36 Stratagems
Towards a People's Modernity

by

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

ABSTRACT

The design thesis is sited along the Shanghai Bund in China. It pursues an alternative modernity that is quintessentially Chinese by developing a design approach specific to the local imperatives and the contextual condition. The argument is set upon the premise of an accommodative nature of Chinese modernity towards foreign influences since the 1850's. The Bund, being the original site of Chinese modernity, is characterized by hybrid structures that combine the local and the foreign. Imported building materials, techniques, and proportional ideals have predominately influenced the architecture. Against this backdrop, the thesis problematizes Shanghai's building practice that pertains to the adoption of foreign forms. Is it possible to create an alternative modernity that is quintessentially Chinese?

The thesis first examines the development of the city's modernity, traditional construction principles, and narratives inherent to the site. Program components are then reorganized for tactical design applications. It concludes with a time-based and event-driven collective space that seeds participation towards a local modernity.

ACKNOWLEDGEMENTS

To Good Designs and Smart People

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Beauty

All illustration produced by author unless otherwise indicated.

Where we do not reflect on myth but truly live in it there is no cleft between the actual reality and the world of mythical fantasy.[1]

- Collage City

1   Ernst Cassirer as quoted by Collin Rowe, Collage City. (Cambridge: The MIT Press, 1984) 1.

Fig. 0.1 *36 Stratagems.*

The Thirty-Six Stratagems (pinyin: Sānshíliù Jì), is an ancient book on the art of war based on ancient Chinese military thoughts and war experience.

There are a total of six categories. They are: the advantageous stratagems, the opportunistic stratagems, the offensive stratagems, the confusion stratagems, the deception stratagems and the desperate stratagems. The first three categories are for advantageous situations and the last three for adverse situations. Each category contains six stratagems, so there are a total of thirty six stratagems. Each of the Stratagems are related to a battle scenario in Chinese history and folklore.

INTRODUCTION

The Shanghai Bund, being the original site of Chinese modernity, is characterized by hybrid structures that combine the local and the foreign. Imported building materials, techniques, and proportional ideals have predominately influenced the architecture. Against this backdrop, the thesis problematizes Shanghai's building practice that pertains to the adoption of foreign forms. Is it possible to create an alternative modernity that is quintessentially Chinese?

The main tactics in addressing Shanghai's modernity are explained with reference to the Thirty-Six Stratagems throughout the research. The book of Thirty-six Stratagems summarizes military strategies and tactics used in politics, war, as well as in civil interaction, often through unorthodox or deceptive means. The original text was written in a laconic style common to Classical Chinese literature.

Each of the proverbs draws reference to battle scenarios in Chinese history and folklore, predominately of the Warring States Period (476 – 221 BCE) and the Three Kingdoms Period (220 – 280). The age old wisdom is still widely used in the contemporary context, especially from the perspective of modern business competitions. In the context of the thesis, it anticipates, and counters, superficial assumptions of a Euro-centric superiority over local everyday modernity by emphasizing the trivialized notion of tradition. Shanghai's modernity is one that struggles against foreign influences. Uncritical espousal of foreign forms, design approaches, and typologies are referred to as 'enemies' in the Thirty-Six Stratagems.

The thesis' design methodology stems from the belief that a research-based design eliminates arbitrariness and generates performance-driven solutions. The design proposal is informed by analyzing the 'soft information' and realized by generating the 'hard data'. 'Soft information' addresses desires and the underlying logic in the local cultural imperatives. It informs a design approach that draws lessons from interpreting historical accounts and their primary motives, these serve as the theoretical backbone. On the other hand, 'hard data' gives physicality to the design. A series of site-based speculative statistics upon behavior patterns inform specific design process and strategies. The information gathered through documentation sets parameters for the deliverable requirements.

Fig. 0.2 Contemporary Shanghai's architectural practice.

There are three parts to the thesis. The first chapter begins by tracing the architectural discourse of Shanghai's modernity since the 1850's. It provides sketches of important modern movements, namely the Treaty Port era, high socialist period, and opening up. They share a common utopic vision of achieving modernity through espousal of foreign icons. In short, Chinese modernity can be summarized as one that is built upon polarizing agendas of the accommodation of foreign forms and the preservation of indigenous values. The schizophrenic split is examined with reference to a number of theories. Chapter One summarizes the database of soft information and concludes with an outline for programs that foster everyday modernity. The second chapter addresses the 'hard data'. It establishes a set of design tactics and deliverable requirements to be applied towards the design. It reinterprets the programmatic elements as a collective urban entity that holds the potential to seed participation. The design is illustrated in the last chapter, where the fluidity of circulation network within the city fabric, the structural flexibility of the social scaffold, and the time-based and event-driven programmatic network are fully realized.

This design proposal, derived from 'soft information' and 'hard data', defines a contemporary collective space that responds to site-specific wants and needs. The design process is a recursive act of didactic readings from observations and design development, which produces a series of design permutations. The thesis generates a social scaffold promoting everyday modernity by encouraging self-organization and end-user appropriation. It is comprised of a hybrid program – a theatre, a contemporary art centre, a transportation hub, and informal markets. The resultant programmatic orchestration transcends established typologies and illustrates a measurable pattern of use that responds to the local context.

1.0
SOFT INFORMATION

1850's

[Colonization]
Establishment of multiple colonial districts in Shanghai brings in the first influence of foreign cultural impact.
The construction volume in Shanghai's colonized areas increased over 200% in 1892 - 1895. Most of the architecture was accommodative towards foreign influences.

1920's - 1930's

[Becoming]
The Communist Party of China founded.

First architectural magazine themed around modernity, Xin Jianzhu, published in 1936.

Foreign-trained Chinese architects took great effort to explore the adaptation of Chinese style with modern building techniques and materials. They produced interesting combinations of brick and concrete buildings with traditional big roofs.
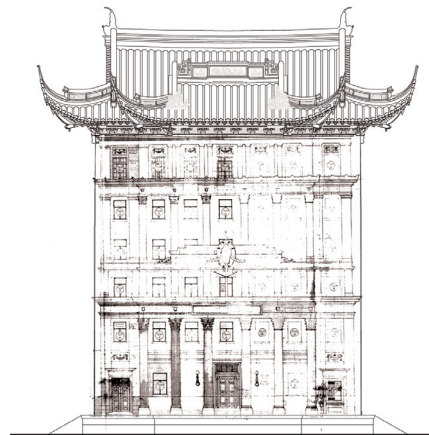
1950's

[Industrial City]
During the first 'Five Year Plan', 156 mass construction projects were implemented in major cities. It gave rise to developments of urbanization; along which, 11 new cities were built.

Revivalist architecture was strong and dominant under the influences of the Soviet ideal "Social Realism", whereas the modernist style was considered cold and bourgeois in nature, and fell into disrepute.

Upon the death of Soviet leader Joseph Stalin in 1953, the austerity policy adopted in 1955 decisively changed the balance of power between revitalist and modernist architecture. It began to incorporate and simplify new functions, techniques, and materials. Buildings with traditional large roofs and ornaments were condemned for being wasteful.

Fig. 1.1 A Chronological account of the main government policies that affected the critical practice.

1960's - 70's

[Third Line City]
According to the 9 Policies on Urban Population Reduction and Food Consumption, passed in 1961, 20 million of the129 million urban population were to be relocated in three years time.

By 1962, when the country was recovering from extreme disruptions, there were attempts to mobilize architects to design houses that combine modern and traditional methods.

"Educated youth are to be relocated to agricultural villages for re-education from the impoverished rural class. It is necessary to persuade urban comrades and others to send their children in middle schools, high schools, and universities, to the villages."
- Mao Zedong, 1968

'Encourage Manual Labour', poster published in 1965.

1980's

[Opening-Up]
"Five Special Economic Zones (SEZ) are to be established by the end of 1989."
- Mao Zedong, 1968

SEZs were inaugurated along the coastal cities. Foreign investments brought along economic prosperity and change of lifestyle. Shanghai's Pudong area was planned as the model city for future urban development in 1990.

The impact of foreign post-modernist theories created a culture of diversified architectural languages. Regionalism was believed to be a way to achieve modernity. It sought inspiration from vernacular and regional architecture. Some architects began to search for clues from traditional philosophies in hope to develop a stylistic approach. They attempted to communicate architecture through semiotics.

2000's

[Internationalized and Harmonious City]
"Co-ordinated development amongst large and medium scale cities, as well as small scale towns."
- 16th Five Year Plan

Announcement of the 2008 Olympic games in Beijing and 2010 World Expo in Shanghai attracted an unprecedented number of foreign architects to China. Most projects are highly experimental and lack understanding of the Chinese culture.

Fig. 1.2 *Local newsprint depicting the Qing troops fighting the French at Fuzhou during the Opium War.*

1.1

CULTURAL SCHIZOPHRENIA

Modernity in China emerged as an issue of cultural development in the aftermath of the Opium War of 1840 to 1842. Following the Treaty of Nanjing, five Chinese ports were seized by the British and forced open for foreign trade. Shanghai, being one of the port cities, was fragmented into multiple concessions by foreign powers and became the central Chinese modern city from which contemporary Western ideas and technologies were propagated. In the historical condition of contemporary China, modernity first took form by accommodating the Euro-centric ideology of modernism. In the past decade, despite all social-political by-products such as scarcity, abrupt change of ideology, removal from everyday customs, and state interferences, consistent attempts have been made towards an alternative modernity that is distinctly Chinese.

Left to Right:
- 'The Great Stalin is the Saviour of Peace' - 1955.
- 'Let Nature be Manipulated by Us' - 1958.
- 'Eradicate Superstition, Break with Old Customs, and Boost Our National Spirit!' - 1958.

Fig. 1.3 Posters during the Cultural Revolution.

In *Remaking Chinese Urban Form*, Duanfang Lu recognizes that in post-1949 China, "modernity is turned into the nation's new identity, something that directs a people's imagination about who they are, where they are now, and what they should collectively aspire to be."[1] Constructing a cogent argument that China's architectural and urban planning conditions have been predominately shaped by scarcity, Lu opens her investigations upon the Marxist notion that "so-called necessary wants, as also the mode of satisfying them, are themselves a product of historical development and depend therefore to a great extent on the degree of civilization of a country"[2]. By introducing the idea of the "Not Yet" as a psychological similarity instilled in Third World and colonized nations, modernity is understood as the epitome for 'better living' as their country strives to match the development of the West. This suggests that scarcity in post-1949 China was an inherited condition from western imperialism that resulted in a "psychological violence" – a sense of self-hatred generated by believing that the colonizer's culture was superior to their own.

Political movements in post-1949 China can be understood as an attempt to counter this mentality. National humiliation from the continuous exploitation by foreign powers fueled a nationalistic reform with ambitions to overtake the West in levels of production and industrialization. Under the regime of Mao Zedong, the

1   Duanfang Lu, Remaking Chinese Urban Form: Modernity, Scarcity and Space 1949-2005. (London and New York: Routledge, 2006) 6.
2   Karl Marx, Capital (Harmondsworth: Penguin, 1976) 52.

modernization of the nation meant rapid industrialization and increased production at the expense of consumption and quality of life. The new socialist system proved to be a failure; excessive construction was exacerbated by the reduction of trade with the West and withdrawal of Soviet aid. This was followed by social upheavals by a population that was overworked and under-compensated, dwelling in ultra-economical structures with a substandard quality of living. Along with agricultural disasters during Great Leap Forward, widespread famine took lives[3] and desolated the dreams of a promised prosperity for the rest of the population. Despite the failures of the socialist system, the attempt to create an alternative modernity that is essentially Chinese has been constant.

Since 1979, the transition from a totalitarian state to a socialist market economy has allowed China to slowly rise from its extensive history as a developing nation, and the overdue emancipation from the anguish of scarcity is being fulfilled for many people. Across the Huangpu River from the Shanghai Bund, outlandishly 'modern' and scale-less glass towers are once again consumed as superficial trophies of progress. The architects failed to learn from their counterparts in the 1930's to foster an alternative modernity. From historical discourse we can acquire an understanding for the present phenomenon, and through critique of the present architectural scene, we can identify the means for constructing a critical architecture for the future.

Left to Right:
- 'Reshaping Mountains and Taming Rivers to Build a New Countryside' - 1964.
- 'Good Sons and Daughters are Ready to Realize Their Ambitions Throughout the Country' - 1964.
- 'Towards a Scientific and Technological Modernity!' - 1979.

3   20 - 43 million famine victims is estimated.
        Xizhe Peng, "Demographic Consequences of the Great Leap Forward in China's Provinces," Population and Development Review 13, no. 4(1987), 630-70.

TACTIC 1

Borrow a corpse to resurrect the soul
(借屍還魂; Jiè shī huán hún)

Take a foreign institution, technology, or object and appropriate it for your own purpose. Revive something from the past by giving it a new purpose or bring to life old ideas, customs, or traditions and reinterpret them to fit your purposes.
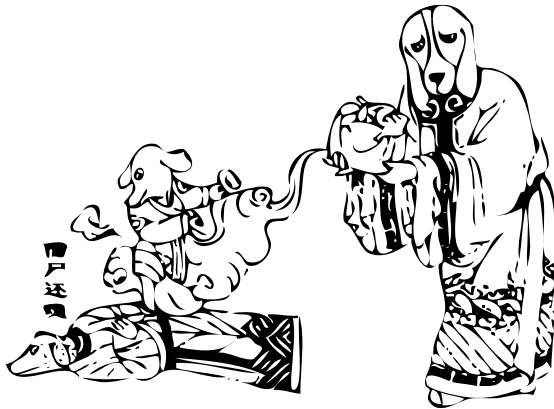
Fig. 1.4 *Tactic 1.*

TREATY PORT ERA (1850's – 1950's)

In *Architectural Encounters with Essence and Form in Modern China*, Rowe and Kuan provide a detailed account of the changing attitudes towards architecture in a nation with a sophisticated history. The authors utilize *ti* and *yong* as the binary representation of indigenous values versus foreign influences, with the former pertaining to the "essence, body or inner structure of Chinese culture" and the latter signifying "application, use and outward form"[1] associated with foreign ideas and technology. The strategy was derived from the expedient policy employed by earlier Ming Dynasty and later adopted by the Qing court. 'Western knowledge for practical use [*Xi xue wei yong*]' became the catchphrase that reflected a desire to borrow what was useful, and the resistance to fundamental transformation. The balance between the two elements is therefore crucial in the discourse of Chinese modernity, since a different emphasis on *ti* or *yong* will reflect nuanced attitudes for design and the production of different architectural styles. The balances of *ti* and *yong* form part of a "master narrative" that "helped orchestrate responses to outside challenges as well as internal needs for change, preparing the nation to face further modern incursions without abandoning its (admittedly dwindling) essential Chinese characteristics."[2]

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1   Peter Rowe & Seng Kuan, <u>Architectural Encounters with Essence and Form in Modern China.</u> (Cambridge & London: The MIT Press 2002) 13.
2   Ibid., 21.

By accommodating the **foreign form** with minimum influence upon the indigenous values found in everyday habits, the basketball-bucket demonstrates the fine balance of **Ti and Yong** in the modern **Chinese Dream**.
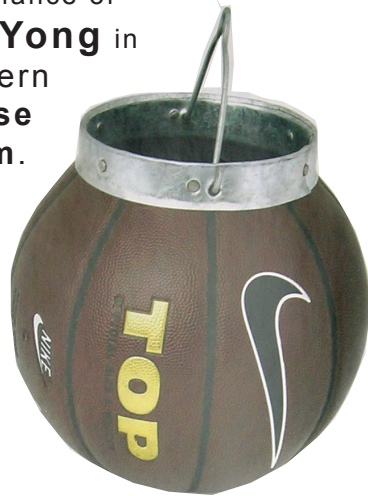
Adopted Form **+** Original Local Function **=** Hybrid Object

Fig. 1.5 *Ti Yong Basketball Bucket.*

The first three decades of the 20th Century were a period of evident confusion in the architectural discourse in Shanghai. This was partly due to the opportunities presented by modern materials and building methods, and more importantly by the totalitarian visions proposed within short periods of time during multiple political reforms. For example, from the dichotomy of *ti* and *yong* during the Self-Strengthening Movement, the May-Fourth Movement embraced Western thinking and modern practical reasoning, but the Republicans and Nationalists of the 1920s saw Confucian and traditional values as a way to counteract the hegemony of Eurocentric view without negating the importance of modernization. The architectural outcomes produced during the late-Qing period were therefore varied, experimental hybrids that, in hindsight, were mostly awkward. This is especially true when foreign and foreign-trained architects attempted to show sensitivity to the local culture by adapting direct iconographic references. Their emphasis on decorative qualities and not the realities that shaped their phenomenon was condemned. Their work, adorned with traditional ornaments and placed large upturned tiled roofs on top of modernist-derived forms, was criticized for being more "about creating the appearance of traditional Chinese architecture than replicating it". The architects "lacked understanding of the old system in terms of layout, structure and details, resulting in a series of mistakes in proportions."[3]

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3   Ibid., 85.
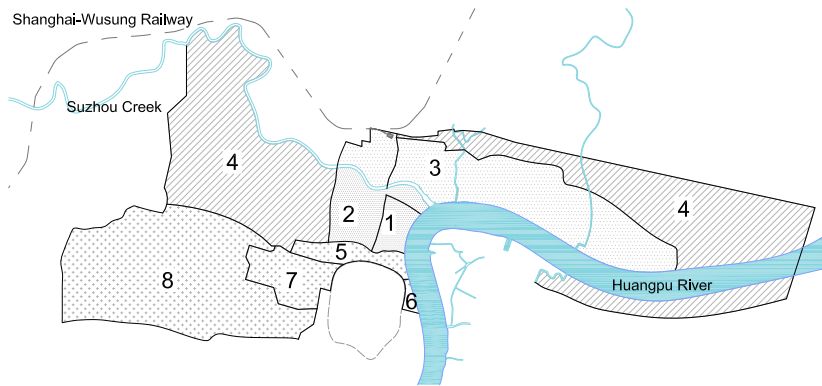
Fig. 1.6 *Area of foreign concessions and timeline of their sovereignties.*

Shanghai-Wusung Railway

Suzhou Creek

4

3

2

1

5

8

7

6

Huangpu River

Treaty of Nanjing

	1840					1850					1860				1870			
1838		1842	1844	1846	1848		1852	1854	1856	1858		1862	1864	1866	1868		1872	1874	1876	1878

4

4   1522 ha.

3   524 ha.

1   53 ha.   Original British Settlement
1846 -

2   133 ha.   Additional British Concession
1848 -

5   66 ha.   Original French Settlement
1849 -

6   66 ha.   Additional French Concession
1861 -

7   19 ha.

8   867 ha.

1839 - 1941
The Opium Wars

14

1880 1890 1900 1910 1920 1930 1940 1950

'6 1878 1882 1884 1886 1888 1892 1894 1896 1898 1902 1904 1906 1908 1912 1914 1916 1918 1922 1924 1926 1928 1932 1934 1936 1938 1942 1944 1946 1948

International Settlement
1899 -

American Concession
1892 -

Additional French Concession
1900 -

Additional French Concession
1914 -

TACTIC 2

Deck the tree with false blossoms
(樹上開花; Shù shàng kāi huā)

Tying silk blossoms on a dead tree
gives the illusion that the tree is healthy.
Through the use of artifice and disguise,
make something of no value appear
valuable; of no threat appear dangerous;
of no use appear useful.
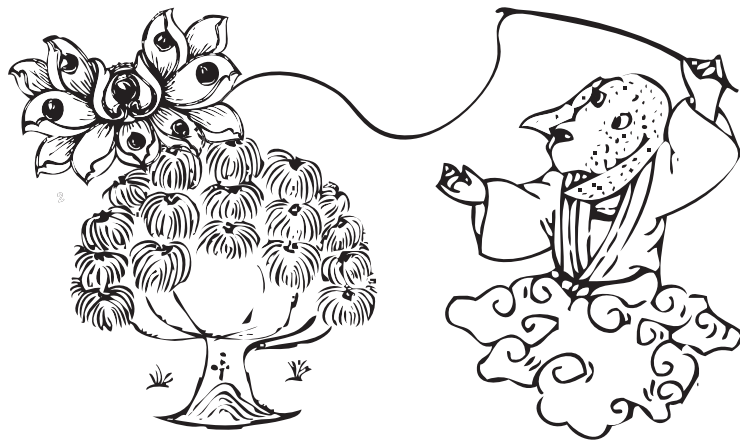
This stratagem addresses the direct espousal of imported modern icons and ready-made images. The view of PuDong across the river serves as a good example. The new developments' facades are billboards for an 'international modern city'.

Fig. 1.7 *Tactic 2.*

Fig. 1.8 *Google Earth aerial photo.*

Although the architecture produced by foreign architects in late Qing was limited to stylistic imitation and classification, the combination of imported construction and facilities with Chinese architectural style nevertheless demonstrates the struggle towards an essentially indigenous modernism.

The obverse of the same phenomenon was the tendency to adopt Western styles as a means of demonstrating cultural supremacy and representing 'quality'. 'Western' or 'foreign' came to be synonymous with 'modern' in 1920's Shanghai. This gesture to newness and modernity, regardless of the original connotation of the style, produced architecture labelled 'neo-Renaissance'.

Architects reconciled the **detachment** of **form and function** by emphasizing the **decorative** qualities of the iconographic, but not the realities that shaped the phenomenon.

Buildings along the Bund capture Shanghai's height of modernity from 1850's - 1950's. The Bund was subjected to forces of capitalism and political strategy since the settlement period. These eclectic buildings were replaced every 30 years or so. They were mostly banks, social club houses and trade companies that controlled part of the port. The buildings became frozen pieces after the 1950s due to political disorder in China, and have not been replaced since. In the late 1980s, they became part of a conservation program.

Fig. 1.9 Hybrid Chinese roof on concrete houses.

No. 1 McBain Building, also the Asiatic Petroleum Building, built in Renaissance style in 1915. Later became the Shell Building. Today it is the Pacific Insurance Company.

No. 2 The Shanghai Club. It was built in 1909 for an English club founded in 1865. It was famous for its 34 meters long bar, which proclaimed to be the longest bar in Asia. A part of it still remains in the Seamen's Club upstairs. Today it is the Dong Feng Hotel. The former bar is now a Kentucky Fried Chicken Restaurant.

No. 4 Union Assurance Company of Canton Building. It was built in 1915, used by the Mercantile Bank of India, Ltd. Now it houses Jiatong Property Management.

No. 5 The Nisshin Kisen Kaisha Building. It was erected in 1925 for the Japanese shipping line which plied the Chinese coast and the YangtseWahxia Bank

No. 6 The Russell Building. At today's 6 Bund, the ground level houses Dolce & Gabbana's flagship store, whereas the upper three floors of the building are devoted to fine cuisine and high living.

No. 7 The Great Northern Telegraph Company Building. The Bangkok Bank took over part of the premises in 1995 and, as in days gone by when numerous consulates occupied the Bund's buildings, the Royal Thai Consulate-General also took up residence.

No. 9 The China Merchants Steam Navigation Company Building. This structure housed the steamship lines of China Merchant Steamship navigation Co., States Steamship Co., and American Pioneer Line.

No. 12 The HSBC Building. Now used by the Shanghai Pudong Development Bank, was once the Shanghai headquarters of the Hong Kong and Shanghai Banking Corporation. The present building was completed in 1923. At the time, it was called "the most luxurious building between the Suez Canal and the Bering Strait". Its famous ceiling mosaics have been fully restored, and can be viewed inside the entrance hall.

No. 13 The Customs House. It was built in 1927 on the site of an earlier, traditional Chinese-style customs house. The clock and bell was built in England and in imitation of Big Ben.

No. 14 China Bank of Communications Building. It was the last building to be built on the Bund before the 21st Century. It now houses the Shanghai Council of Trade Unions.

Proposed site.
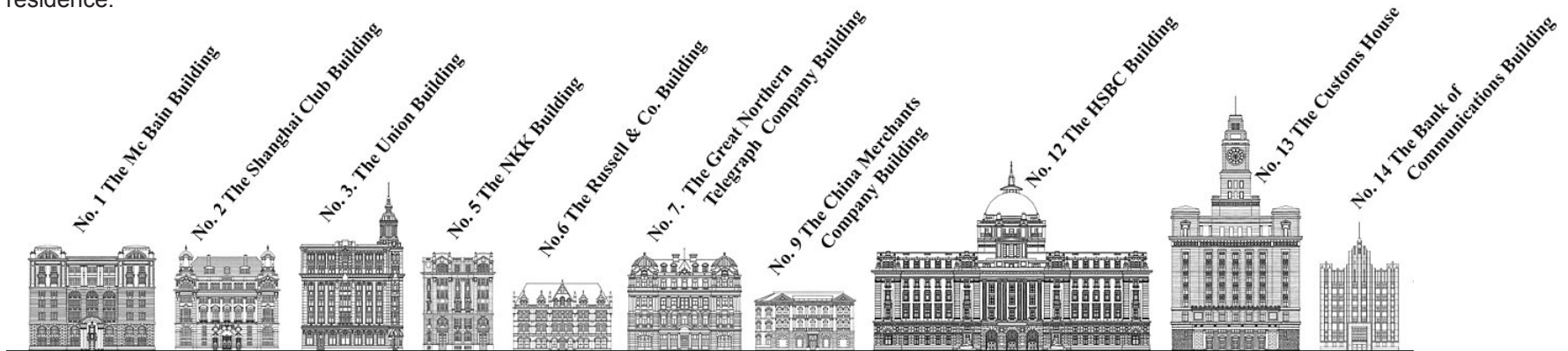
No. 1 The Mc Bain Building / No. 2 The Shanghai Club Building / No. 3. The Union Building / No. 5 The NKK Building / No.6 The Russell & Co. Building / No. 7. The Great Northern Telegraph Company Building / No. 9 The China Merchants Company Building / No. 12 The HSBC Building / No. 13 The Customs House / No. 14 The Bank of Communications Building

No.15 Russo-Chinese Bank Building. Built in 1902, it was the first non-industrial building in China to employ steel and concrete in its construction. It is also among the first to use elevators. It is now the Shanghai Foreign Exchange.

No. 16 Bank of Taiwan Building. It is now the China Merchants Bank.

No. 17 North China Daily News Building. It housed the most influential English-language newspaper in Shanghai at the time. Today it houses AIA Insurance.

No. 18 Chartered Bank Building.

No. 19 Palace Hotel, an example of the 'Shanghai Renaissance' style. Today it forms part of the Peace Hotel.

No. 20 Sassoon House, with the attached Cathay Hotel, was built by Sir Victor Sassoon. It was, and still is today, famous for its jazz band in its cafe. The top floor originally housed Sassoon's private apartment. Today, it forms the other part of the Peace Hotel.

No. 23 Bank of China. It was deliberately designed to rise above all it surveyed. The 16-storey tower was erected on the site of the former German Club Concordia. It is the largest building on the Bund.

No. 24 Yokohama Specie Bank Building. It became the Central Bank of China in 1945.

No. 26 The Yangtsze Insurance Association Building.

No. 27 EWO Building. Ewo was the name of Jardine, Matheson and Co. Ltd, founded in 1834 by the Scots William Jardine and James Matheson, which became one of the great trading houses of the China Coast.Jardine Mathesom Building.

No. 28 Glen Line Building. It also housed the P.& O. Banking Corporation. In 1941 it was confiscated by the Japanese and given to the Germans, who used it as their consulate. Later in 1945 the American consulate occupied the premises.

No. 29 Banque de l'Indo-Chine. It was designed by Atkinson & Dallas in Italian Renaissance style and was opened for business in June 1914.

Fig. 1.10 Building elevations along Bund in 1948.
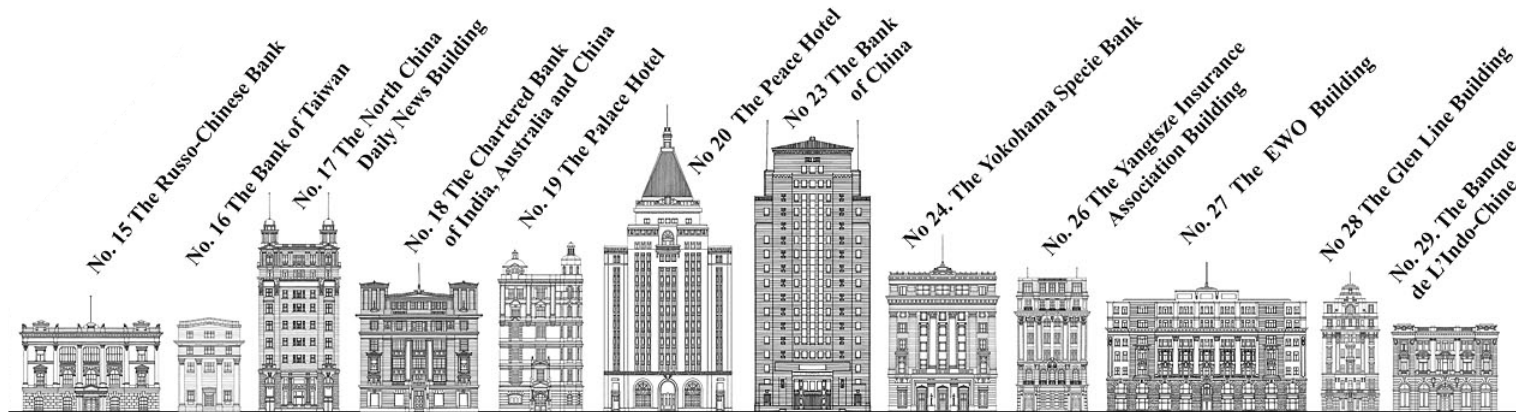
Above: Fig. 1.11 *View along Bund in late 1930's.*
Right: Fig. 1.12 *Evolution cycle of buildings along the Bund in terms of usage and ownership.*

Beijing Donglu

Nanjing Donglu

Jiujian Lu

Hankou Lu

Fuzhou Lu

Guangdong Lu

Yan'an Elevated Road

No. 29 ◼ Banque de l'Indo-Chine.

No. 28 ◼ Glen Line Building.

No. 27 ◼ EWO Building.

No. 24 ◼ Yokohama Specie Bank Building.

No. 22 ◼ Bank of China.

No. 20 ◼ Sassoon House.

No. 19 ◼ Palace Hotel.

No. 18 ◼ Chartered Bank Building.

No. 17 ◼ North China Daily News Building.

No. 16 ◼ Bank of Taiwan Building.

No. 15 ◼ Russo-Chinese Bank Building.

No. 14 ◼ China Bank of Communications Building.

No. 13 ◼ The Customs House.

No. 12 ◼ The HSBC Building.

No. 9 ◼ The China Merchants Steam Navigation Company Building.

No. 7 ◼ The Great Northern Telegraph Company Building.

No. 6 ◼ The Russell Building.

◼ The Nisshin Kisen Kaisha Building.

No. 4 ◼ Union Assurance Company of Canton Building.

No. 3 ◼ The Shanghai Club.

No. 1 ◼ McBain Building.

Fig. 1.13 Sincere department store.

Fig. 1.14 Wing On department store.

Fig. 1.15 Harrods department store.
The present Harrods Store in Knights-bridge, London building was completed in 1905, designed by architect Charles William Stephens.

Two Chinese department stores, Wing On and Sincere, emerged adjacent to one another across Shanghai's renowned shopping street Nanjing Road; they epitomized Western architecture explicitly used by Chinese clients in the commercial realm. These two stores created entirely new building types, each containing hotels with modern amenities, and heralded a complete revolution in the Chinese attitude towards Western architecture.

Sincere was the first to be built, opening in 1917. The entire project comprised four individual buildings up to five storeys high connected by overhead bridges and containing foreign shops, tea houses, a roof garden, an open air cinema, and staff accommodation. The prime attractions were the most lavish and up-to-date department store in Asia, and the Oriental Hotel, Shanghai's premier hotel for Chinese 'accustomed to foreign manners and customs'. A year later, Great Eastern Hotel and the Wing On Department Store opened across the street in September 1918. The six-storey building constructed in reinforced concrete and topped with a roof garden boasted many foreign features including internal fire escapes, public elevators and flush lavatories, while the exterior displayed copper shop fronts and doors, with thousands of electric bulbs brilliantly illuminating the entire façade.

The paradigm shift to a Chinese modernity built upon foreign stylistic permutations is obvious in the cases of the department stores. Both projects triumph by evincing a Renaissance character with the intention of meeting 'the demands of the Chinese accustomed to Occidental manners and customs'. A modernity that is synonymous with foreign stylistic manipulation and up-to-date technological application is echoed in the first edition of *The Builder* in November 1932. The newsletter for the Chinese architectural community opened with a list of urgent changes to improve the industry:

> Use scientific method, change the path of architecture, seek the rapid progress of the essence of our country; Use [sic] scientific machines, improve locally produced materials, stop the import of foreign materials; Improve the knowledge of the profession and encourage the new path of architecture; Award specialized writings, commonly seek the new invention of architecture.[4]

The articles that followed urged Chinese architects to embrace the newest way, and not necessarily the Chinese way. Adopted architectural styles were increasingly being exploited to be packaged for consumption. An advertisement for a prototype house in *The Builder* in 1934 further illustrates the transposable nature of the building's style. The architect Liu Jia Chang of the Shanghai

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4   Edward Denison & Yu Ren Guang. <u>Modernism in China : Architectural Visions and Revolutions</u>. (Chichester, England ; Hoboken, NJ: John Wiley, 2008) 97.
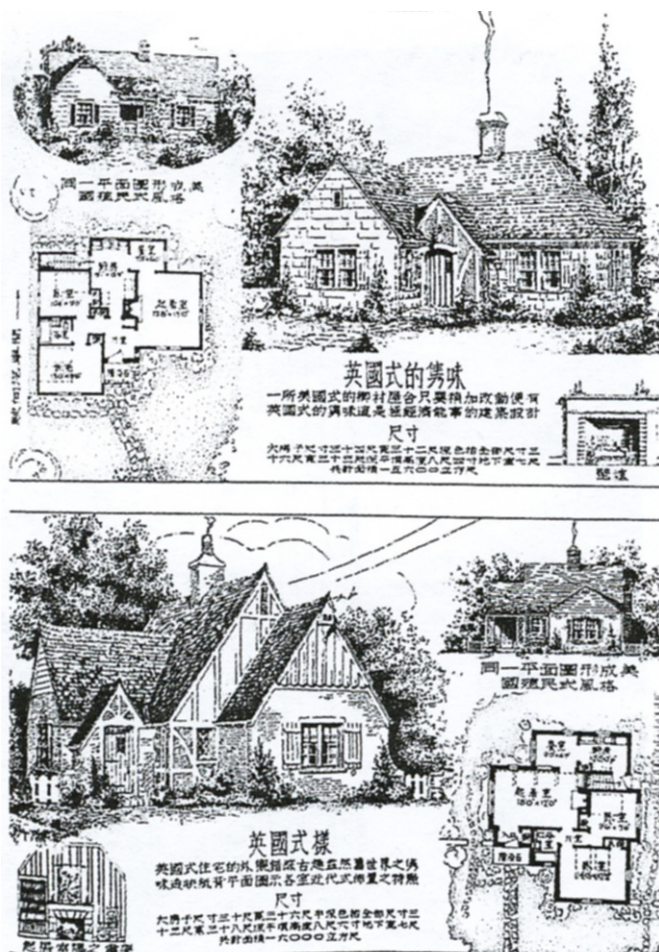
Fig. 1.16 *Advertisement in The Builder Magazine in 1934.* The services of an architect offering different styles of building to suit the customer's taste, using the same floor plan.

Architecture Association promoted and contrasted a 'typical' English-style cottage with an early American-style house, where an 'American country house only needs a small modification to obtain English elegance'. He proclaims the appearance of a building merely a cloak to be changed with the seasons. It was neither aesthetically nor ethically important, nor did it necessarily have any bearing on the internal arrangement of it elements. The defense of this position was: 'New style architecture, old style architecture, the purpose of the building is to be no more than function and durable'.[5]

The consequence of defining modernism through assimilation can also be observed along the Shanghai Bund. A medley of nondescript foreign structures were erected from plans of architects that reflected the obsolete styles of their various countries or schools. Harold Acton commented on the Shanghai Bund:

> … the buildings do not look man-made; they have little connection with the people of China; they are poisonous toadstools sprung up from the mud, a long line of pompous toadstools raised by anonymous banks, trusts and commercial firms. Imposing from the river with their turrets and clock-towers, but essentially soulless … There they stand trying to give materialism importance, but they fail.[6]

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5   Ibid., 316.
6   Ibid., 314.

Fig. 1.17 Shanghai Tang advertisement.

Commenting on Shanghai's treaty port era, Stella Dong provides the following sketch of the city:

> In Shanghai's prime, no city in the Orient, or the world for that matter, could compare with it. At the peak of its spectacular history the swamp-ridden metropolis surely ranked as the most pleasure-mad, rapacious, corrupt, strife-ridden, licentious, squalid, and decadent city in the world. It was the most pleasure-mad because nowhere else did the population pursue amusement, from feasting to whoring, dancing to powder-taking, with such zeal and abandon. It was rapacious because greed was its driving force; strife-ridden because calamity was always at the door; licentious because it catered to every depravity known to man; squalid because misery stared one brazenly in the face; and decadent because morality, as every Shanghai resident knew, was irrelevant. The missionaries might rail at Shanghai's wickedness and reformers condemn its iniquities, but there was never reason for the city to mend its errant ways, for as a popular Chinese saying aptly observed, 'Shanghai is like the emperor's ugly daughter; she never has to worry about finding suitors.' Born in greed and humiliation, the ugly daughter grew up in the shadow of the Celestial Empire's defeat by outsiders in the Opium War.[7]

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7   Dong, Stella. <u>Shanghai : The Rise and Fall of a Decadent City.</u> (New York: Harper Coolins, 2000.)

Fig. 1.18 Plan for Xiefang Production Team, Suicheng People's Commune, Henan, 1958.
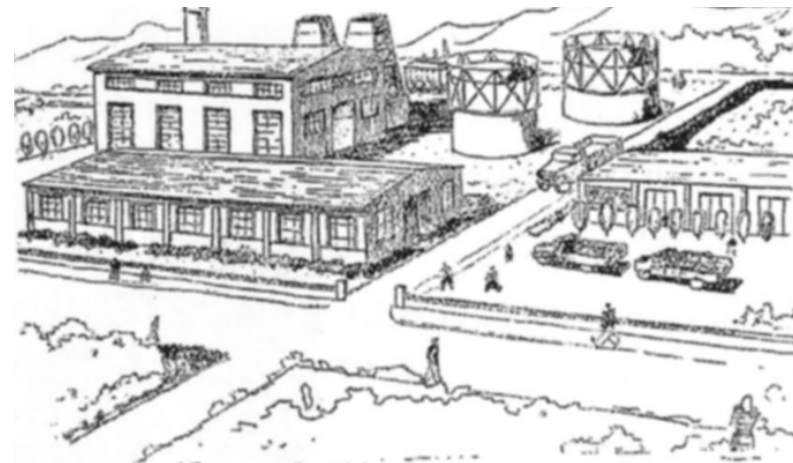
Fig. 1.19 Illustrations representing the ideal rural life, 1958.

HIGH SOCIALIST PERIOD (1950's - 1990's)

The nationalistic 'Big Roof' style and its proponents were ultimately denounced for their wastefulness during the National Austerity Policy of post-1949. The study of Chinese architecture was considered bourgeois and idealist under Mao's regime; everything was to be sacrificed for the goal of industrialization. During the economic crisis in the mid-1950s, "revivalism" and "formalism" became terrifying crimes for many architects.[8] Mao Zedong discarded the distinction between *ti* and *yong* altogether "in favor of a process aimed directly at essential social action and cultural features together."[9] "Anything foreign is like food to us" stipulated Mao, "we must digest it, to separate the *jinhua* (quintessence) from the *zaopo* (sediment), release the zaopo and absorb the jinghua."[10] Initially derived from intentions to merge Western knowledge with China's feudal past, Mao's socialist regime soon produced utopian and totalitarian visions for rapid industrialization in the1950s. Modernism remained dominant in theoretical circles through the left-wing's advocacy of "function, economy and appearance when circumstances allow" and

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8   Rowe & Kuan, Architectural, 106.
9   Ibid., 21.
10   Mao Zedong, Theory of New Democracy. (1940 reprint, Beijing: People's Press, 1975) 23.

Fig. 1.21 The 1955 award-winning residential design proposal based on the Soviet superblock schema.

the essential reorientation of architecture to focus on "production and life"[11]. This was reflected in the construction of housing units – after the State's early economic plans to increase production gave rise to severe housing shortages. As the State conceptualized the nation as one of scarcity, economy and utility became the new priorities for housing construction. The Soviet model was adopted because of its emphasis on construction speed, low cost and labour-savings. It featured standardization, mass production, and systematic construction. Buildings were grouped into residential areas which brought housing together with urban functions and social interactions. With the Soviets adopting initially from modernist models of the superblock such as that proposed by Le Corbusier, the 'global urban form' was localized in the Third World context as Soviet planners located the superblock within the city instead of the suburb for more economical urban construction. Yet Chinese planners soon found it unmanageable and incompatible with the socialist interests for economy and utility, and the superblock was abandoned for the micro-district, which was more flexible in plan.[12] Furthermore, dissatisfaction with Soviet-style standard housing soon arose as climatic and living conditions in China differed to that of their counterparts; but by no means was the existing model discarded – it was progressively modified and adapted to local conditions.[13]
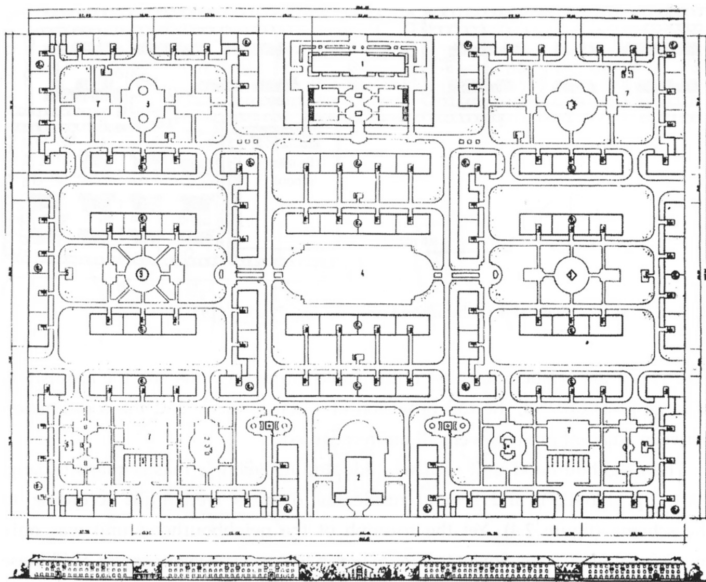
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11   Rowe & Kuan, Architectural, 133.
12   Lu, Remaking, 33.
13   Rowe & Kuan, Architectural, 103.

The typology of work units soon emerged as a modification of the micro-district in ways that enhanced the socialist economic ideal of efficient production, creating a new vision for Chinese architecture. While the former performs the single function of housing, the work unit is an enclosed community that accommodates both units for production and consumption, complete with mixed economic, residential, administrative, welfare and political functions.[14] As Lu describes it, following a lengthy speculation, "the space of the work unit was not an innocent geometric form but infused with the logic of Chinese socialism"[15]. Socialist production of space resulted in a unique urban form that was distinctive for urban Chinese cities, many of which still exist and are evident today. "It shows that some seemingly long established Chinese norms for residential planning are results of transnational appropriations and successive discursive conversations…the development of Chinese residential planning were informed by events, sources and inspirations from various parts of the world. It reveals the history of modern planning as a narration of intertwined global and local experiences."[16]

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14   Ibid.,64.
15   Ibid.,98.
16   Ibid.,45.

Fig. 1.22 Posters published in 1967.
'We not only excel at destroying the old world, we excel at building a new one.'

Building upon the optimistic progress from the 1953 - 1957 five-year plan, the people's communes were constructed as a "fundamental policy to guide the peasants to accelerate socialist construction; complete the building of socialism ahead of time; and carry out the gradual transition of communism."[17] It is built upon a utopian model of high modernism, where the people's communes were to reflect the ideals of the Great Leap Forward; the past regarded as an impediment to the realization of an ideal future. Leaders of the state adopted authoritarian fantasies for industrial and social modernization – reacting to the psychological violence and humiliation for years of foreign exploitation. The eradication of the past in order to create a new world the Faustian heroism of Mao into focus; in the text entitled *Introducing a Co-operative* written in 1958, Mao referred to the people of China as "poor and blank". He states: "Poverty gives rise to the desire for change, the desire for action, the desire for revolution. On a blank sheet of paper free from any mark, the freshest and most beautiful characters can be written, the freshest and most beautiful pictures can be painted." Upon the construction of the people's communes, local architectural motifs were ignored; production, livelihood, and education activities were housed in orthogonal, modernist buildings laid out in orderly rows. The proposals for the communes negated indigenous rural traditions – villages were demolished and replaced with modern residential clusters; previous artifacts such as temples gave way to modern institutions, such as collective canteens, nurseries, schools

17   H.J. Lethbridge, <u>The Peasant and the Communes.</u> (Hong Kong: Dragonfly Books 1963) 72.

and co-op shops.[18] The utopian visions of the state had disastrous consequences. The commune movement ignored technological and physical limitations; workers and peasants worked over hours lacking of state funding. It became clear the communes had failed to raise individual income or job satisfaction. The Soviet Union's withdrawal of technical support and financial aid to China exacerbating the situation. The cumulative effects of these factors were combined with agricultural disasters, leading to widespread famine in which millions died between 1959 and 1961. With the leadership demoralized, further planning was considered impractical. Tying this case to the dialectical theme of high-modernism in other cities such as Brasilia, Lu embraces the character of modernity as a "historical experience that seeks ceaselessly to transform the very conditions that produce it. To be fully modern is to be antimodern…To be revolutionary; the revolution must endlessly transcend itself. It is precisely in this sense that the Chinese commune movement was irretrievably modern".[19] Therefore, attempts to eliminate scarcity only made it ever more profound. The emotional scars from these historical events are passed from generation to generation - increasing aspiration for a better future that still resonate in the contemporary Chinese mentality.

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18   Lu, Remaking, 118.
19   Marshall Berman as quoted in Duanfang Lu's "Third World Modernism: Utopia, Modernity and the People's Commune in China." JAE 60 (2007): 45-46. [60 = vol. 60, n.3]

OPENING UP (1990's - present)

Economic development was pushed forward in the 1990s. Annual growth, measured in gross domestic product and average per capita income saw an unprecedented rise. The increased buying power and levels of personal consumption generated a "market fever" that began to provide the Chinese an opportunity to rise from the anguish of scarcity. We now witness the overdue desire for production and industrialization that has arguably surpassed the West to date; in 2007 China contributed more to global growth than the United States, becoming the world's leading consumer in four of the five basic food, energy and industrial commodities, while also emitting the largest CO_2 levels globally. In Europe during the Industrial Revolution, one's living standards rose 50 percent throughout a lifetime; in China, the average person's living standards are now set to rise by 10,000 percent in one lifetime.[20] Furthermore, the extraordinary degree of industrialization, urbanization and social transformation experienced over two centuries in Europe took place in China in just two decades; the growth in production and consumption has instilled in a once poverty-stricken nation an attitude of "let's get rich fast". This has been reflected in the contemporary architecture that is fast appearing in the nation today.

Below:
Fig. 1.23 Left: Church building by Le Corbusier in Ronchamp, France. Right: Restaurant in Zhengzhou, Henan Province, PR China.
Right:
Fig. 1.24 Excerpts from interview documentary 'How Architects and Urban Planners See the Future of their Cities?'.

20   Zakaria, Fareed. "The Rise of a Fierce Yet Fragile Superpower." Newsweek Dec.31, 2007/Jan.7, 2008, Volumes CL, No. 27/CLI, No.1.

Gao Xuemei
Urban planning exhibition center, Kunming

"It is unfortunate that **the topic of preservation does not arouse enough interest.** Our own architectural heritage are our antiques and jewels. **First let it rest, but not let it die.**"

Mo Jiankun
Director of planning, Kunming

"**Investing money in preservation is a waste of money.**
I truly wish to invite French architects to come to Kunming and initiate developments here."

Zhou Wenxia
Real estate developer, Xi'an

"We're driving on the newly opened second ring road, but it is already suffering from congestion. The new environment is clearly not influencing their [local poor people's] lifestyle."

Cheng Xiaoqing
Professor of architecture.
Tsinghua University, Beijing.

"**Future? It is difficult to predict the future.**
Things happen too fast for us to plan ahead. The frantic speed today does not allow mature thoughts and projections."

Liu Hui
Professor of landscape architecture
North West China Technology University, Xi'an

"I wish Xi'an has places that express our local identity, our cultural characteristics and our history. **We place our hopes onto our next generation**. We all do."

Li Tianshu
8.5 years old student, Kunming

"I like those **lights in the tunnel** like a time tunnel...and the **colorful neon lights** on buildings at night. I wish that in all Chinese families, we will have **robotic nannies** who will replace human beings."

Xu Di
Architect, Guangzhou

"China has become the **international experiment ground** for **new untested architecture**. How is this rapid development affecting our architectural intentions? "

Tong Zhaohui
Professor in architecture
Technical University of South China,
Guangzhou

"Guangzhou's recent development pays much more attention to urban planning in a global approach. **I can see a very positive and bright future in it**."
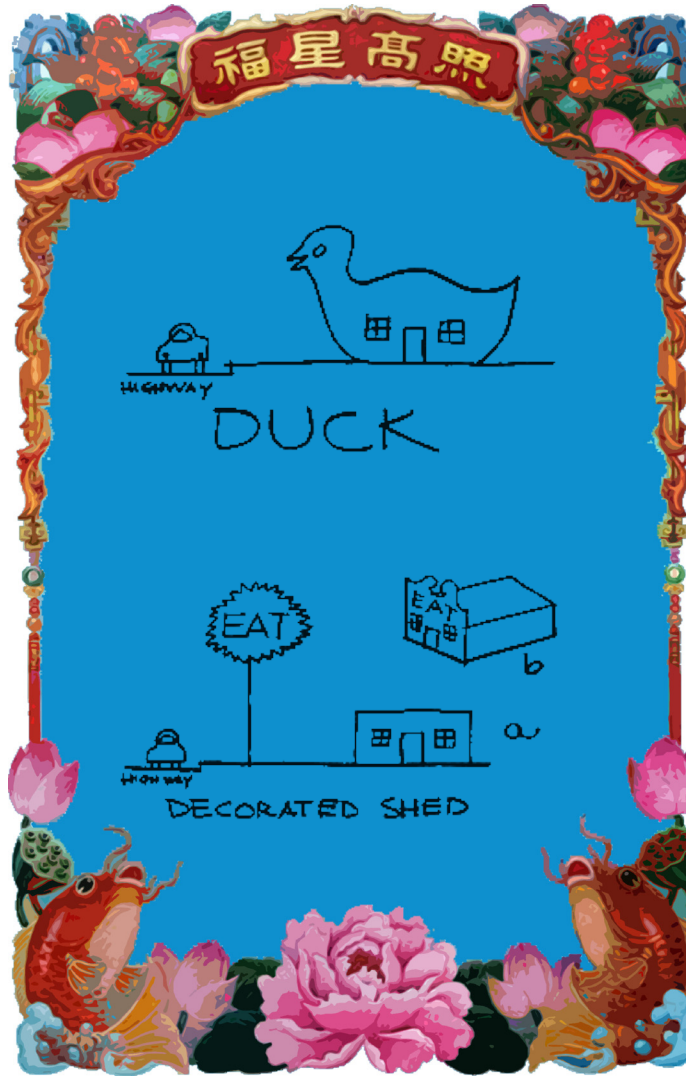
Fig. 1.25 *Duck and shed diagram from Robert Venturi's Learning from Las Vegas, placed within an iconographic Chinese frame.*

Commercial progress in the market economy has brought numerous side effects to the recent Chinese architectural field. The building boom in richer cities such as Shanghai showed many traces of a 'quick-fix' approach to architecture. In the video documentary, 'How Architects and Urban Planners See the Future of their Cities?', foreign iconic espousal has taken on a different dimension. Although interviewees expressed concern towards the waning interest in tradition, there is a heavy undertone of 'let's get rich fast' when asked about their motives for celebrating imported icons. Like Robert Venturi's 'Duck and Shed' approach, where the resulting form of the shed functions like roadside signage along the highway, it legitimizes the assimilation of established icons for the purpose of mass visual communication. As seen in the interviews, the contemporary practice in China follows the same argument. The pirated icons are justified as application of tried and true formulas towards a modern image. The 'modern image' does not reflect the local culture, yet it promises efficient communication towards a large audience and a certain level of commercial success. Not only that the new buildings lack any cultural dimension and show little respect for their surroundings. Moreover, they reflect a dominant belief that "distinctive architecture and urban designs sell."[21]

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21   Rowe & Kuan, Architectural, 187.

Today's Bund is a tourist attraction that provokes nostalgia for the once infamous international city, where financial institutions, modern vehicles, printing presses and opium dens lined the vibrant streets.

Stretching along the Bund is a raised promenade for viewing the pictorial assembly of towering developments across the river. It symbolizes the modern achievements since 1989's economic reform and can be understood as an attempt to counter the "psychological violence" generated by scarcity during Maoist reform (1949 – 1979). It demonstrates the belief that western culture was superior to their own. Modernity is embraced and understood as a tool for better living as their country strives to match the development of the West.

Clockwise:
Fig. 1.26 Disney's Magic Castle at night.
Fig. 1.27 Bund at night.
Fig. 1.28 View of PuDong from Bund at night.
Fig. 1.29 Tourist crowd along the Bund.

Other recent works of architecture show the uncritical use of local iconography, much similar to the pretentious domestication of the modern ethos by colonialists in the late-Qing era. The work of local design institutes and their foreign collaborators often adopt direct symbolic references from both inside and outside of architecture, sometimes closely emulating well-known contemporary buildings elsewhere in the world.[22] For example, one of the tallest buildings in the world, the Jinmao Buidling in Shanghai by Skidmore, Owings and Merrill and the East China Architectural Design Institute, provokes the image of a Chinese pagoda and would fall easily into the critical discourse of superficiality shared previously with 'Big Roof' style buildings.

The stylistic imitation and direct adaptation of foreign and local iconography allow buildings to be erected in the quickest possible way for income generation and image construction for their clients, who range from contending 'modern' cities to corporations and businesses of different sizes. Thus, the creation of architectural symbols and what often amounts to the "theming" of urban environments service commercial and political interests.[23] Architecture becomes a commodity that reflected little more than "a pursuit of appearances or of what seemed to be the most fashionable image at hand." Furthermore, hyperactivity in a city built for rapid economic growth means that a "vigorous critical viewpoint had little chance to develop." Practitioners are unable to adequately

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22   Ibid., 166.
23   Ibid., 187.

assimilate the influx of new ideas and tend to accept new references uncritically."[24] This leads to the production of awkward forms that lack design rationale. As evident from the examples above, the contemporary architectural scene in Shanghai reflects the attempt to obliterate the memory of scarcity, but it also neglects the lessons of history. Despite the exponential economic growth, a pursuit of a largely western modernity continues, only in a more technologically advanced and financially robust context. The aim to "get rich fast" through uncritical replications of foreign buildings, doubling as trophies of modernization, implies that China has 'caught up' to the West. Establishing a critical architecture capable of sustaining itself after the current economic and capitalist related hyperactivities is an exigent task. The question then to be addressed, as Rowe concludes, "is how to use the symbols of a tradition in order to convey and sustain an appropriate sense of identity. Too many aspects of a tradition deployed too often would effectively diminish their power, especially when symbolism obstructs other expressive impulses that have to do with not tradition but with a progressive, forward-looking vision."[25]

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24   Ibid., 171.
25   Ibid., 208.

Chinese Architecture Made

Cheap,
Good,
Fast.

is a graphic work of the speculated future practice. Scale-less foreign star-architects' masterpieces are embellished with advertisement graphics commonly used on medical ointment in 19th Century Shanghai. It comments on the c o m e d i c situation of capitalized foreign icons being used as a remedy t o w a r d s an erasure of memory of scarcity and the

underdevelopment of a critical architecture. The ability to **replicate iconic modern f o r m s** has become an exotic skill that **promises 'cultural betterment'.**

Fig. 1.30 *'Chinese architecture made Cheap Good Fast.'*

Peter Eisenman regards the recent condition of architecture in Shanghai as one that 'accommodates' the forces of the state and the market;[26] Both Rowe and Eisenman suggest that critical architecture can only be achieved through 'transgression', not 'accommodation'. With respect to contemporary Chinese architecture, the direct emulation of foreign architecture can be seen as an inchoate step in this approach which, as Rowe points out, "involves straightforward copying followed by partial rejection and, last, a more thorough indigenization. In this pattern, the influence of the foreign source is first embraced, then disputed, and finally incorporated and transcended. To date, China's response to influence has been somewhat more varied, with repeated episodes of acceptance and rejection and perhaps only the beginnings of assimilation."[27] In order to address an expedited approach towards a 'transgressed' architecture, the following chapter proposes the fortune cookie tactic.

26   Peter Eisenman, 'Critical architecture in a geopolitical world', in, Cynthia C. Davidson and Ismail Serageldin, eds, <u>Architecture Beyond Architecture: Creativity and Social Transformations in Islamic Cultures</u> (London, Academy Editions, 1995) 78–81.
27   Rowe & Kuan, <u>Architectural</u>, 205.

TACTIC 3

Create something from nothing

(無中生有; Wú zhōng shēng yǒu)

A plain lie. Make somebody believe
there is something when there is
in fact nothing. Tactic three draws
inspiration from fortune cookies to
create new forms while preserving
the local imperatives.

FORTUNE

fold in half   put corners together   put cookies in muffin tin
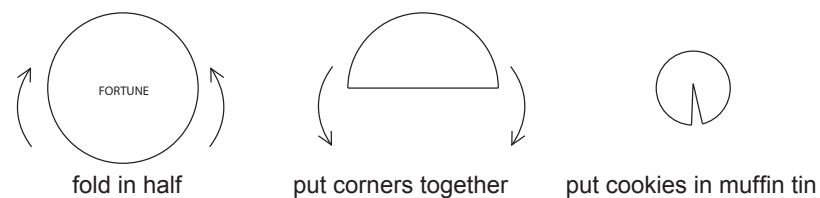
Left: Fig. 1.31 Tactic 3.
Above: Fig. 1.32 Fortune cookie lesson.
Opposite Page: Fig. 1.33 Silver fortune cookie.

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1.2

FORTUNE COOKIE capitalizes on the myth of Chinese fortune telling by inserting a strip of printed message into a folded cookie. Although it is a by-product of American culture, it nevertheless successfully mediates the message of 'a Chinese treat'. This offers three lessons for design. The first lesson is in the formal interpretation of the distinctly Chinese structural logic found in origami and dumpling-making. The cookie is not an adaptation nor a direct copy of existing objects, but a new form generated by an extraction of established spatial disciplines. The second lesson is to communicate the cultural implication of finding hidden messages in snacks to a wide audience outside of the cultural context. By identifying the intent of finding hidden messages within treats as a sign of luck in traditional Chinese culture, the original meaning of the act is preserved. The third lesson is the engagement with the user.

Fig. 1.34 Building categories as set out in YingZhaoFaShi.

Instead of relying on visual resemblance, the simulacra of a Chinese cookie is mediated by bodily interaction with the form. The enclosure has two flat ends where it invites one to split the cookie apart and retrieve the hidden message, from which the experience of fortune reading is fulfilled. The fortune cookie transcends itself into the contemporary context with its original cultural implication preserved in a new form that is distinctly Chinese. Likewise, architecture shall be able to transcend itself as suggested by the fortune cookie tactic. It can be understood as a three step process, extraction of the governing formal principles, identifying their inherent ideologies, and mediation of the narrative through interaction with its end-users.

The understanding of traditional Chinese construction principles was gained through an exchange program in Tongji University, Shanghai, where the main body of study was based upon the 12th-Century Chinese government building manual, *Ying Zhao Fa Shi*. The document provides a comprehensive process description of the official wood frame style of the Song dynasty (960 - 1127). Although styles, details and proportions vary over time and throughout China, particularly between the north and south, some general observations can be made.

The raised platform, supporting beams, and roof, are the three basic elements in the traditional Chinese construction. The platform prevents dampness and protects the building from flooding. It is often made of rammed earth, but more important structures would
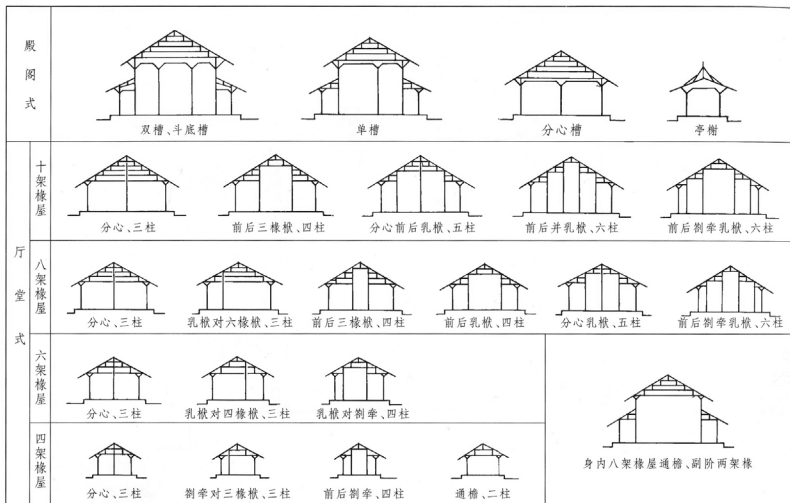
use stone. Standing on the platform are the supporting wooden columns. The base of the column sits on a stone pedestal to prevent rising moisture, while the top is secured to a series of beams or *liang*. The hierarchically arranged beams tie together the system of columns and give the roof its shape. The lowest hierarchy of the horizontal members are the interlocked brackets and bracket post, *dougong*. Together, they constitute a whole that represents a quest for balance. They provide support for the roof tiles and overhangs. Viewing from below, "the awning of the roof seems to rest on this succession of brackets and bracket posts, like a stack of clouds."[28] In plan, the quadrangle grid composed of four columns is considered one unit or *jian*. The system of interconnecting supporting beams allows the whole structure to be extended infinitely by adding more *jian*.

In comparison to Western architecture, the Chinese system of beams is independent from the structural qualities of the triangular truss. This offers a greater freedom to determine the pitch and the outline of the roof. Internally, spaces are defined temporarily between columns as supposed to solid load-bearing walls. The walls of a Chinese building are immaterial and the material is impermanent. Among the foreign architects and foreign-trained Chinese architects who sought to promote the use of Chinese architectural styles, most became hopelessly frustrated by the irreconcilable and unavoidable problem of the distinctive oriental roof. These practitioners are

28   Mingda Chen, <u>Ying Zao Fa Shi Da Mu Zuo Zhi Du Yan Jiu</u> (Beijing : Wen wu chu ban she : Xin hua shu dian jing xiao, 1993) Vol.2.
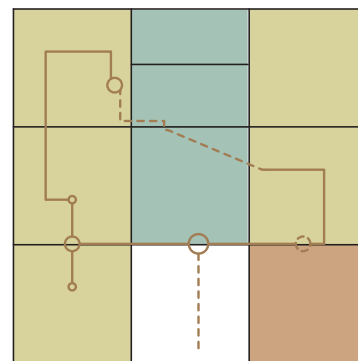
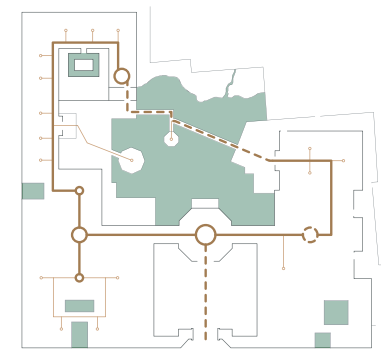Suzhou Museum, Suzhou, PR China. by I. M. Pei
From left to right:
Fig. 1.35 *Internal courtyard.*
Fig. 1.36 *Programmatic organization employs the traditional method of 'Nine Square'.*
Fig. 1.37 *Circulation diagram.*

Gallery Spaces

Library and Support

Walled-in Courtyard

--Outdoor Circulation

—Indoor Circulation

Walled-in Courtyard

Qiao Xin Wn Commercial City, Xi'an, PR China. by Qing Yuen Ma.
Fig. 1.38 Department store entrance facing plaza.
Fig. 1.39 Commercial corridor.

ultimately guilty of imitating the form in incompatible materials. The characteristic roof and its upturned eaves is the result of a particular structural principle rather than style. One must realize that as building materials change, construction techniques and resulting spaces are directly affected. Like many technologically outdated practices, the 'big roof' therefore seem condemned to antiquity. Materially, it has been superseded by more efficient methods, where its essence must be expressed thorugh other channels. One of the approaches as demonstrated by I. M. Pei and Qing Yuen Ma, is to negate the differentiated material and technological employment through analyses of materials, structure, volume, and proportion. An alternative approach, derived from the fortune cookie tactic, is to identify the particular cosmological understanding that influenced the Chinese construction principles, and use the results as the basis for a formal practice.

The Chinese worldview was influenced by a combination of religious beliefs, philosophical doctrines and time-honoured customs. In *Modernism in China,* Edward Denison draws the link between the notion of impermanence, the cosmological belief of ephemerality common to the Chinese religious influences, and traditional timber construction. Confucianism, Taoism, and Buddhism are the three main religions of principle influence. Denison explains, "on one hand, the continuous style of life advocated by Buddhism and the pervasive Chinese belief in incarnation predicate a cyclical view of time in which humanity is locked in an unrelenting sequence of life,
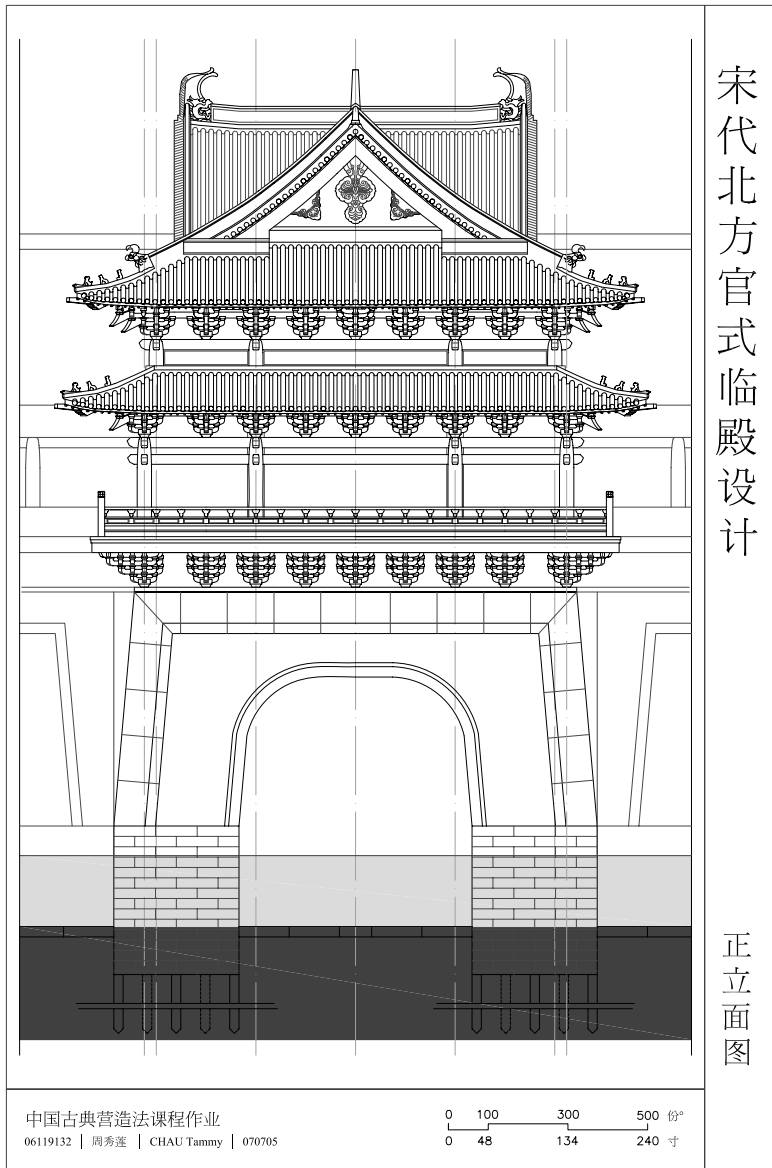
宋代北方官式临殿设计

正立面图

| 0 | 100 | 300 | 500 份° |
| 0 | 48 | 134 | 240 寸 |

Fig. 1.40 *Elevation of pavilion design according to YingZhaoFaShi.*

宋代北方官式临殿设计

剖面图

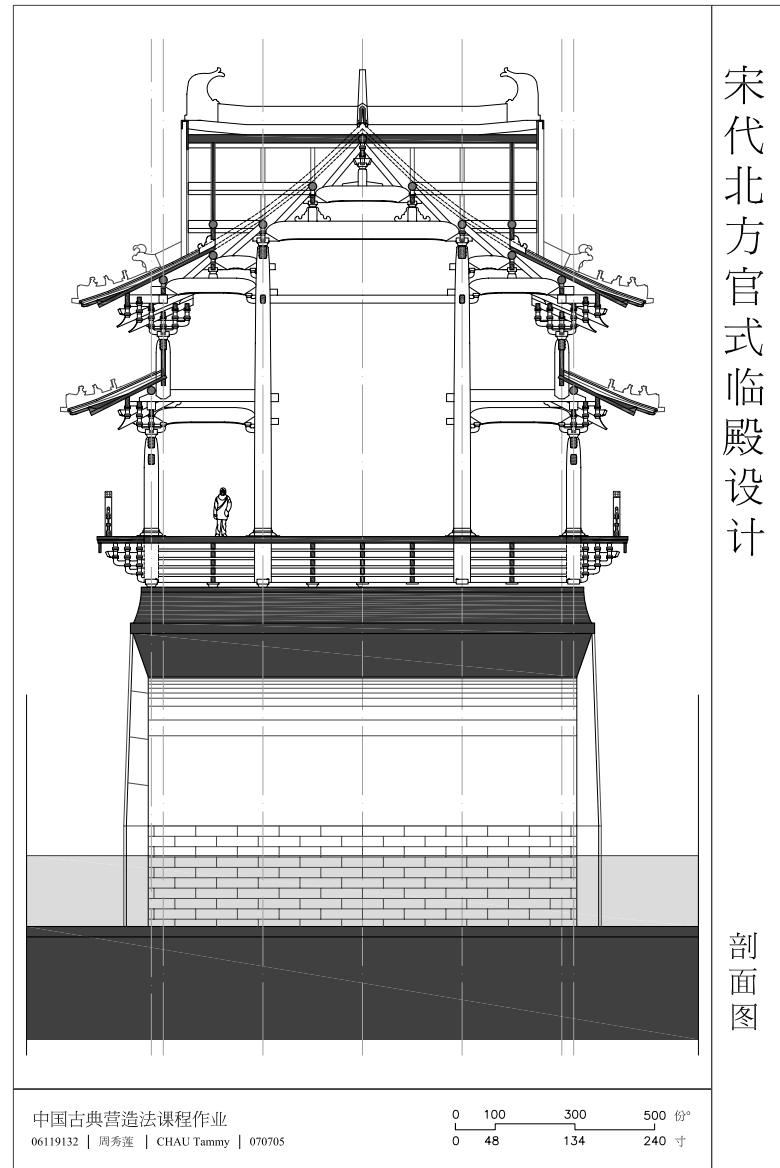| 0 | 100 | 300 | 500 份° |
| 0 | 48 | 134 | 240 寸 |

Fig. 1.41 *Section.*

death and rebirth. This is supported by the Confucian principle of dynastic growth and decline, and characterized by [the Confucian philosopher,] Mencius', repeated cycles of order and chaos (*yi zhi yi luan*). Yet, on the other hand, the Confucian philosophy of respect, morality and social order transcended time and placed a premium on maintaining the status quo."[29] Since the corporeal represents the material world and is therefore considered inferior, buildings are not meant to last forever. The physical elements may be swept away and replaced, as they frequently were by nature or man, but they would be rebuilt and their function restored. Significance, therefore, resided in the immateriality of place rather than the physicality of structure. This cosmological understanding has created a particular appreciation of architecture. Today, the notion of impermanence continues to mirror China's dominant mindset, which is based upon a Confucian respect for the past and on maintaining the status quo.

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29   Denison & Guang. <u>Modernism</u>, 97.

Fig. 1.42 *Floor plan.*

宋代北方官式临殿设计

平面图

0　100　300　500　份°
0　48　134　240　寸
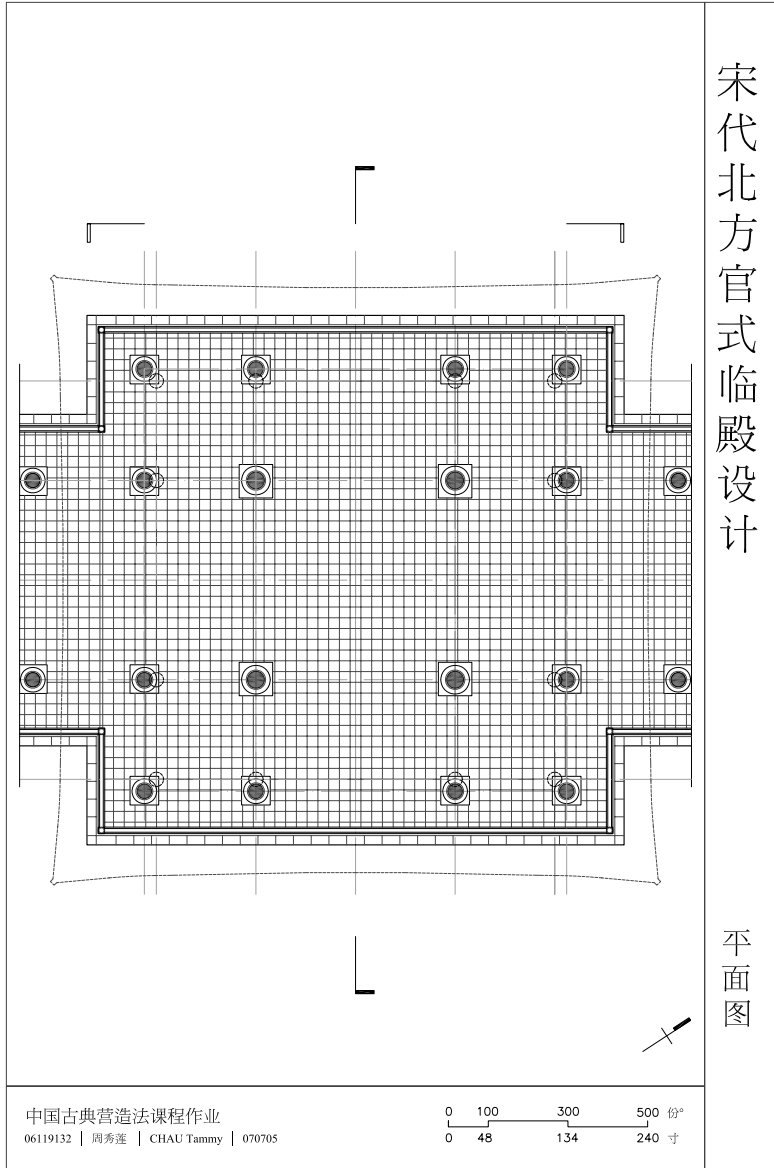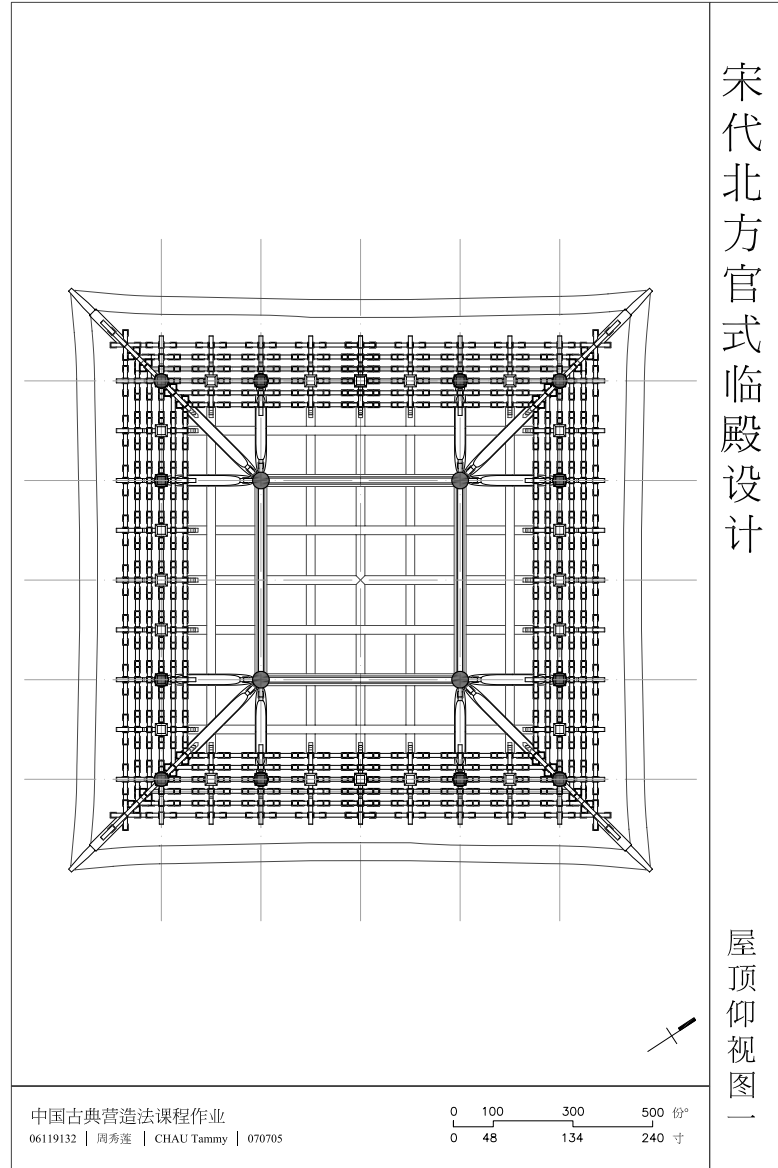
Fig. 1.43 *Reflected ceiling plan.*

宋代北方官式临殿设计

屋顶仰视图一

0　100　300　500　份°
0　48　134　240　寸

The following installation project experiments with the fortune cookie tactic. It draws inspiration from the multiplicity of the elemental spatial unit, *jian*. It reflects the Taoist saying - "Tao produced one, one produced two, two produced three, three produced all beings"[30] by creating a room that explores an exponential spatiality. According to one of the most influential Taoist philosophies in *I Ching*, the relationship between a physical construct and its embodied meaning is summarized as '得意而忘象' – the form or symbol does not become part of the memory once the author's intended gesture or narrative is realized. In another words, the physicality of the spatial construct is applied as a tool to convey the greater poetics and meanings. It parallels the fortune cookie tactic of sustaining customs through new forms.

The installation was realized as a transportable space. The piece was first set up in Shanghai as three separate rooms and later travelled to Guangzhou and Beijing. It utilizes eight-pass titanium panels for its light weight and high reflectivity. All faces of the rooms, including the ceiling and floors, are clad in this material. A column of vertical lattices is offset from the internal wall. They are reflected by the ceiling and floor to generate a sense of verticality like those of a traditional column. Within each room, objects are placed at the corners so that they may be experienced through reflections as floating objects. The installation results in a suspension in space. Boundaries of the physical volume are dissolved into infinite virtual multiplications, where the viewer is constantly at the origin.

Fig. 1.44 Diagram illustrating the multiplicity of Jian.

30   The term Tao is a word used commonly used to describe 'path', and by extension 'method', 'way of doing'.
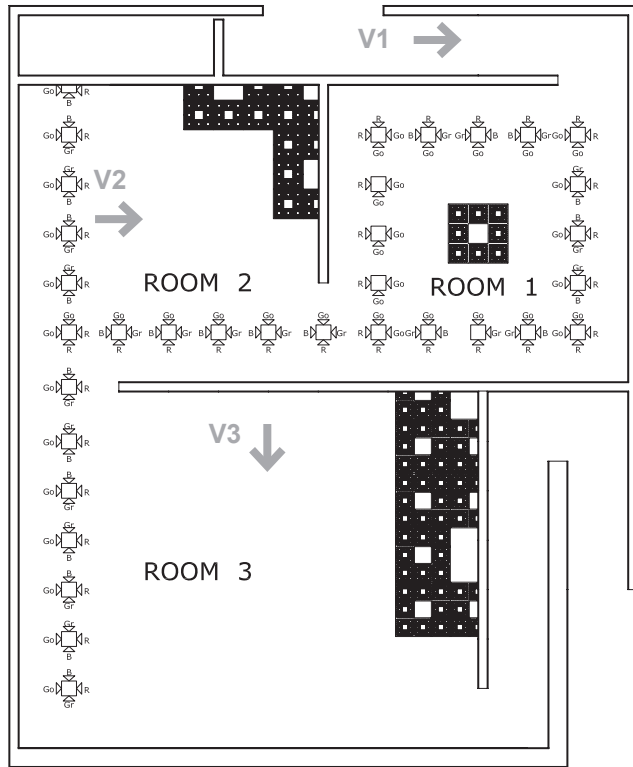
Fig. 1.45 *Floor plan.*
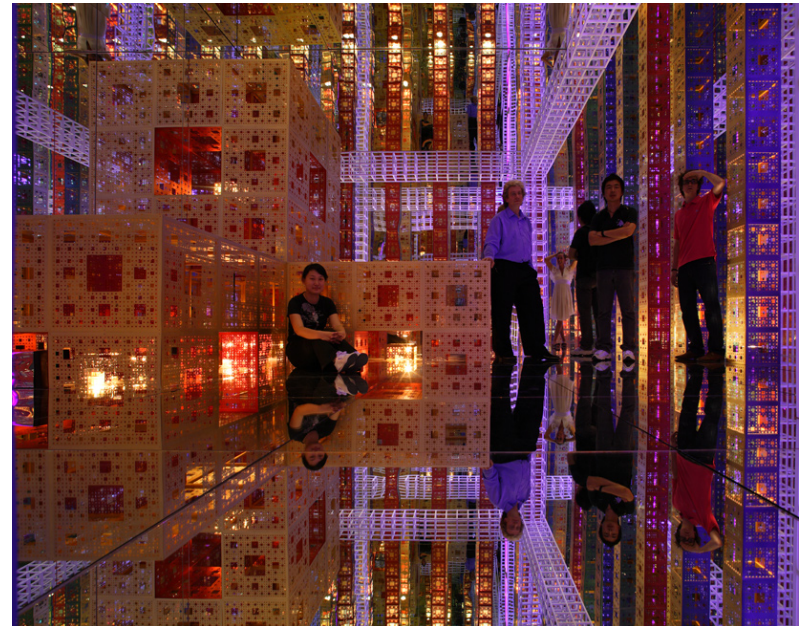

Fig. 1.46 *View 1.*
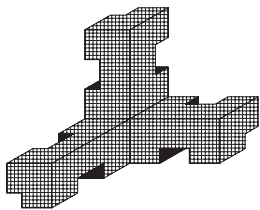
Fig. 1.47 View 2.

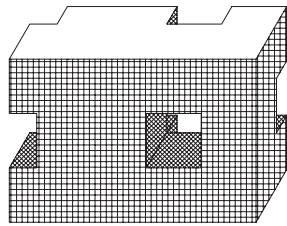*Fig. 1.48* View 3.

Object 1   Object 2   Object 3
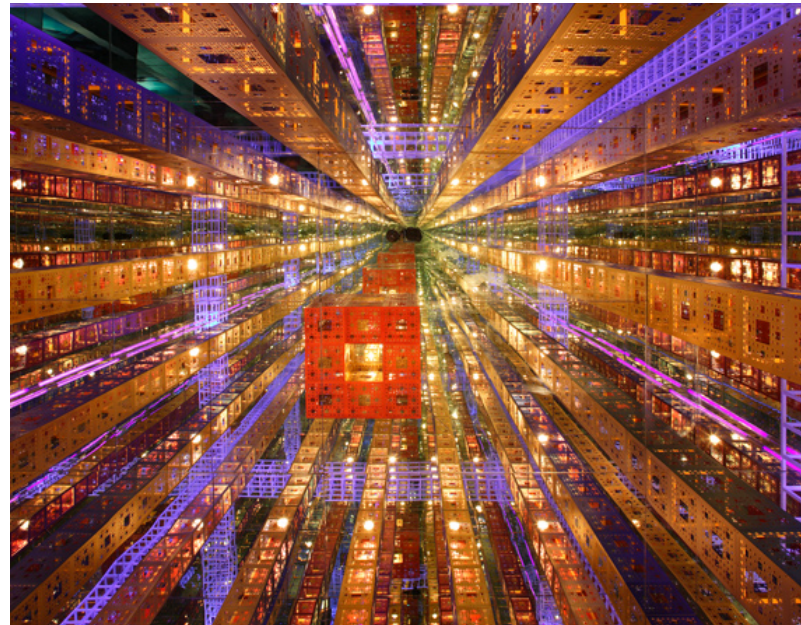
Fig. 1.49 *Objects.*

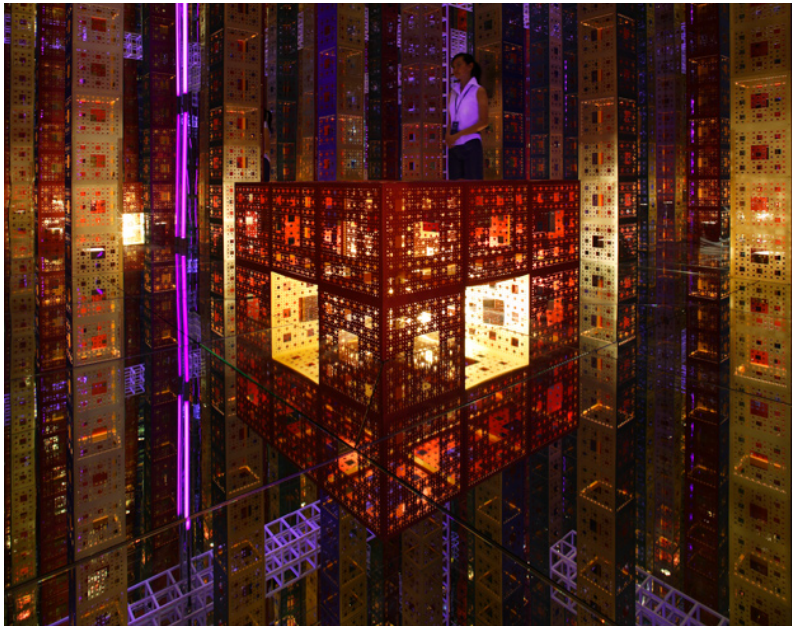*Fig. 1.50* *Interior view. Object 1's reflection on ceiling.*
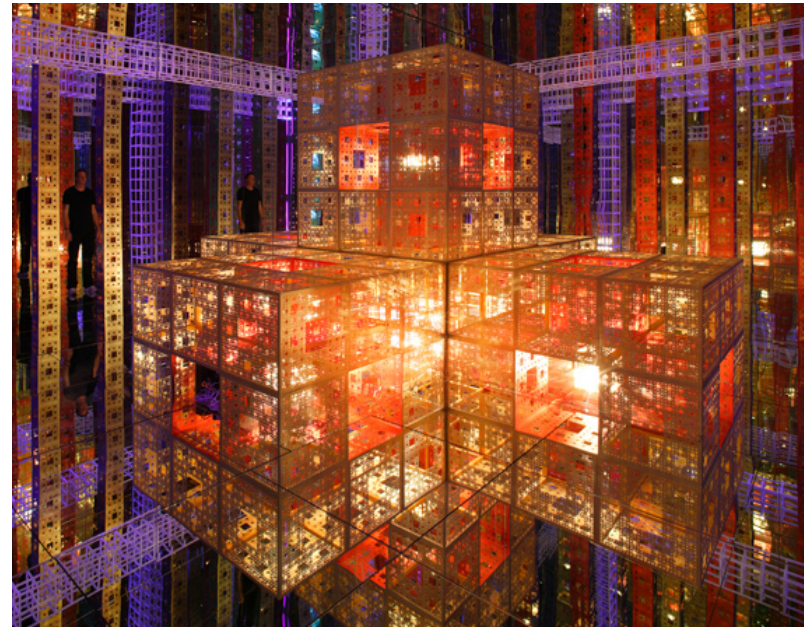
Fig. 1.51 Interior view. Object 2.

Fig. 1.52 Interior view. Object 3.

Fig. 1.53 Graphics work for the People's Manifesto.

1.3

A COLLECTIVE MODERNITY

In *Everyday Modernity in China*, Joshua Goldstein begins his introduction of modernity with the Freudian idea that "[the everyday] was no longer simply the place of positivistic facticity but the space where common experience concealed deeper conflicts and contradictions whose elucidation was available to a rational consciousness."[31] In addition, Goldstein proposes that "the everyday reminds us that modernity always fails…Modernity's failures seem only to reinforce the spell of its ultimate success."[32] By presenting a range of insiders' experience of the modernization of China, we are reminded that the transition is not always smooth - the stories

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31   Harry Harootunian, <u>History's Disquiet</u>. (New York: Columbia University Press, 2000) 69.
32   Joshua Goldstein, "Introduction" in <u>Everyday Modernity in China</u>, Madeleine Yue Dong, Joshua Goldstein, editor (Seattle and London: University of Washington Press, 2006) 6.

that tell of nitty-gritty realities and ubiquitous complications of the modern reveals this, as does the narrative of China's architectural journey through history. Goldstein's account of modernism contrasts sharply with those of the utopian and, as we have witnessed the failures of this model, it is a clear indication of the problems of an authoritarian top-down model of government. A possible answer to finding a Chinese modernity lies not in the ideals of political leaders, but in the everyday. In other words, "…small realities of everyday life hold the forces that may reshape the social tapestry from the bottom up."[33]

As we have already seen from historical examples such as the work unit, people "make" themselves modern as opposed to being "made" modern by alien and impersonal forces.[34] More importantly, the forces and influences of globalization must be accommodated in order for nations to stay economically, socially and technologically competitive. As we witness the inevitable emergence of a universal architecture, we can counter the sweeping effects of tabula rasa by rethinking the relationship between *ti* and *yong*. Learning from previous attempts that sought for a balance between the two elements, the contemporary condition calls for a reinterpretation of the accepted notion; instead of Chinese for substance (*ti*) and West for function (*yong*), it is "more like Western for substance, Chinese for function"[35]. The design proposal first identifies the transcendant

33   Lu, Remaking, 144.
34   Dilip Parameshwar Gaonkar. On Alternative Modernities. (Durham and London: Duke University Press, 2001) 18.
35   Zhenfu Wang, Cultural Formations of Chinese Architecture. (Shanghai: Renmin, 2000) 298.

traditional ideology found in the typology of a collective space as well as the site-specific context, then applies available suitable technology (ti). Through this approach we can create contemporary forms to suit the everyday culture. Combining the Confucian notion of ephemerality in a bottom-up culture, the project envisions a public scaffold that embodies the ideology of impermanence found in Chinese architecture. Rather than relying upon direct historical iconographic references, it provides a place for local modernity to foster.

A SITE SPECIFIC DESIGN APPROACH

The fortune cookie tactic informs the design process. From the preceding observations, we prepare to adopt the following design criteria:

a.   Obliterate the iconic reference

b.   Consider for architectural adaptability and impermanence

b.   Create a public space to foster an everyday modernity

c.   Interpret the spatial qualities of the site

d.   Incorporate the future urban planning scheme to establish a strong connection with its future users
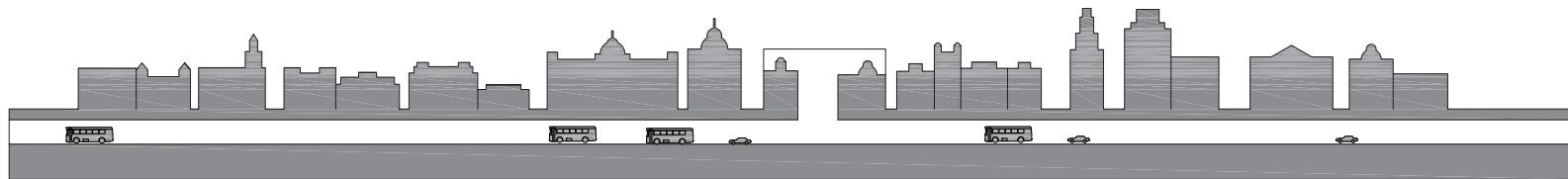
Existing Scheme
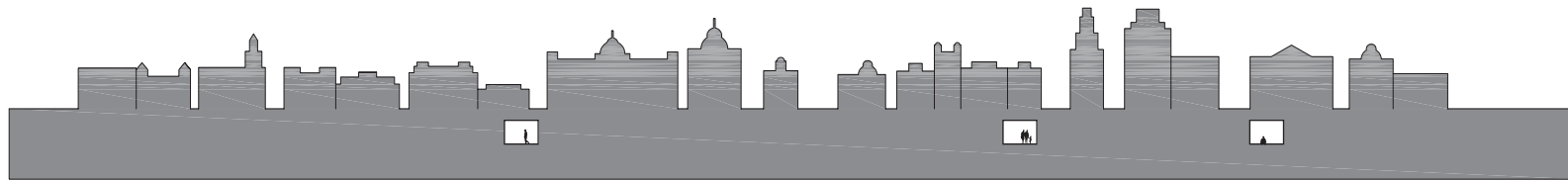
Future Scheme

Fig. 1.54 Existing and future urban schemes.
The vehicular and pedestrian circulation are reversed in the new scheme.

FUTURE URBAN PLAN

The future urban plan involves demolishing the existing elevated Yan'an Elevated Road, and burying eight lanes of traffic along Zhongshan East 1st Road. Currently, both highways serve as major vehicular arteries that run latitudinally and longitudinally through the metropolitan Shanghai area. The new urban plan will rewrite the entry sequence to the site, one that comes with an experiential narration of Shanghai's modern achievements and aspiration – one that celebrates vehicular transportation, civic announcements and capitalist advertisements.

Yan'an Elevated Road has provided a significant entry experience to the Bund area because it metaphorically narrates a sense of accomplished modernization. The elevated highway runs east-west along the back side of the city fabric, surrounded by rusting signage and roof-top mechanical units. It turns and slowly descends as it approaches the Huangpu River to join Zhongshan East 1st Road. The experience changes from one that is privileged and backstage to one that is open and celebratory. Advertisements and government announcements flash restlessly from the LED's embedded in building facades across Huangpu River on the east side. The colonial buildings along the west side provide an interesting contrast between the old and new as the two highways join. The thesis design aims to reconcile with the existing narrative by serving as a connector between the underground vehicular infrastructure and the vitalized city above ground.

Fig. 1.55 New Bund redevelopment plan.

Theatrical Set: View across Huang Pu River

Information: Signage, Urban Beacon

Blind Spots: Railing, Roof of building clusters

Green Buffer

Program: Shops, Observatory Platform

Planes

Places

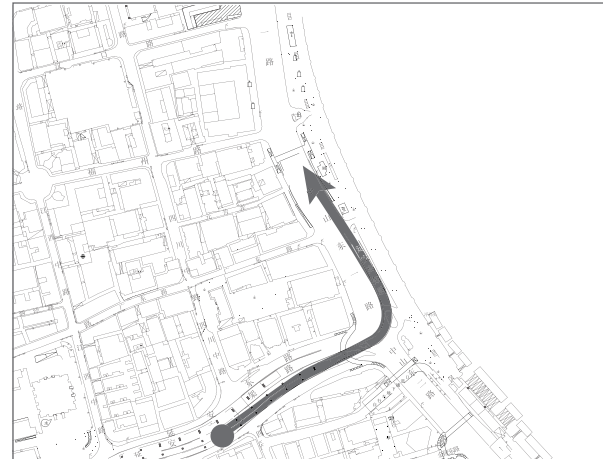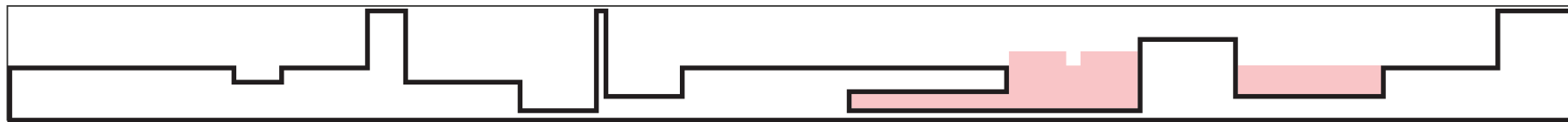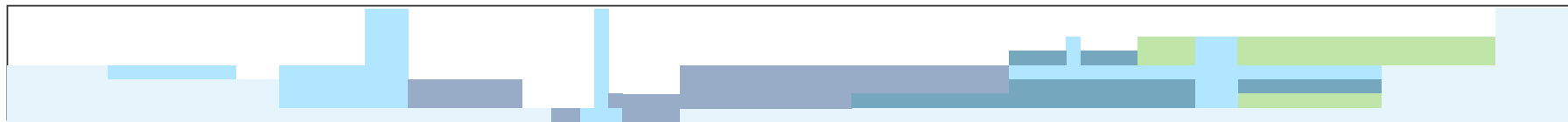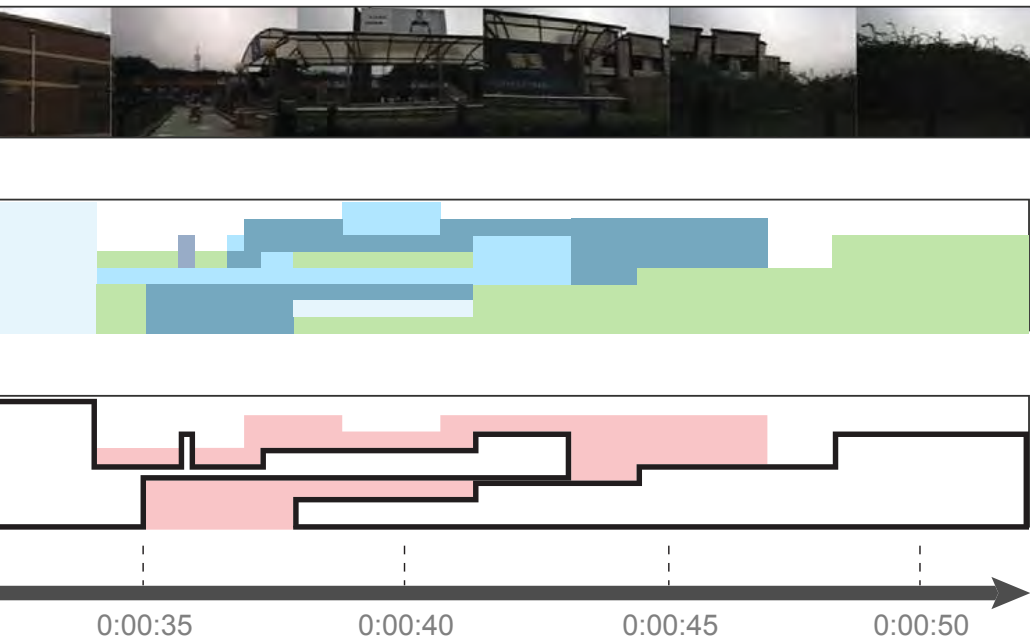*Fig. 1.56* *Vista analysis for existing site entry sequence.*

0.4km
28.8km/h

0:00:00   0:00:05   0:00:10   0:00:15   0:00:20   0:00:25   0:00:30

0:00:35	0:00:40	0:00:45	0:00:50	

SPATIAL EXPERIENCE OF MOVEMENT AND VISTA IN THE SURROUNDING CONTEXT

Fig. 1.56 examines the changing views when one enters the site along the elevated highway from the south west. View planes are taken at every 0.5 seconds to assemble a cohesive whole. They are then categorized into planes for viewing and places that suggest closer interaction. The research interprets the high percentage of viewing planes as an indication that the experience of the surrounding site as one of movement, vista, and spectacle. The excitement of high-speed movement while visually participating in the multi-folds of live spectacles becomes a catalyst for the intangible form. It concludes with a kaleidoscopic spatiality that generates movement and spectacle within a seamless and homogeneous envelope.

61

PROGRAM PRESCRIPTION looks at the definition of a collective space in the Chinese context. Fig.1.57 identifies the principal programs and components for a culturally specific collective space.
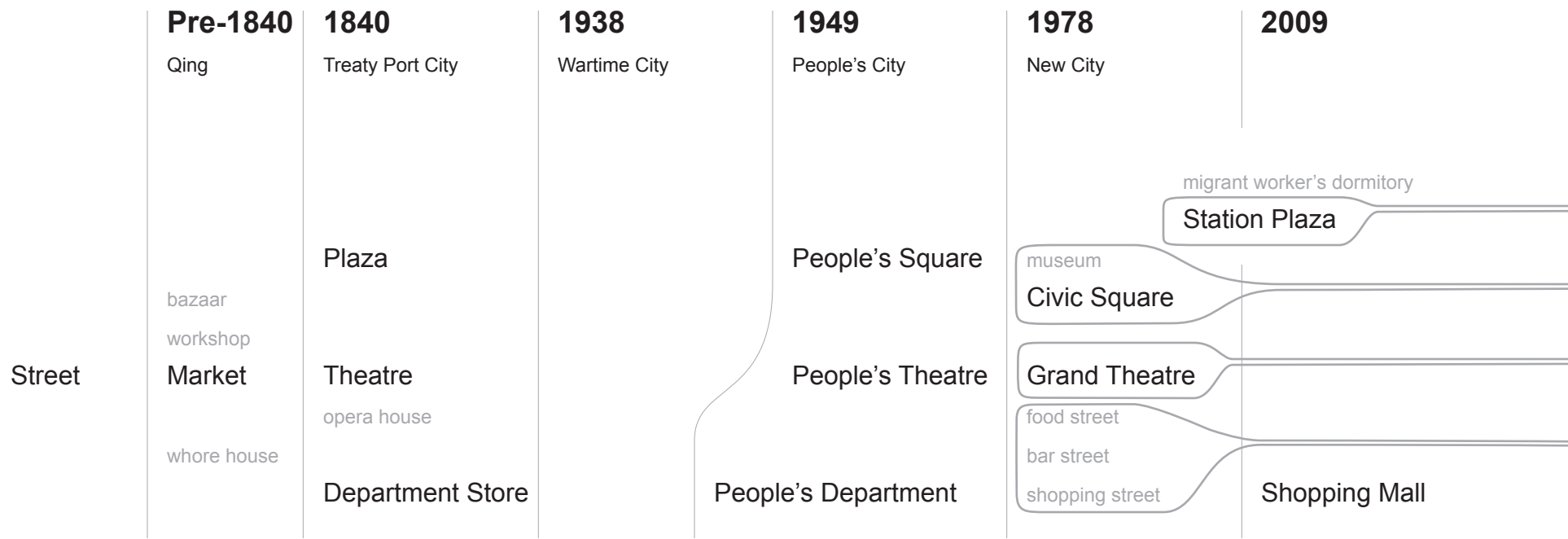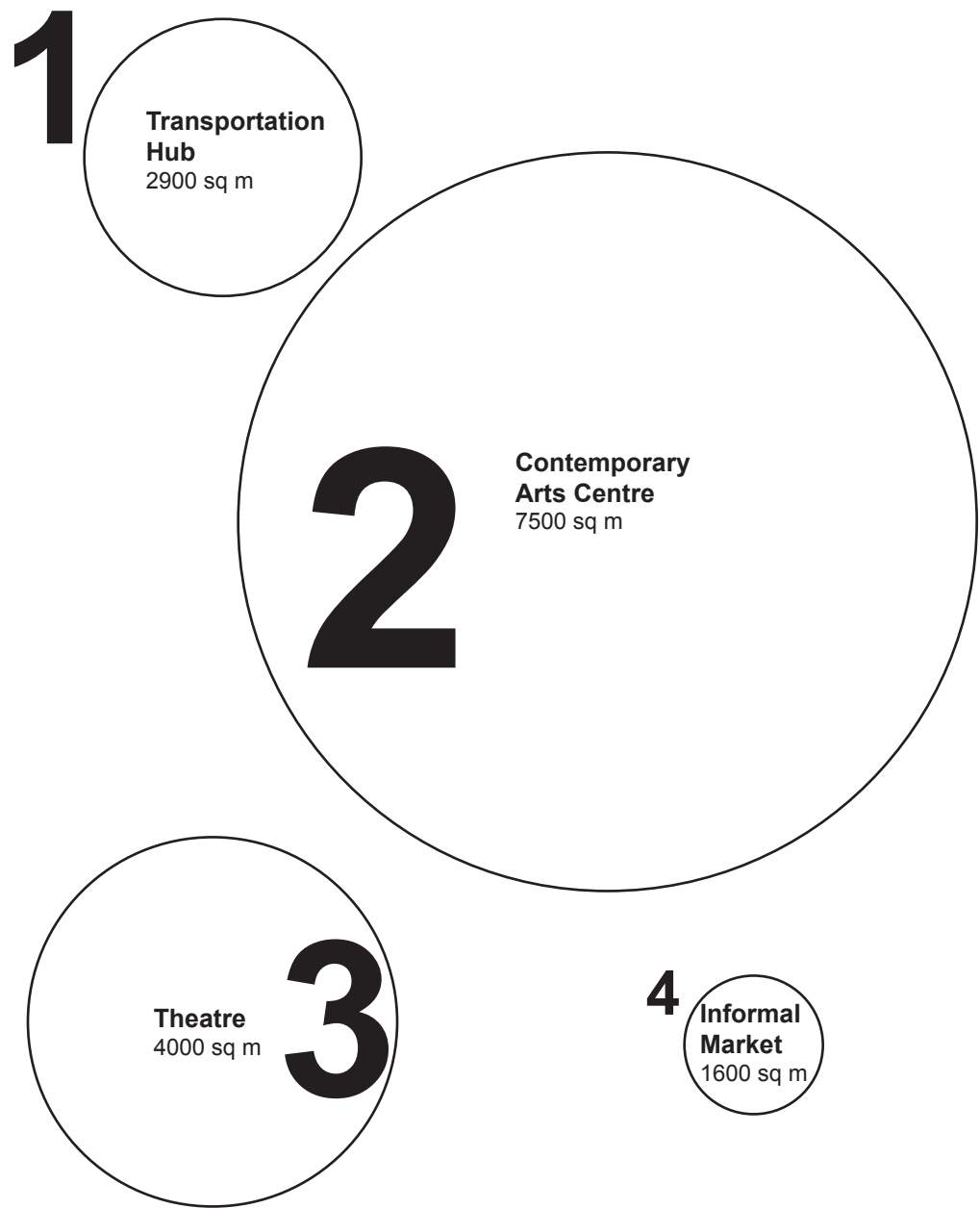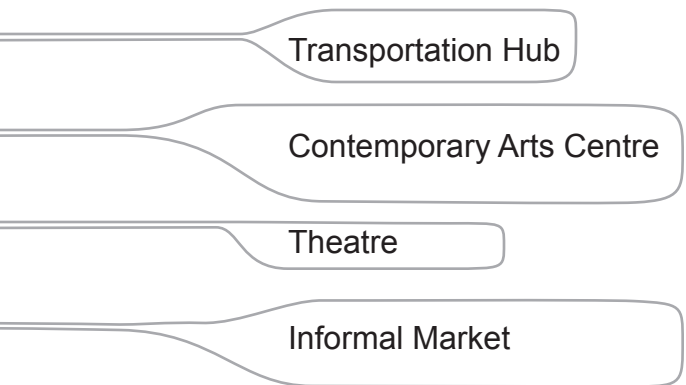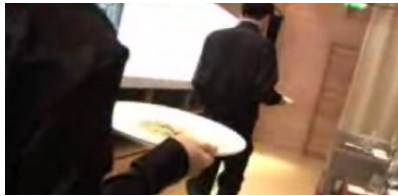
Pre-1840	1840	1938	1949	1978	2009
Qing	Treaty Port City	Wartime City	People's City	New City	

migrant worker's dormitory

Station Plaza

Plaza · People's Square

museum

Civic Square

bazaar

workshop

Street · Market · Theatre · People's Theatre · Grand Theatre

opera house

food street

bar street

whore house

shopping street

Department Store · People's Department · Shopping Mall

Fig. 1.57 Evolution of the collective space.

62

1 Transportation Hub
2900 sq m

2 Contemporary Arts Centre
7500 sq m

3 Theatre
4000 sq m

4 Informal Market
1600 sq m

Transportation Hub

Contemporary Arts Centre

Theatre

Informal Market

Ms. Chau.
Tourist from Canada, dining
in the Peace Hotel
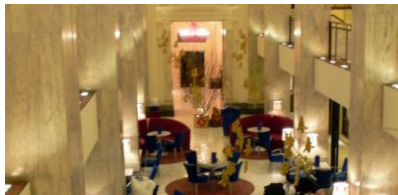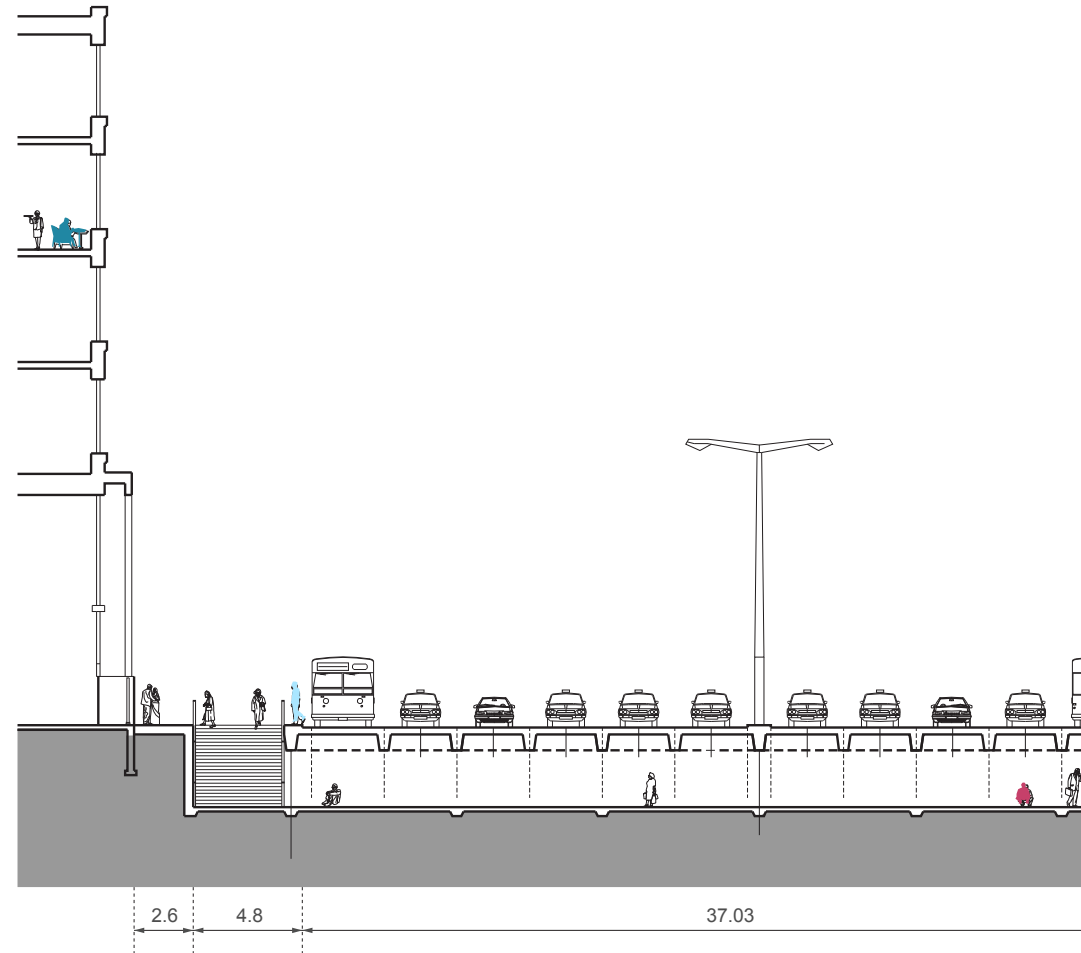

Mr. Chan.
Local commuter, manager of
the China Merchants Bank

Mr.Tong and Mr.Li
Street Vendors
From Shanxi Porvince

Mr.Xie
Local TaiChi master
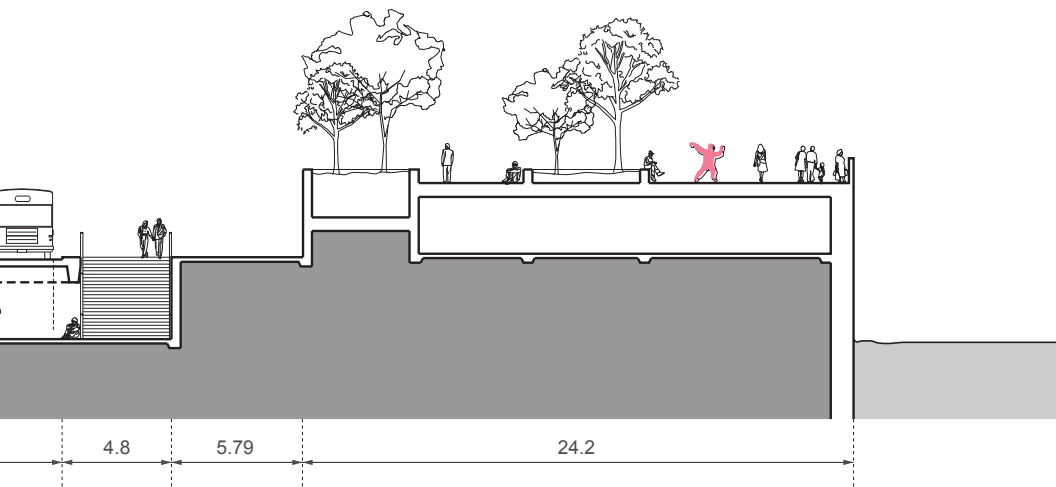

Mr. Zhao with family
Tourist from GuangXi
Province

2.6   4.8   37.03

It suggests that the new collective space shall provide opportunity for interaction among different demographics.

To summarize the 'Soft Information', modernity can be understood as a tool to counter the psychological impact of the 'Not Yet' generated by scarcity. Suggesting the 'fortune cookie design approach' that refrains from iconic replication, the thesis questions the need to reference iconic forms (both the image of a traditional architecture and that of an international urban centre), in order to achieve a quintessentially Chinese modernity. 'Chinese-ness' is understood as a spatial construction intrinsic to its structural principles and its cosmological ideologies. It directs the design proposal towards a construction of a social scaffold where monumental permanence is achieved through adaptive use that encourages the fostering of everyday modernity.

4.8   5.79   24.2

2.0
HARD DATA

Fig. 2.1 *Map of Shanghai. Artwork by Liu Zhizhi.*

2.1

CONTEXTUAL PROGRAMMATIC NETWORKS

An event-driven collective space is created by first examining the contextual activities within walking distance, and secondly by integrating the programmatic components within the surrounding infrastructure. The new integrated formulation of contemporary architectural parameters means moving away from the categorization of function groups to concentrate on the mapping of relational on-site movements. It also targets the articulation of relational parameters rather than the optimization of individual data. Temporal conditions are linked to programs in order to locate topographical areas that produce shared values. The definition of the interest groups are time-based as opposed to territory-based, movement-based as opposed to occupancy-based. Public and private programs share common spaces instead of being treated as oppositional conditions.
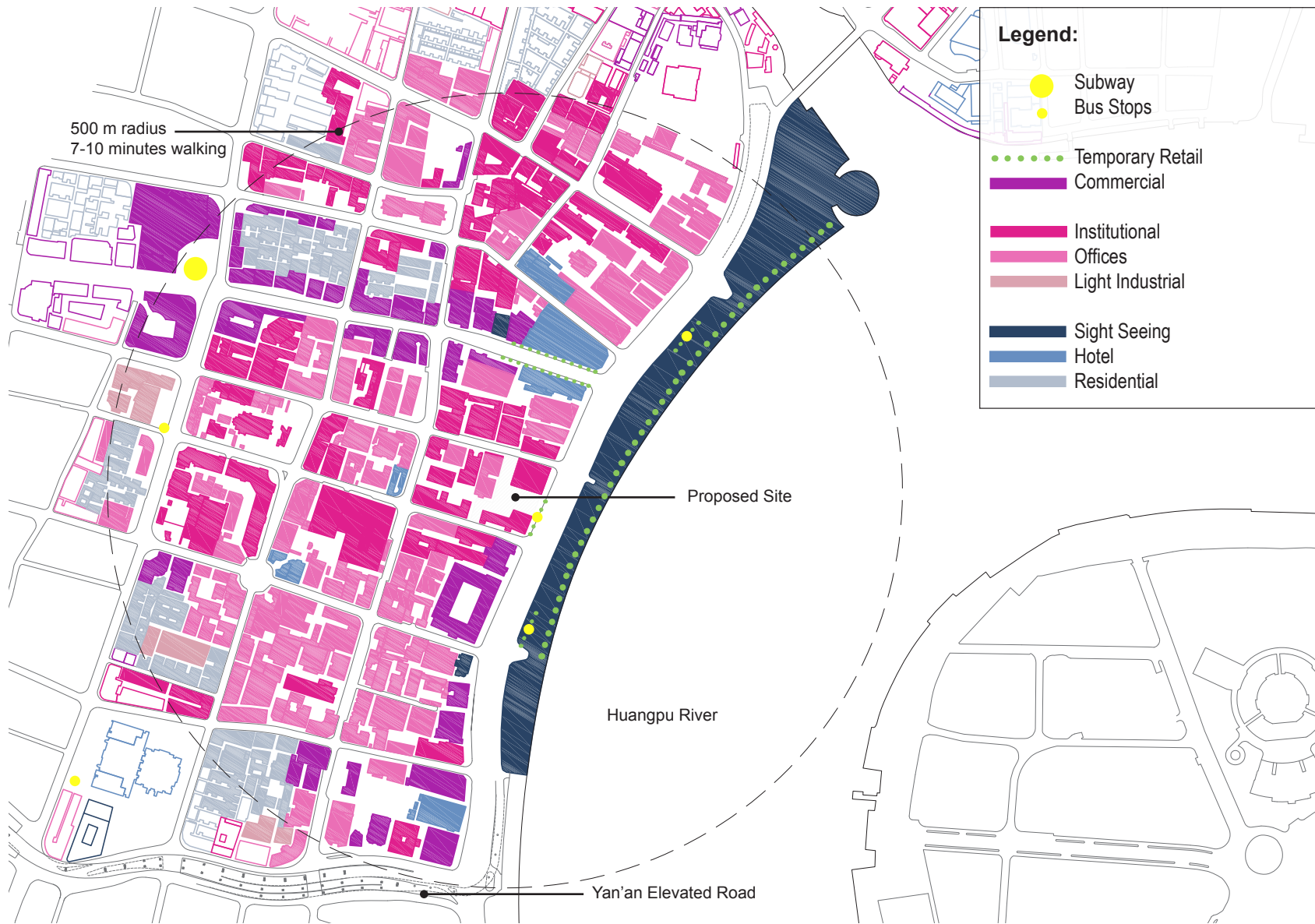
Legend:

- ● Subway
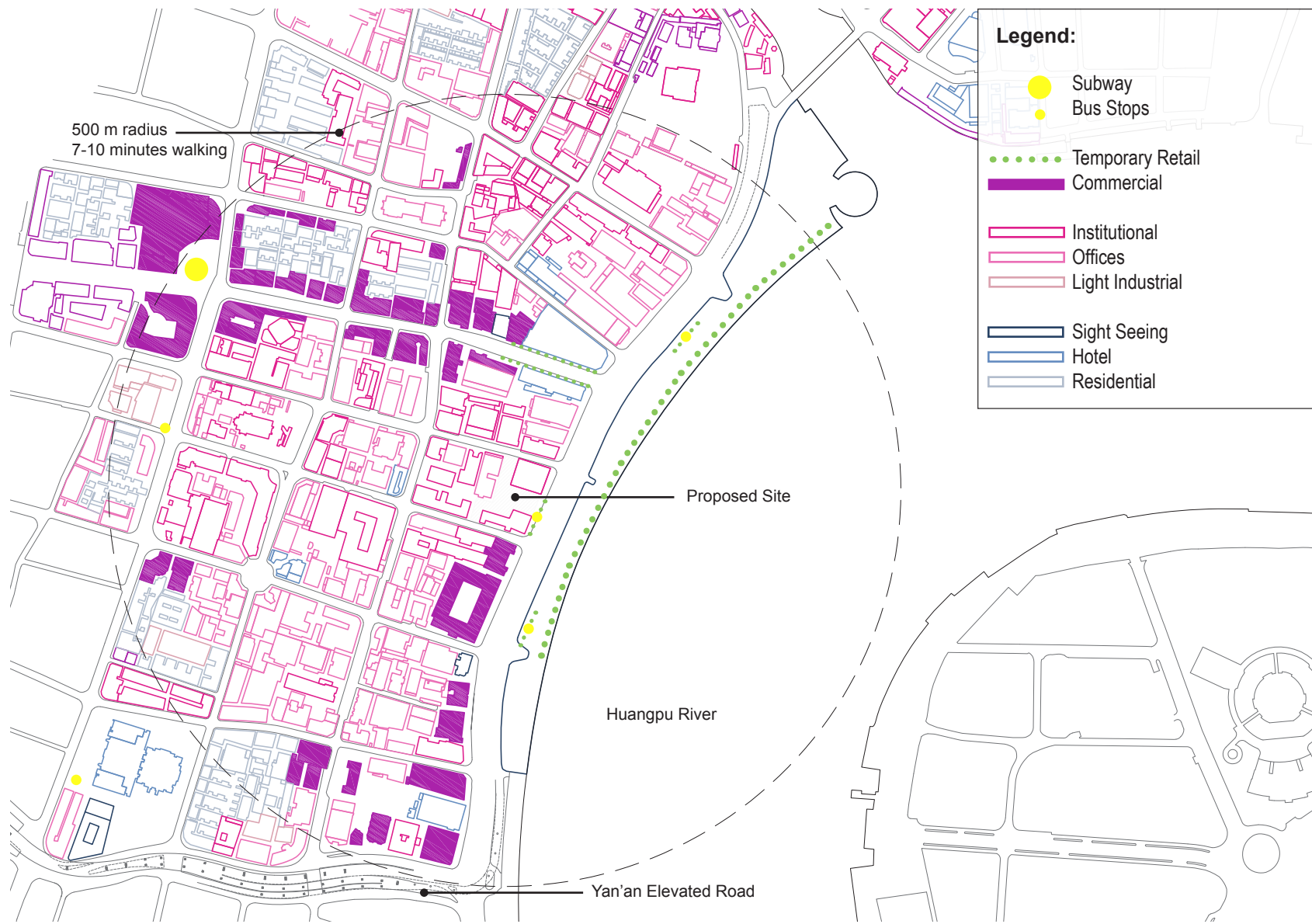- · Bus Stops

- ● ● ● ● ● Temporary Retail
- ■ Commercial

- ■ Institutional
- ■ Offices
- ■ Light Industrial

- ■ Sight Seeing
- ■ Hotel
- ■ Residential

500 m radius
7-10 minutes walking

Proposed Site

Huangpu River

Yan'an Elevated Road

Fig. 2.2 Typology analysis 1.

500 m radius
7-10 minutes walking

Proposed Site

Huangpu River

Yan'an Elevated Road

Legend:

- ● Subway
- ● Bus Stops
- ●●●● Temporary Retail
- ▰ Commercial
- ▭ Institutional
- ▭ Offices
- ▭ Light Industrial
- ▭ Sight Seeing
- ▭ Hotel
- ▭ Residential

Fig. 2.3 Typology analysis 2.

Legend:

- ● Subway
- · Bus Stops
- ● ● ● ● Temporary Retail
- ▭ Commercial
- ■ Institutional
- ■ Offices
- ■ Light Industrial
- ▭ Sight Seeing
- ▭ Hotel
- ▭ Residential

500 m radius
7-10 minutes walking

Proposed Site

Huangpu River

Yan'an Elevated Road
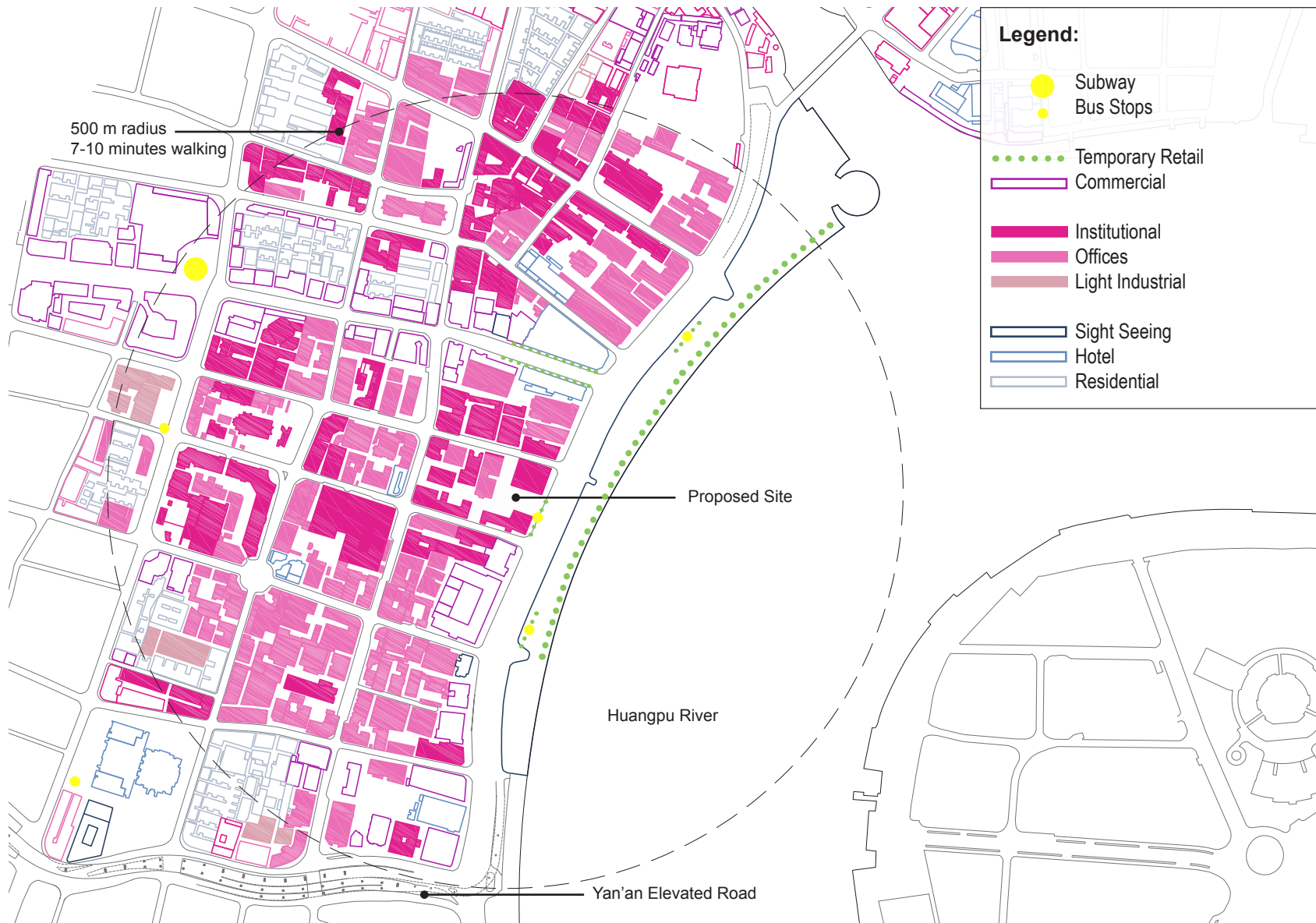
Fig. 2.4 *Typology analysis 3.*

Legend:

- 🟡 Subway
- • Bus Stops
- • • • • Temporary Retail
- ☐ Commercial
- ☐ Institutional
- ☐ Offices
- ☐ Light Industrial
- ▬ Sight Seeing
- ▬ Hotel
- ▬ Residential

500 m radius
7-10 minutes walking

Proposed Site

Huangpu River

Yan'an Elevated Road
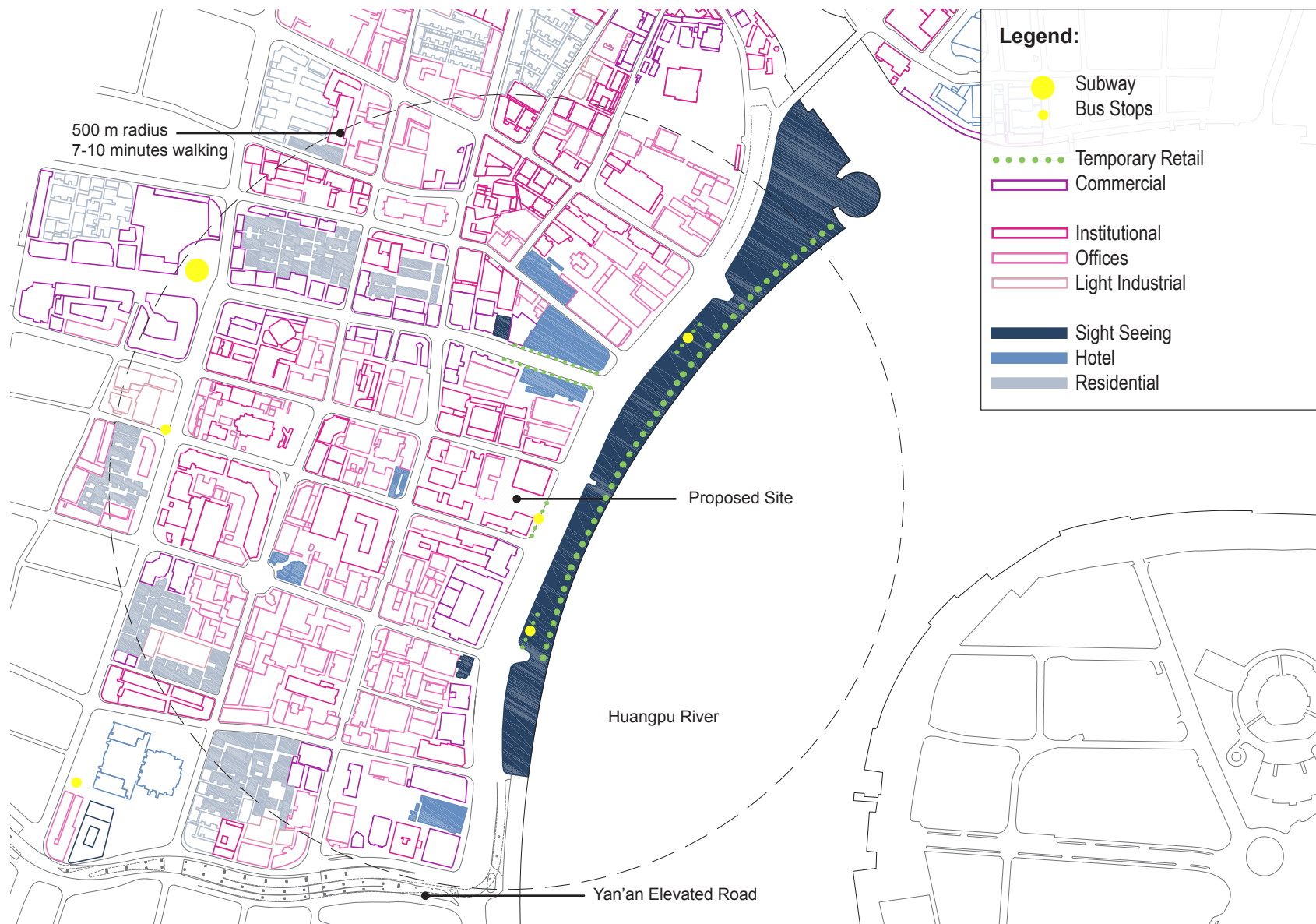
Fig. 2.5 *Typology analysis 4.*

It is observed that there is a lack of infrastructure to support tourism and related businesses.

Occupancy Size:

Large Group - 10 or more

Medium Group - 3 to 10

Small Group - 3 or less

Fig. 2.6 *Existing activities vs Frequency of exchange.*

The diagram tracks the existing user groups and hours of activation. The site is investigated as clusters of activities that take place in daily and weekly cycles. The method of time-based clustering entails a distribution of activities throughout the day.
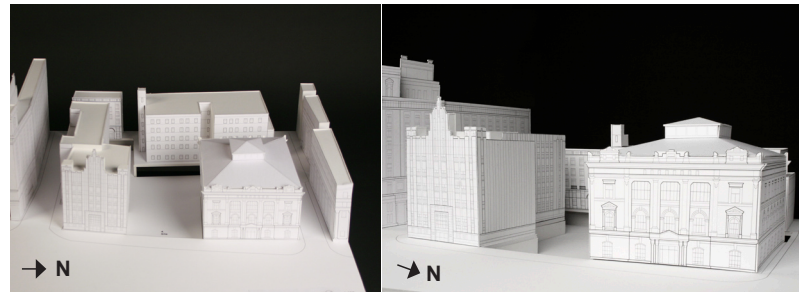
Weekend

| | Morning | Afternoon | Evening | Night |

6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 1 2 3 4 5

Light Industrial
Offices/Commercial
Institutional
Public Services

Restaurants
Disco Bars
Retail
Parking

Hotel
Residential

Temporary Retail
Public Toilets
Sight Seeing / Cultural
Public Transportation Hubs
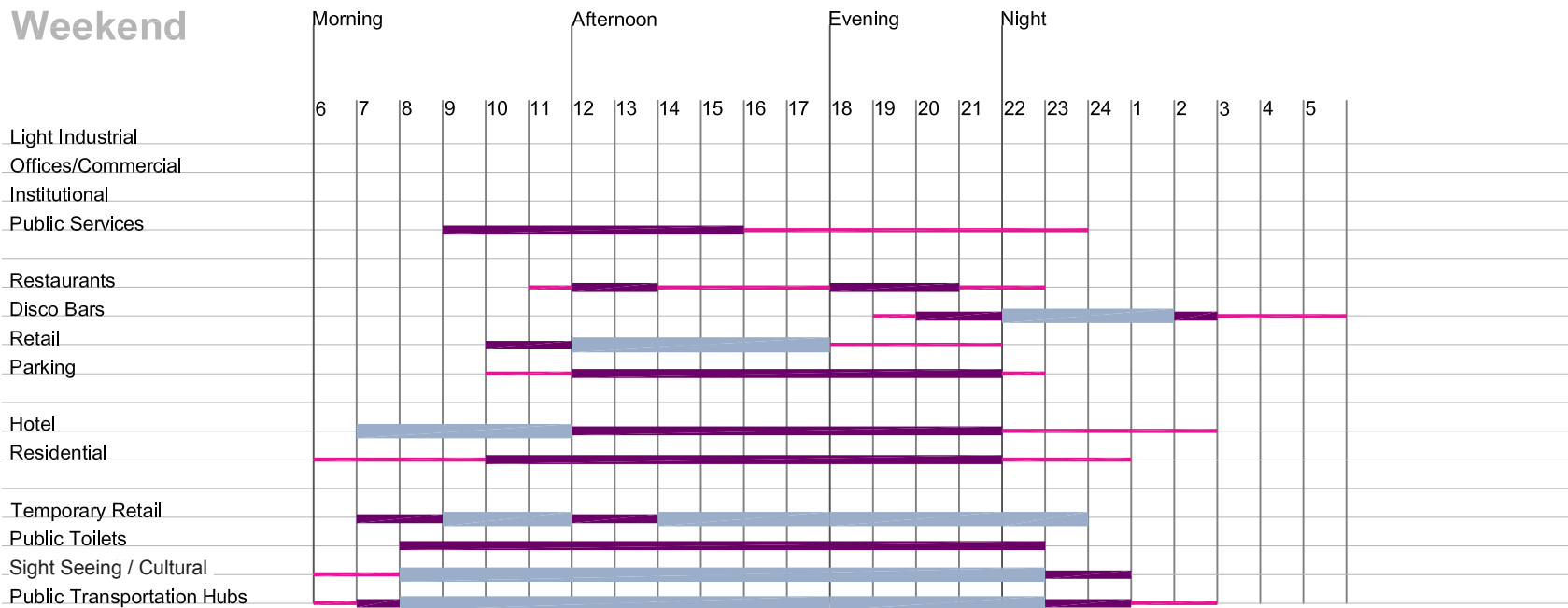
The proposed site aims to stimulate pedestrian circulation while catering to different existing user groups that frequent the Bund and its surroundings. Location specific end-users are projected as tourists, commuters, school groups, small business owners, and local inhabitants.

Weekdays

	Morning	Afternoon	Evening	Night

| 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 1 | 2 | 3 | 4 | 5 |

Light Industrial
Offices/Commercial
Institutional
Public Services

Restaurants
Disco Bars
Retail
Parking

Hotel
Residential

Temporary Retail
Public Toilets
Sight Seeing / Cultural
Public Transportation Hubs

Huangpu River

Proposed Site

Pudong

N
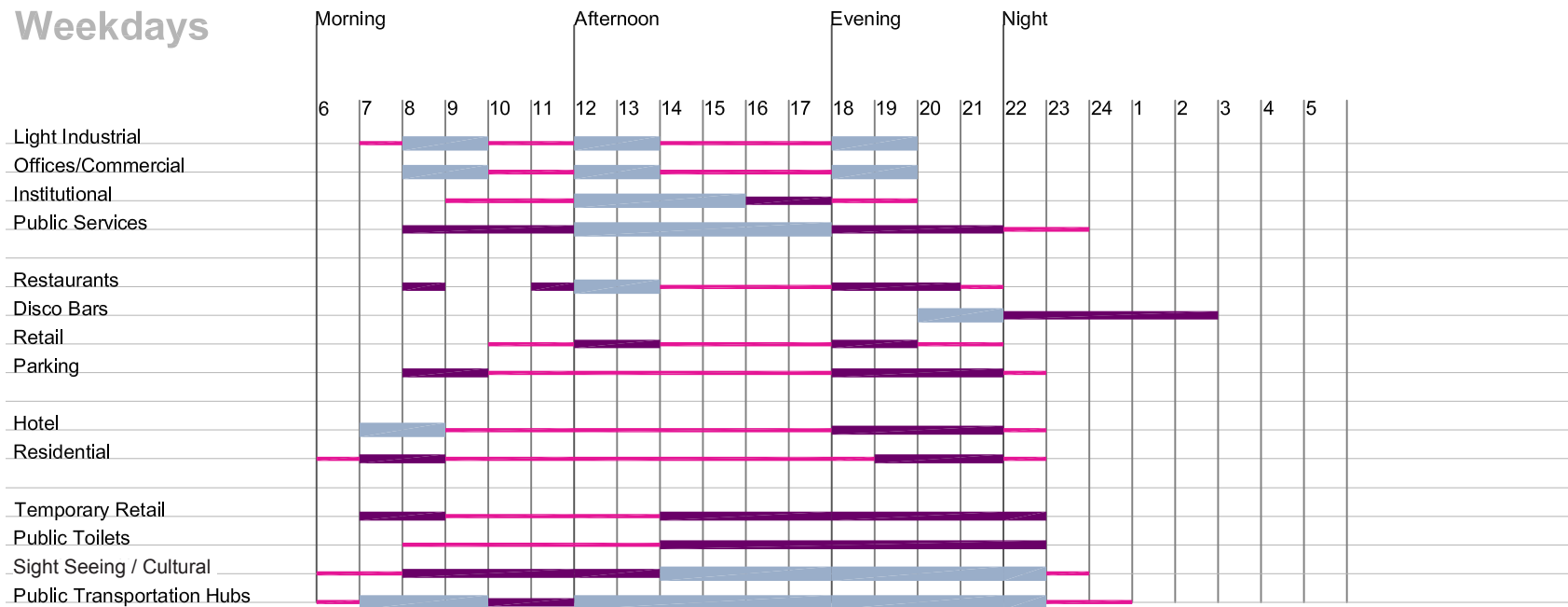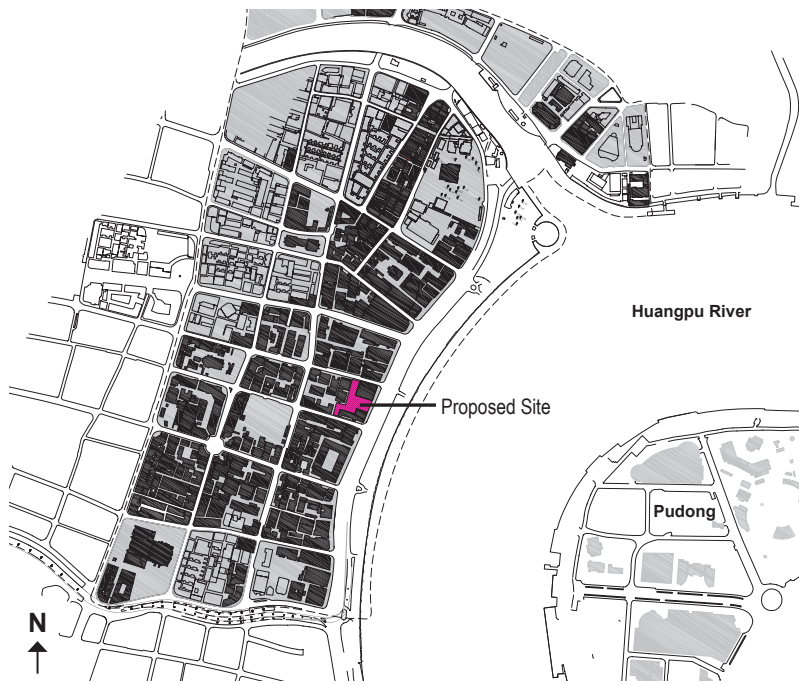
Left:
Fig. 2.7 Area of historic conservation program in the 1980s.
Below:
Fig. 2.8 Model of the existing site.
Right:
Fig. 2.9 Site dimensions.

N

N

Jiujian Lu

Hankou Lu

Zhongshan East 1st Rd

7.

8.

6.

5.

1.

4.

2.

3.

9.

21m

34m

75m

11m

55.7m

78.5m

30m

18m

77

Legend:

1. Proposed Site.
It used to be a garden in the Treaty Port era. Currently used as a parking lot with small temporary structures. Site area 3000 sq. meters.

2. No.14 Bund.
China Bank of Communications Building. It was the last building to be built on the Bund before the 21st Century. It now houses the Shanghai Council of Trade Unions.

3. Municipal Provisions Office.

4. Huangpu District No.1 Central Primary School.
Built in 1911 as two separate American convent schools, and were combined in the 1951.

5. School Yard.

6. Shanghai Financial Security Building.

7. Municipal Financial Office.

8. No.15 Bund.
Russo-Chinese Bank Building. Built in 1902, it was the first non-industrial building in China to employ steel and concrete in its construction. It is also among the first to use elevators. It is now the Shanghai Foreign Exchange.

9. Waterfront

N

The diagrams outline the different axes of infrastructural potentials where programs can be distributed along.

Fig. 2.10 *Infrastructural axes.*
Left:
The bus depot buried underground (1.) can be accessed by commuters in the surrounding offices (2.) through the market alley.
Right:
Temporary Retail along the waterfront (1.) catered to tourists can be drawn towards the back of the site to create a lively market alley (2.) commonly found in the city. Vertical circulation leads the tourists towards above the market place to the observatory (3.) to view across the Huangpu river.
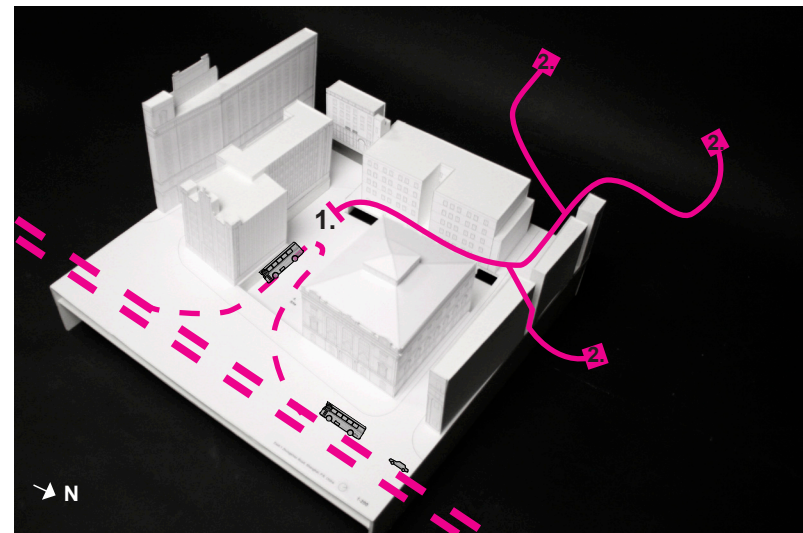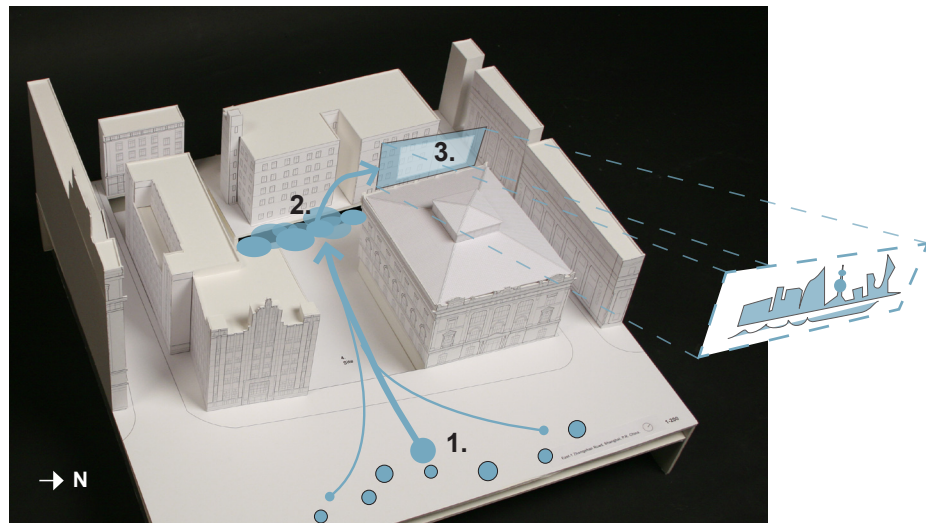
TACTIC 4

Replace the beams with rotten timbers
(偷梁換柱; Tōu liáng huàn zhù)

Disrupt the enemy's formations, interfere with their methods of operations, change the rules they are used to following, go contrary to their standard training. In this way you remove the supporting pillar, the common link that makes a group of men an effective fighting force.

By re-organizing typical imported typologies, this design tactic builds a context-sensitive program hierarchy.

A. Typical organization sees each program as separate entities, each with the restricted and semi-public areas clearly defined. Other than the informal market, the public cannot access the building outside of operational hours.

Fig. 2.11 *Tactic 4.*

1. Transportation Hub
   69%
2. Contemporary Arts Centre
   Restricted Acess   61%
   Semi-Public
3. Theatre
   38%
   Public
4. Informal Market
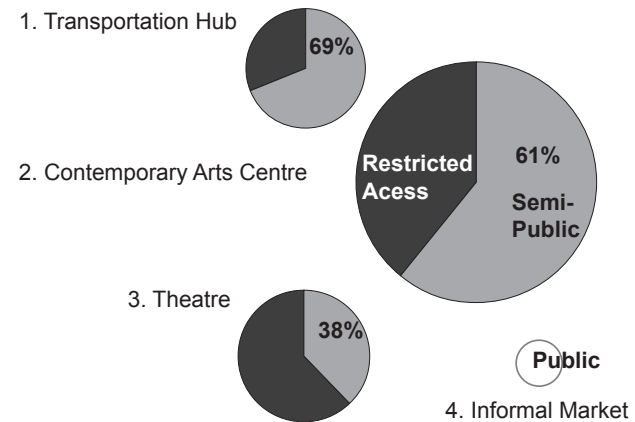
Fig. 2.12 *Programs are categorized as restricted access(static) and public access (fluid).*

B. Common programmatic groups among the different programs are combined to form shared spaces. For example, meeting rooms, rehearsal, and back of house form the administration network. On the other hand, selective semi-public components capable of independent operations outside of institutional hours are accessible to the public. For example, the lecture hall can be rented out by the school or community groups when not used by the museum.
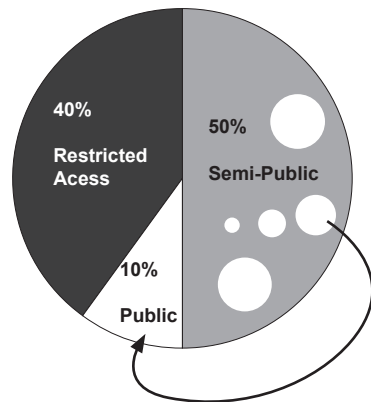
C. Fluid and static components are identified to form a lively public network. The static components like the ticketing areas and the museum galleries, require permanent locations and enclosed boundaries. They will be applied as node points and attractors within the larger system of circulation. The fluid components are parasitic in nature and require impervious envelopes, for example street markets and meeting points. These elements will be activators along circulation routes. The new organization maximizes publicly accessible areas to 48% of the total floor area. It forms the backbone of a porous circulation system ready for temporal conditions to take place.

40%
Restricted
Acess

50%
Semi-Public

10%
Public

31%
Restricted
Acess

48%
Public

21%
Service
Area

Static

Fluid
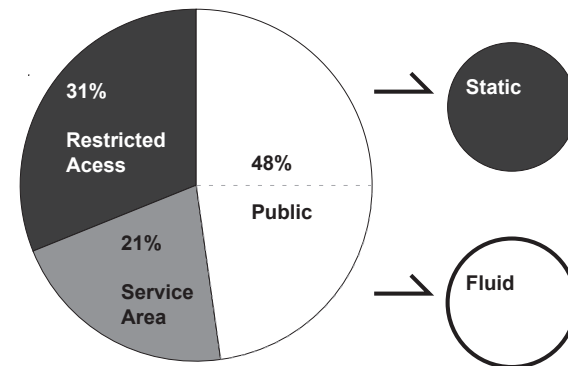
2.2

PROGRAMMATIC COMPONENTS

The transportation hub, theatre, markets, and museum are analyzed
to illustrate their spatial characteristics and potentials.

TRANSPORTATION HUB

Public construction is created when architecture crosses over into infrastructure. Seeing the potentials of the adjacent buried highway as a major point of crowd dispersal, the design proposes a stretched path that links the buried bus depot to both the northern and southern site boundaries. Differentiated entrances and circulation routes are assigned by user groups and hours of activation with respect to the site's immediate adjacent buildings. The ticketing area is located at the north end, flanked by the Chinese-Russo Bank's historic facade. It forms a public room that links to the theatre and market above. The south entrance is the primary bike entrance. It is adjacent to the school building. The green space from the school yard extends and projects upwards to form a vertical green void between the back sides of buildings. The bike parking is centrally located to anticipate tricycle vendors and temporary markets during rush hour.
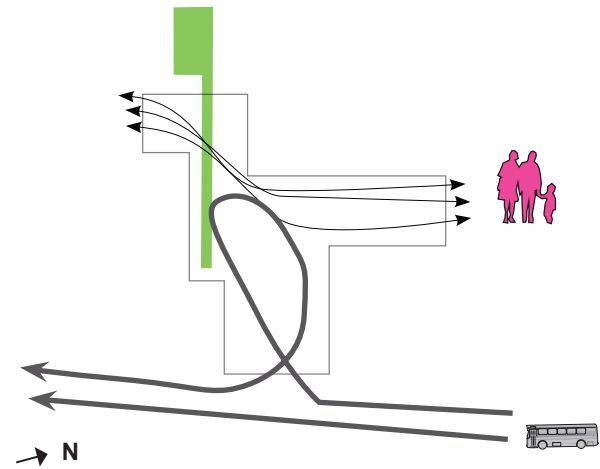
Above:
Fig. 2.13 Infrastructural axes diagram.

Across fold:
Fig. 2.14 Transportation hub axonometric drawings.

-12m Bus Loading

-6m Passenger's Platform

+0m Street Connector
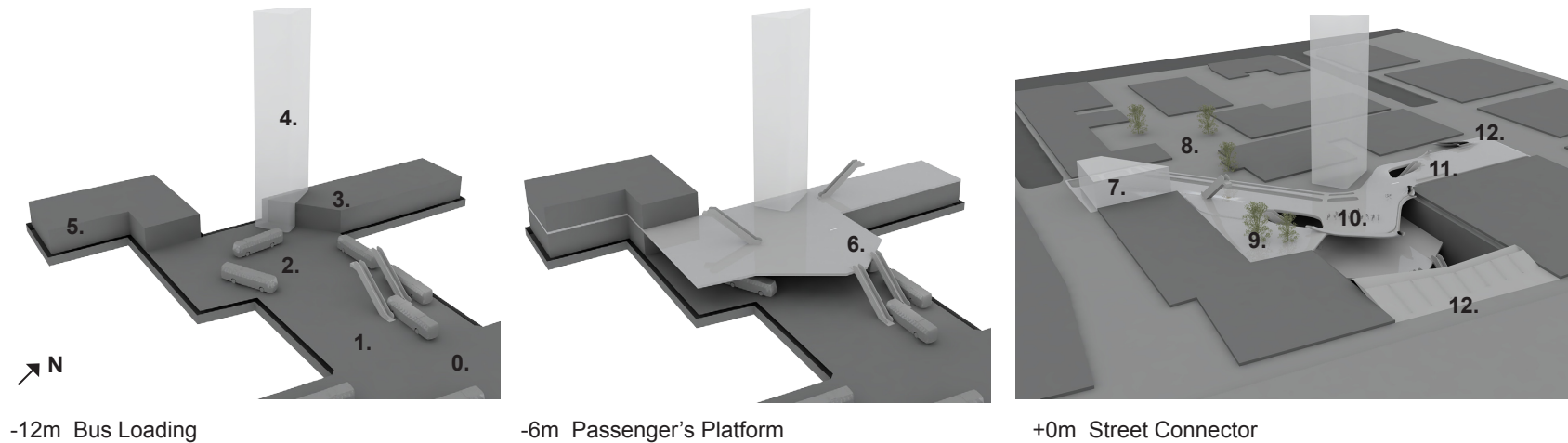
Legend

0. Underground Highway
1. Bus Loading Area
2. Turn Around
3. Shipping and Receiving
4. Core
5. Mechanical and Storage
6. Passenger's Platform
7. Rentable Retail
8. School Yard
9. Vertical Green Void
10. Bike Parking
11. Ticketing
12. Sloped Platform to Stage
13. Escalator to Passenger's Platform
14. Escalator to First Floor Market
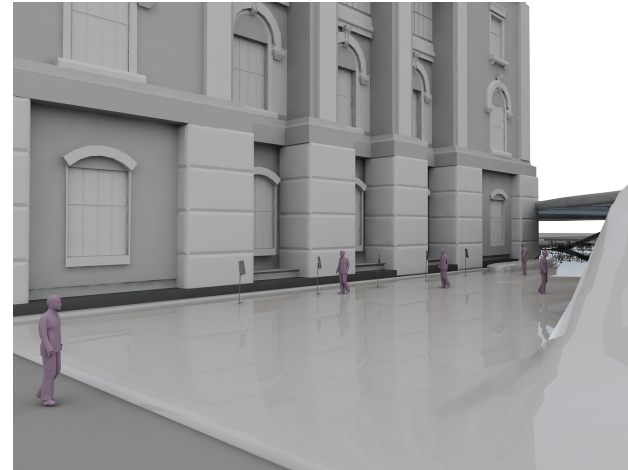

N
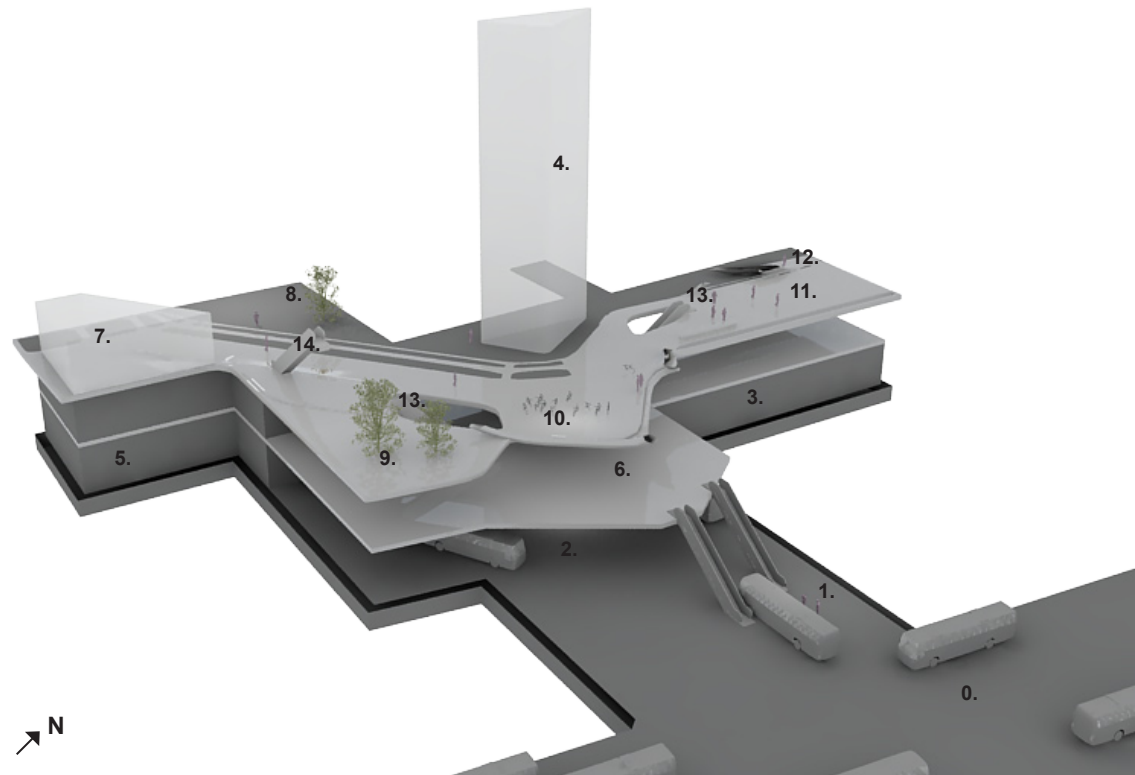
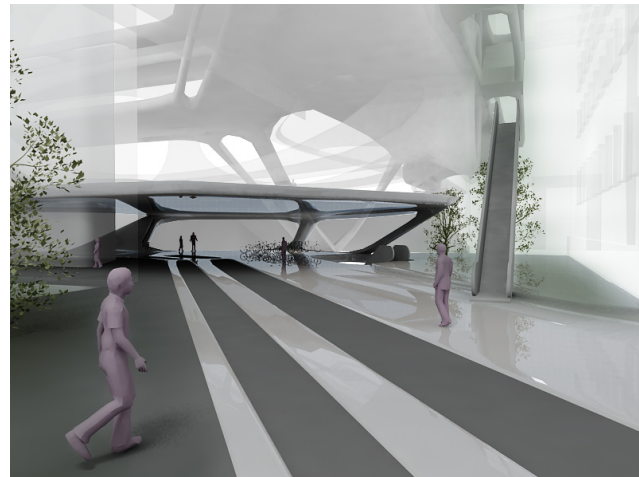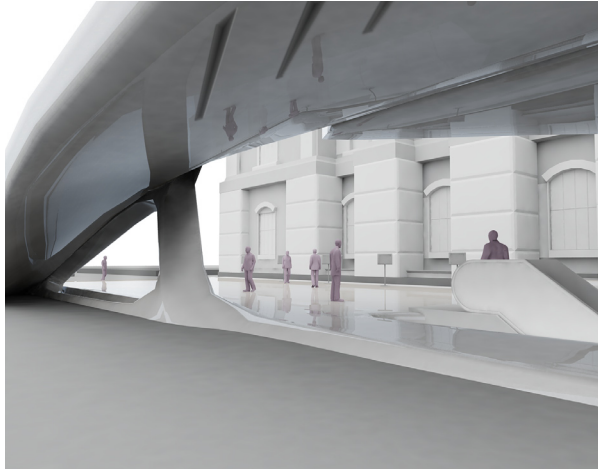Transportation Hub and Related Floor Plates
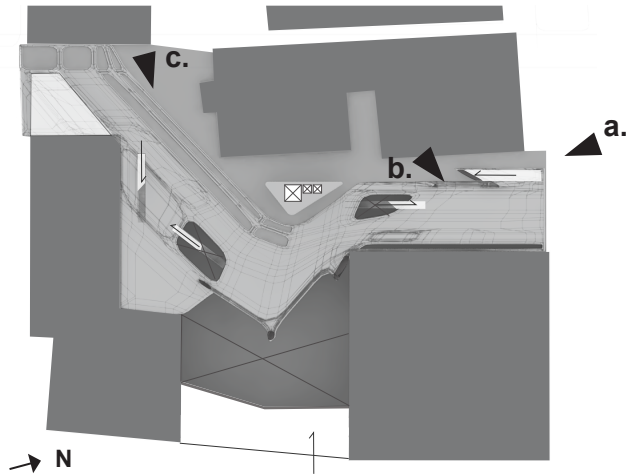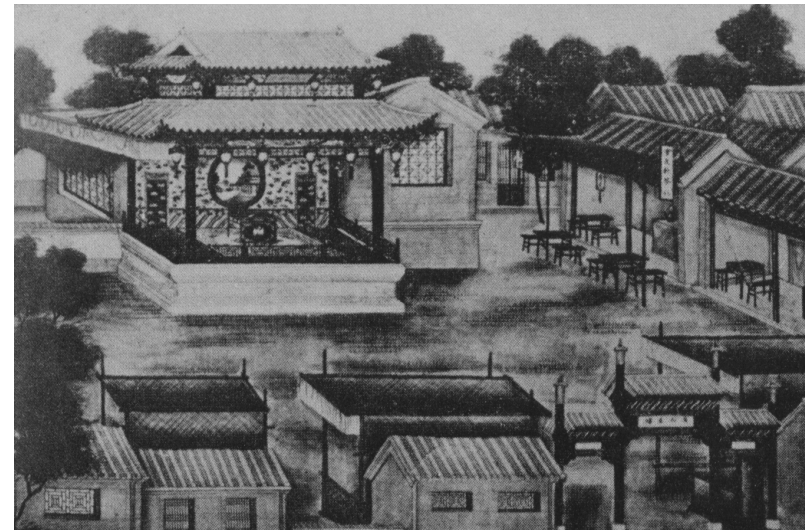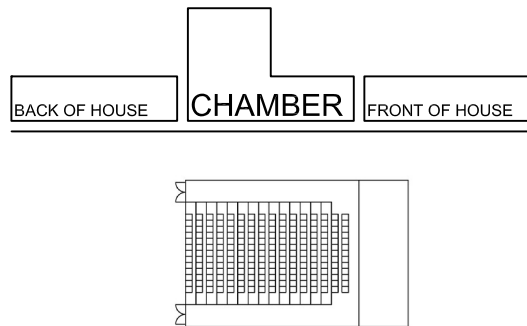
Left to Right:

Fig. 2.15 *Ground floor plan. +0m.*
Fig. 2.16 *Perspective view a. Ticketing area.*
Fig. 2.17 *Perspective view b. Ticketing area.*
Fig. 2.18 *Perspective view c. Primary bike entrance*
        showing vertical green void above.

BACK OF HOUSE | CHAMBER | FRONT OF HOUSE

THEATRE

The western theatre typology requires an impervious envelope, generating an acoustically and visually isolated ornamental enclosure. It is isolated from the city and does little to encourage the actively engaged civic life that a collective space should engender. This spatial arrangement sets up a singular focal point - a one-way relationship between the entertainer and the entertained. It best facilitates movies, lectures and staged performances. With removable seats, it may be used for private functions such as product launches, receptions, or a multimedia gallery.

In comparison, the traditional Chinese theatre typology, as illustrated in fig. 2.14, was often found in the fore courts of temples, encircled by markets and restaurants. The 1930's Shanghai theatre can be understood as a denser version, where the amphitheater is surrounded by vertically stacked commercial activities instead. The obvious differences between the east's and the west's approaches are not only by the obliteration of fixed seating and provision of food services, but most importantly, inclusion of the spectators as part of the event. The territorial distribution of front of house, chamber, and back of house are similar in all three models, but the hierarchal relationships among users are different. Unlike the western dinner theatres, the Shanghai theatre is activated by a lieu of events other than the one-way performance. It encourages congregation and
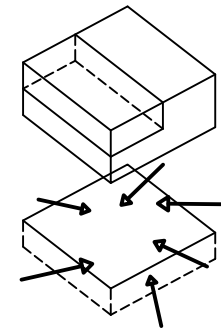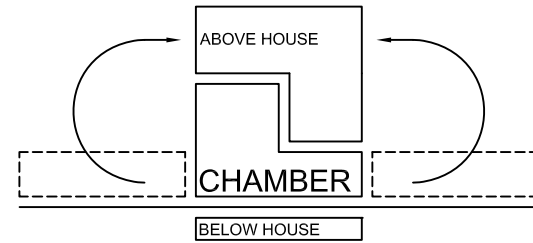
Left to Right:
Fig. 2.19
Typical theatre arrangement.
Fig. 2.20
Representation of a seventeenth-century stage in Peking.
Fig. 2.21
Shanghai Theatre in late 1930's.
Fig. 2.22
*Proposed theatre arrangement.*

interaction even when there is not a staged act. Building upon this, the design proposes two ideas. The first is to vertically stack the back of house, chamber, and the front of house into a volume from which scaffolds of commercial activities can hang above the open stage. This allows surrounding programs to agglomerate around all sides of its periphery. Secondly, this configuration of open stage and spectator balconies can potentially reverse roles into a spectator stage with performance balconies.

The open stage is positioned as part of a larger infrastructural circulation. Passersby naturally become spectators to the balconies that are filled with workshops, street performers, and cafes etc.

Spectators / Performers   Performers / Spectators

0m - 16m Floor Plates

0m - 16m Circulation Route

N
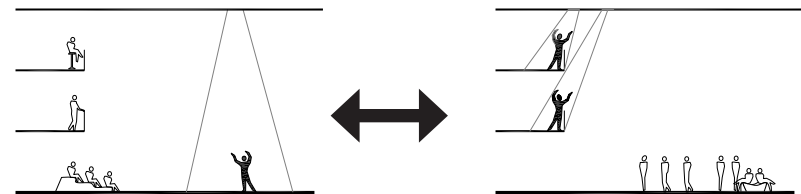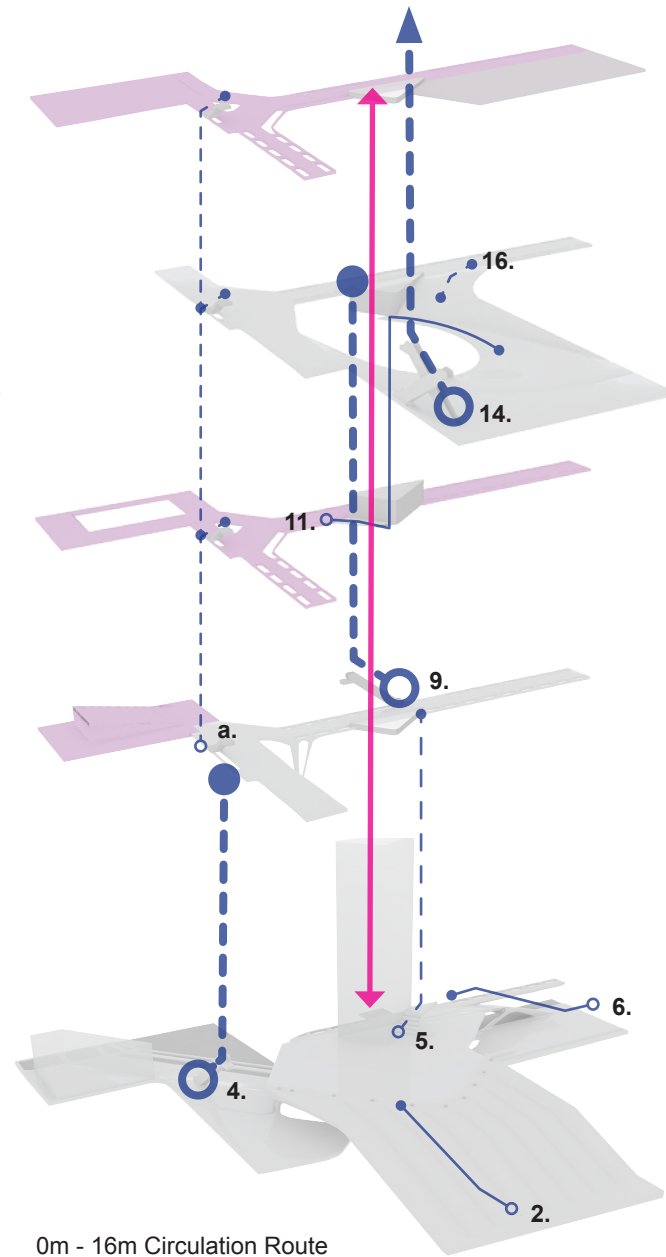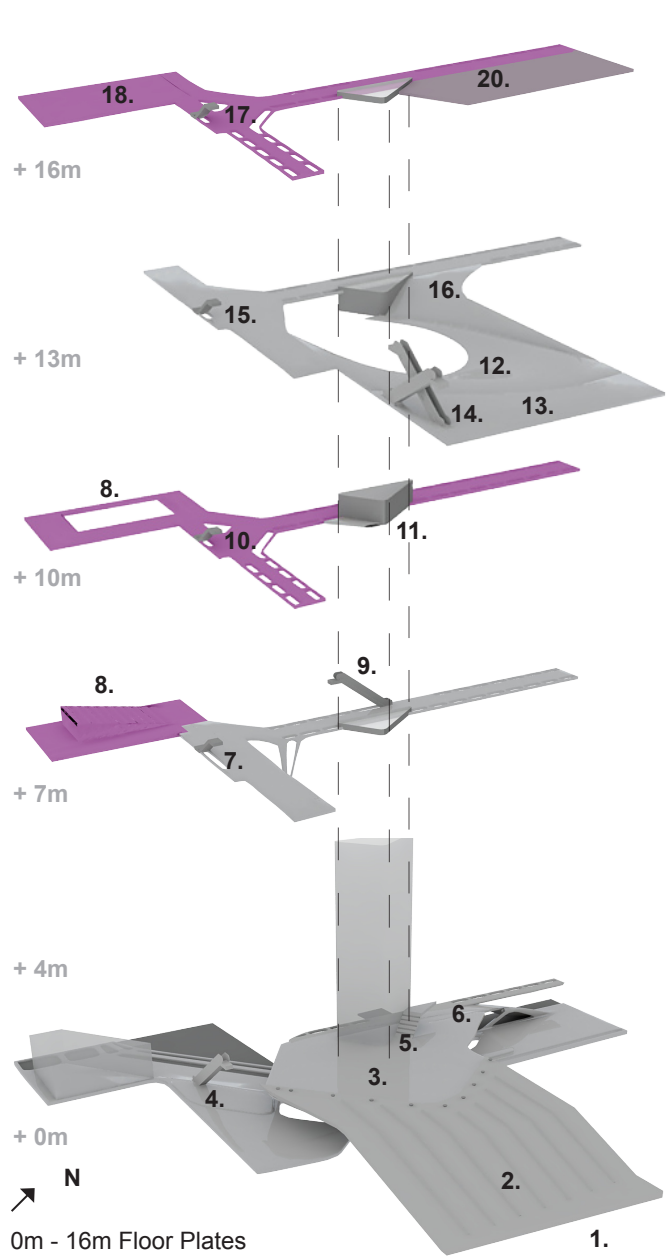
Legend

1. Waterfront
2. Sloped Platform to Stage
3. Open Air Stage (+4m)
4. Escalator to Markets
5. Main Stairs to Markets
6. Ramp to Ticketing
7. Markets (+7m)
8. Lecture Hall / Multimedia
9. Escalator to Upper Markets
10. Workshops (+10m)
11. Ramp to Event Area
12. Spectator Seating
13. Event Space (+13m)
14. Escalators to Museum and
    Roof Market
15. Markets (+13m)
16. Stairs to Market Floor
17. Workshops (+16m)
18. Rehearsal Rooms (+16m)
19. Back of House
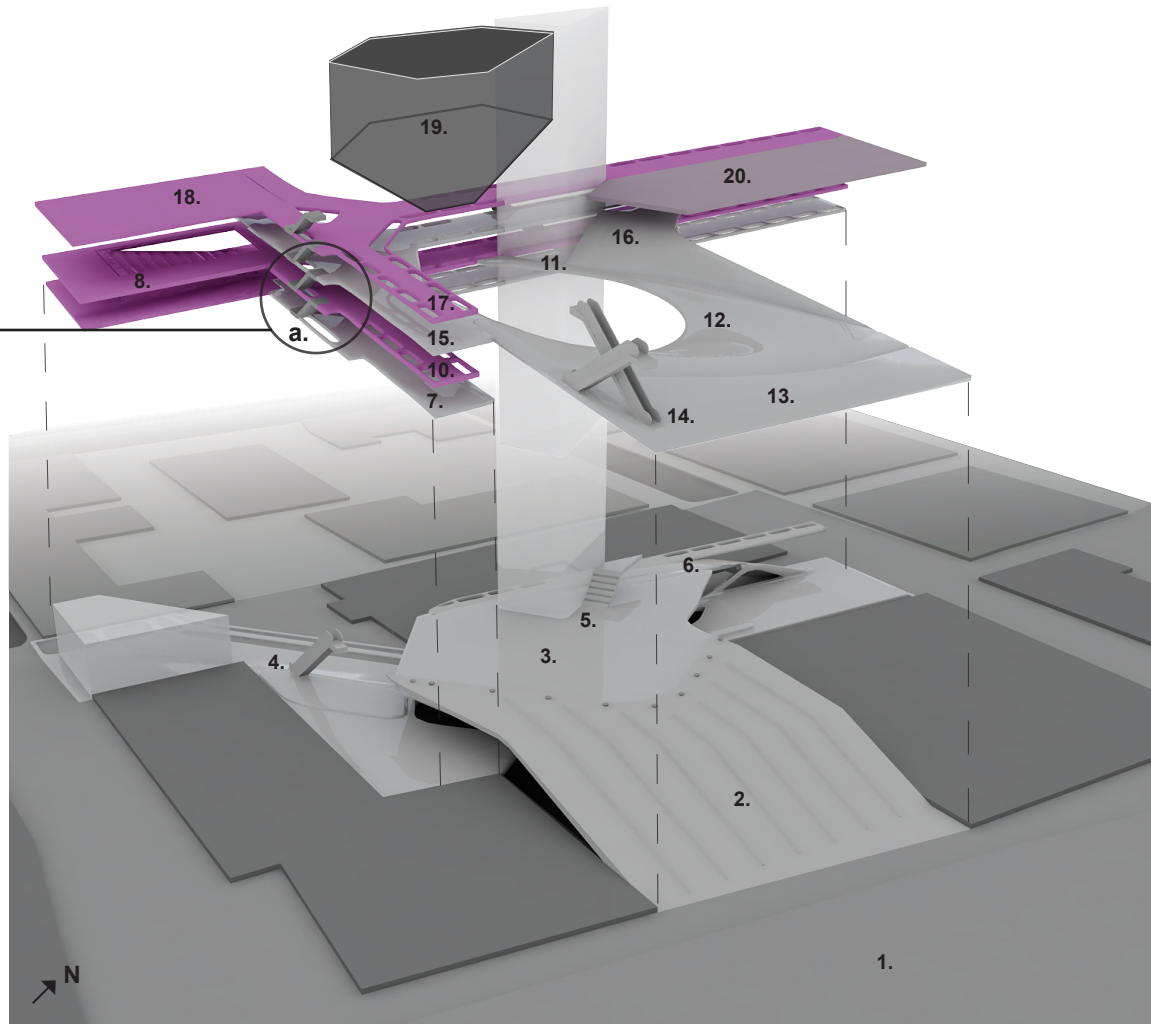20. Administration (+16m)

a. Vertical Circulation
   in Green Viod

■ Workshops
●——○ Ramp
●-- --○ Stairs
▬▬▬ Escalator
—— Elevator

0m - 16m Circulation Route.
Ramps and escalators connect
the major public floors to form
an efficient vertical network. The
stage level is a natural point of
convergence - it sustains as a
lively event space without strictly
assigned programs.
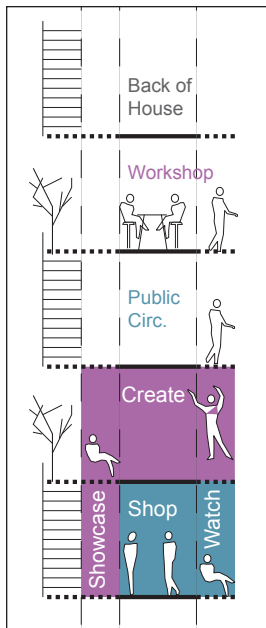
Above:
Fig. 2.23 *Scaffold program-*
matic stacking.

Across fold:
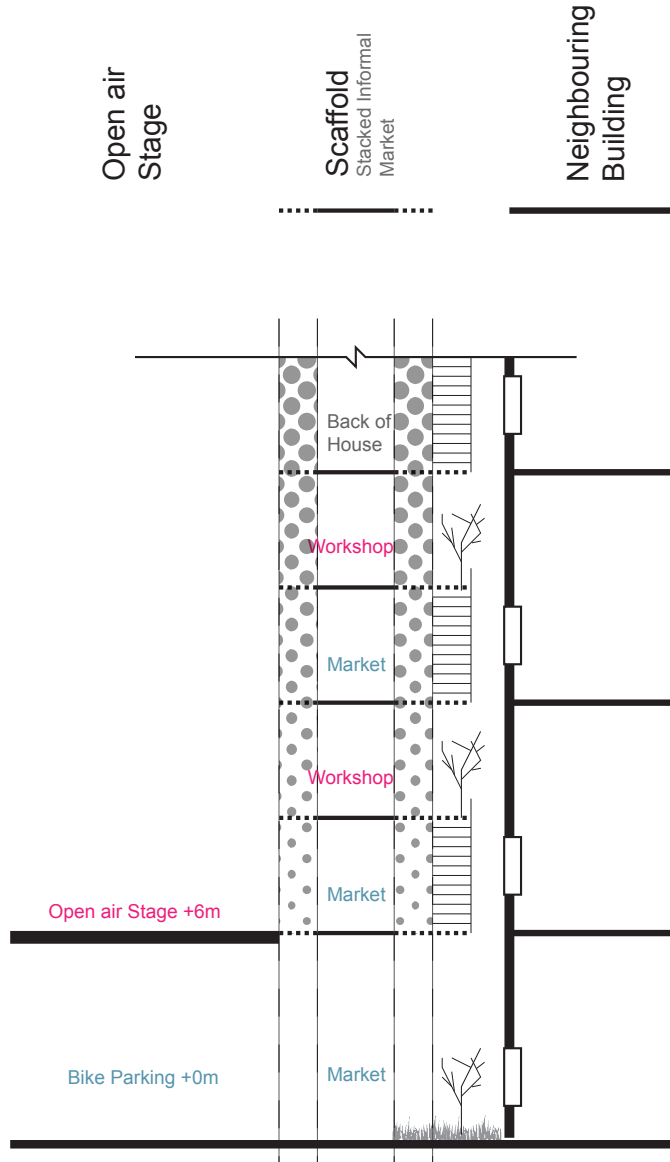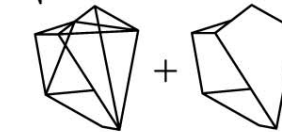Fig. 2.24 *Theatre axono-*
metric drawings.

Theatre and Related Floor Plates

Back of House
Workshop
Public Circ.
Create
Showcase
Shop
Watch

N

Open air Stage

Scaffold
Stacked Informal Market

Neighbouring Building

Back of House

Workshop

Market

Workshop

Market

Open air Stage +6m

Bike Parking +0m

Market

Fig. 2.25 *Scaffold programmatic stacking.*

Splines and Planes

Fig. 2.26
Prototype partitions diagram.

Poches, and Volumes

+

Frame and Skin

INFORMAL MARKET

Walls are typically understood as planar enclosures for circulation, sight and noise. The design interprets these enclosures as a scaffold panelized with transformative partitions. They provide seatings for theatre spectators, surfaces for informal markets, as well as storage for workshops. Lighting and electric outlets are integrated within the panels to allow for flexible use.

In most cases, the scaffold runs along the site's edge faced by neighboring windows on one side, and looks onto the stage on the other. In order to maintain privacy in particular zones enables a lively vertical strip, public and semi-public circulation sectionally alternates.
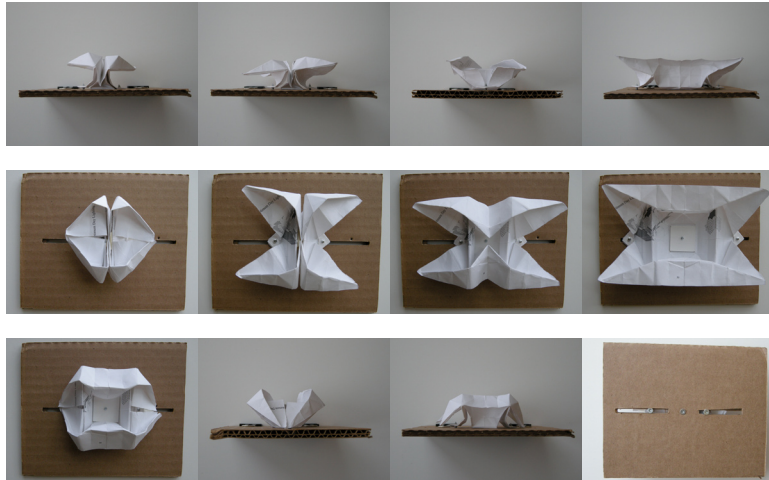
92

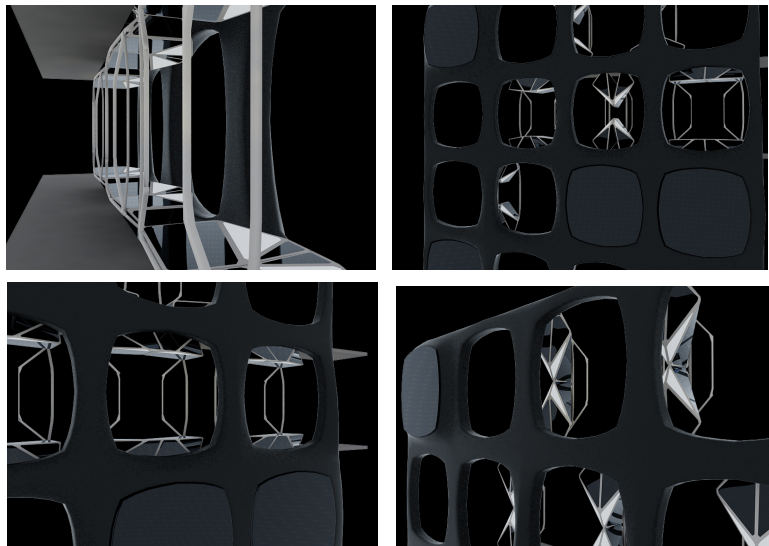Fig. 2.27 *Prototype partitions physical study models.*
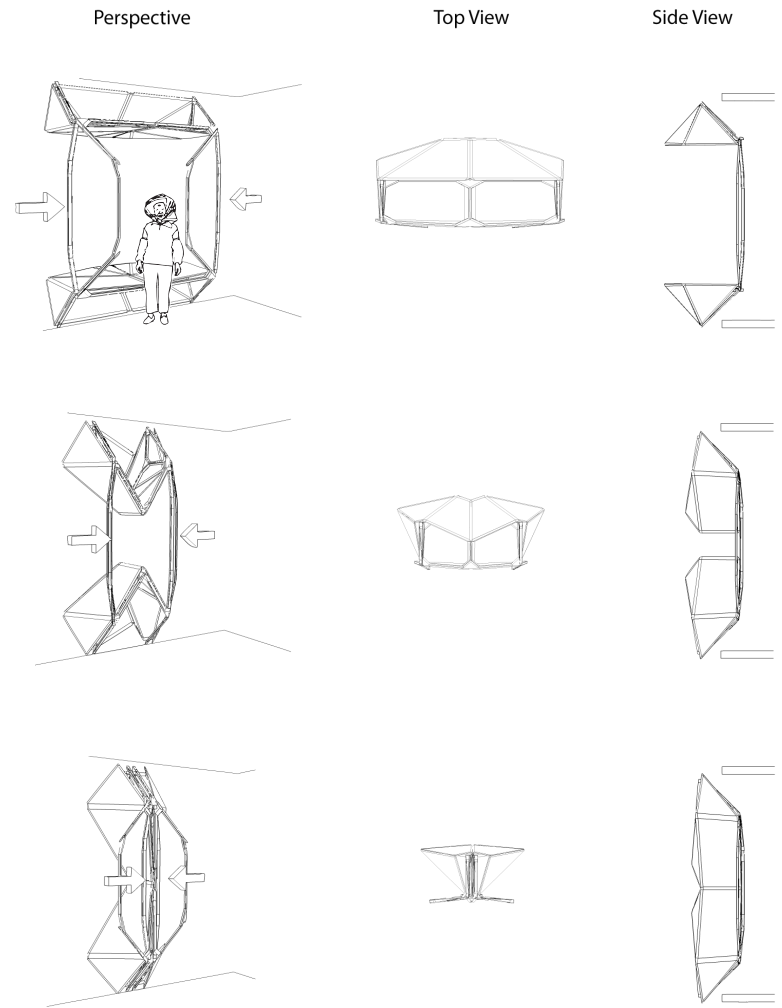

Fig. 2.28 *Prototype partitions digital study models.*

Perspective   Top View   Side View


Fig. 2.29 *Prototype partitions mechanism.*

Fig. 2.30 Structural bracing drawings.

N

1. Load bearing walls of neighboring China Bank of Communications Building.

2. Simple grid frame with cross bracing against the solid walls.

3. Expansion and deformation in stage area to hold back of house facilities.

4. Integrated bracing to form an efficient structure.

N

5. Vertical circulation is integrated within the load bearing system, and suspended by the structural roof.

Structural bracing responds to site boundary conditions and the placement of adjacent buildings' load bearing walls. It develops into a modular spatial lattice that allows for pattern aggregation.
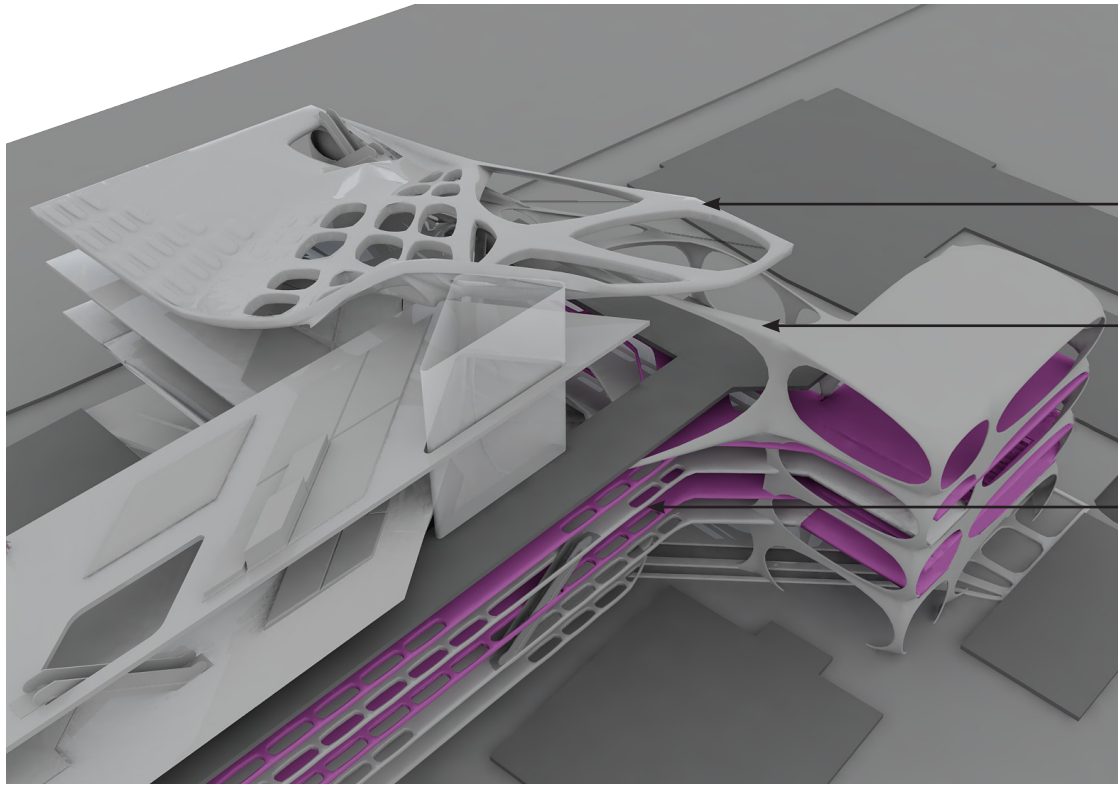
There are two layers of bracing systems. First is the heavy frame shown as the structural roof here.

The second layer is the bracing that holds the back of house and weaves beneath the market floors.
Its level of perforation responds to the scales of spaces within.

Slide-on tracking for prototype partitions.

N

▬▬ denotes workshops.

CONTEMPORARY ARTS CENTRE

Contemporary Arts Centre is neither archival nor curatorial in the sense of a museum. Rather, it is a social space within an urban infrastructure that deploys art *en passant.* The architecture deploys art on a piece of urban infrastructure to prove the theory that art can occupy contemporary life in coexistence. Since contemporary art can no longer be brought into the temple, it gives up a certain theatrical relationship to the work by allowing one to see people across the space. The spatial apparatus of the museum is intrinsically tied to its use and its social function. It is programmatically a piece of a larger site. The proposed design emphasizes interaction among artists and visitors as much as the curation of the permanently significant. It offers workshops and informal social spaces that run parallel to the markets and theatre balconies. At the same time, traditional white box spaces for the permanent collections are allocated where natural light access can be achieved.

One of the foremost challenges is to accommodate a high seasonal influx of visitors while having about half of the floor area publicly accessible and capable of operating independently if needed. The strategy is to organize the circulation like a cloverleaf. Programs of related nature are placed within the same loop, while all the loops share a core, they may be detached at times without interrupting the rest of the network. This leads to the study of the Möbius strips and torus knots, both capable of creating complex boundary relationships while maintaining simple spatial continuity.

The National Public Holiday
Volume of tourists in Shanghai in 2007

Spring Festival	February 7-14	7 days	2.8 million persons
May 1st	May 1st - 3rd	3 days	2.4 million persons
October 1st	October 1st - 3rd	3 days	2.4 million persons

Fig. 2.31 Tourist volumes during national pubic holidays in 2007.
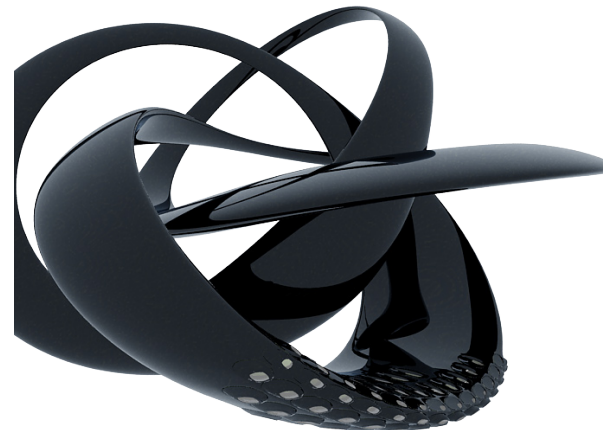

Fig. 2.32 Torus knot parti.

The Möbius strip has several curious properties. A model of a Möbius strip can be constructed by joining the ends of a strip of paper with a single half-twist. A line drawn starting from the seam down the middle will meet back at the seam but at the "other side". If continued, the line will meet the starting point and will be double the length of the original strip of paper. This single continuous curve demonstrates that the Möbius strip has only one boundary. The benefit of envisioning the program arrangements in terms of a Möbius strip is that the boundary alternates its 'inside' and 'outside', creating different relationships with the surrounding context.

A torus knot can be generated by determining the P and Q of a Möbius strip. It evolves in complexity as the values change. P describes up-and-down and Q describes the number of times it rotates around-the-center. It can also be understood as numbers of loops and petals. Another element is the number of twists in the strip, which plays a major role in adjusting the locations of normals at specific points. The following is a catalog of knots with different properties of P, Q, and twists.
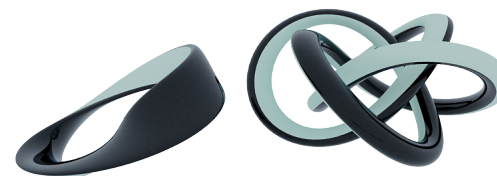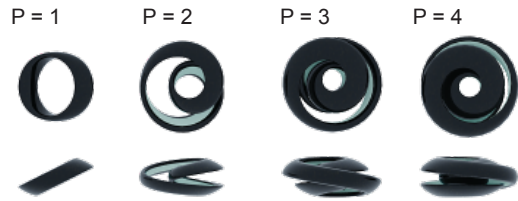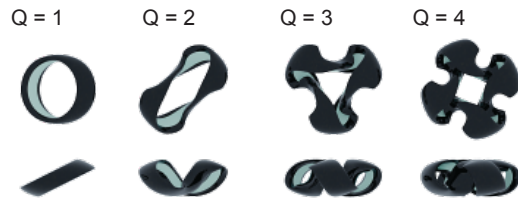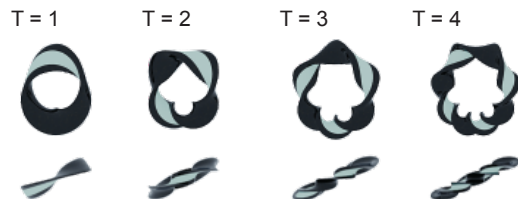

Fig. 2.33 *Möbius strip and torus knot.*

P as variable
Q = 1
Twist = 0

P = 1   P = 2   P = 3   P = 4

P = 1
Q = 1
Twist = x
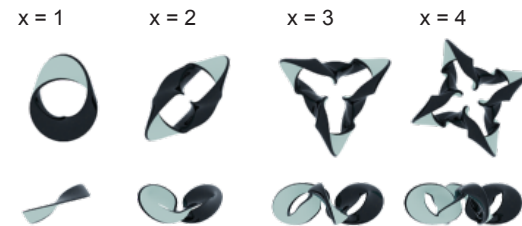
Volumes are horizontally dissected, generating planes.

x = 1   x = 2   x = 3   x = 4

P = 1
Q as variable
Twist = 0

Q = 1   Q = 2   Q = 3   Q = 4

P = x
Q = 1
Twist = x
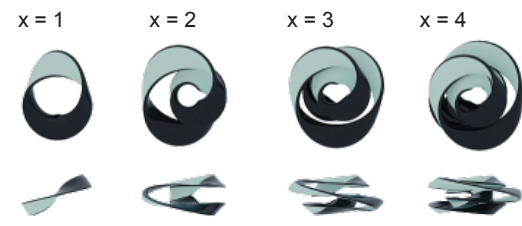
Volumes are vertically dissected, generating arches.

x = 1   x = 2   x = 3   x = 4

P = 1
Q = 0
Twist as variable

T = 1   T = 2   T = 3   T = 4

P = x
Q = x + 1
Twist = x

x = 1   x = 2   x = 3   x = 4
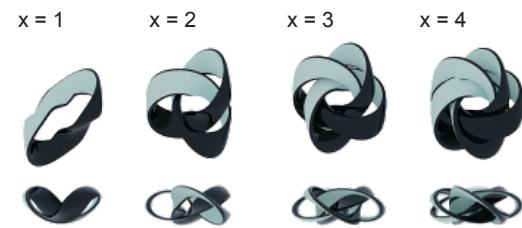
Based on the primary formula of a torus knot, the strip is largely horizontally oriented. It generates Q numbers of interlocked loops around the centroid.

P = x
Q = x + 1
Twist = x - 1

x = 1   x = 2   x = 3   x = 4
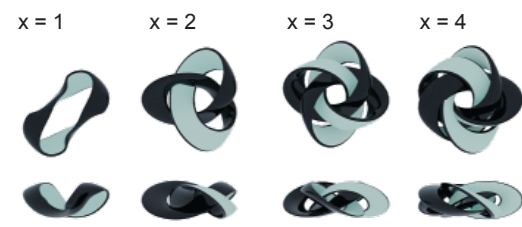
For each wedge of space created, it is either faced by both the inside or outside band. It assigns a distinct interior or exterior identity.

Above: Fig. 2.34 Catalog1: Basic parameters.
*Right: Fig. 2.35* Catalog2: Complex parameters.

Conclusion:

Q+

The grouping of programmatic components is organized to enhance share-able spaces. For example, the event space can be shared among the theatre, workshops, or museum. Another example would be the lecture hall, which could be detached from the museum loop to be used by the neighboring school. Thus a formula with a high Q value will benefit the overall circulation along major spaces. This will create a number of 'pods' or loops to a shared core, where each loop can be detached and still function singularly.

P = 3
Q = 4
Twist = 2

Aggregation

Within each loop, the micro-organization of circulation can also benefit from the Möbius flow. It creates overlooking spaces while constraining public and private areas.
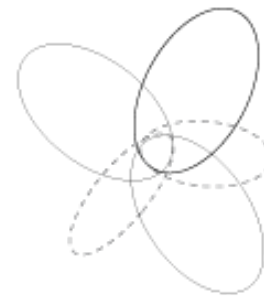
P = 2
Q = 3
Twist = 1

P = 1
Q = 2
Twist = 0

Fig. 2.36 *Modified torus knots.*

Museum visitors begin their journeys on the top floor, where the skyline across the river can be viewed. From the sky lobby, gallery spaces dip down, interacting with a system of multiple paths. The event space can be used as part of the museum area, or it can be detached and serve as theatre seating. It connects to both the market and workshop levels. The alternating levels of markets and workshops, complete with a flexible enclosure system along paths, act as an urban playground for those not necessarily concerned with viewing the exhibition. The networked circulation sets up nodal points at the stage level, event area, and roof top market.
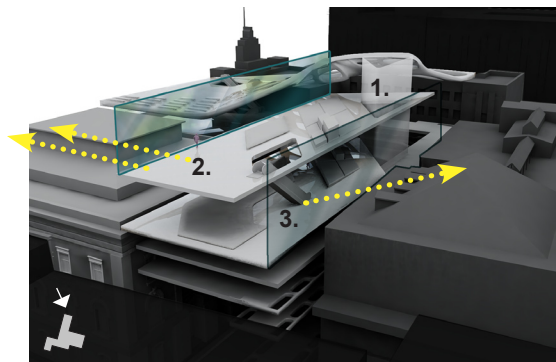
The museum's sky lobby and the first exhibition area is raised above the roof line of the neighboring Russo-Chinese Bank. The skyline across the Huang Pu river acts as the exhibits' backdrop. As one is taken to the lower exhibition area, the visitor's relationship turns to the back of the city. Roof top mechanical systems and informal architecture presents a contrasting yet provocatively intimate side of Shanghai. The visitor's path is built upon an alternating inside and outside visual relationship with the city.
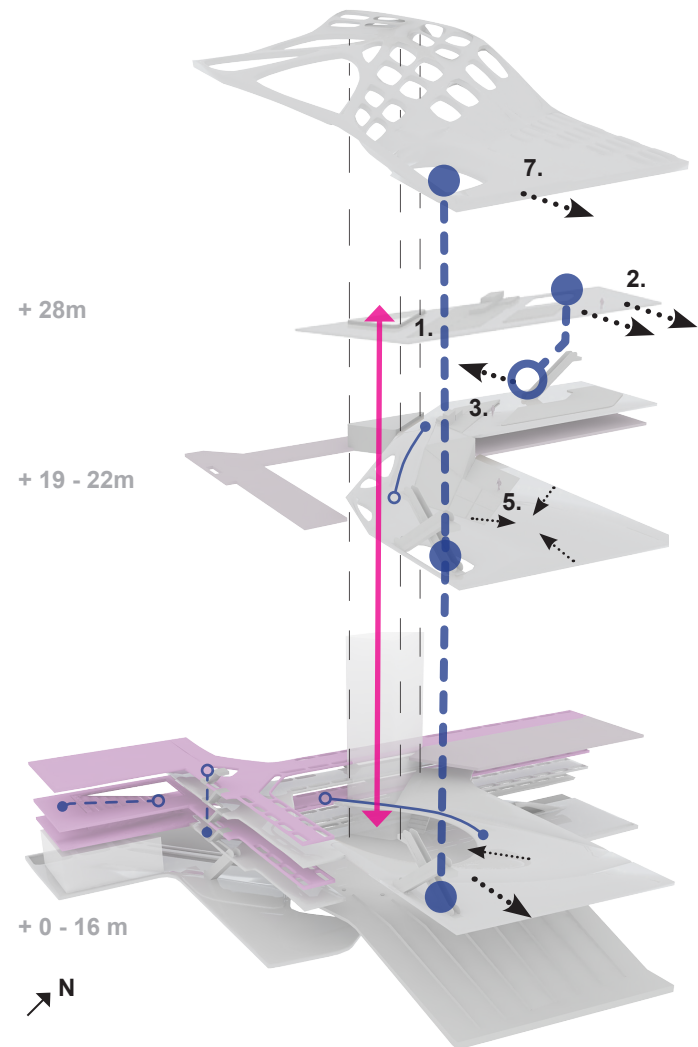
Legend

1. Core accessed Museum
   Entrance (+28m)
2. Exhibition 1 and Look-out
   Point (+28m)
3. Exhibition 2 (+22m)
4. Storage (+19m)
5. Exhibition 3 (+19m)
6. Escalators to Outdoor Exhi-
   bition and Markets
7. Outdoor Exhibition and
   Roof Market (+25m)
8. Event Space (+13m)
9. Ramp to Lower Workshops
10. Workshops (+10m)
11. Lecture Hall / Multimedia
    (+10m - 13m)
12. Markets (+13m)
13. Theatre Roof
14. Back of House
15. Back of House (+19m)

▬▬ Workshops
●──○ Ramp
●─ ─○ Stairs
▬ ▬ ▬ Escalator
▬▬▬ Elevator
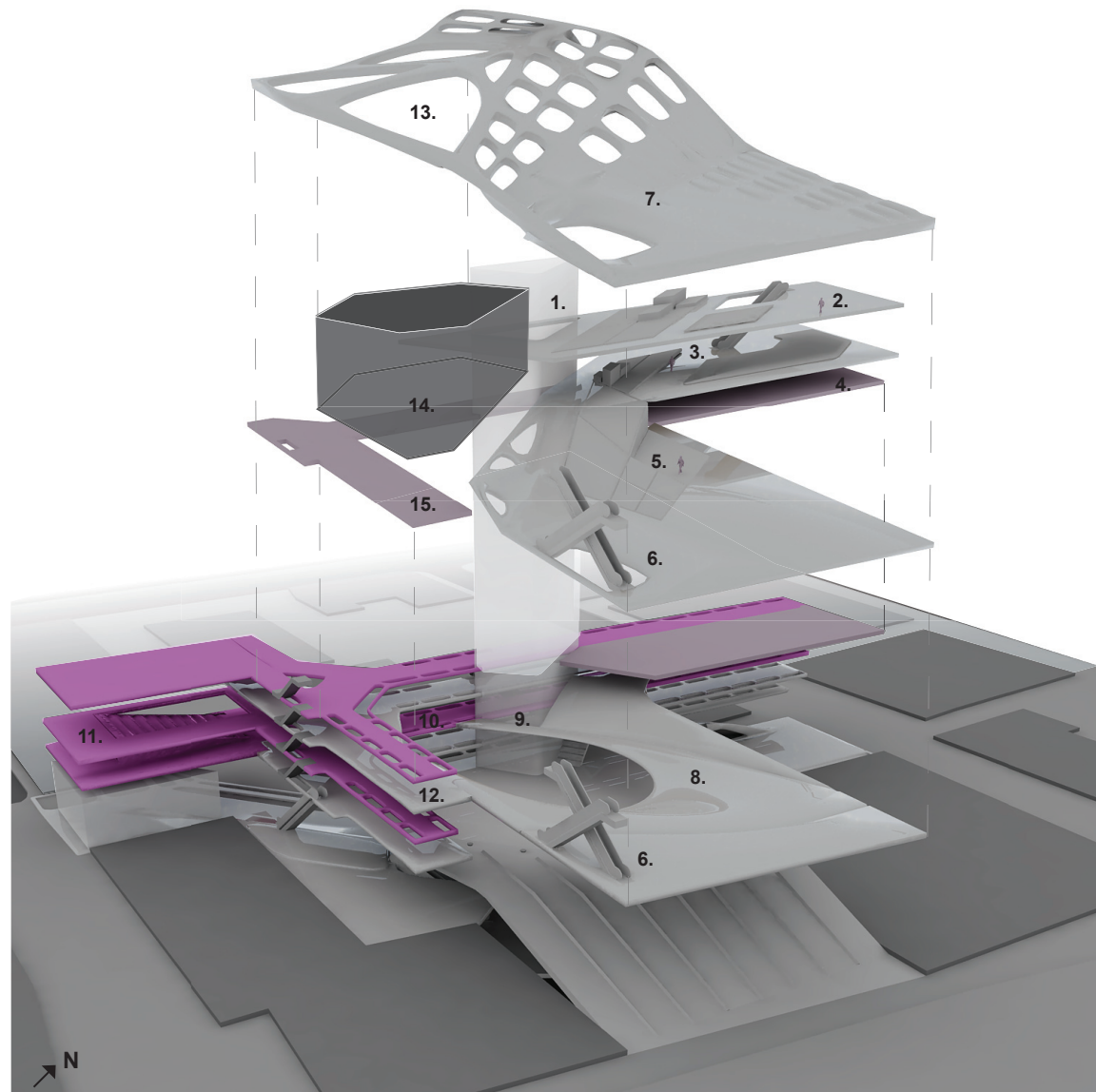•••••► View Orientation

Left to Right:
Fig. 2.37
Sky lobby view orientation
and roof arrangements.
Fig. 2.38
Museum circulation and
view orientation.
Fig. 2.39
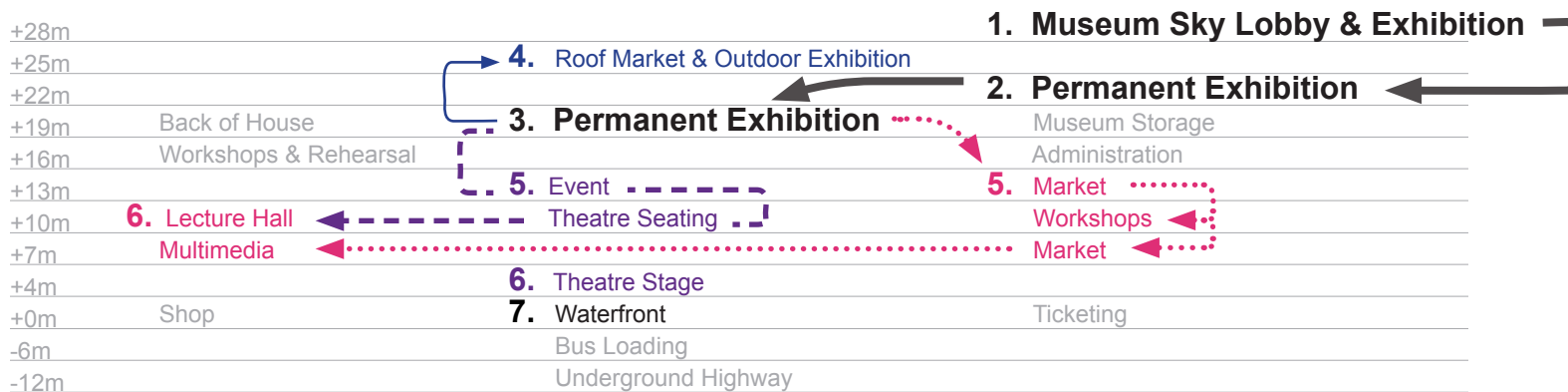*Museum axonometric draw-*
ings.

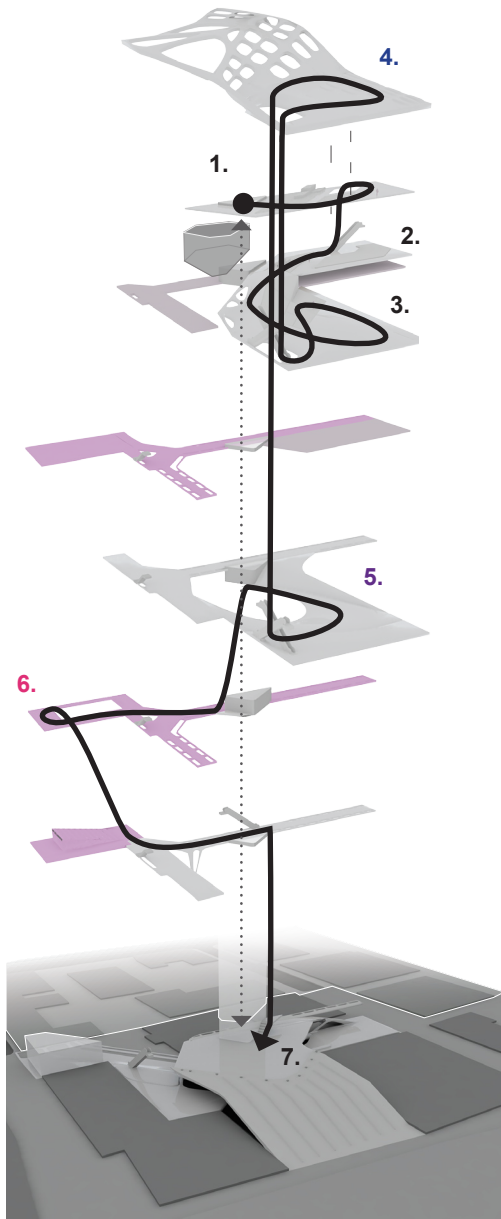Perspective illustrating the museum and related floor plates.

Opposite Page: Fig. 2.41 *Different operation configurations.*

The main halls and semi-public spaces intersect in various sections to create a continuous volume. The disjointed routes are set up for an alternative operational mode that creates an expanded loop. It creates a labyrinth with a complexity and variety of space by altering the boundaries between separated routes. Inspired by the torus knot study, it results in a super-labyrinth that is no longer a single-path problem. The museum's multi-circulation utilizes other programs' areas to create a super network of workshops, markets, and exhibition spaces. The paths are changeable according to the installation. Programs are thus no longer territory-driven, but instead, event-driven.
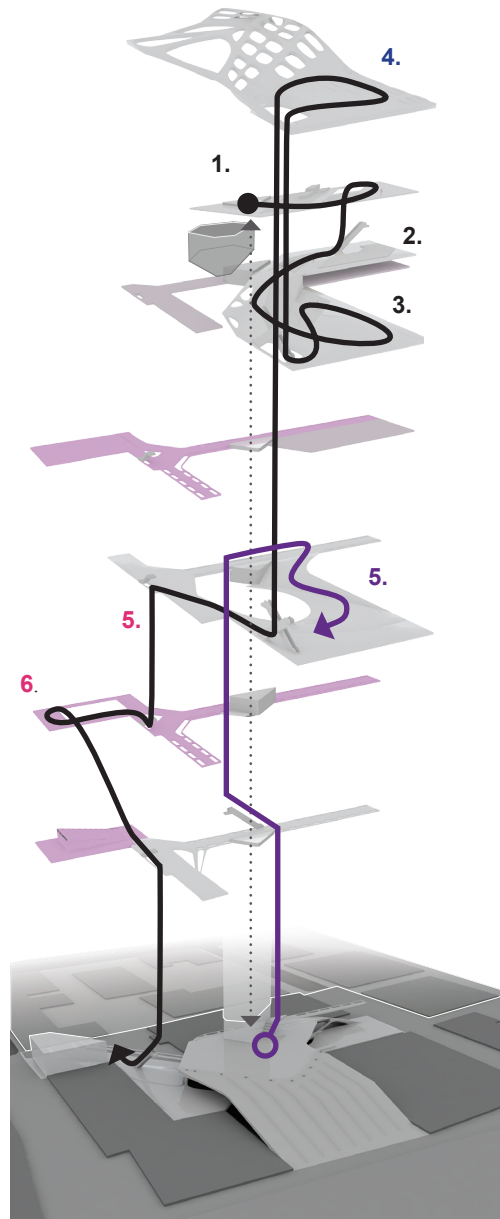
Below: Fig. 2.40 *Museum circulation sequence.*

There are two main routes through which visitors can access the multimedia rooms. The first option is to pass through the event area that overlooks the stage, and the second is to bypass the event spaces and filter through the markets and workshops instead.

| Level			
+28m			**1. Museum Sky Lobby & Exhibition**
+25m		**4.** Roof Market & Outdoor Exhibition	
+22m			**2. Permanent Exhibition**
+19m	Back of House	**3. Permanent Exhibition**	Museum Storage
+16m	Workshops & Rehearsal		Administration
+13m		**5.** Event	**5.** Market
+10m	**6.** Lecture Hall	Theatre Seating	Workshops
+7m	Multimedia		Market
+4m		**6.** Theatre Stage	
+0m	Shop	**7.** Waterfront	Ticketing
-6m		Bus Loading	
-12m		Underground Highway	

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Scenario 1: Public Holidays.
Museum + Market + Event + Workshops + Lecture Hall + Stage.

Scenario 2: Weekends with Featured Events.
Museum + Market + Workshops + Lecture Hall.
Stage + Market + Event.
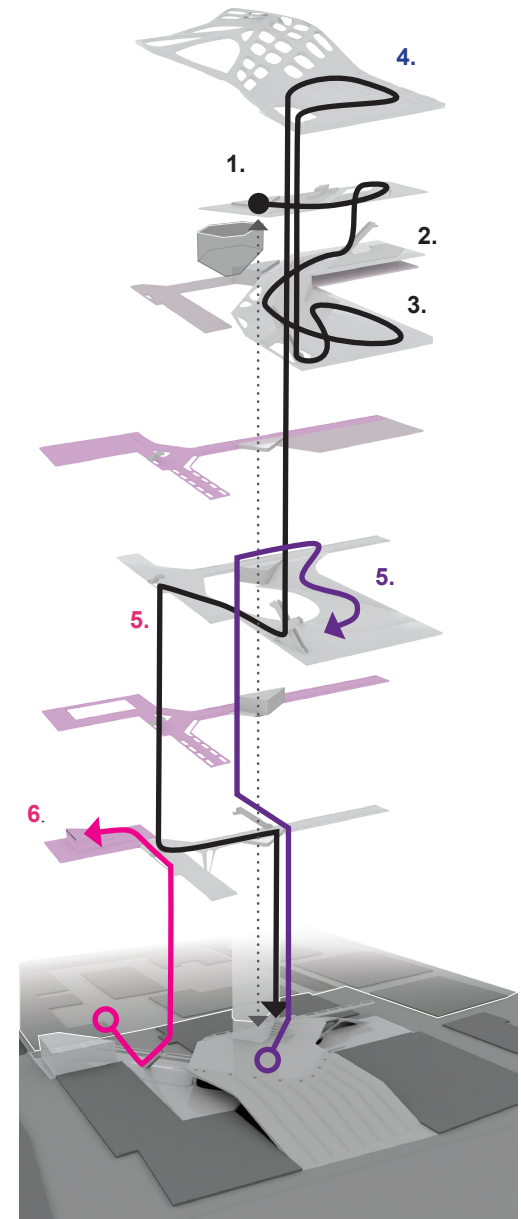
Scenario 3: Weekdays during school hours.
Museum + Market + Workshops.
Stage + Market + Event.
School + Lecture Hall.

TACTIC 5

The beauty Trap

(美人計; Měi rén jì)

Send your enemy beautiful women to
cause discord within his camp.

Fig. 3.1 *Tactic 5.*

3.0
BEAUTY

To summarize, the thesis proposes a possible answer to finding
a Shanghai modernity that lies in the everyday. The design acts
as the repository of daily activities where local imperatives can be
fostered through participation. Learning from previous attempts that
sought for a balance between ti and yong, the design puts to test
the reinterpreted theory – "Western for substance (ti), Chinese for
function (yong)." The contemporary 'Chinese function' is defined
by precedent studies on program components that makes up a
collective space. For example, the involution of public spaces out of
the fabric of infrastructure draws references to the context-specific
theatre typology. The open-air stage and scaffolds of markets
produce the armature for the otherwise prosaic programs such as
the jewel-box theatre and shopping malls.

The fortune cookie tactic also drives the project in an interesting direction, where pre-established styles and iconographic references are omitted altogether. Articulation of form is no longer the most significant issue; rather, the interest is in creating programmatic networks into constructable paradigms. The adaptive use directly informs the actual structure, complete with load bearing mechanisms, grid systems, and space-frame equivalencies. The design stabilizes and transforms the existing context by integrating architecture and infrastructure. The whole structure aims for fluidity among interconnected spaces. Blurring the boundary between street and halls, it also asks the question whether structure is a definer of space or an enabler of the space above it.

The fabric of the city is woven into the building's circulation. On the inside, space is continuous, questioning the need for differentiated or articulated rooms. Paths flow through volumes determined by activated and dormant partitions which accommodate furniture and vendor stalls. The simple structure is complicated by use. It provides a place for an everyday modernity to be fostered.
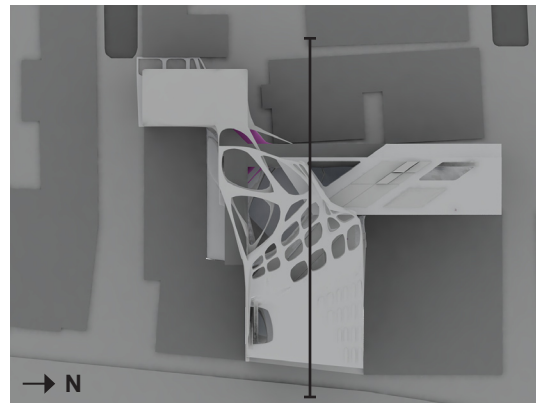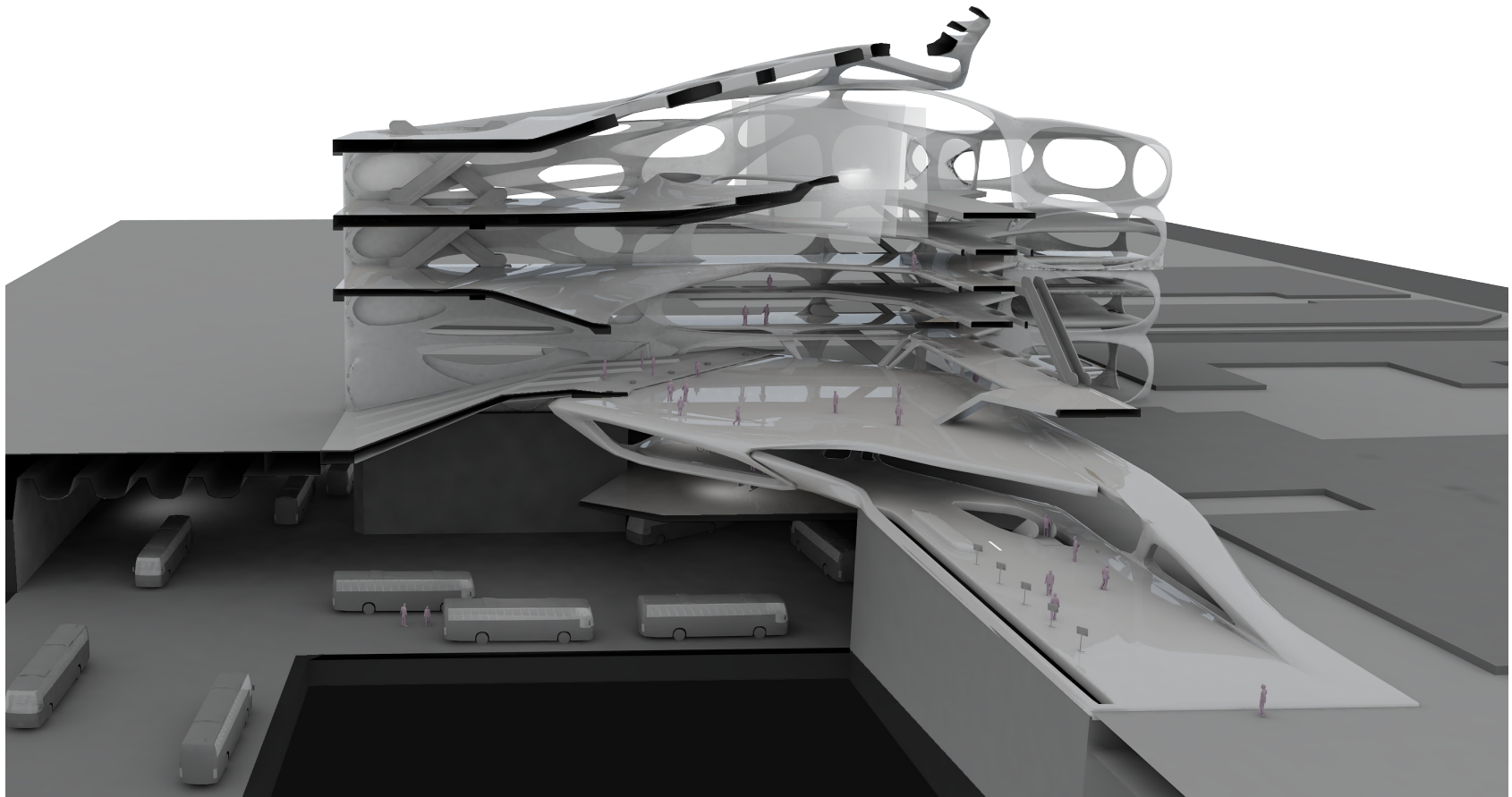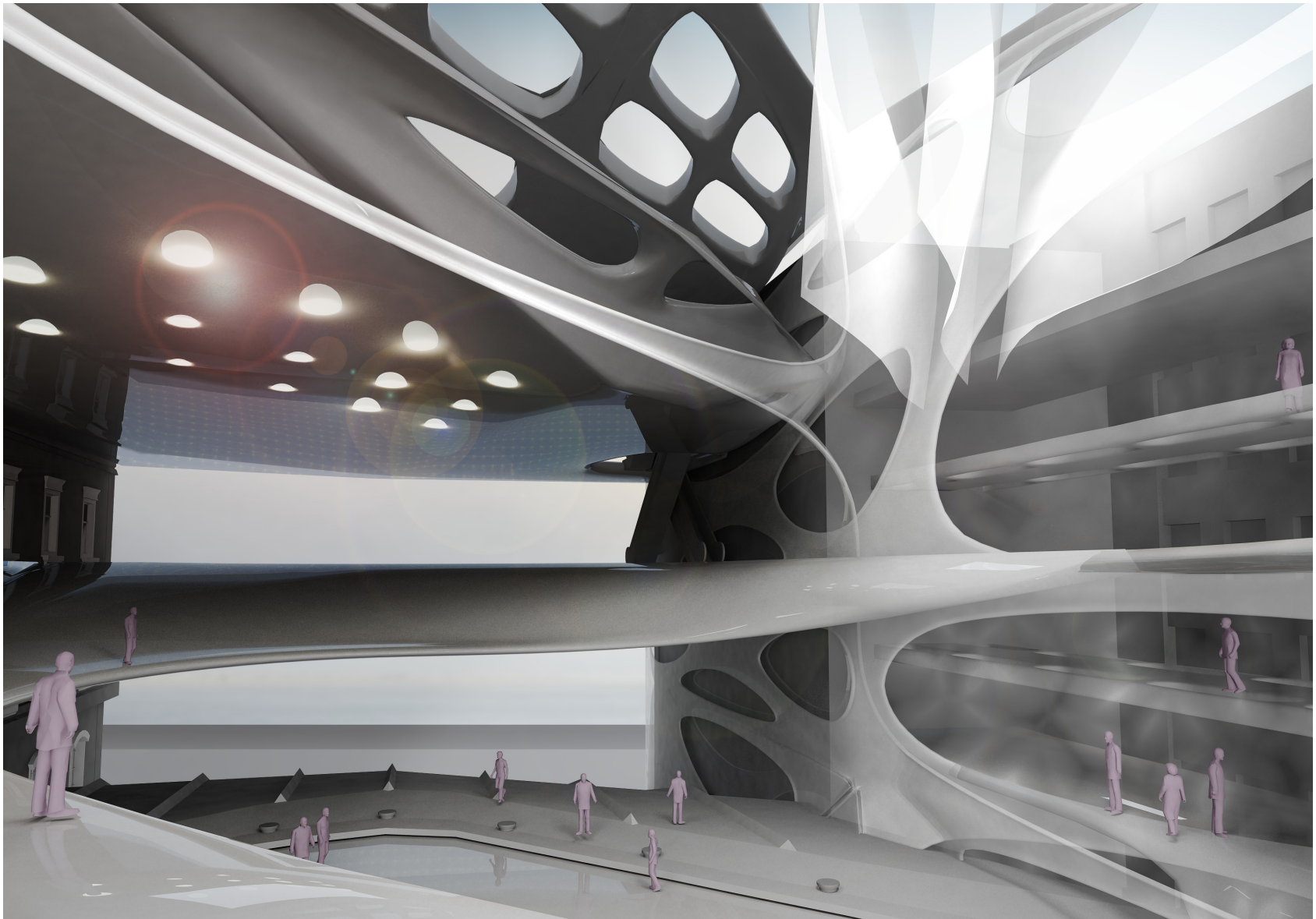
Fig. 3.2 *Sectional Perspective.*

Fig. 3.3 *Theatre and event area vignette.*

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