



Reading from transition of Beijing block planning and collective housing in the 1950s

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ABSTRACT

This paper showed that the policy power of the Chinese government in the 1950s was directly linked to the development of housing construction. The author of this study conducted on-site surveys of several collective houses built from 1949 to 1960 that are still standing to photograph and investigate the status of these residential buildings.

Key Words: residential building, socialist, Beijing, 1950s

I . Introduction

As Chinese cities are currently faced with serious housing shortages, the government is trying hard to find an ideal housing policy under the socialist system to address this problem. The city that is most influenced by the government's trends in housing construction and urban planning is Beijing, the political center and capital city of China. In the 1950s, China imported engineering and planning technology, together with socialist ideology, mostly from the Soviet Union. Also, since the Soviet Union's zoning method was applied to urban planning in Beijing, studies were conducted that focused on the urban planning theory of political cities. The studies reported that many Chinese architects attempted to realize a socialist lifestyle while searching for the ideal type of collective housing suitable for a socialist country.

However, we failed to find any study that investigated the changes in housing policies by conducting surveys. In the case of Beijing, few studies have been conducted focusing on residential blocks (街区), except for in the Baiwanzhuang(百万庄) residential district. In addition, the study was a bit one-sided. Specifically, the space layout of the workers' residential areas constructed during the same period has never been revealed to the public.

The main purpose of this discourse on a socialist country was to find the spatial characteristics of collective houses, the features of socialist collective houses, and the transformation of the residential environment with a focus on urban collective houses built in Beijing during the 1950s. By analyzing the space principles from the perspective of actual surveys and comparisons, this study aimed to rediscover the essence of the old collective houses and reveal the socialist household spaces that Chinese architects were required to design.

II . Chinese Social System Changes and Distribution System

1. Social System Changes During the 1950s

The Chinese social system after the Qing Dynasty can be divided into two parts, the New Democracy period from 1919 to 1949 and the following Socialism period. During the New Democracy period, the Chinese government consolidated the socialist foundation by forbidding private ownership as much as possible. In 1952, the Chinese government nullified all previous land contracts and redistributed land ownership. In 1954, the government submitted a bill to nationalize the land and strengthened socialist ideology. After all the resources and land were nationalized, the government launched the Peoples' Commune Movement (人民公社運動) at a similar time to totalitarianism.

2. Economic System and Housing Distribution

A planned economy is an economic system established to build a society free from disparity in the process of economic revival. The adoption of a planned economic system that is under intensive management as planned will make it possible to concentrate limited resources in the important construction industry to create a positive economic cycle. The planned economy is the roof of a socialist system, in which planning is done in the following order: national economic planning → district planning → urban planning → housing planning.

For a decade after founding the People's Republic of China, the budget assigned to housing construction accounted for less than 10% of the government's budget [Figure 1]. Although the number of collective houses increased, it was not enough to meet the needs of the cities. Due to lack of technology and funds, it was extremely difficult to build enough houses to meet the needs of a rapidly growing population. Although the total construction area size used for urban houses increased two-fold over those ten years, the residential area per capita declined by 30% [Figure 2].

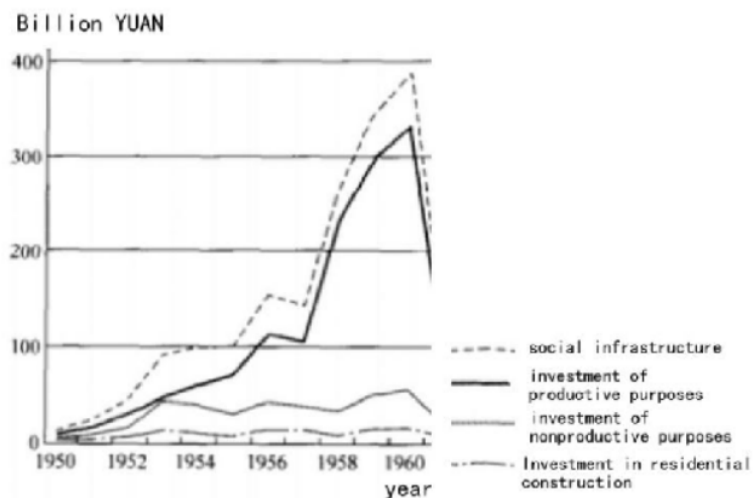
After building collective houses with a residential area per capita of 9m², similar to that of Soviet houses, the problem of mixed residency occurred.

The housing distribution policy under a socialist system was rational but there were several problems that should not be neglected.

A: Rapidly increasing population: The population of Beijing increased from 1.61 million people in 1949 to 4.53 million people in 1960, which was a surge of three times, but housing construction failed to accommodate such a large number of people.

B Distribution system of welfare houses: The purpose of a welfare house distribution system is for socialist uniformization. However, a distribution with insufficient houses cannot avoid mixed residency problems.

C. One-sided housing policy: Without considering the housing status, collective houses were built, not to improve the lives of people but to pursue a socialist ideology.



[Fig. 1] Use of government funds during the 1950s (Source: Lvjunhua (吕俊华), Zhangjie (张傑), Peter·G·Rows (2003)).

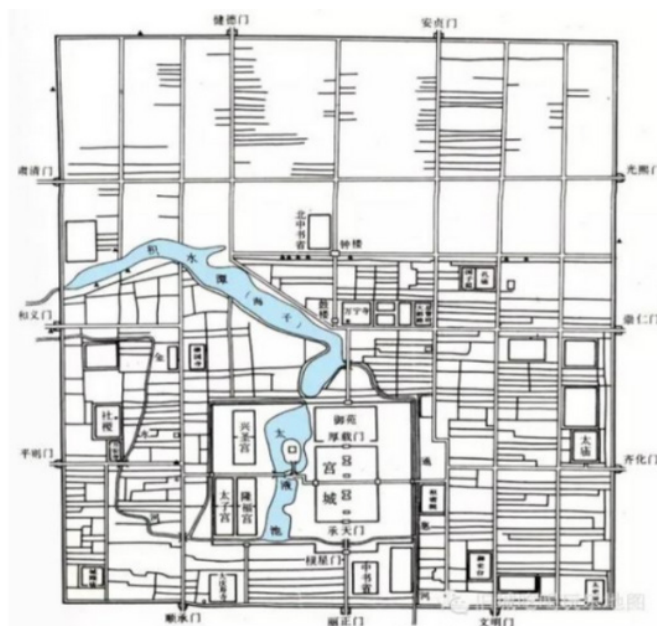
year	Gross floor area of residential (10,000 m ²)	Gross floor area for living in residential (10,000 m ²)	per capita (m ²)
1949	1354.3	757.5	4.75
1950	1389.1	785.2	4.91
1951	1401.5	785.2	4.45
1952	1508.8	845.5	4.49
1953	1602.8	889.1	3.76
1954	1710.1	958.7	3.71
1955	1893.2	1052.6	3.88
1956	2055.4	1144.6	3.78
1957	2217.8	1235.1	3.71
1958	2450.1	1376.2	3.89
1959	2518.7	1412.3	3.42
1960	2627.6	1488.6	3.24

[Fig. 2] Housing construction in Beijing's city center during the 1950s (Source : Beijingzhidifangzhibianjiweiyuanhui (2003)).

III. Urban Planning and Collective House Construction in Beijing Before and After the Founding of China

1. The Central Axis of the Capital City

One of the basic features of a traditional Chinese city is the central axial line of the city. Important building groups are arranged along the central axial line, which are linked to arterial roads going easterly or westerly directions, connecting the whole city [Figure 3].

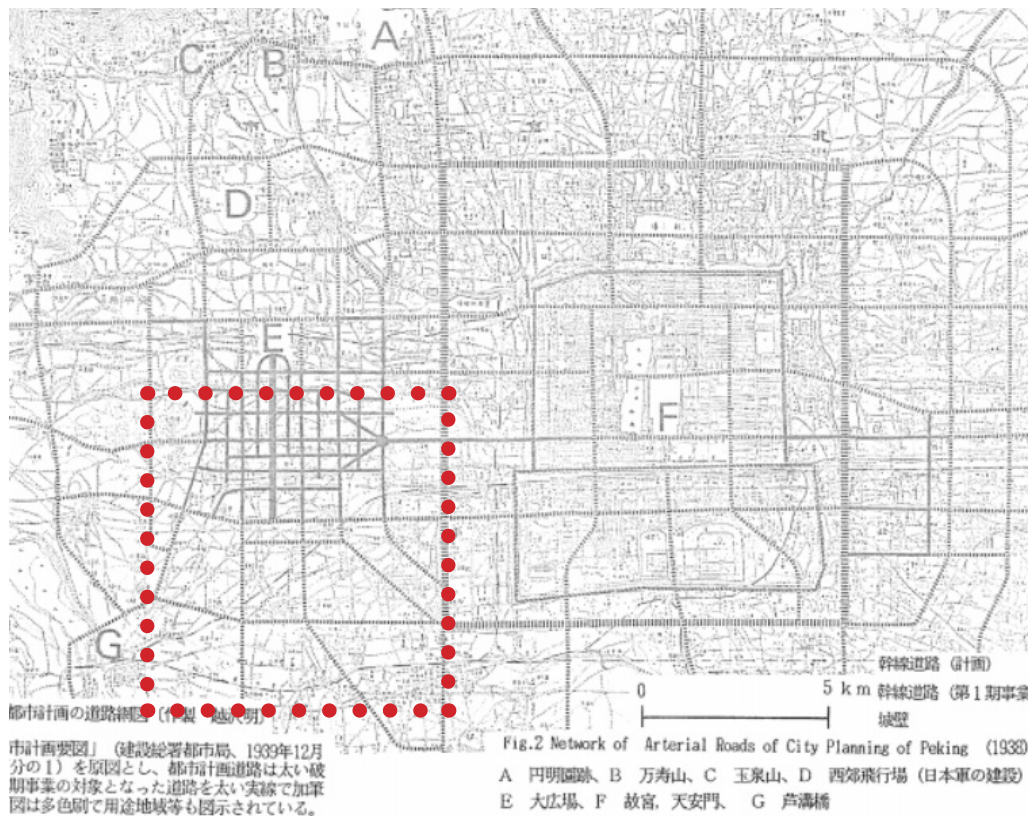


[Fig. 3] Beijing of Yuan (元) dynasty (Source : Hourenzhi(侯仁之, 1997)).

2. Development of Xijiao (西郊) and Housing Shortage

The intervention of the Japanese government in the Second World War brought new changes in urban planning of Beijing. The Japanese government and urban planners of the Chinese democratic government adopted a modern urban planning theory (composition of residential areas and green belts, etc.) to design the urban areas in Beijing. The construction of Xijiao New Town moved the city center of Beijing¹⁾ [Figure 4].

1) Akira Koshizawa (1985) maintains that the most important reason to construct Xijiao New Town was to build a new area for the convenient management of Japanese immigrants and Chinese citizens.

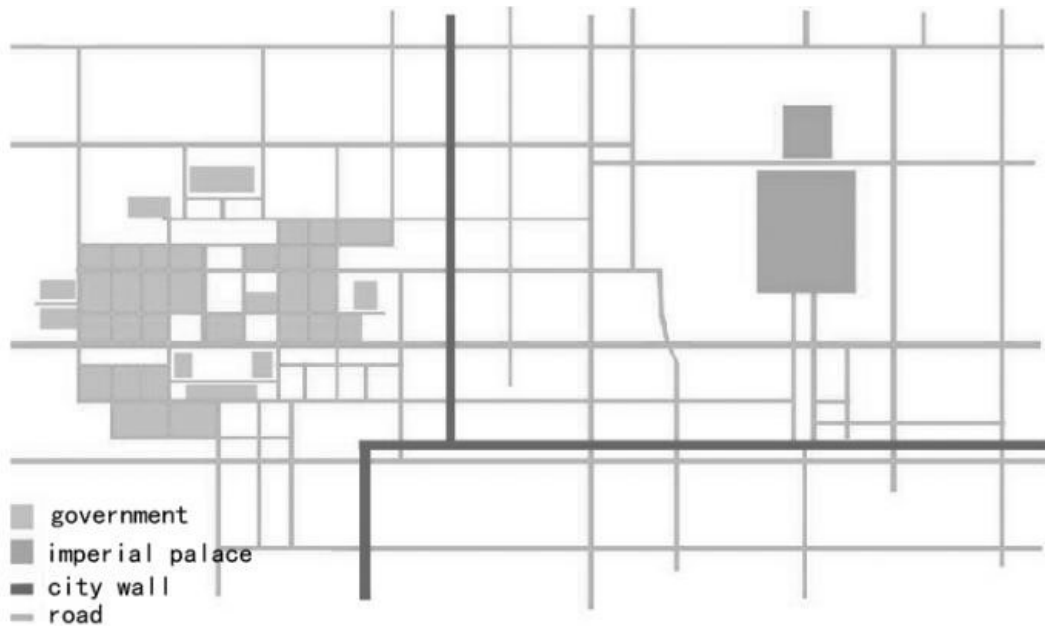


[Fig. 4] New Town marked on the Beijing urban planning map (Source : Akira Koshizawa (1985)).

3. Reorientation of City Center to the West

As Beijing was designated the capital of New China again, there were many suggestions and discussions about its future. Soviet architects who were faced with the same problem previously, claimed that Beijing should be the center of not only politics but also industry and that Beijing should become the model city of the socialist state.

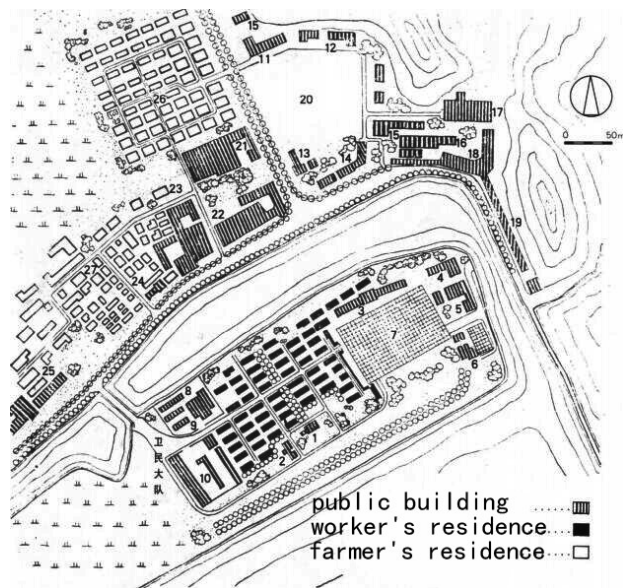
In late 1952, government administrative agents started to be built in Sanlihe (三里河) outside the castle according to the New Town Plan proposed by the famous architect Liangsicheng (梁思成). Since the Japanese government bought land in Xijiao (西郊) from residents during the war, Liangsicheng predicted that the New Town Plan could reduce development costs by a significant degree. The New Town Plan was designed to make use of the residential areas in Xijiao New Town and factory sites in Dongjiao (東郊) New Town to provide convenient commuting and realize the city's growth potential [Figure 5]. The changed urban plan also brought about transformation in housing construction in Beijing.



[Fig. 5] Location of government agencies according to the New Town Plan(Written by the author in citation of 『The Complete Series of Liang Sicheng (梁思成)′s Works』).

4. Stagnant Period of Housing Construction

In 1958, factories, together with residential areas and cultural facilities, moved to suburban areas according to the new urban plan to facilitate the nationwide people's communal life movement under the Great Leap Forward Movement. It pursued the connection of a city with rural areas by abolishing the plans to develop industrial cities and aimed to connect the city with rural areas. [Figure 6]. As factory development reached its peak, housing construction stalled. Housing construction costs were reduced in order to decrease the use of industrial materials, such as wire mesh.



[Fig. 6] Example of the people's communal residential areas in Guangzhou (广州)(Source : 华揽洪 (Hualanhong, 2006)).

IV. Theories and Development of Chinese Collective House Space

1. Theories of Collective House

Construction theories and urban planning theories after the founding of China were written by Chinese architects who were dispatched to the Soviet Union or who studied in Europe and Japan. It can be said that the residential areas developed during this period were designed by adopting advanced countries' urban planning theories while reflecting China's traditional space theories.

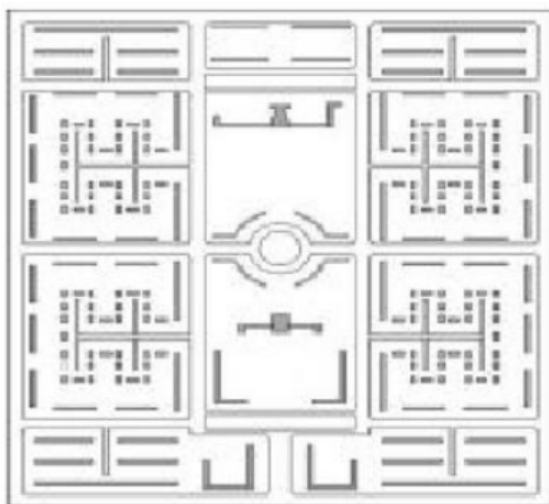
1) Neighborhood Unit (近隣住区)

Under the influence of Ebenezer Howard's Garden City Movement, Forrest Hills Gardens, a suburban residential area, was planned and started to be developed in 1909 in a suburb of New York in the United States. C.A. Perry, an American regional planning researcher who resided here, published *Neighborhood Unit* in 1924. In Redburn, New Jersey, which was developed to implement the Neighborhood Unit theory, a road system was created to separate the vehicles from the people. The ethos of the Neighborhood Unit and Redburn's urban plan are being widely utilized for urban construction around the world.

Under such influence, Liangsicheng (梁思成) made proposals titled "About Capital City Construction Plan" and the "Chinese Neighborhood Unit" in 1949. One side was 800 – 1000 meters long, with a population of 7,000 to 10,000 residents, equipped with cultural facilities, schools and kindergartens, with parks, gymnasias, and green spaces in the center [Figure 7]. In the next year, Fuxin gmenwaizhenwulangjinlinzhuqu (復興門外真武廟近隣住区) was constructed in Beijing according to the "Chinese Neighborhood Unit" proposal.

In his book titled Summary of Democracy Housing Policy, Wangdingzeng (汪定曾), who studied in the U.S., emphasized the need for the standardization of houses, the mechanization of construction industry, the nurturing of a professional technology institute, and the improvement of process management in order to mass-produce collective houses, and repeatedly stressed the meaning as a modern collective house. In 1952, the construction of Caoyangxincun (曹楊新村) designed by Wangdingzeng (汪定曾) in Shanghai was completed. In the case of Caoyangxincun (曹楊新村), the relationship between the city and roads, in addition to the accessibility to amenities, was taken into consideration by following the proposal by Liangsicheng (梁思成) to design a quiet residential environment as part of an effort to build a reasonable residential area. It was highly evaluated as a housing plan that maximized the use of site conditions. Caoyangxincun (曹楊新村) was China's first modern neighborhood unit and served as a prime example for housing construction around the

country [Figure 8]. Since the residential plan of the First Five-Year Economic Plan of the Soviet Union did not influence housing construction in China at that time, Caoyangxincun (曹楊新村) and Fuxingmenwaizhenwulangjinlinzhuqu (復興門外真武廟近隣住区) showed the unique characteristics of Chinese neighborhood units.



[Fig. 7] Layout of a neighborhood unit
(Source : Liang Sicheng(梁思成,2001).



[Fig. 8] Layout of Caoyangxincun (曹楊新村)
(Source : 汪定曾 (Wangdingzeng, 1956).

2) Extended Residential Block (Superblock)

Ebenzer Howard's Garden City Movement theory had a big influence on the Soviet Union in the early 20th century. At that time, Vladimir Nikolayevich Semyonov, a Russian urban planning scholar staying in the United Kingdom around 1910, participated in garden city planning with Howard, Raymond Unwin, and Letchworth. After he returned home, he published a book titled *City and Garden in Europe and Russia*, which received a favorable response in Russia. The European Garden City Movement placed greater importance on the needs of the middle class than on those of the working class, while the Soviet Union's movement drew more socialist colors by raising city-related problems, including nationwide housing shortage problems.

In 1935, Soviet's superblocks were built along the baroque-style boulevards and rectangular street network of large cities according to Moscow's urban planning. Superblocks and wide streets, known as desirable attributes of a socialist city, formed the road network of Soviet cities, and its basic unit was a group of households (街区) surrounding a courtyard. A superblock is a residential area consisting of a large number of households and is equipped with more convenience facilities.

During the first five-year economic development plan, China imported a standard housing model, design organization, technical management, building regulations, and standard design from the Soviet Union. To promote socialism, the expansion of production means was considered the first priority, which required the construction of collective houses to ensure healthy communal life.

In 1953, the City Planning Council of China enacted an ordinance to provide residential areas with more public facilities by adopting a modern housing style with a unified plan and a unified design. As a result, China expanded the propagation of work-residence integrating residential districts (劳住合并) around the country, under the influence of the Soviet Union's superblocks.

There are basically three types of residential quarters arrangements in China. The structure of houses built in parallel looking in the same direction is called a "row block." Its advantage is achieving good natural ventilation and adequate sunlight by placing equal distances between the houses, as well as easy planning. However, the arrangement seemed to lack variety.

The structure of several houses surrounding a central empty space that is semi-private is called a "perimeter block." The households of a perimeter block can be seen mainly in the northern cities in China. Perimeter blocks were used to adjust the external appearance of the block suitable to the street shape to create a uniform urban landscape. This created a noise-free and quiet residential environment and guaranteed the privacy of the residents. However, many households were arranged to face easterly or westerly directions, or were located on the outermost side of the building and did not have good natural ventilation or adequate sunlight.

The "double perimeter block" that was designed to maximize the use of the available lot. More housing units could be built by using the double-perimeter block <回> design than the perimeter block <口> design, but its disadvantage was the relatively inadequate natural ventilation and sunlight compared to perimeter blocks.



[Fig. 9] Residential block shapes (drawn by the author according to an actual survey : row block [left], perimeter block [center], double-perimeter block [right]).

A superblock is a residential block consisting of combinations of the above block designs. Superblocks were built along arterial roads, and its buildings facing the outside could block the view from the outside. However, the separation of the road space from the residential space could make the residents feel safe and live freely and comfortably.

3) Small Residential District

In 1956, Nikita Sergeevich Khrushchyov set up a new housing policy of providing one apartment to one household in order to solve the dire housing environment where more than two households of workers (the main characteristic of communism) resided in one apartment. A small residential district was comprised of extended blocks with 10 units, with a population of 5,000 to 12,000 residents. To meet the everyday needs of the residents, childcare, entertainment, education, and cultural facilities, in addition to shops and restaurants, were located inside and outside the small residential district.

Since China copied the collective housing design of superblocks directly from the Soviet Union, every floor consisted of two or three units of 1K or 2K. However, due to a rapid population increase, two or three families had to live in one household unit. To solve the problem of mixed residency, the Chinese government started to build small residential districts with an area size of more than 300,000 m² in 1957, during the late period of the first five-year economic reform [Figure 10]. Each residential district combined collective houses, cultural facilities, and amenities and performed its own socialist activities.



[Fig. 10] Small residential district in Xizhaosi (夕照寺)(photographed by the author)

2. New Village (新村) Idea

Strictly speaking, the New Village (新村) Idea is not an urban planning theory but an idea similar to socialism. From the 16th to 17th centuries, European social reformers insisted on the need for a new form of collective life and urban space <New Village> suitable for the modern industrialized society, because of attachment to <Old Village (according to agricultural civilization)>.

In the early 20th century, a capitalist production system was introduced to colonized China and the country stepped into an industrial revolution like the European countries and faced the problems that accompany industrialization. The ideal industrial body, the New Village Idea envisioned by European countries to connect society with space, was introduced to China.

In 1918, a new village in Miyazaki Prefecture was built by Musanokoji Saneatsu (武者小路実篤), a Japanese writer, to realize the ideal world of harmonious society and class struggle. In 1919, the famous Chinese writer Zhouzuoren (周作人) visited the new village. After that, Chinese magazines released a series of articles on Musankoji Saneatsu's New Village and the ideal industrial village in Europe. After realizing the relationship between the ideal social image that he had pursued until that time and the new village, Mao Zedong paid a visit to Zhouzuoren. He wanted to establish a local branch of the New Village in Hunan Province but had to suspend the plan due to difficulties of the war and the lack of personnel. However, Mao Zedong was deeply interested in the New Village after that.

In 1922, the *Road Monthly* (道路月刊) published an article containing sentences related to social relationships and spatial models in the "Exemplary New Village". The author mentioned that the only way to solve the problem of modernization in China was by a local autonomous system consisting of an Exemplary New Village. The Exemplary New Village could



[Fig. 11] New Village in Hebei
(Source : 侯仁之(1935)).

accommodate 2,000 people in an area size of about 13 km². Its residents went to a grand auditorium in the center every morning to participate in educational activities and after that, they went to living facilities, such as kindergartens, schools, and nursing homes. Furthermore, the Exemplary New Village was equipped with agricultural farms and factories. Through educational activities, it could prepare workers to obtain traditional agricultural labor, knowledge, and skills and to adapt to communal life. This purpose became the cohesiveness of the New Village and the existential meaning of New Village space. The New Village established in Hebei in 1931 had a service center located at its core and was equipped with schools, administrative agencies, shops, and public spaces, such as playgrounds and parks. The Hebei New Village had four gates and was equipped with wells made for defensive work [Figure 11].

In other words, the New Village space can be summarized into three areas, public facilities (especially lecture rooms) built for reeducation needed for modern society; residences and housing; and a means of production, such as agricultural and industrial facilities, to support the New Village's economy.²⁾

In 1948, Qiandongsheng (錢冬生), an architect, published an article titled "About New Village-style Housing Construction" to introduce the housing conditions of that time and the concept of New Villages. The architect wrote that the New Village-style residential areas were considered the most valuable residential style in consideration of modern urban development and criticized that the developers commissioned the architects to construct new villages and that the architects were trying to build them as they wanted. He also pointed out that the architect's professional practices might not meet the needs of the users due to the division of labor brought about by modernization.

In 1952, many laborers' New Villages sprang up around the country after the founding of New China, including Caoyangxincun (曹楊新村) in Shanghai. In terms of scale and purpose, there were several differences between physical workers' New Villages and other New Villages. However, they shared the common point of being a new lifestyle to connect living and working and both of them sought the same communist utopia.

The People's Commune Movement began in 1958 and can be referred to as a practical reform conceived by the New Village Idea. Its purpose was to pursue a local space for self-self-rehabilitation and self-sufficiency based on collective production and collective living by connecting agricultural production cooperatives, industry, commerce, military organizations, and local administrative

2) Wangdingzeng (汪定曾, 1946) maintained that China need to consider any example of housing construction of European countries.

Citation from a study by Yangyuzhen (楊宇振, 2017)

agencies and authorities. Compared to the physical workers' New Village, the People's Commune Movement put greater emphasis on a socialist idea by linking agricultural production with social life. Although almost all of the People's Commune farms in Beijing were located outside the city center, the People's Commune buildings were constructed inside the city center. The vertically-constructed People's Commune buildings were suitable to accommodate the city's high population density and provided vitality to the city center.

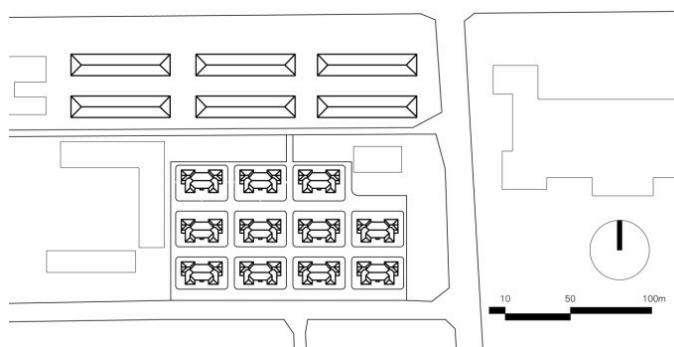
3. Collective Housing Spaces in Beijing

By examining the remaining collective houses in Beijing, this study identified policy changes for collective housing and looked at the image of socialist life devised by the architects during the early years of the founding of the nation.

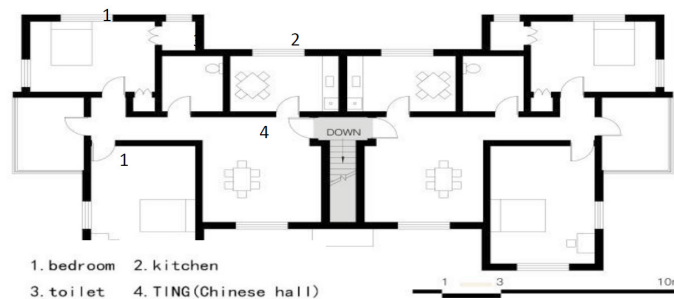
1) Fuxingmenwaizhenwulangjinlinzhuqu (復興門外真武廟近隣住区)(1952-)

The Neighborhood Units were laid out with a courtyard in the center and houses surrounded by roads. Fuxingmenwaizhenwulangjinlinzhuqu was a neighborhood unit built slowly over about 10 years starting in 1952. Therefore, the inner roads were linked directly to Hutong (胡同, back alley) of Zhenwumiaotoutiao (真武廟頭條) and the residential quarters were entangled with outer roads, in which the passage and parking of vehicles could interfere with the residents' lives [Figure 12] [Figure 13].

The residential area of two-story Western-style houses had a good natural environment. Compared to other houses, the scale between the buildings was appropriate and the interior road of about 5 m seemed to be wide and open. By referring



[Fig. 12] Layout Plan of Fuxingmenwaizhenwulangjinlinzhuqu (drawn by the author according to the actual survey).



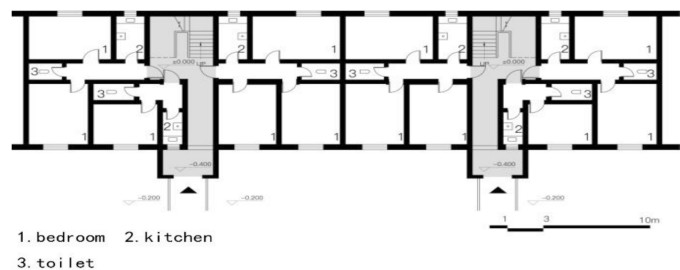
[Fig. 13] Floor plan of a two-story Western house (drawn by the author according to the actual survey).

to the housing design of the Soviet Union, they had a living room, which was rarely found in other types of residential housing units built during the same period. One unit usually accommodated a family of more than five members. They also had a unique Chinese space called Ting (厅) that functioned as a living room and a dining room to accommodate guests.³⁾ It was considered a luxurious living space in the 1950s, to have both a living room and a dining room.

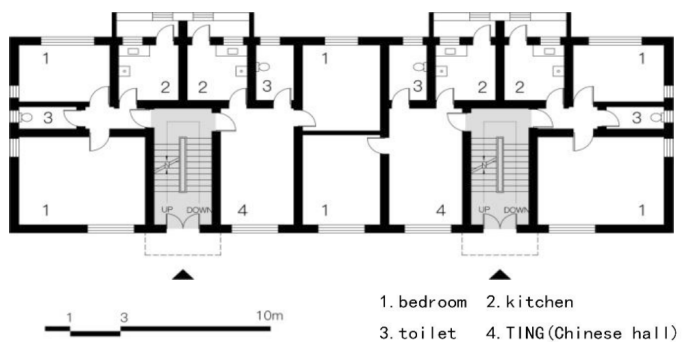
2) Sanlihekuodajiequ (三里河挾大街区)(1953-)

In terms of building arrangement, the perimeter and double-perimeter designs were used to emphasize line symmetry. Compared to *Fuxingmenwaizhenwulangjinlinzhuqu*, public spaces were created in the courtyard and open spaces like parks were designed in several places. The courtyard was separated from the roads to provide a quiet living environment for the residents. The housing land had a good natural environment, and the residents could grow gardens and flowers in the public spaces in front of the houses [Figure 14] [Figure 15].

All collective houses in *Sanlihekuodajiequ* (三里河挾大街区) were mainly comprised of 2K- or 2LK-sized households and had separate toilets and kitchens. Each floor consisted of two households and the meals were usually served in a bedroom or *Ting*. After 1954, a collective house with *Ting* was no longer rare and became the mainstream model in housing design. As the importance of private space emerged, private



[Fig. 14] Layout plan of Sanlihe Superblock-1 (drawn by the author according to the actual survey).



[Fig. 15] Floor plan of a housing unit in the Sanlihe Superblock-1 (drawn by the author according to the actual survey).

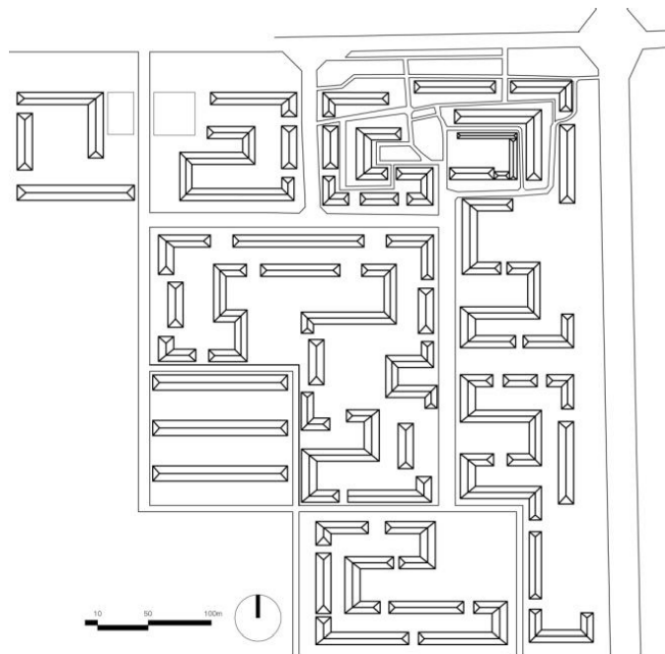
3) According to the actual survey by Uekita Yasufumi (1990), living and dining spaces called Ting (厅) started to be built during the 1950s and was not found in Soviet houses.

toilets, kitchens, and verandas were provided.

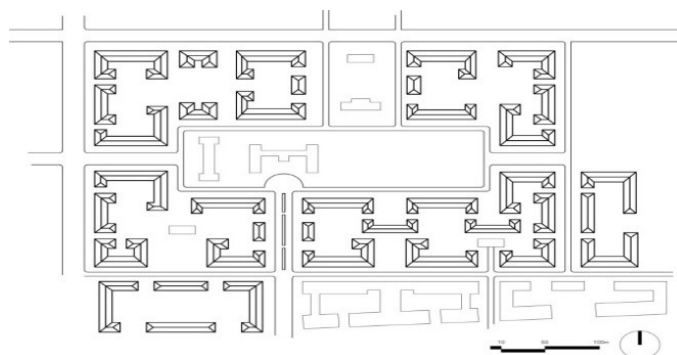
3) Balizhuangfangjigongchangjuzhuqu (八里莊紡績工場居住區)(1953-)

Balizhuangfangjigongchangjuzhuqu, located outside Beijing, was the first laborers' superblock built according to the Superblock System. Three factories and houses to accommodate their laborers were built for eight years from 1953 to 1960. Because the site was empty before urban planning started, it was designed in a perimeter block-type style with orderly-organized and large green spaces and wide roads. The road on the west-side green belt was about 16 m wide and equipped with comfortable green spaces and sidewalks, which functioned as a park or plaza. As more amenities had to be built to meet the residents' changing needs, temporary buildings were built in a vacant space and leased as food kiosks.⁴⁾

Each building had three or four units, and each unit consisted of three or four households with



[Fig. 16] Layout plan of *Balizhuang* spinning factory workers' Residential District 2 (drawn by the author according to the actual survey).



[Fig. 17] Unit floor plan of *Balizhuang* spinning factory workers' Residential District 2 (drawn by the author according to the actual survey).

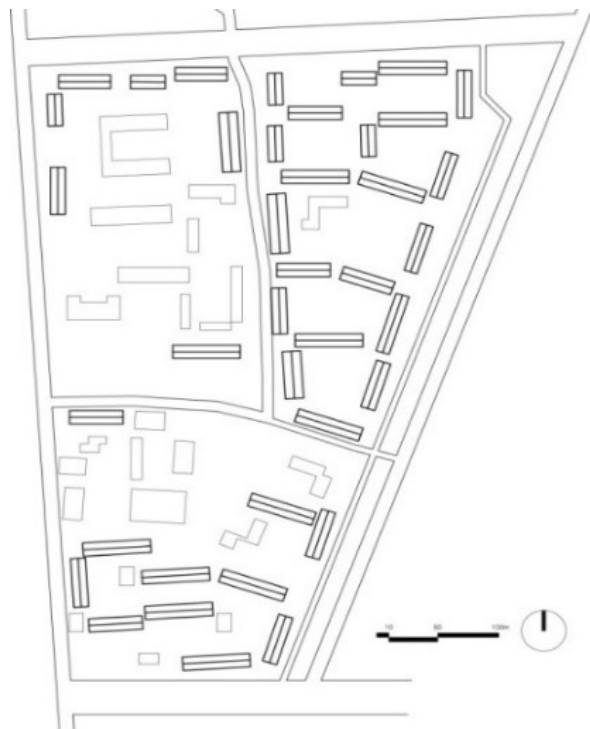
4) According to the figure in the report by Lihongduo (李宏铎, 1956), barber shops and stores emerged spontaneously within three years after construction was completed.

separate bathrooms and kitchens. Most of them had 1K or 2K structures. After the construction was completed, an enormously large number of laborers had to live together. As it was difficult to provide one household for each family, two or three families often had to live together in one household [Figure 16] [Figure 17].

4) Xingfucunjuzhuxiaoqu (幸福村居住小区)(1957-)

Xingfucunjuzhuxiaoqu (幸福村居住小区), the first small residential district built in Beijing in accordance with the Small Residential District theory, showed different characteristics compared to the previous superblocs. For instance, the layout did not emphasize the symmetry of the buildings and the buildings had reasonable shapes suitable to the features of the natural terrain and roads. The abundant green spaces and internal roads were artfully organized to create natural environments, like parks. Compared to the perimeter block, this small residential district built in row blocks had well-organized inner roads, as well as enough public space between the buildings.

It was designed with four different plans in anticipation of various types of family composition. A-type (resident area 14.2m², 3-person family), B-type (resident area 25.1m², 5-person family), and C-type (resident area 23.49m², 5-person family) were the basic plans. In addition, D-type



[Fig. 18] Layout plan of *Xingfucunjuzhuxiaoqu* (drawn by the author according to the actual survey).



1. bedroom 2. kitchen
3. toilet

[Fig. 19] Unit floor plan of *Xingfucunjuzhuxiaoqu* A-type (drawn by the author according to the actual survey).

(resident area 37.9m², 8-person family) areas were located on the outermost parts of the buildings. Because the Soviet Union was colder than Beijing, the hallways were suitable for that climate, whereas *Xingfucunjuzhuxiaoqu* was built with single-sided corridors. The residents did not build annexes next to the corridors and maintained orderly, organized public spaces. In addition, people's exchanges naturally took place in outer corridors and pathways [Figure 18] [Figure 19] [Figure 20].

5) People's Commune building in Fusuijing (福绥境1958-)

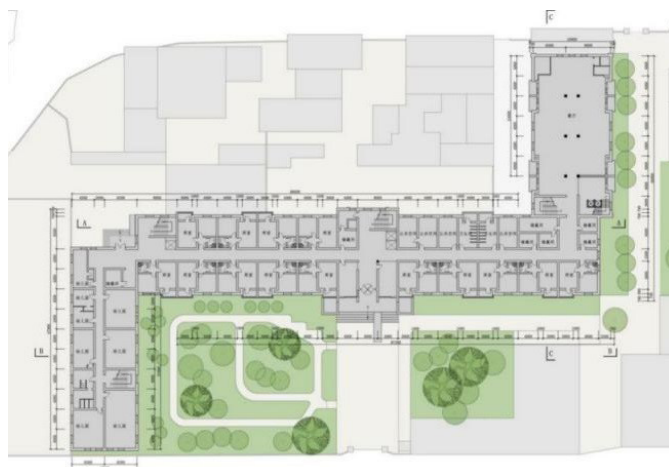
The People's Commune building in Fusuijing is one of the remaining Commune buildings. The building has nine above-ground floors and an underground floor and accommodates 189 households (182 2D households and seven 3D households) [Figure 21.] A restaurant is located on the east side of the first floor, and a kindergarten occupies the first to third floors on the west side. A dance hall is on the ninth floor. The kitchen and storage area of the restaurant are located on an underground floor. Each floor is equipped with an activity room, a



[Fig. 20] Unit floor plan of *Xingfucunjuzhuxiaoqu* B-type (drawn by the author according to the actual survey)



[Fig. 21] People's Commune building in Fusuijing (photographed by the author).



[Fig. 21] People's Commune building in Fusuijing (photographed by the author).

shared kitchen, and public toilets, etc. [Figure 22]. Initially, the construction plan was large-scaled to build several parallel buildings.⁵⁾ Since People's Commune buildings that embodied socialist utopia were constructed only during the totalitarian era, they are not common in China.

V. Conclusion

This study was conducted to investigate the models of Socialist Collective Houses designed by architects after the founding of China. These collective houses were characterized by large and symmetric public spaces, encompassed courtyards, and rich natural environments.

The residents had separate spaces in low-lying collective houses and enjoyed communicating in a natural environment. The remaining residential blocks built during the 1950s with courtyard space in the center were filled with vitality. The original purpose of constructing collective houses when urban planning was first implemented in the capital city was to provide as many houses as possible to laborers by making use of bestowed road networks and the outcome of modern urban development. But the changed purpose of relocating government agencies and building collective houses in Beijing was to facilitate commuting and production. Thanks to the influence of the Soviet Union, China made it a top priority to imitate a politically right socialist country. In the repeated processes of construction and reflection, socialist collective houses lost clear design patterns because their architects were swayed by policies. Due to the influence of policies, a diversity of different housing designs were able to exist.

Ethical considerations

Ethical issues (including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancy) have been completely observed by the authors.

Conflict of Interests

The authors have no conflicts of interest to declare.

5) According to the Discussion of Shijian(史建) by Zhangshuihe (张永和, 2016), four People's Commune buildings were originally planned, but only three of them were built.

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[日本語原本]

1950年代北京における街区計画と集合住宅の変遷から読む

1. はじめ

現在の中国都市部の住宅問題は深刻であり、社会主義体制のもとで、適する住宅政策を模索している。住宅建築と都市計画を政府の動向に最も影響される都市は、政治の中心-首都北京と思われる。1950年代、ソ連から社会主義イデオロギーの導入と伴い、工法と計画なども全面的に持ち込んだ。また北京の都市計画においてもソ連のゾーニング手法を用い、政治都市の都市計画論を軸に、検討した研究もある。社会学で中国の建築家たちは社会主義国集合住宅のあり方を模索しつつ、社会主義ライフスタイルを実現するため数多く試みられたことが明らかにされている。

しかし、こうした一連の研究において、実測から読む住宅政策の変化を検討した研究は見られない。北京の場合、百万荘居住区以外の街区を中心とする研究は少なく、やや偏りが存する力感は否めない。特に、同時期により多く建設された労働者住宅地の空間構成はほとんど明らかにされていない。

社会主義国による本論は政策の変化を考える同時に、1950年代北京に建てられた都市集合住宅を中心に取り上げ、政策に伴い生まれた集合住宅の空間特性、社会主義集合住宅の特徴および住居環境の変容を把握することを目的としている。実測と比較で空間原理を分析することで、以前の集合住宅の本質を再認識し、中国の建築家に求められる社会主義的な街区空間を明らかにする。

II. 中国社会体制の変化と配分制度

1. 1950年代における社会体制の変化

清時代の終焉に迎えて、中国の社会体制が二つの段階に分ける。1919年から1949年の新民主主義時期とその後の社会主義時期である。新民主主義時期に、政府は私的所有権を最大限に排除して、社会主義の基盤を築いた。1952年から、中国政府は以前の土地契約関係を一切無効にし、土地所有権を再配布した。1954年、政府は土地の国有化の法案を起草して、社会主義のイデオロギーを強化してきた。全ての資源と土地を国有にした結果として、1958年の人民公社運動が行われ、全体主義に似ている時期に踏み込んだ。

2. 経済制度と住宅の配分

計画経済は、経済復興を推進する同時に差がない社会を構築するため、実行される経済制度である。計画的に集中管理される計画経済制度を用いることにより、限られた資源を重要な建設に集中させ、経済の好循環を築くことができる。社会主義制度の根幹の計画経済によると、国民経済計画→区域計画→都市計画→住宅計画という順に進まなければならない。

建国後の十年間、住宅建設の予算はわずか政府予算の一割以下しか占めていなかった。[Figure 1]集合住宅の数が増えるが、都市のニーズを全く満たせない。技術と資金不足のため、激増した人口に応じた住宅の建設は非常に難しい。この十年間、都市の住宅の建築面積は二倍ぐらい増加したが、一人当たりの居住面積は30%減少してしまった。[Figure 2]一人当たりの居住面積9㎡のソ連住宅に準ずる集合住宅をそのままに建てられた結果は、雑居問題が発生した。

社会主義制度に基づく住宅配分政策の合理性があるが、見逃せない問題点もある。

A 人口の激増。北京の人口は1949年の161万から1960年の453万まで三倍に増加したが、住宅建設は膨大な人口に満足させなかった。

B 福祉住宅の配分制度。福祉住宅の配分制度が目指すのは社会主義的な均一化を果たすこと。ただし、住宅不足としたままに配分すれば、雑居問題の発生が避けられない。

C 偏る住宅政策。現状がほとんど無視されつつある結果、集合住宅は人々の生活を改善するために建設されるものではなく、逆に社会主義イデオロギーの理想を達成するため駆使されるものになった。

III. 建国前後、北京の都市計画と集合住宅の建設

1. 王都の中心軸

中国の伝統的な都市の顕著な特徴の一つに上げられるのは、都市の中軸線である。重要な建築群はこの中軸線に沿って配置され、同時に中軸線によって街全体と直結して他の東西方向の道を貫く幹線を構成したのである。また、中軸線の左右はほぼ線対称となっている。[Figure 3]

2. 西郊の開発と住宅不足

第二次世界大戦の爆発を契機として、日本政府の介入によって、北京の都市計画は新たな変容を遂げた。日本政府、その後の民国政府の都市計画者は近代都市計画理論（住区構成、市街化禁止区域の設定等）を用いて、北京の都市計画に手を加え始めた。西郊新市街の建設をきっかけとして、北京都心の移動がもたらした。¹⁾[Figure 4]

3. 西へ偏移する都心

北京が再び新中国の首都となった同時に、今後の未来像について、多くの提案と議論を行った。かつて同じ問題に直面したソ連の建築家は、北京が政治の中心であるだけでなく、中国の工業の中心になり、社会主義国のモデル都市になるべくと訴えた。1952年末、有名な建築家梁思成に提案された「新都市計画」によって、政府機関役所が城外の三里河に建てられ始めた。戦争中、日本政府は西郊の住民から土地を買い取ってきたから、梁思成は「新都市計画」の開発費用を大幅に減少することが期待するわけである。「新都市計画」が狙ったのは西郊新市街の住宅地と東郊新市街の工場地を活用でき、通勤の利便性と都市の成長可能性。[Figure 5]都市計画案の変更に伴って、北京の住宅建設も変わっていく。

4. 住宅建設の停滞期

1958年、大躍進運動に伴い全国の人民公社化を促進するため、新しい都市計画案により、工場は居住区及び文化施設とセットされ、郊外に移動した。工業都市の計画案を廃止して、都市と農村を結びつける都市を目指した。[Figure 6]工業開発のピークに達した結果

1) 西郊新市街を建設する最も重要な理由は日本人の移民と中国人を管理しやすいため、新しいエリアを計画しなければならないと越沢明(1985)に指摘された。

は、住宅建設が停滞期に陥った。工業用の鉄鋼などの材料の使用量を減るために、住宅建設のコストを削減しなければならない。

IV. 中国集合住宅空間の理論と発展

1. 集合住宅の理論

中国建国後の建築理論と都市計画論がソ連に派遣された人材、および欧米と日本に留学した中国人建築家たち共に築き上げられた。この時期に設計された住宅地は先進国の都市計画論を用いながら、中国伝統的な空間理論を反映できるものと言える。

1) 近隣住区

ハーワードの田園都市運動の影響下、アメリカで1909年からニューヨーク郊外に郊外住宅地フォレスト・ヒルズ・ガーデンズが計画されて開発された。アメリカの地域計画研究者C.A.Perryはここに居住してから、1924年に「近隣住区論」を発表した。そして、近隣住区論を実践しようと開発されたニュージャージー州のラドバーンでは、車と人を分離する道路システムが生み出された。近隣住区とラドバーン計画の考え方は、世界各地の都市建設で活用されている。

その影響を受けて、1949年に梁思成は『人民新聞』に「都市の形態と計画」を掲載し、「アテネ憲章」に示された理念を紹介した。特定の条件下で自給自足できる居住区「近隣住区」を言及した。建国後、高効率の生産が求められ、仕事場の徒歩圏に労働者の居住区を設立しなければならない。

1951年12月、梁思成は「首都建設計画に関する」で「中国の近隣住区」を提示した：一辺は800-1000メートル、人口は7000-10000、商店、文化施設、学校、幼稚園を備え、中心部に公園、体育館、緑地を設ける居住区である。[Figure 7]翌年、「中国の近隣住区」に準ずる復興門外真武廟近隣住区が北京に立ち上げた。

実に1946年、アメリカに留学経験を持った建築家汪定曾は「民主主義住宅政策汎論」に集合住宅を量産化するため、住宅の標準化・建設の機械化・専門技術員の育成・工程管理の改善を行うことが必要、現代的集合住宅の意義を繰り返し訴えた。²⁾1952年、汪定曾に

2) 汪定曾(1946)は欧米諸国の住宅建設について、「中国はいかなる場合でも参考すべく」と検討した。

設計される近隣住区曹楊新村が上海に竣工した。梁思成の案より、曹楊新村は合理的な住宅建物を作り出す以上、都市の道路との関係や生活利便施設への可到達性を考えて、静かな居住環境を図る。特に、敷地条件を最大限に活用した住宅地の計画と高く評価された。曹楊新村は中国現代初の近隣住区として、全国の住宅建設の手本になった。[Figure 8]第一次五カ年計画以前、ソ連の住宅地計画論はまだ中国の住宅建設に影響を及ぼしていないので、曹楊新村と復興門外真武廟近隣住区など中国の近隣住区の独自性が見られる。

2) 拡大街区 (スーパーブロック)

20世紀のあたりに、ハウードの田園都市理論はソ連に大きな影響を及ぼした。ロシアの都市理論家ウラジーミル・セミョーノフは1910年前後イギリスに滞在した時、ハウードやレイモンド・アンウィンのもとでレッチワース田園都市の計画に取り込んだ。帰国したから、田園都市理論に基づく『ヨーロッパ・ロシアにおける都市と田園』などの著作を公刊して、ロシアで大きな反響を呼んだ。欧米の田園都市運動は労働者階級のニーズより、むしろ中流階級を重視するが、ソ連は全国の住宅問題を含んだ都市問題取り上げ、より社会主義的な色彩が強かった。

1935年モスクワの都市計画によって、ソ連の拡大街区は大都市のバロック的大街路と直交街路網に沿って建設された。社会主義都市のあり方として喧伝され、拡大街区と広い街路がソ連都市のネットワークを編んで、中庭を囲むブロック状の街区を都市の基本単位にした。拡大街区(英語superblock)は複数の街区に構成され、より多い生活利便施設を設けている住宅地である。

中国の第一次五カ年計画期間、同じ社会主義国家のソ連の標準住宅モデル・設計組織・技術管理・建築法規・標準設計などを全面的に導入した。社会主義を推進するため、生産手段の拡張を第一にして、健全な共同生活を促す集合住宅は欠かせない。

1953年、中国の都市計画委員会は統一な計画と統一な設計で近代的な住宅様式を採用し、より多く公共施設を設ける住宅地の条例を制定した。その故、中国はソ連の拡大街区に則った労住合併の居住区が全国に広げてきた。

中国の街区は基本的に、三種類がある。一つ一つの住宅を同じ方向に向けて並行に並ぶ形式は行列式と呼ばれる。住棟間の距離を調えることで、通風と日照は良く、簡単に計画できることはいい点。ただし、配置方法によると、変化に乏しい印象が強い。

いくつかの住宅は中央の空き地を囲む形式は周辺式と呼ばれる。周辺式街区は主に中国北方の都市に見られる。街路のかたちに合わせて外向き、画一的な都市景観を形成できる。街路からの騒音がなく静かな居住環境を保て、住民のプライバシーを守れる。だが、周辺式街区で東向きと西向きの部屋、角部屋が多く存在し、通風と採光も悪い。

その他、敷地を最大限に利用するため、双周辺式と呼ぶ配置方法もある。「口」型では

なくて、「凹」型の形により多い部屋を配置できるが、通風と採光は周辺式より見劣りとする。[Figure 9]

以上の街区タイプを組み合わせ、作られた居住区は拡大街区と呼ばれる。拡大街区は幹線道路沿いに作られたが、外側の建築物で外部の視覚を遮断でき、街路空間と異なる居住空間は住民に安心感を与えて、より自由で快適な生活を送る。

3) 居住小区

1956年、共産主義の主役である労働者が数世帯の共同入居していた劣悪な住環境から解放でき、一世帯に一つの住居を提供するため、フルシチョフは新しい住宅政策を立てた。十数棟の住宅が組み合わせる拡大街区をさらに組んで、人口は5000人-12000人の居住小区になる。居住小区は、内外に日常の要求を充足する育児、娯楽、教育、文化活動の施設、売店、食堂などが配される。

中国の拡大街区の集合住宅設計はソ連のものをそのまま模倣したので、基本的には1階段室ごとに2、3住戸の1Kや2Kである。ただし、激増していた人口によって、一住戸を二、三家族に住ませなければならない。雑居問題を解決するため、第一次五カ年計画末期の1957年、北京には30万㎡以上の居住小区を建て始めた。[Figure 10]集合住宅、文化施設及び生活利便施設を組み立てる集団に、それぞれの社会主義的社会活動を行う。

2. 新村思想

厳密というと、新村思想は都市計画理論ではなく、社会主義と似ているイデオロギーである。16世紀～17世紀から、欧米の社会改良家は「旧村（農耕文明による）」への愛着によって、近代の工業化社会に適する新しい集団生活と都市空間「新村」を訴える。

20世紀あたりに、植民地化の中国は資本主義の生産体系を導入され、欧米諸国と同じく産業革命に踏み込んで、工業化に伴い問題を直面しなければならない。社会と空間の理想的な繋がりとして、欧米に既に実現された理想的共同体「新しき村」は中国に浮き上がった。

日本の作家、武者小路実篤は理想的な調和社会、階級闘争の世界を実現するため、1918年宮崎県に新しき村を建設した。1919年、有名な中国の作家周作人は日向新しき村を訪れた。その後、武者小路実篤の新しき村と欧米の理想工業村に関する文章は続々と中国の雑誌に掲載され、話題になった。毛沢東はいままで追求する理想的な社会像と「新しき村」の関係を目覚めて、周作人に訪ねた。彼は湖南省に新しき村の支部を設立したが、戦乱と人手不足によって、計画を中止せざるを得なかった。でも、毛沢東はその時期から新しき村に興味を持っていることは否定できない。

1922年、『道路月刊』で「模範新村」の社会関係と空間モデルに関する文章が掲載さ

れた。「新村」の具体的な空間モデルは初めて近代中国に現れた。中国近代化の問題点を解決できる方法は「模範新村」を基本単位にした地方自治制度しかないと著者が述べた。

「模範新村」は約13km²で、2000人の居住区である。毎朝、住民は中心地の大講演堂で教育活動を行い、次は幼稚園、学校、老人ホームなど生活を支える施設に行く。そして、耕地や工場など生産手段も設ける。教育活動を通じて、伝統的な農業労働力を知識と技術を持ち、共同生活できる労働者と賡める。この目的は「新村」の凝集力になり、むしろ新村空間の存在する意味である。1931年河北に作られた「河北新村」は、中心部のサービスセンターに学校、役所、商店があり、運動場と公園などパブリックスペースも設けている。新村は四つの大門があって、防衛工事と井戸を施した。[Figure 11]

つまり、新村空間の要点は三つ：

a.再教育のために作られた現代社会に必要な公共施設（特に講演堂） b.居住区と住宅 c.新村の経済を支える生産手段、すなわち農業施設と工業施設³⁾

1948年、建築家銭冬生は「新村式の住宅建築について」を発表して、当時の住居と新しき村の状況を全面的に紹介した。著者が新村式住宅地は現代の都市発展によると、最も価値がある住宅地様式と思うと記したが、デベロッパーは建築家に新しき村の建設を委ねて、建築家は意のままにすることを批判した。近代化に伴う分業によると、建築家の専門的な実践と使用者の要求が合わないギャップが生じると指摘された。

新中国開国後の1952年から、上海の「曹楊新村」をはじめ、全国に大量の工人新村が現れた。規模と目的から判断すると、工人新村と新しき村の相違点は多い。しかし、両者は生活と労働を結ぶ新しいライフスタイルを模索することは同じで、平等の共産的な理想郷の憧れである。

1958年から実行した人民公社運動は、新村思想による実践的な改革と言える。従来の農業生産共同組合と工業、商業、学校、軍事の各組織、地方行政機関の行政権能をも一体化して結びつけ、集団生産、集団生活を主とした自力更生・自給自足の地域空間を目指したものである。工人新村に比較すると、人民公社は農業生産と社会生活の繋がりによると、さらに社会主義のイデオロギーを強調する。北京の人民公社はほとんど城外に建設されたが、「都市の人民公社化」を実現するため、人民公社ビルは城内に建てられた。都市の高い人口密度に応じて、垂直に生えた人民公社ビルが現れ、都市部の活路を拓いた。

3. 北京の集合住宅空間

北京に現存している集合住宅から政策の変化を解釈できるし、建国初期の建築家たち構

3) 楊宇振(2017)の研究の引用

想した社会主義生活のイメージを見られる。

1) 復興門外真武廟近隣住区(1952-)

近隣住区の配置方法を利用して、中庭を持っている住宅地が道路に囲まれる。復興門外真武廟近隣住区は一気に計画された近隣住区ではなく、1952年から十数年間に徐々に立ち上げた多数の街区で形成したものである。その故、内部の道路は真武廟頭条胡同と直接に繋いだ処もあるし、居住区と外部の道路が絡んだため、自動車の通行や駐車は住民生活の妨げとなる場合がある。[Figure 12] [Figure 13]

二階建て洋風住宅で構成する住宅地の自然環境がより良好である。他の街区に比べると、住棟間のスケールは適切で、内部道路の幅は約5mで広く開放感がある。ソ連の住宅設計を参考することで、同時期の住宅には見られないリビングルームも設けている。1住戸に5人以上の家族が住んでいる場合が多く、接客と食事室を兼用する目的で、リビングルームが中国特有の「庁」という空間として使われた。⁴⁾リビングルームとダイニングルームが備えて、1950年代にも贅沢な住居空間といえる。

2) 三里河拡大街区(1953-)

住棟配置は線対称を強調し、周辺式及び双周辺式の配置方法を使用している。復興門外真武廟近隣住区に比べれば、中庭に広々としたパブリックスペースを備えて、さらにいくつか公園のようなオープンスペースを設計した。中庭は周囲の道路から隔てられ、住民に静かな生活環境を提供することを望む。住宅地の自然環境は非常に優れ、住民は住宅前のオープンスペースで庭を作り、花や野菜を植えている。[Figure 14] [Figure 15]

三里河拡大街区におけるすべての集合住宅には2Kと2LKの間取りで、独立した便所と厨房を持っている。1階段室ごとに2住戸で、食事は一般的に寝室や庁で行われます。1954年以後、「庁」を設けている集合住宅はもう珍しいことではなく、住宅設計の主流になった。個別の便所や厨房が備えて、ほとんどベランダも付けて、私的空間の重要性が意識された。

3) 八里荘紡績工場居住区(1953-)

八里荘紡績工場居住区は北京城外で、拡大街区制度による最初の労働者拡大街区である。1953年から1960年までの八年間、合計三つの工場とそれぞれの労働者社宅街を立ち上げた。計画する前の敷地はほとんど空き地なので、三里河拡大街区に比べると、同じく周辺式配置を使用したのに、内部道路はより整然としたものであり、より多く緑のスペース

4) 上北恭史(1990)の実測によって、「庁」という居住空間は50年代から中国に生まれ、ソ連に見えないものである。

と幅広い道路を設置した。西側のグリーンベルトの道路幅は約16mで、心地良い緑豊かな歩道の機能を備えて、公園や広場としても使われる。住民のニーズの変化により生活利便施設を増加しながら、空き地には仮設建物を建てて、飲食店として貸し出されている場合が多い。⁵⁾

各棟に3~4のユニットがあり、各ユニットで1階段室ごとに3室住戸と4室住戸の構成。個別の便所と厨房があり、ほとんど1Kまたは2Kの間取り。建設後、凄まじい人数の労働者が集まって、一家族に1住戸の配分を満足させることは難しく、2、3家族が一緒に住まなければならない。[Figure 16] [Figure 17]

4) 幸福村居住小区(1957-)

北京最初の居住小区理論に基づいて設計された幸福村居住小区は、ほとんど以前の拡大街区の特徴を見られない。たとえば、住棟の配置が対称性を強調せずに、地形と道路による合理的な形を構成する。豊かな緑と内部道路が巧妙に組織され、公園のような自然環境に形成した。周辺式に比較したら、行列式配置方法で内部道路は整然にして、住棟間のパブリックスペースもゆったりとした。

大中小の家族構成を想定して、四種類の住戸プランを設計した。A型（居住面積14.2㎡、三人家族）、B型（居住面積25.1㎡、五人家族）、C型（居住面積23.49㎡、五人家族）三種の住戸プランを基本単位にして、端部のD型（居住面積37.9㎡、八人家族）プランと合わせる住棟である^⑥。ソ連は北京より寒いので、中廊下型は適するが、幸福村居住小区は改めて片廊下型を用いる。住民が廊下の外側に増築工事をせずに、そのままにして整然としているパブリックスペースを保つ。その他、外廊下と街区道路によると住民の交流の場が自然に生じる。[Figure 18] [Figure 19] [Figure 20]

5) 福綏境人民公社ビル(1958-)

福綏境人民公社ビルは現存している人民公社ビルの一つ。地上9階、住戸は合計189個（2Dは182個、3Dは7個）がある。[Figure 21]一階の東側は食堂、一階から三階の西側は幼稚園、九階はダンスホール、地下に食堂の厨房、倉庫など備えて、階ごとに活動室、共用厨房、公衆便所を設けている。[Figure 22]実際、最初は並行する数棟の人民公社ビルを建設する大規模建築計画である。⁶⁾ユートピア的な人民公社ビルが、恐らく全体主義時期にしか現れず、これまでの中国における非常に珍しいケースである。

5) 李宏鋒(1956)の報告書に載せる図表によって、竣工した3年間に床屋、店舗などが自発的に設けられた。

6) 張永和、史建(2016)のディスカッションによって、元々四つの人民公社ビルを建てる予定ですが、結局三つしか建てられない。

V. 結論

1. 王都の中心軸

中国建国後、すべての建築家は「社会主義の集合住宅」のプロトタイプを探求しつつある。広々とした対称的な公共空間、囲まれた中庭、豊かな自然環境、これらの特徴が建国後の居住区にほとんど見られる。

閉じられた空間と低層集合住宅によって、住民は自然環境でのコミュニケーションを楽しめるようになり、さらに、中庭空間の利用を促し、現存している1950年代の居住区は活気に満ちている。首都の都市計画が最初に行われた時、集合住宅建設の最初目的は引き継がれる道路ネットワークと近代都市開発の成果を利用することで、より多くの労働者により多くの住宅を提供すること。そして、北京の政府機関の移動に伴い、集合住宅建設の目的は通勤と生産の促進になった。ソ連の影響を受けて、政治的に正しい社会主義国を真似ることは最優先に変わった。建設と反省を繰り返して、やがて建築家は社会主義的な集合住宅が現在の政策に左右され、明確なパターンを持っていないことを気づいた。政策の影響こそ、中国における住宅設計の多様性が現れる。