

PLANNING: FROM MODEL TO MODULES 城市规划: 从模式到模块 [02]

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PLAN OF BEIJING FROM THE 17TH THROUGH TO THE 19TH CENTURY, SHOWING IMPERIAL AND ADMINISTRATIVE BUILDINGS.

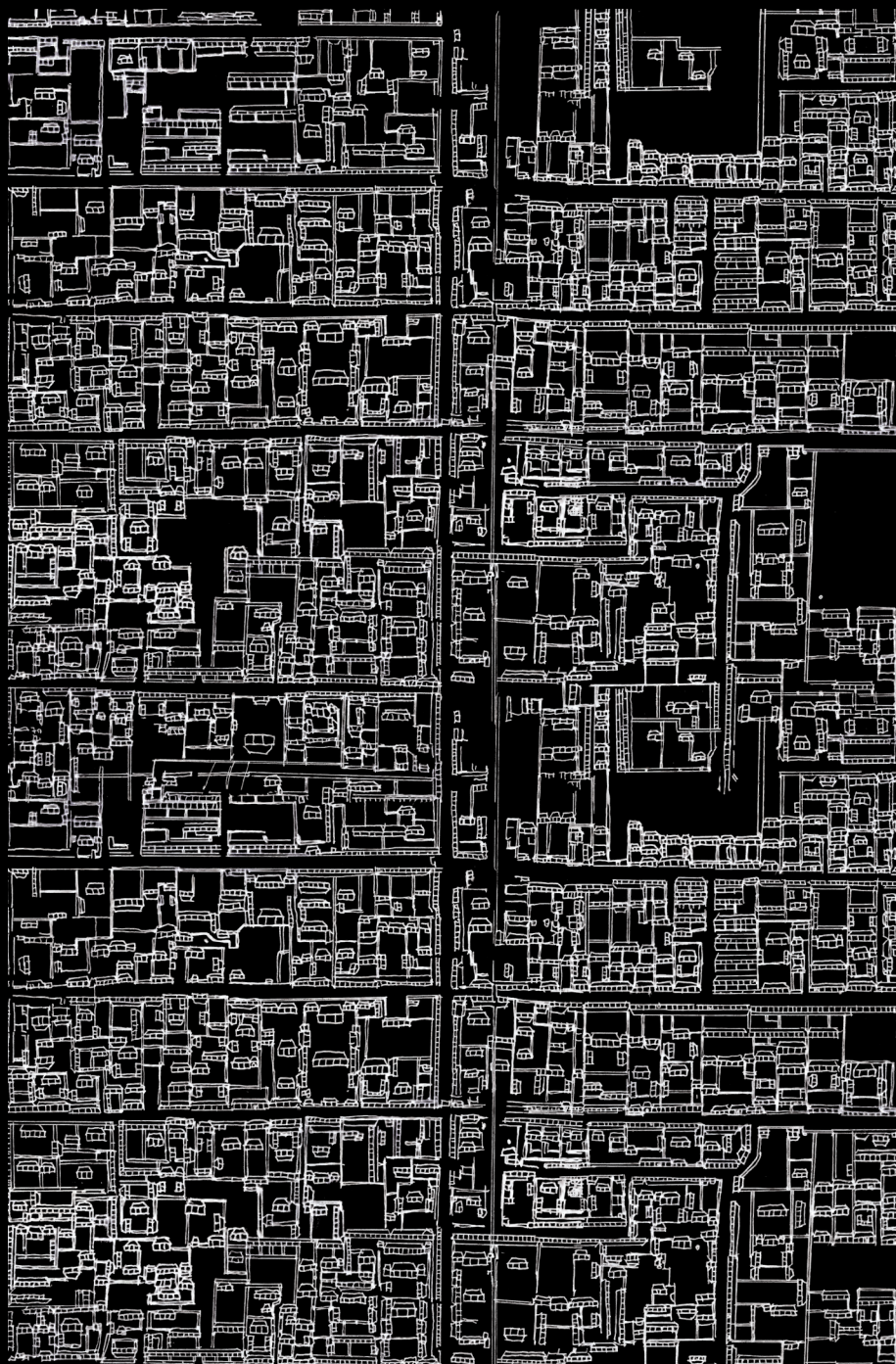
01. Forbidden City 02. Ancestral Temple 03. Altars of Soil and Grain 04. Altar of Heaven 05. Altar of Earth 06. Altar of the Sun 07. Altar of the Moon 08. Altar of Agriculture (First Crops) 09. North, Middle, and South Lakes 10. Jing Shan (Coal Hill) 11. Confucian Temple 12. National Academy 13. Prefectural Administrative Offices 14. Yamen (county official residences and courts) 15. Granaries 16. Buddhist Monasteries 17. Daoist Monasteries 18. Mosque 19. Provincial Examination Hall 20. Bell and Drum Towers

PLANNING: FROM MODEL TO MODULES

城市规划：从模式到模块 | Florence Graezer Bideau

China has a long tradition of urban planning evident throughout its 3,500-year history (Shatzman Steinhardt 1990). Chinese Imperial city planning has evolved over time in form but their visual characteristics are still related to the ways in which Chinese rulers govern their territory and its population. The Forbidden City is considered by many as a symbol of China. As the capital of five dynasties, it represents the importance of the past in serving the present in the designing of cities. Built in the 13th century, this Imperial monument still serves as a model of urban planning, even after the foundation of the People's Republic of China. It is comprised of palaces, royal monasteries, mausoleums, shrines, altars, parks, government offices, granaries, workshops, treasuries and libraries, all of which were located according to pre-established multisecular traditions. The capital city's form and architecture are symbols of the Chinese ruler, who is also the guardian of such traditions. Considered as an institution, the Forbidden City's concept and design need to be transmitted to future generations alongside its ideology.

This chapter aims to demonstrate to what extent the acceleration of urban development in China is based on the evolution of urban forms. It will describe a process that continues across time and space, that of the fundamental role of urban planning. It will discuss the deployment of the strategy throughout Chinese territory, and the gradual experimentation of urban planners in adapting to new settings, as well as social, political and economic changes. The long-term urban planning of Imperial China with its relatively slow change left room for disruptive and revolutionary experimentations in planning that would eventually adapt to the societal transformation of the urban fabric. Economic reforms launched at the end of the 1990s generated a rapid acceleration on all levels across China — from lifestyle to political systems, especially in the design and management of rapid urban development that challenged modes of production, the politics of land and property, the construction of new towns, urban and rural divides and density populations. Taking the example of Shenzhen, this paper will finally raise the question of whether this city has become a new model for China's urban change.



PLAN OF BEIJING IN THE 18TH CENTURY SHOWING THE ORIENTATION OF STREETS, LANES AND ALLEYS TOWARD THE CARDINAL DIRECTIONS.

IMPERIAL CITY AND THE WALLED CITY

Spatial arrangements of the capital city as a model are fully expressed by the plan of Beijing from the 17th to 19th centuries which shows Imperial and administrative buildings (中国建筑简史 *zhongguo jianzhu jianshi*, fig. 6–12, quoted by Shatzman Steinhardt 1990, 3). Such Imperial plans became uniform and represented the fundamental planning principles to be replicated across the Chinese territories. Principal features included four-sided walled enclosures forming a rectangle—the walled city (*cheng*). Inside, two or more thinner walls composed smaller rectangles in an embedding principle. Equidistant gates pierced the outer (外城 *waicheng*) and inner (内城 *neicheng*) walls usually connected by roads that crossed these rectangles. A major gate was generally built on the southern wall of the city. On the outer walls, defensive positions in the form of large towers or protective battlements housed military troops. Streets were capped by gates. Roads and avenues were designed from north to south and from east to west. This perpendicular grid was then articulated by lanes and alleys (巷 *xiang*), also called hutong in Beijing, which resulted in a checkerboard design.

The four cardinal directions embodied by the north–south and east–west axes were the main benchmarks for navigation. They also symbolically reflected the boundaries of the Chinese Empire. Indeed, according to the traditional belief of the five elements (五行 *wuxing*) associated with the five cardinal points (four geographical directions and the center), the universe was square-shaped and the son of Heaven, i.e., the Emperor who received from Heaven the mission of governing the Earth, was located in its center, i.e., the Forbidden City. Cosmological alignment was crucial to the location of specific buildings. The south was associated with the summer, fire, the phoenix and vermilion. The Emperor's seat in the Hall of Audiences was oriented south, and every building of the Imperial city had southern exposure. Even today, the north–south axis remains a fundamental feature of Chinese urban planning since it is reminiscent of the Imperial central axis that informed the design of Chinese cities in general.

Starting from the centre of the Imperial city, the vast checkerboard extended over the entire territory of the capital. The microscale structure was applied to the macroscale also, reproducing a system of dividing spaces according to a consistent principal. This dividing of space within the city made population control far easier. Governing the masses was crucial for Chinese rulers due to the relocation of thousands of residents upon the conquering of new territory, and the changing location of the Imperial capital. These controlled areas were inhabited mostly by groups identified by their occupation, religion and ethnic origin. In Beijing this governmentally mandated residential localization persisted until the 20th century.



LOCATIONS OF THE TEN GREAT BUILDINGS AND OTHER MONUMENTS IN BEIJING.
 01. Tian Anmen 02. Museum of Chinese History 03. Great Hall of the People
 04. Cultural Palace of Nationalities 05. Hotel of Nationalities 06. Military
 Museum 07. State Guest House 08. Beijing Train Station 09. Palace Museum
 10. Beihai Park 11. Coal Hill 12. Beijing Library 13. National Art Gallery
 14. Hotel of Overseas Chinese 15. Workers' Stadium 16. Museum of Agriculture
 17. Capital Exhibition Hall (former Soviet Union Exhibition Hall) 18. Beijing
 Olympic Park

MAO PLANNING REVOLUTION:

TO MODERNIZE AND URBANIZE THE COUNTRY

In the early 1950s, Mao Zedong launched a modernization project for cities.¹ The Chinese capital, Beijing, was at the forefront of such initiatives, including the drawing of maps, the inventory of historical monuments and the building of new national symbols. After much hesitation, he finally decided to keep the Forbidden City as a symbol of China's imperial past, but left a revolutionary mark by enlarging the horizontal axis from east to west between the Imperial buildings and the Qianmen Gate. Chang'an Avenue became the new central axis that provocatively transformed the traditional design of the capital city by adding a horizontal axis that crossed the Imperial north-south axis in the very center of Beijing. This break in urban planning was reinforced with the building of the Tian Anmen square alongside ten buildings erected for the ten years of the People's Republic of China (Wu 2005).

To modernize China meant transforming cities by implementing industries within urban neighborhoods and building new housing facilities for workers and their families, alongside the promotion of a new lifestyle among citizens. To this end, engineers with a technical and architectural education were trained in prestigious universities such as Tsinghua University in Beijing. Students were educated for the purpose of implementing the industrialization process, alongside transport and energy infrastructures and domestic manufacturing facilities, to accelerate the transformation of China. Called the Red Engineers, they were to become a new social class singled out by their technological and ideological expertise (Andreas 2009), who would help China close the development gap in agriculture, mobility, industrial production, science and technology, building, public health, etc.² During the next few decades, political campaigns were launched to speed up the process of improving civil infrastructure and public facilities, including sanitation. These campaigns also sought to purify the CCP of so-called bad elements, who were critical or resistant to Mao's effective implementations.

SCIENTIFIC SOCIALISM IN ARCHITECTURE AND URBAN PLANNING:

DESIGNING, EXPERIMENTING, EVALUATING AND REPLICATING

Central to this modernization process were architects and urban planners who followed the Marxist path of scientific socialism—historic forces, mainly economic determinism and class struggles, would help to achieve ideological goals—to perform what was expected of them, i.e., adopting a proletarian worldview and conceiving a design approach suitable for socialist China (Zhu 2009). Educational, productive and professional institutions relating to architecture were restructured, and major institutes of construction, design and planning were established. Influenced by the presence of Soviet experts during the 50s, these professionals were integrated into work-units (单位 *danwei*)

1 The architect Leon Hoa describes this project in detail in his book *Reconstruire la Chine: 30 ans d'urbanisme 1949–1979* published in Paris in 1980 (Éditions du "Moniteur").

2 *How China Escaped the Poverty Trap* (Ithaca, Cornell University, 2016) from political scientist Yuan Yuan Ang is very enlightening to this perspective.



CAOYANG NEW VILLAGE, THE FIRST WORKERS' NEW VILLAGE IN NEW CHINA.

which favored a uniformed practice characterized by a collectivization process involving teams of architects, designers, engineers and other specialists. In order to reach the productivity and economic efficiency required in this period of massive construction, the building industry was nationalized and integrated in five-years plans. This system transformed the practice of architecture: artistic creation was eliminated and replaced by a generic form of basic construction; the signature of a project was anonymized; overall control of a project was impossible due to the progressive division of tasks, and equal pay was applied.

Large teams of about 50–60 people designed new areas within the city in order to implement the concept of neighborhood units, including industry and manufacturing alongside social housing and public facilities (health, education, groceries, administration, services). The goal was to adopt the model of the work-unit to a larger scale within urban redevelopment projects. Relevant experience enhanced early Chinese socialist planning: for example the *Caoyang New Village* built in Shanghai between 1951 and 1953. Designed as a large village with community facilities within walking distance, the first workers' housing project of Caoyang was intended to host 1,000 households of model workers. Considered an urban pilot for implementing a new village—or in reality regrouping several villages into a single whole—the Caoyang model was designed and expanded throughout major cities where large factories and industries were developed for modernizing China. As a flagship for the CCP, it showcased the new socialist lifestyle and impacted the Chinese urban imaginaries since it reflected Mao's view of transforming consumerist cities into productive cities.

A few years later, under the expertise of Soviet advisors, Chinese work-units took the form of superblocks (大街方 *dajiefang*) composed of four to six apartment blocks organized around public facilities on symmetrical axes with a certain formalism. Typical of such structures is the *Baiwanzhuang* (百万庄) Residential District in Beijing which serves as residence for government officers and a dormitory for the national textile factory. Designed as an “organic component” within the city, these superblocks were also less expensive to build since they were integrated into redevelopment areas and thus benefited from existing infrastructures instead of new development areas in the suburbs.

THE MODEL UNIT OF THE *DANWEI* AS MICRODISTRICT

After the break in diplomatic relations with the Soviet Union, Chinese architects and designers evaluated their previous experiences. They abandoned the superblock form and introduced more flexibility in their planning approach according to economic and topographic issues. The neighborhood unit was transformed in the mid-1950s into the microdistrict, which did not require major changes in the conception of residential planning except for population density and size since the needs of the communities did not evolve much during this period. This basic unit involved a combination of economic activities, civic administration and residences (Lu 2006) and was eventually integrated as a planning norm. This *danwei* (单位) urban model was then replicated and deployed at a larger scale in governmental development projects.