

**RESEARCH ON PUBLIC SPACE DESIGN IN OLD
COMMUNITIES BASED ON THE PERSPECTIVE
OF MICRO-RENEWAL**
2023 DLA DISSERTATION -BOOKLET

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1.PREFACE

As an integral part of the city, the community witnesses urban development. The spatial features displayed by the community in different periods represent the trajectory of urban development. With the times' development, urban communities' public space has experienced different degrees of functional decline. In the past urban development, it seems that the only solution to the problem of spatial decay is demolition and reconstruction.

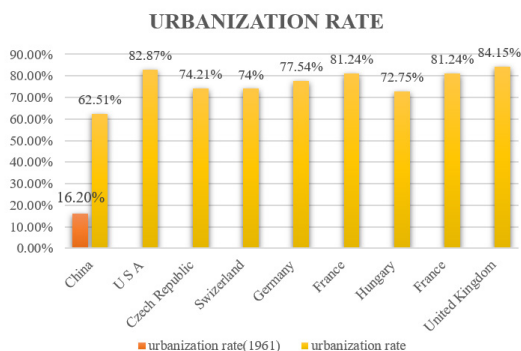
Nowadays, the development center of urbanization has shifted from the horizontal increment of the city to the vertical development of the existing stock of the city. The size of the city no longer measures the city's quality but the city's characteristics, vitality, and community space—a new growth point for urban quality.

In the past development of urban public space, renewal means the demolition and reconstruction of the city. Facts have proved that this renewal model has not only failed to thoroughly improve the quality of urban public space and stimulate urban vitality but has brought serious problems of urban gentrification, destruction of the urban landscape, and dissipation of urban context and community spirit.

As a new concept of urban public space construction, *micro-renewal* can protect the historical texture and style of the original space based on solving the problem of urban and community stock optimization, activate the vitality of urban space, protect the urban context and style, and reshape the spirit of the community. In addition, it can effectively alleviate the problem of urban gentrification as well.



MICRO-RENEWAL PROJECT RENDERING
ROSE-WEST COMMUNITY (SOURCE:RENDERING BY THE AUTHOR)



2. RESEARCH BACKGROUND

According to statistics from the World Bank [1], by the end of 2021, China's urban population accounted for 62.51% of the total population. Although China's urbanization rate is still somewhat different from that of many developed countries (e.g., Hungary, Czech Republic, Switzerland, Germany, France, UK, USA), it has increased by almost 50% compared to China's urbanization rate in the 1960s.

Over the past 60 years, the development of China's cities has focused on the solution to the problem of housing the expanding urban population, the industrialization and modernization of the country's urban infrastructure, and the incremental growth of horizontal urban development. It was characterized by a gradual expansion of the urban landscape, a simple program of inner-city demolition and redevelopment, and a clear distinction of the city's political, economic, and industrial zones. At that time, there was an apparent dichotomy between the new and the old, and as Corbusier depicted in his book, the new city was to be built on flat land [2]. Since the 1990s, many residential areas have been built in the demolished areas of China's major cities, which solved the problems of poor housing and living conditions. At the same time, old city streets and urban systems were refurbished and renovated. In the last decade or so, the scale of cities has gradually expanded, the scale of construction has continued to grow, and building technology has developed rapidly, with over 2 billion square meters of the new building area being added each year in China [3], making the scale of urban construction overgrowing and over a vast area.

01
02





2. RESEARCH BACKGROUND

For a long time, the Chinese government has been trying to improve human living conditions. Since the beginning of the new millennium, China has issued several legal documents related to the renewal of public spaces in old communities to promote urban renewal further and increase the livability of cities. The author summarized the documents in chronological order

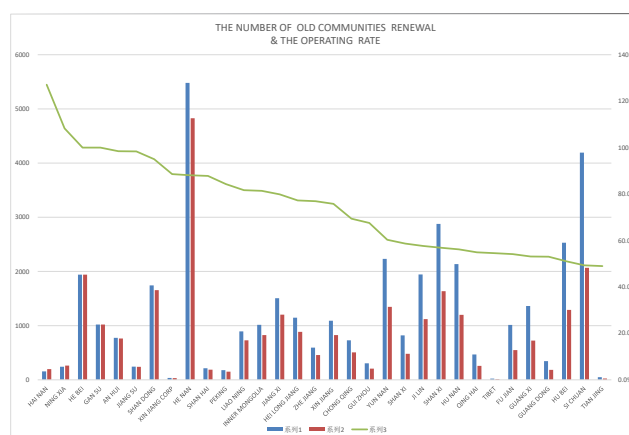
Time	Department	Name of regulation	Details
2007	Ministry of Housing and Urban-Rural Development of the People's Republic of China	About Launching the guidance intention on the improvement and transformation of residential areas	It's the first time to put forward the normative requirements for old community which means the beginning of the renewal of old communities
2008	Government of China	Town and Country Planning Law	The Law stipulates that the concept of new urbanism and smart growth should be incorporated into the national urban construction
2016	Government of China	Several Opinions on Further Strengthening the Management of Urban Planning and Construction	Documents highlight renewal of cities neighborhoods and context
2017	Ministry of Housing and Urban-Rural Development of the People's Republic of China	Guiding Opinions on Strengthening Urban Renewal Work for Ecological Renewal	Document points out the need to improve the quality of the urban environment, and emphasizes the community renewal once again
2019	Urban Renewal Professional Committee of China Urban Science Research Association	Technical standard for comprehensive renewal of old urban residences	The standard marks the guidance for the community renewal of Chinese city should be carried out landscapes traffic system architecture form
2019	Government of China	A State Council Meeting Document	The first time raised the need for civic participation in community renewal projects
2020	Department of Housing and Urban-Rural Development of Hubei Province	The Guidelines for renewal of urban residential areas in Hubei Province	The guidelines describe in detail the goal, principles, scope and organizational, structure, and sources of funding
2020	General Office of the State Council of the People's Republic of China	Guiding opinions comprehensively promoting the renewal of old communities	The document aims at the renovation of old residential areas before 2000, increasing the number of renovations in old communities expanding the scope of renewals. Emphasizing the need of resident participation
2021	General Office of the State Council of the People's Republic of China	14th Five-Year Plan and 2035 vision	The plan shows that China need to speed up the pace of urban renewal, and urban community renewal

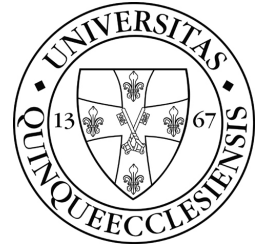
03

04

According to the data on the renovation of old neighborhoods released by the Ministry of Housing and Urban-Rural Development of the People's Republic of China in 2020, thirty-two provinces have already renovated old neighborhoods, and 70% of the renovation projects have been started. From the chart, we can get two conclusions.

1. the scope of community renovation in China is enormous, involving almost all areas of China's inland provinces.
2. the scale of communities is large, and the base of community renovation is vast.





3.STATEMENT

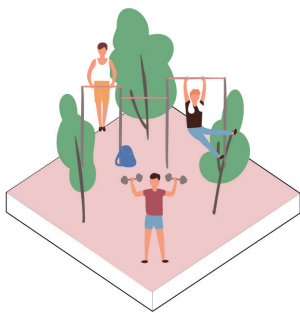
The author combines the traditional community and urban public space construction projects with the "micro-renewal" design concept to combine theory and practice. Through the analysis and summary of the design principles and methods of micro-renewal, as well as the construction methods and technical requirements of public space, it presents urban and community public spaces that integrate functionality, aesthetics, culture, and artistry.

4.THESES

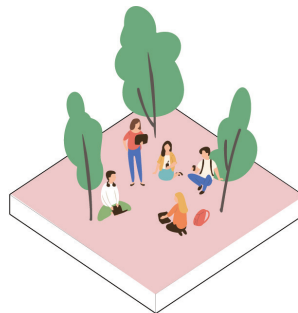


THESIS 1.

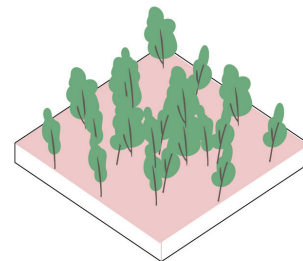
Community public space plays a crucial role as one of the primary places for community residents to interact and engage in activities. However, the quality of public space cannot be measured solely by its scale and quantity. The concept of "micro-renewal" emphasizes the diversity of resident activities as a critical factor in evaluating the quality of public space. Therefore, in the micro-renewal of public space, emphasis should be placed on enhancing the diversity of community public space, including its landscape, entertainment, and interactivity. This approach can improve the quality of life of community residents and the community's overall image, creating a more vibrant and attractive community environment.



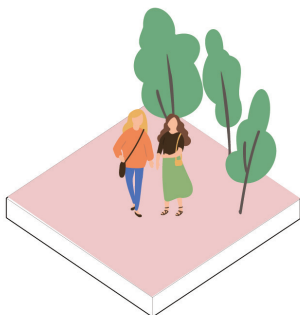
SPORT



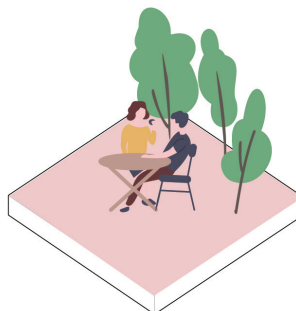
COMMUNICATION



LADNSCPAE



TRAVEL



RELAX SPACE



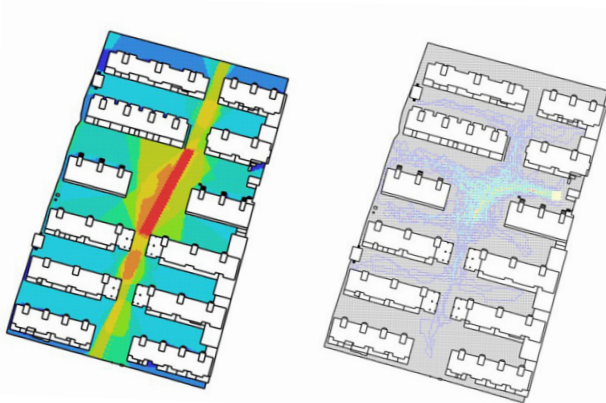
CULTURE

01 | 03 | 05

02 | 04 | 06

Multiple functions of community public space

4.THESES



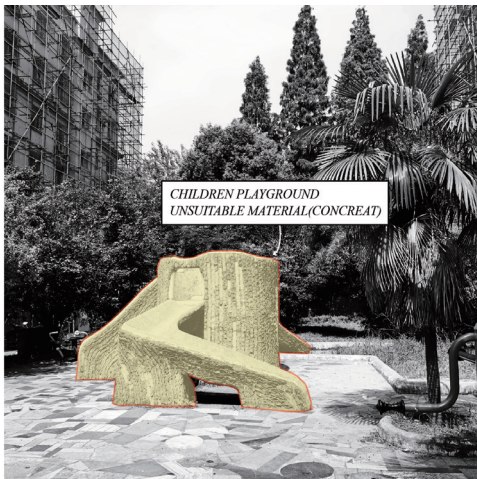
THESIS 2.

Compared to the overall development of a community, micro-renewal places greater emphasis on cultural preservation and integrating cultural elements into the renovation process. From the perspective of micro-renewal, there is a new understanding of cultural preservation for both the community and the city, with cultural heritage being regarded as objects for protection and development during the renovation process and the reshaping of their role in urban life. Micro-renewal of public spaces takes advantage of cultural heritage's protective and functional development to stimulate residents' awareness of community and urban cultures. Based on community consensus, micro-renewal helps build community cohesion and fosters community spirit.



- 01** Analyse before micro-renewal
- 02** Heritage protection (before)
- 03** Heritage protection (after)

4.THESES



01 | 02
03 | 04

THESIS 3.

How to use the brownfields and land stocks is worth exploring from the micro-renewal perspective.

Those lands, abandoned and unfulfilled in development, could be active spaces after the micro-renewal process and provide more public facilities and services to enhance living standards for residents.

In micro-renewal, paying attention to brownfield and stock land and how to increase the value of existing resources is essential. Improve the functionality and quality of the community's stock land through renewal, renovation, optimization, Etc., create a more complete and better community landscape, provide residents with a more convenient and comfortable living environment, and then increase the value of the community's stock land, and promote sustainable development of the community.

4.THESES



THESIS 4.

The community public landscape should be part of the urban block system landscape. Whether it is a medium-sized city or a metropolis, the city's vitality comes from the activities of urban residents in the city, and the factor that affects the activities is that the city will establish blocks that can stimulate public activities.

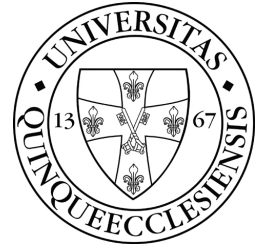


The micro-renewal of the public space in the community should not only focus on the vitality and space quality of the current community but also face the development of the future block to meet the needs of future block life. At present, the micro-renewal is aimed at the spatial quality of the community and serving the residents of the community. In the future, it is necessary to integrate the public spaces inside and outside the community through micro-renewal to form an overall public landscape with vitality and promote the flow of people. In the future urban development process, it is necessary to incorporate the public space texture within the community into the city blocks to deal with the development of the block life in the future city.



- 01**
- 02**
- 03**

4.THESES



THESIS 5.

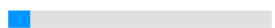
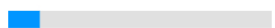
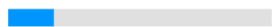



Community spirit and public participation complement each other. The prerequisite for establishing community spirit is to arouse residents' awareness of the community's public spaces and to give residents the right to know, choose and participate. The combination of questionnaire design and participatory landscape design can make Residents' participation in the construction, operation, and maintenance of community public spaces can effectively improve community spirit.





A questionnaire for micro-renewal of the rose-west community


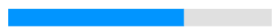

第1题：您的年龄区间/ AGE RANGE [单选题]

选项	小计	比例
20-30	25	 8.33%
31-40	36	 12%
41-50	52	 17.33%
51-60	75	 25%
61-70	76	 25.33%
71-80	36	 12%
本题有效填写人次	300	

第2题：您的性别/SEX [单选题]

选项	小计	比例
男/MALE	152	 50.67%
女/FEMALE	148	 49.33%
本题有效填写人次	300	

第3题：您居住的社区属性/ Community Attributes [单选题]

选项	小计	比例
新社区/Real Estate Community(apartment)	76	 25.33%
老旧社区/Old Community(apartment)	200	 66.67%
自建房/Self-built	24	 8%
本题有效填写人次	300	



第4题：您会在小区的室外空间中活动吗？ / Will you play in community outdoor spaces? [单选题]

选项	小计	比例
不习惯出门/no used to	39	13%
会/yes	41	13.67%
小区内没有室外空间/ there is no enough public space in our community	220	73.33%
本题有效填写人次	300	

第5题：小区内的交通状况如何/ What is the traffic situation in the community [单选题]

选项	小计	比例
差/ bad	129	43%
良好/ good	102	34%
完美/perfect	69	23%
本题有效填写人次	300	

第6题：小区内交通给您带来了哪方面的困扰/What trouble does the traffic in the community bring to you [多选题]

选项	小计	比例
路面破损严重，步行不便/The pavement is badly damaged, making walking inconvenient	243	81%
道路拥挤，车辆第一/Too many cars make the neighborhood unsafe	226	75.33%
雨天泥泞，晴天扬灰/Muddy in rainy days, dusty in sunny days	193	64.33%
本题有效填写人次	300	



第7题：小区内是否有足够的休闲空间/Whether there is enough open space in the community [单选题]

选项	小计	比例
没有/ there dose not have	38	12.67%
有/ there has	73	24.33%
很少/ there has but not to many	189	63%
本题有效填写人次	300	

第8题：小区内部有没有足够的植被/Whether there is enough vegetation inside the plot [单选题]










选项	小计	比例
有，但很乱/yes,there has,but landscpae is chaos	180	60%
有，但觉得没用/ yes,there has	60	20%
没有，我自己在家种花/ no there dose not have	45	15%
不关心 sorry i don't care about it	15	5%
本题有效填写人次	300	

第9题：社区内的历史文化 有无挖掘、保存的必要？/Whether there is a need to dig and preserve culture heritages in the community [单选题]



选项	小计	比例
有/ yes there has	150	50%
没有/ no there is doesn't have	150	50%
本题有效填写人次	300	



第10题：您认为本小区公共空间中最急需改造的是哪方面的设施/Which facilities do you think are most in need of renovation in public spaces of the community [多选题]

选项	小计	比例
绿地系统/ Landscape	269	 89.67%
道路系统/ traffic system	282	 94%
安全系统/ security system	93	 31%
建筑外立面/buildings facades	135	 45%
地下管网系统 /pipe system	80	 26.67%
儿童游乐设施/ Children's facilities	239	 79.67%
社区文化活动设施/	264	 88%
停车场/ parking lots	269	 89.67%
老年人活动设施/Activity facilities for the elderly	222	 74%
本题有效填写人次	300	

第11题：您是否参与过社区志愿活动/Have you participated in any community volunteer activities [单选题]

选项	小计	比例
是/yes	150	 50%
否/no	150	 50%
本题有效填写人次	300	



第12题：您是否认为社区可以采取措来促进居民之间的交流和互动/Do you think the community can take measures to promote communication and interaction between residents [单选题]

选项	小计	比例
是/yes	150	50%
否/no	150	50%
本题有效填写人次	300	

第13题：您是否愿意参与社区微改造的工作（举例）/Are you willing to participate in the community microtransformation work [多选题]

选项	小计	比例
参与设计和建设的管理/Participate in the management of design and construction	69	23%
参与社区日常的管理/Participate in the daily management of the community	118	39.33%
参与社区景观的种植/Participate in the planting of community landscape	120	40%
不参与/Non-participation	3	1%
本题有效填写人次	300	

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