

Evaluation of Renovation Projects of Urban Villages and Historic Buildings in Shenzhen

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Abstract: With the continuous improvement of the urbanization level, urban construction and scale expansion, in order to ensure the sustainable development of the urban social economy, promote the rational and effective use of the urban land, improve the urban environment quality and urban facilities, urban areas must carry out the planned transformation. Aiming at Shenzhen, this paper discusses the principles of reconstruction, analyzes existing problems, and puts forward suggestions from the two directions of reconstruction of urban villages and historical buildings. The reconstruction of urban villages mainly follows the principle of the comprehensive renovation. The main problems are high rent, poor environment and high demolition costs. We suggest optimizing the structure of public space, unified government planning and guidance, more professional policies, market-oriented construction, and encouraging rural collective economic organizations to transform themselves. The reconstruction of historical buildings mainly follows the protection planning policies of historic areas. The existing problems include large-scale demolition and construction, lack of features and imperfect commercialization of historic districts. We suggest that the protection of ancient buildings should be strengthened, the architectural styles should be diversified, and other functions should be introduced in addition to the original residential functions.

Keywords: renovation projects, urban villages, historic buildings, Shenzhen

1. Introduction

The urbanization process performs in fast-growing Asian and African countries. China's early urban renewal practice was characterized by "economic construction as the center of the high-speed growth model, promoted by a single goal". Later, it gradually developed characteristics that were not limited to simple physical space improvement, but reflected more social, environmental, economic, cultural, historical and other multiple goals. It is mainly reflected in implementing public interests, promoting economic development and industrial upgrading, continuing historical and cultural inheritance, and improving urban competitiveness and sustainable development ability [1].

China's urbanization rate has increased from 10.64 percent in 1950 to 57.35 percent in 2016 and will maintain a fast pace until 2050 [2]. During the development period, the old town was dilapidated, and the city will transform the old town to welcome the new city's appearance. The urban transformation includes many kinds, such as old residential buildings, water, electricity and appearance transformation, the commercial transformation of blocks, construction of green belts and

parks, restoration and reuse of historic buildings. Urban transformation improves the living environment of residents, enriches entertainment and leisure places, and protects historical heritage.

Shenzhen is an international city with a developed economy, a long history, high buildings and good forest greening. Due to Shenzhen's rapid development, it faces the problem of transformation between the old and the new. Although its transformation is more difficult, with the support of economy and science and technology, Shenzhen has successfully realized urban transformation, and its urban transformation is more representative. Therefore, this paper chooses some typical reconstruction projects in Shenzhen, analyzes their reconstruction measures and existing problems, and proposes specific suggestions.

2. Background

Shenzhen is located on the east bank of the Pearl River Delta in South China, along the coast of Guangdong Province, bordering the New Territories of Hong Kong in the south, Dongguan in the north, Daya Bay in the east and Huizhou in the east, and Pearl River Estuary in the west and Zhuhai and Macao in the west. It is the first special economic zone in China. After 29 years of construction and development, Shenzhen has developed from a former border town into a new modern city with a certain international influence.

With an area of 1997 square kilometers and a resident population of 17.68 million, Shenzhen is currently divided into 9 administrative districts, including Dapeng New District and Shenzhen-Shantou Special Cooperation Zone, with 11 districts and 78 street offices under its jurisdiction. Figure 1 shows the map of Shenzhen administrative zoning.

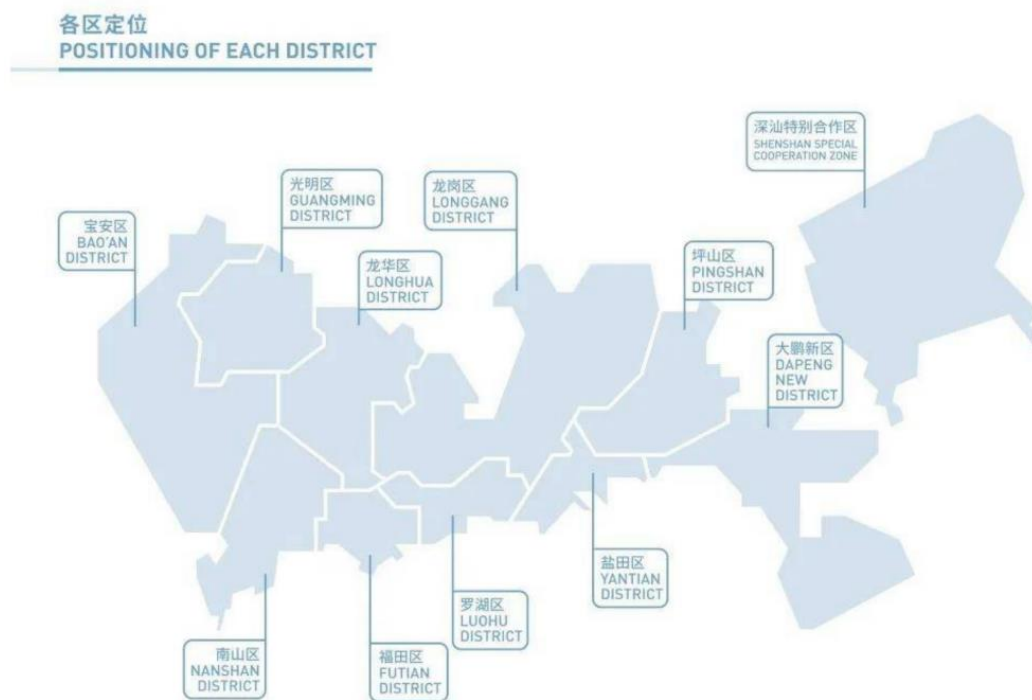


Figure 1: Administrative zoning of Shenzhen city.

3. Reconstruction

Starting from establishing the special economic zone in 1980, Shenzhen opened the curtain of urban construction and entered the rapid and comprehensive transformation. This paper mainly discusses

urban villages, historic buildings and green transformation, describes the principles of transformation, analyzes the existing problems, and puts forward suggestions.

3.1. The Reconstruction of Urban Village

3.1.1. Background

Urban villages mainly refer to the land occupied and used by the original rural collective economic organizations' successor units and original villagers, including the land within the red line of urban villages, non-agricultural construction land, land requisitioned for land return, land used for old housing villages, and the area formed outside the above land scope by the original rural collective economic organizations' successor units and original villagers, excluding the land sold by the state. However, the land registered under the name of the successor unit of the former rural collective economic organization is excluded.

Urban villages in Shenzhen are numerous and widely distributed, but they have extremely similar commonalities in their current conditions, ownership of property rights, spatial evolution, construction logic and other aspects [3]. To some extent, urban villages in Shenzhen still retain the extensive rural business model, which runs counter to the adjustment and upgrading of Shenzhen's industrial structure [4]. In 1997, Shenzhen began to carry out the urban village transformation pilot project. Although the pilot project of urban village reconstruction solves part of the problem of urban village, it also brings a series of problems such as high floor area ratio, insufficient supporting facilities, traffic congestion and other aspects, leading to new problems, such as demolishing old villages to build new villages. In 2004, Shenzhen comprehensively promoted the urban village reconstruction, successively issued various normative documents of planning, and put forward the special plan for the urban village reconstruction as the platform to coordinate the interesting relationship of all relevant parties in the reconstruction, which not only effectively promoted the urban village reconstruction, but also strictly controlled the negative impact brought by the urban village reconstruction [5].

3.1.2. Principles and Measures for Reconstruction

Through comprehensive investigation of the specific information of urban villages in the city, determine the scale and spatial distribution of reserved urban villages, and give clear expectations to the market; Orderly guide all districts to carry out urban village renewal based on comprehensive renovation and integrating auxiliary facilities addition, function change, partial demolition and construction.

(1) The principles of comprehensive regulation are as follows:

- ① Located in the basic ecological control line, in the range of basic ecological control line, orange line, blue line, high-pressure corridor, etc., it needs to achieve land clearing through demolition.
- ② It needs to determine the urban village land that does not comply with the demolition and reconstruction policy.
- ③ It is suggested to classify the land used for urban villages with good construction quality and high development intensity into comprehensive regulation zones [6].

3.1.3. Problems Existing in Reconstruction

(1)High rent

Shenzhen is the biggest "rental city" in China. Regarding rental housing and the proportion of people in rental demand, Shenzhen ranks first in the rental market size.

The huge housing rental market dominated by urban villages with relatively low rents accounts for about 70% of the total rental housing in Shenzhen, making it one of the most important suppliers in the rental market.

The city village has solved many people's housing problems and has become the first stop for many university graduates and people outside Shenzhen. For example, Nigang Village in Luohu District, Shenzhen, known as "the temporary home of migrant workers" and "the preferred place of abode for migrant workers", covers an area of 3 square kilometers, with a population of only 1,000 people, but more than 50,000 permanent residents.

Although the scale of urban villages is large, the leasing market is scattered and disorderly, and the leasing relationship is unstable. Many renters lack the necessary rights and interests protection and cannot enjoy the same public services outside the village.

(2)Poor environment

The development intensity of urban villages is generally too large, the public activity space (including green space) is short, and the environmental quality is low. Municipal and public supporting facilities are insufficient. Most urban villages have tortuous roads, disorderly elevation, no separation of drainage, rain, and pollution, chaotic power and telecommunications lines, blocked pipeline gas, insufficient water supply and drainage capacity, and lack of public service facilities, especially for the use of the migrant population. In addition, there are serious security risks in urban villages due to the small spacing, insufficient lighting and ventilation, and low building quality. All these seriously restrict the improvement of the city's overall service function and the quality of life but also affect the city's modern image [7].

(3)High demolition cost

The reconstruction of urban villages is mostly demolition and reconstruction. As the demolition involves multiple interests, not only is the cycle longer, and the promotion difficulty is becoming more and more difficult, the security risks of urban villages are increasing. There has been some residents' unreasonable bid, resulting in the project not being completed for 8 years.

(4)Difficult land function distribution

In the past urban village reconstruction, function distribution was done again on the land. The land is divided into industrial land, general industrial land, commercial land, educational facilities and residential land. However, in the reallocation process, there are also difficulties. Industrial land approval is generally faster; Residential land, on the other hand, is much slower and harder to get approved.

3.1.4. Reconstruction Proposal

Given the common problems of urban villages, such as poor sanitary conditions, unqualified fire safety and lack of property management, the policy is more rigorous and professional.

(1)Public space structure optimization

a)Increase the density of public spaces

Through the partial widening of streets and alleys, the spatial vitality of nodes is enhanced. Reusing abandoned land in the village makes up for the problems of limited space area and insufficient activity facilities; By adding compound street corner parks at the main entrances and exits of villages, the mutual penetration and integration of urban villages and cities can be improved.

b)Enhance the hierarchy and complementarity between public spaces

Public space is divided into central node space, secondary node space and general node space according to the location of each node space in the overall network, space scale, space activity and function type, etc., to balance the cluster centers of different space clusters, to meet the needs of different activity types with different intimacy and intensity. It provides a basis for the subsequent integration of spatial functions and placement of public activities [8].

(2) Unified government planning and guidance, a market-leading construction, encourage rural collective economic organizations to transform themselves.

First, the government does not directly intervene in the transformation. This is because if the government acts as the main body of reconstruction, in addition to the huge construction investment, it will bear the huge pressure of compensation and the heavy financial burden. Moreover, such an approach backed by administrative coercive power is likely to cause resistance from the owners. Moreover, the government, as the main body of the reconstruction involved in the urban village reconstruction, could confuse the government's and the market's functions, destroying the market economy's fair competition principle. Therefore, the government should extricate itself from the dispute of demolition compensation and actively attract and encourage social forces to participate in the reconstruction of urban villages through unified planning and formulation of preferential policies. Of course, for major municipal construction projects involving public interests, the government can also act as the main body of the transformation.

Second, rural collective economic organizations should be encouraged to renovate themselves, allowing other development units to participate in the reconstruction, but only with the consent of the rural collective economic organizations where the reconstruction project is located. The advantage of the first approach is that the problem of demolition compensation can be solved, the developer's profit part is saved, and the reconstruction cost is reduced on the whole. The problem is that the funds involved in the reconstruction are not easily guaranteed. The second approach can solve the problem of insufficient funds, and because of the participation of rural collective economic organizations, the problem of demolition compensation is also easy to solve, but considering the need for reasonable profits of development units, the government must make certain concessions in planning [7].

3.2. The Reconstruction of Historic Areas and Buildings

3.2.1. Background

Today, with the rapid development of urbanization, protecting ancient dwellings is regarded as an important part of urban modernization and sustainable development to maintain urban personality characteristics and improve urban cultural competitiveness. It is an urgent and important task in urban construction to correctly understand and deal with the relationship between the protection of ancient dwellings and urban construction, insist on the coordinated development of the protection of ancient dwellings and urban construction, and actively explore the mode, method, and mechanism of the protection of ancient dwellings.

As a model of urban development since the reform and opening up, Shenzhen has achieved great economic achievements but lags in the research and practice of protecting historic areas and buildings [9].

3.2.2. Principles and Measures for Reconstruction

Construction activities in areas with historical features shall conform to the protection plans for areas with historical features:

(1) Don't change the spatial pattern of the block and the original facade and color of the building without authorization;

(2) Don't damage the main bearing structure of the above-ground building or carry out other acts that endanger the safety of the building. In principle, it should not conduct underground space development unrelated to protection.

(3) When constructing, expanding, or rebuilding a building, it should be in harmony with its historical features regarding height, volume, color, and materials, without damaging its features.

(4) No new facilities should be built that may pollute the environment, and no activities that may pollute the environment in areas with historical features shall be carried out. Within a time limit, the district government should control existing facilities that have polluted the area with historical features and its environment [10].

3.2.3. Problems Existing in Reconstruction

(1) Demolish and build extensively

From the early stage of reform and opening up to the 1990s, more than 100,000 ancient buildings in Shenzhen were destroyed, and the remaining ancient dwellings are also under threat. Taking Hehu Xinju and other provincial cultural relic protection units as examples, according to provincial cultural relic protection standards, 30 m around the cultural relic itself is the cultural relic protection belt, and 100 m is the architectural control belt. Although the main bodies of these large huts are still well preserved, they have long been surrounded by the surrounding residential buildings and have become the isolated architectural ontology in the city [9].

(2) Lack of characteristics

The business mode of most historical and cultural blocks mainly tends to the sales of products, but there are too many similar products, most shops lack their business characteristics, and the whole block lacks shops with local characteristics [11].

(3) Imperfect commercialization

Tourists need places to rest and stay after shopping, but most historical and cultural districts lack commercial forms, such as teahouses and other leisure and entertainment places, reducing tourists' experience. In this way, it is easy for tourists to regard historical and cultural blocks as scenic spots during playing, which is not conducive to promoting the healthy development of historical and cultural blocks. At the same time, most blocks pursue commercialization too much, thus ignoring the historical and cultural value of historical blocks [11].

3.2.4. Reconstruction Proposal

(1) Greater efforts should be made to protect ancient buildings. Zoning should be evident in planning. It is not only convenient for tourists to visit but also conducive to the management of cultural relics.

(2) Based on the existing classical architectural style and other new modern elements, diversified architectural styles can give Nantou Old Town a new look without losing the ancient city atmosphere.

(3) Other functions can be boldly introduced based on the original residential functions, such as the set of distinctive shops and squares. Richer functions can not only optimize the lives of nearby residents but also attract more tourists, to give full play to its tourism function. The traditional community of Nantou Ancient Town will become an important and famous leisure and tourism place in Shenzhen. The comprehensive function of community planning, so that this historical and traditional cultural community into a famous tourist attraction in Shenzhen, can not only achieve huge economic benefits, increase the comprehensive function, but also achieve the benefit of creating a comfortable environment [12].

4. Conclusion

This paper discusses the principles of transformation, analyzes the existing problems, and puts forward suggestions from the two perspectives of transforming urban villages and historical buildings in Shenzhen.

The reconstruction of urban villages mainly follows the principle of the comprehensive renovation. There are mainly problems of high rent, poor environment, and high demolition costs. We suggest that the policy should be more professional and optimize the structure of public space in urban villages from two aspects: increasing the density of public space and enhancing the hierarchy and complementarity between public Spaces. We will encourage rural collective economic organizations to transform themselves.

The reconstruction of historical buildings mainly follows the protection planning policy of historic areas. The existing problems include large-scale demolition and construction, lack of features, and imperfect commercialization of historic districts. We suggest strengthening the protection of ancient buildings, adding new modern elements based on the existing classical architectural style, diversifying the architectural style, and introducing other functions based on the original residential functions. It is suggested to build distinctive shops and squares to fully develop the tourism function of the historic district.

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