

Research on the Renewal and Renovation Strategies of Public Spaces in Old Communities Based on Urban Experience

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Abstract: With the accelerated process of urbanization, higher requirements have been put forward for the functions of public spaces in old communities, and traditional public spaces can no longer meet the development needs of modern cities. This study mainly builds on the evaluation index system of urban experience, summarizes various problems that need to be solved in the renovation of public spaces in old communities, and puts forward targeted improvement suggestions. Its purpose is to enhance the social functions and humanistic care capabilities of public spaces in old communities and meet the diverse needs of residents in old communities for public spaces.

Keywords: Urban Experience; Old Communities; Public Spaces

1. Introduction

As the core unit of a city, the community is also an important place for residents to live and reside. Against the background of accelerated urbanization, the contradiction between supply and demand of community services and population has become increasingly acute. Therefore, in the process of urban construction and planning, it is necessary to pay attention to the renewal and renovation of public spaces in old communities. Based on the concept of urban experience, it takes the improvement of people's satisfaction as an important direction for the renovation of public spaces in old communities, effectively solves the contradictions between urban development and old communities, and practically enhances the livability and inclusiveness of the city, thus laying a solid foundation for the modernization construction and development of the city.

2. Construction of the Index System from the Perspective of Urban Experience

Table 1: Evaluation Indexes of Old Community Dimensions Under Urban Experience

Index Classification	Serial Number	Index Name
Improved Facilities	1	Number of under-standard elderly care service facilities (unit: piece)
	2	Number of under-standard infant care service facilities (unit: piece)
	3	Number of under-standard kindergartens (unit: piece)
	4	Primary school degree gap (unit: piece)
	5	Parking space gap (unit: piece)
	6	New energy vehicle charging pile gap (unit: piece)
	7	Number of communities without electric bicycle charging facilities (unit: piece)
Livability of Environment	8	Number of under-standard public activity venues (unit: piece)
	9	Length of substandard sidewalks (unit: km)
Sound Management	10	Number of communities without domestic waste classification (unit: piece)
	11	Number of communities with poor property management (unit: piece)
	12	Number of communities in need of intelligent transformation (unit: piece)

With the accelerated process of urbanization, the renovation of public spaces in old communities has become an important path for urban renewal and development, and it also helps to enhance the sense of happiness of urban residents. The implementation of urban experience can provide new ideas for the renovation and upgrading of public spaces in old communities. Through on-site surveys and field investigations, it can identify defects and waste problems in urban spatial layout, optimize the urban layout according to the actual needs of residents, and improve the level of renovation and

optimization of public spaces in old communities, thereby providing new ideas for the modernization construction and development of the city^[1].

When conducting community-level index evaluation under the background of urban experience, the specific index design is shown in Table 1, and it is necessary to clarify the weight of different indexes to ensure the rationality of the construction of urban experience indexes, which provides support for the subsequent renovation and improvement of public spaces in old communities.

3. Problems in the Use of Public Spaces in Old Communities

3.1 Inadequate Infrastructure

Due to their late construction start, the construction of public space facilities in old communities is relatively backward, which cannot meet the development requirements of urban modernization. Although there are certain elderly care service providers, kindergartens and primary schools around many old communities in cities, these facilities can basically meet the elderly care needs of the elderly in old communities and provide preschool education services for school-age children in the communities, thus ensuring the schooling needs of school-age children. However, against the background of accelerated urbanization, the problem of incomplete infrastructure construction in old communities has become increasingly prominent^[2]. For example, in the utilization of public spaces, many old communities have not fully considered the infant group, nor have they established an infant care service model. Moreover, the construction of comprehensive service centers in many old communities is not in place, and the spatial functions have not been fully utilized.

In addition to the lack of infant care facilities, the insufficient construction of parking facilities is also an important problem faced by many old communities. Due to the long construction history of these communities, the problem of private car parking was not taken into account, resulting in a huge parking space gap in residential land. To facilitate parking, some community residents even occupy fire-fighting accesses at will, which brings certain safety hazards to old communities.

3.2 Chaotic Partition

Affected by the limitations of traditional construction concepts, the development and utilization of public spaces in some old communities cannot meet the basic needs of residents, and there are serious problems such as unreasonable functional zoning. First of all, the public spaces in many old communities are composed of scattered and narrow spaces. These spaces not only have limited area but also fail to form a good public communication space. For example, there are a large number of elderly people in many old communities. Different from young people, this group of elderly people mostly needs quietness in public spaces. However, in the process of dividing community public spaces, comprehensive classification has not been done well, and the ability to divide spatial functions is insufficient, which makes it difficult to meet the use requirements of various groups for public spaces. In addition, the utilization of public spaces in many old communities is affected by various factors such as surrounding resources and site selection, which not only fails to exert the normal spatial functions but also leads to the illegal occupation of public resources^[3]. For example, to meet their own spatial use needs, some residents in old communities even build temporary buildings in public fire-fighting accesses and other areas. This behavior not only infringes on public interests but also damages the image of the community. Furthermore, the occupation of public spaces may bring certain safety hazards to the community and make it difficult for the communication function of public spaces to be well exerted.

3.3 Aging Facility

With the accelerated process of urbanization, the number of urban residents is increasing, which puts forward higher requirements for the utilization of community public spaces. However, in the process of infrastructure construction of public spaces in some old communities, some infrastructure has suffered from serious aging, which affects the use experience of local residents on public spaces. For example, in the construction of sports facilities in the public spaces of many old communities, the equipment and sports venues have not been maintained and replaced in a timely manner, nor have they been optimized according to the use preferences of local residents. This situation makes it difficult for the functions of infrastructure to be exerted, which not only fails to meet the daily fitness needs of

community residents but also may bring certain safety hazards due to some old sports equipment, thus threatening the physical health of community residents.

3.4 Insufficient Greening

With the continuous improvement of people's living standards, people's requirements for community greening are also increasing. Many old communities paid attention to community landscape design in the early construction stage, and there is good greening in the communities. However, with the increase of community service time, due to restrictions in many aspects such as personnel and capital costs, many community landscape spaces have problems of improper maintenance and unreasonable utilization, which seriously affect their greening effect and the beautification function of community public spaces. An analysis of the current problems in the use of public spaces in old communities shows that there are many problems such as low overall greening degree and weak landscape layout, which not only affect the greening pattern of the community but also affect the overall experience of residents on the community public spaces.

4. Design Principles for the Renovation of Public Spaces in Old Communities

The first one is systematic principle. In the process of renovating public spaces in old communities, designers should take the initiative to proceed from the perspective of macro-renovation and integrate the systematic principle into the entire process of renovation design. Based on the original spatial structure, they should take the reconstruction of the community's place spirit and the enhancement of community spatial vitality as important goals. After applying diversified community renovation and renewal strategies, they should provide residents with a higher-quality community environment while ensuring the original residential performance of the community^[4]. The second is human-oriented principle. At present, many old communities in China adopt a top-down renovation model in the process of spatial renovation, which can greatly improve the quality of public space renovation. In the renovation design stage, it is necessary to fully respect the human-oriented principle, attract community residents to actively participate, and obtain the ideal public space renovation effect after absorbing the residents' renovation opinions. The third is participatory principle. As an important living place for urban residents, the renovation of old communities needs to closely conform to the size of the site and the sense of spatial scale. According to the actual use needs of people of different age groups for public spaces, a more targeted spatial context should be constructed to meet the use needs of people at different levels for public spaces and improve the sense of life happiness of community residents.

5. Renovation Strategies for Public Spaces in Old Communities from Urban Experience

5.1 In-depth Exploration of Parking Space

To solve the problem of insufficient parking spaces in many old communities, it is necessary to pay attention to the in-depth exploration of parking spaces in the process of public space renovation, and the following work can be done well. Firstly, it is important to manage temporary parking effectively. In the renovation of community public spaces, it is necessary to carry out temporary parking management reasonably based on the construction of roads around the community and the actual parking needs of residents. For example, during periods of high parking demand such as nights and legal holidays, temporary parking spots can be opened appropriately to allow residents to park temporarily on appropriate secondary roads or small roads^[5]. Secondly, it is necessary to integrate parking resources effectively. During the renovation period, combined with the parking needs of local residents and the use of public spaces, the existing off-road idle open spaces can be reasonably used, and the staggered use of public parking lots of some user units can be realized, so as to realize the optimal use of parking resources in the community. On the basis of integrating public parking resources, this scheme can effectively alleviate the previous problem of tight parking spaces and enhance the living experience of community residents. Next, it is useful to add parking spaces. In the spatial renovation of old communities, on the basis of basic environment improvement and infrastructure upgrading, it is necessary to integrate the spatial resources in the community and reasonably use the space to increase parking spaces and improve the number of parking spaces. In the process of increasing parking spaces, the originally abandoned green spaces can be re-planned, and grass-planting brick parking spaces can be built, which can not only solve the problem of difficult parking for residents but also further improve the greening level of the community. Finally, it is necessary to

increase charging facilities. With the continuous development of the new energy vehicle field, the number of electric vehicles owned by community residents is also increasing, and the demand for electric vehicle charging is also increasing. Therefore, in the process of renovating community public spaces, it is necessary to fixedly add new energy vehicle charging piles to meet people's charging needs and improve people's urban experience.

5.2 Improvement of Community Service Functions

After obtaining the evaluation results of urban experience, it is necessary to take the initiative to improve the existing community service functions and provide a more suitable living environment for residents in old communities. It is necessary to improve the existing community service functions and make full use of the existing public spaces by adding nursery services and other methods to meet the actual needs of users. Converting some low-utilization spaces in the community service center into nursery spaces can better meet the actual needs of residents for infant nursery [6]. In addition to the nursery function, it is also necessary to carry out targeted public space renovation activities according to the specific results of the urban experience evaluation, give full play to the functionality and comfort of public spaces, and better meet the use requirements of residents in old communities for public spaces.

5.3 Rational Division of Spatial Functions

A sound community life service system is an essential condition for improving the quality of life of community residents and an important basis for providing a better urban experience for residents in old communities. The infrastructure construction of many old communities has a long history, and their constructed living service facilities can no longer meet the actual living needs of local residents due to factors such as improper maintenance^[7]. Therefore, in the renovation of public spaces in old communities, it is necessary to carry out the renovation and beautification of architectural concepts according to the volume of the buildings themselves and the actual needs. While adding infrastructure, the community service functions of public spaces should be optimized. For example, for some old communities with outdated building exteriors, the building facades can be improved by repainting the exterior walls of the buildings and uniformly replacing the entrance balconies. Secondly, attention should be paid to the release of ground space and the full division of the internal spatial functions of the community to give full play to the application functions of public spaces. In the renovation of public spaces, the restoration and addition of sports facilities should be carried out according to the actual needs of the elderly for leisure and fitness, and special public facilities for the elderly can also be built to meet their actual needs for daily leisure and fitness. Finally, to solve the problem that most old communities do not have children's activity spaces, some small-sized children's entertainment facilities, such as sandpits and seesaws, can be set up based on making full use of the small internal spaces of the community to meet the leisure and entertainment needs of children. Finally, it is necessary to enrich the existing use functions of public spaces. For example, for the illegal construction of private buildings in the public spaces of existing old communities, the potential safety hazards should be discovered and eliminated in a timely manner. In the renovation of public spaces in old communities, it is necessary to actively sort out the original public spaces, so that the layout and functions of each space can be better combined, thereby integrating the concept of dynamic and static zoning into the actual renovation activities. For example, adding green landscapes and rest seats in the activity area can meet the actual needs of local residents. If there are good greening conditions in the public area, after transplanting small shrubs, a composite public social space for residents to relax and read can be provided under the tall trees to meet the actual communication needs of residents.

5.4 Renovation of Community Greening

Community greening is a key link in the renovation of public spaces in old communities. In the process of greening renovation, first of all, it is necessary to do a good job in preserving the big trees in the community, and on this basis, re-plan the design of public spaces. By breaking the sense of enclosure and boundary of the original landscape space, the overall aesthetics of greening vegetation can be improved^[8]. In this process, the density of vegetation should be considered. If the vegetation is found to be too sparse, it is necessary to replant plants in a timely manner to enhance the ornamental performance of landscape plants. Secondly, in the process of plant configuration, attention should be paid to the reasonable collocation of various tree species. In this process, it is not only necessary to consider the color of different vegetation but also to strengthen the rational collocation of arbors and shrubs, so as to provide local residents with a safer and more private living space while beautifying the

community environment. Tall shrubs can be planted between the buildings adjacent to the external roads of the community, which can not only isolate noise but also become an important transitional landscape between the inside and outside of the community. Finally, to solve the problem of insufficient landscape green space, it is necessary to take the initiative to change the traditional design thinking and adopt a diversified spatial greening model. In addition to the conventional green plant planting model, methods such as wall greening, fence greening and roof greening can also be adopted to make the green landscape in old communities present the characteristics of appreciation and hierarchy, thereby creating a more livable community environment.

6. Conclusion

In summary, in the process of renewal and renovation for public spaces in old communities, the application of urban experience theory can realize the comprehensive diagnosis of all remaining basic problems in the city. Based on the residents' perception and real experience of the urban environment, it can form a more targeted and systematic renovation plan. Only in this way can the ideal effect of the renovation and upgrading of old urban communities be achieved, which can better conform to the construction and development needs of urbanization and provide urban residents with a more livable community environment.

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