

飞鸟剧场 The Earth Valley Theater

Architectural Concept (Max. 150 words)

从自然中生长出来；与自然和谐交融的关系；

The Earth Valley Theater is conceived as an "open system" that challenges traditional anthropocentric design. Rather than confining birds within aviaries, the project serves as a "land-art" intervention where architecture literally grows from the valley's topography. The concept, "Dancing with the Birds," transforms the theater into a shared habitat where avian autonomous flight dictates spatial logic. By integrating the building into the natural undulations of the T-shaped valley, the design blurs the boundaries between the artificial and the wild. This "total work of art" (Gesamtkunstwerk) ensures that the architecture is not merely a shelter but a medium for interspecies dialogue, fostering a harmonious relationship where humans and nature coexist in a state of mutual respect and spiritual adventure.

Site and context analysis

- Description of the Project Locale (Include description of the Architecture/ Design of the Area, and how the Project integrates into the Climatic/Cultural/ Architectural Environment of the Area) (Max. 150 words)

在地文化两大特征：陶都；竹海

Located in Yixing, China's renowned "Pottery Capital" and "Bamboo Sea," the project is nestled within a T-shaped valley near Lake Taihu. The design deeply integrates into this cultural and climatic environment by adopting a materiality inspired by local heritage. The public entrance and performance plinths utilize CNC-shaped concrete to replicate the rustic, tactile texture of raw pottery, while the aviary zones feature free-form woven skins that echo traditional bamboo-weaving craftsmanship. Architecturally, the theater follows the site's natural contours, with terraced seating and "sunk" stages that minimize visual impact on the landscape. This integration extends to the climatic context, where the surrounding bamboo hills and valley topography provide natural shading and a temperate microclimate, rooting the theater firmly within its regional identity.

- Briefly describe some of the key constraints and opportunities of the project and how the design solution addressed them (Max. 150 words)

山谷地形带来的限制条件；泄洪需求

The primary constraint was the site's complex T-shaped topography, characterized by narrow valleys and an active flood discharge channel on the western edge. However, these constraints were transformed into design opportunities. The architects leveraged the natural undulations and terraced topography of the valley to organize circulation, creating distinct roaming paths that naturally separate spectator entry from backstage logistics without intrusive barriers. The narrow east-west valley was strategically designated as a protected aviary zone, utilizing the mountain slopes as natural acoustic and visual buffers. Additionally, the potential hazard of the flood channel was addressed through a landscape-led engineering solution, integrating the drainage system into a series of stepped gardens that enhance the site's urban ecology while ensuring flood safety through a 20-year return period standard.

Description of project details

- Describe the project and highlight the special features, supporting facilities and landscape design, etc. (Max. 150 words)

三个功能分区；大地艺术；地景建筑；沉浸于自然中的剧场；

The 9,200 sqm complex employs an integrated architecture, landscape, and interior design strategy to achieve an organic unity across three distinct functional zones: the **Terraced Zone**, the **Performance Zone**, and the **Aviary Zone**. The northern **Terraced Zone** structures the arrival via three cuboid pavilions, functioning as an intense container that completely disguises a comprehensive back-of-house program—including ticketing, retail, rehearsal halls, dressing rooms, offices, and mechanical utilities—beneath structured, green-roofed terraces. This leads seamlessly into the central **Performance Zone**, a 2,300-seat amphitheater sunken into the natural topography for unobstructed, immersive sightlines. The sequence culminates in the narrow, bamboo-sheltered valley of the **Aviary Zone**, dedicated to protected bird habitats. This holistic integration minimizes the visible built footprint and masterfully conceals complex theatrical logistics, allowing heavy operational support to dissolve entirely into the pristine land-art ecosystem.

Significance of the project

- In what way is this project important? Please describe the aspect(s) of the

project, which you feel represent a particular achievement, for example the technical, economic, or social achievement, or its response to culture or climate. etc. (Max. 150 words)

去人类中心主义的反思 - 生态教育

文旅模式创新；流量贡献与经济价值；地方发展政策的落地

As a key provincial tourism milestone, the 300-million-yuan theater functions as the **flagship cultural anchor** that catalyses the region's socio-economic and rural revitalization policies. Rather than an isolated venue, this architecture operates as a powerful traffic engine: its immersive design achieved an unprecedented turnout, drawing over 14,000 specific visitors during the Qingming Festival and leading to completely sold-out performances to packed houses throughout the May Day holiday, directly anchoring Yaohu Town's macro success of 3 million annual tourists. Culturally, it introduces an avant-garde eco-education paradigm that breaks anthropocentric boundaries. Socially, the theater acts as a regional multiplier: its specialized operational needs—from avian care to eco-tourism logistics—have successfully absorbed local rural labor, while its massive digital traction indirectly stimulated a 210% surge in traditional Zisha pottery and agri-food sales. **By merging high-standard interspecies architecture with communal wealth-building, the project outstandingly demonstrates how localized cultural infrastructure can effectively** convert ecological assets into shared, long-term rural prosperity.

Areas of Innovation

- In what areas is this building exemplary? How does it stand out from its peers? (Max. 150 words)

建筑、景观、室内一体化设计

“整体艺术”：与戏剧导演及鸟类管理团队共同策划

“适鸟化”设计

The project's exemplary innovation lies in its rigorous execution of **integrated architecture, landscape, and interior design**, which acts as the spatial foundation to realize a "total work of art" (*Gesamtkunstwerk*). Rather than a singular design approach, this methodology is defined by its deep, cross-disciplinary co-curation from day one, seamlessly aligning the architects with theatrical directors and Puy du Fou's avian experts. Through this absolute synthesis, human theatrical narrative and non-human biological behavior are

synthesized into a singular entity. The primary innovation manifests in the highly calibrated "avian-friendly" results: seating slopes and structural heights are synchronized with bird flight trajectories, acoustics are balanced for sensitive animal hearing, and automated release infrastructure is embedded into the landform plinths. This integrated delivery serves as an exemplary case of how complex cultural infrastructure can transcend architectural boundaries to function as a living, interspecies ecosystem.

Details of Sustainable Architecture

- How does the project address the criteria for sustainability? Why does it deserve a special award? (Max. 300 words)

- **Sustainability Engagement and Performance**, e.g. Demonstrates strategic commitments to combat climate change; Stakeholder.
- **Environmental Quality and Well-being**, e.g. Promotes health and well-being; values ecological, social and cultural aspects of the site and surrounding neighbourhood.
- **Resource Conservation**, e.g. Promotes net zero-energy, low carbon emissions, and innovative use of renewable energy sources; Reduction in material and resource consumption from a life-cycle perspective; Effective waste management and pollution control.

The Earth Valley Theater embodies sustainability through a holistic integration of architectural form and ecological logic. The building is designed and constructed in strict accordance with the Two-Star Rating or higher of China's Green Building Evaluation Standard.

Ecological Integration and Water Management:

The project achieves a site-wide earthwork balance by meticulously controlling ground elevations, reusing excavated soil from the theater's "pit" to create the surrounding sculptural slopes. This system functions as a multi-purpose infrastructure that provides scenic water features, supplies recycled water for irrigation, and ensures efficient seasonal flood discharge, thereby enhancing the site's hydrological resilience.

Passive Design and Energy Efficiency:

Strategically positioned within the T-shaped valley, the theater leverages natural

regulation of wind, temperature, and humidity. Service functions are tucked beneath the terraced amphitheater, utilizing the earth's thermal mass for natural cooling and heating. The stepped green roofs function as vibrant "plateau gardens," providing superior thermal insulation that significantly reduces active energy consumption and carbon emissions throughout the building's lifecycle.

Innovative Materials & Low-Carbon Construction:

Environmental impact is minimized through the use of sustainable material systems. The aviary units utilize low-carbon light steel structures and standardized prefabricated components, which shortened the on-site construction period and reduced waste. Locally sourced aggregates and raw clay materials were employed to replicate traditional pottery textures via CNC-shaped concrete, minimizing the embodied carbon associated with material transportation. Furthermore, all technical installations, such as flicker-free LED lighting systems in aviaries, are programmed to respect natural circadian rhythms, demonstrating a commitment to both environmental conservation and interspecies well-being. By aligning architectural logic with the valley's natural rhythms, the project achieves a high-performance, low-impact presence in the Mingling Mountains.

Details of Socially Responsible Architecture

- How does the building address the criteria for socially responsible architecture?

Why does it deserve a special award? (Max. 300 words)

- **Social inclusiveness**, e.g. Accessible to all; Universal design; Care for the vulnerable or underprivileged.
- **Delivering Positive impact beyond architecture**, e.g. Natural resources; Social equality, justice, values; Policy and legislature; Local economy and jobs; Urban ecology and infrastructural systems; Partnerships and stakeholder diversity.
- **Outcomes and processes sensitive to local needs**, e.g. Community resiliency against disasters; Quality of place/space - comfort & ease of use; Culturally sensitive design features; Affordable, Cost effective solutions; Efficient use of locally scarce resources; Participatory design and construction processes; Choices of materials, building systems and equipment; Construction techniques.

Social responsibility is central to the Earth Valley Theater's mission, manifesting in its inclusivity and regional impact:

Social Inclusiveness & Universal Access:

The project is designed to be accessible to all members of society, ensuring that the transformative experience of nature is available to all. A dedicated barrier-free circulation system connects the plazas to specialized wheelchair-accessible seating areas within the amphitheater, allowing vulnerable groups to enjoy the interspecies performance with the same level of immersion as others. The spatial organization fosters a sense of community, replacing traditional commercial boundaries with open, permeable plazas that encourage social interaction.

Economic & Cultural Impact:

By rooting the design in Yixing's "Pottery and Bamboo" heritage, the project supports local traditional industries. The hand-sculpted concrete and bamboo-woven structures required collaboration with local artisans, preserving traditional techniques while creating specialized jobs during the construction and operational phases, from avian management and training to eco-tourism services. As a flagship cultural landmark for Yaohu Town, the theater has become a significant driver for the local tourism economy, attracting international visitors and fostering regional pride.

Educational Stewardship:

Beyond its function as a venue, the Earth Valley Theater acts as an outdoor classroom for environmental ethics. By placing birds as the protagonists of the space, the project challenges the exploitative nature of traditional animal displays and promotes a socially responsible attitude toward biodiversity. This "integrated design" approach—blending architecture, landscape, and avian science—sets a new standard for how large-scale cultural developments can respond to local needs while delivering a positive impact that transcends the physical boundaries of the site.

Users' Profile & Response

- Describe how the design addressed the needs to each user profile of the building. (Max. 200 words)

鸟类 驯鸟师 观众

The design addresses three distinct user profiles: **Birds**, **Trainers**, and **Spectators**. For the **Birds**, the theater provides an "open system" for flight alongside specialized aviaries (including heated winter quarters) that cater to their physiological and psychological health. The **Trainers** benefit from a streamlined logistics network; backstage areas are directly linked to the aviary zones, featuring medical facilities and food preparation rooms that ensure efficient daily management. For the **Spectators**, the design replaces traditional seating with terraced "pottery" steps, fostering an informal and immersive atmosphere. The strategic "sinking" of the audience ensures that bird flight paths remain at eye level or above, creating a thrilling yet safe encounter. By balancing these needs, the architecture facilitates a seamless performance where the boundaries between caregiver, performer, and observer are harmonized within the natural landscape.

- Describe the users' response to the building e.g. the operational experience as a result of the choice of material or technical installation. (Max. 150 words)

The theater has achieved exceptional, dual-layered validation from both its ecological and human occupants. **As the primary users of the architecture, the 258 non-human residents**—birds of prey monitored by Puy du Fou experts—exhibit exemplary behavioral responses, including zero-stress adaptation, flawless flight execution, and autonomous homing within the cageless environment. This biological success is directly driven by the tactile architectural surfaces; the utilization of non-reflective, rough-textured **CNC-guided sculpted concrete** and local clay materials on the plinths successfully prevents avian visual disorientation and slipping injuries, earning high technical endorsement from professional trainers. **Simultaneously, the public response** has gone phenomenal across China's top lifestyle and video platforms, REDBOOK (Xiaohongshu) and TikTok (Douyin). Under trending tags like *#HealedByBirds*, thousands of spectators express profound emotional resonance. Audiences marvel at the absolute spatial erasure of physical barriers, where human and avian sightlines lock in mutual trust against the mountain backdrop, proving that the architecture successfully redefines eco-tourism through an interspecies sanctuary.

Innovative Project Technology

- Highlight any innovations in construction technology, structural system, material use, building services, site utilities, digital technology, etc. (Max. 450 words)

雕刻混凝土

鸟舍构造

The Earth Valley Theater seamlessly integrates cutting-edge digital technology with traditional material narratives to achieve a "Total Work of Art" (Gesamtkunstwerk). Through an advanced integrated design process, complex engineering challenges were systematically resolved to balance ecological symbiosis, regional identity, and technical precision.

Interspecies-Oriented Technical Logic

Unlike traditional buildings designed solely for human comfort, this project prioritizes the biological requirements of over a dozen bird species. The architecture incorporates specialized "Avian-Friendly" infrastructure. The aviary facades employ a customized, lightweight, and weather-resistant **HDPE** (High-Density Polyethylene) **mesh** wrapped over a light-steel framework. This dual-layer system successfully simulates the appearance of traditional regional bamboo weaving to honor local identity while providing necessary shade, glare reduction, and optimal ventilation. Inside the habitat, the design integrates 15-cm thick natural soil and river-sand flooring for efficient drainage and biological comfort, complemented by interior cladding made of smooth, heat-treated marine wood to prevent feather abrasion during nesting. Thermal comfort is rigorously addressed through a climate-controlled wintering block that maintains a constant 12°C via specialized radiant heating and ventilation systems, ensuring the well-being of sensitive species across seasons. To avoid disorienting the birds during showtimes, acoustics are precision-managed: high-efficiency directional line-array speakers restrict sound propagation strictly within the audience zone, minimizing decibel spillover into the natural nesting areas.

Precision Release and Management Systems:

The theater features an innovative automatic release system, utilizing French-style sliding doors and "Sputnik" boxes that facilitate autonomous avian flight. This technical setup allows birds to exit and return to their aviaries without human handling, preserving their natural instincts and reducing stress. Lighting

technology was equally specialized: the aviaries utilize flicker-free LED systems with independent programmers to simulate natural dawn and dusk transitions, preventing the psychological distress that conventional artificial lighting can cause in birds.

Digital Fabrication of Regional Motifs:

The project utilizes advanced digital design to translate Yixing's ancestral pottery heritage into a landscape scale. The complex, topography-driven terraced forms were mathematically optimized to **replicate the fine, rustic grain of handcrafted ceramics** and **mimic the tactile appearance of raw clay**. The structural frame of the organic plinths was controlled via high-precision CNC shaping, allowing local craftsmen to efficiently execute the final texturing on-site. This ensures that the non-reflective, rough-surfaced **CNC-guided sculpted concrete with a sand-washed artistic finish** meets both the rigorous aesthetic standards of regional craftsmanship and the biological requirement of preventing avian slipping injuries.

Cross-Disciplinary Coordination:

The project's success stems from a highly integrated BIM-based coordination process involving architects, structural engineers, and avian consultants from Puy du Fou. Every detail—from the acoustic calibration of the sound system (concealed within weathered steel corridors) to the calculation of flight paths relative to spectator seating slopes—was resolved through multi-parameter simulations. This rigorous technological framework demonstrates that innovative architecture can serve as a bridge between high-tech industrial precision and the delicate requirements of the natural world, creating a piece of land art that is as technically robust as it is ecologically sensitive.

To construct the irregular landform and preserve its sculptural integrity, the team executed an uncompromising BIM-directed system integration. Rather than relying on standard two-dimensional drafting, the theater's complex three-dimensional geometry was completely rationalized within a unified digital model. This comprehensive BIM workflow was synchronized with rigorous Finite Element Method (FEM) analysis executed through SATWE and YJK systems to verify the resilience of the topography-driven framework. This spatial coordination enabled perfect alignment between the underlying structure and

the organic surface, while simultaneously ensuring all mechanical, electrical, and plumbing (MEP) traces were entirely concealed. Complex mountain surface-water runoff is managed via hidden slot-drainage networks embedded along the terraced steps, while scenic lighting fixtures and sound equipment are flush-mounted or hidden within structural joints. **This technological synergy ensures that the theater operates as a high-performance cultural venue without compromising its identity as a piece of land art.**

Project Economics

- Construction Cost (in USD) (Max. 150 words)

《飞鸟之约》是由江苏宜兴窑湖小镇联袂法国普德赋 (Puy du Fou) 集团共同打造的大型鸟类主题文旅项目，总投资额达 3 亿元人民币，具体造价业主未单独公开。

但基于“贯彻陶与竹的材料主题”及“追求细节的精致感与创意感”的设计目标，进行了技术可靠与成本可控的综合考量，实现了高性价比的设计管理目标。

While the 300-million-yuan (approx. 42 million USD) figure represents the comprehensive investment for the overall theatrical project rather than an isolated architectural cost, the venue achieves an exceptional balance between **refined, creative aesthetics and rigorous cost control**. To honor the material theme of **indigenous clay and bamboo** while ensuring fiscal efficiency, the team prioritized strategic value engineering. Cost-effective **imitative rammed-earth coatings (approx. 220 RMB/m²)** were masterfully applied on the main facades, achieving the desired flat pottery texture, alongside **HDPE imitation bamboo-woven organic materials** on aviary facades, successfully substituting for expensive solid cladding panels. Additionally, the base features slip-resistant **sculpted concrete with a sand-washed artistic finish**, complemented by low-maintenance terraced landscaping (200–400 RMB/m²) to reduce structural loads and expenses. Simultaneously, customized **one-piece molded colored fiberglass auditorium seats** were integrated to ensure high durability and long-term economic performance. This meticulous design management proves that culturally evocative infrastructure can remain commercially viable, effectively leveraging the optimized initial investment to catalyse long-term regional tourism and macroeconomic success.