

Evolution of Danwei System and Urban Landscape in China's Socialist Practice after 1949: a case study in SUNCUN, Shandong province

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Abstract

As a unique attempt of socialist practice in China, Danwei (the unit) system, which formed in the planned economy and died out with the establishment of socialist market economy, has deeply influenced the social structure and urban form in China. From the perspective of urban landscape, this paper studies and interprets the social evolution and changes of urban form from the establishment of Danwei to its disintegration, exemplified by SUNCUN in Shandong, revealing the particularity and complexity of China's social and spatial practice.

Keyword: urban form, urban landscape, Danwei, socialist spatial practice

1 Introduction

Danwei (the unit) system is the core of Chinese socialist practice, which is an integrity of workplace and a series of practical activities including living, office and so on. Formed in the period of planned economy, Danwei was the basic unit of Chinese urban society and one of the most important factors affecting the evolution of urban space in China. The increasing number of Danweis was the main driving force of urban growth. In many industrial cities, a Danwei was even the main body of the whole city. After the reform and opening up in 1978, the establishment of market economy and the transformation of distribution mechanism greatly weakened the status of Danwei system. As a result, the urban social space has become heterogeneous, and the urban spatial structure has become increasingly loose, leading to the residential segregation and the job-housing imbalance.

The evolution of urban morphology under Danwei system is a distinctive phenomenon of Chinese cities. Taking SUNCUN in Xintai, Shandong Province as an example, this paper studies the process of social changes and urban form evolution from the formation to disintegration of Danwei system. The paper is organized as follows. The second chapter gives a brief introduction to the development process of Xintai and SUNCUN. The third chapter introduces the methodology as well as the division of morphological periods. The fourth chapter analyzes the social changes and urban landscape evolution of SUNCUN in each period. The last section concludes.

2 The Introduction of Xintai's Coal Mining Industry

2.1 The Development History of Xintai's Coal Mining Industry

Xinwen coalfield is located in the middle of Shandong Province, which lays the foundation for the development of coal industry in Xintai City. During 1920-1940, a large number of coal mining companies were established, and Cilai railway was built to facilitate coal transportation. After the foundation of the PRC, almost all the coal mines were taken over by the government, and Xinwen Mining Bureau was established in 1956. In 1997, Xinwen Mining Bureau was officially transformed into Xinwen Mining Group Co., Ltd., completing the company system transformation of branch production units and the transferring welfare facilities to the government, and began its expansion in Inner Mongolia and Xinjiang.

2.2 The Introduction of Suncun Coal Mine

Located in the middle of Xinwen coalfield, SUNCUN is one of the earliest mines to be discovered and utilized here. In 1937, Desheng coal mine was set up, which became the rudiment of SUNCUN. After 1949, the government bought all its private shares and renamed it "Suncun Coal Mine". With the continuous growth of production capacity, Suncun Coal Mine built family dormitories, single apartments, canteens, basketball court, gardens and many other welfare facilities beside the production area.

The reasons why this paper chooses SUNCUN as the case study are as follows. First, it has experienced the entire process of Danwei system evolution from planned economy to reform and opening up as well as complexed changes of urban landscape. The second is its particularity. Xinwen Mining Bureau was originally located in SUNCUN, in which the land and buildings of the two were staggered. This area actually became the complex of two Danweis, making it present certain particularity in the changing process.

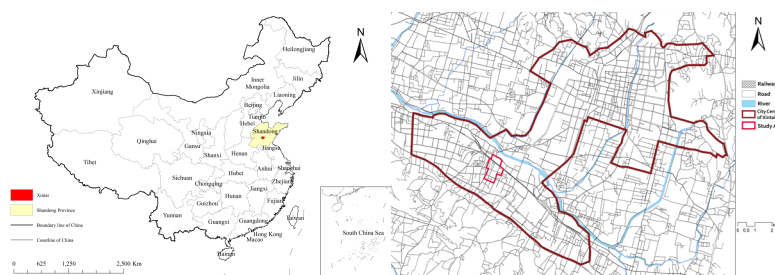


Figure 1. Geographical location of SUNCUN in Xintai City

3 Methodology and the Division of Morphological Periods

3.1 Research Methodology

This paper uses the tripartite division of urban landscape of Conzenian approach and hierarchy of morphological transformations of Curdes to analyze the evolution of SUNCUN's urban form. In addition, this study divides SUNCUN into production area, office area and living and welfare area, and studies the evolution of urban form in these three functional areas during each morphological period.

3.2 The Morphological Periods of SUNCUN

This study focuses on the period of socialism in China, and names the period before 1949 as the Pre-Socialist Period to explain the historical background. This study divides the socialist period into the period of planned economy and the period of reform and opening up and market economy. According to the important historical events that have an important impact on the urban landscape, the two morphological stages are subdivided into four sub-periods, which give the following results:

- (1) Pre-Socialist Period (Before 1949)
- (2) Period of Planned Economy (1949-1977)
 - (a) Plant Establishment and the Initial Development (1949-1965)
 - (b) The Cultural Revolution (1966-1977)
- (3) Reform and opening up Period (1978 -)
 - (a) The Initial Stage of Reform and Opening-up (1978-1991)
 - (b) Period of Modern Enterprise System and Reform of Housing System (since 1992)

4 The changing process of urban landscape in SUNCUN

4.1 Pre-Socialist Period (Before 1949)

Before the founding of PRC, Suncun Coal Mine was privately operated and was affected by years of war, so it only had a limited scale and production capacity. There was basically no construction of living and supporting facilities, and the miners lived a miserable life.

4.2 Plant Establishment and the Initial Development (1949-1965)

4.2.1 Initial Establishment of Street System

There were basically no streets in SUNCUN before 1949. In 1958, Xinwen Street was built, which became the northern boundary of SUNCUN. Within the compound, the newly built streets are concentrated in the living area, such as Suncun Mine Road. There is no complete street system in 1965, only with the construction of main streets which became the morphological frame together with the railway.

4.2.2 Production Area

The first Five-Year Plan (1953-1957) was implemented in 1953, with the construction of heavy industry as its target. As the only mine put into operation in Xinwen mining area in 1949, Suncun mine has carried out five times of technical transformation from 1949 to 1946, including the construction of team winch, derrick as well as transformation and improvement of the transportation inside the mine, and built the East Inclined Shaft and West Inclined Shaft. In response to the increasing demand of coal during the Great Leap Forward Movement, SUNCUN constructed a large number of ground production facilities, such as a special railway line in 1950 and the coal washery in 1960. After the improvement of old wells and the construction of production equipment, SUNCUN became the largest production mine in Xinwen mining area.

4.2.3 The Living Area

The living and welfare facilities can be divided into two parts in space: the auxiliary facilities in the industrial square and the living area on the south of the railway. In the industrial square, a new canteen, an industrial school, 5 bathrooms and 10 dressing rooms were built. Secondly, the construction of single and family dormitories and supporting facilities began. During 1953-1965, 8864 square meters of single dormitories were built due to the rapidly increasing number of miners in the Great Leap Forward Movement. Six family dormitories (Table 1) and one guest house were built successively. In terms of welfare facilities, SUNCUN built Suncun Coal Mine Workers' Primary School (1954), a kindergarten, a garden, a club and a clinic on the south side of the railway.

Table 1. Table showing family dormitories constructed from 1949 to 1965

Name	Construction time	Number of rooms	Floor space (m ²)	Number of residents
Wusan Village	1953	282	4540	585
Wusi Village	1954	1992	18459	954
Xinjian Village	1954	300	3545	207
Wuwu Village	1955	235	2307	121
Wuliu Village	1956	485	4997	314
Heping Village	1956	571	7375	604

4.2.4 The Development of Urban Landscape

SUNCUN formed the land use pattern and town plan that divided by Cilai Railway, the south side as the living area and the north side as the production area. The new construction in the industrial square and the accumulation of living area are the main morphological processes in this period. In terms of building types, office, residence and welfare buildings were mostly brick-wood structure bungalows, which were replaced after the 1970s. The morphological frames, namely Cilai Railway, streets as the boundary as well as the main streets inside the living area played an important role in the subsequent changes of urban form.



Figure 2. Plan of urban landscape during the period of 1949-1965

4.3 The Cultural Revolution (1966-1976)

The Cultural Revolution broke out in 1966 and lasted for 10 years, during which the management of the administrative agencies was weakened and the production regulation was severely damaged. During this

period, there weren't many changes of urban form in SUNCUN, and the construction activities were concentrated in the early (around 1967) and latter period (after 1974) of the 10 years.

First is the construction and improvement of the street system. Suncun East Road was built in 1966 and became the eastern boundary of SUNCUN. Wenzhong Road, which originally planned to be built in 1966, was constructed in 1974 due to the turmoil, and became an important morphological frame for dividing the production area and living area. Secondly, the new office area was constructed. In 1967, the office building of Xinwen Mining Bureau, which was a two-story mixed structure building, was built on the south side. The communication building and TV station of the bureau were built near it, forming the office area of the bureau. The third change is the expansion of dormitories. From 1965 to 1979, the single dormitory increased by nearly 3000 square meters. In 1975, the original guest house was demolished, and a three-story guest reception building with an area of 2374 square meters was built.



Figure 3. Plan of urban landscape after the period of 1966-1977

4.4 The initial stage of reform and opening-up (1978-1991)

4.4.1. Economic and Social Background

China entered the new period of reform and opening up in 1978, a transitional period from planned economy to market economy. During this period, the damaged production facilities during the Cultural Revolution were restored and improved firstly. Besides, the State Council issued No.91 document, which stipulated that the household registration of family members of underground mining workers with 10 years' experience or other underground workers with 15 years' experience should be changed from agricultural household registration to urban household registration. In 1987, 1018 families of workers in SUNCUN were transferred to urban household registration, totalling 3702 people.

4.4.2 The Production Area

The changes of production area were technical transformation and construction of production facilities. In order to restore the production system damaged in the Cultural Revolution, SUNCUN has successively improved the lifting transportation, ventilation, and auxiliary production system. In 1976, the storage and loading system was rebuilt. In 1977, one of the coal washeries was scrapped, and the other was expanded.

4.4.3 The Office Area

SUNCUN built a four-storey office building with mixed structure from 1979-1980, which has become the core office building. Xinwen Mining Bureau was relocated to the new-developed area in the south of Xinwen. As a result, the original office area of the bureau in SUNCUN was abandoned.

4.4.4 The Living Area

First, SUNCUN built a large number of family dormitories to accommodate the rapidly increasing families of workers. SUNCUN built two residential buildings of 2376 square meters in Wusi Village in 1977 and 16 buildings named as Heping Building of 29676 square meters after 1978. By the end of 1985, the building area of single dormitories had more than doubled compared to that of 1979. The second is the renewal of housing, such as the reconstruction and change of uses. In 1978, the bungalows of Wusan Village were demolished and converted into 6 dormitory buildings of 7580 square meters. In 1988, the single dormitory with an area of 11367 square meters was changed to temporary family dormitory.

The welfare facilities experienced repletion, replacement, and change of uses and ownership. First, two bathhouse buildings with an area of 2878 square meters and 16 baths were built from 1982 to 1984. In 1986, a two-story staff canteen was built, in which the first floor was the dining room and the second floor was temporarily used for meeting. The second is the change of ownership of some supporting facilities. In 1981, Xinwen Mining Bureau No.2 Middle School was established, which used the old buildings of Suncun Mine Workers' School and received students and teachers from it. It was a typical case of land ownership conversion between SUNCUN and Xinwen Mining Bureau. Third, the original staff club was converted into a canteen and put into use, completing the transformation of the building use.

4.4.5 The Changes in Urban Landscape

During this period, the changes of landscape are mainly repletion and reorganization within buildings in production area, which belongs to relatively low hierarchies of morphological transformations. Changes in living area are diverse, including demolition and reconstruction, change of uses and reorganisation within buildings.

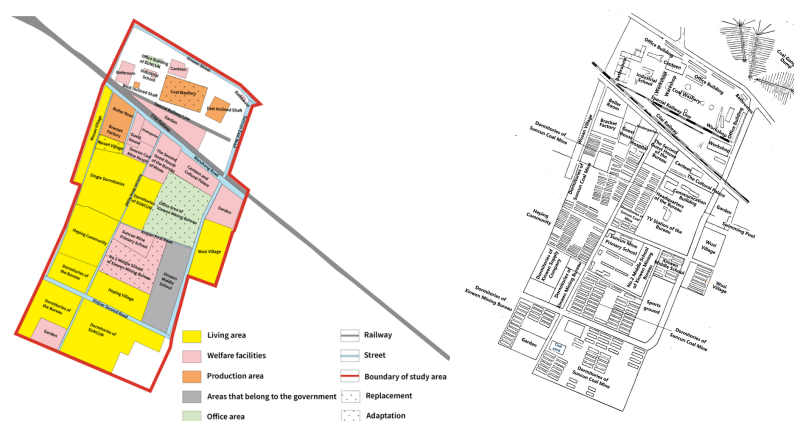


Figure 4. Plan of urban landscape after the period of 1978-1991

4.5 Period of Modern Enterprise System and Reform of Housing System (Since 1992)

4.5.1 Economic and Social Background

There have been two important changes since 1992. The first is the establishment of modern enterprise system. Xinwen Mining Bureau was restructured into Xinwen Mining Group Co., Ltd., in 1997. Six coal mines and 4 other production units carried out corporation system reform. The reform of welfare facilities began in 2002, with schools, fire protection, medical insurance transferred to the local government. And Xinwen Mining Group Co., Ltd., accelerated the expansion in Inner Mongolia and Xinjiang, realizing the transformation and sustainable development. The second is the reform of housing system. After 1992, the low-rent housing system was gradually abandoned, and public housing was sold on the market. Housing was all market-oriented and become more and more diversified in the 21st century.

4.5.2 The Production Area

The changes in production and office areas during this period were relatively small, except for the small park between the Cilai Railway and the special railway line that became a storage area for coal products and waste. Other changes were mainly the transformation of internal equipment.

4.5.3 The Living Area

The renovation of shantytown, and the construction of modern houses are the three main changes during this period. To improve the living conditions of employees, the company demolished the staff dormitories mainly composed of bungalows on the north side of Xijian First Road. Besides, the original building of Xinwen Mining Bureau was replaced by residential buildings. And the reform of housing policy promoted the construction of modern houses, which accelerated the growth in the south of the city. The accretion also promoted the improvement of the street system of the southern city, such as the construction of Longxi Road.

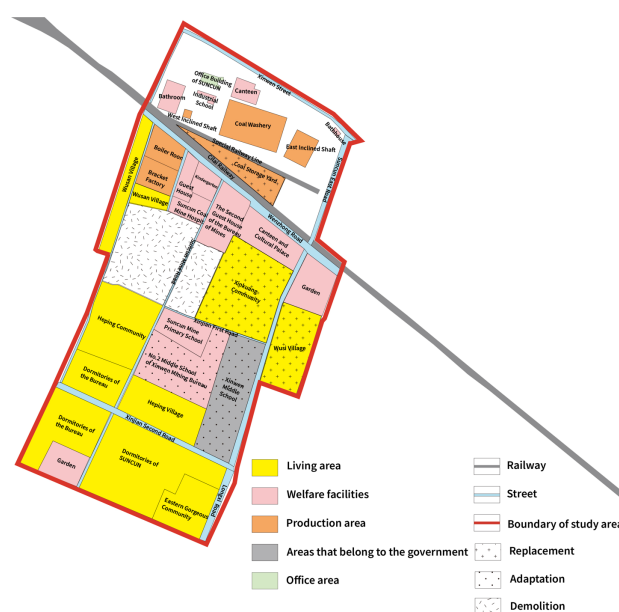


Figure 5. Plan of urban landscape after 1992

4.6 Summary: The Evolution of Society and Urban Landscape in SUNCUN

1949-1965 was the period when the Danwei compound was initially formed. With basically no urban construction in pre-socialist period, SUNCUN urbanized rapidly, including the large-scale construction of production facilities and dormitories. From 1966 to 1977, urban construction temporarily slowed down, due to Cultural Revolution. From 1978 to 1991, the relocation of Xinwen Mining Bureau marked the beginning of the dissolution of compound of SUNCUN and the bureau. Residential areas underwent both accretion and replacement. After 1992, the expansion outside Shandong province has also weakened the relationship between Xinwen Mining Co., Ltd. and Xintai. The establishment of socialist market economy leads to the disintegration of Danwei system, but the basic layout remained, becoming an important part of modern urban landscape.

5 Conclusion

From the spatial practice in SUNCUN in different periods, we can find that the dominant force of all periods is determined by the social system. In the period of planned economy, administrative command performed as the dominant force through the organization of Danwei system, and the political revolutionary movement even directly caused stagnation of urban construction. In the reform and opening-up period, socialist market economy system led to the disintegration of Danwei system and market force took the lead. In summary, the social system is always controlling the form. Social system determines the leading forces in different periods, thus leading to the shaping process of urban form.

In general, production, living and management are the three basic functions of Danwei system. After the disintegration of the Danwei System, they have undergone different changes in varying hierarchies, leading to the complexity and diversification of urban landscape in China. This is the key to understand the shaping process of Chinese urban form.

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