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Micro-Renewal Strategy of Old Workers ' Commu-nity from the Perspective of Urban Acupuncture — Taking Chengdu Caojiaxiang Workers ' Village as an example

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Abstract

Under the background of stock renewal, the transformation of old workers ' communities is facing practical problems such as space aging, demand differentiation and intergenerational estrangement. This paper takes Chengdu Caojiaxiang Worker 's Village as a case, introduces the theory of urban acupuncture and moxibustion, and conducts ' acupuncture diagnosis ' from three dimensions of material space, crowd demand and intergenerational communication through on-site recon-naissance and crowd demand research. On this basis, the community micro-renewal is carried out according to the logic of ' acupoint, meridian, collateral and qi '. The research results show that the characteristics of small-scale, gradual and point-by-point cut-in of urban acupuncture and moxibustion are in line with the realistic conditions of lack of space, broken context and complex governance in the old workers ' community, which can provide reference for the micro-renewal of similar communities.

Keywords

Urban Acupuncture; Community Micro-renewal; Caojiaxiang Workers Village; Community Building

1. Introduction

At present, the incremental expansion of urban planning in China is gradually shifting to the period of stock renewal, and the renewal and transformation of old communities is becoming an important issue for urban transformation and development. As the embryonic form of modern urban community, the old workers ' community has caused problems such as lack of public space, degradation of building function, imperfect infrastructure, fracture of community context and confusion of governance mechanism due to its long construction age, low construction standards and lack of community infrastructure. These problems are difficult to solve through large-scale demolition and construction, but will destroy

the original spatial texture of the community and the social network of acquaintances. Under the policy background of urban renewal emphasizing the simultaneous development of ' retention, renovation and demolition ' and strictly controlling the large-scale demolition and construction, it is of great practical significance to explore the small-scale and gradual micro-renewal path for the transformation and development of the old workers ' community. This paper takes the micro-renewal of Chengdu Caojiaxiang Worker Village as a specific case, and combines the urban acupuncture theory to carry out the renewal design research, aiming to provide a reference method for the renewal of similar communities.

2. Research Background and Research Methods

2.1. The Dilemma of Revitalizing Old Working-Class Neighborhoods and the Shift Toward Micro-Revitalization

Old-style worker communities represent a typical residential model that emerged under the unit system. These neighborhoods were primarily constructed by work units and equipped with facilities such as employee housing, communal canteens, schools, and medical and health services, thereby forming relatively self-contained living units [1]. Such communities harbor a wealth of industrial memory and collective sentiment, yet they also face pressing challenges: aging infrastructure, outdated facilities, and population decline. The conventional approach of demolition and reconstruction, while capable of reshaping the physical environment in the short term, often severs the community's historical continuity and social ties. In recent years, "micro-renovation" has gained widespread acceptance, emphasizing small-scale, incremental, and bottom-up interventions that respect the existing urban fabric and prioritize public participation. Rather than seeking to solve problems once and for all, micro-renovation aims to foster the community's own capacity for adaptation through sustained, gradual improvements..

2.2. The Theoretical Coupling of Urban Acupuncture and Community Micro-Renewal

The theory of urban acupuncture was first proposed by the Spanish architect Manuel de Solà-Morales. It views the city as an organic living entity, suggesting that small-scale interventions at key "acupuncture points" can catalyze comprehensive improvements in the surrounding areas. Urban acupuncture achieves this by tar-geting critical "points" with localized interventions, thereby enhancing the city's overall functionality [2]. At its core, the theory follows a logic of "point-based entry, using points to connect lines, and using lines to expand into broader areas," emphasizing precision, minimally invasive approaches, gradual progression, and catalytic effects.

Domestic scholar Wu Zhongping points out that the "acupuncture technique" of urban fabric can gen-erate substantial effects through subtle interventions[3]. Wen

Chao and others, drawing on the theories of urban acupuncture and urban repair, have proposed a gradual, low-cost “acupuncture-style” approach to the renewal of urban villages [4]. The above research indicates that urban needlesMoxibustion and community micro-renewal are fundamentally aligned, both emphasizing small-scale, point-based interventions and systemic ac-tivation. Introducing urban acupuncture into the micro-renewal of aging worker-class neighborhoods means identifying the pivotal nodes that can catalyze broader revitalization, using targeted interventions to unblock and revitalize the community’s underlying fabric.

3. Current Status Assessment of Caojiaxiang Workers’ Village

3.1. Basic Information about the Community

Caojiaxiang Workers’ Village is located in Simaqiao Subdistrict, Jinniu District, Chengdu, within the First Ring Road to the east of the Fu River, and belongs to an aging workers’ residential area in the city’s core district. The community enjoys convenient transportation and well-developed amenities, serving as a key cultural hub for the working class in northern Chengdu. Caojiaxiang Workers’ Village embodies a rich local cultural heritage—spanning street-level urban culture, industrial architectural traditions, and workers’ culture (see Figure 1). Over the course of a century, this neighborhood has reflected the evolution of Chengdu’s urban development, vividly capturing the city’s distinctive vernacular culture [5]. Its golden age spanned the 1950s to 1970s, when workers’ culture flourished. Since the late 20th century, the community has gradually entered a phase of decline, with deteriorating buildings and infrastructure, ushering in a period of renewal and transformation. The community exhibits pronounced aging trends: seniors account for 60% of the population, young adults 35%, and children 5%. Native residents comprise 61% of the population, with a relatively balanced gender ratio; intergenerational integration stands as a central demand that must be addressed in the revitalization process.

3.2. Acupuncture-style diagnostic analysis

This paper takes the urban acupuncture concept as its guiding principle, treating the Caojiaxiang Workers’ Village community as an organic whole and applying an acupuncture-inspired approach to diagnose and analyze it (see Figure 2). Through on-site inspections and field research, the author has identified three key issues: At the physical-spatial level, the community suffers from a lack of public spaces. Many buildings within the community are aging, poorly maintained, or left vacant and underused; the streets exhibit significant stylistic heterogeneity; and the green in-frastructure has yet to develop into a cohesive system. At the population-needs level, conflicting demands among different demographic groups are particularly pronounced. Based on these differences, residents can be categorized into four groups: long-time local inhabitants prioritize everyday services; tourists seek a

seamless visitor experience and distinct cultural identity; street vendors require ample space for outdoor operations; and newly arrived residents value commercial, cultural, and recreational amenities. Consequently, spatial expectations vary mark-edly across these groups, and existing facilities often struggle to accommodate all their needs simultaneously. At the intergenerational level, misalignment is evident: older residents tend to congregate during the day, while younger people focus on commuting and nighttime activities. The absence of shared spaces and opportuni-ties for interaction between these two cohorts widens the generational divide within the community.



Figure 1. Diagram of Historical evolution

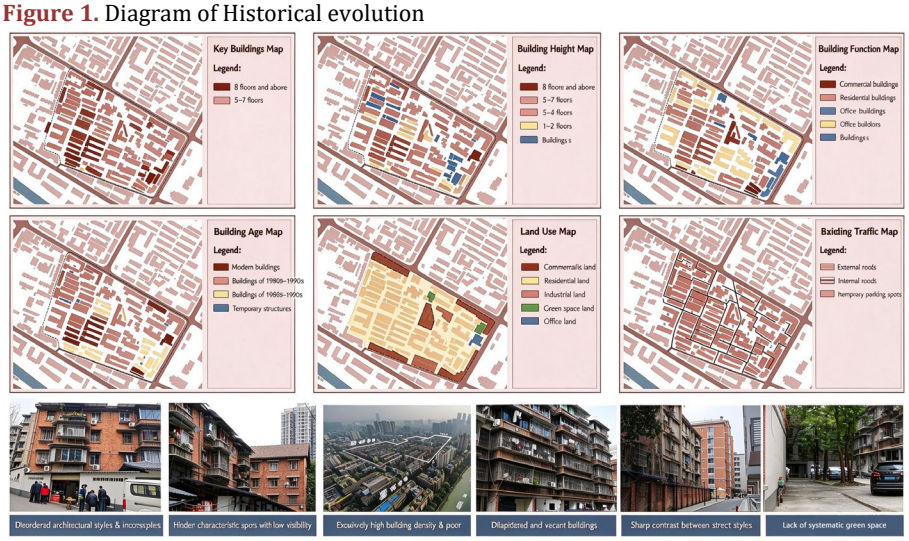


Figure 2. Diagram of Status Analysis

4. Renewal Design from the Perspective of Urban Acupuncture

In response to the current challenges facing Caojiaxiang Workers' Village, this study adopts a three-dimensional approach—spatial, cultural, and community—and un-folds its renewal design according to the logic of "acupoint activation, meridian un-blocking, channel circulation, and qi regulation." The design preserves the original street-alley layout and building typology, pursuing micro-renewal through minimal demolition and incremental reconstruction.

4.1. "Acupoint pressing": Identification of Key Nodes and Functional Implantation

This paper adopts the "point-to-area" principle of urban acupuncture. The "acupoint selection" process first identifies where to insert the needle—namely, by pinpointing representative key locations—and then categorizes these into four core acupuncture nodes (see Figure 3: Planning Structure Analysis). First are herit-age-type nodes, which prioritize historically significant structures such as red-brick buildings, Soviet-style corridor-type apartment blocks, and the "New Eight Build-ings." While modestly enhancing their exterior appearance, these sites integrate cultural exhibitions and public services, enabling historic buildings to regain their functional role. Second are spatial-type nodes, which repurpose underused commu-nity spaces and marginal areas—often referred to as "golden corners and silver edges"—into pocket parks and small plazas, thereby incrementally expanding the community's open space. Third are service-type nodes, designed to address the diverse needs of local residents by incorporating facilities such as senior service centers, youth entrepreneurship hubs, and children's activity areas, thus effec-tively addressing gaps in public services. Fourth are transportation-type nodes, achieved by connecting dead-end streets and optimizing intersection designs to enhance the continuity of the pedestrian network.

4.2. "Menstrual regulation": Linear Space Stitching and Corridor Con-catenation

"Connecting the threads" means linking discrete nodes into a cohesive network. In this paper, we design a "Time-Memory Loop Trail" as the community's primary circulation spine, integrating the core acupuncture-style nodes (see Figure 3b). This loop serves both as a vitality corridor and a cultural-historical memory pathway, weaving together all key nodes. In terms of traffic organization, we adopt a strategy of separating pedestrians from vehicles and prioritizing walking: external urban roads accommodate vehicular flows, while motorized access is re-stricted within the community. By demolishing portions of courtyard walls and re-connecting dead-end streets, we streamline the neighborhood's transportation network. Furthermore, leveraging the renovated underground parking facility be-neath the "New Eight Buildings," we address the imbalance between parking supply and demand and the issue of irregular vehicle parking in Workers' Village. The pedestrian system is anchored by the planned Time-Memory Loop Trail as its main artery, with a network of secondary paths forming a complementary sub-grid, creating a "primary loop plus secondary branches" structure that enhances walkability throughout the village. At street-level entrances and at major intersec-tions, we establish lingering spaces equipped with amenities for rest, social inter-action, and exhibition, transforming purely transit-oriented areas into places for engagement and increasing the community's open-space inventory.

4.3. "Activate circulation": Overall Layout Construction and Node In-terpretation

The so-called "vitality integration" refers to consolidating the outcomes of "acu-point stimulation" and "meridian unblocking" into a cohesive, holistic framework. The micro-renewal structure presented in this paper can be summarized as "two axes, one ring, multiple nodes": the two axes correspond respectively to the main commercial street of Workers' Village and the central axis of the Artisan Lane cul-tural district; the ring denotes the Time-Memory Loop; and the multiple nodes are distributed across public spaces and functional hubs (see Figure 3: Planning Road Analysis). In terms of functions, the area is further divided into six major vitality clusters, encompassing diverse uses such as cultural and creative industries, resi-dential living, commerce, public services, and cultural exchange (see Figure 3: Plan-ning Functional Analysis). For the detailed refinement of these nodes, four repre-sentative sites along the Time-Memory Loop were selected: the Community Red House with its Living Garden, the Red Brick Memory Square with its Children's Play Area, the Intergenerational Lab paired with the Senior Activity Center, and the Res-idential District combined with a Historical-Style Exhibition Interface. The spatial interpretation of these nodes proceeds along the trajectory of "historical memory, spatial reconfiguration, and community activation," leveraging the lower levels of buildings and the gray spaces of streets and alleys to create a layered, three-dimensional public realm. By employing localized design strategies—such as light and shadow, bamboo weaving, and tree-array arrangements—the project cul-tivates neighborhood spaces imbued with regional memory (see Figure 4).

4.4. "Regulating Qi" Governance Mechanisms and Implementation Safeguards

Whether acupuncture-style urban renewal can be sustained hinges on the crucial role of "regulating qi." Urban acupuncture emphasizes not only spatial inter-ventions but also the restoration of a community's own capacity for self-regulation. In his study of Jinan's Hui-Muslim neighborhood, Li Daoyong notes that micro-renewal must harmonize residents' "popular vitality" and their "spiritual well-being"; boosting the former requires public participation throughout the entire governance process, while safeguarding the latter calls for a dynamic governance approach coupled with timely feedback mechanisms [6]. This paper will explore "regulating qi" along the following lines: establishing partic-ipatory co-governance platforms—through resident meetings, surveys, and feed-back channels—to aggregate input and ensure that residents' actual needs inform every stage of design and implementation; engaging professional expertise—under a responsible planner system—so that communities maintain technical consistency during renewal and avoid distortions caused by personnel changes; and instituting long-term

mechanisms: prioritizing preservation and adaptive reuse in renewal ef-forts, striving to retain the original fabric and established social networks. Moreo-ver, ongoing operations and management cannot rely solely on one-off government investment; they must be sustained by the community itself. Drawing on the model of property management combined with resident self-governance, residents can remain actively involved in community affairs in their daily lives, gradually devel-oping the capacity for self-regulation.

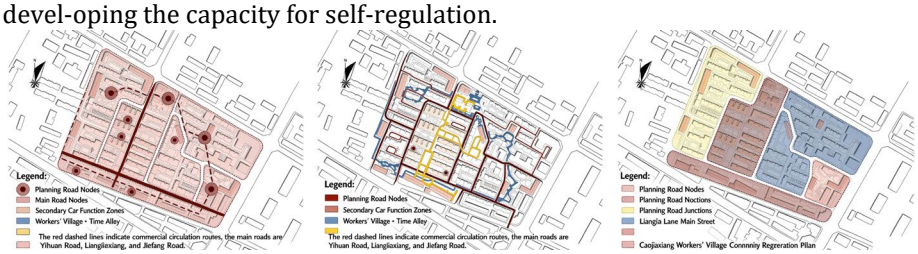


Figure 3. Diagram of design analysis

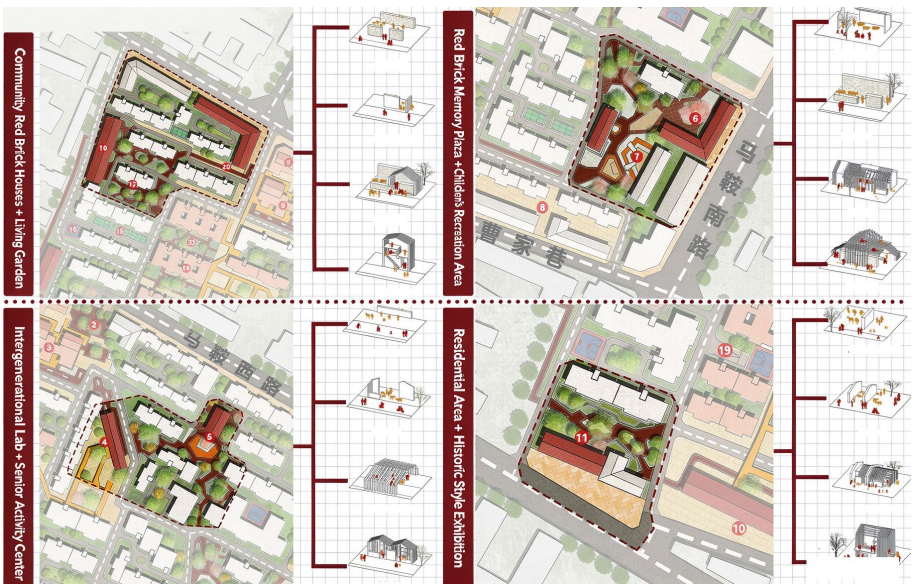


Figure 4. Diagram of node deduction

5. Conclusion

Taking the Caojiaxiang Worker 's Village in Chengdu as an example, this paper ap-plies the theory of urban acupuncture to the practice of micro-renewal of old work-ers ' communities, and constructs the renewal path of ' point-pressing, meridi-an-unblocking, collateral-activating and qi-regulating ' : in the acupuncture-type di-agnosis stage, the problems of space aging, demand differentiation and intergener-ational estrangement are first identified ; in the ' acupoint ' stage, intergenerational laboratories, elderly service centers and other nodes are implanted ; in the ' Tongjing ' stage, the time memory loop is used to connect the core space ; the ' Hu-oluo ' stage forms a ' two-axis, one-ring, multi-point ' pattern ; in the ' Liqi ' stage, we will build a participation platform and a long-term

mechanism. The research shows that urban acupuncture has the characteristics of small scale, progressive and point cut, which can fit the realistic conditions of the lack of space, context fracture and complex governance in the old workers ' community.

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