

Research on the Relationship between the Spatial Distribution of Public Service Facilities and Social Spatial Isolation

-- Take Kunming as an example

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Abstract

At present, China's urban social space is in the process of continuous transformation and reconstruction. The differentiation of social space is the most important feature of contemporary urban social space. Comprehensive factors such as housing problems, class conflicts, community poverty and employment problems will further aggravate social spatial differentiation. However, social spatial polarization is not conducive to the healthy development of cities. Social spatial isolation will affect the process of urban-rural integration in China, which is more likely to further aggravate the antagonism between classes and space. Under the differentiation of social space, the demand for public services leads to differences in the quality of living space. This is in line with the concept of people-oriented and homogenized public service space justice and social equity advocated by China. It is of great significance to study the accessibility of public service facilities in Kunming and the spatial justice and social equity of residents' access to public services under the social stratum differentiation for building a harmonious and livable city. In the context of land and space planning, the study of urban public service facilities from the perspective of urban social strata will help to promote the verification of the theory of "Social spatial Dialectics" from the interactive model of social relations and physical space with residential differentiation. That is, the social spatialization and the spatial socialization are mutually reinforcing. In addition, social strata affect the type and layout of public service facilities; In turn, the type and layout of public service facilities will affect social strata. Both of them play a certain role in promoting each other. Therefore, the research on this topic can enrich the laws of commonness and difference of the distribution fairness of public service facilities in different social strata within the city.

Keywords

Public service facilities; Social space; Fair sharing.

1. SOCIAL SPACE

In urban space research, social space is relative to physical space. It can generally refer to all the spaces that human beings perceive or experience. It can also refer to the space occupied by social groups with the same socio-economic attributes, clans, races and even behavioral psychology, such as slums and rich areas. Both have strong social boundaries. In addition, community is also considered to be the focus of social space research. From the perspective of urban space, social space has three main characteristics: (1) As an area occupied by a certain group; (2) As the product of human activities; (3) The research focuses on the mode of group

migration, social organizations and social networks. In general, the introduction of "social space" and the evolution of its connotation have strengthened the integration of space, people and society.

The differentiation of social space is not conducive to the healthy development of cities. Spatial differentiation will aggravate the contradictions and conflicts between the strata. Social space construction will become an important part of urban and rural planning and construction. In dealing with social space issues, we need not only economic and social policies to adjust, but also urban and rural planning to implement a positive response. The current urban and rural planning system has been inherited from the era of planned economy. Compared with social space and social benefits, it focuses more on material space and economic benefits. In recent years, the planning model focusing on economic benefits has begun to show many drawbacks. Especially after 2008, under the background of the compression of traditional industries and the decline of market demand, in many regions oriented by production and economic benefits, social problems have replaced economic problems as the most prominent problem.

2. DEVELOPMENT TREND OF PUBLIC SERVICE FACILITIES LAYOUT

Public service is the premise of public service facilities, and public service facilities are the guarantee to provide public services. Public service is an important condition and content of human development, which can meet some direct needs of citizens in daily life. The social effect brought by the spatial distribution of public service facilities should be paid attention to by the urban and rural planning specialty. In the process of social development in China, we should improve social spatial polarization and take fair sharing as the basic purpose of planning and design.

In order to implement the Several Opinions of the CPC Central Committee and the State Council on Establishing the Land and Space Planning System and Supervising the Implementation, the Guidelines for the Preparation of Municipal Land and Space Master Plan (for Trial Implementation) issued in September 2020 proposed that in the land and space master plan, it is necessary to optimize the layout of land for residential and public service facilities, improve public space and slow traffic network, and improve the quality of human settlements by combining urban and rural living circles of different scales.

At present, the focus of urban development is shifting to urban renewal, urban function improvement, urban space repair and urban ecological restoration. The core of a city is people. Adhering to the people-oriented concept of urban development requires planning and strengthening the guidance for the construction of various facilities from a higher level, and emphasizes the fair sharing of the layout of facilities. From the perspective of fairness, it covers the balanced layout of all spaces in the community. Build a more open, convenient and accessible facility system with higher service efficiency and better service mechanism. The supply of facilities and services can meet and fairly meet the diversified needs of different groups.

3. HOUSE PRICE AND SOCIAL SPACE

Both The dual role of the state and the market contributes to the current urban residential space pattern. The marketization of real estate leads to the stratification of residential space. According to individual needs, people choose groups close to their social status and social wealth to form a social network of life groups. This makes homogeneous groups live in homogeneous regions and form homogeneous neighborhoods. The real estate price plays an important role in "filtering" and "sorting" the differentiation of urban residential space. The types and grades of urban housing are closely related to residential groups. The spatial difference of urban house prices is the market reaction and concrete characteristics of urban

social spatial differentiation, and is an important driving mechanism to promote the re differentiation of urban social space.

Different social strata have different public service needs, and its important purpose is to pursue the rationality and fairness of the spatial equalization layout of public service facilities. Compared with the elite and the middle class, the low-income class is more dependent on community level public service facilities due to their limited consumption capacity. Therefore, the allocation of public service facilities has different impacts on the lives of residents of different income groups. The difference in the quality of living space caused by different public service needs under this social stratum is in line with the concept of social justice and space justice advocated by our country, which is the homogenization of human text and public services.

4. UNBALANCED DISTRIBUTION OF PUBLIC FACILITIES AND SOCIAL SPACE ISOLATION IN THE MAIN URBAN AREA OF KUNMING

This study selected the four central districts in the main urban area of Kunming City as the research scope, combined with the difference of housing prices and the distribution characteristics of public service facilities, to analyze the social strata behind different housing prices and the density of public service facilities they occupy. The four districts, including Wuhua District, Panlong District, Guandu District and Xishan District, are the early developed areas of Kunming, in which a large number of public service facilities are concentrated, with a large population size and high population density.

4.1. House price of main urban areas in Kunming

The overall distribution pattern of house price in the study area is centered on the junction of Wuhua District, Panlong District, Guandu District and Xishan District, showing a central structure of high center and low around. In addition, a large area of high-value housing prices is formed at the junction of Xishan District and Guandu District to the north of Dianchi Lake. The housing price in the study area generally presents a "cluster mode" formed by multiple high value housing price centers. The overall house price in the north is higher than that in the south, and the boundary between the north and south house price difference is the junction of Guandu District and Chenggong District

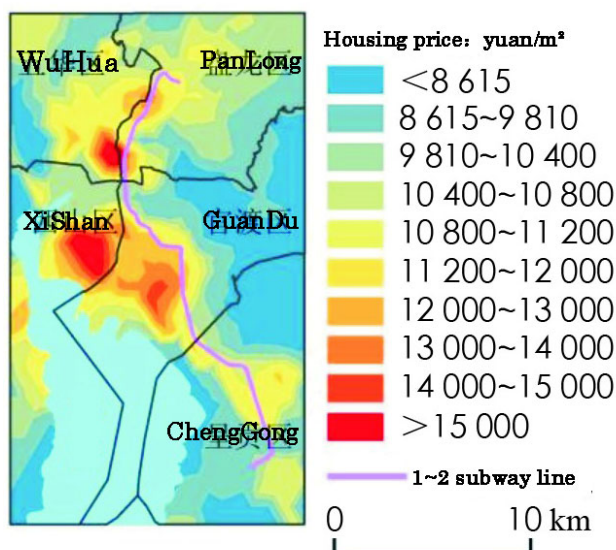


Figure 1. House price of Kunming

4.2. Distribution of public service facilities in the main urban area.

The public service facilities in Kunming are distributed in a spatial pattern of "one core, two axes and multiple poles". Specifically, the "one core" is mainly located in Wuhua District, Panlong District, Guandu District and Xishan District; The "two axes" are respectively the line of "Anning City Chenggong District Yiliang County" in the east-west direction and the line of "Anning City Main Urban Area Songming County Xundian Hui and Yi Autonomous County" in the southwest northeast direction; The poles are located in the center of other districts (counties). On the whole, the public service facilities in Kunming are in a spatial distribution pattern of "more and more concentrated in the south, less and less sparse in the north".

From the data, the area with the largest density of public service facilities is Wuhua District, and the area with the smallest density is Luquan Yi and Miao Autonomous County. This is because Wuhua District is the main urban area of Kunming, with a long history of development, dense population, developed economy, complete service facilities, and small area, so the density is the largest.

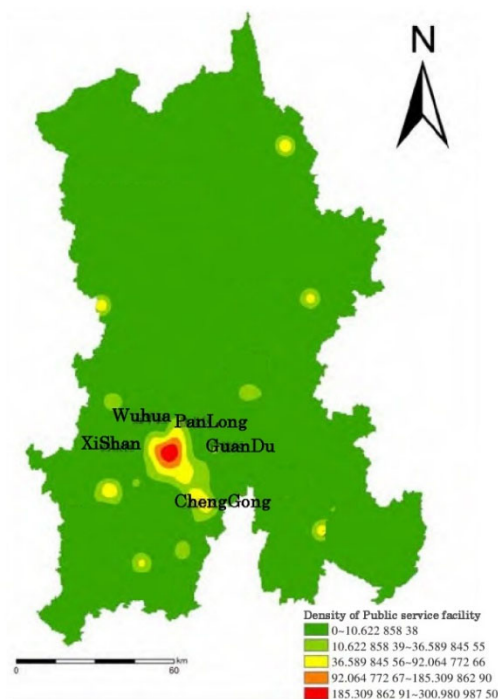


Figure 2. Distribution of public service facilities

District	population	area	POI number	POI density
	ten thousand	km ²	individual	individual/km ²
WuHua	87.82	348.32	7 725	22.18
PanLong	84.20	327.50	7 077	21.61
GuanDu	91.39	652.02	8 766	13.44
XiShan	79.27	909.60	7 399	8.13

Figure 3. Density of public service facilities

4.3. Summary

According to the distribution density of housing prices and public service facilities, the average housing prices in Wuhua District, which has the largest density, are also higher in Kunming. Through the differentiation of housing prices, the spatial differentiation of social strata has already appeared in Kunming urban area, and the corresponding public service facilities have also appeared social stratification and even gentrification. In recent years, there has been a phenomenon of high housing prices around a hospital, soaring housing prices in a teaching unit, or soaring housing prices near subway lines and subway stations in Kunming.

Public service facilities affect the quality of life of different social strata, and their accessibility level is an important factor to evaluate the quality of living space of residents of all strata. Even in the urban and rural planning, public service facilities are arranged in strict accordance with the planning standards, and are calculated according to the 1000 person indicator. However, in terms of medical resources, educational resources, etc., residents will consider the quality of medical resources in addition to whether the quantity meets the demand. In fact, residents will try their best to find housing that can meet their needs in the main urban area and join the relative social class for the sake of their children's schooling and parents' medical care. Under the effect of this pursuit, social spatial differentiation also appears, and with the pursuit of public resources, this differentiation will become more and more extreme.

5. DISCUSSION AND CONCLUSIONS

The agglomeration effect produced by the urban center makes a large number of resources invested in this area, while the public resource investment in other areas is reduced or the construction lags behind. In particular, the layout of facilities such as medical and health care and education shows a prominent phenomenon of urban polarization. At the same time, due to the differences in natural factors, location conditions and social and economic bases, as well as the different social and economic levels and development stages of cities, there is a spatial imbalance in the allocation of facilities between cities and in different development areas of cities.

The methods of "hierarchical configuration", "1000 person indicator", "service radius" and other methods that have been used for public service facility configuration are easy to lead to the lack of diversity and humanization in layout configuration. Today, when the land and space planning is being carried out, it is recommended to establish differential standards for facility construction according to the needs. For example, in the economically developed areas, the facility allocation should focus on the demand of the whole age population, and increase the supply scale of facilities such as elderly care, early childhood education and basic education; Encourage the sharing and co construction of some facilities, and advocate the conservation and intensive land use. The allocation of facilities in economically underdeveloped areas should fully guarantee the allocation of infrastructure.

In general, in terms of spatial layout, the current allocation standard of public service facilities in Kunming City seldom distinguishes the differences in population characteristics, facility demand and facility status in different types of areas such as incremental areas, stock areas and historical protection areas. This kind of allocation mode neglecting regional differences makes the public resources in urban areas with high population concentration excessive and even the phenomenon of gentrification of public service facilities. A large number of middle class people possess and have long held rich public service facilities. However, there is a potential gap in the allocation of facilities in new areas and resource weak areas, and the poor class is difficult to enjoy the public resources that society should give them. This has led to the uneven distribution of important facilities, such as medical facilities and educational facilities, and the coexistence of oversupply and oversupply of public resources.

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