

Case Study Report

Urban Old Community Renewal and Governance Path from the Perspective of Micro-renewal

A Case Study of Chongqing Jijiang Peninsula

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Abstract

With the arrival of the post-epidemic era, China's urban development has changed from rapid incremental expansion to a high-quality development stage, and the old community renewal has changed from simple material space research to a comprehensive study of material and social coupling. Due to the late exploration of reconstruction, the lagging renewal theory and mechanism, and the slow process, Chongqing is faced with the severe task of old community renewal and governance. Based on the concept of micro-renewal, this paper identifies the main problems of community renewal through the satisfaction survey of the community, and establishes the asset base and problem library of community renewal based on the results of field survey. Aiming at the problems of ecology, culture and livelihood of the old community in Jijiang Peninsula, this paper puts forward the renewal and governance path of the combination of structural renewal and unit governance, and dynamically tracks and promotes the implementation of community renewal through the recent and long-term construction projects, in order to gradually improve the living environment level of residents in Jijiang Peninsula communities, so as to explore a new path of renewal and promotion of old communities in Chongqing.

Keywords

micro-renewal, old community, community renewal, community governance ,China

1. Introduction

The core document, adopted by Habitat III, emphasizes the important role of urban culture and heritage in building an inclusive city. When the overall world urbanization rate reached 54 percent, the overall global economic development slowed down. China's urbanization rate has reached 60.6% in 2019, and urbanization development has entered the new normal. In the past, the value concept of production as the development guidance is gradually declining, and the concept of "people-oriented and life-oriented" has gradually become a consensus. Communities are human groups and their fields of activities with certain kinds of interactive relations and common cultural maintenance. The current background of the community renewal has changed from the simple material space transformation to the comprehensive renewal and governance of the "material space + social space". The concept of micro-renewal continuing from the organic renewal can provide ideas for the renewal and governance of urban old communities.

Mountain urban community is an urban social settlement unit located in mountainous and hilly landscape, and it is a kind of urban community with typical characteristics. The community spatial layout of Chongqing has obvious mountain characteristics in various historical development periods, with industrial development, population agglomeration, complex transportation and dense space. Coordination with landscape and limited survival is a basic problem frequently encountered in Chongqing

micro-renewal, which is the basic problem frequently encountered in Chongqing micro-renewal. In September 2020, Chongqing Housing and Urban-Rural Development Commission issued the Chongqing Urban Renewal Work Plan, we will emphasize the further transformation, upgrading and transformation of urban stocks in old residential areas, old industrial areas and traditional business areas, and adhere to organic renewal on the basis of sustainable development. In recent years, the research of mountain urban communities is increasingly rich, but it mostly focuses on the material spatial environment of mountain urban communities, cultural value, ecological value and religious belief with the potential of other characteristics, the urbanization development led by incremental expansion in the past, made Chongqing ignore the attention to the livability and comfort of the micro daily living space in the long-term rapid expansion. Meanwhile, with the continuation of Chongqing's urbanization process, the scope of built-up areas will be further deepened, crossing mountains and rivers, integrating old and new areas, and the urban functional structure will change accordingly. It is urgent for urban and rural planners to adopt a new perspective to identify the characteristics of old urban communities and propose targeted coping strategies.

2. Diagnosis of problems in Jijiang Peninsula Communities

Jijiang Peninsula, an important gateway along the river in southwest Chongqing, is located in the core development area of the one-hour economic circle, which carries important residential, characteristic trade and tourism service functions. The peninsula has prominent form, profound cultural deposits, complete urban texture, small degree of destruction and high spatial value.

Name of the community	Xiaoximen	Dongmen	Chengnan	Jihua3539	Xiaoshizi	Dashizi	Nanmen	Changfeng	Desheng	Binjiang	Langshan	Qiaonan	Daximen	Tonglaimen	Sipailang
Old-age service facilities	60.00%	14.29%	36.36%	22.22%	22.22%	40.00%	37.50%	0.00%	20.00%	18.18%	9.52%	0.00%	27.27%	16.67%	0.00%
Children's activities facilities	40.00%	42.86%	27.27%	33.33%	22.22%	0.00%	37.50%	33.33%	20.00%	0.00%	19.05%	16.67%	9.09%	0.00%	0.00%
Accessible facilities	60.00%	28.57%	36.36%	0.00%	22.22%	10.00%	0.00%	33.33%	10.00%	18.18%	19.05%	16.67%	9.09%	16.67%	0.00%
Cultural services	20.00%	28.57%	45.45%	22.22%	33.33%	10.00%	12.50%	0.00%	10.00%	9.09%	9.52%	16.67%	0.00%	16.67%	0.00%
Medical service facilities	60.00%	28.57%	9.09%	11.11%	22.22%	0.00%	12.50%	33.33%	10.00%	9.09%	9.52%	0.00%	4.55%	0.00%	0.00%
Public toilets	20.00%	14.29%	18.18%	22.22%	22.22%	10.00%	12.50%	33.33%	10.00%	18.18%	9.52%	0.00%	13.64%	0.00%	0.00%
Greenfield Square	20.00%	42.86%	45.45%	11.11%	22.22%	50.00%	12.50%	0.00%	30.00%	0.00%	4.76%	0.00%	0.00%	0.00%	4.76%
kindergarten	0.00%	0.00%	0.00%	33.33%	22.22%	10.00%	25.00%	33.33%	20.00%	0.00%	4.76%	16.67%	9.09%	0.00%	4.76%
Shopping and entertainment	20.00%	0.00%	9.09%	22.22%	0.00%	20.00%	0.00%	0.00%	0.00%	18.18%	9.52%	16.67%	4.55%	0.00%	0.00%
Community administration	20.00%	28.57%	27.27%	0.00%	22.22%	10.00%	0.00%	0.00%	0.00%	18.18%	4.76%	0.00%	4.55%	0.00%	0.00%
Farmer's Market	0.00%	14.29%	9.09%	22.22%	11.11%	20.00%	12.50%	0.00%	0.00%	9.09%	9.52%	16.67%	4.55%	0.00%	0.00%
Schools	0.00%	14.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.76%	0.00%	4.55%	0.00%	0.00%
Sanitation facilities	20.00%	14.29%	0.00%	11.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Gas Supply	0.00%	14.29%	9.09%	11.11%	0.00%	0.00%	0.00%	0.00%	0.00%	9.09%	0.00%	0.00%	0.00%	0.00%	0.00%
Water supply	20.00%	14.29%	0.00%	11.11%	0.00%	0.00%	12.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Power supply	0.00%	14.29%	0.00%	11.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percentage of dissatisfaction	22.50%	19.64%	17.05%	15.28%	13.89%	11.25%	10.04%	10.42%	8.13%	7.95%	7.14%	6.25%	5.68%	3.13%	0.60%

Figure 1. Satisfaction survey of old communities in Jijiang Peninsula. Source: Author Self-Made.

①The landscape space is blocked, and the green space environment is missing

The urban area accelerates the expansion of the river to the north, its building height blocks the Aiping Mountain, and the old city of several rivers has become the barrier of the landscape corridor. At the same time, the urban space of the new city in the eastern part of the Jijiang Peninsula occupied the Aiping Mountain, and the ecological corridors on both sides of the several rivers were blocked, reducing the ecological service function of the old city.

② Old buildings and low living environment

Most of the buildings in Jijiang Peninsula are shabby, more than 70% of them were built before 2000. The safety risks of existing building are large, the overall space is dilapidated, the building is dense and mixed, poor ventilation, extremely crowded, monotonous, closed, will make people have anxious, irritable, angry, disappointment and other nervous psychological state.

③ Daily life service facilities are uneven and insufficient space for public activities

Highly chaotic and disordered communities in public spaces often lack the resources to actively promote exercise and health activities. The waterfront commercial atmosphere of Jijiang Old Town is good, but the distribution of service facilities is unbalanced, uneven spatial distribution, lack of community cultural activity venues, and serious lack of open space.

④ The traffic network is blocked, and the walking environment experience is poor

First of all, there are many interrupted roads, there are many high-frequency traffic jams, a large number of branch roads get a poor environment, serious noise and air pollution. Secondly, parking facilities are tight and often occupy sidewalks, resulting in incoherent walking roads. Finally, the pedestrian street greening environment is poor, less business on both sides of the road, the vitality of space is low.

⑤ The population structure and distribution are unbalanced, with insufficient regional viability

The average living area in the waterfront area of the old communities is only 24.35 m^2 , which is lower than the national average level in China. And the population distribution is too concentrated, while there is still a large space in Binjiang New City, with the mismatch between population and housing distribution, which brings great difficulties to community governance.



Figure 2. Disordered landscape pattern. Source: Author Self-Made.

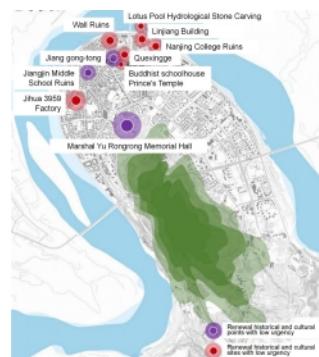


Figure 3. Idle cultural sites. Source: Author Self-Made.

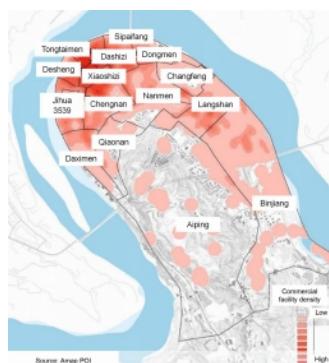


Figure 4. Uneven facilities. Source: Author Self-Made.

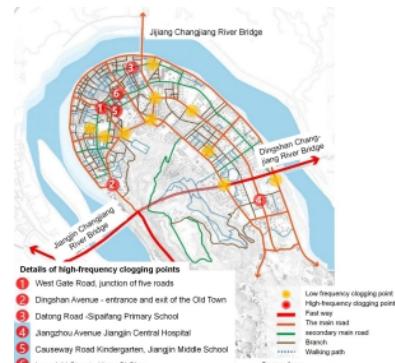


Figure 5. Blocked traffic system. Source: Author Self-Made.



Figure 6. Missing public facilities. Source: Author Self-Made.

Problem index library	Ecological landscape	Public space	History culture	Industry distribution	Transportation network	Public service	Land capacity	Community governance
Normal	<ul style="list-style-type: none"> The connection between the mountains and the water is not smooth Waterfront treatment is negative Mountain space destruction The city interface is monotonous 	<ul style="list-style-type: none"> There is a lack of green space in the old town Space is idle 	<ul style="list-style-type: none"> Cultural characteristics are not obvious There is little space for cultural activities 	<ul style="list-style-type: none"> The distribution of industry is unbalanced The cultural industry is lacking Industrial remains are idle 	<ul style="list-style-type: none"> Traffic jams Walking is not convenient The walking experience is poor Parking spaces are in short supply 	<ul style="list-style-type: none"> The quality of service facilities is low and the service facility is missing 	<ul style="list-style-type: none"> Imbalance in population distribution The land use index is contradictory 	<ul style="list-style-type: none"> Public space is poorly managed There are too many old buildings Community governance is difficult
Urgency	● ● ● ●	● ● ●	● ●	● ● ●	● ● ● ●	● ●	● ● ●	● ● ●

Note: Red represents high urgency, yellow represents average urgency, and green represents low urgency

Figure 7. Old Community Problem Library of Jijiang Peninsula. Source: Author Self-Made.

3. Structural renewal and unit governance policies

In a comprehensive survey of old city waterfront assets, systematically on the basis of its spatial structure, according to the current old city waterfront regional structure imbalance, space and management contradiction and idle core problems, put forward the micro renewal strategy framework system, namely through structural renewal to solve the three major spatial structure problems of health support ecological, cultural and life. It is emphasized that the renewal unit and the unit guidance should be redivided by the means of unit governance, so as to deal with the contradiction and association between "people-space-service" and to bridge the planning and governance.

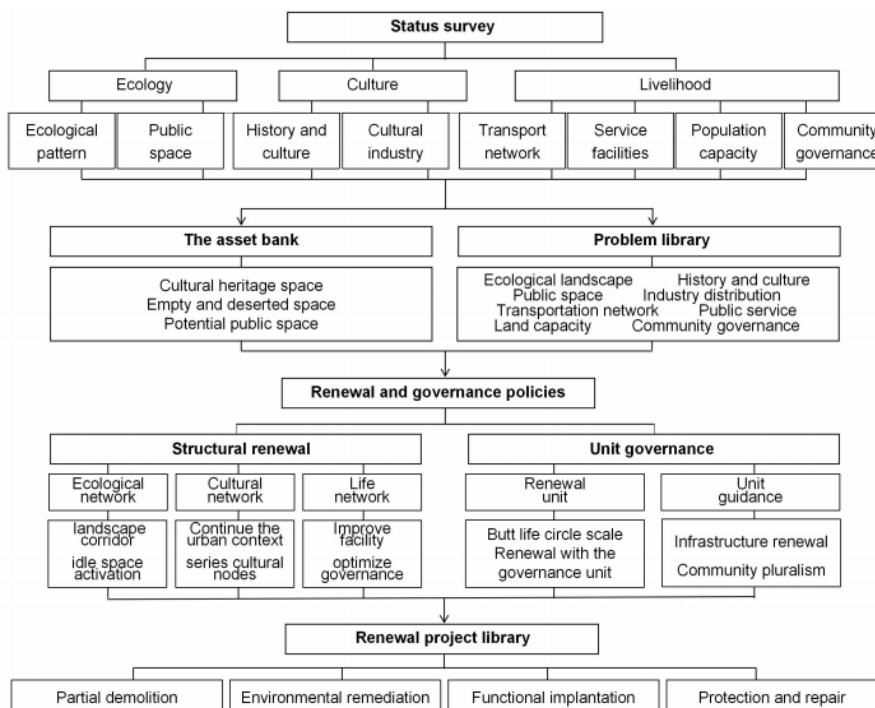


Figure 8. Urban old community renewal and governance path framework. Source: Author Self-Made.

3.1. Structural renewal

(1) Ecological network repair

① Attach great importance to ecological restoration and strengthen the landscape connection

The fresh air and comfortable amphibious wind in the waterfront are conducive to maintaining the metabolism of material and energy inside and outside the body during exercise, we need to make full use of the blue and green resources in the waterfront area. At the macro level, we will protect sensitive resources such as mountains and forests on the Peninsula, and combine engineering technology with biological measures to improve hardening and revetment and restore natural waterfront ecological space. At the micro level, relying on landscape corridors and idle space, nine green spaces are added to create an urban waterfront landscape green belt integrating ecology, recreation and multi-functional landscape.

② Activate idle space to creates public space

First of all, promote the compound land use, make full use of street corners and building adjacent space, and increase open functions such as commercial, entertainment and leisure. Then add multi-angle viewing level, increase the experience space of water affinity and water, optimize the revetment landscape design and repair part of the hardened revetment. Finally, increase small scale space for conversation and assembly, add strip runways with dotted fitness facilities to meet the needs of diverse activities.

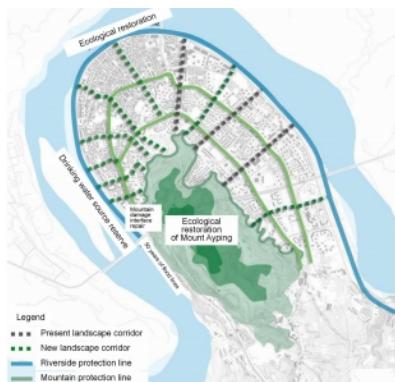


Figure 9. Landscape pattern restoration. Source: Author Self-Made.



Figure 10. Added Green space space. Source: Author Self-Made.

(2) Cultural network connectivity

① Build a compound street network around the cultural core

We will build an ecological network, with mountains as the core, and connecting existing parks and street green spaces with green belts. We will improve the living network, improve the quality of public space services, and form a complete supporting living network. We will improve the cultural network, sort out cultural nodes connecting city wall sites, temples, pavilions and industrial heritage, and connect the community cultural network.

② Explore the historical value and continues the urban context

In terms of space structure, through the sorting and excavation of the cultural points of Jiangjin, a "one horizontal and three vertical" cultural network system with literati road as the core line, ancient and modern road, Shuai township road and military road as the secondary lines is formed. In terms of space, choose the current road that can connect the cultural relics of the old city, improve the landscape sketch, shop recruitment, signs, pavement and other unified renovation, and enhance the accessibility and walking comfort of each historical resource point.

③ Multi-activity implantation to rich in modern culture

By building an international marathon, we will stimulate the enthusiasm of national fitness, introduce music festivals, street concerts, community concerts and other activities to enhance the vitality of the new city. At the same time, formulating a "community interaction day" for each community and holding regular parent-child activities can effectively stimulate the enthusiasm of residents.

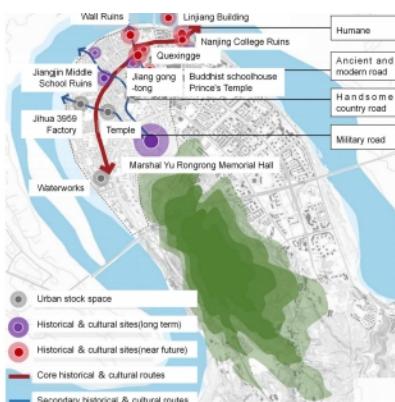


Figure 11. Cultural network construction. Source: Author Self-Made.



Figure 12. Riverside activity implantation. Source: Author Self-Made.

(3) Life network enhancement

① Unblock the transportation network and improve the walking environment

A large-scale parking and transfer system will be built on the edge of Jijiang City, and the outer towns, suburbs and outer suburbs will enter the city through transfer buses. Connecting the walking network with sidewalks, lanes, ladders, etc., making full use of the building's one-story overhead floor and the development of the inner road of the district. Supplement the ground paving, seats, green plants and other facilities mainly with squares and pedestrian streets, and to enrich its surrounding business forms.

② Improve facility configuration and service quality

By combing the existing riverside landscape trail, form a continuous urban landscape jogging path through the riverside road; construction of overhead riverside observation deck to meet the needs of the public to view water, while using as a small sports space node; increase the walking passage to the waterfront space, highlight the important function of the main riverside traffic belt.

③ Create a livable community to serve home care

First of all, to improve the community facilities suitable for activities for the elderly, such as in the elderly residential design, decoration or renovation, to provide more ramps, wider channels for the wheelchair through, and strong handrails installed beside the bathtub. Secondly, build an internal service system to provide diversified and personalized services suitable for different health stages and various care needs according to the different needs of the elderly in the community. For example, to provide day care, dietary provision, activity center and other daily needs of the elderly services. Finally, community cultural and sports organizations were established, introduce social welfare organizations, and carry out rich and colorful community activities.



Figure 13. Walking improvement.
Source: Author Self-Made.



Figure 14. Increased facilities.
Source: Author Self-Made.

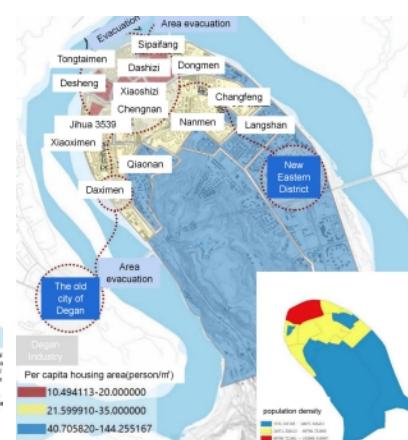


Figure 15. Community adjustment.
Source: Author Self-Made.

3.2. Unit governance

(1) Renewal unit control

① Connect with the scale of life circle and reset the renewal unit

"Life circle" refers to the spatial scope or behavior space formed by residents' home-centered activities, including shopping, leisure, commuting, medical treatment and social exchanges. Six renewal units, determined by the 15-minute life circle, with the theme of livable life, industrial transformation, cultural life, light rail portal and the eastern new town, to connect the scale of life circle with the scale of the renewal unit. First, we use the community size evaluation principle and method to calculate the

community size; then compare the unit size of the community to be adjusted and the related community; finally, use the conversion formula and division principle to obtain the area and new boundary to be adjusted.

② Divide the renewal level and clarify the principal responsibilities

The renewal subject of the waterfront area of the old city of Jijiang is divided into three levels, and finally the implementation management responsibility system led by the government and supervision and guidance by streets and communities will be formed. At the same time, social forces are mobilized to encourage social units to participate in the renewal and reconstruction of old residential areas in various forms. The first level focuses on updating the major urban projects such as overall transportation structure and cultural facilities, with the relevant departments of the Jiangjin district government; the second level focuses on cultural line repair, quality improvement of public space, and the Jiangjin district offices; the third level focuses on community renewal, community governance and other content, by 15 community neighborhood committees and social organizations jointly supervise and guide, with the government-led implementation.

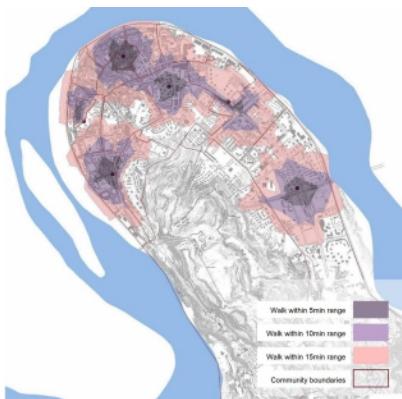


Figure 16. Life circle range simulation. Source: Author Self-Made.



Figure 17. Community boundary optimization. Source: Author Self-Made.

(2) Unit guidance

① Identify population characteristics with differentiated renewals

Thirteen of the 15 communities on the Jijiang Peninsula showed significant characteristics of differential population composition, including three categories: population aging, population mobility, and rural population migration. Among them, 7 communities with high aging rate include Binjiang community and Dashizi community and so on, Langshan community and Xiaoximen communities with more rural population, and 4 communities with Dashizi community and Daximen community with high population mobility. In view of their own characteristics, give full play to the advantages of current assets, and adopt the governance strategy of improving community environmental facilities, building internal service system, and enriching community cultural activities.

② Adopt a diversified community governance approach

First of all, strengthen the construction of community legal system, reasonably adjust the functions of sub-district offices, clearly define the development of residents' committees, and accelerate the development of civil social organizations. Secondly, build the volunteer service mode, encourage residents to voluntarily join the neighborhood committee to simplify their functions, set up a special service window to strengthen enterprise contact, and enhance residents' awareness of community. Finally, hold regular working meetings of the leading group members, establish an information submission system, so as to improve the efficiency of the renewal projects.

③ Establish an renewal project library to dynamically control implementation process

Finally, the strategy is combined to form a library of four types of 33 community renewal projects on a micro scale, which are controlled by four update models, namely, partial demolition, environmental remediation, functional implantation, protection and repair, so that the purpose of clearly updating the project and dynamically managing the governance process can be achieved.

- A total of 103 hectares were updated
- About 2.17 million square meters of construction was involved
- About 670,000 square meters of the building can be demolished

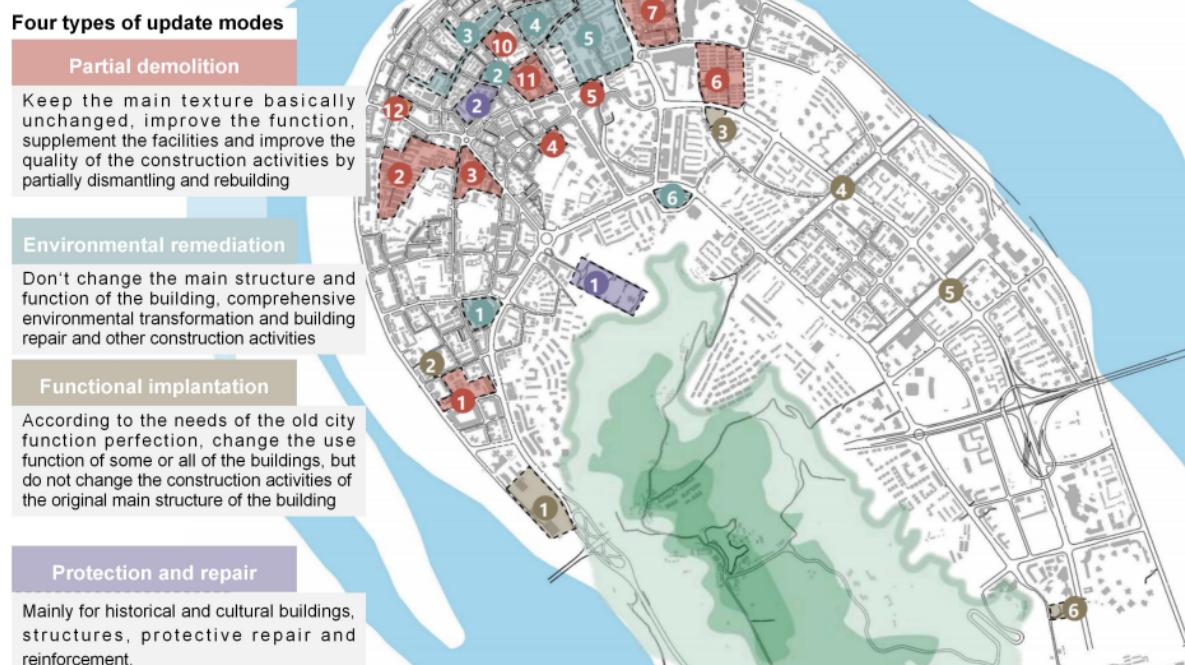


Figure 18. Four types of renewal mode project libraries. Source: Author Self-Made.

4. Conclusion and Discussion

Clarifying the actual demands of community residents is the primary problem facing the renewal of urban old communities. This paper combs the ecological, cultural and life problems of urban old communities, conducts field research and analysis, understands the practical needs of community residents, summarizes the existing asset bank and problem library of urban old communities, clarifies the core problems of their renewal and governance, and finds the asset bank that can be borrowed.

Based on the above, the overall renewal idea can be clarified, the corresponding renewal and governance objectives can be targeted, and on this basis, the comprehensive strategy of structural renewal and unit governance can be adopted. Structural renewal highlights the problems of ecological network, cultural network and life network of the community, focusing on the micro renewal of material space, forming a complete renewal project library and detailed renewal guidance to ensure that micro renewal objectives are clear and implemented. Unit governance emphasizes planning connection, divides different renewal levels for community renewal units and unit guidance, clarifies responsibility subjects, and builds a multi-participation renewal governance platform to ensure the implementation of structural renewal strategy.

The author believes that micro-renewal is not only concerned about the small on the spatial scale, should also be reflected in the service population, the degree of transformation, problem-solving, service to fine into the micro, the implementation of the project to be gradual, the problem to be wire-stripped, need to

have a small focus on embroidery efforts, in order to gradually solve the overall problem of community renewal and governance.

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