

A Case Study on the Revitalization of Unused Community Space - Tianfu Social Innovation Center

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Abstract

This study focuses on the topic of revitalization of unused community space, and takes Tianfu Social Creativity Center in Chengdu City as a case study to explore the path of revitalization and sustainable operation mode of old community space. The study adopts field survey and archival research methods to construct the analytical framework of "demand-oriented, multiple synergies, and sustainable operation" to analyze the transformation process from industrial heritage to public space. The study shows that through cultural implantation, resource integration and self-governance mechanism, the center enhances the cohesion of the community and the utilization rate of the space, and provides a dual-track practice sample of "cultural inheritance and functional regeneration" for the renewal of old communities in industrial transformation areas.

Keywords: unused community space, public space creation, sustainable community operation, residents' participation

1. Problems

As the "last kilometer" of grassroots governance, the enhancement of the community's governance capacity and service level is of great significance in facilitating the virtuous cycle of joint governance by multiple subjects and realizing good community governance. Moreover, community space has the functions of artistic expression, cultural display, consumption experience and emotional exchange, and has gradually become a practical space and outwardly comfortable area to meet people's growing material and cultural needs. However, with China's modernization and industrial upgrading, many factories were eliminated or relocated during the construction period, and the old community spaces with factories as their core were abandoned or underutilized, becoming "frozen assets" of the community. The transformation of old community spaces and the revitalization of community resources have become important issues in urban community building.

The purpose of this study is to explore the effective use of unused space in the community, and take Tianfu Social Innovation Center as an example to analyze its specific measures and effectiveness in revitalizing unused space. Through the in-depth study of this case, it aims to provide useful reference and inspiration for the revitalization of idle space in other communities in China.

2. Theoretical Framework and Research Method

2.1 Theory of Community Building

The theory of community building aims to create an interpersonal community based on the settlement space, originated from the reorganization of mobile residents and the reconstruction of neighborhood relations during the period of industrialization in Britain and the United States, and advocates the cultivation of the spirit of self-government and mutual assistance among the community residents, so as to find a path of sustainable development of the community. Currently, community building in China takes community empowerment as the main guide, and takes "publicity reconstruction" as the basic principle, "social production" as the core concept, and "multi-element reorganization" as the construction path. It takes "publicity reengineering" as the basic principle, "social production" as the core concept, and "multi-element reorganization" as the construction path to form a "human" community in the community, and to strengthen the emotional significance and production capacity of the community space. Community building focuses on the participation of residents and the cultivation of community identity, emphasizing the joint participation of community residents in community affairs, the exploration of community resources, and the creation of a community environment with a sense of belonging and identity. In the

process of revitalization of unused space, the practice guided by the theory of community building includes widely consulting residents, designing space functions according to residents' needs, and encouraging residents to participate in the construction and management of the space.

2.2 Resource Integration Theory

Resource integration theory focuses on how to effectively integrate scattered and idle resources to achieve optimal allocation and efficient use of resources. In the revitalization of idle space in the community, it involves the integration of space resources, human resources, financial resources, information resources and other aspects. On the one hand, it is necessary to integrate unused land, houses and other spatial resources in the community, and make them play new functions through rational planning and transformation. On the other hand, it is necessary to integrate the resources of the government, enterprises, social organizations, residents and other diversified subjects, such as the government to provide policy support and financial subsidies, enterprises to invest in capital and technology, social organizations to provide professional services and experience in project operation, and residents to contribute human resources and creativity and so on.

2.3 Theoretical Framework Construction

Combining the above theoretical kernels, the article constructs a three-in-one framework of "demand-oriented, multi-dimensional synergy and sustainable operation", including: starting from the actual needs of the community and determining the direction of revitalization by combining the characteristics of spatial endowment; integrating the resources of the government, social organizations, enterprises and other main bodies to form a synergistic governance network; ensuring the sustainability of spatial revitalization through the innovation of the operation mode and the output of continuous activities. Through innovative operation mode and continuous activity output, the sustainability of space revitalization is guaranteed.

The trinity framework takes demand orientation as the logical starting point, multiple synergies as the implementation path, and sustainable operation as the value goal, and provides a full chain methodological support for the revitalization of unused space in the community from "problem diagnosis-resource integration-long-lasting activation" through the integration of theories and the inter-construction of practices, and finally achieves the ultimate goal of revitalization. Through the integration of theory and practice, the methodological support for the revitalization of unused community space is provided from "problem diagnosis-resource integration-long-term activation", and the multiple goals of spatial function reconstruction, community emotion cohesion and governance efficiency enhancement are finally realized.

2.4 Research Methods

The research adopts a combination of fieldwork and archival research. In the fieldwork, a one-month participatory observation was conducted in the Tianfu Social Innovation Center to follow up on activities such as the "Public Space Visiting Action" workshop, record the dynamics of space use and the interaction patterns of residents, and conduct in-depth interviews with government staff, the head of the operation team, representatives of social organizations, and different types of residents, in order to obtain information on practices from a multi-subjective perspective. We also conducted in-depth interviews with government staff, heads of operation teams, representatives of social organizations, and different types of residents to obtain information about the practice from multiple perspectives.

The archival research focuses on two types of data, namely policy documents such as the Chengdu Urban and Rural Community Development and Governance Master Plan, which clarifies the policy direction of "revitalizing unused space", and the internal archives of the Tianfu Social Innovation Center, which extracts the functional positioning and operational data to ensure the authenticity and validity of the data.

3. Overview of the Tianfu Social Innovation Center Case

3.1 Project Background

Tianfu Social Innovation Center is located at No. 3, South Construction Road, Chenghua District, Chengdu, which was formerly an old factory building of the state-run Hongguang Electronic Tube Factory in Chengdu, and was later transformed into a service center for the Chengdu Federation of Trade Unions and Social Organizations of Groups and Associations. However, as a typical traditional administrative space, the service center was unable to meet the demand for connection between residents and failed to fulfill its vitality as a public space for citizens. So in 2021, under the planning and construction guidance of the Chengdu Municipal Committee of Social Governance, the Municipal Federation of Trade Unions, the Municipal Civil Affairs Bureau, the Municipal Youth League, the Municipal Women's Federation, and the Chenghua District Committee of Social Governance, the planning and design of the spatial renewal was initiated.

At present, Tianfu Social Innovation Center includes the open sports space in the square, the innovative learning experience space for citizens on the first floor, the innovative R&D and cultivation center for social organizations on the second floor, and the innovative brand expansion center for social services on the third floor, which is a social innovation support center and public space for citizens undertaken by a professional public space operation social enterprise and operated in conjunction with a number of social organizations.

In terms of scale and spatial characteristics, the former state-owned Hongguang Electronic Tube Factory in Chengdu, covering an area of about 3,000 square meters, covers industrial heritage, administrative space and other composite attributes, and after transformation, it forms a three-dimensional functional system of "plaza open sports space + citizens' innovative learning and experience space + social organization cultivation center", which is a typical community space for transformation of large-scale industrial heritage in a mega-city. It is a typical sample of transformation of large-scale industrial heritage into community space in a mega-city.

In terms of innovative features, the center pioneered the model of "government guidance + social enterprise operation + synergy of multiple subjects", such as launching the public space visiting action by linking with the Social Governance Committee of the Chenghua District, introducing social enterprises such as "42 Good Tao" to form a convenient living circle, and building the "Party building-led grass-roots governance" model. It has also built a digital platform called "Party Building-led Grassroots Governance Resource Bank", which breaks through the limitations of the traditional community space led by the government and provides a replicable governance paradigm for the revitalization of unused space.

In terms of urban representation, the project is located in Chengdu's Chenghua District, a typical industrial transformation area, and faces multiple challenges such as industrial heritage protection, upgrading of aging community services, and activation of the cultural needs of young people, etc. In the process of renovation, it integrates the "red-brick industrial memory" regional symbols and the "park city" regional symbols with the "park city" regional symbols. The integration of "red-brick industrial memory" regional symbols and "park city" construction concept during the transformation process not only echoes the demand for renewal of the old industrial base in Chengdu-Chongqing area, but also provides a dual-track development reference of "industrial civilization inheritance and community function regeneration" for the same kind of cities around the world, which has a general research value in the transition period of the city.

3.2 Implementation Process

3.2.1 Public Space Creation

Scene as a way of spatial links, through the integration of functions in the superposition of space to achieve the creation of cross-border space, "culture" as the leading, the rest of the additional dilute the rigidity of the administrative community, the formation of "intention" of the soft space. Tianfu Social Innovation Center takes "social innovation" and "sustainable development" as its core values, and uses "red bricks", "trains" and "terrazzo" in the renovation process. Red bricks", "trains", "terrazzo" and other creative elements with a sense of industry are used in the renovation process to restore residents' memories of the old factory buildings and increase their affinity for the local space.

3.2.2 Attracting Community Residents Through Differentiated Creation

Cultural elements can also produce different scenes through different combinations, and attract different groups to come to live, live and consume practices. The plaza establishes themed community restaurants, teahouses, etc. so that people can sit down, and sets up an outdoor performance stage, retains sports facilities such as basketball courts, and combines with the landscape of the neighboring parks to form the entrance to the citizens' living scene. The first floor will be built into a four-level "living scene laboratory", but its specific expression is the citizens' innovative learning experience space: open self-study, book reading (learning scene), parent-child learning (family scene), yoga (sports scene), hidden disabled life scene, elderly life scene, etc. They are not independent labels, but hidden in the park. They are not independent labeled spaces, but are hidden in the entire first floor of the Civic Center. At the same time, Tianfu Social Innovation Center conducts interviews with the surrounding residents during the renovation process, to understand the local social and historical changes and the inner voices of the old generation of laid-off workers on the one hand, and to understand the real living conditions of the local young people and their sincere suggestions for the park city on the other hand, and to accommodate the needs of the residents in the design and to attract the participation of the main body of citizens.

3.2.3 Coordinate the Layout of Greening and Functions

Theories related to urban community planning suggest that large green environments, compact community neighborhoods, and sufficient square areas play an important role in the livability of urban communities. In the

early 1990s, New Urbanism argued that modern community planning is to reconstruct a compact neighborhood community with traditional cultural spirit, making the community a public space with diverse functions. In the renovation design of Tianfu Social Innovation Center, the theme of "park" is used to connect the greenery with the surrounding parks to form a large-scale and effective greenway. The height of the building is controlled to preserve the blue sky, and functional areas such as sports fields, cafeterias, theaters and libraries are concentrated around or within the building to form a compact and multi-functional public space.

3.2.4 Cross-Domain Resource Integration for Scenes

Tianfu Social Innovation Center is not only a scene of citizens' life, but also accesses the government's public policy agenda, functioning many times as a place to visit and host meetings. Tianfu Social Innovation Center also integrates various social organizations to form community canteens, community second-hand supermarkets, community cafes, bookstores and other scenes. For example, the "Home Tou Tou" public service restaurant is stationed in the contracted community canteens and senior meal sites, which is not only open to all residents, but also provides meal subsidies to seniors over 65 years old and door-to-door meal delivery service for seniors with life difficulties. "42Shantao opened its first store in Chengdu at the Tianfu Social Innovation Center, providing recycling and low-cost exchange services for unused items. Neighboring residents often come to the store to participate in fundraising activities, shop for low-priced household items, and engage in volunteer activities, making it a place for neighborhood residents to engage in activities and emotional links. Through the integration of social organizations providing different services, the Tianfu Social Innovation Center forms a convenient community living circle with the Tianfu Social Innovation Center as the center of the circle, radiating the residents of the surrounding districts.

4. Analysis of Sustainable Community Operation Using Tianfu Social Innovation Center as a Case Study

Tianfu Social Innovation Center makes full use of the abandoned factories and open spaces in the community. Through rational planning and design, it transforms these spaces into community centers with multi-functional uses, and attracts the participation of residents by organizing a variety of community activities and cultural exchanges, which enhances the cohesion and vitality of the community. However, merely transforming the venues and attracting residents' participation cannot achieve sustainable community development.

Sustainable community operation is an important initiative to improve the capacity of government services, public services and property services. In the current community governance in Chengdu, there are problems such as the government and society are not in place, the function of self-government is not sufficient, the participation of social forces is insufficient, the interaction between the government and society is not smooth, and the sense of professional identity of community workers is low. The sustainable development of the community needs to be tailored to the local conditions, to create community characteristics, to tap the community culture and community temperament, and to revitalize and upgrade the community model. Only the vitality stimulated from within the community can support the long-term sustainable development of the community.

Combining the above issues, this section explores the path of sustainable community answer development from the Tianfu Social Innovation Center organization itself and related service products.

4.1 Demand-Oriented: Accurately Capturing Residents' Demands and Spatial Pain Points

4.1.1 In-Depth Excavation of Residents' Demands

For industrial buildings and old neighborhoods in Chenghua District, we launched the "Public Space Visiting Action" jointly with the Social Governance Committee of Chenghua District, formed a team of experts from both inside and outside the province to go into five communities, and collected residents' real demands through household interviews and on-site observation based on the principle of "governance by faith". Based on the principle of "faith-based governance", the team collected residents' real demands through household interviews and on-site observation, and found high-frequency problems such as chaotic parking management, lack of control over unauthorized building works, and aging infrastructure.

4.1.2 Spatial Functional Targeting

Based on the dual considerations of industrial heritage protection and community service gaps, the former Hongguang Electronic Tube Factory is positioned as an "industrial cultural memory carrier + all-age public service hub", focusing on solving the problems of intergenerational cultural faults (e.g., demand for the inheritance of industrial memories by old workers) and fragmentation of public services (e.g., insufficient space for elderly activities and child-friendly facilities). Compound function modules such as cultural display, convenient services and social enterprise incubation are planned.

4.2 Multi-Dimensional Synergy: Building a Network of Government, Society, Enterprise and People's Common Governance

4.2.1 Division of Labor and Coordination Among Governance Entities

Government coordination. Relying on Chengdu's policy support, the Social Governance Committee of the Municipal Party Committee coordinates the allocation of sites and special funds, while the Chenghua District Government is responsible for supervision and evaluation, stripping away administrative intervention and strengthening the role of "policy provider".

Enterprise Empowerment. Enterprises such as China Resources Land are introduced to undertake lightweight transformation of the space (e.g. construction of the children's sports corner), and social capitals such as the Ant Cloud Customer Service and the Alibaba Foundation are linked to activate the resource cycle through the model of "public welfare venture capital + commercial operation" (e.g. the Five Social Services for the Elderly project).

Social organization operation. Local NGOs are commissioned to take the lead in operation, incubate brand projects such as "Intergenerational Question and Answer" and "Little Master of the City Series of Actions", and cultivate community self-organization, giving full play to the advantages of professional services and residents' mobilization.

Resident autonomy. Establishing a mechanism of "demand negotiation and proposal decision-making", whereby residents directly intervene in spatial planning through visits and participatory design, for example, by voting on design proposals for the renovation of ageing-appropriate facilities, to strengthen the sense of "space owner". Awareness of "space owner" is strengthened.

4.2.2 Resource Integration and Platform Building

Online, the "Chengdu Party Building-led Grassroots Governance Resource Bank" small program was launched, integrating 600+ case banks, 400+ talent banks and 200+ social innovation product banks to open up supply and demand docking channels; offline, it hosted the "Supply and Demand Matchmaking Meeting for Reducing and Classifying Domestic Waste", which attracted 22 towns (streets) to participate in the meeting, and attracted more than 1,000 participants. Offline, we hosted the "Supply and Demand Matchmaking Meeting on Classification of Domestic Waste Reduction", which attracted the participation of 22 towns (streets) and 14 organizations, and facilitated the cooperation of 8 projects, thus realizing the accurate matching of policy resources, social capital and community needs.

4.3 Continuous Operation: Activating Scene Value and Long-Term Mechanisms

4.3.1 Scenario-Based Operation to Enhance Stickiness

Cultural scenes. Create an "industrial time corridor" and turn the space into a carrier for intergenerational dialog through activities such as old photo exhibitions and employee skills experience, such as the "intergenerational quiz" activity, which facilitates the exchange of values between young and old employees and bridges the age gap.

All-age service scenarios. We have developed an age-friendly community building manual, covering areas such as elderly care and child-friendly services, and opened intergenerational shared kitchens and parent-child creativity spaces to improve space utilization through time-sharing and reuse.

Festive Consumption Scenarios. Combined with the May 4 Youth Day and other festivals, a "Sustainable Goods" bazaar will be held, linking community commerce and the cultural and creative industry, transforming cultural narratives into consumption experiences, and enhancing the attractiveness of the space and its ability to create its own blood.

4.3.2 Long-Term Mechanisms to Ensure Sustainability

Self-governance mechanism. Set up an "operation management committee" composed of residents, social organizations and enterprise representatives, formulate a "space use convention", and incorporate 30% of the commercial proceeds (e.g., from leasing the space) into the community micro-fund, which will be used for facility maintenance and activities, forming a "business for the public" mechanism. Closed loop.

Dynamic monitoring and iteration. Through the intelligent system, we collect data on people flow and activity participation to adjust the service content (e.g., adding nighttime yoga classes to respond to youth demand), and cooperate with universities to establish "social innovation practice bases" to continuously export community governance experience and promote the extension of the value of the space to the field of social innovation.

5. Summary and Discussion

5.1 Case Summary

Tianfu Social Innovation Center has successfully created a multi-functional community center by effectively utilizing unused space in the community. Formerly an old factory building of the state-run Hongguang Electronic Tube Factory in Chengdu, the center has been transformed into a public space integrating exercise, learning, innovation and socialization. Through measures such as public space creation, differentiation to attract community residents, and a coordinated layout of greenery and functions, the Tianfu Social Innovation Center not only improves the quality of life of residents, but also strengthens the cohesion and vitality of the community.

In the process of implementation, Tianfu Social Innovation Center focuses on the integration of cultural elements and the differentiated creation of scenarios, successfully attracting the participation of different groups. For example, the establishment of themed community restaurants and teahouses in the plaza, and the preservation of outdoor performance stages and sports facilities form the entrance to the citizens' living scenes. In addition, the center coordinates the layout of greenery and functions to form a large-scale and effective greenway, further enhancing the livability of the community.

In terms of sustainable community operation, the Tianfu Social Innovation Center promotes sustainable community development by building an information platform, leveraging resident participation, developing community social enterprises, and researching and developing community service products. For example, through the "Chengdu Party Building-led Grassroots Governance Resource Bank" WeChat app, it provides professional consulting services on community development and governance and social organization cultivation. At the same time, the center has hosted several supply and demand matching sessions, promoting the participation of all parties in community governance.

In terms of tapping into the vitality of the community, through a series of innovative initiatives and activities, the Tianfu Social Innovation Center has not only strengthened community cohesion, but also empowered new kinetic energy for community development. Its effect is not only reflected in the reuse of space and the diversification of functions, but also in the fact that through various activities and initiatives, it has stimulated the enthusiasm of community residents to participate, enhanced the community's self-development capacity, and laid a solid foundation for the sustainable development of the community.

Overall, the revitalization of Tianfu Social Innovation Center has a remarkable effect, not only enhancing the space utilization rate of the community, but also promoting the virtuous cycle of community governance, providing useful reference and inspiration for the revitalization of unused space in other communities.

5.2 Future Research Directions

Future research can deepen the exploration of the revitalization of unused space in communities from the following dimensions: first, carry out cross-regional comparative research, select industrial transformation communities with different stages of urban development and cultural backgrounds (e.g., Wuhan Hanyang Iron Factory Area, Shenyang Tiexi Industrial Zone), compare and analyze the differences in their spatial revitalization paths and governance modes, and distill differentiated strategies for mega-cities, industrial old cities, and emerging urban areas, to further improve the We have refined differentiated strategies suitable for mega-cities, old industrial cities and new urban areas, and further improved the universality of the framework of "demand-oriented, multi-dimensional synergy, and sustainable operation". Secondly, focusing on long-term effect assessment, through tracking and researching cases such as Tianfu Social Innovation Center, we have established a dynamic assessment system that includes indicators such as space utilization rate, resident participation, community economic gain, and social capital increment, etc., so as to quantitatively analyze the long-term effect of revitalization of unused space on community resilience enhancement, and to solve the short-term effect dilemma of "one-time renovation". In addition, we will deepen the research on technology empowerment. In addition, we will deepen the research on technology empowerment, explore the application of blockchain in community resource traceability, smart contract in multi-party collaboration, and the practice of VR/AR technology in industrial heritage scene reproduction, so as to provide technical paths for reference in the construction of "digital twin community". Finally, combined with the demand for policy innovation, we put forward the policy proposal of "local legislation pilot - financial subsidy mechanism - community self-governance charter" to address the system bottlenecks of property rights division, revenue distribution, and cross-sectoral coordination in the space renovation, so as to promote the transformation of the revitalization of unused space from individual case experience to standardized governance tools, and provide a replicable institutional template for the national old community renewal. It provides a replicable institutional template for the renewal of old communities nationwide.

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