# 西岸自然艺术公园“森虫秘境”
# FOREST WONDERLAND

设计：上海张唐景观设计事务所
地点：上海市徐汇区

Design: Z+T STUDIO
Location: Xuhui District, Shanghai

大草坪的亲子互动和“竹节虫”秋千的趣味体验
The interactive parent-child activities on the large lawn and the fun experience of the “Stick Insect” seesaw structure
© 刘松恺 LIU Songkai

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**结构设计**
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**施工单位**
张唐 Hapitor、
上海园林绿化建设有限公司

**基地面积**
30,000 $m^2$

**设计周期**
2022.2—2023.8

**建造周期**
2023.2—2024.3

2021 年，上海市人民政府办公厅印发《关于加快推进环城生态公园带规划建设的实施意见》，构建“一大环 + 五小环”的环城生态公园带体系。上海市环城生态公园带（徐汇段）一期实施范围西起老沪闵路，东至龙吴路，北临外环高速，南至华泾路以南，总面积约 37$hm^2$。

张唐景观作为合作单位，负责其中 3$hm^2$ 的用地范围。整体设计以本土昆虫为创意源点，构建了一环串联多节点的体验式景观空间。项目以“森虫秘境”为概念、“森林下面有什么”为故事线，抽象演化为可参与性的创新景观设计。通过最小干预的方式，构建了一环多节点的景观装置，包括“蚕宝宝”乐园、“千足虫”躺椅、“竹节虫”秋千、“刺蛾茧”探险洞、“蝴蝶”爬网、“蜗牛”小屋、“蜘蛛”休憩站等，分布于不同空间场景。

**最小干预的“嵌入式”设计**

本次设计的森虫秘境区域，结合了现状的香樟、广玉兰、青桐和枫香等植物分布情况。以最小化介入为设计原则，结合航拍图片、现场 GPS 测绘、实地测量等方式来初步确定路网布局和活动场地的节点位置，最大限度保护现状植被的同时，将原有乔木群落的疏密关系做一个更合理的调整。设计阶段的所有努力也需要精细化施工来实现，就像给场地做一次精准的修复手术一样。改造项目的难点多半是现状制约条件的复杂性，大拆大建的粗放施工或许可以提高施工效率，但是对场地的破坏也是不可逆的，就像“拿着菜刀做手术”一样。

**互动装置的新材料尝试**

项目尝试了多种材料的运用方式，以探索生态和可持续的材料应用。

“千足虫”座椅使用的是非洲菠萝格（又名格木）。该木材生长缓慢、材质坚硬，一般生长周期在 100 年以上，且力学性能好，具有很好的天然防腐与抗白蚁特性，耐久性良好。其芯材呈黄褐色至红褐色，边材为浅黄色，色差对比明显。格木每年一次定期保养，可长效使用 10 年以上。

“蜘蛛”休憩站使用的材料是无限竹，是一种通过层压浸渍处理的全竹，具有良好的耐候性。竹子作为地球上生长最快的植物之一，一般 4 到 5 年就可以成材收割。无限竹可以根据使用需求定制不同长短和厚度，既可以充分利用可再生的竹子资源，又能满足不同建造尺寸规格的需求。

“竹节虫”秋千使用的大规格 H 型钢梁，也是在探讨一种建造工艺，即拿工业现成品或拆除的工厂钢框架，通过设计重组来满足特定场景和功能需求。

“刺蛾茧”探险洞则由 7 个大小不同、形态各异的茧状构筑物组成，摒弃常规的钢板锻造与油漆饰面做法，设计团队第一次尝试用高强纤维混凝土来塑形。一方面，混凝土成型后的厚重感和自然质感更契合自然艺术公园的设计语汇；另一方面，从耐久性和易维护方面考量也更加具有优势。石材质感的洞壁唤起人们原始的本能，不自觉地留下自己的涂鸦创作。

5 组镜面秋千外部采用的是一种新型复合材料“美新超越木”，两年前工厂组装的打样段，经过风吹日晒，无明显色差变化或变形开裂，表现出良好的耐候性。秋千内部采用复合镜面板，以多种膜材经过高温复合形成精 8k 的镜面效果，成品超轻、易于安装。

**后续**

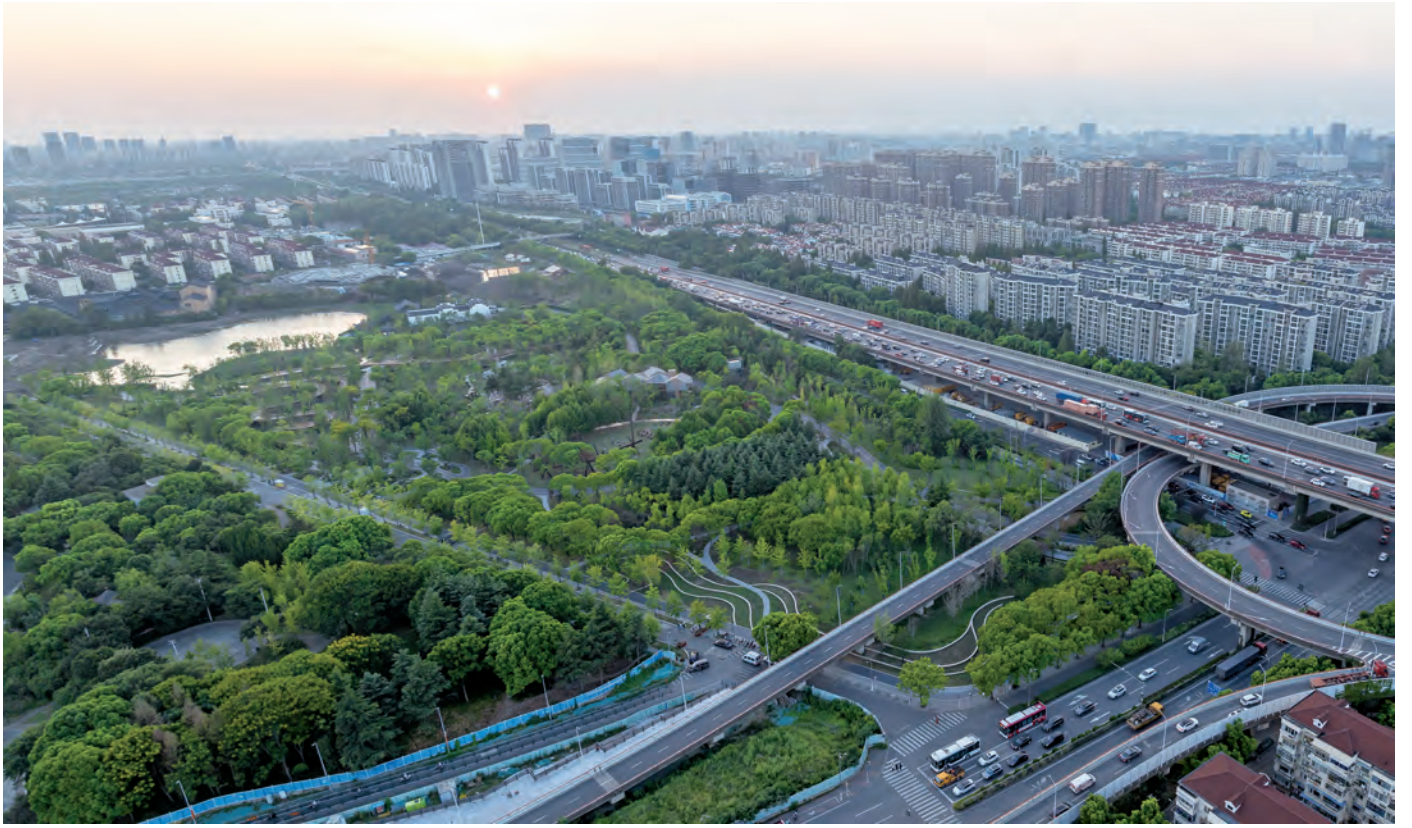
公园开放的首周，便吸引了近 10 万人次的游客。瞬时客流的急剧增加，也对园方的现场疏导与日常管理提出了更高要求。与此同时，为保持公园的持续吸引力与活力，未来还需进一步考虑结合多元化的活动内容和服务方式，如自然教育课堂、户外科普等，保证公园的可持续发展。


N 0 10 20 50m

总平面图 Site plan

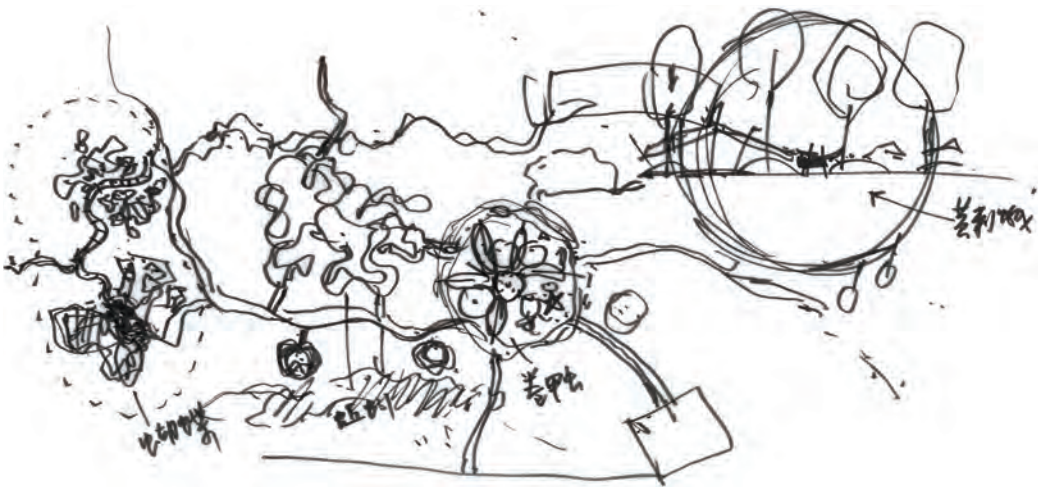
1 入口广场（现状）
2 树篱学堂
3 “蚕宝宝”乐园
4 “千足虫”躺椅
5 “竹节虫”秋千
6 “刺蛾茧”探险洞
7 “蜘蛛”休憩站
8 “蜗牛”小屋
9 “蝴蝶”爬网
10 镜面秋千
11 秋千廊架

1 Entrance plaza (existing)
2 Hedgerow classroom
3 “Silkworm” playground
4 “Centipede” lounge chair
5 “Stick Insect” seesaw structure
6 “Caterpillar Cocoon” adventure cave
7 “Spider” rest station
8 “Snail” hut
9 “Butterfly” climbing net
10 Mirror swing
11 Swing pergola



西岸自然艺术公园鸟瞰 Aerial view of West Bund Natural Art Park © 刘松恺 LIU Songkai

现状植被勘测 Survey of existing vegetation © 张唐景观 Z+T Studio



概念草图 Concept sketch
© 张东 ZHANG Dong

1 “蚕宝宝”乐园
“Silkworm” playground
© 刘松恺 LIU Songkai
2 “蝴蝶”爬网
“Butterfly” climbing net
© 唐子颖 TANG Ziying
3 “ 刺蛾茧 ” 探险洞
“Caterpillar Cocoon” adventure cave
© 张唐景观 Z+T Studio
4 “刺蛾茧”探险洞内部
Interior of the “Caterpillar Cocoon” adventure cave
© 刘松恺 LIU Songkai

“千足虫”躺椅 The “Centipede” lounge chairs © 朱侠 ZHU Xia

“蜘蛛”休息站 The “Spider” rest station © 刘松恺 LIU Songkai

大草坪上的“竹节虫”秋千和“千足虫”躺椅
The “Stick Insect” seesaw structure and the “Centipede” lounge chairs on the large lawn © 刘松恺 LIU Songkai

**CLIENT**
Greening and City Appearance Management Bureau of Xuhui District, Shanghai; Shanghai Xuhui District Greening Management Center

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**STRUCTRURAL DESIGN**
Shanghai Municipal Engineering Design Institute (Group) Co., Ltd.

**CONSTRUCTION COMPANY**
Z+T Hapitor Art Studio; Shanghai Landscape and Greening Construction Co., Ltd.

**SITE AREA**
30,000 $m^2$

**DESIGN PERIOD**
2022.2–2023.8

**CONSTRUCTION PERIOD**
2023.2–2024.3

The first phase of the Shanghai Ecological Park Belt (Xuhui Section) covers a total area of approximately 37 $hm^2$. As a collaborative partner, Z+T Studio was responsible for the design of a 3 $hm^2$ site within the park. The overall design draws inspiration from local insects, centered around the concept of “Forest Wonderland” and the narrative theme of “What Lies Beneath the Forest.” This concept is abstractly transformed into participatory and innovative landscape design, adopting a minimal intervention approach to create a looped path connecting multiple feature nodes—including a “Silkworm” playground, “Centipede” lounge chairs, “Stick Insect” seesaw structure, “Caterpillar Cocoon” adventure cave, “Butterfly” climbing net, “Snail” hut, and “Spider” rest station—distributed across various spatial settings.

**Minimal-Intervention “Embedded” Design**

The existing trees on site are primarily camphor, magnolia, phoenix tree, and sweetgum. Adhering to the principle of minimal intervention, GPS mapping was used to plan path networks and locate activity nodes, preserving the existing vegetation to the greatest extent while replacing and renewing some unhealthy trees.

By utilizing the site’s spatial structure, large installations (e.g., Stick Insect, Centipede) define open boundaries and create multi-functional public spaces designed for rest, supervision, exercise, and gatherings. Based on tree species, canopy spread / DBH (diameter at breast height), underbranch height, and density, age-specific and activity-specific facilities are thoughtfully embedded accordingly.

**Interactive Installation Series**

The centipede-shaped seating encircles a raised oval micro-terrain, defining the northeastern edge of the site. The “Stick Insect” seesaw structure is situated along the border between the path and the activity area, interweaving with existing camphor trees. The “Spider” rest station nestled among magnolia trees is scaled for children under 6 to crawl through. Made of enduring bamboo, a material with excellent weather resistance, it can be customized in length and thickness based on usage needs. The “Caterpillar Cocoon” adventure cave consists of 7 cocoon-like structures of varying sizes and shapes, formed with high-strength fiber-reinforced concrete and equipped internally with colorful hanging nets and climbing elements suitable for children under 8.

The core integrated activity area is situated among several large cedar trees. 3 silkworm-shaped structures intermingle with the preserved cedars, providing shade and a resting environment for waiting parents. 5 sets of mirror swings are placed around the area, offering additional seating for supervisors. The swings are made with mirrored composite panels that create multi-angle reflective effects.

**Follow-up**

The park attracted nearly 100,000 visitors within its first week of opening. The sudden surge in visitor flow posed challenges for crowd management and daily operational protocols. Moving forward, the park’s development will need to incorporate diversified activities and services—such as nature education classes and outdoor science programs—to ensure sustainable development.