

Landscape Revitalization Design Strategies for Idle Corner Spaces in Old Communities from the Perspective of Urban Micro-Renewal

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Abstract: Against the backdrop of urban development shifting from incremental expansion to stock renewal, idle corner spaces in old communities have become hidden resources restricting the improvement of human settlement quality. From the perspective of urban micro-renewal, this paper sorts out the typological characteristics and spatial dilemmas of such spaces, analyzes their landscape revitalization potential, and proposes four design strategies: “acupuncture-style” precise intervention, functional composite transformation, public participation-oriented place-making, and local culture continuation, with case validation. The research shows that micro-renewal-based landscape revitalization of idle corner spaces can achieve spatial function regeneration, community vitality stimulation and place spirit reconstruction at low cost and low intervention, providing references for improving public space quality in old communities.

Keywords: urban micro-renewal; old communities; idle corner spaces; landscape revitalization; design strategies

1. Introduction

China’s urban construction has shifted from large-scale incremental expansion to stock quality improvement and efficiency enhancement. In 2025, the General Office of the CPC Central Committee and the General Office of the State Council issued the Opinions on Continuously Promoting the Action of Urban Renewal, prioritizing old urban residential area renovation and complete community construction[1]. As key components of urban stock space, old communities have attracted increasing attention in renewal and transformation.

However, current old community renewal faces a dilemma: on one hand, there are numerous idle “corner spaces”—narrow building gaps, desolate wall-foot areas, and debris-stacked courtyard corners; on the other hand, public activity spaces are severely insufficient, and residents’ “nowhere to go downstairs” problem is prominent. Though small and scattered, these idle spaces can be key resources to fill public space gaps if effectively activated[2].

The rise of urban micro-renewal provides a solution. It emphasizes “acupuncture-style” small-scale, low-cost, incremental intervention, replacing large-scale demolition and reconstruction[3]. Respecting site conditions and community fabric, it highlights resident participation and functional regeneration, aligning well with the revitalization needs of idle corner spaces[4]. Thus, exploring landscape value activation of these spaces via micro-renewal has urgent practical significance[5].

2. Types and Dilemmas of Idle Corner Spaces in Old Communities

2.1 Typological Characteristics

Idle corner spaces in old communities are diverse, mainly divided into three categories: first, the building gap type—narrow, irregular open spaces between buildings, often several meters wide and dozens of meters long, formed by unreasonable planning or construction remnants; second, the boundary enclosure type—marginal zones between community walls and buildings, or between communities and municipal roads, long neglected due to being “invisible”; third, the abandoned facility type—vacant sites left by abandoned facilities like disused boiler rooms and bicycle sheds. These spaces are generally small, scattered, and dependent, existing as scattered “dots” in the community.

2.2 Spatial Dilemmas

The long-term idleness of these spaces stems from multiple dilemmas. First, ambiguous functional positioning—they lack clear functions in initial planning, belonging to a gray area between formal public spaces and private courtyards, with “anyone can use but no one is responsible”. Second, deteriorated physical environment—long-term neglect leads to debris accumulation, overgrown weeds, damaged ground, and even sanitation and safety hazards. Third, lack of social cognition—residents often ignore them as “useless land”, with no willingness to use or transform them.

2.3 Revitalization Potential

However, these spaces have unique potential. Embedded in the community, they highly overlap with residents’ daily

activity trajectories. Research shows that small and micro green spaces, with high inclusiveness, can act as “patches” to improve urban functions[6]. Once activated, they can provide rest, social interaction, exercise, and planting services for nearby residents, with irreplaceable convenience compared to external large parks. Moreover, their small engineering volume and low cost make them suitable for micro-renewal, avoiding disruptions to residents’ lives caused by large-scale renovations.

3. Design Strategies for Landscape Revitalization of Idle Corner Spaces

3.1 Site-Specific Micro-Renewal Strategy

Revitalization should avoid standardized templates and adopt “acupuncture-style” precise intervention, targeting each space’s specific conditions. This precision covers three aspects: first, scale precision—intervention scale matches spatial capacity, avoiding over-design; second, function precision—functional positioning is determined by location and residents’ needs, not mechanical “pocket park” imitation; third, approach precision—adopt lightweight, reversible, low-impact methods like adding seating, permeable paving, and shade-tolerant planting to maximize benefits with minimal intervention.

The Hutong Micro-Garden in Beijing’s Dongcheng District illustrates this well[7]. The community horticulturist team revitalized idle hutong spaces via micro-renewal. In Courtyard No. 12 at Cangnan, a low-lying, debris-stacked space between old buildings was transformed using waste bricks and stones for flower bed enclosures, completing low-carbon greening and turning the desolate corner into two 400-500 square meter courtyard gardens. This “performing grand feats in a snail shell” approach is a typical micro-renewal manifestation.

3.2 Functional Composite Transformation Strategy

The key to turning “negative spaces” into “positive places” lies in clear, composite functions. Single functions fail to sustain long-term vitality, while diversified functions attract different groups and cover all-time usage needs. Three transformation directions are proposed: first, rest and social interaction type—add seating and small paved areas for neighborhood conversations; second, horticultural planting type—transform idle land into community gardens or edible landscapes, combining ornamentation and education; third, fitness activity type—install simple fitness equipment or micro-sports venues to meet elderly residents’ nearby exercise needs amid population aging.

A university student innovation project on “Community Public Space Activation Strategies under the Concept of Edible Landscape” is a typical case. It transformed community corner spaces into vibrant places integrating landscape value, economic output, and education, exploring a “landscape + planting + education” composite model that beautifies the environment and creates public benefits and educational resources.

3.3 Public Participation-Oriented Place-Making Strategy

Revitalization effectiveness depends on residents’ usage willingness and maintenance enthusiasm, so the design must shift from “top-down” dominance to “co-construction and co-governance” public participation. Participation runs through the whole process: in the research phase, conduct systematic population research, focusing on elderly residents’ needs to avoid “universal design failing to meet individual needs”; in the design phase, residents participate in decision-making via workshops and scheme voting; in the implementation phase, encourage residents to contribute labor, funds, and materials to reduce costs and enhance belonging; in the maintenance phase, establish a resident adoption and maintenance mechanism to turn users into guardians.

The Beijing Hutong Micro-Garden’s success largely stems from this approach. The community horticulturist served as a technical guide and neighborhood counselor. Enthusiastic residents led the effort, with neighbors voluntarily fundraising and contributing labor, and the sub-district office assisting in debris clearing and soil backfilling. After transformation, former strangers became “plant friends”, warming community relations. This spillover effect from spatial to social relationship reconstruction is the deeper value of participatory place-making.

3.4 Local Culture Continuation Strategy

Idle corner spaces carry community memories and life traces, which should be transformed and continued as design resources instead of being erased. Cultural continuation has three dimensions: first, the material dimension—prioritize local or waste materials like old bricks and stones to reduce costs and preserve place sense; second, the plant dimension—select native plants adapted to local climate and soil, avoiding maintenance difficulties from exotic species; third, the memory dimension—preserve memorable elements like old trees, walls, and wells as “anchors” for the new space.

The Hutong Micro-Garden’s “using local materials and turning waste into treasure” practice is worthy of learning—using waste bricks for flower beds and exchanging organic fertilizer for residents’ waste cardboard. This strategy creates organic continuity between the new landscape and old community fabric, rather than rigid rupture.

4. Conclusion

Landscape revitalization of idle corner spaces in old communities is essentially a multi-dimensional issue involving functional reorganization, social relationship restoration, and cultural memory continuation. Urban micro-renewal provides an appropriate methodology, achieving great value and social benefits with minimal intervention costs.

This paper proposes four strategies—"acupuncture-style" precise intervention, functional composite transformation, public participation-oriented place-making, and local culture continuation—addressing core revitalization challenges from different aspects. Cases like the Beijing Hutong Micro-Garden and community edible landscapes validate their feasibility and effectiveness in practice.

Of course, the sustainability of revitalization still faces challenges such as follow-up maintenance funds and residents' participation enthusiasm. Future research can focus on establishing long-term operational mechanisms to promote the transformation of idle corner spaces from "temporary beauty" to "lasting vitality".

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