A Research Review on the Transformation of Old Districts

Weiyi He, Tianyi Li*
School of Management, Tianjin University of Technology, Tianjin, China
*Corresponding author: tianyili@tjut.edu.cn

Abstract. With the continuous development and progress of urban civilization, the transformation of old districts has become an inevitable trend of urban renewal and development. This paper uses literature research methods to summarize the current status of research on the renovation of old communities at home and abroad and explore the future research directions. It is found that the existing research on transformation of old districts experience and countermeasures can be broadly divided into two categories: renovation status, problems and countermeasures and Retrofit evaluation category. Certain achievements have been made in the research on the renovation technology and management of old communities.

1. Introduction
With the development of economy and the improvement of urban civilization, the original functional structure, physical facilities and living environment of old communities can no longer meet the needs of the times. Against this background, the renovation of old communities has been carried out in various parts of my country. The Central City Work Conference proposed to carry out "urban repair and ecological restoration" to improve the decline in the environmental quality of the old city. Therefore, the renovation of old communities under the theme of popular projects around the country is an inevitable development trend of urban renewal. In view of this, this article focuses on the research direction of old and old community transformation at home and abroad, and provides new ideas for better promoting the theoretical research of old community transformation.

2. Research on the experience and countermeasures of transformation of old districts

2.1. Literature analysis of the current situation, problems and countermeasures of old residential area renovation
Summary of the problems and countermeasures in the practice of the renovation of old urban communities in China, Table 1 lists some representative research views. Comprehensive analysis of the transformation process of various cities and found that the transformation problems are mainly concentrated in the financing of the transformation, the management of the transformation process is not standardized, the lack of long-term management mechanism after the transformation, the relevant laws and regulations and the technical standards are not perfect; on this basis, the local conditions are suitable, put forward corresponding strategies and suggestions to solve the problems. For the implementation strategy design of specific problems in the process of transformation, scholars have focused on different points. For example, Xu Zhiqiu bases on the age-appropriate renovation of old residences, draws on the concept of continuous care community abroad, and tentatively proposes ideas for the construction of an old com
2.2. Literature analysis of transformation of old districts evaluation

Regarding the evaluation of residential renovation in the planning and design stage, Li Jie took the renovation of old residential districts in Beijing as an example, and established an evaluation system containing 14 operable indicators from three aspects of living environment, location and surrounding environment, in order to reconstruct the proposed renovation Evaluation of the dwellings to determine their timing and positioning. The city’s old residential renovation evaluation system established by the Dynasty includes 9 indicators: residential safety and durability, residential applicable performance, residential facilities and equipment, residential energy saving and water saving, residential environment green, residential transportation facilities, residential infrastructure, residential security facilities, Residenti al Service Facilities. For the performance evaluation of the residential renovation project after completion, Xu Shasha built a performance evaluation system for the old community project, including 4 main parts-decision-making performance, economic performance, management performance, social performance.
3. Research on Renovation Technology and Management of Old Residential Quarters

3.1. Document Analysis of Technical Problems in Renovation of Old Residential Quarters

The existing research on the technical problems of old residential area renovation is mainly on the external wall insulation renovation technology, roof greening renovation technology, old building with ladder technology and three-dimensional parking building installation technical issues. For example, the scholar Liu Chang took the Yancheng area in Jiangsu as an example, and proposed a technical plan for wall greening and roof greening transformation. Huang Lifei made a detailed analysis of the technical problems of adding elevators to existing multi-storey residential buildings in old communities. Peng Kang proposed a two-wheeled three-dimensional parking facility selection method suitable for the characteristics of old communities, established a selection model based on gray correlation decision and ANP theory, and obtained the final results with the help of Super-Decision software to solve the three-dimensional parking building Technical issues.

3.2. Literature Analysis on the Problems of Renovation and Management of Old Residential Quarters

Regarding project management in the process of renovation, Liu Fan discussed the audit points in the budget review of the transformation of old districts project from three aspects: construction cost, other construction costs and preparation costs, emphasizing that the funds for the renovation of the old community should be strictly controlled budget. Zhang Wentao explored the factors influencing the progress of the transformation of old districts project, and on this basis, used earned value management to dynamically control its progress through "progress-cost". After the renovation and completion of the operation and maintenance management, Liu Chengshui and others revealed the existing problems of the old community without property management and proposed governance methods, including strengthening publicity and guidance, establishing a volunteer service team, and accelerating the legal construction of property management in the old community.

4. Research on the financing problem of old residential area renovation

Regarding the financing of the renovation of old communities, domestic scholars have paid attention and researched it. The China Old Community and Building Renovation Industry Alliance divides the comprehensive renovation of China's old communities into three models according to the source of funds; in small and medium-sized cities, the source of renovation funds is owner-occupied renovation and appropriate government subsidies; the third model is to adopt the market Funded operation.

Foreign scholars are mainly concerned about the process of urban renewal and reconstruction and the sources of funds in cities around the world. The following is a detailed analysis of the representative UK and US renewal processes and their funding sources.

Britain was one of the first countries in the world to begin urbanization. The establishment of the Greenwood Act in 1930 marked the official opening of its urban renewal movement. In the mid to late 1960s, the UK's urban renewal policy began to change, mainly aiming at the revival of the inner city, the improvement of social welfare and the improvement of the physical environment. In 1991, the United Kingdom proposed the "City Challenge" plan, which reflects the urban renewal concept of community participation. Since then, the urban renewal in the United Kingdom has gradually changed from the initial government-led to market-oriented, with the purpose of guiding private investment, and finally the public, private and community cooperation, allowing the public to participate in urban renewal.

In 1949, the United States promulgated the "Housing Law", began to demolish slums and reconstruction. In 1954, the United States revised its urban renewal policy, emphasizing the need to strengthen the responsibilities of local governments and private companies, and at the same time, strengthen the participation of residents. In the mid-1960s, the United States proposed the "Model Cities Program" to solve the problem of poverty, and developed a comprehensive solution in several specific cities. Even so, the United States' determination to improve social welfare and public services is still visible. Funds for urban renewal in the United States are mainly derived from taxation. There are two main types: One is Tax Value Added Financing (TIF), a form of financing used by state and local governments.
o attract private investment in specific areas and promote regional redevelopment. The other type is the Business Improvement District (BID), which is a local mechanism based on voluntary union of business interests, which levies local taxes to provide funding sources for the development of specific areas.

5. Conclusion

At present, there are many scholars at home and abroad who have studied the renovation of old communities. Domestic literature mainly focuses on the status quo, problems and countermeasures of transformation, technical problems of transformation, management problems of transformation, and evaluation of transformation; foreign literature mainly focuses on the causes of urban renewal and transformation, the consequences and the financing model of transformation. Although some domestic scholars have raised the issue of fundraising as one of the difficulties in the transformation, and also proposed the principle of "who benefits and who contributes" as a funding channel expansion principle, but the beneficiary groups concerned by scholars are more of the residents under the urban hukou. Research on the renovation of old communities in suburban areas urgently needs to be supplemented.

References

[1] Xu Zhiqiu. Research on suitable ageing renovation of old houses based on the concept of continuous care community [D]. Beijing University of Technology, 2016.

[2] Ge Huiling. Research on residential renewal strategy based on multi-party cooperation [D]. Nanjing University, 2012.

[3] Liang Chuanzhi, Li Chao. Main methods and considerations of comprehensive renovation of old residential districts in Beijing [J]. Construction Technology, 2016(09):20-23.

[4] Wang Binwu. Exploration and Practice of Organic Renewal in Old Communities in Shanghai [J]. Economic Research Reference, 2016(38):39-43+54.

[5] Lou Benhui. Organic Renewal and Sustainable Development Strategies of Old Communities in Xi’an [D]. Northwest University, 2011.

[6] Cai Shupin, Zhou Xingwen, Ma Tian. Modes and countermeasures of urban old community renovation——Taking Shenyang as an example [J]. Journal of Shenyang University (Social Science Edition), 2014, 16(06):723-726.

[7] Li Jie. The status quo and evaluation of old communities in Beijing in urgent need of renovation and reconstruction [J]. City, 2007(03):59-62.

[8] Wang Chao. Research on the planning and design strategy of urban old residential renovation [D]. Tsinghua University, 2011.

[9] Xu Shasha. Research on performance evaluation system of transformation of old districts projects [D]. Zhejiang University, 2016.

[10] Liu Chang, Bai Yin, Jiang Wei. Analysis of green renovation strategies and suitable technologies in old communities [J]. Sino-foreign Architecture, 2016(11): 104-106.

[11] Huang Lifei. Discussion on the experience and strategy of "old buildings and ladders" in the renovation of old communities [J]. Modern Decoration (Theory), 2017(02): 22.

[12] Peng Kang. Research on the method of setting up three-dimensional parking facilities in old residential quarters [D]. Chongqing Jiaotong University, 2015.

[13] Liu Fan. Discussion on the evaluation of the budget estimates of the transformation of old districts project [J]. China Housing Facilities, 2016(03): 46-49.

[14] Zhang Wentao. Research on the progress management of the transformation of old districts project in Beijing [D]. University of Chinese Academy of Sciences (School of Engineering Management and Information Technology, Chinese Academy of Sciences), 2017.

[15] Liu Chengshui, Liu Lingling, Shi Bing, Ji Wenyan. Existing problems of old community management and their solutions [J]. Urban Problems, 2012(09): 83-85.

[16] Carmon N. Three generations of urban renewal policies: analysis and policy implications [J]. Geoforum, 1999, 30(2):145-158.

[17] Kleinman M, Whitehead C. Housing and regeneration: the problem or the solution [J]. National
Institute Economic Review, 1999, 170(170):78-86.

[18] Weber B A, Wallace A. Revealing the Empowerment Revolution: A Literature Review of the Model Cities Program[J]. Journal of Urban History, 2012, 38(1):173-192.

[19] Weber R, O Neillkohl S. The Historical Roots of Tax Increment Financing, or How Real Estate Consultants Kept Urban Renewal Alive[J]. Economic Development Quarterly, 2013, 27(3):193-207.