

Sustainable Renewal of the Old City: Planning Practices and Institutional Innovation in Suining, China

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Abstract: In recent years, the state has placed great emphasis on the construction of ecological civilization and has launched a new exploration of territorial space planning and construction in all places. At present, there are problems in functional layout, infrastructure, features, system management, etc. It is necessary to play a leading role in planning to solve the problems left over by history in the development of the old city. Suining city is surrounded by mountains and rivers, with beautiful urban scenery and a long history of old city construction. Therefore, Suining city insists on taking ecology as the core and promotes renewal with ecology, forming a road of old city renewal with Suining characteristics. This paper focuses on summarizing the experience and mode of urban renewal in Suining City, and it also puts forward some suggestions for future urban planning and development.

Keywords: Old city renewal; Renewal planning; Ecological governance; Smart city

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1. Introduction

1.1. Research background

In recent years, the state has placed great emphasis on the construction of ecological civilization, and tries to restore and improve the city with systematic ecological management means, drive the sustainable development of the city, and promote the vitality of the city. In 2022, the Ministry of Ecology and Environment and 18 other departments jointly issued *the Opinions on Promoting Functional Departments to Do a Good Job in Ecological and Environmental Protection*, which again put forward the policy of further strengthening the ecological and environmental governance system with clear rights and responsibilities, coordination and linkage, and joint management. As an important part of the city, the old city has faced many problems restricting the development of the city, such as insufficient supporting facilities, low construction quality, insufficient innovation vitality,

insufficient supervision and management, and old systems and policies. In the 20th National Congress of the Communist Party of China requirements, the government must build a modern industrial system and promote regional coordination. At the same time, the government must implement urban renewal actions to build livable, resilient, and smart cities. Therefore, it is extremely necessary to implement the renewal of the old city, solve the problem of urban renewal, and break the dilemma in the development of small and medium-sized cities.

Suining city riverside, attaches great importance to the construction in planning and ecological civilization construction, since the pilot “sponge city” in 2015, “city double repair” concept as the core, to carry out the ecological civilization construction at the same time, began to explore the road of Suining city ecological civilization construction, and gradually formed the characteristics of ecological environment protection with Suining planning system, and has achieved good construction effect. In recent years, Suining city has been exploring the planning path and way of its old city, and has walked out of a road of ecological renewal belonging to Suining.

1.2. Research on the renewal of the old city in China

In recent years, there has been a lot of research on the renewal of old cities in China, and the problem of old cities is also quite common. In order to clarify the direction of advanced research in related fields in China, articles with relevant funding projects over the past 10 years were selected as the background, and the keyword “old city” was selected and sorted by relevance. The top 500 articles were selected for research and analysis. As is seen in **Figure 1**, in recent years, key research has shown a stable trend. In 2016, due to the impact of “housing does not stir fry”, relevant research decreased, but gradually rose to a peak in 2021. Afterwards, due to the impact of the epidemic, there was a slight decrease (2022 data is currently incomplete). It can be said that China’s research on the renovation of old urban areas has been relatively comprehensive.

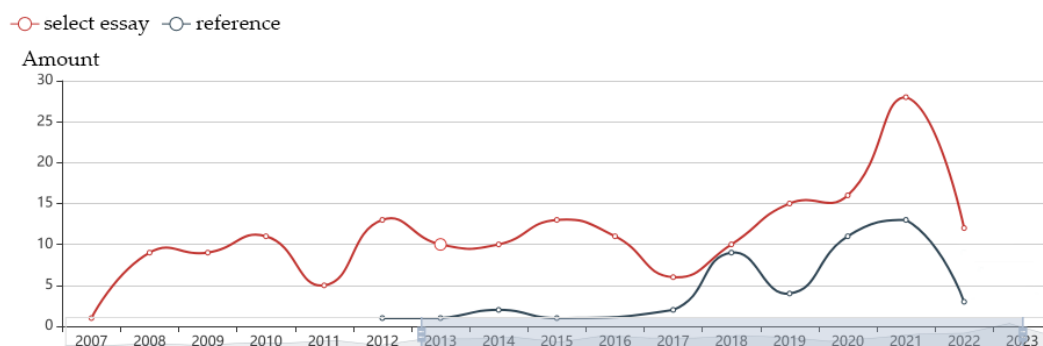


Figure 1. Amount of research on the direction of urban renewal in China in recent years (Source: Self-drawn)

Through data analysis and understanding in **Table 1**, the keywords in the old city are relatively close, and the main summary is made. Nanjing, Shanghai, and Guangzhou are the main urban representatives. There are many trivial Spaces in the reconstruction of the old city, with industrial plants still abandoned, and the elderly are also the population group of the old city. The transformation of its space cannot be separated from the improvement of infrastructure and the shaping of open space. Therefore, the integration of industry and city, space construction, space accessibility, pension facilities, and landscape gardens are the main research topics of the old city renewal.

Table 1. Keyword analysis by Citespace

Keyword	Begin	End	Strength
Industry and city integration	2013	2016	1.283
middle-sized and small cities	2013	2014	0.9996
Protection	2014	2016	1.7098
Influencing factor	2015	2019	1.4431
Urban space	2016	2017	1.282
Nan Jing	2017	2019	1.8362
Landscape architecture	2019	2021	1.9357
Shared bike	2019	2020	0.9331
Spatial syntax	2020	2021	2.8392
Urban renewal	2020	2021	1.1458

From the perspective of the authors, there are many authors in China whose relationship and research trend can be seen in **Figure 2**, so although the keywords are closely related and the theme direction is clear, the authors are independent of each other. With the research circle of Zheng Zhicheng, Zhou Chunshan, Shen Zitong, and other academic experts as the core, the relevant research has certain reference value.

Bian Yan, Zhou Chunshan, and Gao Junbo et al. study the old city population change, spatial evolution, housing selection, basic services, based on the update of Guangzhou is given priority to, the study puts forward an aging population will continue to spread to urban center, urban public service facilities spatial distribution overall low, and overall comprehensive fair level is lower than most of the single class facilities comprehensive fair level, system, location factors, family environment influence to buy a house, but to buy a house also has a certain centripetal ^[1-4].

Zheng Zhicheng and others focus on the accessibility of the core public service facilities in the old city, such as landscape, medical treatment, while taking full account of carbon emissions, Zhang Lijun, Zheng Zhicheng, and Rong Peijun et al. based on the research of Arcgis, POI capture and walk score algorithm, it is proposed that the spatial distribution mode of daily facilities is quite different, and the uniform distribution, circle distribution and gradient distribution coexist, and the standard of large composite in hospitals ^[5-8]. Urban villages, returning communities, and communities used in mixed residential and industrial sections are the focus of optimization and adjustment of the accessibility of daily service facilities. Finally, his research on the carbon emission of travel will bring a good reference to the reconstruction of the urban living space environment.

Zhou Suhong, Xie Miao, and Fu Chenbo et al. study the old city commercial space and consumption activities is given priority to, the city center and the original unit community aging and old city reconstruction and the new development zone of different elderly space agglomeration migration is the main motivation, built environment is the primary factor affecting the retail business center, commercial network density, land use mix density, bus and subway station density, commercial center location characteristics, distance to the city center variables to the formation of various types of commercial center ^[9-12].

Wang Yueqi, Wang Shadong, Yao Chong, and Peng Xiaosong et al. conducted research to improve the degree of intelligent service in the old city ^[13-17]. From multiple perspectives, it discusses how to embody the

friendly design in public facilities at three levels: material-friendly, environment-friendly, and people-friendly. The integrated development of smart industry and smart city is reflected in the integration of influencing elements, process integration, spatial integration, and strategic integration between smart industry and smart city. From the national, local governments, the practical operation of the three levels of solutions.

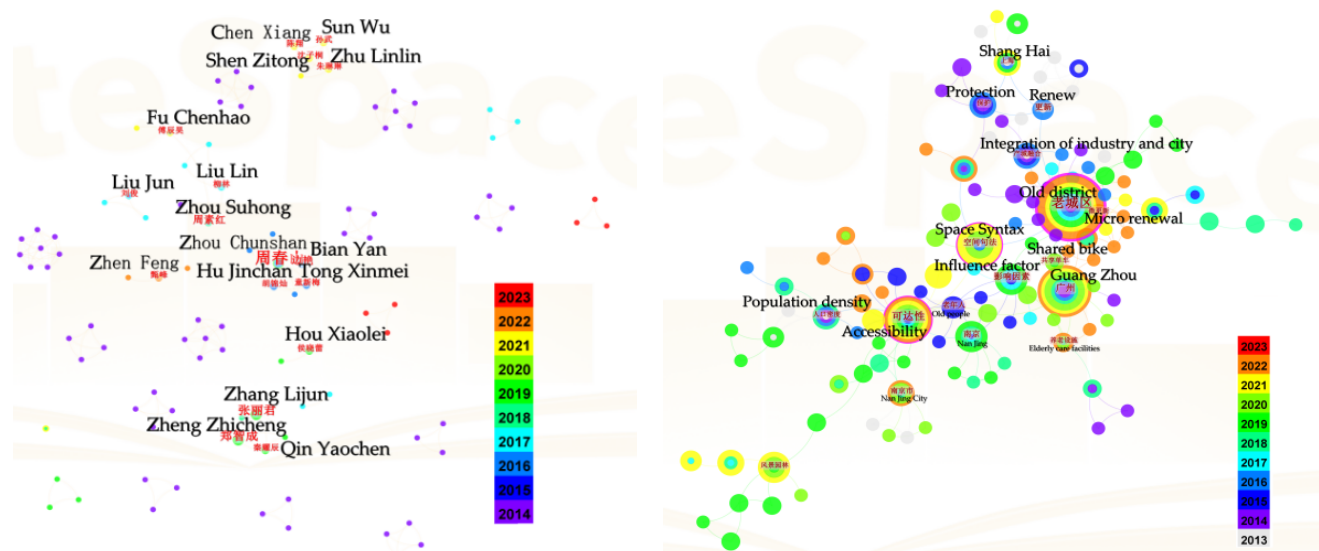


Figure 2. Amount of research on the direction of urban renewal in China in recent years (Source: Self-drawn)

2. Materials and methods

2.1. Methodology

The study adopted a mixed methodology. The study mainly uses the literature collection method, expert analysis method, and field investigation method. Using the subjective and objective comprehensive research and judgment, the main problems and the main indicators of the construction of the old city are identified. Collecting and screening the urban and rural planning and technical documents compiled by the government in the past decade were collected and screened. Based on CITESPACE literature analysis, the latest research field and achievements in China analyzed the advantages and disadvantages, and existing problems in Suining. At the same time, according to the basic drawings and drawings of CAD, satellite map data and field research and analysis were collected to think about the spatial accessibility, infrastructure service function, and the effect of urban green space planning and construction, using the hierarchical analysis method to comment on its construction performance. The effect of stratified discussion was adopted, the urban construction characteristics of Suining were interviewed by experts and citizens, and the keywords were selected to interpret and analyze relevant conclusions.

2.2. Description of the study area

Suining is located in the east of Sichuan province, covering an area of 5,325 square kilometers. It is about 150 kilometers away from both Chengdu and Chongqing, taking about one hour by high-speed rail, which is an important node city and a secondary comprehensive transportation hub between Chengdu and Chongqing. The Fu Jiang River runs across the city, and two mountains are on the left and right sides of the city, which brings beautiful scenery and forms two core scenic spots. Suining is a hilly low mountain area in the middle of the Sichuan Basin, rich in rivers, creatures. Suining is actively building a strong green economy city, and tries its best to form an eco-

environmental protection system. Suining City has a beautiful natural environment, and it's a city with beautiful scenery surrounded by mountains and rivers. The Sichuan Provincial Government has added Suining to the Chengdu Economic Circle and clearly supports constructing Suining to build a strong green economy city on the main economic axis of Chengdu-Chongqing.

3. Results and discussion

Under the leadership of successive Party committees and governments in Suining, with the goal of building a national ecological civilization demonstration city, Suining City has been approved as “National Sponge City Construction Pilot”, “Provincial Park City Construction Pilot”, “Provincial City Organic Renewal Pilot”, and so on. At the same time, it took the lead in the construction of a landscape garden city, with green development through planning and construction. The warm and pleasant natural ecological environment, colorful riverside park, and comfortable and livable cultural environment are praised by tourists. At present, a number of planning and construction implementation plans have been completed in the old city, focusing on the improvement of residential areas, sponge construction, improving the quality of parks, and park construction, road sponge, and shantytown reconstruction in an orderly manner.

3.1. Forming an ecological planning, construction, and construction management system at the core of the ecological construction system

“Ecology”, as the core, runs through the whole process of the construction and management of renewal. The systematic overall management of ecological and environmental protection governance is the spiritual basis of the city's green meaning and deep memory of tourists, and it is also the top priority of urban renewal. Through the planning and design of different levels, constantly improve the ecological space of urban and rural space in the central urban area, highlighting the characteristics of “ecological” of urban and rural space. Since 2014, Suining City has completed 27 ecological coordination planning projects related to the municipal and central urban areas. According to the division groups of the master plan of the central urban area, there are 58 projects of green space at each group level. Besides, a total of 62 major urban park and road landscape renovation projects have been completed. In 2020, the requirements for the renovation and upgrading of urban and rural stock space have greatly increased, with the number of block adjustments for urban detailed planning projects reaching a total of 64. The outline of the main work is shown in **Figure 3**. Although these projects are not directly related to the green space, their space directly affects the continuity of the green space system, so statistics are made on this basis. Detailed data can refer to **Figure 4**, the data from 2023 until October 31.

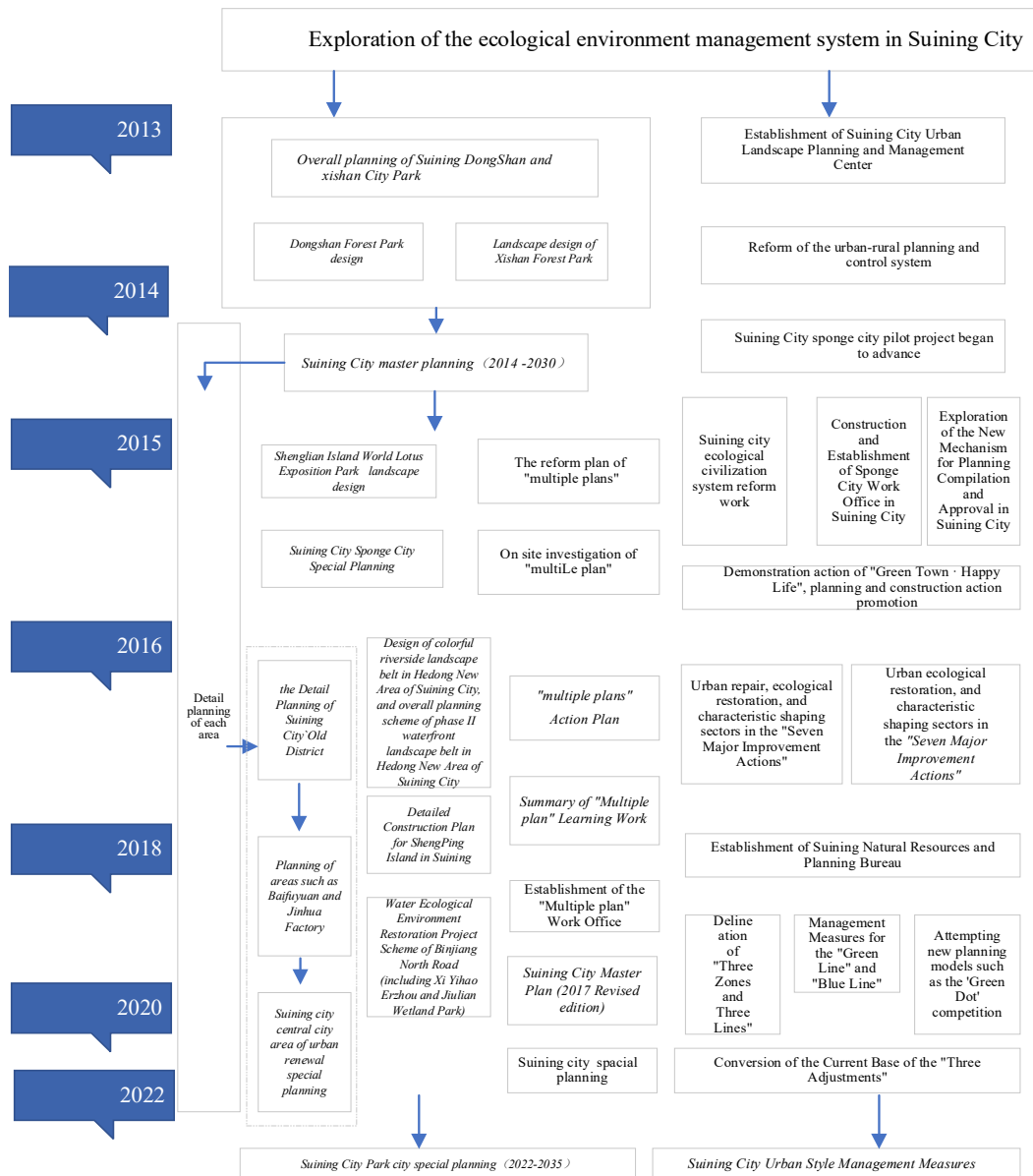


Figure 3. The exploration of ecological environment system governance in Suining City (source: Self-drawn)

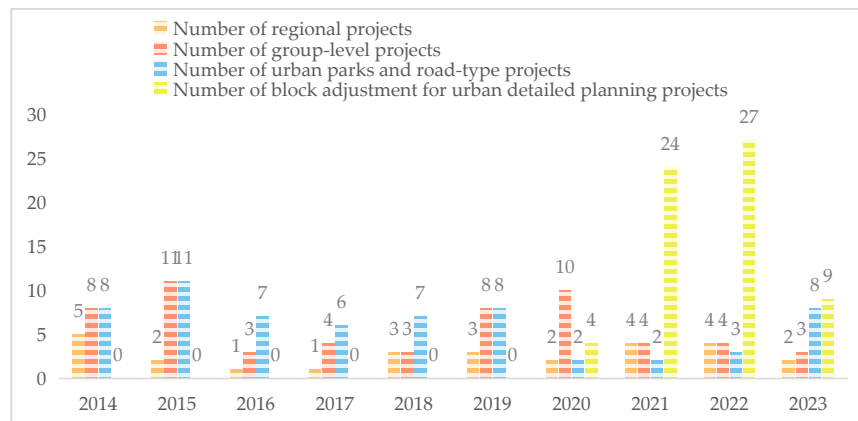


Figure 4. Statistical map of Suining Ecological space related planning in 2014–2023 (source: Self-drawn)

3.2. Forming a park system covers the whole city, and creating a “point, line, and surface” three-level full coverage of high accessibility of the charm of the old city

As an important key, parks play a vital role in shaping the urban landscape and restoring the ecological environment of the old city. Based on this, Suining City, holding on to the perspective of park city construction, fully excavates the ecological and natural landscape pattern, and carries out the park construction. Through the layout of the three-level park of point, line, and surface, it has injected new vitality and charm into the old city of Suining.

First of all, Suining City extends the coverage of the core landscape area to the surrounding adjacent area. Xishan Park, adjacent to the old city, has been built, and the system of Shenglian Island, Xiwu Erzhou, Binjiang Road, and South and Shengping Island Guanyin Lake Park has been planned and improved. Suining completed the landscape planning and design of the old city of Suining City, to build the park green space with high-quality standards. At the same time, *Suining to the Shenglian island planning for the international lotus expo park, the planning for national 4A level scenic spots* (**Figure 5**), with high standard design, has created this piece of green space, with its vast coverage surrounding the old city, making it so a citizens can easily touch and appreciate the urban landscape. As the landscape area of the core of the city, Shenglian Island has been built and perfected, and has become the best choice for citizens to travel. At present, Xiwu Erzhou, Binjiang North Road, and other important surface green spaces have been fully built. In the park, Suining City has improved the basic functions of sightseeing and rest, such as a children’s recreation area, fitness equipment area, leisure square, etc., to meet the diverse needs of citizens. In terms of design, it pays attention to the ecology and sustainability of surface parks, and adopts technical means such as rainwater collection and sponge city to improve the efficiency of resource utilization.



Figure 5. Rendering diagram of the core landscape area of Suining City (source: *Shenglian Island World Lotus Exposition Park landscape design, Detailed Construction Plan for ShengPing Island in Suining*, sohu network)

Secondly, connecting the green space of the old city of Suining through the park greenway, trying to build a livable urban greenway integrating leisure, fitness, and education. Through *the detailed planning of Suining City*

Old District and *Special Planning of Suining Central City Slow Traffic System* and other special planning, the greenway vein of the old city is fully connected, and the extensive greenway system is used to form the walking vein of the slow urban life. Public art spaces, such as calligraphy, painting, and poetry, are set up in the old city and Binjiang North Road Park, which can not only show the history and culture of Suining to the citizens. In addition, the publicity and education role of the park greenway promotes the greenway to become a functional area bearing the history, culture, ecology, and scientific and technological knowledge characteristics of Suining. For example, the explanation content of the sponge city is set up in the display board on the greenway. This can not only enable the citizens to better understand and cherish the old city, but also promote the cultural tourism and scientific and technological innovation in Suining. In addition, Suining city has also built several recreational and dynamic walking paths with waterfront characteristics in the city, and various characteristic flowers and trees have been planted along the way to enhance their popularity and vitality.

Finally, Suining fully excavates the point green space resources in the old city and the gray space in the city, which made a plan, defined as an open green space. Through the three-level park system of point, line, and surface, Suining has realized the full coverage of city parks, so that citizens can feel the beauty of nature no matter where they are. In order to study the achievements of the construction of the green space system, the accessibility analysis of 45 residential areas, such as Parkson Home in the old city, was conducted. Because there is more linear green space, the green space in some areas is also in the linear green space, so the accessibility to the riverside, canal, river, and other intersections as the endpoint statistics. At the same time, it emphasizes the accessibility of Suizhou Middle Road and Jinhua Garden Park, and finally considers a total of 78 traffic endpoints. Walking mainly considers the surrounding environment, but not the location of Hedong New Area, and only considers 44 Hexi green end points. Cycling, bus, and car traffic are considered for the whole region. In addition, because the short-distance bus is not of significance for park travel, only the bus situation of more than 15 minutes is considered. Based on the API data of Amap, the traffic accessibility calculation software is used to calculate the traffic accessibility. The statistics are shown below (**Table 2** and **Figure 6**).

Table 2. Old city district accessibility analysis table

Resident travel mode	Walk	Transit	Drive	Cycling
Number of endpoints reached within 15 minutes	43	-	45	45
Number of endpoints reached within 30 minutes	45	21	45	45
The number of endpoints in residential areas that can reach maximum within 15 minutes	10	-	48	36
The number of endpoints in residential areas that can reach maximum within 30 minutes	16	14	6	75

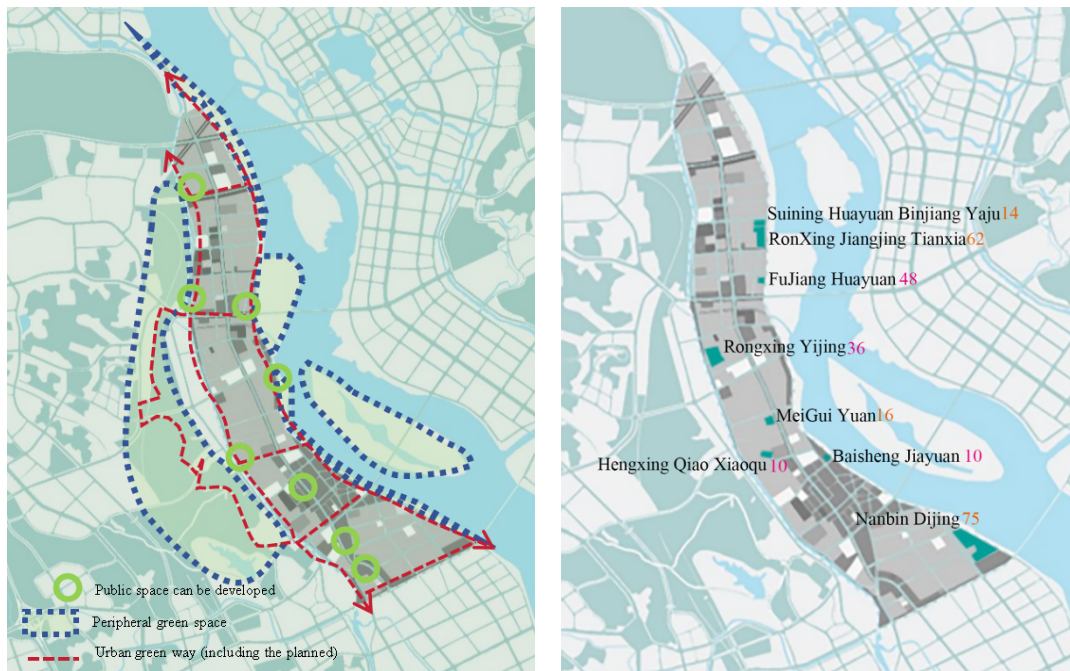


Figure 6. Green space planning of the old city of Suining City—left; The residential areas mentioned in **Table 2** and the corresponding number of accessible endpoints (source: self-drawn)

3.3. Exploring the Suining paradigm way of planning and management with advanced concepts

Suining always adheres to the advanced concept for urban planning and construction management, and explores the formation of a planning and management mode in line with the local environment of Suining. The planning and management of Suining city has been integrated with a pragmatic and innovative spirit from beginning to end, which is reflected in the whole process of urban management.

First, actively implementing the advanced city concept, trying to pilot exploration and learn. In order to improve the control of urban landscape and greening, the Urban Landscape Planning and Management Center was established in 2013 to coordinate the management of urban green space and style. In 2017, a position called Overall-City-Style-Planner was set up to conduct urban style problems, which was the first time in China. As early as 2014, China began to actively explore the reform of the “multiple plan” and promoted the reform of the urban and rural planning system, forming a three-in-one special plan. In the urban renewal, the sponge city pilot, urban design pilot, “Ecological Restoration”, through the on-the-spot investigation, go out learning, learning urban construction, green space ecological restoration means, and advanced urban and rural management technology enrich the knowledge reserves and help a lot in urban construction. Suining pays attention to cultivating local planning technical personnel, through the implementation of the community planner system, ensuring planning into the community, to the details. In the past 10 years, Suining has organized more than 20 visits and studies and arranged more than 300 trainee studies.

Second, according to the local environment of Suining city, Suining promotes the localization of advanced ideas. In the process of organic renewal of the old city, the mode of unit management and control is promoted, classification of “district level, street level, and micro-renewal” is promoted, and different urban renewal areas adopt different development logics, different stages, and path modes. Both in urban planning and construction, Suining City adheres to taking measures according to local conditions, innovating practice, scientifically integrating “sponge city” and

“urban repair, ecological reconstruction” in the renewal, and promotes the completion of the sponge construction, such as the transformation of more than 10 main roads in old roads, such as Jiefu Road.

Third, strengthening intelligent innovation and promoting the organic renewal under intelligent control. There are many problems that the organic renewal of the old city needs to be considered, so, in order to put the renewal into practice, it is necessary to consider the realization way and mode of urban renewal. The government will promote a new platform for public services and create a 15-minute convenient life circle. In the context of smart city development, the government will promote the provision of one-stop public services and improve administrative efficiency based on the needs of residents. At present, the smart bus system and some smart community guidance have been completed, and smart payment and mobile phone navigation can be used smoothly. At the same time, the combination of government services and big data can complete the preliminary vision of “running one trip less, doing one thing more, not missing one minute”, and the administrative efficiency of the old city has been greatly improved. At the same time, with the opportunity of building a provincial innovative city, the government will promote the construction of innovation carriers to digital parks, feed the construction of the old city with the transformation of industrial functions, and promote the intelligent construction of parking, entertainment, and leisure facilities.

3.4. With multi-party cooperation and win-win cooperation, the research, planning, and construction of the Suining model

The implementation of the planning and construction of the old city renewal involves many factors, which need to consider the interests of various parties and the coordination and coordination. At the same time, the implementation of the old city renewal also needs the comprehensive coordination of multiple think tanks. In the renewal of the old city, Suining city has been exploring the core idea of people-oriented, taking optimizing the regional public service facilities and improving the living environment as the fundamental task, and is committed to the construction of a high-quality urban environment and living space. Through the exploration of the renewal of the old city, Suining city has put forward the development concept of “green, smart, and livable”, and strengthened the protection and improvement of the urban ecological environment, cultural features, urban planning, and other aspects (Figure 7).

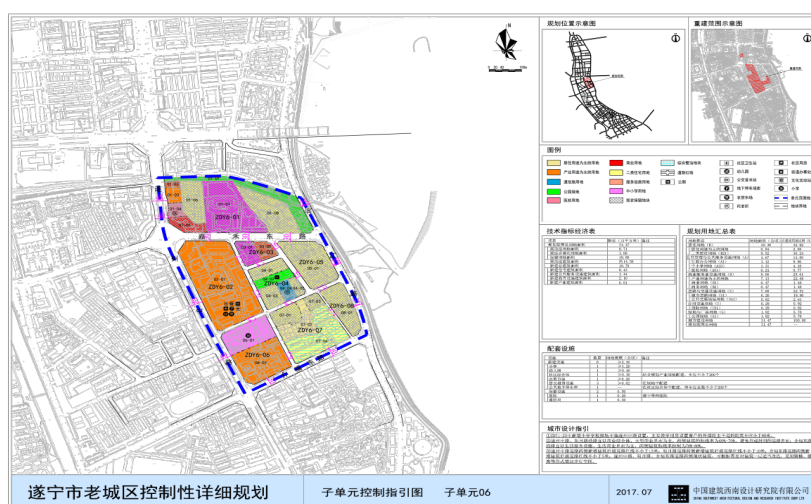


Figure 7. Schematic diagram of the unit control diagram of the old town of Suining City (source: *The detailed planning of Suining City's old district*)

First, giving priority to the public and promoting public participation in the national planning. Suining city adheres to the people-oriented principle, fully listens to the opinions and suggestions of the general public, and constantly optimizes the urban planning and functional layout to meet the growing living needs of the citizens. In order to promote the smooth implementation of the old city renewal, Suining City has fully mobilized resources from all aspects of life, established a multi-department, multi-field, and multi-level collaborative working mechanism, and realized the seamless connection of planning, design, construction, management, and other links. When conducting the controlled *the detailed planning of Suining City' Old District*, the citizens were organized to participate in the questionnaire through the coordination of the departments to understand the reconstruction intention of the citizens and integrate them into the planning scheme. At the same time, the planning committee sent community representatives to participate in directly expressing the demands of planning and construction and the aspirations of the citizens, so as to promote the implementation of the old city reconstruction. Relying on the “Sunlight Plan”, while publicizing the project, public opinions are widely absorbed to optimize the scheme and complete the adjustment of the planning scheme. When carrying out the special planning of road traffic in Suining City, it also promoted the participation of the old city citizens.

Second, to promote multi-cooperation to coordinate solutions and the implementation of all parties. While solving the problems of special planning of road traffic in the old city, the government promoted the linkage of colleges and universities shown in **Figure 8**. With the assistance of students from Suining Vocational and Technical School, the government realized the measurement of traffic volume in the whole city, and students of related majors also learned relevant knowledge. After solving the problem of special road traffic planning in the old city, the mode of multi-party cooperation has not ended. Instead, it further promotes concerted efforts to solve more problems to achieve a comprehensive renewal of the old city. In the old factory, Jinhua factory, organic update in the process of the planning, developers docking coordinate control planning party, collaborative planning administration, to control regulation guidance put forward key direction, to update planning guide, finally the ground construction form update scheme, built with the green ecological environment of factory logo park and commercial area, become the pilot construction of the pilot important area.

In general, the multi-cooperation solution mode is an important force to promote social progress. In the future, this model will continue to play an important role in helping all parties to solve more problems in a coordinated way and achieve comprehensive social progress.



Figure 8. Guide the students to map and use the data in the road traffic planning(left); Student survey of the Green Point Rural Planning Competition (right) (source: left: self-taken; right: internet)

4. Findings

In general, Suining fully promotes the construction of the old city and solves many problems. Through the restoration and building of the ecological system with ecology as the core, the distinctive old city of Suining is formed. In terms of urban function, the central business district is the most famous public space for food, procurement, leisure, and entertainment. At the same time, its service life infrastructure, such as primary school, shopping, food, entertainment, and market, is relatively complete, and the people's livelihood infrastructure, water, electricity, gas, and communication, is relatively smooth. However, there is the problem of pipelines not landing in some areas, and the traffic problem of Suizhou Middle Road in the Central Business District is still not solved. In terms of style and culture, important signs such as Guanyin culture have been highlighted, and the construction of urban walking paths and park systems has become the part of characteristic city sign. But the urban architectural style can be slightly unified, and the area has not been optimized. In terms of the coordination mechanism, Suining has a relatively mature coordination mechanism, which only needs further optimization. In the long run, how to implement the old city renewal, promoting the formation of urban characteristics, and the in-depth intelligent development of the city remains to be studied.

Therefore, it can be said that the development and construction of Suining has developed a certain Suining paradigm, which solves some of the problems in the development of the old city. But some of the contents need to be optimized in detail. Some of the problems are difficult to solve after many years of discussion, and they need effective implementation plans. In order to further optimize the development of the old city, put forward some suggestions, sort out the key points to continue to improve, and consider how to do so.

First, the land renewal problem of the central business district. As the most important functional area of the old city, it has a commercial pedestrian street with the characteristics of the old city of Suining. The prosperity of the central business district is the bearing point of the characteristics and historical memory of the old city of Suining, and the main historical buildings of the city gather here. However, because it blocks the vertical traffic flow of the old city, causing traffic congestion, the transformation mode has always been one of the difficult problems in the renewal and construction of the old city. The central business district itself has a part of the building quality that is not high, and the characteristics are not prominent enough to address problems. According to statistics, the CBD business scale below 100 m² accounts for 92.7% of the total number of stores, 65% of the business is shopping business, high homogenization degree; culture, leisure, entertainment business is less than 10%, and mainly in the middle and low end, which is lack of strong interactive experience of new consumption scene and attract people. There are many disadvantages in the transportation mode, viaduct, migration, underpass, and microcirculation, and these schemes have huge obstacles.

The second is the shaping of the urban characteristic style space. From the perspective of the number of cultural and tourism buildings, there is 1 industrial site, 4 historical landscapes, 1 core area of cultural tourism, and 7 historical buildings in the old city, which is characterized by a relatively large number but a relatively concentrated number. All of them do not have obvious characteristics, and do not them have sufficient protection or sufficient utilization either. Besides, it should be the concentrated area of cultural display in Suining City. From the perspective of the overall style of the old city, the style zoning is not very obvious. There are slope roofs and flat roofs of urban buildings, there are pieces of blue and red sloping roofs, modern flat roofs, which are relatively concentrated, but it has not become a relatively verified style area, and the facade is also disorderly (**Figure 9**).



Figure 9. Aerial view of the old city of Suining (source: *The Detailed Planning of Suining City' Old District*)

Third, infrastructure construction issues. The internal and external traffic connection of the old city is not smooth. From the perspective of the spatial pattern of the central city, in addition to the traffic problems on the road, the south extension of Xishan Road and the east-west Fujiang Six Bridge and Jiefu Road West extension line cannot be connected in a short time, and there is the phenomenon of north-south obstruction and east-west obstruction. In terms of street space, the right-of-way conflict among motor vehicles, non-motor vehicles, and pedestrians is obvious. In terms of parking facilities, parking construction in old residential areas is insufficient, commercial hotels and offices have few shared parking spaces, roadside parking demand is large, and parking in the old city is difficult. In terms of public service providers, the spatial distribution of public service facilities in the old city is reasonable, but due to the excessive population density, the per capita capacity of public services is generally low. For example, the average land of primary schools in the old city is about 3.4 m².

Fourth, the organic renewal of the construction and implementation approach, the government needs to think about the specific implementation mechanism. Urban renewal and construction cannot be separated from the support of a good urban and rural promotion mechanism, which not only guarantees the interests of various parties but also ensures the work of the urban renewal system. The renewal of the old city requires relatively mature theory, financial support, as well as the specific interests of citizens, developers, and other stakeholders. The renewal of the old city cannot be separated from the support of think tanks and funds, and to ensure the comprehensive promotion of urban renewal, the government, enterprises, citizens, and other parties should play a role. The dominant position of the government in the organic renewal cannot be ignored. Planning should be scientific and reasonable to ensure the implementation and supervision of policies, and violations should be strictly dealt with. Enterprises should assume certain social responsibilities in the organic renewal, considering the use of funds and the benefits of society, and participate in the urban renewal. In the process of implementation, the needs of citizens should be fully considered, and citizens should also become active participants in urban renewal.

Other stakeholders, such as community organizations and enterprises in related industries, should also actively participate in the urban renewal work, make their own suggestions. The implementation of urban renewal requires the joint efforts of all parties to form an effective cooperation mechanism to ensure the smooth progress of the organic renewal work and create a better living environment for the citizens.

5. Future development strategy

5.1. Combining the direction of thinking, clear specific work content

First of all, the thinking and direction of the old renewal of the city should be clearly defined, and the construction of clear working ideas as a guide, so that what has been done in the past work and the future work can be improved. Urban characteristics should be the part that must be strengthened in the renewal of the old city and even the overall urban construction, and the government should spare no effort to stick to it.

First, “guard the ecology.” The government should adhere to the urban characteristics of ecological protection and green space construction, and fully build Suining Park city.” “Ecological Park Famous City” not only conforms to the summary of Suining’s urban characteristics, but also meets its vision. “Ecology” is easy to build, but “a famous city” is rare. The government should spare no effort to develop the ecological core, at the same time, the culture, the foundation of ecological construction, and the concept of ecological civilization through the whole process of urban development, and the government should strive to achieve the sustainable development of the city.

The second is to “build the system.” To the learning and construction experience of the past advanced cities, urban renewal requires systematic control methods and implementation rules. Suining has explored and researched *Administrative Measures for Urban Renewal of Suining Old City*, though it was not implemented, but made an effort in urban renewal. In March 2022, *Suining City Urban Organic Renewal Project Fund Management Measures* were promulgated, which gave systematic regulations for the fund control of the old city renewal project. In the future, the government should continue to form systematic management documents and policies, covering management, capital, operation, supervision, and other aspects, and promote the municipal departments to study and formulate a management method system, as well as a planning system working together with the district (county).

Third, the “shape style.” The government should take the style renovation as a countermeasure, pay attention to shaping the urban form, and improve the quality and image of the city. To repair the roof style of the old city, build qualified public buildings; for the problems of flat roof and slope top, the government should delimit the area and coordinate the style, and remove and standardize the city image, advertisements and signboards, establish a clean and orderly urban public interface; micro-update the blocks outside the demonstration area, strengthen the shortcomings of service, and improve the quality of public space.

Fourth, “expand the scope.” The old city of Suining is closely connected with the surrounding areas and has more communication. Not only because of the working traffic commuting in Hedong and Hexi, but also because the old city is close to the development zone and high-tech zone, and the urban service function is not carried out alone. A city is a huge and complex system, which should deeply consider its connection with the surrounding areas, fully consider the uncertainty of its development and construction, and consider the overall scope to provide guidance for the improvement of the overall urban capacity.

Fifth, the “show heritage.” The government should pay attention to excavating and displaying the cultural

heritage of the city and enhancing the soft power of the city. This includes the protection of historical and cultural heritage, the development of cultural activities, and the cultivation of cultural industries. With the culture of nourishing cultivation as the core element, it is necessary to display the historical and cultural deposits of Suining through various forms, enhance the attraction of the city, and promote the development of the city. At the same time, the wisdom of the cultural activities planning, advanced urban culture promotion.

Sixth, “building a demonstration.” Take government leading + enterprise operation, + residents (merchants) participation. Around Yucai Road, City Lane, Park Road, and Kaixuan Road, other cultural elements are implanted according to local conditions.

Seventh, the “optimize industry.” After accurately identifying and updating the characteristics of the region, various plots of “retaining and dismantling” should be accurately determined, and classified measures should be adopted. Starting from the old urban environment, the government should pay attention to optimizing the industrial structure and promoting the economic development of the city. This includes the upgrading of traditional industries, the cultivation of emerging industries, and the improvement of innovation ability. The government should increase support for emerging industries, promote the upgrading of traditional industries, improve the innovation ability of cities, and promote the economic development of cities.

The government should think about the renewal of the old city from the perspective of the whole city, not only from the perspective of the old city. The construction of the new district should be linked with the renewal of the old city, especially the transportation around the old city and the supply of public supporting facilities, so as to facilitate the relocation of the population and functions of the old city to the new district. It is necessary to shift from the past development mode of short-term sales collection for commercial and residential construction to the urban renewal mode of multi-party participation, medium and long-term operation and operation, and plan the old city renewal in the way of systematic engineering way. Therefore, in order to consider these complex elements and problems, it is necessary to coordinate the multi-party relationship, which must carry out special research.

5.2. Multi-party coordination and communication mechanism, industry, university, and research institutes, to help solve the renewal problems

The renewal mechanism of the old city of Suining is not complete, and there is no policy of organic renewal of the old city. At the present stage, the people mainly rely on the government’s input to transform the old residential area, which cannot support the current organic renewal work of the old city, so a complete renewal mechanism and system need to be established. First, the policy mechanism needs special management methods and a management system to form a management mechanism and means. Second, it must have a multi-party coordination and communication mechanism, aiming to realize the efficient transmission of information and promote the rational allocation of resources through the scientific process and a completely new organizational structure, so as to effectively solve the possible problems in the renewal process. In the process of building a communication mechanism, it is recommended that the industry, university, and research institutes should participate in cooperation and collaborative innovation. This can not only reduce the cost of research and development, but also help scientific research, and cultivate scientific talents who can solve the problem of localization. To share the innovation results, it is more necessary to give full play to their respective advantages in the integration and transformation process of knowledge and technology, so as to realize the smooth implementation of the renewal of new industries in the old city.

5.3. Smart development focuses on future cities and open platforms to build emerging cities

At present, the wisdom of the construction of the old city is not enough. Although the basic model of intelligent management and control has been built, the construction of the urban information model and the CIM platform has not been completed yet. At the same time, in the aspect of internal administration, although a lot of network communication and intelligent management platforms have been formed, the constraints in the practical application have not been removed, and the operation of traditional ideas and the traditional working methods are deeply rooted. Of course, in the era of information management, the confidentiality of information, security, and other related issues have not been completely solved. Therefore, it is suggested to implement the following planning and construction means.

First, the government needs to strengthen the integration with new technologies such as big data and artificial intelligence to improve the management level of smart cities. At the same time, the establishment of a more stringent information security protection system, as well as an administrative management integration construction system, breaks through the electronic management barriers between all administrative levels, to ensure the normal operation of urban construction. In view of the information confidentiality, security, and other problems, the government can strengthen the construction of technical means and management systems, as well as the publicity and education of management personnel, to improve the understanding of information security.

Second, the government needs to expand the scope of intelligent administrative work, learning, and education. A scientific and reasonable management system and norms should be established to ensure the orderly promotion and long-term development of intelligent administrative work. At the same time, by strengthening the training and education of management personnel, the government can improve their technical and management ability, and provide a solid talent foundation for the sustainable development of intelligent administrative work. The government should strengthen the talent support and management mechanism to help form a local talent tank in Suining City.

Third, the government needs to expand the scope of intelligent administrative work, learning, and education. A scientific and reasonable management system and norms should be established to ensure the orderly promotion and long-term development of intelligent administrative work. At the same time, by strengthening the training and education of management personnel, improving their technical and management ability, to providing a solid talent foundation for the sustainable development of intelligent administrative work. The government should strengthen the talent support and management mechanism to help form a local talent tank in Suining City.

Fourth, it is necessary to process, strengthen information communication and coordination among various departments, establish an information management system covering the whole form a unified and efficient working mechanism, and make administrative work more smooth. In addition, the government should pay attention to the popularization of smart city construction, so that more citizens can participate in the construction of a smart city. The aforementioned form of industry-university-research cooperation is also one of the ways that can cover management. The government can explore the form of an open CIM platform and local scientific research, promote the CIM work, and carry out the learning skills of advanced open platforms, such as In-SAR, to improve the urban information model.

5.4. To maintain ecological health care, adhere to the core of urban characteristics

Ecological characteristics have become an important label of Suining city, and also an important core of urban and rural planning and construction. Health care is another representation of the radiation status of mental care culture

under the ecology. “Heart culture brigade city” construction is not easy. As a node of the Chengdu-Chongqing region, Suining city has created an ecological label, park city scene. The next step should adhere to the core urban characteristics, the ecological built important urban characteristics. Specifically speaking, the following measures should be improved.

First, form a water system space with the concept of “heart culture” as the theme of different “Great health” to connect the urban landscape. Suining city has a continuous, rich, and beautiful water system space, with different levels and dimensions, and its own uniqueness, which can form different health education and health preservation themes based on “great health” and heart-nourishing culture. The city prospers because of the water, and the water is the soul of the city. Suining city can build to “park city” concept as the core of the water ecological environment protection system. Through the integration of water space resources and optimizing the water space structure, to promote a water ecological environment management system and management ability of modern construction optimization of urban space and economic geography, Suining can improve the construction of a high-quality quality harmonious, and livable city.

Second, the government will promote the construction of green and emerging future cities on the basis of the “smart city” plan, and radiate the whole urban space. Taking the construction of the whole region’s intelligent space as an opportunity, the government will establish the safety detection of the water space environment, form a perfect intelligent display space of water, which can widely display and convey the unique water ecological culture of rhythm, and establish intelligent sketch facilities rich in Guanyin culture. Suining should build interesting, intelligent, interactive entertainment facilities, considering intelligent activity interactive facilities, develop personalized lines, driving rental, intelligent tour, and other systems.

Third, based on the theme of “health care” as the core, plan health theme characteristic activities, and develop the whole health activities. From the characteristics of “eating”, around the Suizhou Middle Road Business District area, the whole area along the north and south of Binjiang Road, Qujiang Road, Jinhua area, and other areas, to create a modern level of the old city catering service chain, promote the holding of various forms of food festivals, cultural festivals, and other activities. The formation of a “health” intelligent health system, deep integration and innovation in “medical, health, food, travel” and other aspects, around the riverside along the road, along the canal river, the urban area green health activities planning, into the Guanyin culture to create an intelligent health care sketch, but also improve the urban pension business. For young people, sports and sports development activities and guidance spaces should be increased to promote the construction of smart sports. Finally, with the new district health Valley, Linquan Guangde Shengjing, and Shenglian Lotus Expo Park, to build and improve the health service system.

6. Conclusion

The old city renewal is a complex system project, and the work of Suining has made a good demonstration for the renewal and construction of the old city. Some shortcomings are analyzed, such as Suining, and the urban renewal work has a long way to go. The government must unswervingly adapt measures to local conditions, and at the same time, excavate enough urban characteristics, dare to explore, combine with various forces, and the authors believe that the government will be able to explore a local road of old city renewal.

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