



Fig. 1 An example of Lexue Park: a landscape for joyful learning.

From Urban Parks to Open Classrooms: The Joyful Learning Park Model for Nature Education in Beijing's Fengtai District

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FEATURES

Lexue Park (Joyful Learning Park); Nature Education; Child-Friendly City; Collaborative Governance; Public Green Space

PRACTICE REFLECTIONS

- Addressing the shortage of nature-based educational spaces through an integrated “education + park + governance” approach

- Establishing a multi-scalar nature education system to transform urban parks into open learning environments
- Developing a replicable multi-stakeholder governance model for educational public spaces

RESEARCH FUND

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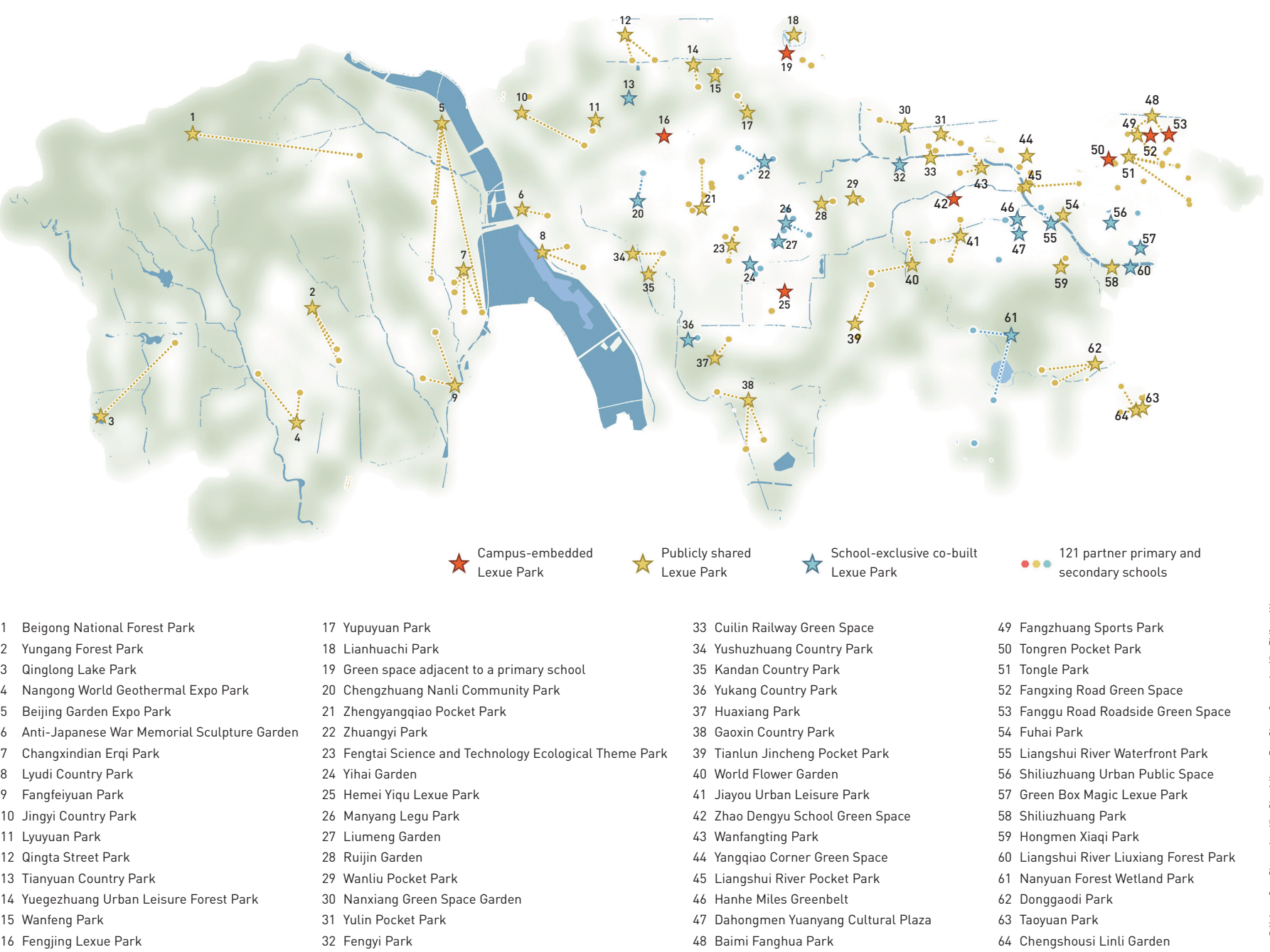
1 From Recreational Green Space to Urban Educational Infrastructure

Amid multiple policy agendas in China, including education reform, ecological civilization construction, and child-friendly city initiatives, urban public spaces are being reimagined with expanded educational functions^[1]. Traditional

school-based education has long relied on enclosed campus spaces, while opportunities for nature education and outdoor practice remain limited, weakening children’s everyday connections with natural environments^[2–3]. Meanwhile, urban parks, as important components of green infrastructure, have traditionally focused on leisure and recreational use, with their educational potential largely

underutilized^[4–7]. Against this backdrop, Fengtai District in Beijing, China proposed the concept of the “Lexue Park” (Joyful Learning Park), based on an “education + park + governance” framework to explore new pathways for transforming public green spaces into educational infrastructure. Rather than constructing extensive new educational facilities, the project strategically utilized

Fig. 2 Spatial distribution of the three types of school-park partnerships.



the existing urban park system through school-park partnerships, curriculum co-development, community collaboration, and small-scale spatial interventions. Through these approaches, urban green spaces are transformed into open and shared environments for nature education. To date, 121 schools in Fengtai District have established partnerships with parks and green spaces, forming a “15-minute study circle” covering approximately 453.6 hm² of green spaces. More than 400 learning activities have been organized, involving over 50,000 teachers and students. The project not only expands children’s everyday access to nature, but also proposes a new governance model for the multifunctional use of public spaces in high-density cities.

2 Three Collaborative Models of Lexue Parks

The primary objective of the Lexue Park initiative is not simply to create landscape spaces, but to establish a system of “nature education infrastructure.” Through spatial renovation, curriculum integration, and collaborative governance, the initiative connects ecological environments, educational systems, and community governance. According to the Guidelines for Lexue Park Curriculum Development, the 121 school-park partnerships can be categorized into three types: campus-embedded, school-exclusive co-built, and publicly shared models.

2.1 Campus-embedded Lexue Parks: Micro-nature Classrooms Within Schools

Campus-embedded Lexue Parks are small green spaces within or directly adjacent to school campuses, including micro-gardens, vegetable plots, corner green spaces, and nature education



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Fig. 3 Family farm on the campus of Beijing National Day School Fengtai Primary School.



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Fig. 4 Tree climbing classes at Beijing Fengtai Foreign Language School.

zones. These spaces are generally managed independently by schools and primarily serve students of these schools. Characterized by flexible teaching arrangements and strong curricular integration, they usually have enclosed or semi-open spatial configurations with high levels of educational controllability. For example, Beijing National Day School Fengtai Primary School establishes a

“Family Farm” within its campus, where students directly participate in planting, maintenance, and harvesting activities. Fengtai Foreign Languages School introduces “Tree Climbing Classes,” encouraging children to experience nature through bodily interaction and environmental perception. Although these spaces are generally small, most measuring less than 1 hm², their frequent use and

Fig. 5 Pocket garden, weather observation station, sandpit, and climbing net at Zhuangyi Park.



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Fig. 6 Students working on the “Learning Vegetable Garden” at Yukang Country Park.

Fig. 7 Students participating in outdoor learning at Fengtai Garden.

Fig. 8 Students attending an insect study program at Beigong National Forest Park.

Fig. 9 Students cultivating farmland at Beijing Garden Expo Park.

Fig. 10 Students growing vegetables at Wanfeng Country Park.

integration into everyday school life make them important foundational spaces for ecological education.

2.2 School-Exclusive Co-built Lexue Parks: Collaborative Governance Between Schools and Parks

The school-exclusive co-built model represents the most innovative component of the Lexue Park system. In this model, students are no longer temporary users of public parks, but active participants in spatial co-design, co-management, and co-governance. Dedicated educational zones or shared learning bases are typically established within parks, while students

participate in naming spaces, designing facilities, and operating educational programs. These participatory processes strengthen students’ sense of ownership and environmental stewardship. For example, Zhuangyi Park incorporates diverse educational facilities, including herb gardens, weather observation stations, and climbing structures. Yukang Country Park establishes a “Learning Vegetable Garden,” where students can engage in planting and cooking courses. Students from Beijing National Day School Fengtai Primary School renamed a neighborhood green space as the “Green Box Magic Park,” enhancing their sense of belonging and engagement with the learning environment. Among these examples, Nanyuan Forest Wetland Park is particularly significant for connecting seven schools through a shared nature education network, creating a regional-scale ecological learning platform. This model not only extends educational spaces beyond campuses, but also establishes new

collaborative relationships among schools, landscape management departments, subdistrict governments, and local communities.

2.3 Publicly Shared Lexue Parks: Open Learning Spaces for All Citizens

Publicly shared parks are open-access public spaces that integrate educational functions while continuing to serve the general public. By embedding environmental interpretation, science communication, and place-based learning into conventional urban parks, these spaces function simultaneously as recreational landscapes and informal educational infrastructure. They include comprehensive urban parks, science-themed parks, country parks, and pocket parks. Unlike school-oriented educational spaces, these parks are jointly used by students, families, and other community members, with educational activities integrated into everyday landscape settings



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Fig. 11 Students painting fallen logs at Lianhuachi Park.

Fig. 12 Students experiencing farming at Lyuyuan Park.

through interpretive installations, learning programs, and nature-based experiences. Representative examples include Fengtai Garden, Lianhuachi Park, Beigong National Forest Park, and Beijing Garden Expo Park, which support ecological observation, environmental interpretation, and science education. Numerous neighborhood pocket parks also function as important spaces for children's outdoor activities and community learning.

This model reflects Fengtai District's strategy of extending nature education through existing public green spaces. Given the limited green spaces available within school campuses, urban parks have become important external resources for outdoor learning. Through curriculum integration, interpretive systems, and educational programming, these parks complement

campus-based education while supporting informal learning opportunities for the wider community. The model demonstrates how public green spaces can function as multifunctional public infrastructure supporting ecological, educational, and social objectives.

As shown in Table 1, publicly shared Lexue Parks account for the largest proportion, school-exclusive co-built parks account for nearly one quarter of all partnerships, and campus-embedded parks represent the smallest proportion. These patterns suggest that nature education spaces for most schools in Fengtai District are not exclusively school-owned resources, but rather rely on the broader urban green infrastructure network. Due to limited ecological spaces within campuses, many schools utilize surrounding urban parks (including pocket parks), country parks, and other public open spaces to support outdoor learning activities. Among the three models, school-exclusive co-built parks require the highest level of coordination. Although they represent a smaller proportion of cases, they provide the greatest potential for innovation within the entire Lexue Park system. Their defining feature is the transformation of schools from passive users into active partners in park governance, involving the establishment of dedicated educational zones, student participation in park naming

and design, and shared experimental spaces among multiple schools.

3 From Spatial Regeneration to Governance Innovation

The significance of the Lexue Park initiative lies not only in spatial transformation, but also in innovations in governance mechanism. Traditionally, urban parks and schools have been managed by separate administrative systems, with limited coordination between them^[8]. The Lexue Park initiative establishes a cross-sector governance framework involving education departments, landscape management authorities, subdistrict administrations, schools, and social organizations. Within this framework, children are no longer passive users of public spaces, but active participants in spatial co-creation. Whether through naming parks, participating in vegetable garden construction, or conducting ecological observation and maintenance activities, children's agency is substantially strengthened. This participatory approach also shifts nature education from simple knowledge transmission toward spatial experience and civic engagement. In addition, the project has constructed a multi-scalar network, ranging from campus micro-green spaces and community pocket parks to regional country parks.

Table 1: Distribution of school-park partnership types in Fengtai District (N = 121)

Type	Number of parks	Number of partner schools	Percentage of partner schools (%)
Campus-embedded	7	8	6.6
School-exclusive co-built	15	28	23.1
Publicly shared	48	85	70.3

These spaces complement one another across different scales, enabling children to continuously access nature within a “15-minute living circle,” thereby improving the accessibility and equity of educational resources.

4 Practical Implications and Future Prospects

Although the Lexue Park model has achieved substantial progress, several challenges remain. Ecological spaces within school campuses remain limited, leaving many schools dependent on nearby parks for nature education^[9]. In addition, the long-term operation and maintenance of co-built spaces require sustained financial and institutional support. Furthermore, the quality and content of educational programs vary across parks due to the lack of a unified evaluation framework.

Nevertheless, the Lexue Park initiative in Fengtai District demonstrates that public green spaces can function not only as ecological infrastructure, but also as educational infrastructure and platforms for social governance. Through cross-sector collaboration and participatory design, urban parks can be reactivated as important spaces for children’s environmental learning, community interaction, and ecological awareness. This model offers a replicable approach for the educational transformation of public spaces and offers valuable lessons for child-friendly and Garden City development.

Competing interests | The authors declare that they have no competing interests.

Project Name: Lexue Parks in Fengtai District, Beijing
Location: Beijing, China
Size (area): 453.6 hm² of parks and green spaces (covering 121 partner schools)
Client: Fengtai District Education Commission; Fengtai District Landscaping Administration
Landscape Architecture: Fengtai District Lexue Park Working Group (collaborative body comprising multiple departments)
Project Team: Fengtai District Education Commission (curriculum development and educational practice); Fengtai District Landscaping Administration (spatial planning and park management); Fengtai District Park Management Center (guideline formulation and resource integration); Fengtai Academy of Education (teaching guidance); Fengtai Academy of Educational Sciences (tracking research and evaluation)
Collaborators: 121 primary and secondary schools in Fengtai District; 14 district-level departments; subdistrict offices; Jindu Landscape Architecture Co., Ltd.
Supporting Institutions: Beijing Municipal Forestry and Parks Bureau; Beijing Academy of Forestry and Landscape Architecture; Beijing Municipal Education Commission; Management Cadre College of the National Forestry and Grassland Administration; China Conservatory of Music
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