The research about spatial characteristics and renewal policy mechanism of industrial land use

——taking Shanghai and Shenzhen as examples

YANG fan, Associate professor, [fanyangsh@tongji.edu.cn](mailto:fanyangsh@tongji.edu.cn)

LU Jing, Postgraduate student, luujon1990@163.com

Urban Planning Department, College of Architecture and Urban Planning, Tongji University.

**Abstract:**

China’s new urbanization policy has made the invisible land issues highlighted. The Yangtze River Delta region and the Pearl River Delta region are playing the leading role in the process of industrialization and urbanization in China, and Shanghai and Shenzhen are two typical cities in these two regions. Obviously, the two cities are facing the limitation of urban development land use scale since the beginning of the twenty-first century. In order to tap potential of existing land resources, government in the two cities have promulgated policy documents for guiding urban renewal transformation, which is highly consistent with China’s new urbanization policy. Specially, in this policy evolution process, spatial transformation of industrial land is the key point of scale-reduction and stock-land-using oriented planning. Spatial related urban land use policy analyses may give us some understanding about the urban and urban planning.

So, the comprehensive utilization of spatial structure comparing analysis, quantitative comparing analysis based on statistical data, and site investigation comparing analysis, is the main methodology of this paper.

First of all, this paper analysis the different spatial structure characteristic of industrial land use in these two cities, simultaneously the evolutions of the industrial land use structure of these two cities are different too, and point out the different effects on industrial land spatial layout of economic development and government intervention model. Meanwhile, this paper compares the statistical analysis, and try to explore the different industrial development path of these two cities. Secondly, this paper compare the evaluate results of industrial land use spatial performance of these two cities, instead of the only methods of economic performance evaluation. In fact, industrial land use performance evaluation not only pay attention to the economic output of industrial land, but also concern the spatial structure of the industrial land and the spatial match characteristics with other functional land use. Thirdly, this paper compare the different construction status of industrial land use of these two cities, particularly the different build environment of industrial parks which take important role in the local economic development.

In order to reveal the fundamental questions of industrial land use in these two cities, this paper this paper selects the typical industrial cluster of the two cities with similar scale and location to compare, including the renewal process, policy conditions, planning approval, redevelopment model, space reconstruction mode, etc. Taking Shanghai and Shenzhen as examples, the most important part of this paper, is the analyses about main problems on current industrial land use in urban and rural areas, and taking into consideration the requirement of “less industrial land” of the new urbanization policy, it concludes that industrial land renewal is an important part of city renewal. As the deeper step of the research above, the methodology of this part is combining the quantitative analysis for the statistical data with spatial match analysis, and the construction of spatial performance evaluation system. Analysis shows that industrial land use in these two big cities has such problems as too large scale and size, unorganized spatial layout and much inefficient use. These lands are the main objects to revitalize the inventory and tap the potential of land resources. Related researches cannot meet the objective needs. Firstly, they emphasize learning from international experience, but ignore the particularity of land financial impact on the industrial park land in China. Secondly, they stress the economic evaluation of industrial land, but neglect the evaluation of space efficiency. Thirdly, they focus on study of partial update, but neglect the overall planning of urban-rural industrial land and interact with the urban and rural spatial structure.

Furthermore, Based on the above research, the paper points out the main result, that the spatial transformation of industrial land suitably based on the median-level spatial arrangement, leading the trend of micro-level spatial transformation and macro-level industrial spatial aggregation. In addition, the paper argue that, in contemporary Chinese context, the meaning of spatial transformation of industrial land includes spatial aspects: spatial structure optimization, adjustment of proportion, and transformation of functional structure, and policy aspects: transformation of urban development model, and policy mechanism aspects: policy is formulated according to the spatial evolution mechanism. Meanwhile, there may be differences among different regions. Finally, it can be seen that Shanghai and Shenzhen have quite a different impartial concept and re-distribution mechanism of interests at the industrial land renewal.

To sum up, this paper put forward several issues for concerning and point out some arguments with contribution. Firstly, the status of industrial land use is the most outstanding problem in big cities, especially the industrial land which located in industrial parks and rural area. And the methodology in research process should pay attention to combine the solid data, solid pattern, and solid site investigation together. Secondly, we are looking forward to construct the theoretical framework of spatial performance evaluation on industrial land, besides the economic evaluation. Thirdly, in view of the judgment of the trend of industrial space reconstruction, this paper puts forward study measures and ideas of broadening the meaning of city renewal, redevelopment, particularly the urban regeneration. Finally, this paper argue that, the two cities- Shanghai and Shenzhen had great differences in urban renewal policy system and local space governance mechanism; but from the perspective of urban long-term development, spatial related social justice is a key issue we should concern, we are trying to approach this specific theme in terms of overall space fairness.

**Keywords:**

Cross-regional comparison, Industrial land use, Policy mechanism, Urban renewal, spatial transformation

**Bibliography:**

1 Yang fan. The Review and Suggestion of Urban-rural Land Management System Research of Shanghai [J]. Shanghai Urban Planning Review, 2010, 93(4):1-4.

2 WANG H F, SHI Y S. Effects of policy on urban industrial land expansion and efficiency in Shanghai.

[J]. World Regional Studies, 2014, 23(2):133-141.

3 PENG Yun-fei1, LAI Quan-you1, YU Yang-yang. Research on Economic Benefits Evaluation of Construction Land Based on Principal Component and Cluster Analysis—A Case Study in Shenzhen [J]. GUANGDONG LAND SCIENCE, 2014, 13(3): 9-14.

4 GAO Wei1, MA Kexin, LIU Hongmei. Policy Evolution of the Economical and Intensive Utilization of Industrial [J]. Land in China Since, 1978, 27(10):37-43.

5 Kort, Michiel. Klijn, Erik-Hans. Public-Private Partnerships in Urban Regeneration: Democratic Legitimacy and its Relation with Performance and Trust [J]. LOCAL GOVERNMENT STUDIES, 2013, 39(01)：89-106.

6 HUANG Xianjin; YAO Li; WANG Guanghong. Industrial Land Use: Basic Feature, Intensive Model and Adjustment Strategy[C]//WANG Keqiang. City economy and land policy: development performance. Shanghai: Shanghai University of Finance and Economics press, 2008: 28-34.

7 CHEN Bingzhao. Thinking and Transition [J].Urban Planning Forum, 2014(1):9-13.

8 CAO Jianhai. China's Industrial Land Use and Land Policy [J]. China Development Observation，2006（5）：10-12.

9 Yu-Hsin Tsai. Quantifying Urban Form: Compactness versus ‘Sprawl’. Urban Study, 2005, 42:141.

10 BAI Youtao; CHEN Yunchang. Social Cost of Urban Renewal [M]. Nanjing: Southeast University press, 2008.