a measurement unit of length in ancient China, about 500

meters. In the case of Shanghai, the word “lilong,” refers to the materiality of the dwelling form and the vivid social life within and around the neighborhood (Luo, 1993).

- History of Shikumen House

A formal and durable dwelling form was built in the late 19th century, which is commonly categorized and named as the Shikumen house. These housing estates were concentrated within the early British and French settlements (Wu, 1997). Due to the demolition of most of the houses during later urban construction plans, their basic images may only be reconstructed, and their basic features can be identified from the drawings and the photographs included in previous research.

The average width of each housing unit is single-bay or two-bay (each bay ranging from 3.6 to 4.2 meters), and its depth is about 16 meters, which means that it occupies an area of about 200 square meters. In the middle of the front exterior wall that is 5.4 meters high and 1.5 meters wide, a front gate, with a height of 2.5 meters, is positioned. A stone frame encases the hardwood door. All major rooms are placed around the front courtyard in a symmetrical way, where the main hall and the side halls are located. The staircase is often located behind the main hall that connects the ground floor and the upper floor, which together compose the primary part of the house. At the back, a row of auxiliary rooms are arranged with a depth of 3 to 4 meters, separated from the main part by a narrow back courtyard about 1.2 to 1.5 meters in depth. Above the single-story auxiliary rooms, a wooden terrace is usually constructed, which can be accessed via the staircase. Besides, an attic space was added in the front part of the unit while another floor was added above the kitchen and the service rooms at the back. These extra spaces

were almost always sublet to the tenants of the house owners in order to make extra income, and hence became temporary shelters for poor families, individual artists, literati, and students (Zhao, spring 2004).

Because of limited land and finances, most units in the Shikumen housing neighborhoods could only be accessed via internal alleys. The number of housing units per row ranged from one to six, with a total of around thirty units per neighborhood (Lou, 2004). Another obvious and unique feature was the uniform front gate. Built in the same materials, same colors, same sizes, and same styles, all housing units within the same neighborhood were marked with this small collective image. The use of the term “shi-ku-men” (stone gate door) was widespread among the population.

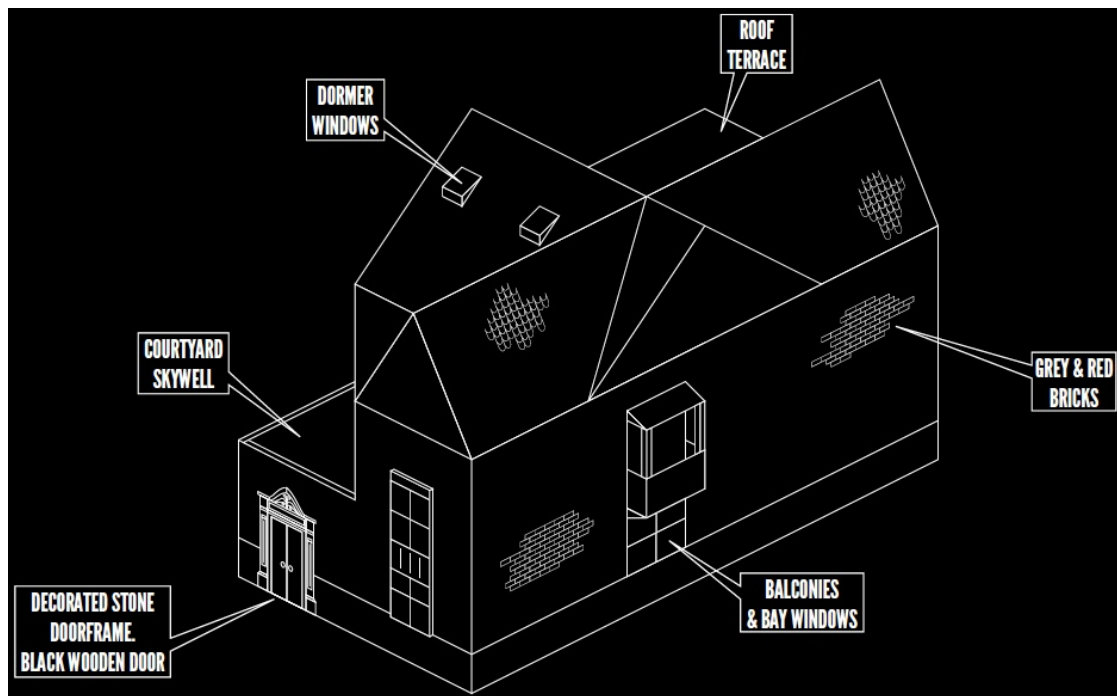


Fig.3.6: Shikumen Structure (p9, Kuijpers, 2013)

Later on, Shikumen houses were developed on a much larger scale, with hundreds of units constructed. All the internal traffic paths that used to be only pedestrian were widened, providing better ventilation and lighting as well as the possibility of vehicular

access. In addition, new building techniques were used, such as the use of reinforced concrete structures to build the auxiliary rooms on the first floor. Brick replaced the stone frame of the front gate, machine-made tiles replaced the traditional black tiles used on the roofs, and the exterior walls were finished with clean brickwork of gray or red colors. Moreover, more western ornamental patterns appeared in the gates, the doors and the window frames (Lou, 2004).

- Feng Shui in Shikumen

As the unique Shanghai traditional architecture, Shikumen adheres to Feng shui theory in four main aspects: friendly space arrangement, various functions within the neighborhood, natural protection screen, and orderly circulation system.

Friendly Space Arrangement

Distance defines space and social interaction takes place in different space (see Fig. 3.7). Varying distance divides into intimate, personal, social and public range (Rogers, 2010). In a person's intimate space, conversation and eye contact are generally avoided. The personal space is shared with close friends, where the casual conversation starts. Outside the zone of personal space lies disconnected social space. Within this area, conversations are no longer private. It is a relaxed zone with the potential for good social interaction. Public space is outside the social space and no social interaction is expected there.

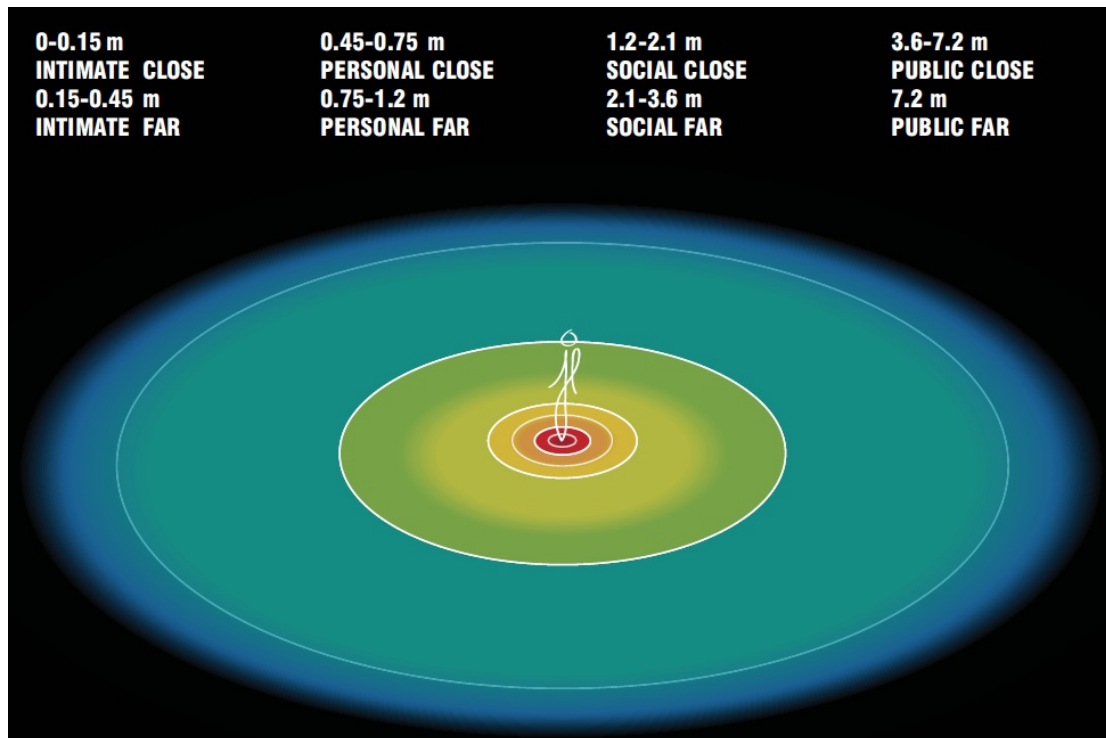


Figure 3.7: Distance in Man (p12, Kuijpers, 2013)

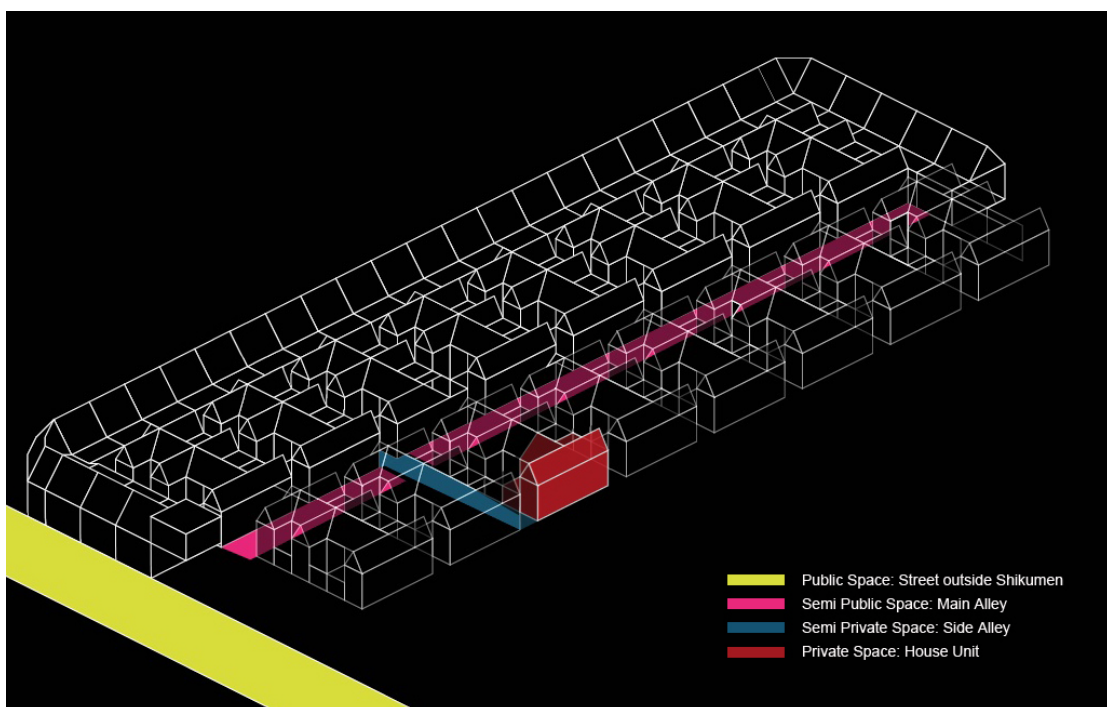


Figure 3.8: Space Arrangement inside Neighborhood of Shikumen House (p17-20, Kuijpers, 2013)

Four different kinds of space arrangement emerge inside Shikumen neighborhood: public, semi public, semi private and private space (see Fig. 3.8). The street outside Shikumen isolates the neighborhood from public space such as a market. Main alley creates semi public space where community activities such as a fire drill. Side alley is present with semi private interaction such as celebration party. The house unit alienates space from the outside, where family members share and interact. The distinct space arrangement provides residents with comfortable areas to interact, creating a friendly environment.

Various Functions within the Architecture

Although the construction of high rises help save occupied area by building up multiple floors, functions within the architecture is significantly reduced compared to that within the Shikumen neighborhood (see Fig. 3.9).

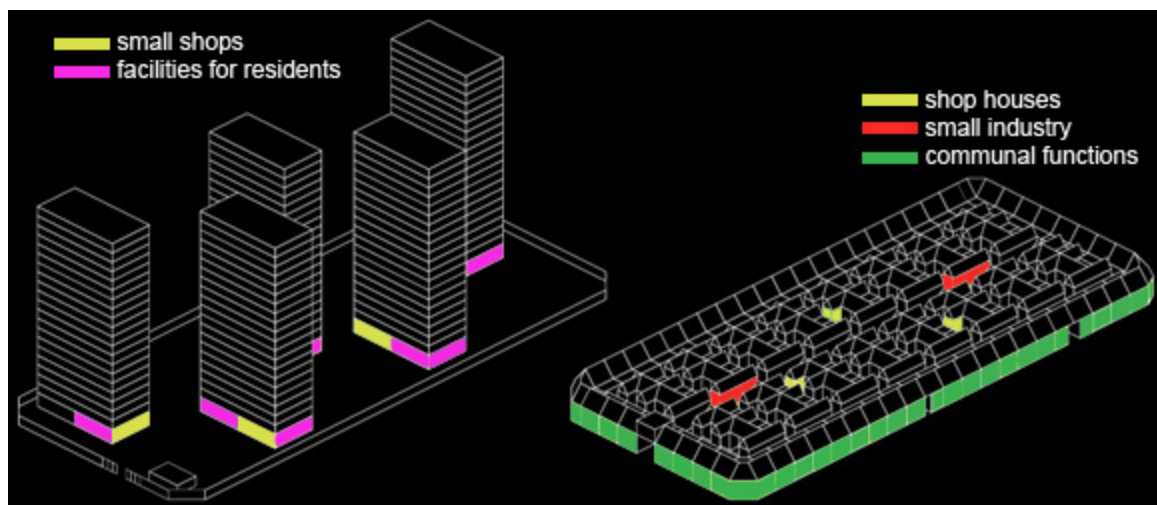


Figure 3.9: Functions within the Compound/Neighborhood (p22, Kuijpers, 2013)

The various functions within the neighborhood include residences, shop houses, small industry, and communal functions. The shop houses ensures people purchase daily

appliance inside the neighborhood, whereas small industry is engaged by residents to maintain services such as laundry or medical aid. The communal functions refer to sharing activities inside each bay unit of Shikumen house, and such activities include communal kitchen services, courtyards, gardens and the like.

Natural Protection Screen

The third advantages of Shikumen-style architectures lie in its solid brick-stone structures. The peripheral structures form a natural protection screen to resist outside invasion in comparison to high-rise residential buildings (see Fig. 3.10).

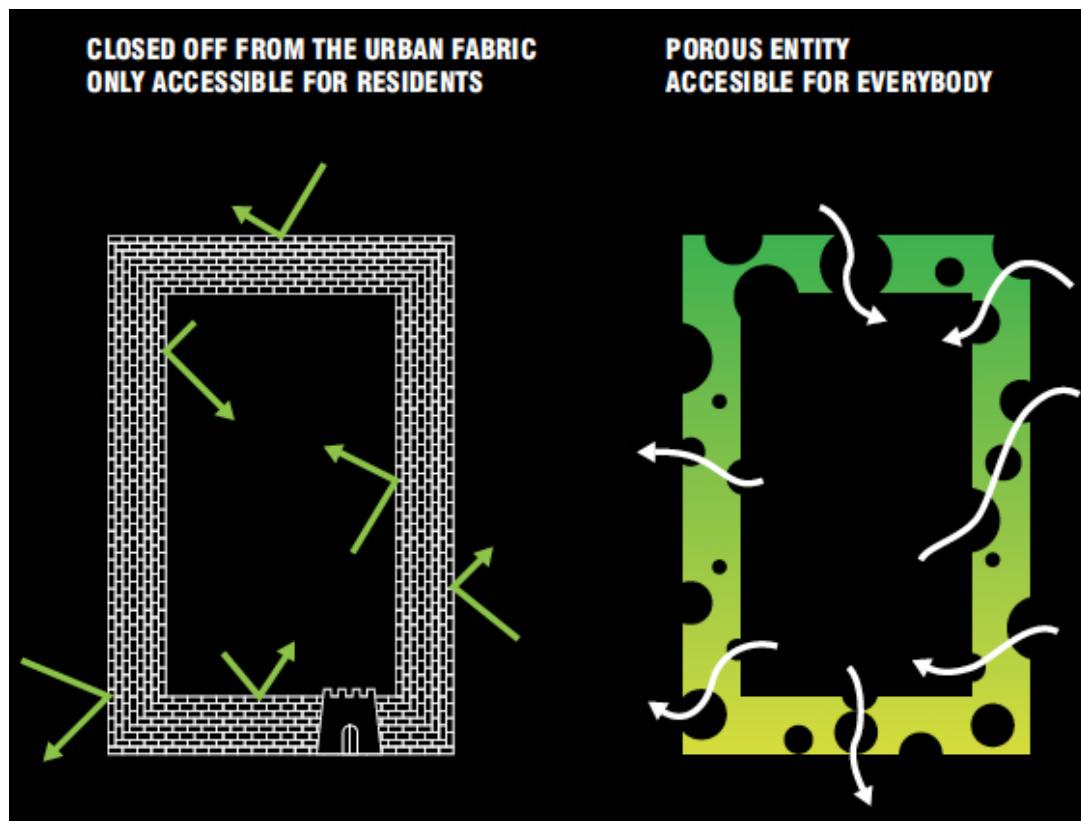


Figure 3.10: Natural Protection Screen in Shikumen Neighborhood (p24, Kuijpers, 2013)

Besides, almost every bedroom is facing south to allow sunlight to cast into the room, which helps to remove humidity and to kill germs.

Orderly Circulation System

The circulation system within Shikumen neighborhood is divided into driveways, bike trails and pedestrian route (see Fig.3.11). The T-junction road is avoided to face towards the residential unit inside Shikumen neighborhood. The compact and dense circulation guarantees residents a safe environment to engage community activities within the walking distance.

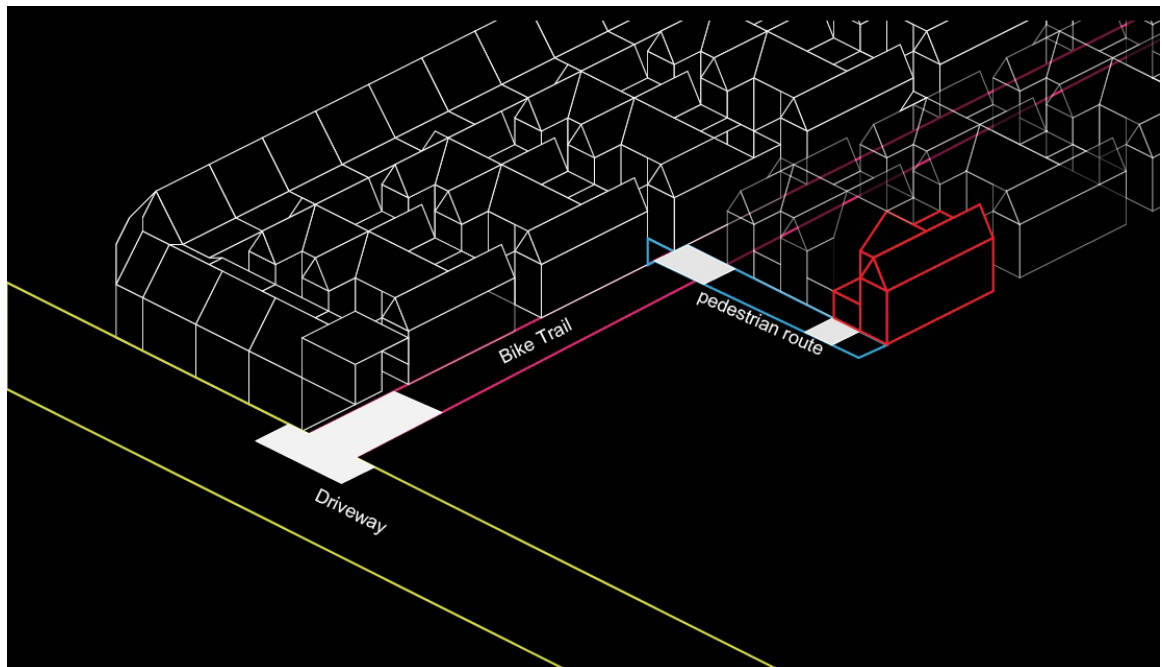


Figure 3.11: Circulation System in Shikumen Neighborhood (p21, Kuijpers, 2013)

Shikumen house adheres to feng shui theory and it is the collaboration of Chinese civilization, Shanghai vernacular culture, and influences under European decorative style. Shikumen houses are deserved to preservation because it not only indicate respects to cultural legacy of local areas, but also serve as an architectural model of good feng shui to follow.

3.5 Applying Feng Shui in Architecture

3.5.1 Siting

Nowadays, feng shui has a close tie to city planning and land use. Increasingly, the advancement of urbanization has led to limited land resources, which affects the selection of sites and regional planning. When selecting a place for a business or a home, the first consideration is the neighborhood, which can affect the chi of an urban home or a business. As property and commercial developments grow, as well as the cities themselves, the relationship between the buildings and the businesses is complicated: formerly good views are blocked, access to sunlight becomes limited, and green space is destroyed, creating yet another hard surface that does not absorb noise. Common neighbors to avoid are police stations, funeral parlors, factories, churches, and hospitals, which expose the residents, the employees, and the customers to unsettling chi (Rossbach and Lin, 1998). In addition to the neighborhood, the prior tenant's history is also noteworthy. Knowing the prior history of the site is helpful in using cures to rearrange the place in order to bring good chi and avoid killing chi.

Problematic Neighbors	Diagnosis
overbearing taller building dwarfing your own	oppresses chi, stunting career, financial and personal growth
police station, funeral parlor, church prison, hospital, courthouse	negative yin chi creates unforeseen, sudden problems and disasters
sharp knife-like building angle	threatens luck and success, leaves people open to possible violence
high-tension wires, power stations	health problems
factories	oppresses chi and luck, possible noise and air pollution
the corners of your building and your neighbor's point at each other	constant bickering leading to lawsuits

Figure 3.12: The Problematic Neighbors and Their Diagnosis (Rossbach and Lin)

In a city, no matter how ideal the location is, other factors, such as the direction, the speed of the traffic on the roads, and proximity to high-tension wires, can influence the feng shui of a site. Therefore, before selecting a site, experts take several factors into consideration, and siting varies with the different uses of the buildings. Explanations about site selection according to their various functions are provided as follows.

- Residential Siting in Cities

According to ancient Chinese percepts, an apartment sited on the mid-level floor of a high-rise overlooking or near water and parkland, with a terrace garden and a southern or eastern exposure, is best for living (Wong, 2001).

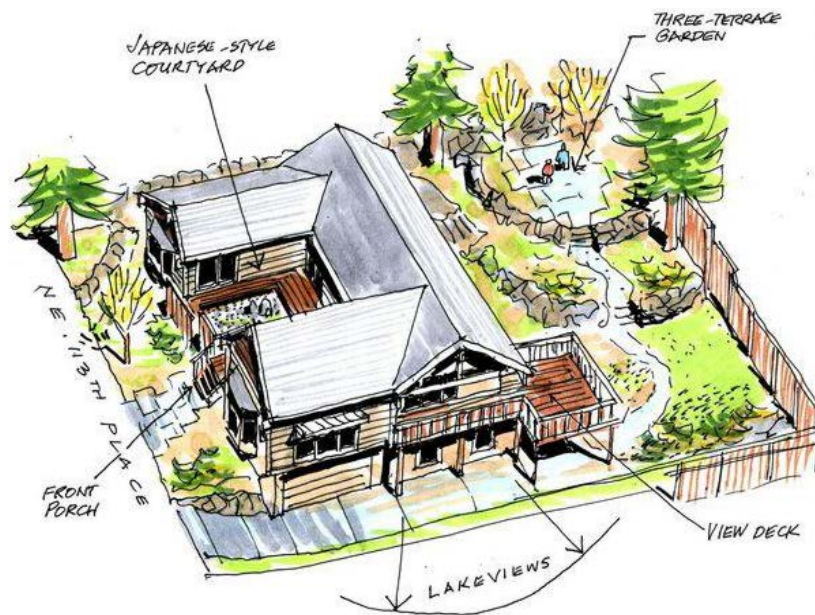


Figure 3.13: A Residential House with Good Feng Shui (kirkland-washington.olx.com)

Garden courts within town houses or roof gardens adjoining apartments potentially improve the feng shui of a house, based on several advantages. They are pleasant buffers from the constant buzz of city life. The miniature landscapes in the

garden provide emotional relief from the intense pace of city life and the hard surfaces of the cityscape. Garden features, such as potted plants and flowers, fountains and fish pools, stones and sculpture, trees and grass, can be used as cures to resolve feng shui imbalances in architectural design. Although not all apartments have a neighborhood garden or a roof garden for entertainment, the residents can create a garden of their own. A balcony with sufficient sunlight, potted flowers and plants; a table and some chairs are all they need. Fish bowls and birdcages might add some highlights to the deck garden as well.



Figures 3.14 and 3.15: A Balcony Garden (taken by Lin, 2010)

Apart from the garden and its decorations, the orientation of buildings is another important factor to consider in choosing a site. In China, almost all the balconies within the apartment buildings face toward the south or the east, which closely ties them to Chinese people's daily life. On one hand, sunbathing is one of habits among ordinary Chinese people; on the other hand, Chinese people use sunlight instead of drying

machines to dry their clothes and to kill the bacteria in them. Therefore, people would not choose to live with a balcony that cannot give them enough sunlight during the day.

- Business Siting in Cities

For a place of business, its location is the first consideration. Generally, wide roads, such as boulevards, are good places along which to site businesses. Ideally, a business such as a bank, a shop, or a restaurant should be located on a street corner, with the main access door positioned at a diagonal to catch chi and money from all direction. An example of this siting is found in the No.3 store in Figure 3.16. Located around the corner of the street, the No.3 store can easily attract people's attention, but the direction in which the door opens is not safe enough to avoid conflicts. In Figure 3.16, the gate of the No.1 store is facing the one-way traffic that flows away from the store, which brings stability for business. However, hanging some wind chimes outside is a cure to remedy the slowing down of business, as more people would be easily drawn to the sound. The column around the corner of the No.4 store blocks the sight of the entrance, but a cure of a mirror hanging on the facades of the column can help to deflect the sight of the column in order to double the space.

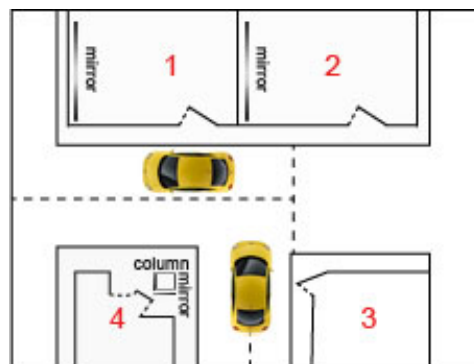


Figure 3.16: Examples of Business Sitings and Their Diagnosis

As with homes, companies should avoid sites that are aimed at byroads (Rossbach and Lin, 1998). Slants, symbolizing sudden happenings, are avoided, but a slanted entrance is considered auspicious. A location near a popular cinema or a bank with a money machine would be an ideal spot for a restaurant or a store. In addition, the presence of water is a feng shui asset to a business. Fountains, waterfalls, and pools help balance a city's fast energy as well as endowing any commercial location with productivity. The water, however, must always be kept clean, or the money it attracts will be tainted.

3.5.2 Building

Apart from the location, the design of the building plays a key role in feng shui. The height and shape of the building affect the luck and the harmony of those living or working in or near it. Besides, the colors of the building also can impact chi flow.

- Shapes

As well as the regular shapes previously described—squares, rectangles, and circles—other forms can create positive feng shui. The key to deciding whether a building is in good shape or not is to see whether the pieces have added or subtracted according to the proportions of the building. For example, in Figure 3.17, the left shape in the bottom row is a square, with two pieces of a rectangular added to it. According to its proportions, the shape is auspicious.

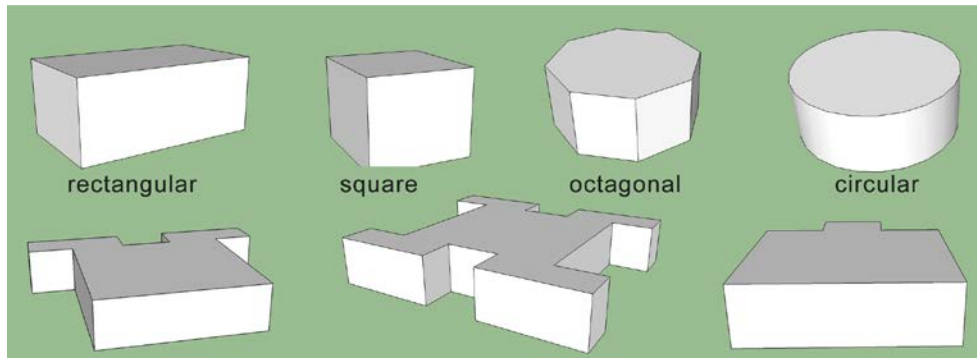


Figure 3.17: Examples of Good Shapes of Buildings

Many houses and high-rises feature L-, T- or U-shaped ground plans, which are considered incomplete and unbalanced in feng shui. Along with the incomplete shapes, slants should be avoided, as they symbolize unforeseen happenings.

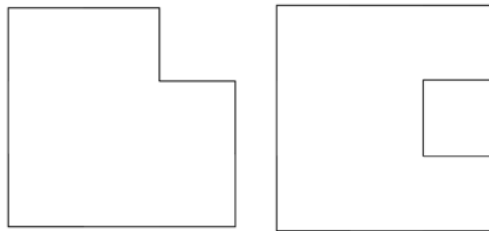


Figure 3.18: L- and U-shaped buildings are problematic in feng shui.

- Colors

Color is an important element in feng shui. In ancient times, yellow symbolized the color of the earth's center, and was employed in the Forbidden City to reinforce the emperor's reign. Nowadays, the modern use of colored building materials is also symbolic. For example, in the 2010 World Expo, the exterior wall of the Chinese Pavilion was red and reflected power and growth.

Specific colors will especially enhance certain types of businesses (refer to Fig. 3.19), but generally, a store's exterior should be appealing and unique so that the business stands out and attracts customers. Lively colors are associated with productivity. For instance, green stands for spring and growth, yellow stands for autumn and harvest, and red stands for summer and fruition, which are all suitable for street-level establishments such as schools and stores. However, colors associated with winter and hibernation, such as black, dark brown, and charcoal gray, might augur sluggish business.

FENG SHUI COLORS FOR BUSINESS EXTERIORS	
Art gallery	pink, red, white
Art studio	dark green, black, purple
Bakery	white, multicolored
Bank	beige, earth tones, red and black combination
Beauty salon	white and blue combination
Bookshop	serious colors, multicolored
Clothing boutiques	singular colors
Computer company	dark green, black, gray, beige, yellow
Construction firm	green, white
Film, television or recording studio	light blue, dark green, red/purple, multicolored
Funeral parlor	all-blue, all-white, all-black
Gourmet food shop	dark green, dark brown and dark colors
Grocer	light blue, light green, beige, yellow
Library	green, red, black, gray, dark brown, purple
Music shop	green, all-black, all-gray, all dark brown
Pharmacy	light blue, light green, pink, white
Police station	earth tones
restaurant	light, monochromatic or two-color scheme
supermarket	light blue, green, purple
wine shop	green, pink, white, black gray, beige, yellow

Figure 3.19: Examples of Feng Shui Colors for Business Exteriors (Rossbach and Lin, p114)

3.6 Applying Feng Shui in Landscape Architecture

3.6.1 Siting

Feng shui originated in early agrarian China. Its rules and concepts arose from the topography, philosophy, culture, and customs of China, and it went on to have an

enormous impact on all of life. Place has always been an important concern in construction projects. As a study of space, feng shui seeks to identify how the fates of humans and nature are closely intertwined, and how any change in nature may be reflected in their residents' lives and well-being. With endless trials and errors, people found a place where they could not only survive but also could begin to thrive and prosper. It was found that the ideal location was in concert with natural forces such as the sun and the earth, wind and water. (Shi, 2010)

- Mountains and Hills

The Chinese have ascribed human and animal properties to nature, and one metaphor could be used to describe the landscape. For example, a mountain is compared to a dragon because the different parts of the mountain might embody aspects of the dragon. The line of ridges represents the vertebrae of a dragon, and the ridges on both sides spread into the arms and the legs of a dragon. Streams and springs are its veins and arteries, providing a flowing chi to the earth. Dragons, as the symbol of mountains, serve to protect the villages against the invasion of people from the outside. Along with their sacred purposes, mountains are also considered one of feng shui cures because of their strategic importance. Like mountains, hills are also regarded as geographically auspicious for people to live on. A hill serves as a shield to protect its residents from invasion as well as to provide them elevation from floods.

A branch of feng shui, called the “school of forms,” aims to detect how various forms influence feng shui. An auspicious hill or mountain site might be a rounded hill that has a gradual slope with good drainage. Besides, the building should be facing out

from the hill. However, if a hill or a mountain is not endowed with some identifying advantages in feng shui, a few minor additions might improve the condition. Below are some illustrations of the problematic sitings on mountains. For example, if a house is situated on a mountain with jagged sides, then planting different types of trees might help stop the mudslides.

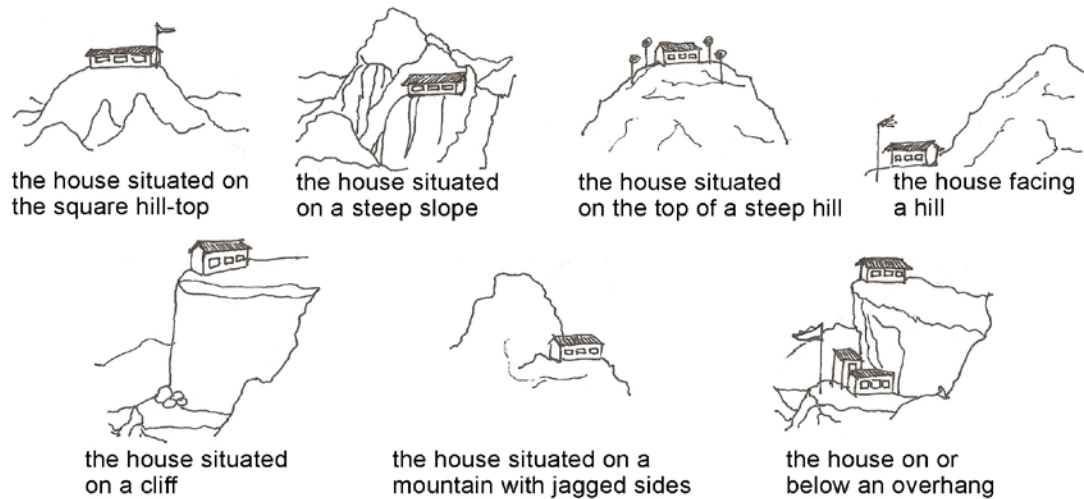


Figure 3.20: Illustrations of Disadvantageous Sitings on Hills or Mountains

● Rivers/Streams

Rivers and mountains are interdependent in Chinese culture, as the word “landscape” in Chinese means “mountain and water.” In ancient times, many poets and literati have depicted Shangri-la² as a place embraced by the arms of mountains and facing a river. Water is a good resource to people and a place to live because of its practical use and long-lasting meaning. People not only use water to feed themselves and to irrigate the crops to nourish the fertile fields, but also to beautify the landscape. Thus water becomes a symbol of money. However, sometimes water can bring people into

² Shangri-la: A remote, beautiful imaginary place where life approaches perfection. (Merriam-webster.com)

dangerous situations. Much tragedy and damage to numerous objects can happen when victims become trapped by floods, not to mention the trauma left in the mind of the victims. Below are the four destructive configurations that lead to disasters. People need to avoid siting buildings in these river patterns.

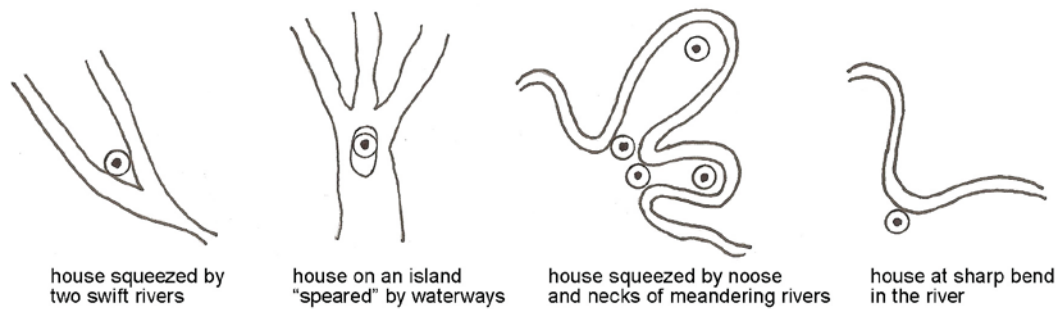


Figure 3.21: Destructive River Patterns (Wong, 2001)

The flow of the river is important, as it can help disperse positive energy as well as lead to flooding. Therefore, it is important to provide access to the river and protection from floods. Below are six river configurations with benevolent energy.

Lakes, streams, and islands in Figure 3.22 provide houses shelter from floods. By altering the surrounding terrain, a straight and torrential watercourse can be rerouted into a curved and meandering river to improve the irrigation and enrich the plants and the fields nearby.

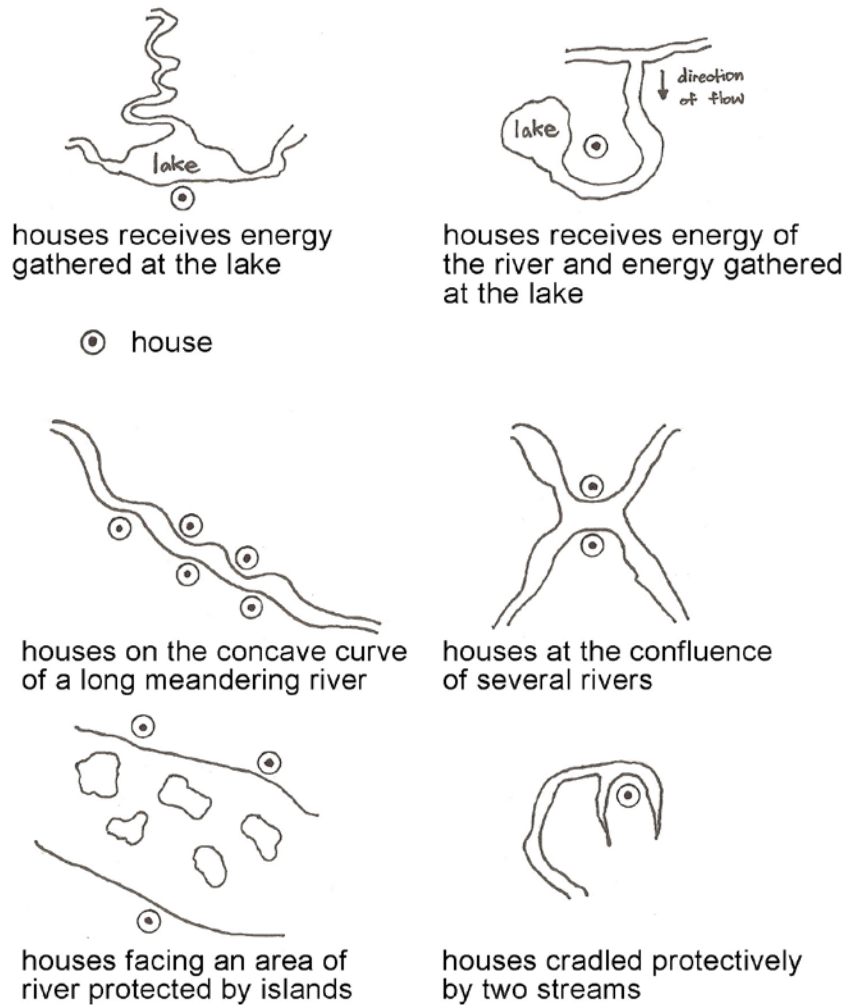


Figure 3.22: River Patterns Associated with Benevolent Energy (Wong, 2001)

Taken together, according to the application of feng shui in mountains and rivers, a geographically ideal location will be embraced by the arms of a gently contoured round hill and face a river flowing towards the front door.



Figure 3.23: A Geographically Ideal Location

Although the site embraced by the arms of the mountains that gradually dip into a meandering river valley would be an ideal location, it is hard to find such a place in urban areas. However, feng shui cures, if properly used in landscape architecture, can create positive energy and balance the space.

- Roads

Roads impact the houses in much the same way that rivers affect the landscape, and thus it is important to detect the road patterns before choosing a site. Below are some destructive road patterns. In Figure 3.24, the arrow-like road is a threat to the house as well as to pedestrians and vehicles because of possible accidents.

The house sited directly at the end of a dead-end street or at the center of a T- or Y-junction might face the disturbance of traffic and the headlights of approaching cars. Besides, if a bridge or an overpass is close and parallel to the main entrance to the house, it impedes the progress of the residents or the businesses. In addition, steep roads, roads with fast-flowing traffic, mazelike roads, and entrances to highways, train tracks, and airport runways are also inappropriate for the buildings, as they carry destructive energy.

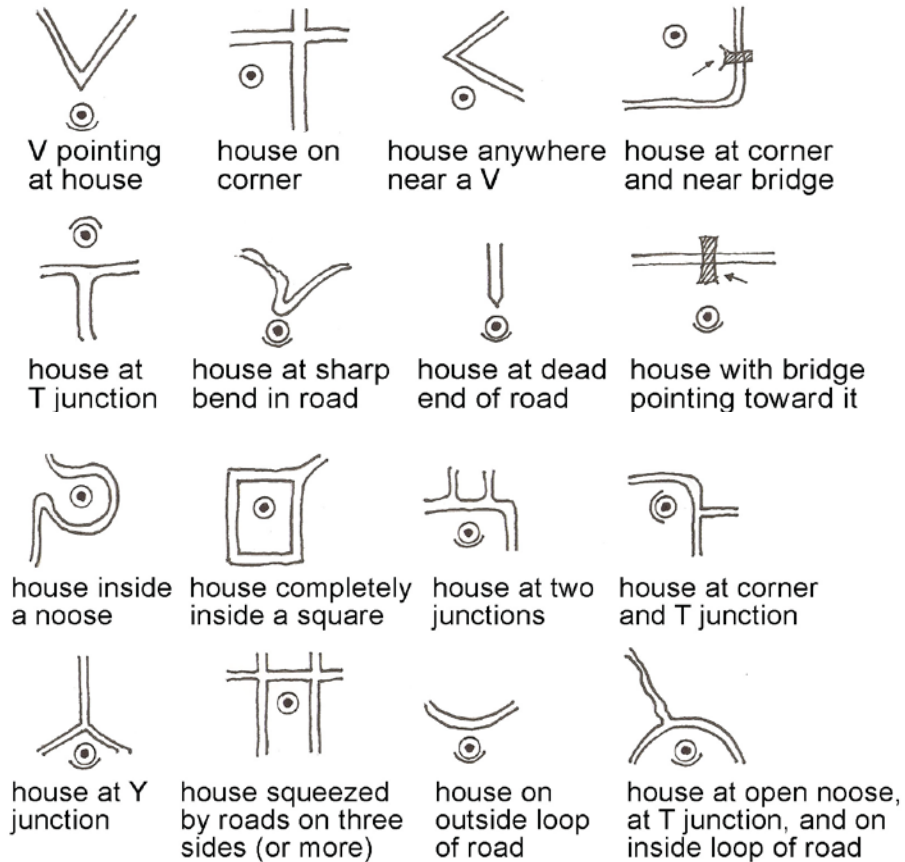


Figure 3.24: Destructive Road Patterns (Wong, 2001)

In Figure 3.25, the road patterns carry benevolent energy as they provide a link between the home and the outside without exposing the house to an open and unprotected situation. It is important to keep the house in serenity and privacy, as those features will directly influence the health and the career of the residents.

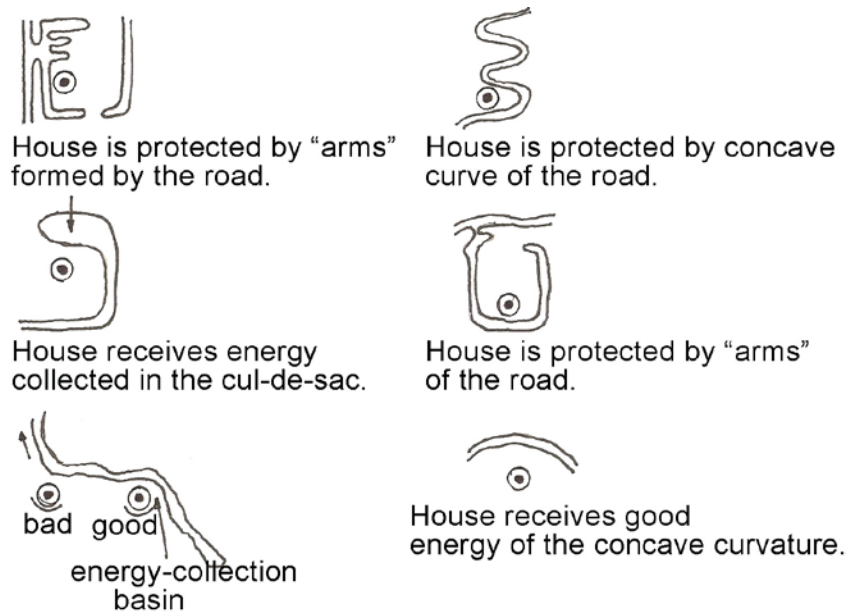


Figure 3.25: The Road Patterns Associated with Benevolent Energy (Wong, 2001)

● Garden Features

Exterior elements, both natural and man-made, all contribute to the quality and the course of our lives. Therefore, the first consideration is to assess the suitability of an area to discern whether it is auspicious. Lush lawn, healthy plants, fragrant flowers, singing birds, and friendly neighborhoods all constitute a pleasant environment for living, studying, and working. By providing garden features, the plot of land can bring about positive energy and create harmonious relationships between humans and nature.

Pools and Ponds

Water and plants are the two most necessary and basic elements of garden features. Even for a home in the city, where farming, fishing, and transportation are not necessities, proximity to water is important. Controlling water symbolizes the harvesting of wealth and the harnessing of positive energy. Thus, a pool, a pond, a waterfall, or a fountain is a cure to make up for the disadvantages in feng shui. The quality of the water

should be pure and moving. Otherwise, the positive energy will be tainted and become stagnant.

A positive pond or pool should be in proportion to size of the property, and it should also be in proper distance to the house—not too close as to threaten the occupants with negative energy. Curved ponds or pools, such as ones with kidney or crescent shapes, are best.



Figure 3.26: The Half-moon Lake in Hongcun, Anhui Province, China (lvping.com)

Trees, Shrubs and Flowers

As one of the basic cures of feng shui, plants, when properly placed, can help adjust the unbalanced space as well as purify the environment. Trees and shrubs can serve as buffers to minimize disturbing views and noises. The blossoms of flowers and their fragrance create a pleasant environment and thus enhance the residents' luck and health.

When selecting a tree or a shrub, its color and shape should be considered, as its appearance will change with the shift of the seasons. In general, evergreen trees such as pine trees, holly trees, and boxwood trees are popular, as they symbolize longevity and are easy to maintain. Fruit and blossoming trees are also attractive. In addition, the color and the texture are also important factors to consider.

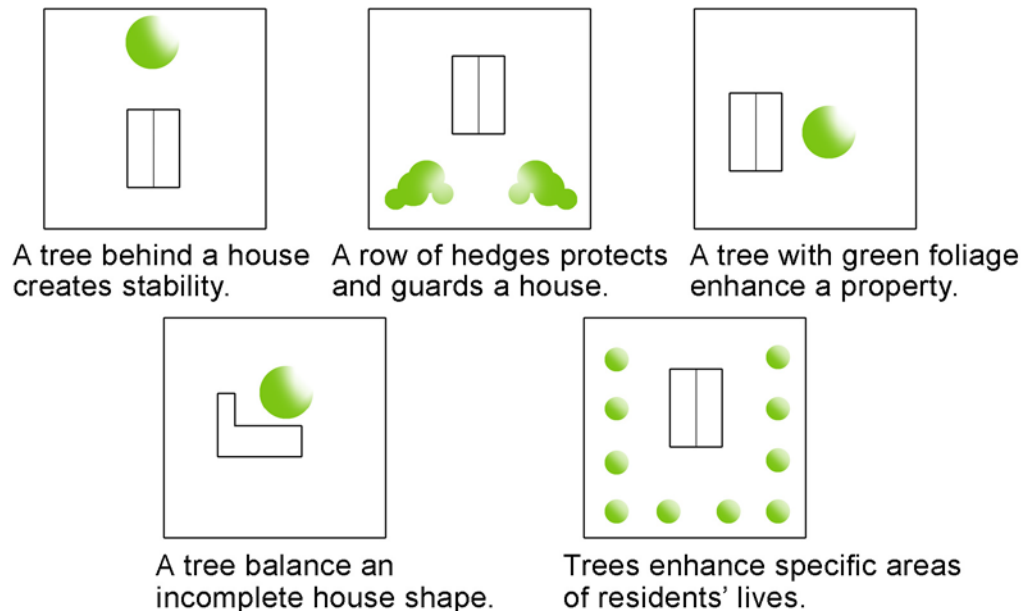


Figure 3.27: Positive Tree Configurations (Rossbach and Lin, 1998)

Other garden features such as patios, terraces, children's playgrounds, and greenhouses, can also decorate the landscape. All of them can help improve the residents' health and enhance their appreciation of nature.

3.7 Synopsis of Applying Feng Shui to Landscape Design

Feng shui is a language full of signs and symbols that direct us along a life course. From ancient times to the present, the key to discerning good feng shui has been the ability to detect, analyze, and harmonize with the breath of energy of the earth and the cosmos—chi (Rossbach and Lin, 1998). Therefore, understanding the mystery of Nature's powerful and intricate forms and forces and paying tribute to the awesomeness of Nature are the most important requirements to be a master in feng shui.

According to the feng shui principles stated above, two elements will be used to suggest how the M50 Creative Park can be retrofitted. As one of the important core concept in feng shui, chi plays a key role in a site's energy flow. For example, the

fragmented landscapes that surround the buildings of the M50 Creative Park can be adjusted by using the connecting chi and the balancing chi methods. The riverside walking deck along the east side edge of the site is a way to implement the outstanding chi method. By doing so, the view of the east side sight is expanded, and the energy flow circulates through the river.

Apart from the chi adjustment, cures in the architecture and the landscape architectures are used to improve the siting and the circulation of M50 Creative Park. Cures in the architecture, such as the shapes, the colors, and the location of the buildings, will be considered to propose a site plan that takes into account functional aspects, customer flows, and visual effects. Through analysis of the relationship among the buildings, people, and vehicles, the road patterns will be changed to improve the current circulation. Cures in landscape architecture regarding garden features and planting arrangements are implemented not only to create an inhabitable working environment, but also to provide nearby residents with delightful spaces for public activities.

Taken together, implementing the chi adjustments and the cures of feng shui help enhance the site's circulation and the beautification of the landscapes, which are conducive to increasing customer flows as well as strengthening the connections between the site and the nearby residential community.

CHAPTER 4

CASE STUDIES

4.1 Adaptive Reuse of an Industrial Site

Years of technological innovation and market changes have rendered the buildings of industrial sites obsolete for their original use. However, the “industrial aesthetic” has an incalculable appeal to some architects and designers. The deliberate exposure of its structure and its mechanical elements showcase its simplicity as well as the respect for its history. Besides, redeveloping an industrial site has a few noticeable advantages. The reuse of a building structure and its materials provides a big relief in construction costs, and the existing pedestrian access provides potential customer flows to the site. In addition, the historic value of the industrial legacy brings the possibility of various sources of fundraising, which include financial support from the government and non-profit organizations. Although the allure of the industrial sites ignited the imagination of architects and designers, the development of post-industrial sites is still daunting. First, remnants left due to industrial pollution need to be removed in accordance with the relevant laws. Second, the complex redevelopment requires collaborative efforts of the government and initiatives from private developers as well as public participation. What is more, like residential planning, the unpredictable economic benefits come with uncertain costs of its construction and maintenance (see Fig. 4.1). Despite the potential risks in redeveloping the industrial sites, many architects, designers, and planners have devoted their inspiration, skills, time, and resources into retrofitting post-industrial areas.

Advantages	Disadvantages
the salvation of the uninhabitable and economically bereft land	the unpredictable economical benefits
various source of fund raising ex. non-profit organizations	the complexity about collaborative efforts of various parties
the respect for the industry legacy the education of the new generations	needs to abide by relevant codes and laws
reuse of materials and structure	the environmental concerns
the ease of movement and the existing pedestrian access	difficulty to decide the pattern of the development
the allure of the industrial aesthetics	

Figure 4.1: Pros and Cons of the Reuse of an Industrial Site

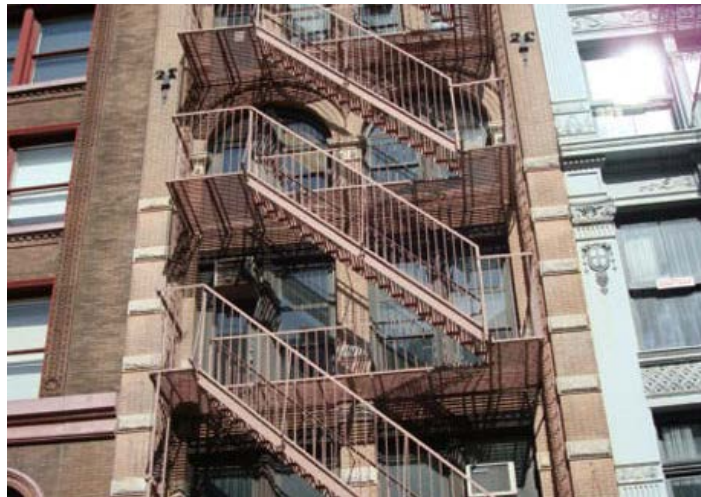


Figure 4.2: Fire escapes once served as a platform for dancers in the 60s, SoHo shopping street, New York (sohonyc.com)

Artists in New York retrofitted SoHo's nineteenth-century cast iron factories (see Fig. 4.2) into stores and restaurants, and thus unwittingly yielded good economic returns. Vancouver's Granville Island combined recreation, art, and shopping with industry and showed that an active place can be created through reclamation and reformation (see Fig. 4.3, 4.4). In doing so, the site has continued to acknowledge its inherited industrial legacy and has brought about economic benefits as well as artistic appreciation (Berens, 2010).

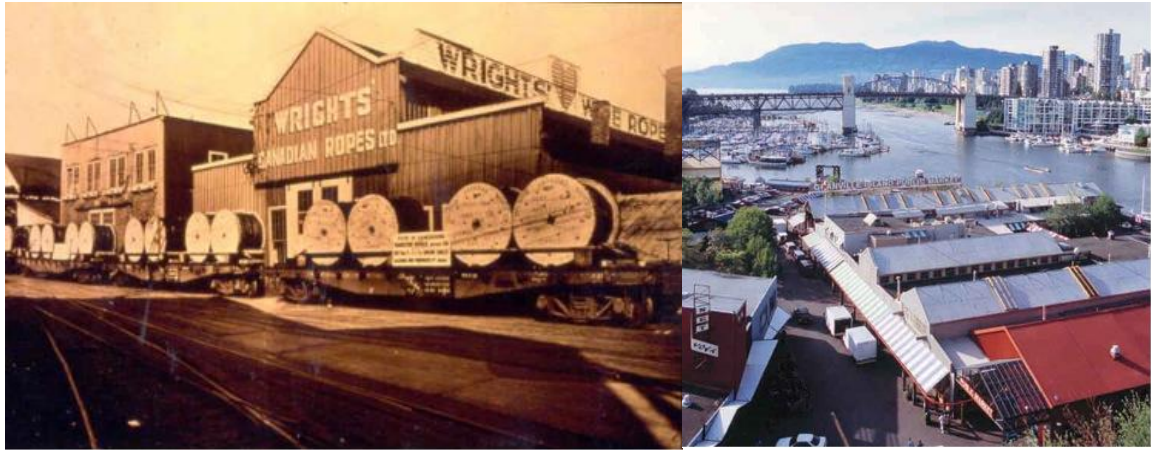


Figure 4.3-4.4: From a declining industrial wasteland to a mixed-used urban redevelopment, Granville Island in Vancouver (granvilleisland.com)

4.2 Creative Industry Clusters

To redefine the post-industrial site, it is important to trace the history of the site and find out what kind of redevelopment the land will require. With the acceleration of information and technology, knowledge and creativity powerfully drive growth in the economy and cultural diversity. Such diversity expressed through the interaction among interdisciplinary activities not only creates employment, but also propels regional prosperity and establishes cultural identity. According to the United Nations Conference on Trade and Development, creative industries are estimated to account for more than 7% of the world's gross domestic product and are expected to continue to grow, on average, by 10% per year, as predicted by analysts.

While much of the world has been developing creative industries, China has also paid an increasing amount of attention to clusters of creative industries. Following a major trend of urban-based development, the creative industry in China has mainly been developing in the coastal areas where economic growth is more mature and faster than in the other cities. Among the clusters of creative industries in Shanghai, two-thirds of them

have been retrofitted from old industrial buildings. The simple, wide-open space of factories and warehouses, with their exposed structures and experienced machines, ignited the imagination and inspiration of artists and investors. Correspondingly, the complicated yet diverse properties of creative industries attracted investors, planners, architects, and designers to reuse the industrial site to cultivate them.

The properties of creative industries clusters can be summarized as the potential for economic growth, appreciation of art, educational interpretation, and a sense of recreation. According to these properties, the possible patterns for redeveloping the industrial sites mean categorizing them as commercial complexes, cultural destinations, and recreational facilities. The projects selected and discussed below are based on the three developing patterns, and the summary will conclude with discussing several case studies and providing comparisons among the different projects.

4.2.1 Commercial Complexes: Creative Industries as Economic Catalysts

One of the traits common to both creative industries and commodities is that both of them can yield economic profits and propel regional prosperity. The potentially high-yielding economic benefits allured investors and planners to build commercial complexes to provide housing for the creative industries.

Commercial complexes expand in the form of businesses such as shopping malls, boutique stores, restaurants, movie theatres, and fitness centers. The development goals of these commercial complexes vary with the economic needs of the community, the nearby residents and businesses, the characteristics of the project location, and the ownership of the property. For example, if the local government provides financial

support for the redevelopment of a commercial plaza, investors will vie with each other as they bid to purchase the land. In doing so, the land price is run up, and it is no wonder that multiple high-class, even extravagant stores will settle in. Then the neighborhood nearby is not affordable to ordinary people with their average salaries. The housing community is therefore isolated from commercial development, thus also increasing the gap between the rich and the poor. The truth behind the commercial complexes with considerable economic profits lies in its consumption of extravagant goods and its rocketing land prices. How to sustain and stabilize the economy for the development of commercial complexes becomes a big issue in the process of design and management. Here is a case study of a selected project to showcase one problematic issue involving urban development projects: how to balance between economic development and community preservation.

- Xin Tian Di



Figure 4.5: Taipingqiao Redevelopment Project (shuionland.com)

Figure 4.6: Overview of Xin Tian Di (phayung.blogspot.com)

Project Name: Xin Tian Di Leisure Street

Location: Urban center, Shanghai, China

Site Size: 3.5 acres / 229,755 square foot (casestudies.uli.org)

Completion Date: March 2000

Former Use: Shikumen-style residential community

Current Land Use: Retail, Restaurants, Luxury Housing, Fitness Center, and Conference Center

Development Team: Shuion Group (Hong Kong), Wood & Zapata, Inc. (Boston, MA),
Nikken Sekkei International (Singapore), Tongji University
Architectural Design & Research Institute (Shanghai)

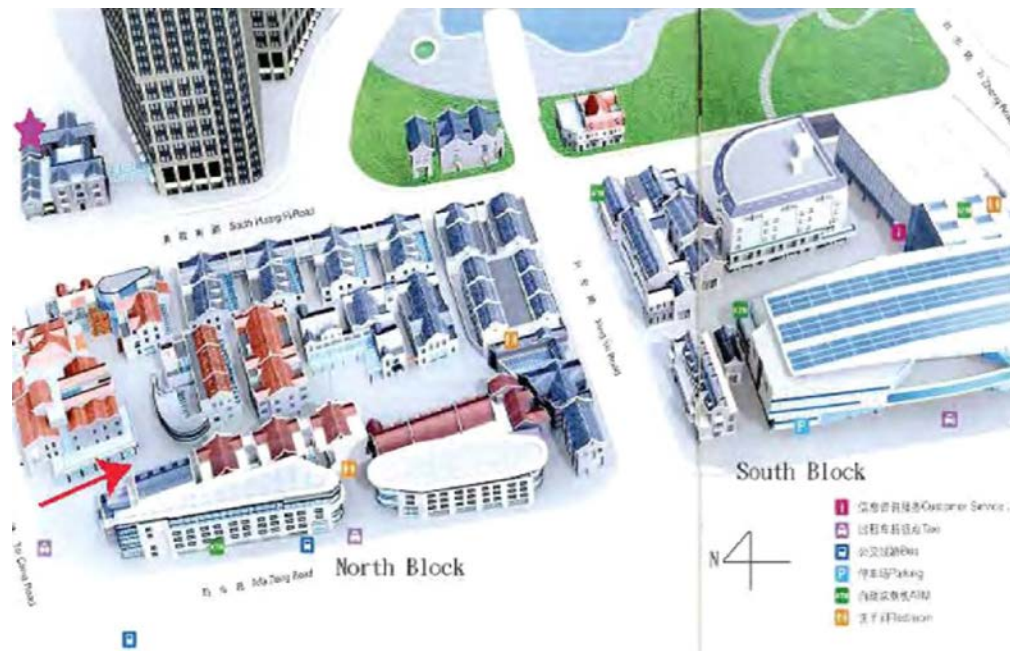


Figure 4.7 Xin Tian Di Directory (xintiandi.com)

The Taipingqiao Redevelopment Project, which was initiated in 1997, aimed to blend the architecture and charm of “Old Shanghai” with modern facilities to create an

integrated community. The three components of this project are Shanghai Xin Tian Di (abbreviated as XTD), Corporate Avenue, and Lakeville. The major goals of the Taipingqiao Redevelopment Project were to redevelop, reuse, and improve the function and facilities of the inner city. The project listed and described the four areas in the plan: (1.) a historical area preserved as a complex for retail, restaurants, entertainment, and tourism, of which the main part is XTD; (2.) Corporate Avenue international business district; (3.) Lakeville, a premier residential area; and (4.) a shopping and entertainment center along with Taipingqiao Lake and a park with a 10.9-acre lake as the green area (Chanchal, 2011).

XTD, located on the western edge of the entire project, is one block south of the prestigious Huai Hai Zhong Road and is close to the metro station and the intersection of Shanghai's major urban freeways. Divided into the North and the South Blocks (see Fig. 4.7), XTD used to be a 7.4-acre neighborhood. The houses in the neighborhood were Shikumen houses, a typical style of the local houses that combined features of Shanghai architectural symbols in the early 20th century with European architectural elements (see Chapter 3). The First Congress Hall of the Chinese Communist Party, located between the North and the South Blocks, is one of the old Shikumen house and is now preserved as a local museum (see Fig. 4.8). Over the years, the neighborhood has sadly deteriorated because of lack of maintenance and a high-density population.



Figure 4.8: The First Congress Hall of the Chinese Communist Party
(jiandangweiye.baik.com)

Since the 1990s, Shanghai has begun a new wave of renovation and development, demolishing many Shikumen style buildings (Tsai, 2008). It was only when more and more of these houses were replaced by skyscrapers that people began to realize the importance of preserving such monuments of Shanghai's past. Given the circumstances, XTD was designed during the Taipingqiao Redeveloping Project through a series of transformations and preservations. The Shikumen buildings within XTD retained the antique walls, tiles, and exterior of the old Shanghai architecture, while the internal spaces have been constructed to suit the lifestyle of modern city life, with its infinite details and elegant decorations (see Fig. 4.9). Aside from a series of international restaurants representing the flavors of the world, there are classy boutiques, accessory shops, a food court, a movie theatre, and a fitness center as well as luxurious hotels.



Figure 4.9: Xin Tian Di Leisure Street (ccish.com)

The development of XTD has helped to raise the property value in the area significantly and turned the surrounding area into the most expensive real estate in the city. In 2011, the land rate in the area was over 15,000 dollars per square meter, compared to 2,700 dollars per square meter in 2002 (Chanchal, 2011). The high-quality goods in XTD are not affordable to ordinary people, and some people might need to spend their a-year salary to buy a fashion clock. XTD has garnered much recognition, such as the ULI Award of Excellence in 2003, and its development has been financially profitable. However, during the Taipingqiao Redeveloping Project, more than 3,800 households were required to relocate elsewhere in 43 days, and some people even had to quit their jobs because of the expensive commuting charges (Powell, 2006). Besides, the compensation of the relocation for each household is insignificant compared to the money needed for repurchasing an apartment. In the pursuit for high economic profits

during urban development, the residents were isolated from their neighborhoods and forced to move to cheaper places. How to balance between economic development and community preservation is a common problem during the process of urbanization. There is a wide spectrum of opinions on the XTD project. Perhaps history is the best judge when looking back into the adaptive reuse of XTD.

4.2.2 Cultural Destinations: Creative Industries as Art and Education

One key feature of consumption in creative industries is the effect of the experience and the training on one's benefit from purchasing creative goods. People opt to indulge themselves in the consumption of a creative product, expecting it will raise their artistic tastes and appreciation for the arts in general. Such creative industries as the performing arts, the visual arts, and fashion design not only provide amateurs with opportunities to acquire training to improve their professional skills, but also enable other people to cultivate their accomplishments in culture and the arts. Besides, creating an open stage for communication with artists provides our next generations education about the arts and cultural continuity. However, how can artistic activities be incorporated into the adaptive reuse of the site? Here are three case studies in which industrial sites were redeveloped into cultural destinations. Although three of them served as artistic centers, they are popular with people who differ in their professions and level of participation in the arts.



Figure 4.10: Overview of King Plow (artery.org)

Figure 4.11: The Historic King Plow (artery.org)

● King Plow

Project Name: King Plow Arts Center

Location: Marietta Street Artery district, Atlanta, Georgia, U.S.A

Site Size: 4 acres/165,000 square feet

Completion Date: Winter 1995

Former Use: manufacturing facility

Current Land Use: domestic business, performing arts, visual arts

Development Team: King Shaw-Atlanta, Smith-Dalia Architects

The needs of the King Plow Company, which manufactured equipment from 1902 to 1986, necessitated the expansion of the factory to its present size of 165,000 square feet. During its prime development, the factory employed over 300 people and shipped equipment throughout the United States, Mexico, and South America. However, the Midwest Farm Crisis¹ of the 1980s led business at the King Plow Company to decline so that it was closed in 1986. What is left the factory building comprised of primarily two

¹ The Midwest Farm Crisis of the 1980s: The 1980s was a period when thousands of farm facilities lost their farms because of low farm prices and overwhelming debt (nebraskastudies.org).

types of structures, which had been built in the early 1900s around a central railroad. All totaled, there are eleven adjoining buildings covering approximately 165,000 square feet. The expansive open spaces—high ceilings and large windows that utilize the natural light— and the heavy steel beams reflect an industrial age long gone but make the King Plow an interesting place to be preserved.



Figure 4.12: The buildings and structures in the King Plow reflect its splendid industrial history. (kingplow.com)

In 1990, King Shaw had hired Smith-Dalia Architects to produce a redevelopment scheme for the historic factories, which would preserve their original character. The redevelopment of the King Plow Factory has taken five years to complete. Smith-Dalia Architects focused on designing an arts-related complex that included residences, studios, galleries, and performing and exhibition spaces. Buildings were zoned for different uses along central circulation paths that accented their historic architectural appearance and decorated interiors. As a result of this redevelopment, commercial areas and public spaces are located in close proximity to vehicular access. Residences and studios are set in the center of the complex around a landscaped courtyard sculpted from an existing railway spur. The central piazza serves as the nucleus for the arts community, offering sculptures, restaurants, and outdoor cafes.



Figure 4.13: The re-adaptive use transformed the historic site into an art community.
(artery.org)



Figure 4.14: The King Plow is a model of adaptive reuse of a historic site.
(kingplow.com)

As a model of adaptive reuse of historic structures, the King Plow Art Center became a catalyst for the renovation of the Marietta Street arts corridor, prompting the prosperity of Atlanta's arts community. Maintaining but redeveloping the old factory buildings not only makes the King Plow function as a modern place for art activities; it also preserves its industrial history. The success of the retrofit of the King Plow has something to do with the development of the arts corridor since it ensures the customer flows and its popularity. However, if it were isolated from the arts corridor, it is hard to say that this industrial site retrofitted into an arts center would be able to sustain itself.

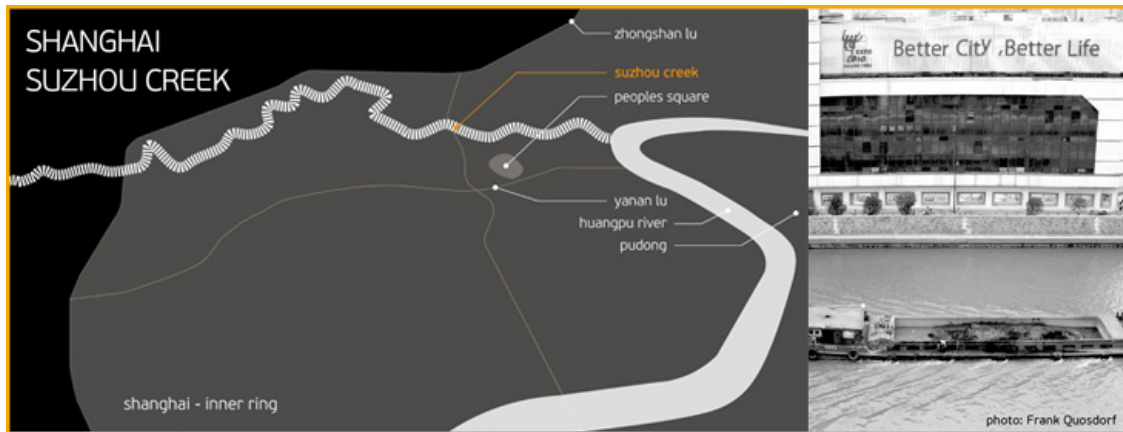


Figure 4.15: The Bridge 8 and other creative “parks” are located along the Suzhou Creek (10design.co).

● The Bridge 8

Project Name: The Bridge 8 Creative Industry Park

Location: downtown district, Shanghai, China

Site Size: 1.7 acres (casestudies.uli.org)

Completion Date: 2008

Former Use: workshops for car manufacturing

Current Land Use: office park, restaurants, retail, open space

Development Team: Life Style Centre Limited, HMA Architects & Designers, Ltd.

The concept of the “creative industrial park” is proliferating in China, especially in Shanghai at the moment. The so-called “park” differs from the general conception of the word, which means a place for relaxation. Instead, it is a community for displaying the works in the creative industries. Unlike western countries, the number of freelance workers is relatively fewer, and it is a struggle for creative workers to find a studio or an office for themselves in a big city like Shanghai. Following the changing landscape of industry in Shanghai, many factories in the central area were left vacant. In spite of many

demolished areas, some have been turned into creative spaces, allowing artists and creative workers to seek a workplace in them.

Currently, the Bridge 8 is one of the best representations of the “creative industrial parks” in Shanghai. Its 50-year-old buildings, which had been used as a car brake factory, were viewed as blight to the urban planning for the district. The founder of Life Style Centre, Tony Wong obtained a 20-year lease on the site, and decided to renovate the factories to retain the historical character of the buildings.



Figure 4.16: The Historical Character of the Bridge 8

The name of this project, “the Bridge,” alludes to a number of its elements, including the exterior sky-bridges and walkways, and the corridors and the catwalks that connect the interiors of the buildings (casestudies.uli.org). Besides, its adaptive reuse also represents the connection between the past and its present expectations of a promising future in the development of creative industries in Shanghai. The Bridge 8 refurbished the basic infrastructure of the factory buildings and kept some of the key elements, such as steel trusses, exposed load-bearing walls, and the facade with the green-gray bricks (see Fig. 4.16). On the other hand, some exteriors and interiors were renovated with an Art Deco style (see Fig. 4.17), including skylights, glass curtain walls, cantilevered

staircases, stainless-steel rails, and mezzanines. Moreover, the Bridge 8 was constructed with the concept of sustainability. For example, a certain degree of electricity and hot water are supplied through solar energy, and a geothermal heat pump is also applied for air-conditioning.



Figure 4.17: The Bridge 8 Industrial Park-1 (bridge8.com)

Architect firms make up the largest number of tenants in the Bridge 8, where other creative industries, such as a printing company, a software and computer business, a game and animation design company, and a fashion design firm, have settled down. In addition, cafes and restaurants are also included to provide a space for meeting and relaxation (see Fig. 4.18).

As one of the most popular business area in downtown Shanghai, the Bridge 8 might be considered an ideal workplace for workers in the creative industries. However, tourists seldom have the chance to tour around this creative park other than to dine in the restaurants and the cafes. The signs hanging in front of every firm are reminders that the place is only for business, not for tourists. No wonder that even a local resident has limited knowledge about the Bridge 8 and its industrial history. With the lapse of time and changes in industrial structure, like other advanced office buildings, the Bridge 8 might lose its charm and popularity. What will it leave to future generations?



Figure 4.18: The Bridge 8 Industrial Park-2 (weeklysh.com)

4.2.3 Recreational Facilities: Creative Industries as Activities of Public Participation

Although creative industries play important roles in promoting regional economic development, creating job positions to raise the employment rate, and preserving the continuity and integrity of traditional culture, public participation is a force to be

reckoned with. The uniqueness of Tianzifang lies in its spontaneous redevelopment. People living there, who had witnessed both the trauma brought by the industrial recession and now current prosperity, had been involved in the project. It is because the redevelopment occurred in conformance with public opinion that Tianzifang is inundated with visitors as well as the Shanghainese. On the other hand, the project of Xin Tian Di has always been controversial since ordinary people cannot afford the extravagant goods and the high-quality services. It has become a place for rich people to show off their classy tastes and luxurious life-style. During New Year's Eve, a minimum purchase is required to be admitted into the least expensive cafes in XTD, such as Starbucks. It is no wonder that even some Shanghainese have not been there. Then what is the point in making such great efforts in promoting a money-consuming project in which much of the public cannot afford to participate? Apart from consumption, public participation can also be obtained through recreation and amusement. For instance, the annually hosted Shanghai International Creative Industry Week provides people an opportunity to enjoy the arts without any charges, enriching people's leisure time and enhancing publicity for creative products. Below are two case studies of creative industrial parks serving as recreational facilities, whose great success is partly due to public participation.



Figure 4.19: The Aerial View of Tianzifang (Shinohara, 2009)

Figure 4.20: The Abandoned Factories and Shikumen Style Houses in Tianzifang (Shinohara, 2009)

- Tianzifang

Project Name: Tianzifang—Shanghai Culture Industry Park

Location: the central area, Shanghai, China

Site Size: 4.9 acres

Completion Date: March 2009

Former Use: factories for domestic industries, traditional Shikumen-style neighborhood

Current Land Use: residential, arts, retail, restaurants, bars

Development Team: the bottom-up process initiated by Meisen Wu, the freelance artists, and residents; supported by Administrative Committee of Taikanglu Art Street; supervised by Shikumen Owners Management Committee

As another lilong block, Tianzifang has experienced redevelopment and become a community of social, economic, and cultural activities. However, the mechanism of the redevelopment activities in Tianzifang is entirely different from that in Xin Tian Di.

Formerly a part of a lilong block in the central area of Shanghai, Tianzifang was located near the boundary of the French Concession. In the 1930s, many small factories were set up there to take advantage of its proximity to the river (Tsai, 2008). By the 1990s, through the process of industrial restructuring and economical evolution, the business of these factories went down, and vacant factories were lent out to small street businesses. As a result, the area was fragmented, and its property value became low.

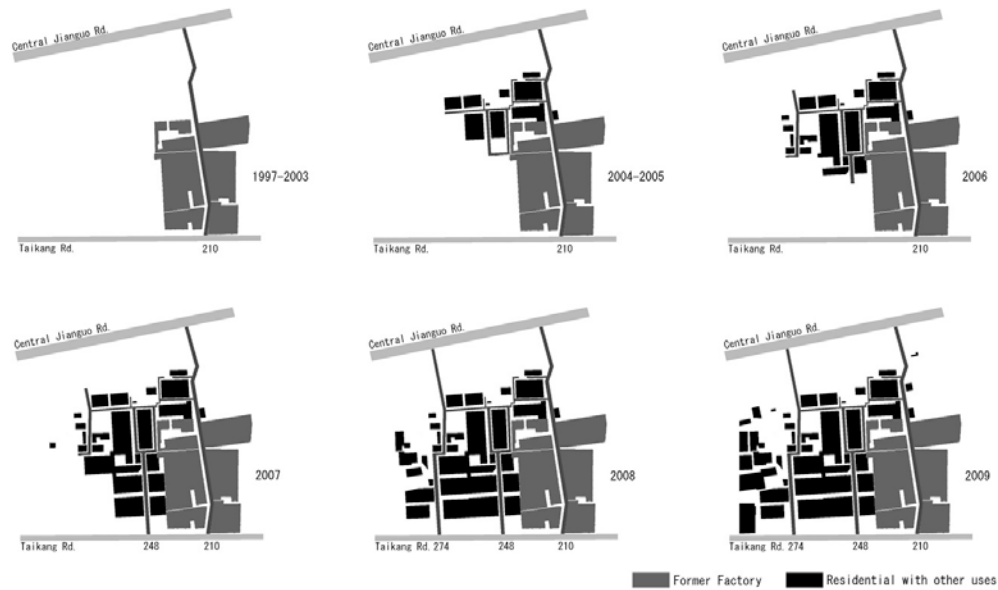


Figure 4.21: Proliferation of Non-residential Uses into the Shikumen Lilong Housing Areas (Shinohara, 2009)

Tianzifang is a self-organized creative industrial site that developed through the bottom-up process. In the initial phase of renovating the factory, the first developmental force included the artists who found value in the old factories as space for the creation of their art. In 1998, the moving of art studios into vacant factories in Tianzifang spurred the redevelopment of the lilong housing (see Fig. 4.21), but the government did not participate in any specific renovation projects. Financial support from the government was absent; instead, the landlord used the money collected from the renters to fund the initial rehabilitation of the factories. Artists themselves through their creativity and inspiration retrofitted the old factories into art studios. This initial phase of rehabilitation was expanded to include the residential area in that the residents lent out their houses directly to the artists. Because it was illegal to let the residential house be converted into other uses, the residents made their deals with the renters through a black market. In order to protect the lilong housing during the renovation, the residents self-organized a

management committee, and even the fees for refurbishment and reconstruction were self-financed (Shinohara, 2009). Therefore, the transformation of Tianzifang largely depended on the bottom-up process that was planned and implemented by the artists and the residents.



Figure 4.22: A Mix-used Community in Tianzifang (Tsai, 2009)

In April 2005, the municipal government claimed Tianzifang as a creative industry accumulated district, which is also named as Shanghai Creative Industry Park (Shinohara, 2009). During its expansion in 2007 and 2008, its non-residential uses were extended to include more commercial ones such as bars, restaurants, and retails while retaining a contemporary artistic atmosphere. On the other hand, the local residents still kept their daily life there while some of the buildings were converted into stores and restaurants. The neighborhood became functionally more mixed, socially inclusive, and economically uplifting because of the redevelopment (see Fig. 4.22).

Mutation of Tianzifang resulted from a self-organized redevelopment from the bottom-up instead of through governmental forces. Its process demonstrates an indicative

way of reusing and adapting the existing urban fabric in the central area of a metropolis. In doing so, the traditional neighborhood is well preserved, and the history and local culture of old Shanghai is spread throughout the world. However, with increasing exposure to the market, how to control its diversity to ensure its integrity might become a crucial problem.

- Duisburg Nord Landscape Park

Project Name: Landschaftspark Duisburg-Nord

Location: the heart of Ruhr District, Duisburg Nord, Germany

Site Size: 570 acres

Completion Date: 2002

Former Use: a coal and steel production plant

Current Land Use: park, recreation, outdoor sports, cultural activities

Development Team: Latz + Partner, the land development authority of North Rhine-Westphalia

Located in the populous Ruhr District in Germany, Landschaftspark Duisburg Nord epitomizes an innovative approach to the use of an urban cultural landscape, one characterized by the inheritance of its industrial history and the improvement of its polluted environment. In the meantime, through a series of public activities, Landschaftspark Duisburg Nord helped people develop a relationship between themselves and the nature around them.



Figure 4.23: Overall Plan of the Duisburg Nord Landscape Park (places.designovserver.com)

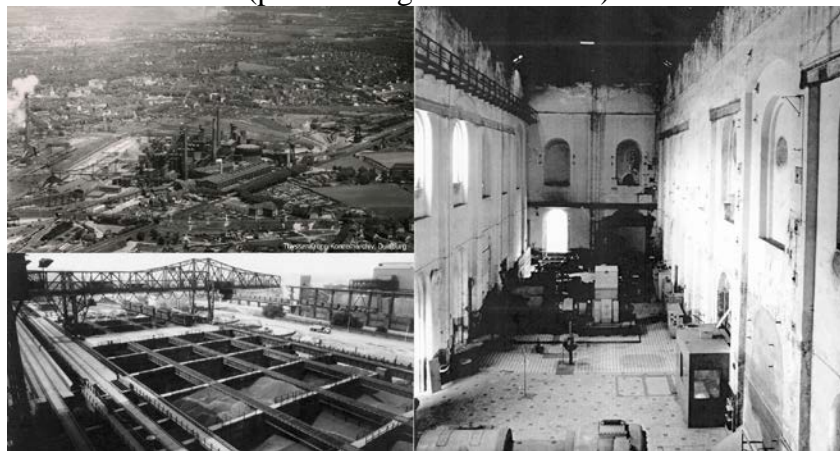


Figure 4.24: The Industrial Wasteland in Duisburg Nord (en.landschaftspark.de)

Once one of Europe's largest coal mining and steel-manufacturing centers, Duisburg Nord in Ruhr District experienced the declines of heavy industries (see Fig. 4.24), which were threatened by an economic and ecological crisis as well as the loss of the regional culture itself. Instead, a wasteland of railways, chimneys, polluted soils, and industrial ruins were left behind.

The IBA Emscherpark, a program generated through the partnership between the state of North Rhine-Westphalia, local municipalities, and private companies, focused on the redevelopment of the populous region along the Emscher River, stretching from Duisburg to Dortmund. After the purchasing of the land of the former Thyssen Steelworks manufacturing plant, the City of Duisburg changed its zoning regulations to allow its conversion into a public park.



Figure 4.25: Landschaftspark Duisburg Nord (chestertownspy.com)

The 570-acre project was developed in phases over thirteen years, from 1989 to 2002. It consists of several layers of design elements that operate independently as park systems, including Blast Furnace Park, Railway Park, Play-points, Waterpark, Sinter Park and Ore Bunker Gallery. With various functions and memorable residue of the manufacturing plant, different parks have been interwoven into the spatial framework. Particularly, the central Blast Furnace Park utilized the residue of the manufacturing plant as the playground for outdoor sports, such as wall climbing, hiking, biking, and sliding (see Fig. 4.26).



Figure 4.26: Play-points in Duisburg Nord (landezine.com)

Much of the project's charm exudes from its innovative reuse of site structures. For example, the former gas tank is now becoming the world's largest indoor diving center. Landmarks such as furnaces are illuminated at night with colorful spotlights, becoming a beautiful landscape across the sublime. Besides, the ecological principles for sustainable development were carried out throughout the redevelopment, raising the public awareness for environmental protection and bioremediation. All in all, with its unconventional design and involvement of public participation, the park has become popular with local residents as well as tourists around the world.

4.3 Cultivate an Ideal Environment for Development of Creative Industries

To develop a habitat for the growth of creative industry, people need to realize the uniqueness characterized by its economic viability, cultural diversity, and recreational value. The case studies above indicate that the three models of redevelopment depend on

the different focus on the characteristics of creative industries. The XTD project utilized high investments to generate high economic returns, ignoring the importance of art cultivation and public participation. The King Plow Arts Center retrofitted the old factories into studios for art exhibitions and live shows, contributing to its regional art development. However, without diverse cultural and economic activities, how will it sustain itself as a small-scale arts center set within a former factory building? Being developed on the basis of the same model, the Bridge 8 is an ideal work place for artists, but it failed to find opportunities for cultural communication and artistic expression with the outside community. Through the bottom-up process, Tianzifang completed its self-organized transformation from lilong housing neighborhood to a mixed-used community for commerce and residence. Also, serving as recreational facilities, Landschaftspark Duisburg Nord showcases a successful retrofit park for its cultural continuity and integrity while introducing recreational activities for public participation. As yet another example of redevelopment of factories into cultural destination, M50 Creative Park is facing an economic crisis, and its low customer flows have become a noticeable problem. Several issues have emerged through the analysis of the case studies in this chapter, and there are major factors to consider when cultivating a place for creative industries for M50 in its design phase, which will be discussed in Chapters 5 and 6.

CHAPTER 5

SITE: M50

5.1 Contexts of M50

Moganshan Road, abbreviated as MGS, was famous for its splendid domestic industrial history from the 1800s to the 1930s, and it became one of Shanghai's largest industrial areas. Located at No. 50 MGS on the south bank of the Suzhou Creek, Shanghai Chunming Textile Factory was the most important factory during the rise and the fall of domestic light industry. The declining industry and the abandonment of the site deprived M50 of attractiveness, but then a group of artists utilized the site for the creation of art, which made M50 famous overnight for its innovative reuse. Now it is named M50 Creative Park by the Shanghai Municipal Economic Committee (Chen and DAtrans, 2008). Having been retrofitted from an abandoned factory into a contemporary art center, M50 Creative Park has attracted the settlement of more than 130 artists in various fields, such as painting, graphic design, architectural design, movie and television, environmental design, and jewelry design. The artists have come from over 16 foreign countries, including the United Kingdom, France, Italy, Switzerland, Israel, and Norway. The redevelopment of M50 infused an artistic atmosphere and cultural diversity into the MGS area along the Suzhou Creek, raising the property value and prompting the surrounding real estate development.

Although listed as one of the top creative parks in the program supported by the local government, M50 is now facing a series of problems. Such problems as a lack of

economic growth, insufficient diversity of art works, absences of recreational facilities, and low customer flows have impeded the development of M50.

M50 has carried out three economic strategies to address these problems: rent, parking fees, and income from several retail stores. As the uppermost revenue, the landlord charges the artists' rental fees according to the date their leases began, with the more recent leases carrying higher rental fees. In doing so, some emerging artists can hardly sustain themselves if they fail to sell enough art works to compensate for the rent. Parking fees provide additional financial support to make up for the low economic effects. Besides, the functions of the buildings in M50 are lacking in diversity, which consist almost entirely of art galleries and design studios. The singular art ventures have impacted the way companies run in order to stand out in the market, and some of the galleries even sell paintings with the same styles in order to cater to the clients, and so have degraded the importance of originality in the creation of their art.

The Rehabilitation Project of Suzhou Creek, initiated in 1990s, stimulated the real estate development nearby immensely, making M50 one of the most expensive pieces of land. Therefore, the uses of land along Suzhou Creek mostly concentrate on residences and commerce. As a landmark in the MGS area, M50 Creative Park has failed to provide its residents and visitors with opportunities for recreational activities, which has become a major reason for the infrequent customer flows in M50. In addition, the absence of restaurants, convenience stores, and even sitting areas in M50 hinder people from lingering around for more than 30 minutes.

Another major problem that plagues M50 is its lack of connections to the outside community. Surrounded by two different architectures, that is, Macau Xinyuan and old

Shikumen buildings, M50 has few connections to them. On the one hand, the about-to-be-torn-down Shikumen buildings, located beside the M50 Creative Park, represent the cultural legacy of old Shanghai, which needs to be preserved. Therefore, how to relocate the residents and whether to pull down all the Shikumen buildings are two daunting problems. On the other hand, Macau Xinyuan, which is located on the other side of M50, is marked as one of the most expensive residential neighborhoods, and was built according to the launch of the real estate development along Suzhou Creek. Compared to the high-rises, the existing Shikumen housings have fallen into disrepair and are unsafe for residents to live in them. The transition from its traditional local culture to a modernized urban culture is missing in this joint venture (see Fig. 1.9).



Figure 1.9: M50 is surrounded by two different architectures.

5.2 On-site Investigations

The issues stated above reflect part of the problems in M50. To receive feedback from people, both those who have been to M50 and those who live near M50, concerning how they regard M50, on-site interviews are required. These on-site interviews also provide a way to explore the causes of the problems. The areas of interests in the

interviews that were conducted focused on M50's functionality, the streetscape along MGS, and the degree of public participation in the creative industries (see Fig. 5.1). The targeted interviewees were divided into two groups: the people working in M50 Creative Park and the residents living along MGS. Both groups of people had spent much time in M50 so that they would be sufficiently familiar enough with the site to provide information about M50. Since the interviewees expressed their desire to remain anonymous in the interviews, they will be referred to as Group A and Group B, respectively. Although the interviews were conducted in the form of talks, the results have been summarized through diagrams and tables in order to draw clear conclusions.

Group A consists of a security guard who is in charge of the central parking plaza, two artists who work in the field of graphic design and video production respectively, and a shop assistant who sells goods at the visitor center store (see Fig. 5.2). Interviewees in Group B include four local residents who live near M50, all of whom are retired from the job position.

Groups of Interviewees	Areas of Interests
people who work in M50	M50's functionality
residents who live along MGS Road	streetscape along MGS Road
	degree of public participation into creative industries

Figure 5.1: Interviewees and Areas of Interests

Interviewees in Group A	Job Responsibilities
a security guard	in charge of the central parking plaza of M50, ensure the safety in M50
a graphic designer	graphic design
a video producer	video production
a shop assistant	sell goods at the visitor center

Figure 5.2: The Profiles of the Interviewees in Group

In order to learn about the parking situation in the central plaza, statistics about the number of parking spots and the users of the parking space were surveyed (see Fig. 5.3). According to the security guard, there are 30 parking spots in the M50, of which 20 are staff parking spaces, 6 are guest parking spaces, and the remaining 4 spots are usually empty. Besides, the majority of visitors consists of artists who are seeking opportunities for work and collaboration, students who are well educated and find M50 an inspiring place for learning about art, and tourists who are coming from outside Shanghai to experience the development of Chinese contemporary art (see Fig. 5.4).



Figure 5.3: Parking Situation in M50

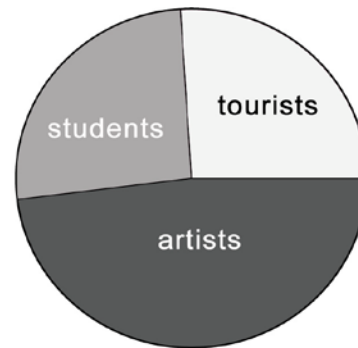


Figure 5.4: Outsiders Coming to M50

When asked about hopeful improvement in M50, the interviewees in both group A and group B expressed their common wish that streetscapes and sanitation in the MGS area would be beautified to provide a pleasant environment for people working and living in the area (see Fig. 5.5). Five interviewees said that they regard Shikumen buildings as unique representations of traditions in the MGS area and believe that cultural legacies such as the Shikumen buildings deserve rehabilitation and preservation. As for the functional space in M50, more than half of the interviewees expected that increasing commerce and public space would help bring vigor and diversity to M50. However, most interviewees who work in M50 were worried that the existing artistic atmosphere might be unbalanced due to too many commercial elements. Besides, few people indicated their willingness to participate in art events but all the residents in the interviews appreciated sharing the interactive atmosphere in M50.

Apart from the existing services in M50, the proposals on implementing basic services such as restaurants, café, and local shops were accepted by most of the interviewees (see Fig. 5.6). Expanding the services pertaining to entertainment was popular among the interviewees, and local residents are especially looking forward to having a public space for gathering together. Since all the interviewees in Group B have retired, they indicated their common wishes to seek training or educational opportunities to cultivate their hobbies or to spend their free time. In addition, few interviewees expressed the need to provide more parking spots for guests.



















Overall advice about M50 made by the interviewees	Group A:  Group B: 
Beautify the streetscape in the MGS area.	 
Improve the sanitation in M50.	 
Create public space in M50.	 
Add commercial elements in M50.	 
Maintain the artistic environment in M50.	
Strengthen the interaction between the neighborhood and M50.	 
Keep the Shikumen buildings in M50.	 
Increase information about the art works.	
Willingness to participate into art events	 

Figure 5.5: Overall Advice to M50












Proposed Services in M50	Group A:  Group B: 
Shops	 
Restaurants and Café	 
Education/Training Class	
Entertaining Area	 
Parking Area	 

Figure 5.6: Attitude to Proposed Services in M50

5.3 Site Analysis of M50

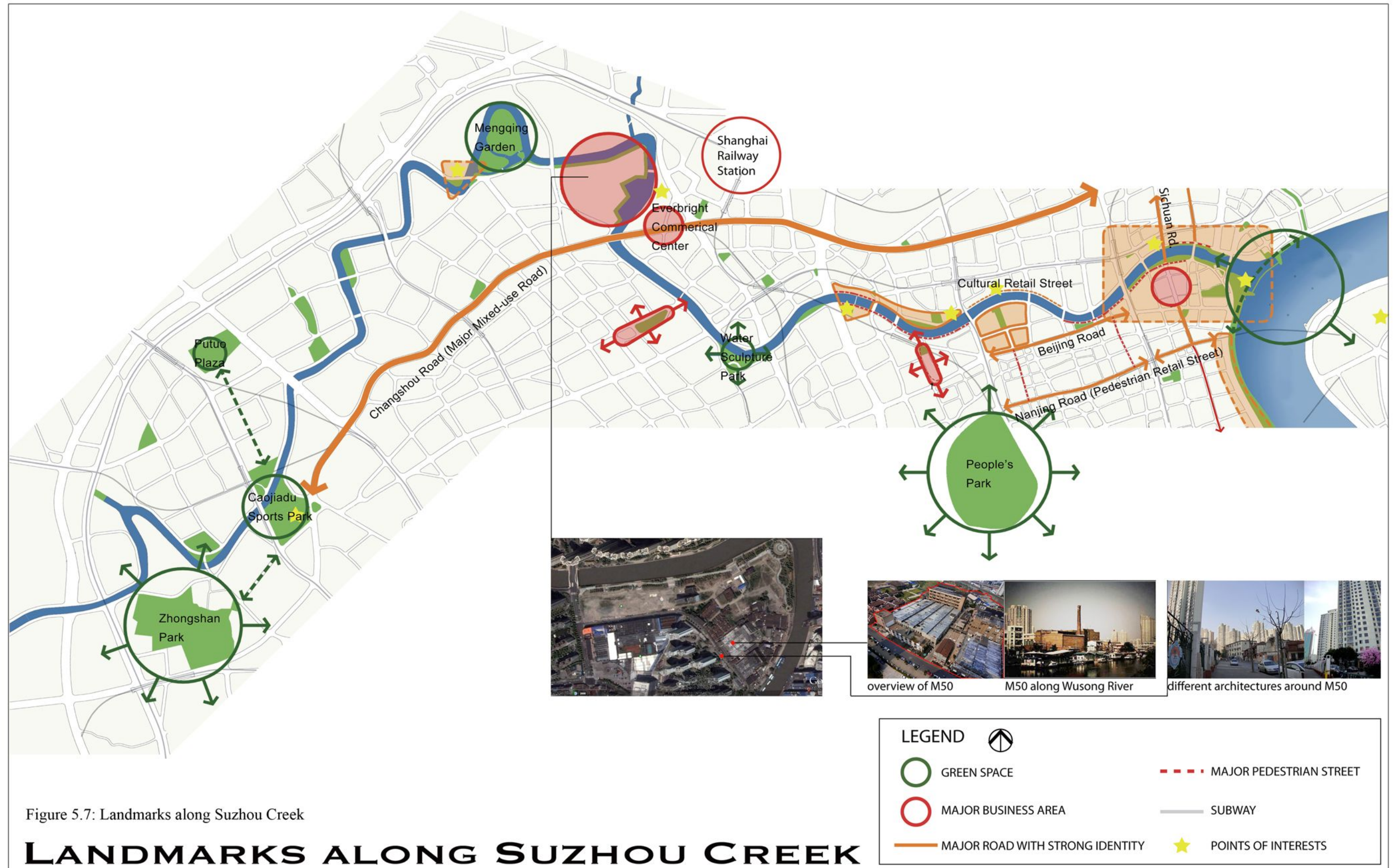
5.3.1 Landmarks along Suzhou Creek

With more than 77 miles in length, half of the Suzhou Creek is within the administrative region of Shanghai, and the other half of it is within the city's highly urbanized parts. Because of the proximity to water and ports, the areas along Suzhou Creek (also named Wusong River) were utilized as industrial sites during the early 1900s. Later on, those areas became abandoned as the local industries withdrew while leaving Suzhou Creek heavily polluted with industrial pollutants as well as domestic wastewater. In 1998, the Suzhou Creek Rehabilitation Project was launched, and it went on for 12 years, improving the water quality, the flood impact, the management of wastewater and water resources. The project also prompted urban revitalization so that quite a few high-rise buildings were constructed to generate fast-growing economic development. In the meantime, following the initiative of artists in the late 1990s the riverside was designated as a protected heritage zone, and therefore many warehouses were conserved, providing quarters for the local flourishing art scene. In 2002, parks along Suzhou Creek were constructed to redevelop the riverfront of Suzhou Creek. Using Suzhou Creek to develop culture and landscape not only retrofitted the historic sites to preserve history but also promoted economic development. As one of the creative communities along Suzhou Creek, M50 is famous for its innovative reuse as a workplace for artists. As can be seen in Figure 5.7, M50 is close to Shanghai Textile Museum, and M50 itself was formerly a domestic textile factory. Creating some interaction between M50 and Shanghai Textile Museum, such as displaying some exhibits about domestic industry would be useful towards enhancing cultural communication and regional prosperity as well.

With the advancement of urbanization and the real estate development along Suzhou Creek, the old lilong housings are about to be torn down so that more high-rise hotels and offices can be built. The removal of the historic architectures around M50 will cause the loss of traditional culture and overexposure to commerce, which ultimately will deprive M50 of its artistic atmosphere.

5.3.2 Land Use along Suzhou Creek

The concentration on the development of residential houses and office buildings along Suzhou Creek indicates the advantages of riverside proximity to highways and subways, making its land some of the most expensive real estate in Shanghai (see Fig. 5.8). The advanced real estate development along Suzhou Creek stimulated the construction of high-story residential buildings that contribute to the heat island effect. A few green spaces are scattered among the residential communities, but hardly become resources common enough to share due to their limited coverage and uneven distribution. Therefore, it is essential to increase green spaces along the Suzhou Creek to provide a green belt for residential neighborhoods on each side of the river. On the other hand, quite a few mixed-used areas are located near the subway and the railway stations, which are located across the Suzhou Creek, while there is lack of diverse development along the west side of Suzhou Creek. By introducing access across the river, multiple developments would be able to penetrate into the west side.



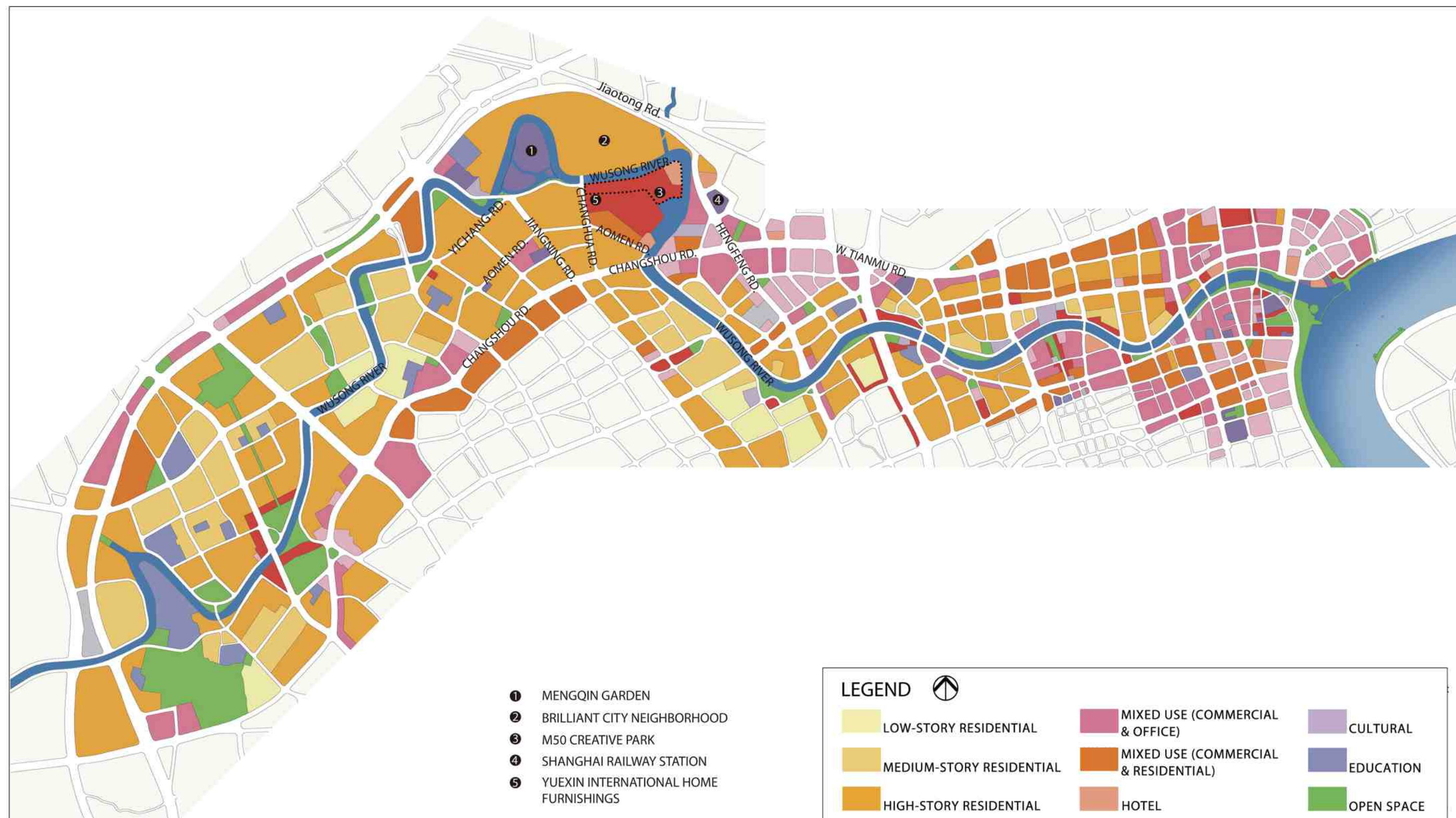
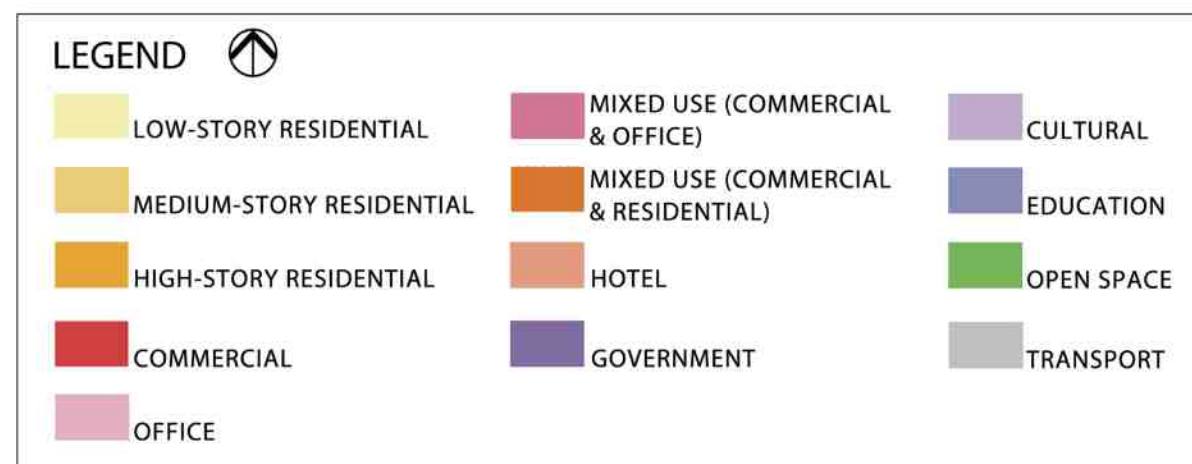


Figure 5.8: Land Use along Suzhou Creek

LAND USE ALONG SUZHOU CREEK



5.3.3 Circulations around MGS

As shown in Figure 5.9, the Wusong River and its branches separate the area into three parts: the west area to the north of the Wusong River, the west area to the south of the Wusong River, and the area to the east of the Wusong River. Most business and commerce offices developed along the east side of the river because of its proximity to railways and subways. The Shanghai railway station situated at Hengfeng Road is responsible for receiving hundreds of people who travel regularly by train, and therefore, Hengfeng Road carries some of the heaviest traffic in Shanghai.

The residential buildings are mainly concentrated in the area west of the Wusong River. The limited development of commerce along the northwest side is the major reason why its residents have to take a detour by subway to conduct their business and to shop. Contrary to the northwest area, the mixed development in the west area to the south of the Wusong River makes the MGS area one of the most important links, which not only connects residential areas on the west side to business areas on the east side, but also introduces commerce on the south side to the offices and the residential buildings on the north side. Besides, the development of green spaces in the MGS area would help create a pleasant environment for the residential neighborhoods and offices that surround it. Furthermore, it would offer a good opportunity to provide public services such as a youth club and especially a library, since educational areas are distributed along each side of the Wusong River.

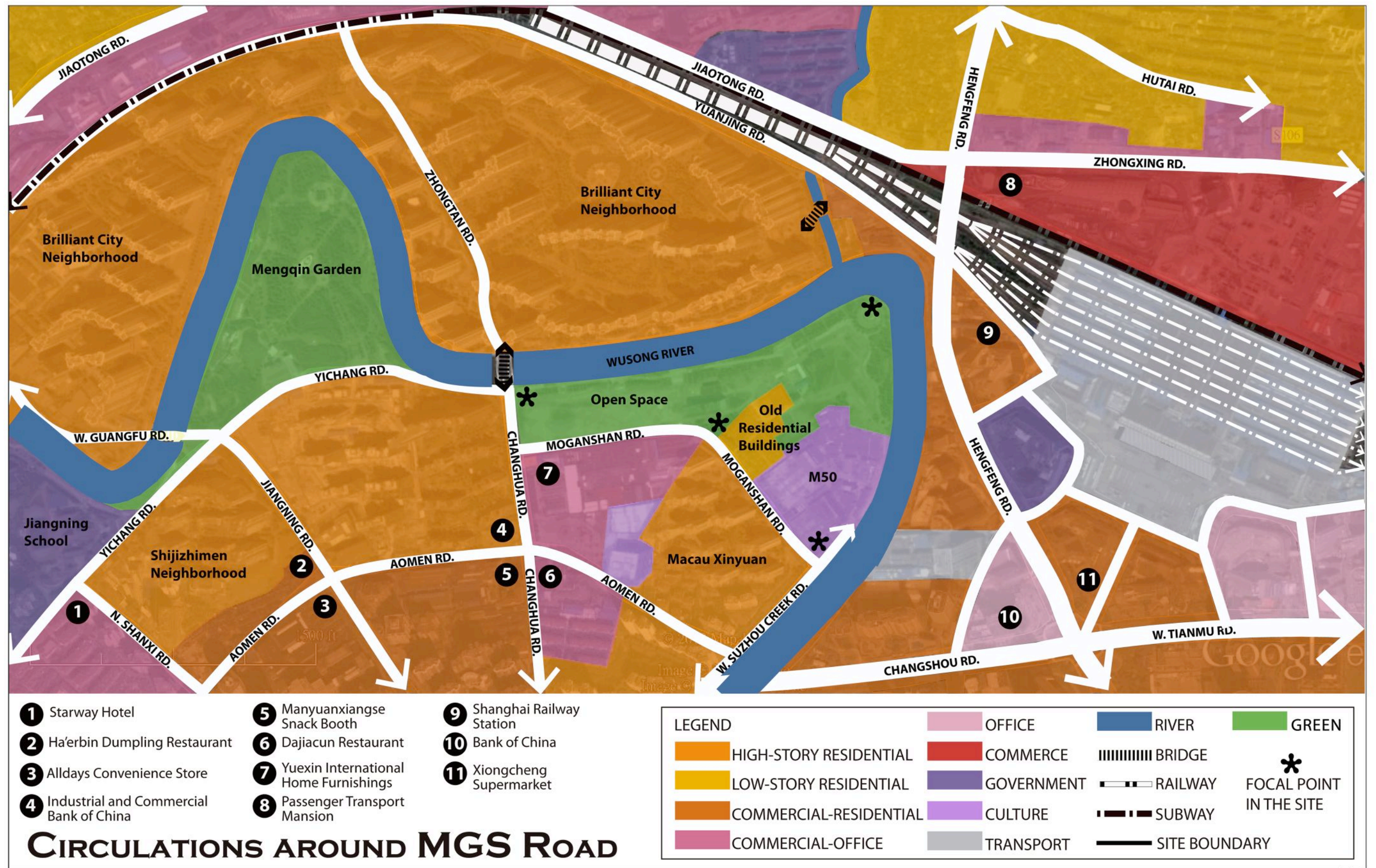


Figure 5.9: Circulations around MGS Road

5.3.4 Contexts of the MGS area

Nestled in the arms of the Wusong River, the MGS area is surrounded by Changhua Road, Moganshan Road, and the West Suzhou Creek Road. When walking along the Moganshan Road, what really catches people's eyes is a graffiti wall. The words and the paintings on the wall used to express the painters' emotional outbursts over current events, and now the graffiti wall has become the artscape of the MGS area.

Apart from M50 Creative Park (M50), the MGS area also consists of a large piece of open space that has become the substitute for a parking lot, and the about-to-be-torn-down old residential buildings, among which include the historic Shikumen houses (see Fig. 5.10). Surrounded by the different residential fabrics, the MGS area will usher in a completely new phase for transformation. On the one hand, it would not be safe to live in the old residential buildings without their reconstruction and rehabilitation. The issues such as its worn-out structure and the public toilets on the street, are threatening people's lives and public health. On the other hand, as one of the cultural legacies in architectural history, Shikumen deserves to be preserved and rehabilitated as well. Besides, the newly built classy neighborhood that is over 20 stories is opposite M50. Therefore, M50 plays an important role to provide transitions from traditional culture to urbanized city life. In addition, it is a good opportunity to develop the open space into a green area and to provide residents and tourists with public space for recreation and entertainment, which generates a landscape belt by connecting art and greenery along the Suzhou Creek.



Figure 5.10: Contexts of MGS Area

5.3.5 Functions of Buildings in M50

Among all the creative industries in M50, the design businesses and the galleries account for most of them (see Fig. 5.11). The unbalanced and monotonic distribution of its creative industries brought about the limitations of its development, increasing the frequency of movement. Besides, the empty units around the abandoned chimney reveal the potential of the site to expand and to develop the landscapes nearby.

5.3.6 Circulation in M50

Surrounded by the Wusong River and Moganshan Road, M50 is rarely occupied. It is not only because the traffic on Moganshan Road is light but also because there is a fabric of residential buildings around M50. On the one hand, M50 creates a sense of serenity that helps cultivate fine art works. On the other hand, the secluded environment isolates M50 from communication with the public, which leads to low economic profits and waned popularity. The vehicular routes run parallel to the entrances of M50 and are extended to the parking lot in the central space (see Fig. 5.12). The limited vehicular pathways in M50 guarantee a safe environment for pedestrians. Apart from the central parking lot, W. Suzhou Creek Road also leads to an off-street parking lot that faces towards the Wusong River.

There are some traffic conflicts between vehicular and pedestrian traffic; however, the pedestrian routes are concentrated along some of the big warehouses. Few people go to the area around the chimney since the alleys are narrow. Besides, the landscapes around the chimney need to be improved to create a pleasant space for people to linger.

The points of interest are concentrated on the joint point of the roads and the alleys. The main point of interest is the central space, and currently it provides 30 parking spots for guests and staff. In addition, some connective space between buildings could be utilized as a sitting and landscape area, of which the central plaza is in need.

5.3.7 Space Analysis in M50

It is because the warehouse is oriented in different directions that most connective space in M50 is long-strip and zigzags along the pedestrian pathway. The central plaza enjoys the most popularity, not only because of the informational sign but also because of its proximity to restaurants and shops (see Fig. 5.13). Apart from the central plaza, empty units surround the abandoned chimney. By beautifying the landscape near it, the number of empty buildings would decrease since more people would be attracted to come from the outside community. Besides, the space at the entrance has nothing but two arrays of sunshade umbrellas. Providing some chairs and tables to create an outdoor dining area would help increase the popularity of the visitor center. In addition, the parking lot in the central space (see Fig. 5.13) provides little shade for the buildings and the vehicles. However, minimizing the number of parking spots to create more green space would not only decrease the conflicts between vehicles and pedestrians, but also ensure a pleasant and safe environment for people working in the M50.



Figure 5.11: Existing Creative Industries in M50

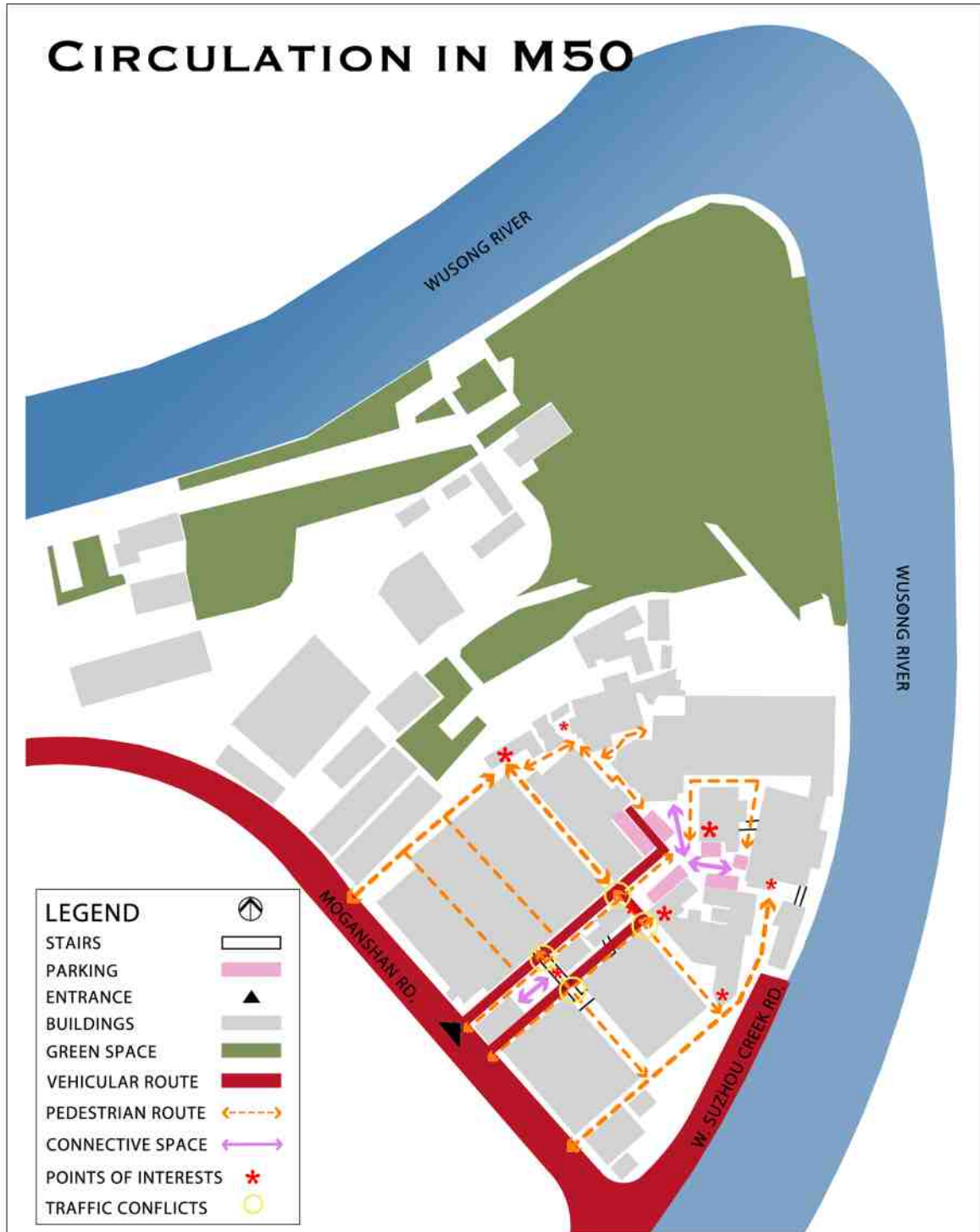


Figure 5.12: Circulation in M50

SPACE ANALYSIS IN M50

LEGEND	
SOCIAL SPACE	
MAIN PATHWAY	
SECONDARY PATHWAY	
ALLEY	
PARKING LOT	
STAIRS	
BUILDINGS	



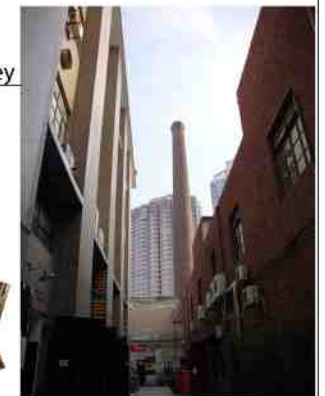
the chimney



the art of signs



the narrow walking path towards chimney



the central plaza



the walking path towards the exit of M50



the sitting area



Figure 5.13: Space Analysis in M50

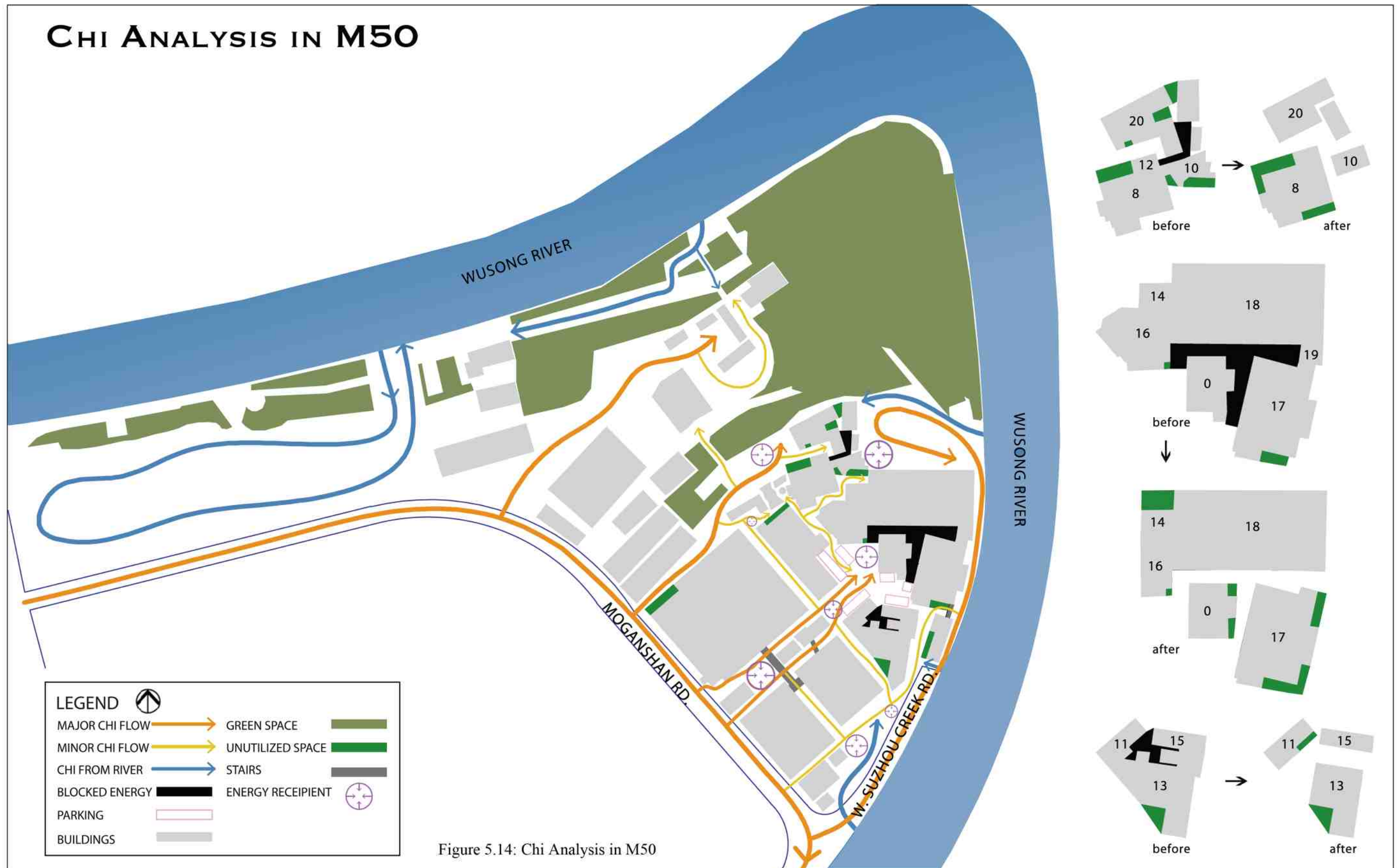
5.3.8 Chi Analysis in M50

Three kinds of chi flow in M50: chi from the river, major chi flow from the vehicles, and minor chi flow from the pedestrian (see Fig. 5.14). Objects such as building facades and walls block most chi coming from the river. Most of the major chi fades along with the vehicular traffic; however, minor chi flow lingers around the connective space between buildings. Chi is also hard to circulate within the space between adjacent buildings. Circulation of the chi flow in M50 is not smooth enough to bring vigor to the visitors and the workers.

The appropriate placement of objects such as fountains and potted landscapes helps a place receive some part of the energy, which also creates a pleasant environment. For example, an energy recipient at the entrance of M50 not only can slow down the movement of the major chi flow coming from the vehicles but also will stabilize the energy for people to visit and stay. The energy recipients are basically at the turning point where chi changes its direction.

Apart from energy recipients, chi flow can also be adjusted by cures that can be applied in architecture and landscape architecture. For example, chi flow through buildings will become smoother if some landscapes are installed to connect the negative space within the buildings (see Fig. 5.14). In addition, some zigzagged space will block some part of chi flow, which is rarely occupied by tourists. By reorienting the direction of some of the buildings, especially the buildings in the central plaza and the warehouses around the chimney, the chi flow would circulate better through unblocked space.

CHI ANALYSIS IN M50



5.3.9 Green Space in the MGS area

The limited vegetation in M50 provides little shade for the buildings, and the green space is concentrated in the central plaza (see Fig. 5.15). The triangle-array of trees and the vertical plants covering the facades of the buildings detract attention away from the importance of the central plaza. However, landscapes between the pathways and the alleys are unmanaged, which gives people an unpleasant welcome. Although the open space along the riverside is prone to yellowing because of negligence, it would be a good opportunity for introducing the existing green space behind M50 and for making it a part of the landscape in M50. By doing so, it would not only be prosperous for enhancing the landscapes along the riverside but also help improve the environment in M50 and reduce the heat island effect as well.

5.4 Conclusion

As one of the most influential rivers, the Wusong River affects people's life economically, socially, and culturally. The M50 Creative Park, which surrounds the river and Moganshan Road, stands out as one piece of pure land in the urban center with its contemporary art events. Analysis in the fields of land use, space use, green space, and chi circulation has led to the conclusion above that more exploration about the stagnation of the site's economic and artistic development is needed. On the one hand, the obstructed circulation affects the chi flow. On the other hand, the placement of the various landscapes objects deprives the visitors from being interested in lingering around the M50. Design applications in Chapter 6 will focus on the sying cures in architecture and landscape architecture to improve the circulation and chi flow in M50.

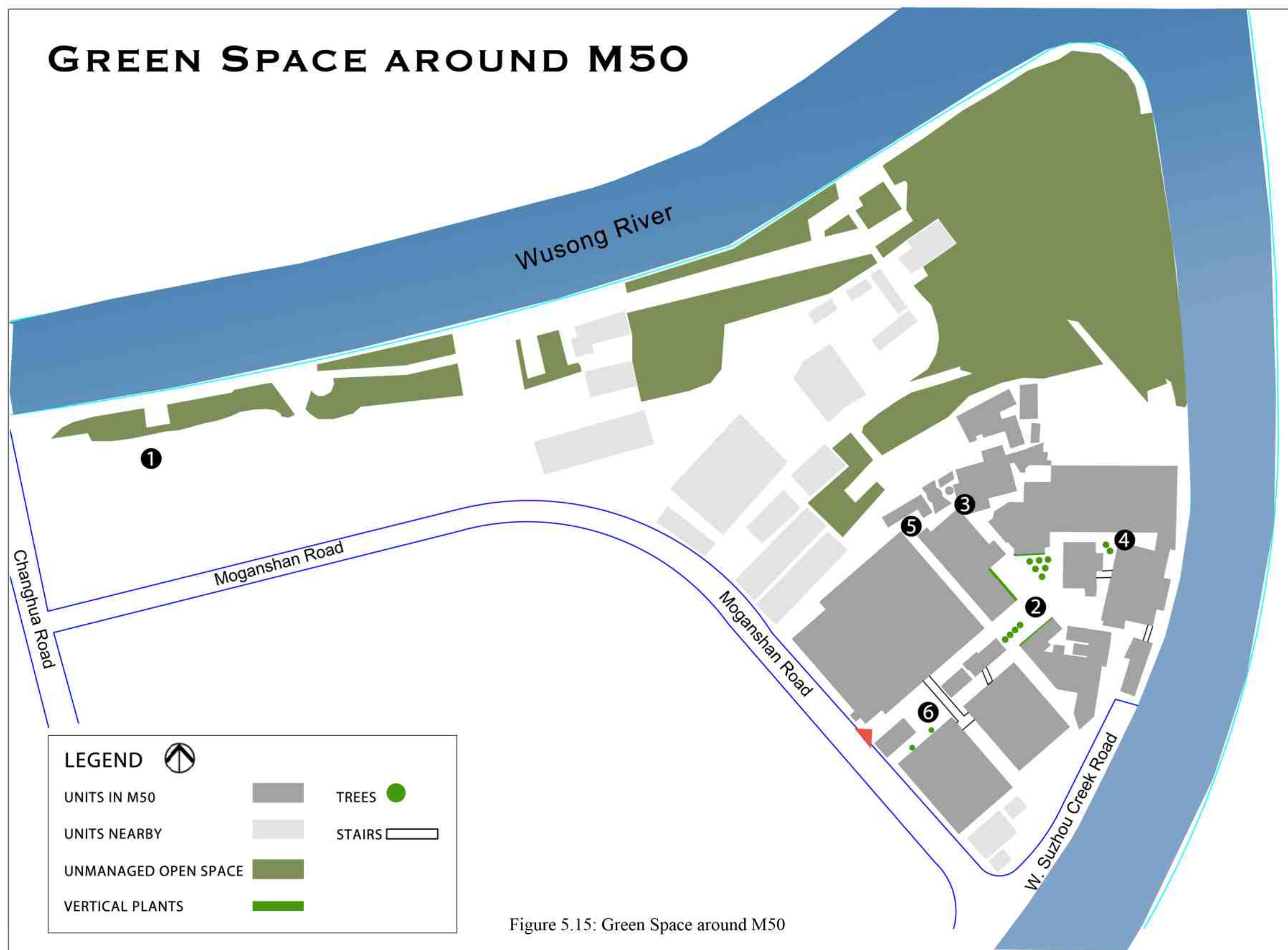


Figure 5.15: Green Space around M50



CHAPTER 6

DESIGN APPLICATION

6.1 Introduction

M50 Creative Park (abbreviated as M50) is an art space for the development of creative industries. It is located at No. 50 Moganshan Road on the south bank of Suzhou Creek (also referred to as the Wusong River), which belonged to one of the earliest industrial districts occupied by Chinese factories and warehouses. The redevelopment of M50 infused artistic atmosphere and cultural diversity into the Moganshan area along the Wusong River, raising its property value and prompting the surrounding real estate development during its prime time. Despite its innovative reuse, M50 is now facing a series of problems. First, the site is at risk of compromising its artistic integrity to high-yielding commercial developments because of its low economic profits. On one hand, the lack of economic elements along Moganshan Road has slowed the customer flows, and so, in turn, has led to the increased vacancy of empty units inside M50 and limited the economic growth of M50. On the other hand, M50's singular creative industries impacted the way M50 stood out as a cutting edge art center, which is now filled mostly with art galleries instead of diversified art ventures. Secondly, the insanitary environment around M50 Creative Park is another major concern. The graffiti wall at the entrance of Moganshan road is covered with drawings and slogans in indecent words. The public toilet in the middle section of Moganshan road is insanitary condition, emitting foul odors. On the other hand, a part of adjacent traditional brick-layered historic Shikumen

houses beside M50 Creative Park have fallen into disrepair while a newly built residential community is opposite M50 Creative Park, forming a big contrast to the ruins of old buildings. Therefore, it is essential to build up a healthy environment around M50 Creative Park not only to attract more visitors but also to keep a balance between devastated historic architectures and modern high rises.

6.2 Design Process

6.2.1 Site Context



Figure 6.1: Existing Contexts around the Moganshan Area

Nestling in the arms of the Wusong River, the Moganshan area is surrounded by Changhua Road, Moganshan Road, and W. Suzhou Creek Road. The development of residences concentrated along the river indicates the advantages of the proximity of the

riverside to the highways and the subways on the eastern bank, making the Moganshan area one of the most expensive pieces of land in Shanghai. The advanced real estate development along the Wusong River prompted the construction of high-rises such as Brilliant City and Macau Xinyuan (see Fig. 6.1). In contrast, the adjacent Shikumen buildings are embedded among the fabric of the high-story residential buildings. In spite of the fact that the adjacent Shikumen buildings have fallen into insecure living space, the Shikumen buildings represent the cultural legacy of old Shanghai and are of historic value to preserve. On the other hand, a few green spaces are scattered among the residential communities, which hardly become common resources to share due to their limited coverage and uneven distribution. The vacant green space that lies behind M50 (see Fig. 6.1) has been unmanaged for quite a long time, and the open space at the entrance to Moganshan Road has become an unofficial parking lot.



Figure 6.2: The Graffiti Wall opposite the Yuexin Home Furnishings Store, a Public Toilet along Moganshan Road, and the About-to-torn-down Shikumen Buildings

Although M50 is located at one of the most popular areas in the urban center, the graffiti along Moganshan Road secludes the art community from outside disturbances. The rusty walls of the Yuexin home furnishing store, the unsanitary public toilets, and the worn-out structures of old residential houses (see Fig. 6.2) reflect the history of the

Moganshan area, which also indicates its imperative need to be retrofitted so that its vigor can be restored.

6.2.2 Feng shui Cures

As a language that directs us along a life course, Feng shui analyzes and harmonizes with the breath of energy of the earth and the cosmos—chi (Rossbach and Lin, 1998). Throughout history over the millennia, it has influenced countless people in different walks of life. Mastering the feng shui theory will not only help towards understanding the intricate forms and forces of Nature, but also towards showing respect to Nature. As one of the remnants left from the domestic light industry, the Moganshan area is of historic value both for its industrial history and for its worn-out structures such as the Shikumen buildings and the machines of the textile factory. It is imperative to apply feng shui theory not only to indicate respect to Chinese traditional cultural values, but also to explore new concepts that can be adapted to the planning and designing of modern landscapes and their environment.

The feng shui cures are the keys for solving encountered design problems. The cures operate on two complementary levels, which are sying and yi (see Fig. 6.3). Sying encompasses the tangible and external elements of our environment, while yi responds to the intangible and intuitive aspects of the environment (Rossbach and Lin, 1998). Sying cures deal with form and appearance through design, for instance, the shapes of the buildings and the layout of the house. Yi relates wish or intention with the spiritual world to adjust the response to the environment. Taken together, Sying and Yi work on physical and metaphysical levels to adjust the environment to enhance positive chi.

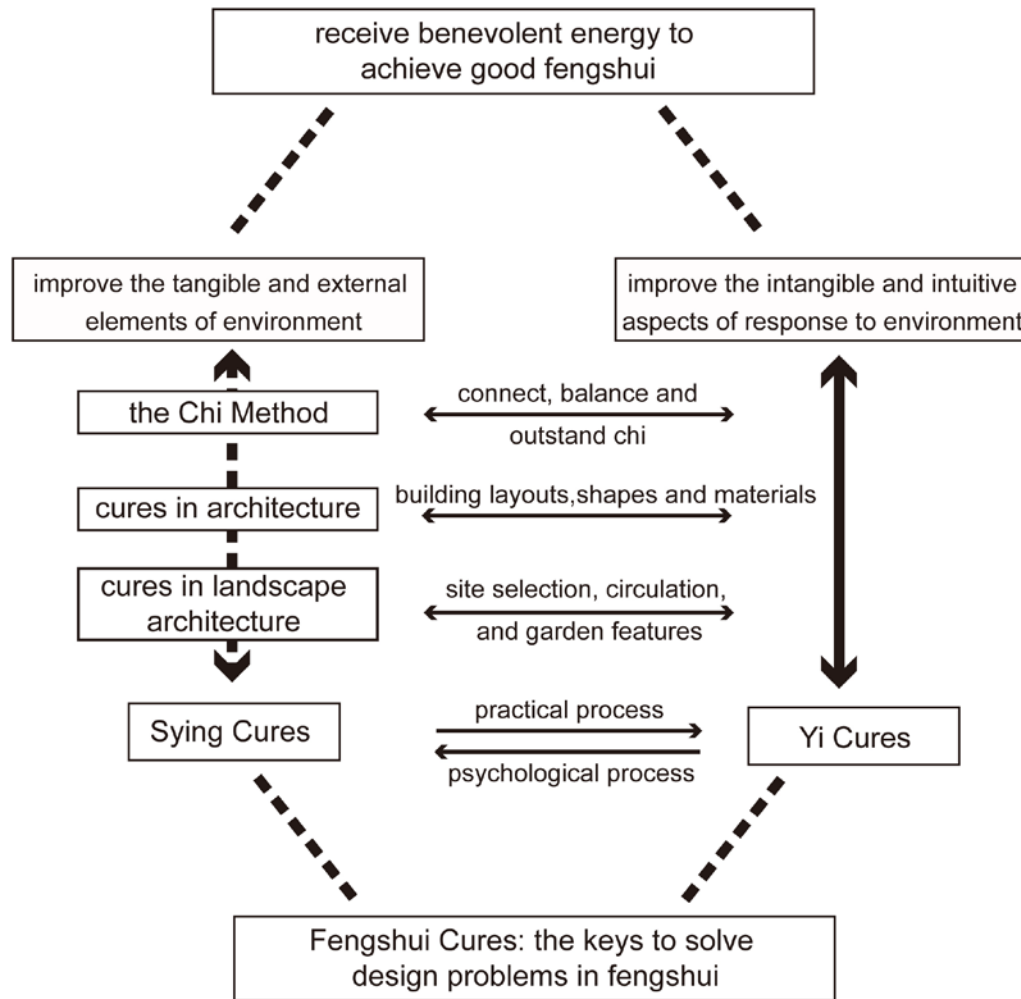


Figure 6.3: Diagram of Applied Feng Shui Cures

Syng cures can be applied in these situations: general cures that depend on the chi methods, cures in architecture, and cures in landscape architecture. Generally, the chi methods, which include connecting, balancing, and outstanding are employed to adjust chi in order to attract prosperity and well-being. More specifically, cures in architecture concentrate on using the three methods to adjust certain features of the building, and on the siting for the development of different ventures. Cures in landscape architecture contribute specifically towards improving the circulation systems and the site contexts by refining the road patterns and increasing the garden features. Through synergic action, the

syng cures are dedicated toward receiving benevolent energy in order to achieve good feng shui.

The Chi Method

Chi is a life force or cosmic energy. The most important concept in achieving good feng shui is chi. As mentioned, there are three ways to adjust chi in feng shui: the connecting chi method, the balancing chi method, and the outstanding chi method (Rossbach and Lin, 1998). The chi methods aim at removing negative chi or energy to improve the environment. Such negative chi includes the oppressive chi, the missing or blocked chi, and the rushing chi. The oppressive chi refers to the energy that is too low as to become an obstacle or a sharp point. The missing or blocked energy is the chi that stops circulating because of insufficient space or zigzagging pathways. The rushing chi refers to the energy that flows too fast to stay.

The connecting chi method attracts chi that lies too deep below the earth's surface, or too far from a building. Before retrofit, the chi at the entrance to M50 was oppressed because of the stairs in the middle of the major pathways (see Fig. 6.4). Besides, the lack of connections between the adjacent buildings led the roads to go directly to the entrance of the buildings, thus increasing oppressive chi. Applying exterior structures such as hallways, patios, and bridges would help bring about a transition between the different spaces as well as help transport chi continuously.

The balancing chi method adjusts an incomplete layout to create a harmonious environment. Before retrofit, the energy was blocked inside M50, due to its narrow space and zigzagging pathways (see Fig. 6.5). What is more, the central parking lot further slowed the chi's circulation. After retrofit, landscapes or structural additions to some

irregularly shaped buildings in the M50 Creative community balanced the space to better circulate the energy flow. The adjusted buildings of fitted shapes also brought it in harmony with other external elements.

The outstanding chi method helps improve and channel chi flow by placing the landscapes to catch the sight view in order to direct the chi flow. Before retrofit, the chi was running too fast to stay inside the community since there were no foci areas to receive the energy (see Fig. 6.6). After retrofit, the landscape placements such as sitting areas, a watchtower, and a food court were proposed along the major roads, especially around the corners, to protect chi from fading away.

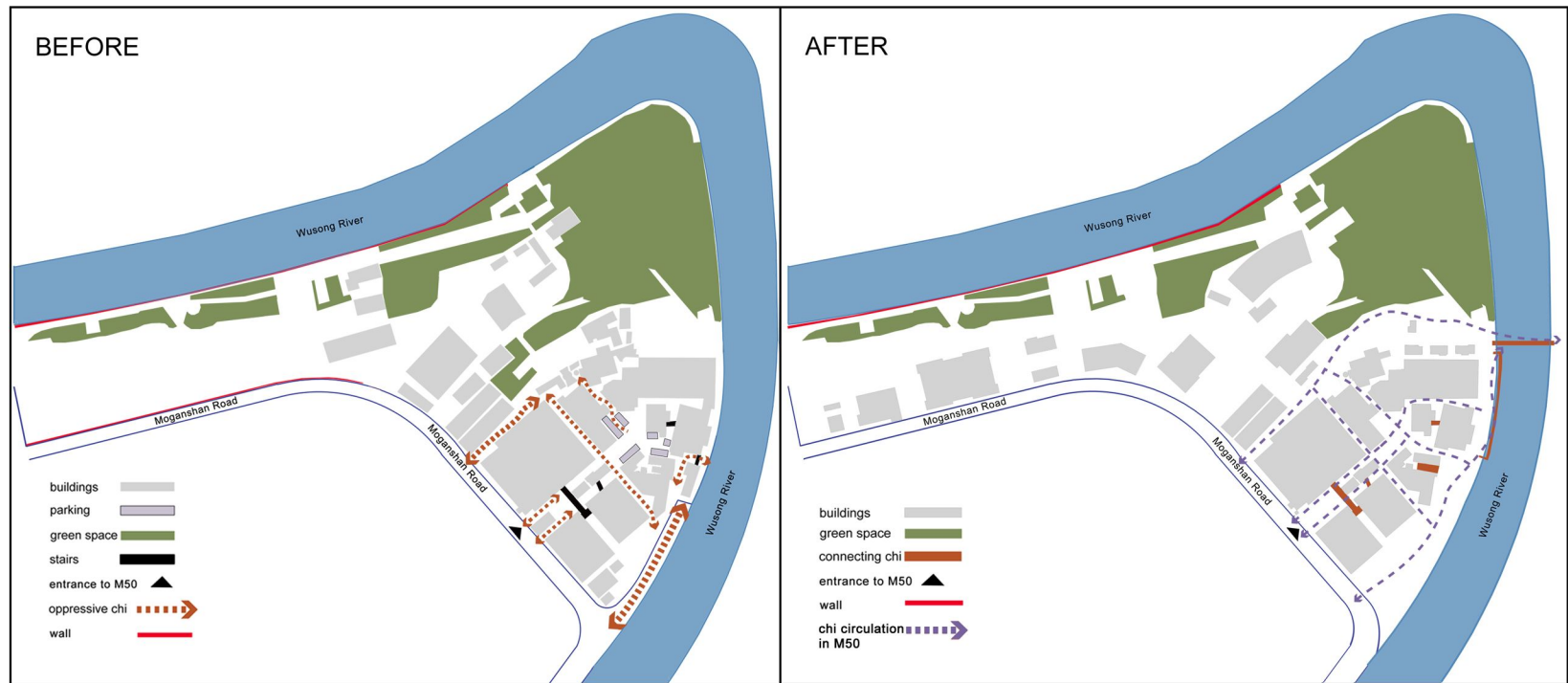


Figure 6.4: Analysis through the Connecting Chi Method



Figure 6.5: Analysis through the Balancing Chi Method

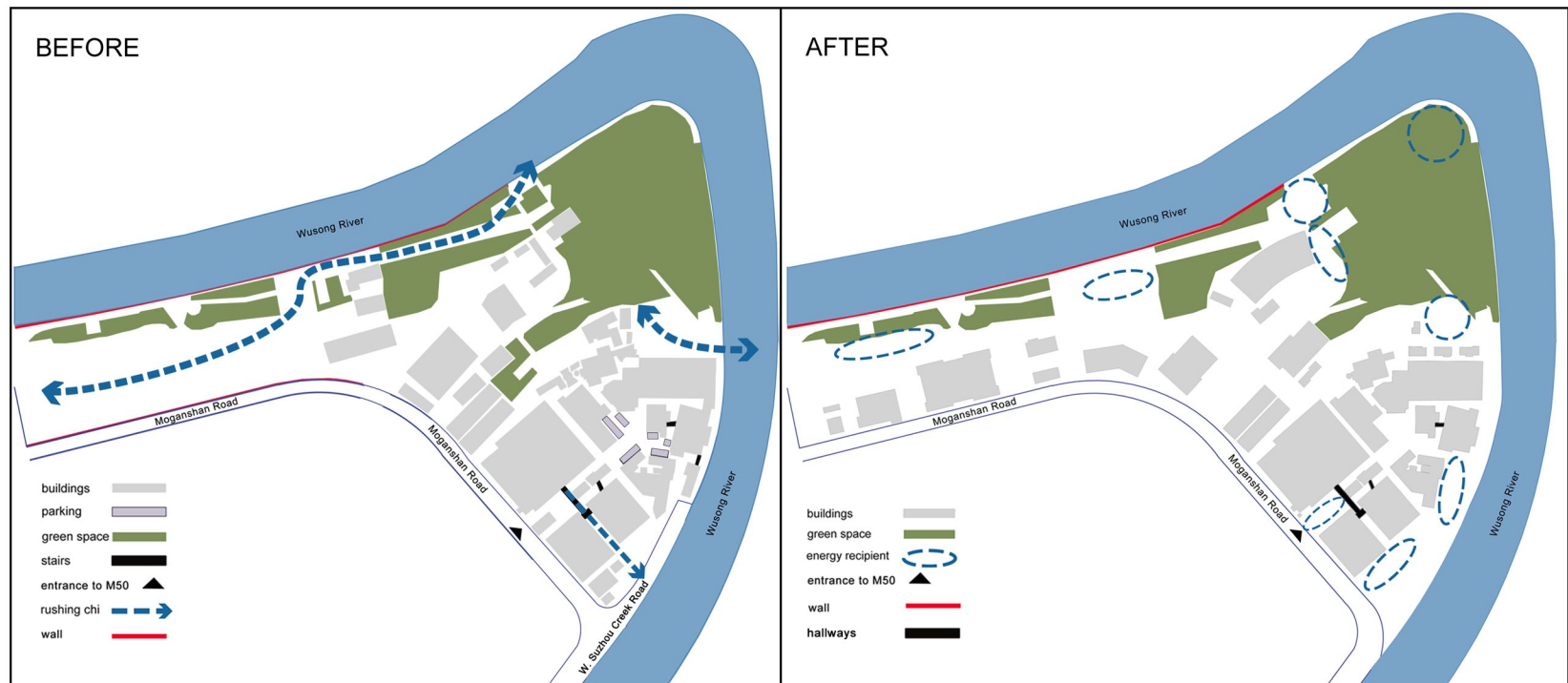


Figure 6.6: Analysis through the Outstanding Chi Method

Cures in Architecture

Sying cures in architecture in the developing plan of Moganshan Creative Park focus on the adjustment of buildings shapes, the rearrangement of building layouts, and the renovation of existing warehouses with selected materials.

- **Building Shapes**

The regular shapes such as squares, rectangles, and circles create positive feng shui because they bring about a sense of perfection and completeness. The shapes of the proposed and preserved buildings in Fig. 6.7 are rectangular and round to adjust the circulation route and to form a sense of completion, providing positive energy. However, for buildings of irregular shapes, the key for deciding whether or not the building has good feng shui is to see whether its parts were added or subtracted according to the proper proportion. In Figure 6.8, some of the irregularly shaped buildings were renovated to form a more organized space layout with a better circulation of chi flow. In Figure 6.9, the proposed shapes of the buildings are regular shapes with added areas, symbolizing auspicious energy in Feng shui. Based on the adding or subtracting rule, if the extra green area in Fig. 6.9 is less than half of the black area in length and width, and then it is added. Otherwise, it is considered as the main entity with the missing area adjacent to the green area, which represents an ominous portrait in Feng shui.

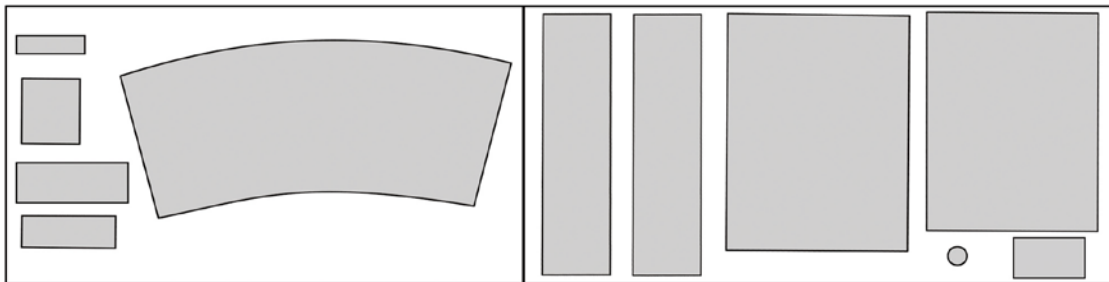


Figure 6.7: Proposed and Preserved Buildings of Regular Shapes

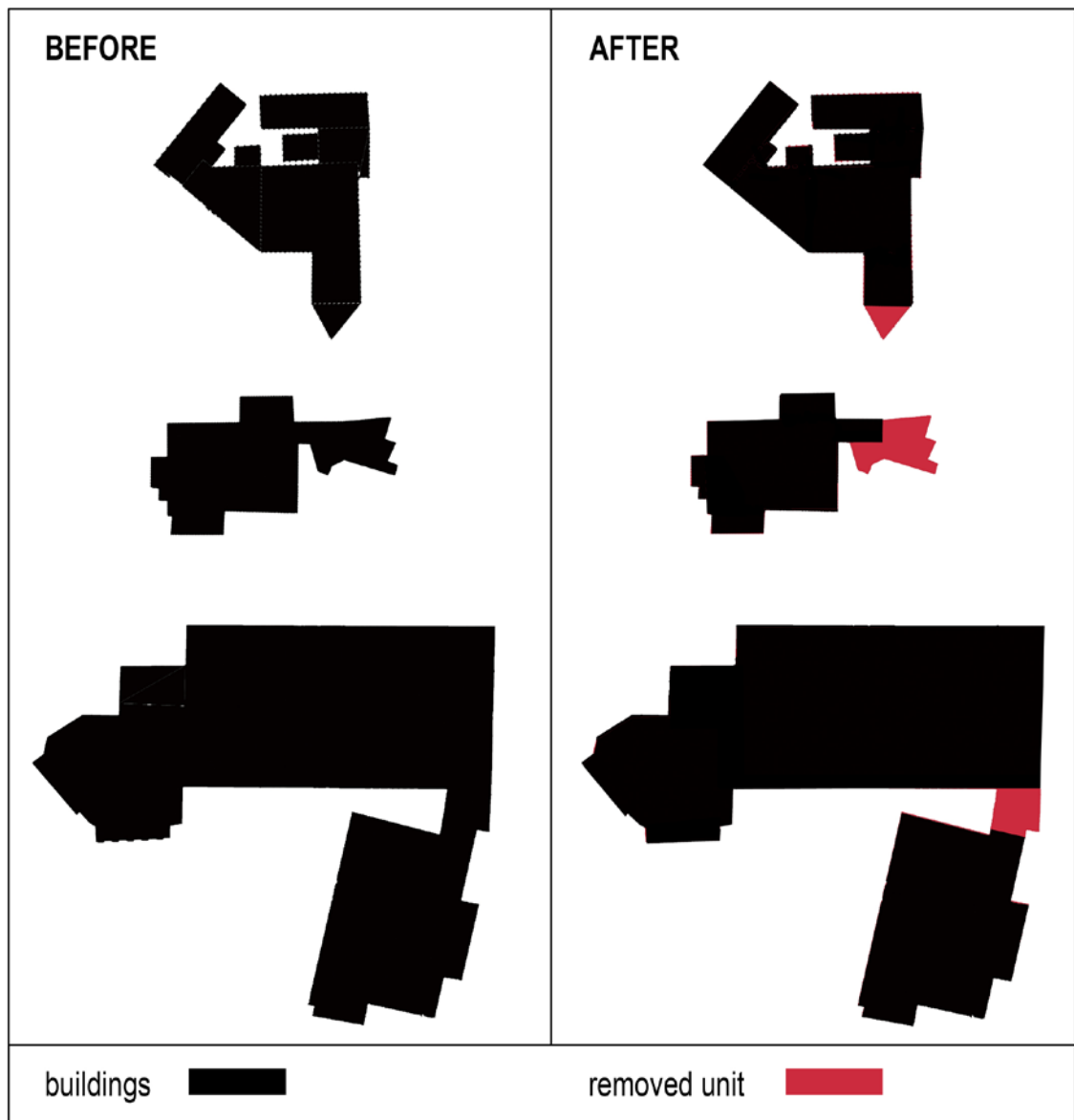


Figure 6.8: Renovated Buildings of Irregular Shapes



Figure 6.9: Proposed Buildings of Irregular Shapes

- Selection of Materials for Buildings

The ideal construction material in Feng shui is the one that allows positive chi energy from the environment to pass easily into the building. Besides, the structure should also be free of dampness, thus avoiding a heavy flow of chi energy. According to Chinese philosophy in feng shui, yin and yang produce all things, and everything is either characterized by yin or yang properties. The materials therefore will be classified on the basis of the yin-yang principles.

Yin Material

Soft materials, especially those with a depth of color or texture are considered yin (Vincent, 2006). As favored materials in building construction, timber and brick are yin materials that help slow chi energy and so are suitable materials for home furnishings. Timber is considered to be more active than other materials because wood originates from living plants, symbolizing energy for thriving. Compared to other building materials, timber has the following advantages:

1. Timber has low thermal conductivity and performs well in providing heat insulation.
2. Timber is relatively light in weight and short in building period.
3. Being a renewable resource, timber performs better than masonry, concrete, and steel structures in energy consumption, emission of greenhouse gases, and air pollution (Jiang, 2012).

Yang Material

Hard, reflective surfaces of materials are yang (Vincent, 2006). Yang materials speed up chi energy and are commonly used for commercial buildings. Yang material such as stone tends to be hard and dense. When they are used for walls, it is difficult for chi energy to pass through them. Steel and other metal objects also speed up chi flow, and therefore they are often used in stagnant areas such as restrooms. Marble is also considered yang material because it is smooth, hard, and polished. With natural patterns suggesting the flow of water, marble is commonly used in water features such as pools and fountains.

Sying Cures in Landscape Architecture

Cures in landscape architecture are applied to receive benevolent energy through considering the site selection, refining the road patterns, and considering the placement of garden-featured landscapes.

- Site Selection

According to the different function zones, the siting categories are divided into three kinds: business, education, and work (see Fig. 6.10). For a business place, the location would be the first consideration to affect the business dealings. A proposed commercial bank, a pharmacy, and a grocery store are located on a street corner, with the main access door on a diagonal to catch chi and business from all directions. As with the proposed employment agency, art museum, and community library, buildings are settled along the secondary vehicular route instead of the main traffic route, avoiding excessive visits from pedestrians and vehicles. With direct access to ground parking, the buildings along each side of the secondary vehicular path are easy to notice. The work zone is mainly concentrated in the M50 Creative Industry community. Being a pedestrian only community will decrease the traffic conflicts between vehicles and pedestrians, increasing customer flows through the walking paths.

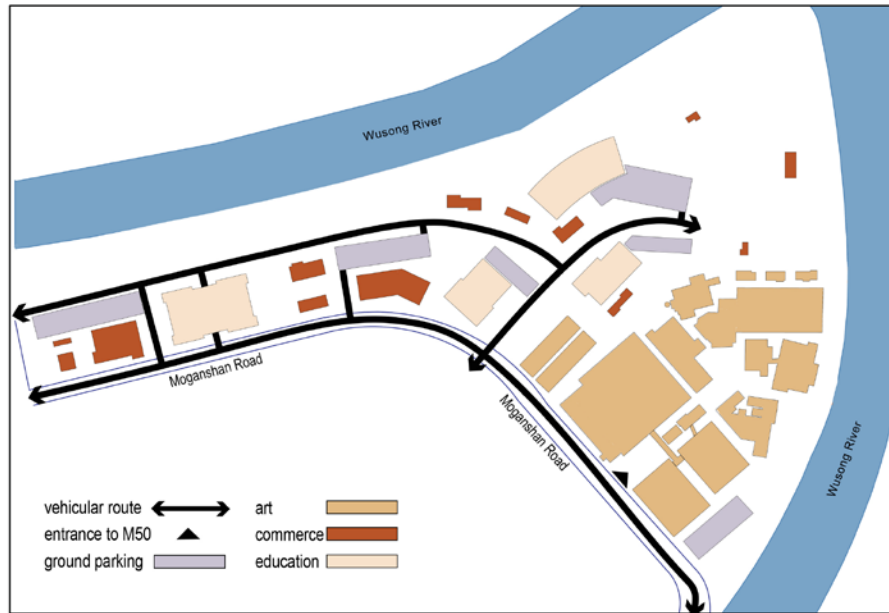


Figure 6.10: Sying Cures in Landscape Architecture—Site Selection

- Road Patterns

Roads impact the houses, the pedestrians, and the residents, and thus it is important to detect the road patterns before choosing a site. As with the road patterns after retrofit (see Fig. 6.11), most buildings are embraced by the arms of the roads to ensure a safe and smooth circulation, which receives benevolent energy. Locations at the dead-end or at the center of a T- or Y-junction, which might face disturbance of traffic and the headlights of approaching cars, have been avoided. In Figure 6.11, most road patterns carry benevolent energy as they provide a link between the buildings and the outside without exposing the buildings to an open and unprotected situation. Except for the restaurant and the café shop in the M50 Creative Industry community, most buildings within the community are kept in serenity and privacy, holding positive energy for the visitors and workers inside the community. In addition, steep roads, roads with fast-flowing traffic, and mazelike roads are avoided so that they do not carry destructive

energy. Road patterns form circulation systems. The proposed circulation system (see Fig. 6.12) is summarized as follows.

1. Create the vehicular circulation to provide drivers with direct accessibility to the business areas.
2. Build ground parking lots along the vehicular routes to ensure a safe environment for both pedestrians and drivers.
3. Present a pedestrian-only M50 Creative Industry community to avoid the traffic conflicts between vehicles and pedestrians, stabilizing the chi flow.
4. Establish elevated walking paths such as a bridge crossing the river, a wooden park bridge, and a riverfront deck that not only connects the Moganshan area to the east area, but also guarantees the enjoyment of landscapes in social space along the walking tours.

- Garden-featured Landscapes

The most popular garden features in feng shui are water and plants. A water feature creates good feng shui by establishing a sense of reflection, depth, and refreshing vitality in the space. Water features such as a fountain, a pool, and a pond are usually added at the center to become an inspiring and relaxing focal point.

Plants represent the most positive attributes of the growing wood, and they are auspicious in feng shui. Flowering plants are the most preferred, as they bring in freshness, wealth, and goodness. Cactus and other desert plants are avoided.

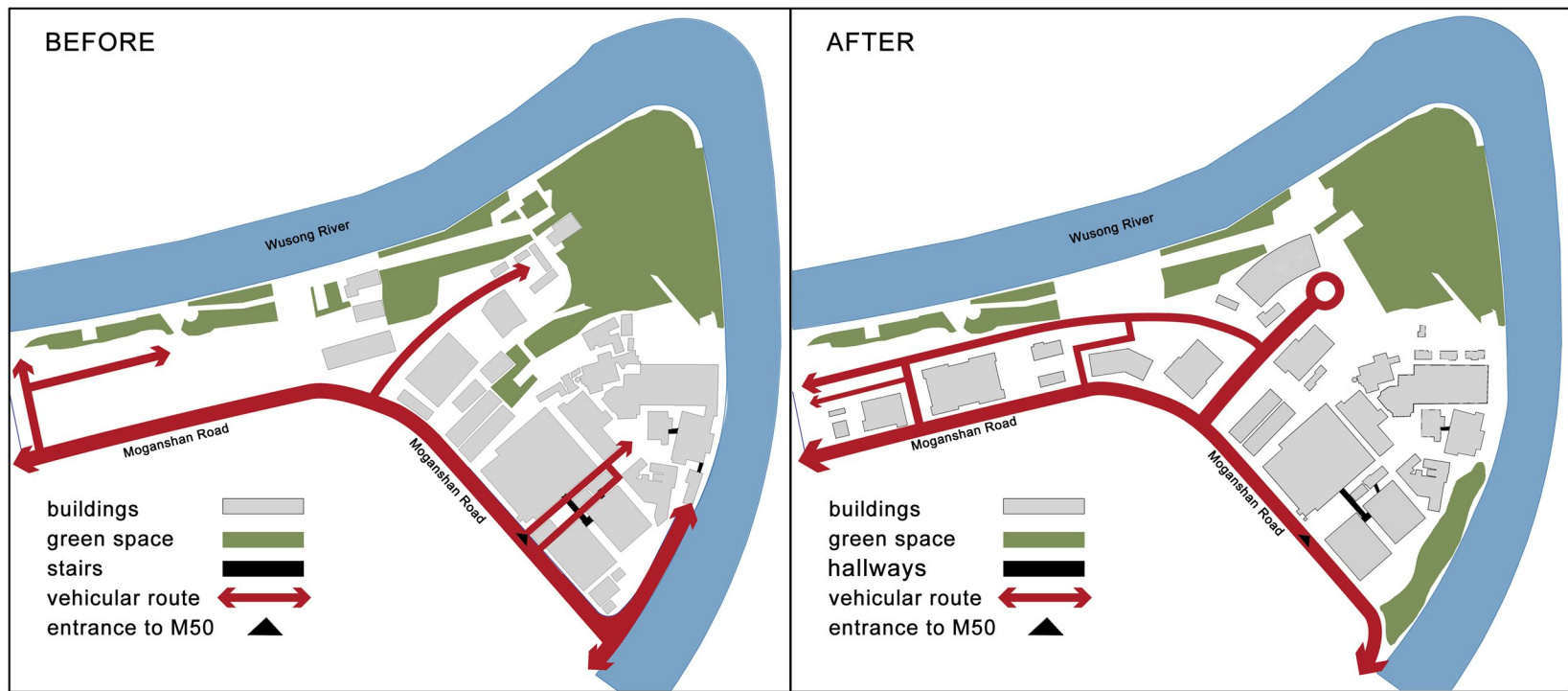
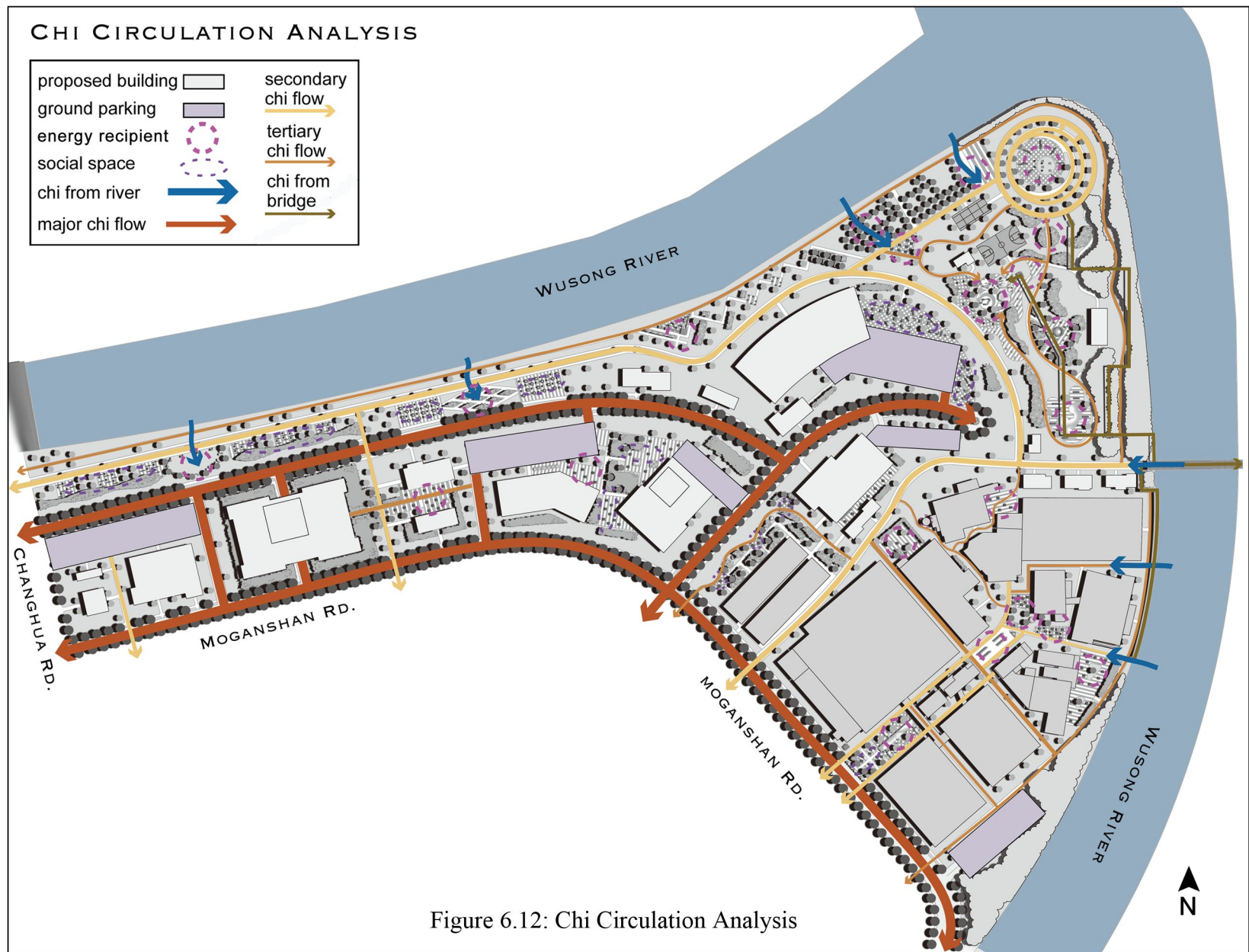


Figure 6.11: Road Patterns Before and After



6.2.3 Preliminary Design Guidelines



Figure 6.13: Preliminary Bubble Diagram

In the conceptual plan (see Fig. 6.13), the Moganshan area is envisioned as a mixed-used arts community that would incorporate commercial, educational, recreational, and art ventures. The four proposed programs were based on the problems plaguing the site. First, its limited economic productivity is one of the fundamental problems to overcome. The insufficient economic profits have impeded the development of M50, which has led to low customer flows and the frequent turnover of the M50's artists. According to the land use around Moganshan area, commercial businesses are concentrated on the eastern bank of the Wusong River. It is imperative to provide appropriate commercial programs for residents in the fabric of the residential high-rises, which will also help sustain M50 in the long term. Instead of overexposing M50 to commercial developments, providing daily services such as a bank, a grocery store, and a

pharmacy are proposed, all of which would be located in the intersection between Moganshan Road and Changhua Road.

Absences of educational and recreational activities are two other issues, which alienate visitors from participating in the creative industries inside M50. Therefore, a series of programs such as design expos and art classes are advocated to inform people of creative industries as well as to expand opportunities for professional communication at home and abroad. Besides, the adjacent Shikumen buildings have been preserved to provide visitors with a memorial site to pay tribute to the traditional architecture and the local culture. In addition, the riverfront recreational space has been created to serve as a pit stop for people's relaxation, which also forms green landscapes that would connect with the adjacent Mengqin Garden to enhance landscape management along Wusong River.

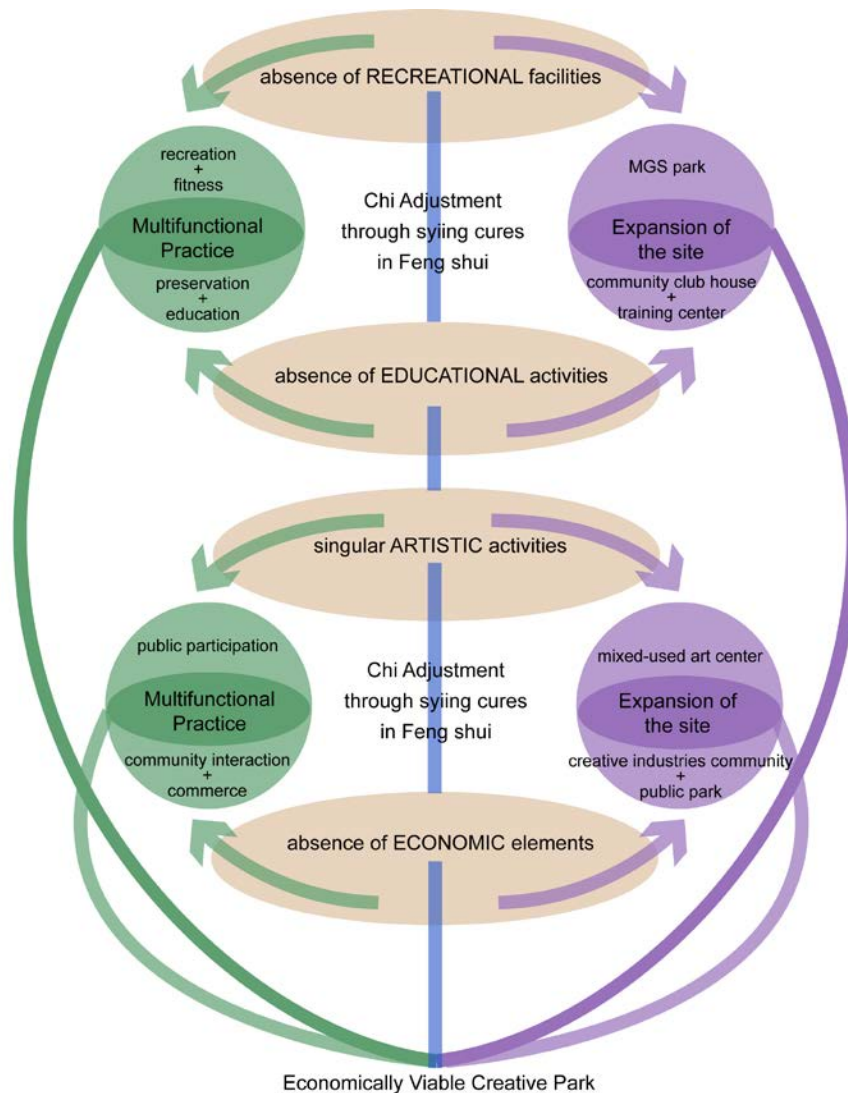


Figure 6.14: Design Diagram

The conceptual plan was further developed into a design diagram (see Fig. 6.14) to present as a guide for design application. Redevelopment of the site includes three steps.

Step 1: Expand the M50 site with an entrance to Moganshan Road, restore sanitary street views along Moganshan Road, and create inviting landscapes to attract more visitors.

Additional measures need to be made to expand these areas:

- Use the vacant open space at the entrance to Moganshan Road as commercial

space in order to provide convenient services for residents nearby as well as to generate economic growth.

- Preserve two historic Shikumen buildings and renovate them to become a memorial site for education and community recreation.
- Build a riverfront park by taking advantage of the existing green space behind M50, and create the greenbelt along the Wusong River to connect the adjacent green space.

Step 2: Improve the existing “M50 Creative Park” in its circulation systems and landscapes inside the community, particularly by enhancing the positive chi flow to increase customer flows and the occupancy of the units.

The specific proposed improvements reflect the application of sying cures in Feng shui:

- Employ the Chi Methods to remove the oppressing chi, the rushing chi, and the blocked energy.
- Apply cures in the architecture to adjust the shapes of the buildings for a sense of completion and to select materials for the construction and the preservation of the buildings.
- Apply cures in the landscape architecture to rearrange the road patterns for the circulation systems, to outstand geographical advantage through man-made landscapes and to improve the environment through the placement of garden-featured landscapes.

Step 3: Explore a mixed-used community with attempts to plan a series of programs for public participation in artistic, recreational, and cultural activities.

Such multifunctional practices consists of accomplishing these tasks:

- Increase the recreational facilities inside M50 community to provide visitors with relaxation.
- Hold periodic design expos and training classes inside M50, providing people with opportunities to cultivate their art appreciation and strengthening the bond between M50 and the nearby residential neighborhoods.
- Transform the Shikumen buildings into a memorial site for educational and artistic purposes.

In conclusion, three approaches including the application of Sying cures in Feng shui, attempts of multifunctional practice, and the expansion of the site are proposed to achieve an economically viable creative park around the Moganshan area.

6.2.4 Master Plan (see Fig.6.16)

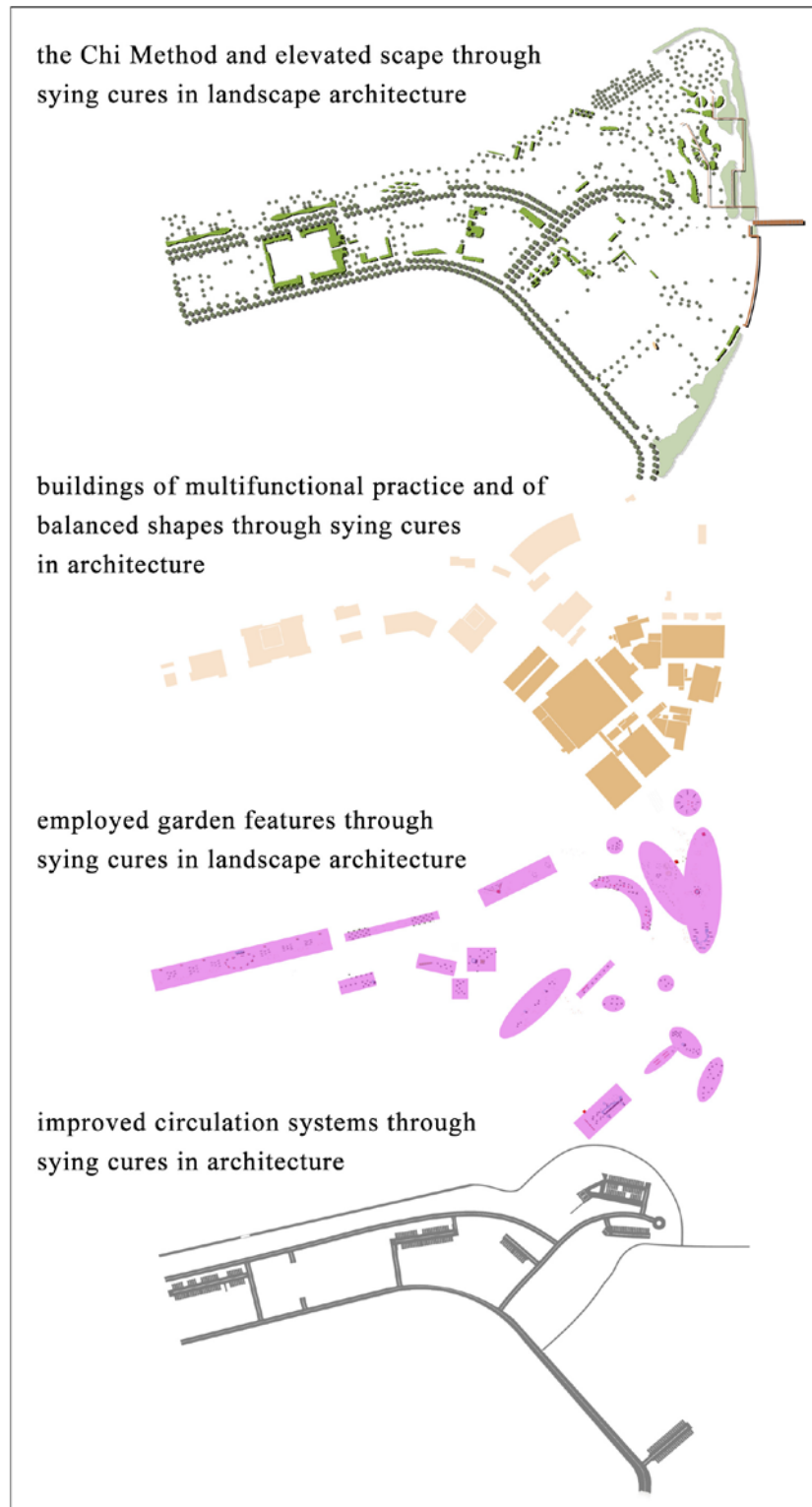


Figure 6.15: A Layer-by-layer Illustrative Design Process

In order to clearly demonstrate the approaches in the design diagram, a layer-by-layer illustrative design process unfolds (see Fig. 6.15). The top layer represents trees and constructed elevated landscape through sying cures in feng shui, which include the Chi Methods and the cures in landscape architecture. The following layer contains buildings with attempts to use multifunctional practices and to add balanced shapes through sying cures in feng shui. The last two layers indicate landscape placement and circulation systems, which were defined and refined through sying cures in landscape architecture.



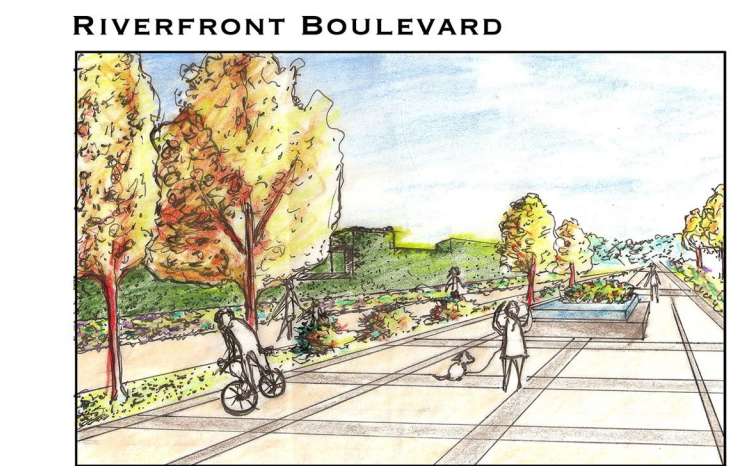
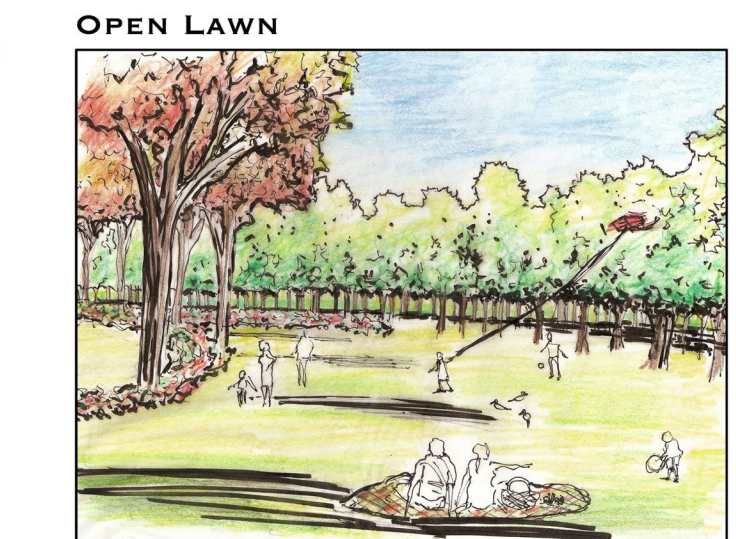
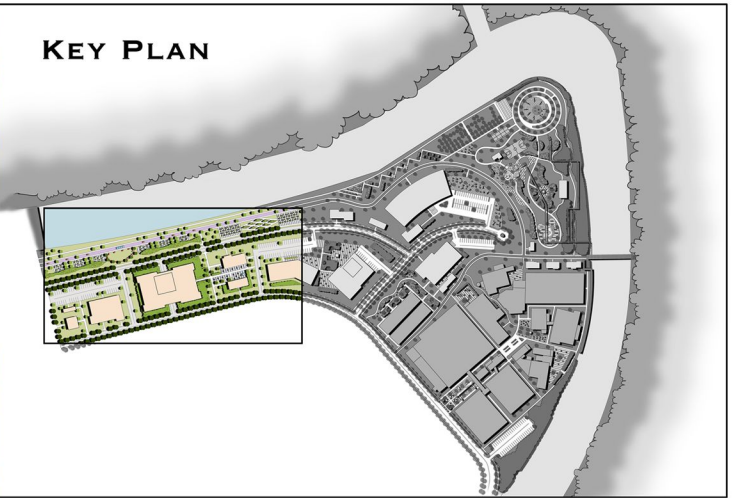
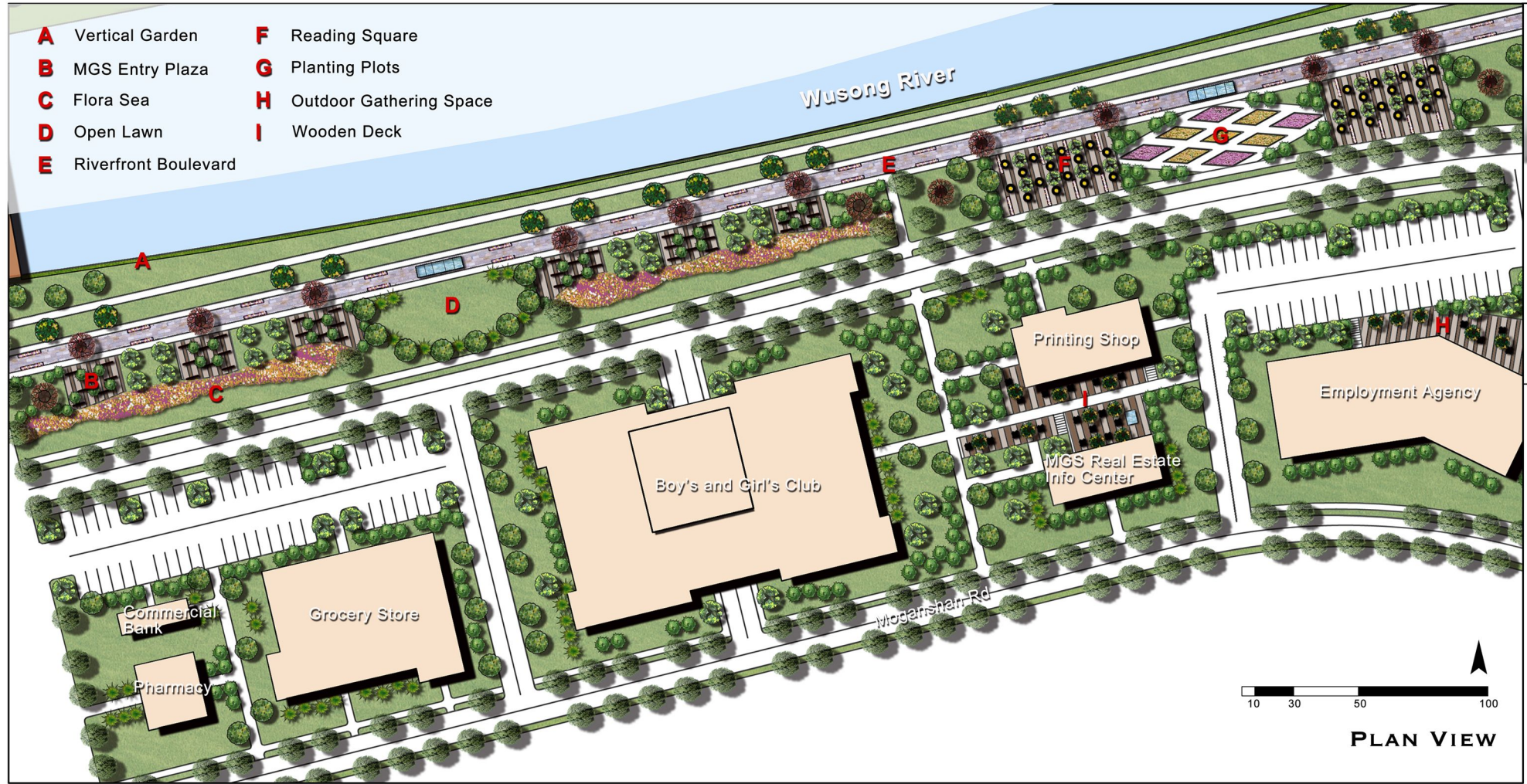
6.2.5 Plan Details and Enlargements

Three enlargement plans in 50-scale illustrate the design application in a clear way. Enlargement 1 shows the plan of the riverfront entry plaza and the business zone at the entrance to the Moganshan Road (see Fig. 6.17). The riverfront entry plaza along with the vertical garden has been created as foci areas that catch energy from too quickly flowing away. The business areas incorporate cures in architecture to define well-shaped buildings, suitable siting contexts for business development. The proposed art museum, community library, and continuing education institute provide diverse educational activities for different age groups. In addition, the boy's and girl's club creates academic lessons and recreational activities for children after school. Besides, the Shanghai railway station to the east of the Wusong River receives hundreds of tourists coming outside, many of whom are seeking to settle down to live and work. The employment agency offers them job consulting and recruitment fairs and seminars, which particularly cater to the job seekers' needs. The real estate information center is responsible for renting houses and purchasing homes in the Moganshan area.

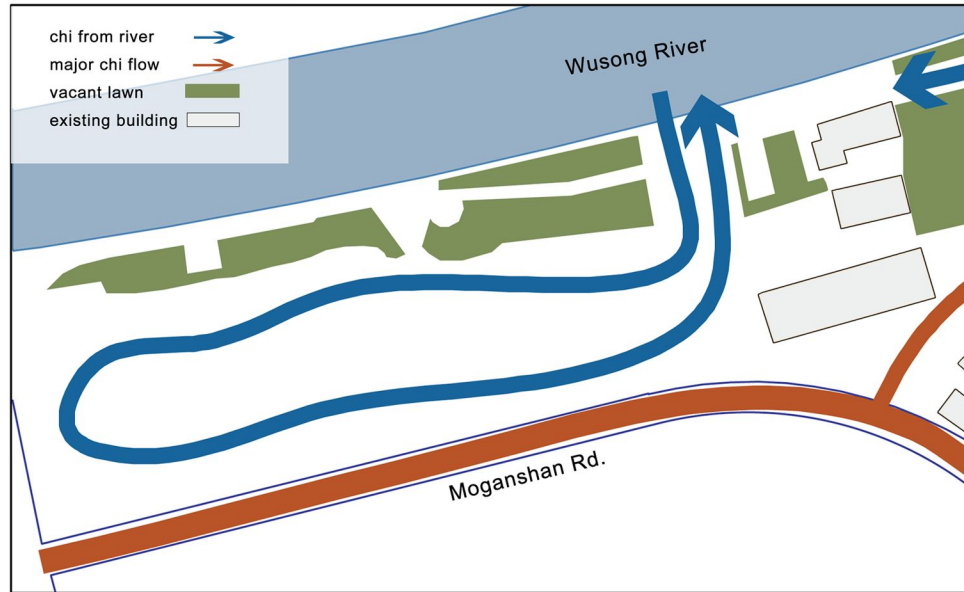
Enlargement 2 shows the plan of the riverfront Moganshan park. To stabilize chi circulation around Moganshan Park, an elevated wooden bridge is proposed in order to create an altitude difference that will slow the movement of chi (see Fig. 6.18). Besides, several gathering spaces are proposed in order to receive the benevolent energy that comes from different circulation systems. The Moganshan (MGS) Park would incorporate artificial landscapes into the existing green space. Apart from the buffer from the river and the tree matrix, most of the winding roads have been kept to present a naturalistic form of landscape. The grand fountain plaza around the corner serves as an

ideal place for people to relax and enjoy recreation. The tennis court, the basketball court, and Tai chi plaza are proposed particularly as places for the residents nearby to exercise. The playground that features skate ground, climbing ground, and some sliding sets would be constructed for children in different age groups. The experimental planting fields under the management of conservancy supply plants to beautify the landscapes inside the park and in the rooftop gardens.

Enlargement 3 (see Fig. 6.19) shows the plan of the M50 Creative Industry community. The circulation system inside M50 is improved through cures in landscapes. The road patterns are redesigned to fit the shapes of the buildings and to avoid sharp energy from vehicular circulation. The pedestrian-only pass addresses the traffic conflicts between vehicles and pedestrians. The placement of patios provides sitting and dining areas for the visitors and the workers inside the community. By removing the buildings at the entrance, a sitting area is proposed along with the sculpture fountain, creating a place for social gatherings and community activities. The sculpture fountain would be constructed with some existing industrial parts to pay tribute to the history of the site as well as creating an inviting scenic spot. The proposed advertisement screens in front of the outdoor dining area would enable people to keep up with artistic events in M50. In addition, the riverfront deck would be furnished with tiered lawn seating for people to relax and enjoy the good view from the river.



CHI CIRCULATION BEFORE



CHI CIRCULATION AFTER

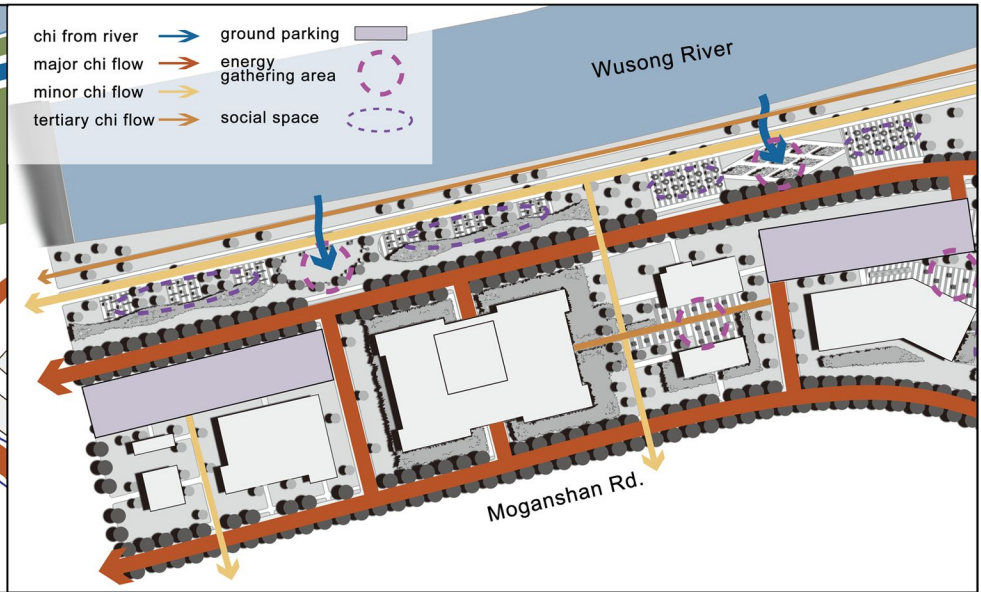
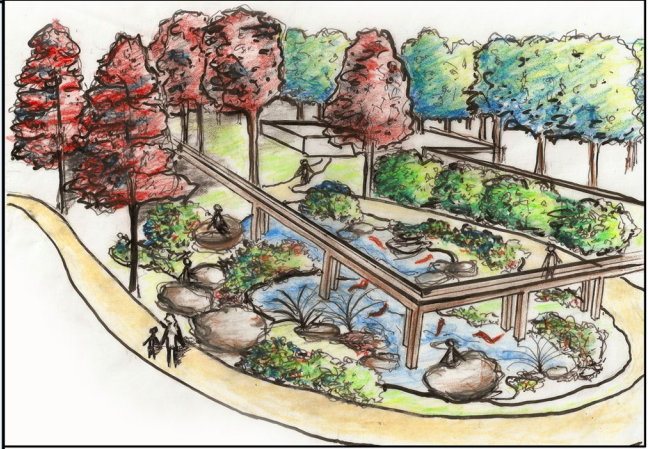


Figure 6.17: Enlargement Plan 1--Entrance to Moganshan Rd.

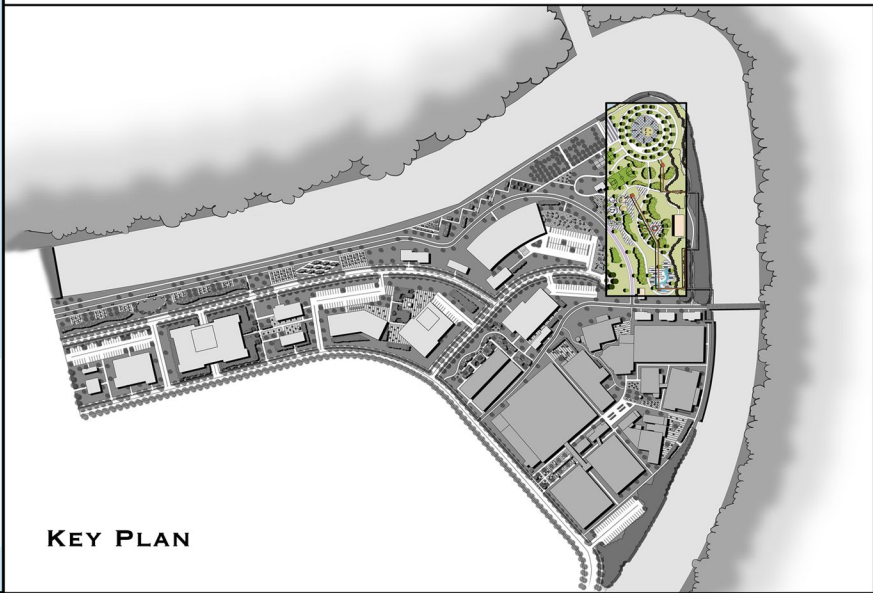
PLAN VIEW



FISH POND



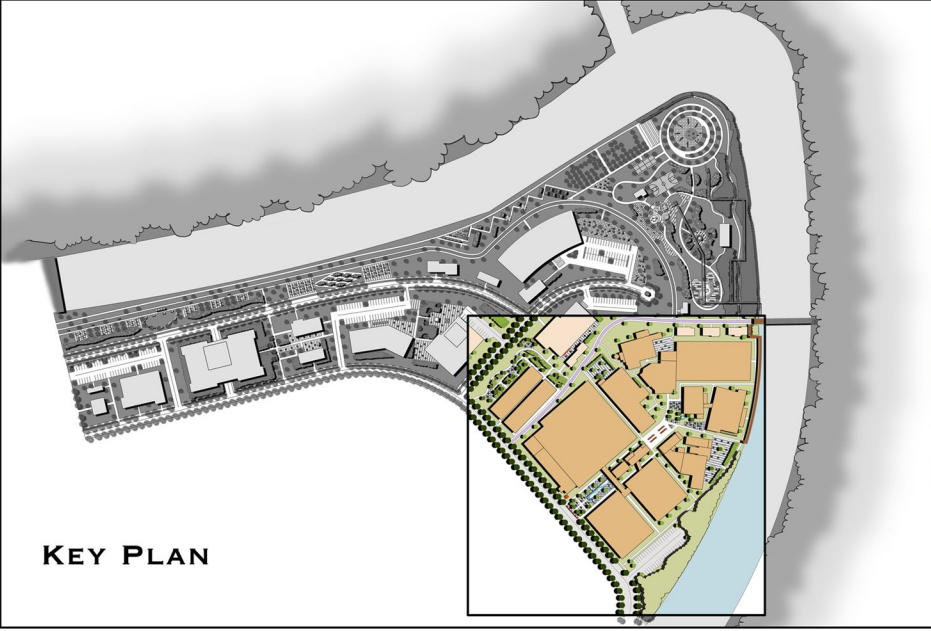
CHI CIRCULATION AROUND PARK



EXPERIMENTAL PLANTING FIELDS



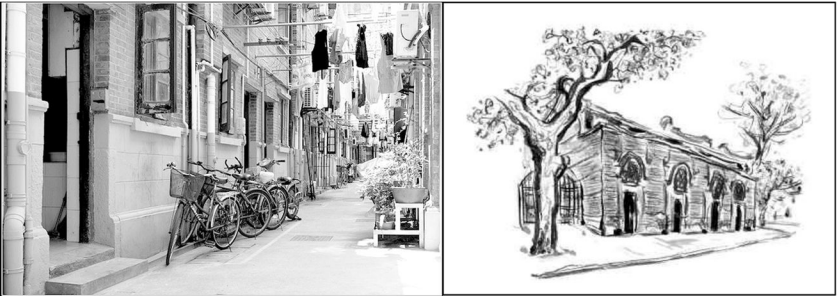
Figure 6.18: Enlargement Plan 2--MGS Park



CHI CIRCULATION IN M50



PRESERVED SHIKUMEN HOUSE



M50 SCULPTURE PLAZA

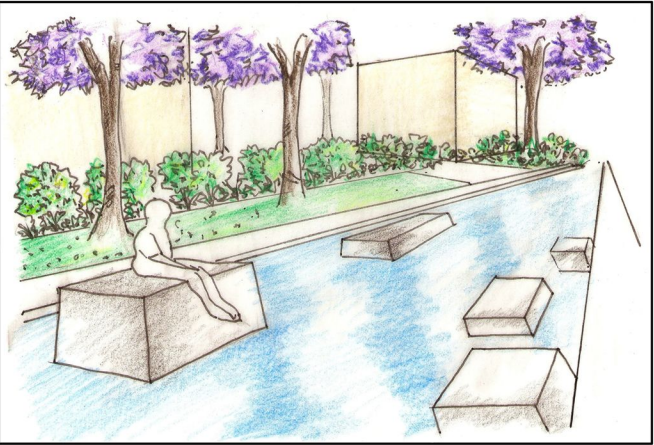


Figure 6.19: Enlargement Plan 3--M50 Creative Community

6.2.6 Planting Illustration

The planting illustration (see Fig. 6.20) is divided into several groups: large street trees in Moganshan road, small street trees along vehicular pathways inside the community, canopy trees at the riverfront boulevard, canopy trees at M50 boardwalk, canopy trees at riverfront plaza, canopy trees at the parking lot, existing trees to remain, proposed trees to match existing trees, river buffer, flower shrubs, and shrubs at water's edge. Besides, the rooftop gardens are proposed on the top balcony of the boys' and girls' club, the art museum, and the employment agency, presenting appreciation of green landscapes for the residents who live in the opposite high-rise residence. In addition, the ground cover is used as the plants for the vertical garden along the riverfront next to the boulevard. Below is a suggested plant list.

Trees:

China Fir	<i>Cunninghamia lanceolata</i>
Lacebark Pine	<i>Pinus bungeana</i>
Chinese Juniper	<i>Juniperus chinensis</i>
Japanese Yew	<i>Taxus cuspidata</i>
Dawn Redwood	<i>Metasequoia glyptostroboides</i>
Golden Larch	<i>Pseudotsuga amabilis</i>
Japanese Blue Oak	<i>Cyclobalanopsis glauca</i>
Southern Magnolia	<i>Magnolia grandiflora</i>
Fragrant Olive	<i>Osmanthus fragrans</i>
Chinese banyan	<i>Ficus microcarpa</i>
Camphor Tree	<i>Cinnamomum camphora</i>
Chinese Parasol Tree	<i>Firmiana simplex</i>
Ginkgo	<i>Ginkgo biloba</i>

Shrubs:

Chinese Holly	<i>Ilex cornuta</i>
Camellia	<i>Camellia japonica</i>
Banana Shrub	<i>Michelia figo</i>

Spanish Dagger	<i>Yucca gloriosa</i>
Gardenia	<i>Gardenia jasminoides</i>
Chinese Hawthorn	<i>Crataegus pinnatifida</i>
Korean Boxwood	<i>Buxus sinica</i>
Crape myrtle	<i>Lagerstroemia indica</i>
Early Lilac	<i>Syringa oblata</i>
Azalea	<i>Rhododendron simsii</i>
Japanese Maple	<i>Acer palmatum</i>
Chinese Apple	<i>Malus prunifolia</i>

Riparian Vegetation:

Purple Loosestrife	<i>Lythrum salicaria</i>
European White Waterlily	<i>Nymphaea alba</i>
Sacred Lotus	<i>Nelumbo nucifera</i>
Giant Bulrush	<i>Scirpus validus</i>
Water Hyacinth	<i>Eichhornia crassipes</i>

Ground Covers for Riverfront Vertical Garden:

Broadleaf Carpet Grass	<i>Axonopus compressus</i>
<i>Lysimachia</i>	<i>Glechoma longituba</i>
Creeping Bentgrass	<i>Agrostis stolonifera</i>
Bermuda Grass	<i>Cynodon dactylon</i>
Zoysia Grass	<i>Zoysia japonica</i>
Buffalo Grass	<i>Buchloe dactyloides</i>
Silvery Sedge	<i>Carex canescens</i>
White Clover	<i>Trifolium repens</i>

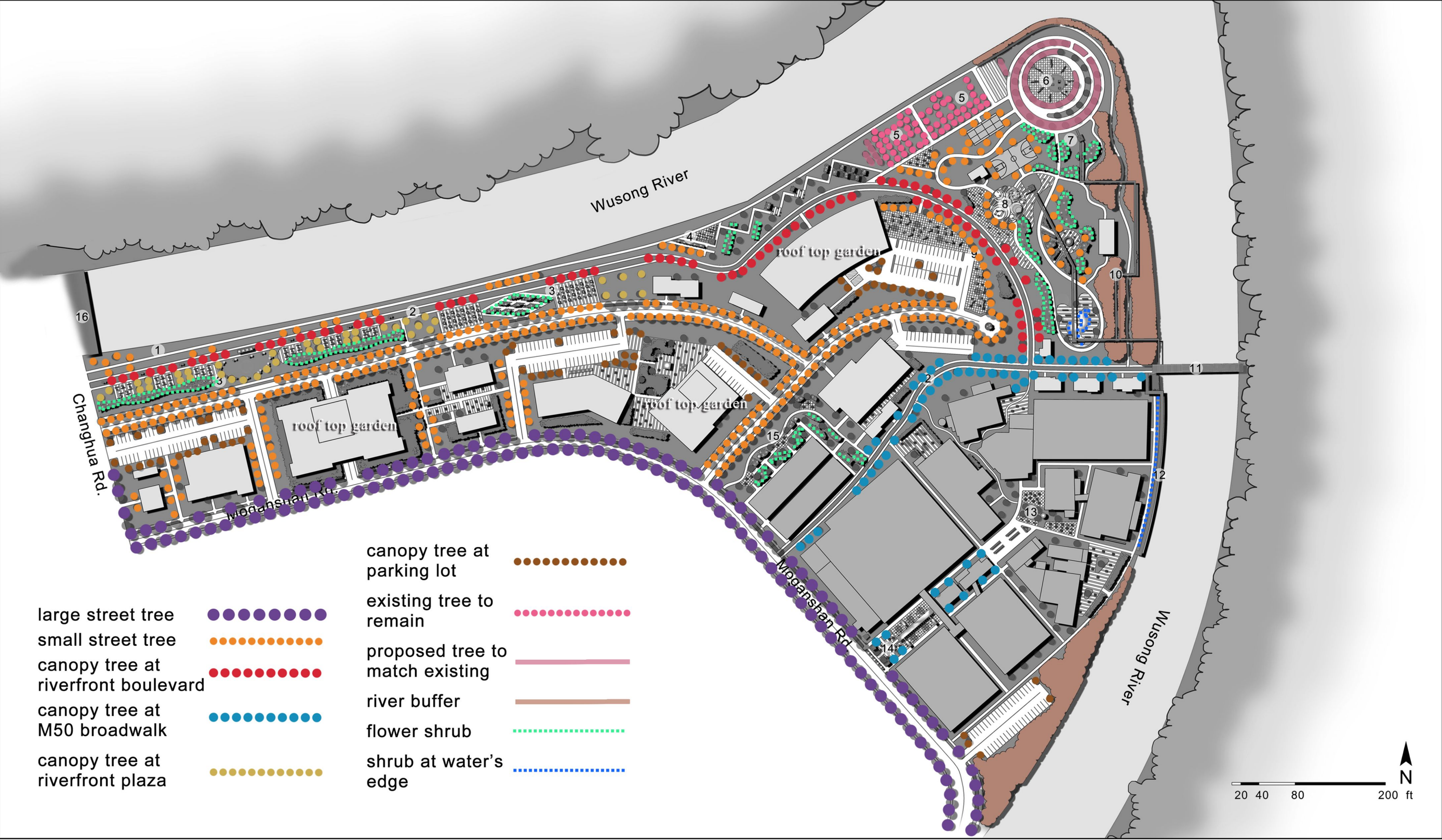


Figure 6.20: Planting Plan

6.2.7 Sections

Two sections are generated to illustrate the profile of the landscape along the Wusong River (see Fig. 6.21). Section A-A' shows the section cutting through the community boulevard, the fishpond, the wooden park bridge, the wood patio, and the raised planter. Section B-B' shows the section cutting through the riverfront buffer, the pedestrian path, the planted lawn, the outdoor dining area, and the lawn.

6.3 Summary

According to the analysis and the on-site investigation, M50's current problematic situation stems from economic, artistic, educational, and recreational difficulties. Based on Feng shui cures and multifunctional practices, the design application aims at expanding the site into an economically viable creative park. The Sying cure including the Chi Method and cures in architecture and in landscape architecture is utilized to adjust Chi flow in the site. In doing so, the chi's movement is stable enough to receive benevolent energy from the outside community, which creates a harmonious environment around the site.

Multifunctional practice is proposed in four ways. The Moganshan Park is introduced to provide recreational activities with the tourists as well as the residents nearby. Apart from the park, incorporating some educational programs, such as a community clubhouse, and art training classes can also enable nearby residents to gain more access to the community of creative industries, which would bring about more opportunities for interaction and communication between members of the residential neighborhood and the art community. In doing so, the art community is also infused with

a freshness to keep up with the development of contemporary art. The public participation and community interaction would break the singular pattern of M50's artistic activities, which also could also improve the stagnant economic profits of M50.

In addition, the expansion of M50 into a mixed-used creative park would help establish it as a landmark around the Moganshan area, which would also exert great influence on the development of the landscape along Suzhou Creek.

CHAPTER 7

CONCLUSION

7.1 Purpose of the Site Design

The research questions that this thesis seeks to address are: a) what will be the possible approach to stimulate M50's economic profits in the retrofit while maintaining its current use as an urban art space; b) how to improve the environment around M50's community; c) Among the retrofit prototype from industrial site, of which does M50 fit into? Therefore the site design responds to the questions above by achieving the objectives as follows.

1. To develop an approach to retrofit the creative park for its sustainable economic development while avoiding over-exposure to commerce;
2. To integrate Feng shui theory to design the site for creation of a harmonious environment;
3. To cultivate a mixed-use community for creative industries to establish a prototype for the redevelopment of regional creative parks.

Each objective is established through analysis, on-site investigation, case studies, and design application. They are individually addressed below.

Objective 1: To develop an approach to retrofit the creative park for its sustainable economic development while avoiding over-exposure to commerce;

Despite the cultural diversity and artistic atmosphere for its innovative reuse as a cutting-edge contemporary art space, M50 Creative Park (abbreviated as M50) is facing a series of problems. Among all the problems plagued in M50, there are two main issues. The M50's economic results are constricted to limited profitable activities, including unit rental fees, parking fees, and income of few retail stores. The uninviting landscapes inside M50 and singular art ventures lead to low customer flows, affecting M50's economic growth and the real estate development around Moganshan area. Based on the main issues above, the solutions are addressed accordingly as follows.

- a) To propose a pedestrian bridge between M50 and the east area to Wusong River.
- b) To provide some daily services such as grocery store, pharmacy, and a commercial bank along Moganshan road.
- c) To retrofit the site by creating several sitting areas and placement of some garden-featured landscapes.

Contributions: On one hand, the business opportunities in Moganshan road are broadened by opening the site to welcome large numbers of people from the populated eastern area to Wusong river, avoiding over-exposure to commercial development. On the other hand, the environment inside the M50 community is improved by attracting more people to increase customer flows and occupancy of units as well as to enhance the real estate development nearby.

Objective 2: To integrate Feng shui theory to design the site for creation of a harmonious environment;

The feng shui cures are the keys to solving encountered design problems. Compared to yi cure—the intangible and intuitive aspects of environment, sying cures deals with form and appearance through design. The thesis design focuses on sying cures to explore solutions that addressed the main issues in the site and there are three main issues related to feng shui. First, oppressive and rushing chi has arisen from narrow and zigzagging space created by architectures with sharp angles, the lack of connection between adjacent buildings, and absence of focal points. Secondly, the circulation system that is far from an orderly arrangement creates traffic conflicts and unnecessary detours in W. Suzhou Creek road, leading to blocked energy in the site. Thirdly, the site's streetscape is in need of improvement, including the scrawled graffiti wall along Moganshan road, the vacant space at the street corner that serves as a temporary parking lot, the public toilet in unsanitary condition, and the absence of river buffers. According to the main issues aforementioned, the solutions are suggested in summary.

- a) To employ the Chi Methods identified as the connecting chi method, the balancing chi method, and the outstanding chi method by adjusting the space layout and arrangement of buildings in the site.
- b) To implement sying cures in architecture through refining the building shapes and materials selection for retrofit.
- c) To apply sying cures in landscape architecture by reorganizing road patterns, improving the site through geographical advantage analysis, and creating garden-featured landscapes.

Contributions: The ominous energy is removed not only to create a sense of completion, but also to bring transition between different spaces as well as transporting

chi continuously. Meanwhile, the landscapes are proposed to bring out geographical advantages to shape a protective feng shui screen around M50 for auspicious chi and to catch the sight view to stabilize the chi flow.

Objective 3: To cultivate a mixed-used community for creative industries to establish a prototype for the redevelopment of creative parks in Shanghai.

Having reached a nationwide explosive development, creative industries stimulated sharp increases in creative parks, which are concentrated on coastal cities such as Shanghai. The main issues have arisen in the process of redevelopment. The first issue is whether to remove or to preserve the industrial buildings because years of technological innovation and market changes have rendered the industrial buildings obsolete for their original use. The next issue would be the unpredictable economic benefits, which comes along with the uncertain cost of construction and maintenance. It is difficult to determine the pattern of the redevelopment, not to mention how to maintain sustainability. Through research on creative industries and case studies of industrial sites, design principles are summarized to apply in the design application and they are briefly introduced below.

- a) Reconstruct the partial industrial warehouses inside the M50 and preserve some of the building structure and materials at the same times.
- b) Through case studies on the three prototypes of redeveloped industrial sites, attempts of multifunctional practice with regard to economic, artistic, educational and recreational activities is proposed to transform the site into a mixed-used community.

Contributions: The reuse of building structures and materials will retain historic value of the industrial legacy, and play an educational role in establishment of cultural identity at the same time. In addition, retrofitting the site into a mixed-used community will break the mode of a conventional creative park and serve as a new prototype in Shanghai, which not only brings out diversified interdisciplinary activities for the public participation but also helps to sustain it in the future.

7.2 Implications for Future Research

Through Feng shui theory and multifunctional attempts, creative industries are provided with a healthy community to expand and to thrill for the increase of public participation. Such increased public participation might lead to awakened responsibility and intentions to care for historic values of the industrial site and would potentially result in behavior changes that could be beneficial for preservation of historical buildings in the urban development. This thesis also intends to explore a balance between economic development and artistic cultivation during the site's retrofit, which might arouse increased awareness of artistic values of creative industries as well as slow down the pace of blind economic pursuit.

7.3 Limitations

The thesis is dedicated to redeveloping the site into a mixed-use art community through feng shui cures. The design application is proposed to address the major problems plaguing the site, which might leave some details to refine. The design limitations are discussed hereby to improve the analysis for future consideration.

Political Aspects

The site embedded in the urban center is under management with different jurisdictions. Therefore, the application of the site design is dependent on the joint coordinated efforts from all related parties, which include the neighborhood's committee, the district, and regional planning departments. The research on the site was conducted with focus on the targeted groups who work in the M50 and live nearby, and feedback from planning departments was not provided.

Economics and Time Constraints

The thesis is designed to build a diverse community of creative industry and the development involves complex processes related to its unique properties. The risk of investment in creative industry rises along with a series of problems. The problems include imbalanced development between economic and cultural enterprises, lack of brand establishment, inadequate training for professional creative workforce, absence of industry alliance, and the need of public participation, all of which are constricted to time and economic results. The economic results in the proposed Moganshan Creative Park are hard to be predicted due to shortage of sufficient data about creative products, and the time and cost about construction of the park. The site design is dependent on the active participation of the public. However, active participation is not easily engendered and it requires time and resources, which are not in the scope of this thesis.

BIBLIOGRAPHY

Berens, C. (2010). Redeveloping Industrial Sites: A Guide for Architects, Planners, and Developers. Hoboken: John Wiley & Sons.

Caves, E. R. (2002). Creative Industries: Contracts between Art and Commerce. Cambridge: Harvard University Press.

Chanchal, A. (n.d.). “Xin Tian Di.” Retrieved 2012, from <http://www.scribd.com/doc/47762818/XinTianDi>.

Chen, X. and DAtans. (2008). Second Hand Modern: Urban Renovation of M50 (Moganshan 50). Beijing: China Electric Power Press.

Danzker, J. B., et al. (2004). Shanghai Modern: 1919—1945. Ostfildern: Hatje Cant.

Dy, M.B., Jr. (n.d.). “The Chinese View of Time: A Passage to Eternity. Chapter XX.” Retrieved 2012, from http://www.crvp.org/book/Series03/III-11/chapter_xx.htm.

Fu, X. and Xu H. (n.d.). “The Origin of Explosive Development of Creative Industry in China, Renmin University, China.” Retrieved 2012, from <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.169.7284>.

Howkins, J. (2001). The Creative Economy: How People Make Money from Ideas. London: L. Allen Lane.

Huang, A. (2010). The Complete I Ching: The Definitive Translations. Rochester, NY: Inner Traditions—Bear & Company.

Huang, H. and Xu X. (1998). Shanghai Jin Dai Gong Ye Shi. Shanghai: Shanghai she hui ke xue yuan.

Jiang, Y. (n.d.). "Timber Use in the Chinese Gardens and Architecture, Proceedings of the 55th International Convention of Society of Wood Science and Technology, Beijing." Retrieved 2012 from <http://www.swst.org/meetings/AM12/pdfs/papers/WAFC-1.pdf>.

KEA European Affairs. (n.d.). "The Economy of Culture in Europe." Retrieved 2012 from <http://www.keanet.eu/ecoculture/studynew.pdf>.

Kuijpers, B. "Updating Shanghai: Life from the Ground Up, The Focus: New Designs for Asia, China." Retrieved 2013 from http://www.ias.nl/sites/default/files/IIAS_NL63_2425.pdf

"The Creative Industries in China: IVCA Report—March 2010". Retrieved 2012 from http://www.ivca.org/ivca/live/news/2010/develop-your-business-in-china-join-the-ivca-trade-mission-to-shanghai/IVCA_Report_-_The_Creative_Industries_in_China.pdf.

Lou, C. (2004). Lao Shanghai Shikumen. Shanghai: Tongji University Press.

Lu, H. (1999). Beyond the Neon Lights: Everyday Shanghai in the Early Twentieth Century. Berkeley and Los Angeles: University of California Press.

National Bureau of Statistics of China. (2008). China Statistical Yearbook. Beijing: Bureau of Statistics of China.

Olshin, B. B. (2005). "The I Ching or 'Book of Changes': A Chinese Space-Time Model and a Philosophy of Divination." Journal of Philosophy and Culture Volume number goes here: 17–39.

Powell, M. (n.d.). "Xintiandi: An adaptive Mixed Reuse Retail Development." Retrieved 2012 from <http://mikaelpowell.blogspot.com/2006/05/xintiandi-adaptive-mixed-reuse-success.html>.

Rosbach, S., and Lin Y. (1998). Feng Shui Design: from History and Landscape to Modern Gardens and Interiors. New York: Viking Press.

“Shanghai SoHo—50 Moganshan Road, Shanghai Daily.” Retrieved 2011 from <http://www.chinaartnetworks.com/feature/wen21/shtml>.

Shanghai UNESCO City of Design, UNESCO Creative Cities Network.
<http://www.creativecity.sh.cn/en/shejizhidu3.aspx>.

Shinohara, H. (n.d.). “Mutation of Tianzifang, Taikang Road, Shanghai.” Retrieved 2012 from http://newurbanquestion.ifou.org/proceedings/5%20The%20Transformation%20of%20Urban%20Form/poster%20papers/D039_Hiroyuki_Shinohara_Mutation%20of%20Tianzifang.pdf.

Sinha, K. (2008). China’s Creative Imperative: How Creativity is Transforming Society and Business in China? Hoboken: John Wiley & Sons.

Stephen, K. (2009). Total I Ching: Myths for Change. Piatkus Books Ltd. <Query>Insert city and state before the publisher. Put a colon after the place of publication. </Query>

Tang, X. (2008). Origins of the Chinese Avant-Garde: The Modern Woodcut Movement. Berkeley and Los Angeles: University of California Press.

Too, L. (1996). The Complete Illustrated Guide to Feng Shui. Perth, Element.

Tsai, W. (n.d.). “The Redevelopment and Preservation of Historic Lilong Housing in Shanghai, University of Pennsylvania.” Retrieved 2012 from http://repository.upenn.edu/cgi/viewcontent.cgi?article=1115&context=hp_theses.

UNCTAD. “Creative Economy Report 2010.” Retrieved 2012 from <http://www.unctad.org/creatove-economy>.

Vincent, M. S. (2006). Feng Shui: A Practical Guide for Architects and Designers. Chicago: AEC Education.

Wong, E. (2001). A Master Course in Feng-Shui. Boston: Shambhala.

Wu, H. (2008). Making History: Wu Hung on Contemporary Art. Hong Kong: Timezone 8 Ltd.

Wu, W., and S.Yusuf. (1997). The Dynamics of Urban Growth in Three Chinese Cities.

New York: Oxford University Press for the World Bank.

Yang, G. and et al. (n.d.). "Shanghai's Economic Development: Its Opportunities and Challenges in the 21st Century, Global Urban Development Metropolitan Economic Strategy Report." Retrieved from <http://www.globalurban.org/GUD%20Shanghai%20MES%20Report.pdf>.

Zhao, C. (2004). "From 'Shikumen' to New-Style: A Rereading of 'Lilong' Housing in Modern Shanghai." Journal of Architecture 19 (1): 49–76.