

From “Production” to “Symbiosis”: A Study on the Landscape Value Remodeling of Nanchang’s Waterfront Public Space under the Super-Scale Width of the Ganjiang River

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Abstract:

Against the backdrop of promoting high-quality urban development, waterfront areas, as precious ecological and cultural interfaces of cities, are undergoing a transition from a “production-oriented” model that pursues economic value to a “symbiosis-oriented” model that emphasizes comprehensive benefits. Taking the core section of the “one river, two banks” along the Ganjiang River in Nanchang as the research object, this study addresses the practical challenges posed by its nearly 1,500-meter super-scale river width, including insufficient public value carrying capacity, lack of spatial vitality, and weak cultural identity. By introducing public value theory, a regulatory framework oriented toward the three-dimensional values of landscape ecology, recreational services, and cultural identity is constructed. The research proposes that the core of landscape design for super-scale riverfronts lies in shifting from “confrontation” to “dialogue.” Through the three strategies of “corridor weaving, functional compounding, and cultural anchoring,” the symbiosis between monumental scale and humanized experience, as well as between urban development and historical context, can be achieved. This study aims to provide theoretical and practical references for the landscape value remodeling of similar large-scale waterfront spaces.

Keywords:

Public Value, Super-scale River Width, Waterfront Public Space, Landscape Design, Nanchang City, Urban Regeneration

1. Introduction

Paradigm Shift in Waterfront Landscape Design and the Challenge for Nanchang As China’s urbanization process enters its “second half,” the logic of urban spatial development is undergoing profound transformation. The shift from “incremental planning” focused on scale expansion to “stock planning” emphasizing quality improvement, and from an economic-growth-centered orientation to a “public value” orientation pursuing coordinated social, economic, and environmental development, is

evident. In this context, waterfront areas traversing cities require a redefinition of their roles. They should not merely serve as “display fronts” for urban imagery or “value peaks” for land development, but should return to their essence as urban public spaces, becoming composite public value carriers that accommodate civic public life, manifest urban cultural heritage, and sustain regional ecological security.

Waterfront regeneration, as a critical issue in urban renewal, has accumulated rich practical experience globally. Studies indicate that successful waterfront renewal not only improves environmental quality but also enhances overall urban attractiveness by creating new public spaces [5]. Concurrently, scholarly assessments of waterfront spatial value have gradually expanded from a single visual dimension to multidimensional considerations encompassing spatial perception, psychological experience, and behavioral activities [6]. Nanchang, a city thriving due to the Ganjiang River, regards its “one river, two banks” landscape belt as the most important spatial skeleton. The river width of the Ganjiang in this section approaches 1,500 meters, representing a typical super-scale riverfront. This grand natural geographic pattern endows Nanchang with an “open and expansive” urban image, yet it also poses unique challenges for the landscape design of waterfront public spaces. These challenges include avoiding the “sense of alienation” induced by monumental scale, integrating the magnificent river views into the daily lives of citizens, and balancing intensive development with public value demands to shape a waterfront belt possessing both prominent image and substantive vitality.

Based on this problem awareness, this study adopts public value theory [4] as an analytical lens to explore how the landscape design of Nanchang’s waterfront public spaces can respond to new urban development demands—transitioning from a “production-oriented” design solely pursuing visual landscape effects to a “symbiosis-oriented” construction that integrates multiple values. This investigation intends to offer a Nanchang-based perspective for the landscape design of similar super-scale riverfront spaces in China.

2. Theory and Reality: A Public Value Examination of Super-Scale Riverfront Landscapes

2.1. The Connotation of Waterfront Landscapes from a Public Value Perspective

Public value theory was first systematically articulated by Professor Mark H. Moore of Harvard University in his work *Creating Public Value: Strategic Management in Government* [4], which posits that the objective of public management is to identify, define, and create public value for society. For waterfront areas, public value is not an abstract concept but is concretely embodied in three key dimensions: first, landscape ecological value, which entails maintaining biodiversity and providing nature-experiencing opportunities as part of the urban ecological foundation; second, recreational service value, which involves accommodating diverse civic activities as vibrant public spaces; and third, cultural identity value, which requires shaping a sense of place with a strong sense of belonging as a carrier of historical context.

In recent years, relevant empirical studies have systematically assessed the landscape aesthetic value of waterfront green spaces from spatial-psychological-behavioral dimensions [6]. For instance, research on the Qiantang River (Hangzhou section) revealed that the spatial value of waterfront green spaces is generally low, with public psychological perception primarily concentrated at the visual level, while

behavioral heat exhibits “high coupling but low coordination.” [6] This finding reveals a significant gap between waterfront spaces with excellent landscape aesthetics and actual public needs, thereby imposing an urgent requirement for waterfront landscape design to transition from “visually appealing” to “functionally usable.”

2.2. Value Dilemmas of the Public Space along Nanchang’s “One River, Two Banks”

Against this analytical framework, the development and construction of Nanchang’s “one river, two banks” area, driven by economic value, exhibit evident deficiencies in carrying public value [1]. Research indicates that within the core section’s land-use structure, the proportion of land designated for commercial finance, cultural entertainment, and ecological functions—which reflect public value—is relatively low, whereas the proportion of residential and industrial land oriented toward economic value is comparatively high. This directly leads to the following problems:

- Ecological and Landscape “Alienation”: The super-scale river width itself predisposes the landscape to a sense of “emptiness” and “dispersion.” Moreover, the high-intensity development of riverside buildings and the lack of control over public interfaces further obstruct visual connections and pedestrian accessibility between the urban hinterland and the riverfront, rendering the common experience of “being near the river without seeing it, and seeing it without engaging with it.” [1]

- Recreation and Vitality “Deficiency”: Insufficient public functional land results in monotonous waterfront spatial functions and a lack of places capable of sustaining pedestrian presence. Empirical research along the Qiantang River indicates that the thermal values of waterfront green spaces are generally low (1.3719–7.1583), concentrated at lower heat levels, with uneven population density distribution and an average stay duration of only 1.5 hours [6]. This finding suggests that grand river views, without refined functional configuration, are difficult to effectively translate into vibrant daily recreational experiences.

- Culture and Identity “Loss”: The super-scaled modern architectural complexes and riverside boulevards, in terms of spatial scale and townscape, readily obliterate the original historical fabric and cultural imprints of the city. The profound historical significance of the Ganjiang River as a golden waterway of the “Maritime Ceramic Road” has not been adequately highlighted, resulting in a weak sense of place.

3. Path Exploration: From “Grand Narrative” to “Pluralistic Symbiosis” - Design Strategies

Given the aforementioned dilemmas, the landscape design of Nanchang’s waterfront public spaces urgently necessitates a methodological innovation. The core lies in shifting the design focus from a unilateral pursuit of “large scale, grand landmarks, and imposing imagery” toward a deeper concern for “humanized experience, functional compounding, and cultural continuity,” thereby achieving a paradigm shift from “production-oriented landscape” to “symbiosis-oriented landscape.” This transition can be pursued through the following three dimensions.

3.1. Corridor Weaving: Reconstructing Waterfront Experience and Visual Accessibility

To address the “sense of alienation” and line-of-sight obstruction caused by the super-scale river width, the primary strategy involves constructing a refined system of visual and pedestrian corridors [1].

Rigorous Control of Perpendicular River View Corridors: In urban design, building heights and widths perpendicular to the riverbank should be strictly regulated to reserve unobstructed visual corridors that “introduce” the river view into the urban hinterland, fostering an organic dialogue between the city skyline and the expansive river surface. This requires adopting the “public interface ratio” as a core regulatory indicator, ensuring that the first row of riverside buildings predominantly accommodates public functions and guarantees the continuity of public space [1].

Weaving a Multi-Layered Slow-Movement System: By capitalizing on the elevation differences along the riverbank, multi-level waterfront trails, water-accessible platforms, and elevated boardwalks should be created to form a smooth transition from urban roads to riverside parks. Enhancing pedestrian accessibility and comfort encourages green travel modes to reach the riverfront, transforming “distant viewing” into “nearby enjoyment.”

3.2. Functional Compounding: Activating Waterfront Vitality through Public Life

The vitality of waterfront spaces originates from human activities. This requires landscape design to transcend mere greening and beautification, becoming a “container” for diverse public life.

Optimization and Adjustment of Land-Use Functions: Drawing on successful international and domestic waterfront cases, the proportion of land allocated for public functions such as culture, entertainment, and sports should be gradually increased, while the share of purely residential and industrial uses should be reduced. Research by Zhou Yi et al. suggests that in core waterfront sections, residential land should be controlled at 20%–40%, commercial-financial land at 15%–25%, cultural-entertainment land at 10%–15%, and ecological land at 15%–25%[1]. Against this benchmark, the proportions of cultural-entertainment and ecological land in Nanchang’s core waterfront section are both low and in urgent need of optimization [1].

Creation of All-Age-Friendly Places: In the landscape design of riverside parks, the needs of different age groups should be carefully considered. Diverse spaces catering to children's play, youth sports, and elderly rest, along with intergenerational interaction spaces, should be established, allowing waterfront public spaces to genuinely become vibrant areas that consolidate community sentiment and promote social interaction. Relevant research, using the Liyuan West Community in Nanchang as a case study, has validated the effectiveness of all-age-friendly public space renewal in promoting intergenerational interaction [2].

3.3. Cultural Anchoring: Place-Based Landscape Narratives and Sense of Place

Monumental modern landscapes tend to result in “uniformity across cities,” while profound local culture serves as the key to endowing waterfront spaces with unique charm.

Landscape Expression of Historical Context: The historical and cultural heritage of Nanchang as a renowned historical and cultural city “embracing three rivers and five lakes” should be thoroughly explored. Elements such as the Ganjiang shipping history,

revolutionary culture, and the artistic legacy of Bada Shanren (Zhu Da) should be creatively translated through landscape features, paving designs, and signage systems. For instance, the landscape application of regional culture in the Bada Shanren Meihu Scenic Area represents a beneficial practice [3].

Continuous Shaping of Sense of Place: In waterfront landscape design, industrial relics, docks, and ancient trees bearing historical memory should be preserved and integrated into the new public spaces through design interventions. This strategy of juxtaposing the old and new can perpetuate the urban cultural context and enhance citizens' sense of identity and belonging to the place. Practices in old community renewal that strengthen sense of place by extracting cultural elements and perpetuating collective memory offer valuable references for waterfront spaces as well [2].

4. Conclusions

The super-scale width of the Ganjiang River in Nanchang constitutes both a natural endowment and a design challenge. The traditional production-oriented landscape design paradigm, centered on visual imagery and economic growth, can no longer adequately respond to the deep-seated public value demands of high-quality urban development in the new era [1]. By introducing public value theory [4], this study posits that the future of Nanchang's waterfront public spaces lies in transitioning toward a "symbiosis-oriented" landscape. Under the design strategies of "corridor weaving, functional compounding, and cultural anchoring," efforts should be made to dissolve the contradiction between the monumental natural scale and the human scale, integrating multiple values of ecology, recreation, and culture. Ultimately, the magnificent Ganjiang River can genuinely become a "city living room" that is approachable, habitable, and memorable for Nanchang's citizens, rather than merely a landscape glimpsed through car windows. The exploration of this path also offers transferable insights for other cities possessing large-scale waterfront spaces [5].

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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