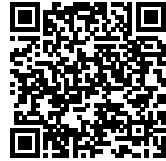




BOULDER PARK: A 3D-PRINTED TERRAIN FOR PLAY

Posted on July 22, 2025 by xavigonzalez



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Located within the Yunwan Garden of Vanke Snow Mountain City in Jinan, China, Boulder Park spans 13,000 square meters and redefines the community park through a synthesis of landscape, technology, and play. At the heart of its concept is the boulder—a timeless natural form—transformed through both traditional landscaping and cutting-edge 3D concrete printing to create an immersive environment for all ages.

The park is subdivided into thematic zones: the All-Age Boulder Playground, Water Garden, Forest Garden, Stone Garden, and Flower Garden. Designed by XISUI, the children's activity areas—namely the Boulder Playground, Water Garden, and Forest Garden—seamlessly integrate natural stone elements with playground features.

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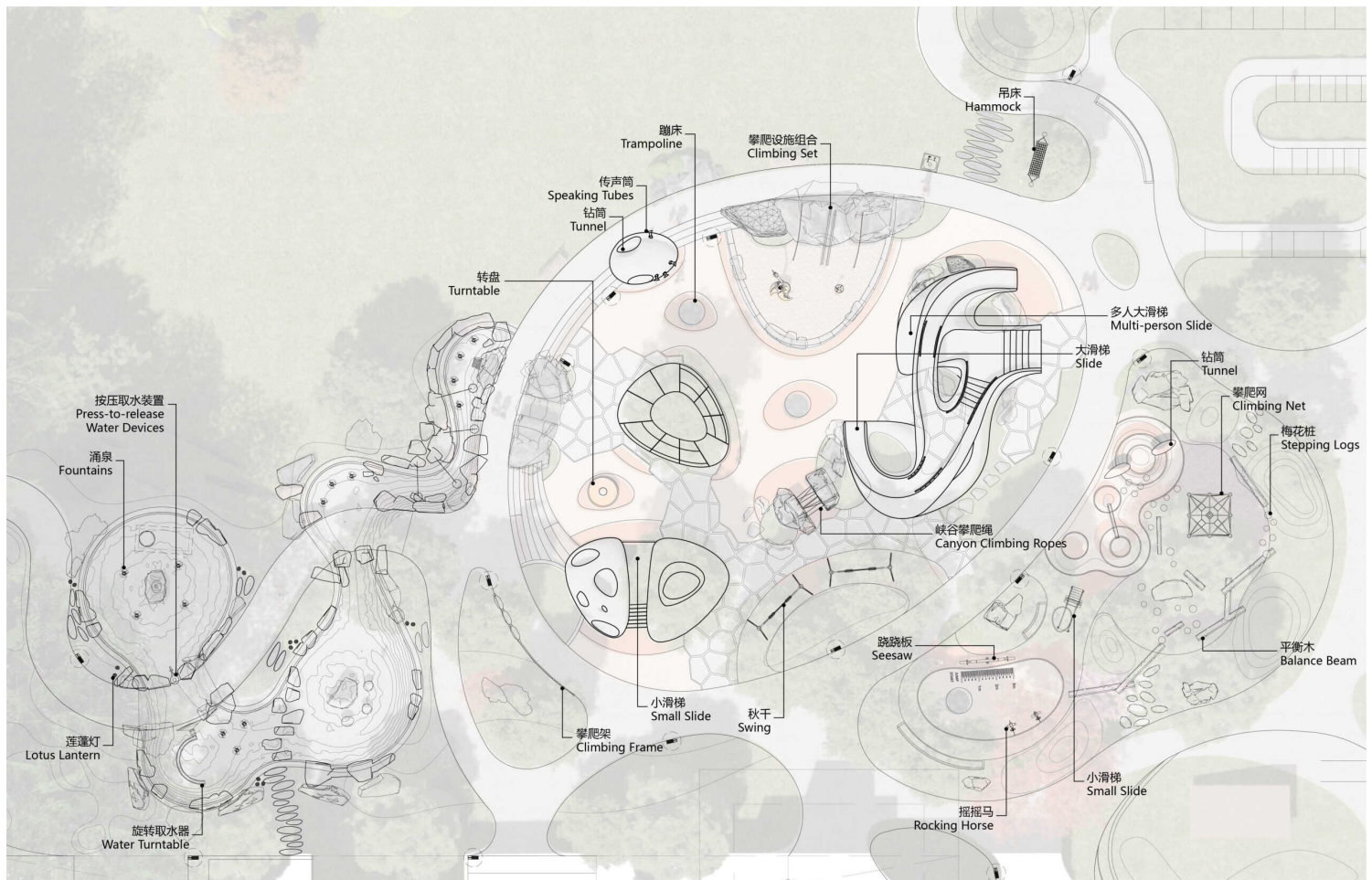
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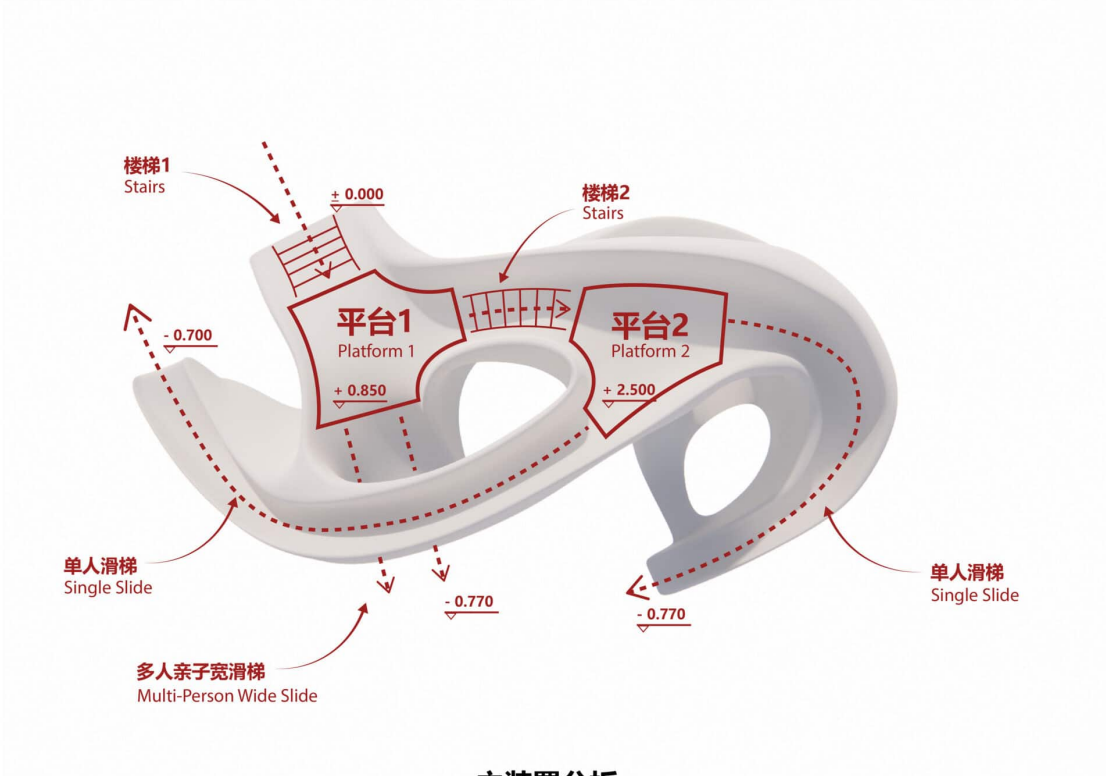
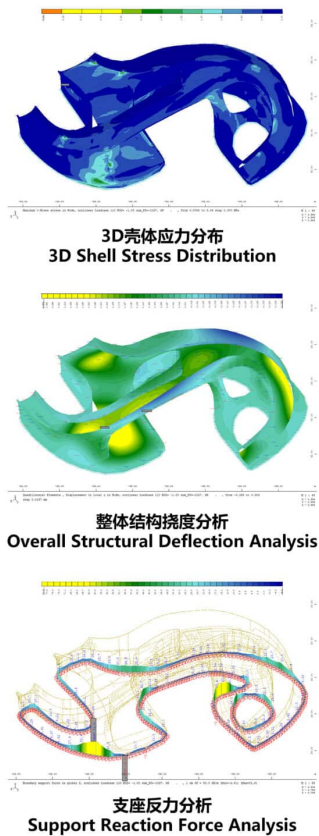
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Interactive elements such as swings, trampolines, slides, climbing ropes, tunnels, and sound tubes are embedded within the terrain and sculptural concrete forms. These components not only encourage physical activity and cognitive development but also promote engagement with nature. The Water Garden uses gently flowing streams and interactive water devices—including pumps, turntables, and fountains—to create a sensory-rich play space that fosters curiosity and collaboration.

The central sculptural installation is fabricated with monolithic 3D-printed concrete, where layered textures and curvilinear forms evoke natural rock formations. This digitally-fabricated structure combines spatial fluidity with functional elements such as steps, handrails, slides, and benches. The smooth, rounded surfaces enhance safety while maintaining visual and tactile continuity with the

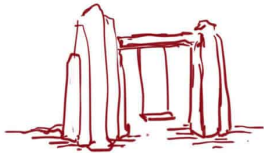
surrounding environment.



主装置分析
Main Installation Analysis

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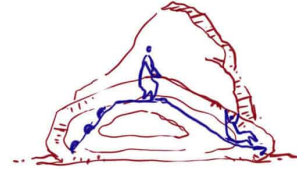
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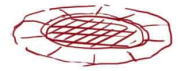
巨石秋千
Boulder Swing



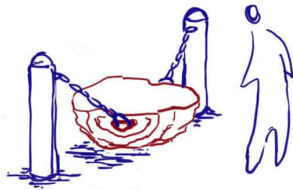
巨石翘板
Boulder Seesaw



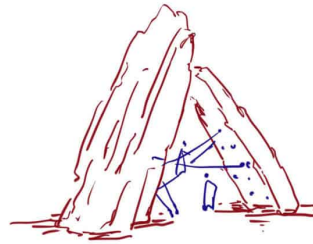
滚石滑梯
Rolling Stone Slide



石井蹦床
Stone Well Trampoline



悬石座椅
Suspended Stone Seat



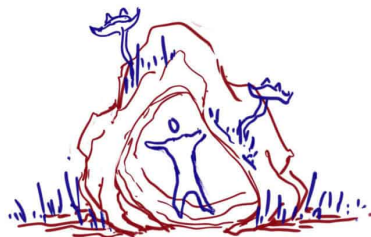
勇者峡谷
Brave Canyon



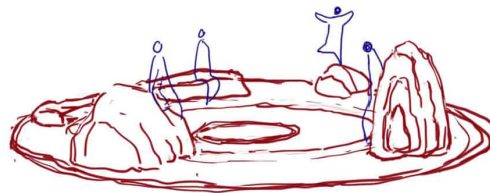
巨石平衡木
Rough Stone Balance Beam



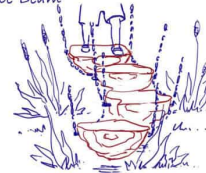
平衡木 / 梅花桩
Balance Beam / Stepping Logs



置石钻洞
Boulder Tunnel



禅庭转盘
Zen Courtyard Roundabout



悬石高桥
Suspended Stone Swing Bridge



岩壁涂鸦墙 + 黑板
Rock Wall Mural · Blackboard

Despite ongoing challenges in 3D concrete printing—such as load distribution and reinforcement limitations—the park's structural elements achieve a compressive strength of 50MPa, exceeding conventional C40 concrete. These technological advancements enable the realization of organic, durable, and cost-effective structures that would be difficult to achieve through traditional methods.

Boulder Park ultimately exemplifies how emerging fabrication techniques can elevate public space design by fusing innovation, play, and ecology. It offers a space where children and families engage with both natural and artificial landscapes in novel and meaningful ways.

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