

Ragamuffin Geographies: A Critical View of Informal Green Spaces Against Formality in Chinese Cities

Shutian Wang

*Hainan University-Arizona State University Joint International Tourism College, Hainan University,
Haikou, China
swang601@asu.edu*

Abstract. Today, many Chinese cities want to build "eco-cities" and achieve carbon neutrality. However, urban planning often falls into a trap of formalism, prioritizing neat and hyper-managed landscapes like artificial lawns. While these formal spaces provide visual order and recreational areas, they create high financial maintenance burdens and lower biodiversity. In contrast, informal green spaces (IGS), including spontaneous urban wilderness and community gardens, are commonly cleared away simply for their unkempt appearance. Adopting a qualitative literature review approach, this study redefines informal green spaces as novel ecosystems, drawing on Emma Marris's Ragamuffin Earth theory." The findings indicate that while formal lawns serve public event functions, they create heavy fiscal strains. In contrast, informal wild landscapes offer higher biodiversity and zero maintenance costs, while supporting the psychological place attachment and spatial justice of marginalized groups like seniors. Finally, the paper addresses the governance dilemma between neatness and ecology, proposing a "light-touch" management framework to successfully integrate inclusive wildness into the official urban planning system.

Keywords: Spontaneous urban vegetation, Novel ecosystems, Aesthetic formalism, Environmental justice, Adaptive governance

1. Introduction

Green spaces are crucial for climate adaptation in cities. In China, contemporary urban planning prioritizes visual tidiness and invests heavily in the upkeep of manicured lawns. However, such artificially maintained lawns generate high carbon emissions due to regular mowing, irrigation and fertilization. Meanwhile, spontaneous wild plants and self-made gardens are eliminated. While existing research often focuses on improving high-tech formal parks, few studies explore how to combine formal and informal green spaces to address fiscal pressure, ecological degradation and spatial inequity. This paper fills this gap. This paper answers four questions based on a four-chapter structure. First, how can informal urban greenery be conceptualized as novel ecosystems that counter high-modernist urban aesthetic norms? Second, what are the ecological and economic efficiencies of this "inclusive wildness"? Third, how do these spaces support place attachment and spatial justice for marginal groups? Fourth, how can cities overcome the governance dilemma between hygiene and ecology through light-touch management?

This paper uses a qualitative literature review and case analysis, analyzing the ecological performance and social values of urban wilderness based on existing academic data. This study challenges the idea that "neatness equals good ecology." It offers local governments a zero-cost strategy to improve urban biodiversity during economic tightening, while also providing a fairer spatial design for ordinary citizens.

2. Conceptualizing "ragamuffin" landscapes: bridging informal green spaces and novel ecosystems

2.1. Defining Informal Green Spaces (IGS)

Informal Green Spaces (IGS) are characterized by their spontaneous growth, non-official management, and marginal geographical locations within the urban fabric. The baseline concept of IGS encompasses non-designed urban patches that develop outside the boundaries of official municipal maintenance and planning regimes [1]. These spaces manifest across a diverse structural matrix, including abandoned industrial brownfields, railway verges, neglected riverbanks, and the micro-interstices between residential brick walls. Instead of functioning as static urban voids, IGS constitute dynamic ecological zones where spontaneous flora naturally regenerates. International research frames these spaces as crucial geographic reserves born from temporary or intentional lapses in state regulation, providing alternative ecological structures within heavily built environments [2].

2.2. The "novel ecosystem" paradigm

These self-sown urban plants and untended wild spaces represent what Emma Marris conceptualizes as "novel ecosystems" on a "Ragamuffin Earth" [3]. Although these spontaneous plant communities are not "pristine" and often contain a highly modified mix of native and non-native species, they form highly adaptive ecosystems tailored to the harsh urban conditions of the Anthropocene. They utilize highly compacted urban soils, adapt to localized heat island microclimates, and manage urban runoff without any anthropogenic support or deliberate species selection. Classifying these adaptive biological assemblages merely as "weeds" ignores their dynamic resilience and their capacity to maintain functional ecological succession within deeply disturbed human habitats.

2.3. The Chinese context of "high-modernist" aesthetics

However, the current Chinese urban governance is deeply influenced by a "high-modernist" aesthetic that values absolute visual order, geometric symmetry, and manicured neatness. This rigid administrative mindset operates through top-down urban environmental evaluation metrics that prioritize highly managed, artificially uniform landscape architecture as the supreme symbol of civilized modernity [4]. Consequently, municipal planners and city managers frequently misinterpret these highly adaptive novel ecosystems as "waste spaces" or "garbage land." Because these unruly wild patches do not conform to the clean visual lines enforced by top-down cleanliness assessments, they trigger institutional anxieties regarding disorder, leading to their systematic and mistaken clearance by city authorities.

3. The ecological and economic efficiency of "inclusive wildness"

3.1. Biodiversity and self-sustainability

In terms of ecological value, empirical data proves that these informal "ragamuffin" spaces possess a higher level of biodiversity and stronger climate resilience than manicured formal lawns. Spontaneous nature provides multiple overlapping ecosystem services, supporting complex food webs that harbor local birds, diverse insects, and critical pollinators [5]. Furthermore, with unhindered natural ecological succession, informal green spaces can provide ecosystem services comparable to those of artificially maintained urban parks [6]. These unruly patches establish complex biological structures that deliver effective microclimate regulation and stormwater retention while functioning as entirely self-sustaining habitats.

3.2. The "zero-cost" advantage

Crucially, this substantial ecological value is tied to a vital economic advantage: "zero-cost" maintenance. Cultivated and manicured public parks impose an unsustainable financial burden on municipal governments, especially during periods of local government budget cuts, due to their constant requirement for intensive watering, chemical weeding, and mechanical mowing. Embracing "inclusive wildness" by intentionally doing nothing offers a zero-maintenance landscape strategy. This non-interventionist approach directly relieves the severe fiscal pressures faced by Chinese cities, allowing local authorities to preserve and expand vital urban green infrastructure without drawing from depleted public maintenance funds.

4. From visual order to social space: place attachment and spatial justice

4.1. The psychology of "messy" nature

Moving beyond superficial visual order, urban spaces should cater to people's psychological needs and overall community wellbeing. Marginalized groups, particularly retired seniors and children, often prefer these "messy" non-formal spaces over sterile, hyper-regulated manicured lawns. This clear psychological preference exists because informal nature provides a higher degree of "accessibility" and "usability" for the everyday lives of local residents. Unmanaged urban lots and self-governed interstitial gardens allow vulnerable populations to interact directly with nature on their own terms, providing open, flexible spaces where residents can engage in physical activities like urban farming or vegetable planting to satisfy their core psychological needs.

4.2. Spatial justice and marginalized groups

This intimate psychological connection fosters a strong sense of place and advances spatial justice for vulnerable urban groups. Formal, manicured eco-parks in contemporary Chinese cities are often exclusionary due to long travel distances, high commercial costs, or strict security rules that prohibit informal gathering and personal modifications. Urban vacancy and land use legacies should not be viewed merely as landscape scars of economic decline, but as progressive frontiers for inclusive design and democratic space [7]. For low-income populations and the elderly, these wild, untended urban gaps become the last accessible green oases for free community socialization. Informal green spaces play a crucial role in reducing spatial inequalities by providing highly accessible, low-barrier natural environments for vulnerable groups [8]. Eradicating these informal sanctuaries under the

mandate of aesthetic tidiness constitutes an act of spatial injustice that sacrifices organic social infrastructures for the sake of sterile visual consumption.

5. The governance dilemma: hygiene vs. ecology

5.1. The "dirty" perception

To put this theoretical framework into practice, we need to address the practical governance dilemma confronting local administrations. City managers legitimately worry about the negative impacts of "messy" spaces, as untended wilderness can easily create a persistent public perception of visual pollution and structural neglect. From an administrative standpoint, unmanaged vegetation is frequently associated with hygiene issues and pest infestations, such as mice and mosquitoes, which threaten municipal public health standards. Furthermore, dense, unlit brushwoods can present potential safety hazards, creating blind spots that complicate municipal surveillance and increase public anxieties regarding urban crime. These legitimate public concerns explain why local bureaus instinctively resort to total clearance when dealing with spontaneous ecosystems.

5.2. Toward a "light-touch" management

To balance the demands of public hygiene with the necessity of ecological preservation, cities should reject the simplistic "all-or-nothing" clearing method and adopt a "light-touch" management model. Drawing from Western experiences in post-industrial land transformation, such as the naturalized management of Liberty State Park, planners should implement minimal interventions that signal human care without enforcing environmental sterility [9]. Municipal workers can perform light mowing along the edges of public view corridors instead of executing complete ecological extraction, and clean up physical litter without installing hard concrete engineering. Furthermore, incorporating public aesthetic needs and installing simple footpaths and botanical interpretation signs can effectively shape public attitudes toward wild landscapes [4]. These simple interventions signal to inspectors and residents that the space is intentionally maintained, successfully turning wild nature into accepted community assets and resolving the conflict between administrative cleanliness and biological vitality.

6. Conclusion

In conclusion, this paper strictly follows the four-stage framework directed by urban planning literature to re-examine Chinese eco-city governance. While formal manicured lawns serve specific public event functions, the formalist pursuit of visual order creates heavy financial burdens and ecologies of exclusion. By moving beyond the long-standing pursuit of rigid administrative tidiness, this analysis reveals profound socio-ecological deficits inherent in contemporary municipal planning frameworks.

By applying Emma Marris's "Ragamuffin Earth" theory, this study successfully redefines informal green spaces as valuable "novel ecosystems" that offer high biodiversity and zero-cost carbon reduction. Moving beyond pure botanical parameters, this inquiry has utilized qualitative literature analysis to demonstrate that these overlooked spaces support the place attachment and spatial justice of marginalized seniors against high-modernist exclusions. When urban authorities clear spontaneous wild landscapes in the name of eliminating visual blight, they remove not only vegetation but also crucial emotional anchors and social havens for disadvantaged groups.

Therefore, the final recommendation for future urban governance is to resolve the dilemma between hygiene and ecology through a "light-touch management" policy. Rather than resorting to simplistic, all-or-nothing clearance methods, municipal authorities must learn to design with natural ecological succession. By implementing light-touch regulations and clear zoning—such as maintaining clean perimeter frames or simple footpaths to signal human care without enforcing biological sterility—future planners can transform their roles from absolute controllers to ecological facilitators. This transition offers a progressive blueprint for contemporary Chinese metropolises, achieving a balance between economic sustainability, ecological resilience, and social justice in the Anthropocene era.

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