

基础设施公共化：地上城市公园，全地下水质净化厂

An Urban Park on Top of a Fully-buried Water Treatment Plant



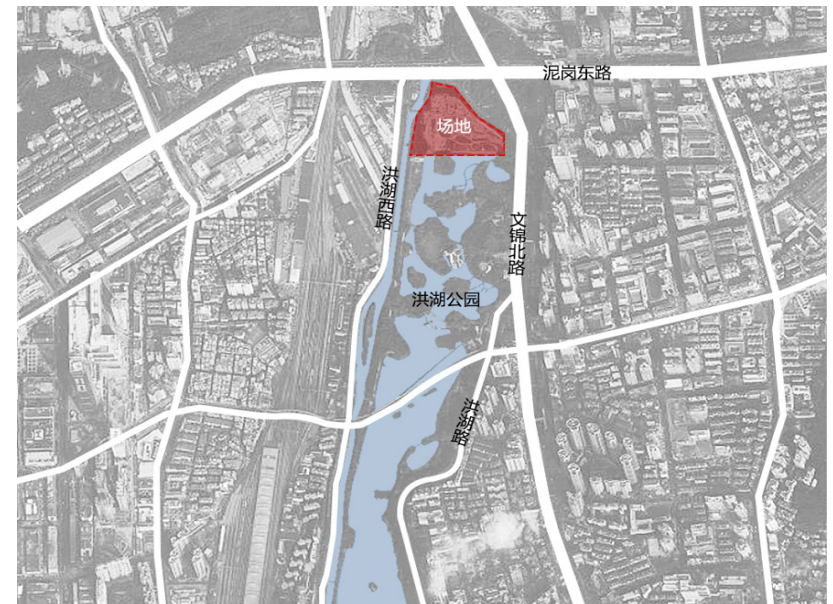


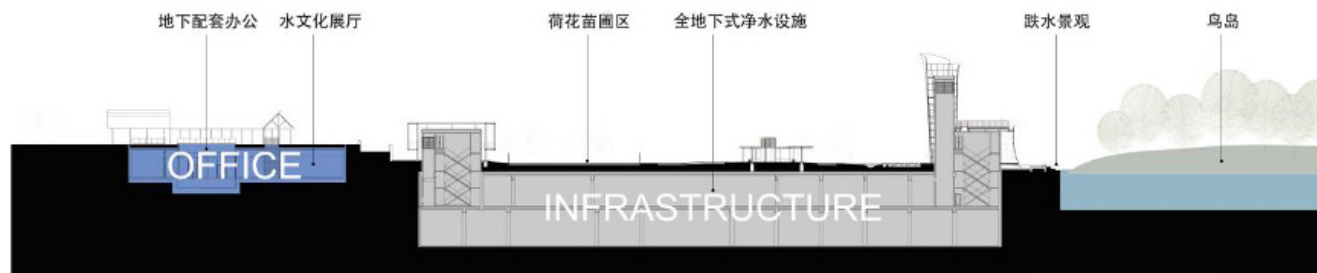
面对水工程方面的设计挑战，和多方（政府、公园方、运营方等）不同的诉求，如何通过景观 / 建筑师主动的设计努力：

- 让一个日常生活中无法缺席的工程净水生产设施，成为城市中一个良好的、带有仪式感的公共体验和教育场所；
- 重新赋予基础设施在精神和景观 / 建筑美学两个维度的意义。

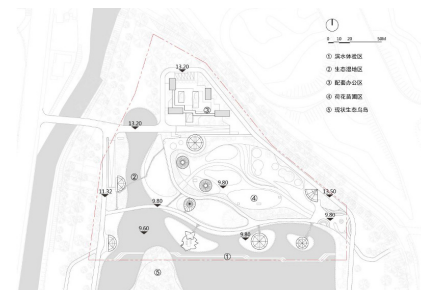
Facing those above water-related design challenges, and also various claims from different stakeholders, through the active design efforts of landscape architects/architects:

- the water purification facilities that are indispensable for our daily life will become pleasant and ceremonial places in the city for public experience and learning;
- redefine the significance of infrastructure from the dimensions of spirit and landscape/architectural aesthetics.



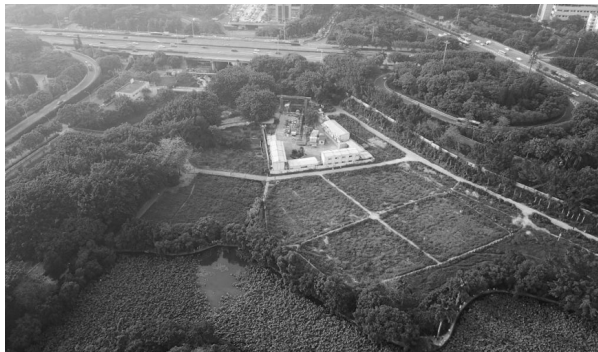


概念剖面示意
Concept section



总平面图
Master plan





背景与历程 Background & Overview



洪湖公园是一个以荷花为主题的市级公园，坐拥落羽杉林和白鹭群。公园于1985年建成开放，既是深圳特区成立后最早建设的一批公园，也是深圳市民心目中最重要

Honghu Park is a lotus-themed municipal park known for its bald cypress forest and white egret flock. Completed and opened in 1985, it is not only one of the earliest parks built after the establishment of Shenzhen Special Economic Zone, but also one of the most important urban parks in the eyes of Shenzhen citizens.



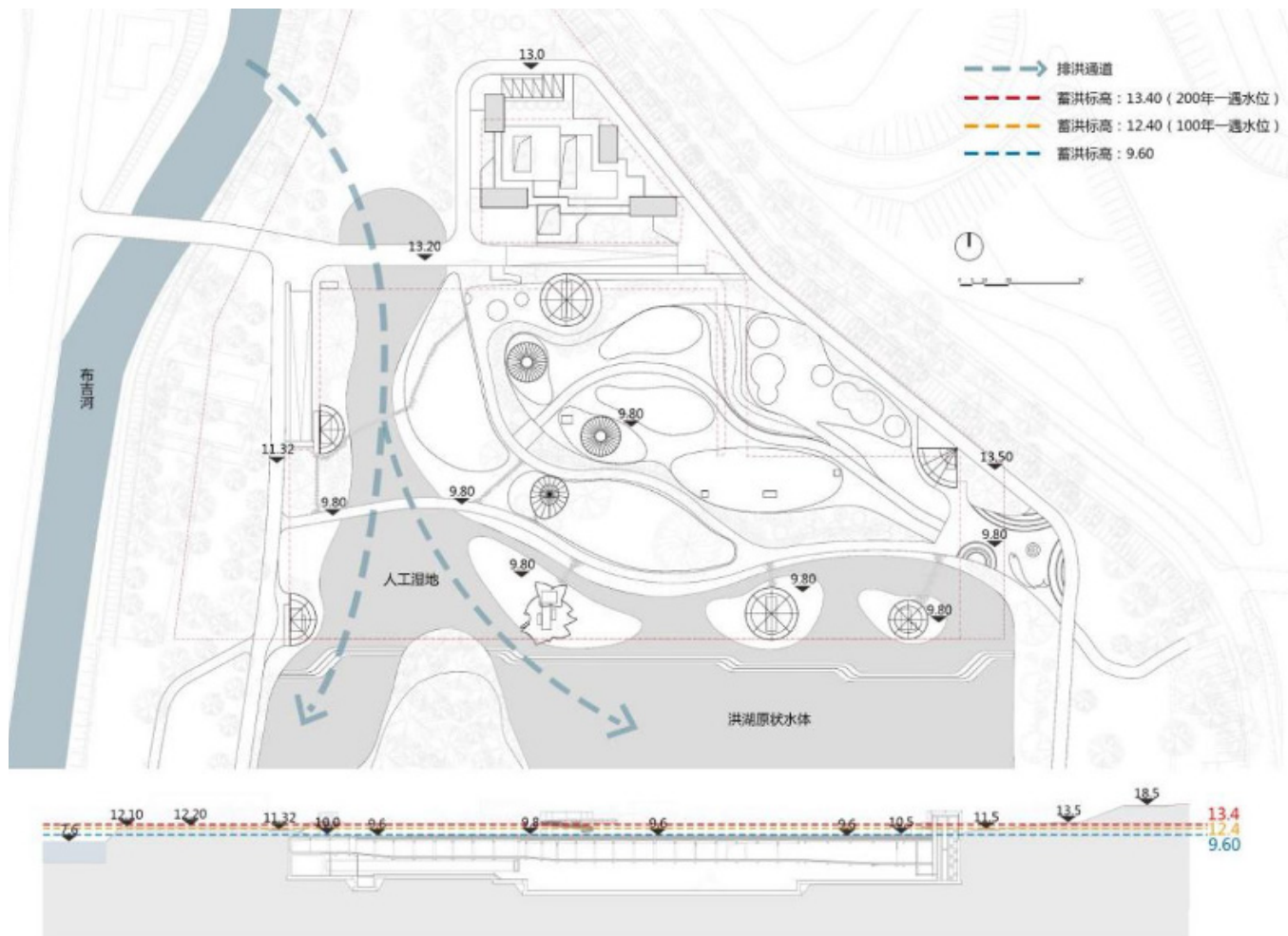
挑战一：水安全与水处理 Challenges I: Water Safety & Water Treatment

为了解决城市突出的水环境问题，洪湖公园水质净化厂采用的是全埋地式先进净水技术，对应需恢复的地面景观约 3.24 公顷。我们承担的部分是净水厂上盖地面景观恢复设计，以及北端地下配套办公建筑设计。

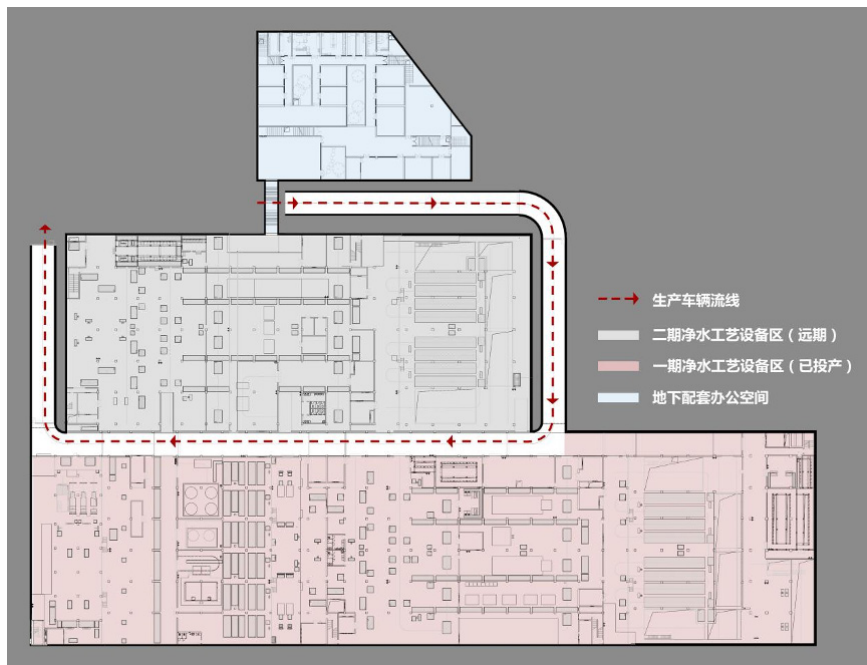
目前场地一方面需要景观提升，同时作为行洪的缓冲区，也要满足行洪通道要求。谨慎处理现状场地标高和设计标高是保证水安全的基本要求。

To tackle the much-concerned water environment problems, The newly built Honghu Park Water Purification Plant, one of the key projects for water pollution control under the Work Plan, employs a leading fully-buried water purification technology and involves the restoration of surface landscape of about 3.24 ha. In this project, we were asked to design the restored surface landscape on top of the water purification facility, and the underground ofices at the northern end.

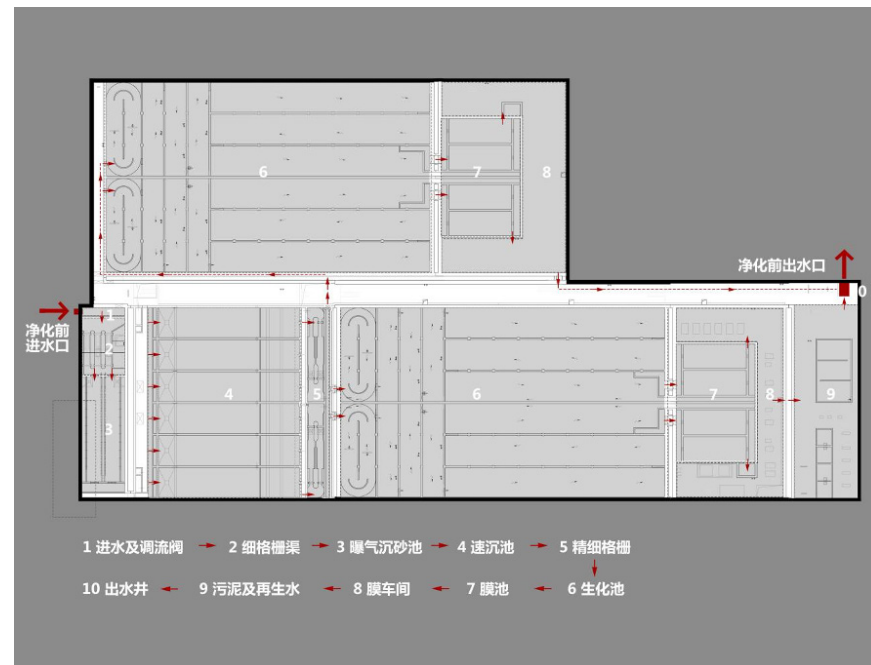
To ensure water safety, it was fundamental to tackle the existing site elevation and designed ones with due care.



泄洪通道及防洪标高
Spillway and Flood control elevation



地下净水 (-1F) 工艺流程示意图
Diagram of underground water purification (-1F) process



地下净水 (-2F) 工艺流程示意图
Diagram of underground water purification (-2F) process

挑战二：水景观—基础设施公共化

Challenges II: Water Landscape - Infrastructure Publicization



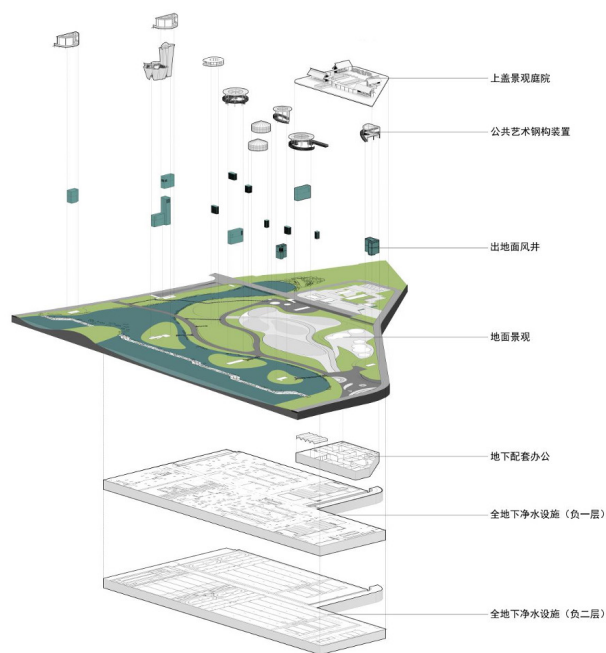
全地下建筑不可避免地带来了许多地上建筑无需特殊处理的事宜，例如风井及消防疏散等在地面上显性的形式问题。原本埋地“去工业化”的初衷，在现实中又以另一种形式呈现和被带入。这也是这个项目的特殊之处，也是地面景观恢复设计最重要的挑战之一。

In fact, the fully-buried building inevitably brought issues that need no special attention in the case of surface buildings, such as the forms of the visible above-grade part of the underground ventilation and fire control facilities, which were the focus of design. The original intention of buried facilities for “deindustrialization” was actually presented and brought into reality in another form. This was also the unique feature of the Project and one of the most important challenges facing the surface landscape restoration design.



策略与设计：基础设施的艺术装置和公共化

Strategy & Approach: Art Installation and Publicization of Infrastructure



轴侧功能图
Axis Side function diagram

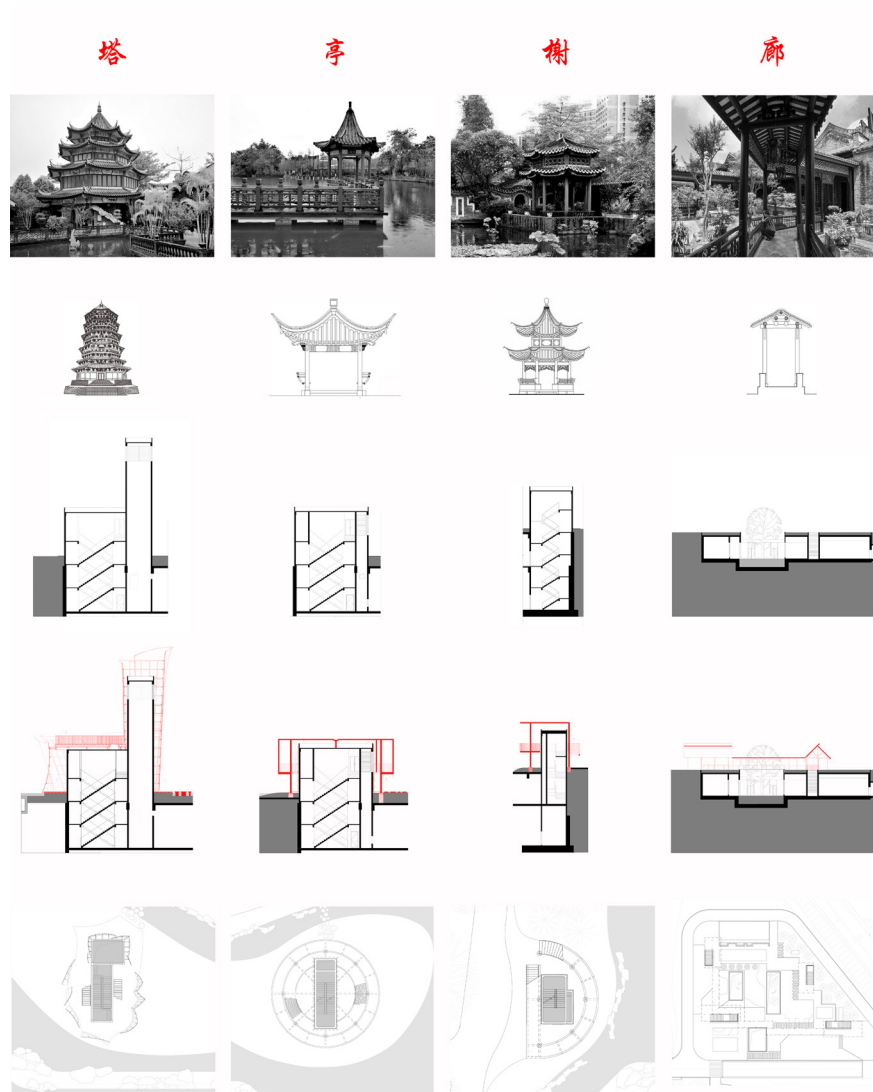




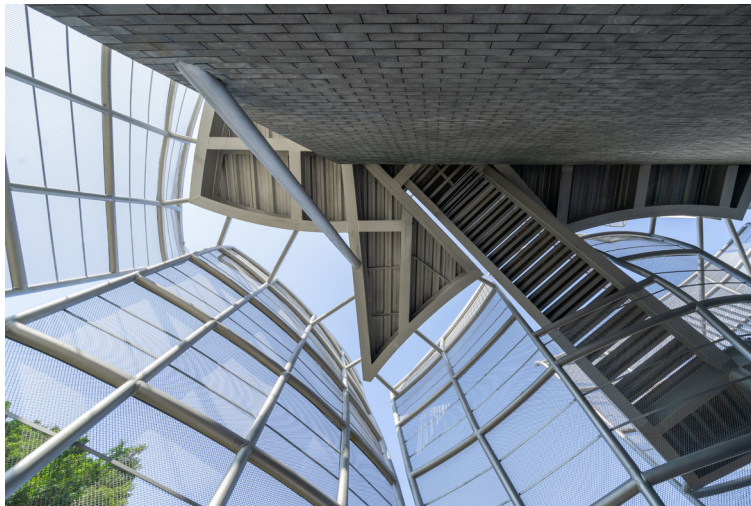


我们尝试对岭南园林的“塔、亭、榭、廊”空间原型进行适度的设计研究和“元素”提取，用当代设计语言及材料去做转化及表达。我们顺势而为，融合公园反复强调的主题植物——荷花的元素，以公共艺术装置作为设计切入点进行三维抽象，同时设置观鸟观景平台，消解了必要存在、但形象上突兀的风井和疏散楼梯，使之成为“有用”的体验和洪湖公园重要的“荷花”地标。

We conducted some design research on and “element” extraction from the original spaces of the “塔、亭、榭、廊” of Lingnan gardens, and transformed and expressed them with contemporary design languages and materials. we naturally made it a 3D abstraction of lotus, the theme plant repeatedly emphasized by the park management, and a public art installation. The bird watching and observation platform helped eliminate the compulsory but visually-awkward vent shafts and evacuation stairs, injecting “useful” experience in them and creating an important lotus landmark in Honghu Park.



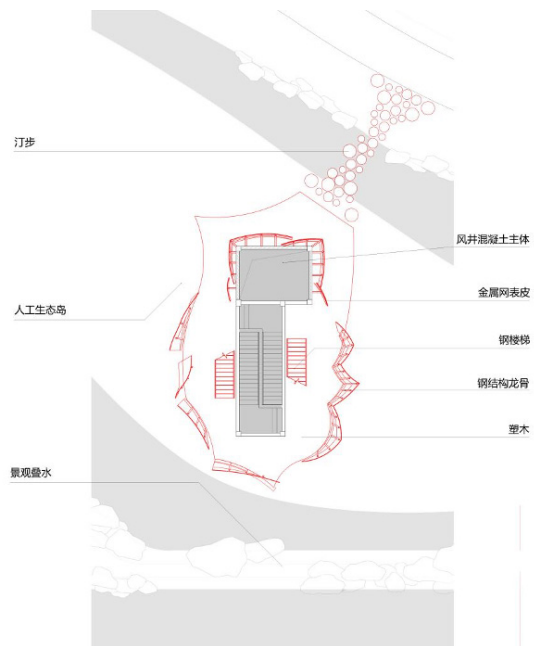
装置概念演变
Device Concept Evolution



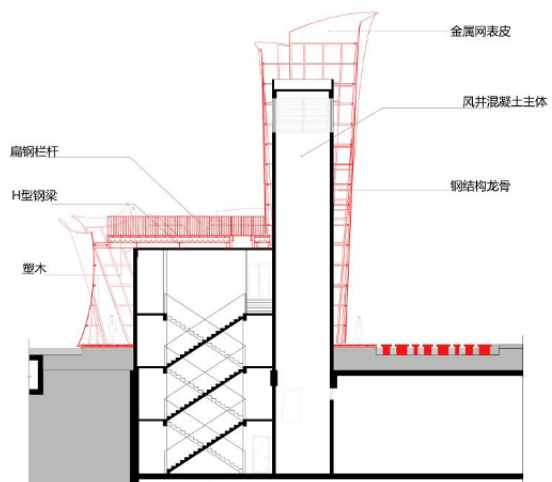
6 个中型风井，结合疏散楼梯的功能，我们兼容了可上人体验的路径及平台，空间形态上也各有特点。其他 6 个小型风井立面上只简单采取景观覆绿和成为公园的避雨亭。在整个设计过程中，虽然地下工程不可避免地有不少意料之外的元素“被告知”，但我们一直努力避免过度设计：既不凸显，也无需遮掩，尽量因势利导，自然统一和谐。

The six small ones were dedicated for ventilation, so only facade greening on grilles of similar materials were employed to enhance the natural feel, including a rain shelter with seats. During the whole design process, we've been trying to avoid excessive design despite of many unexpected factors "informed" about the underground works. We neither highlight nor cover up, but instead, we made the best out of the project conditions to achieve natural unity and harmony.



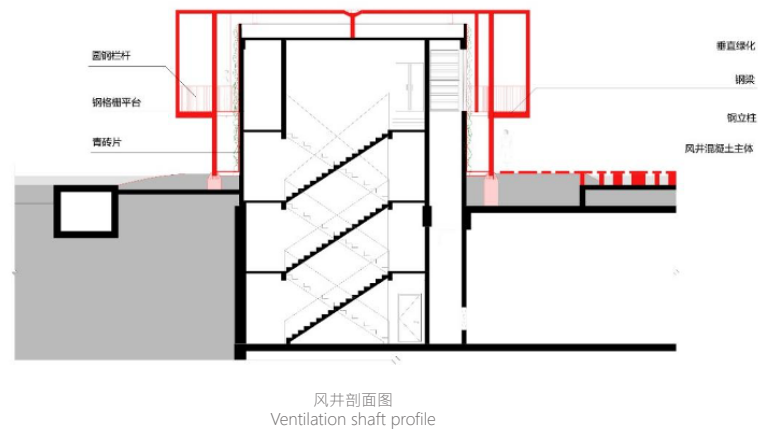
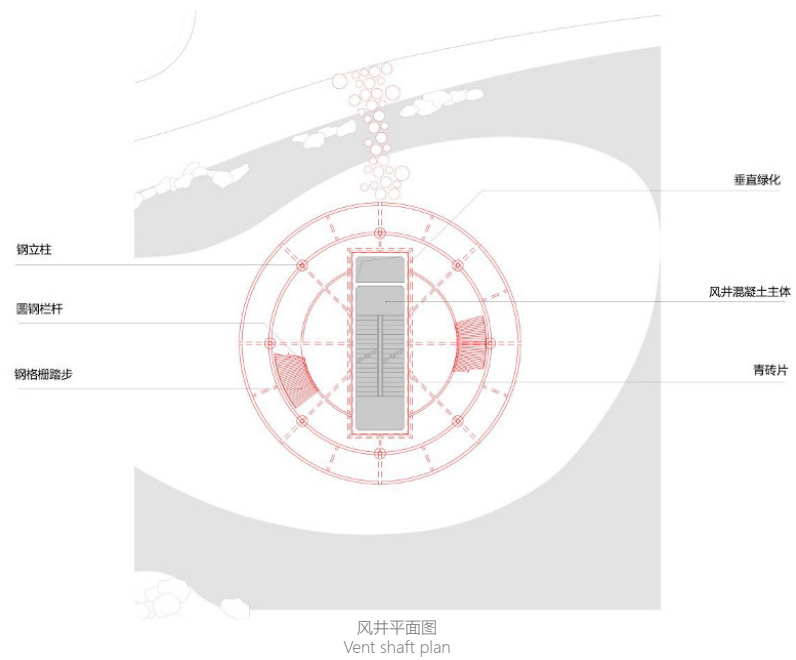


荷花塔平面图
Plan of lotus Tower



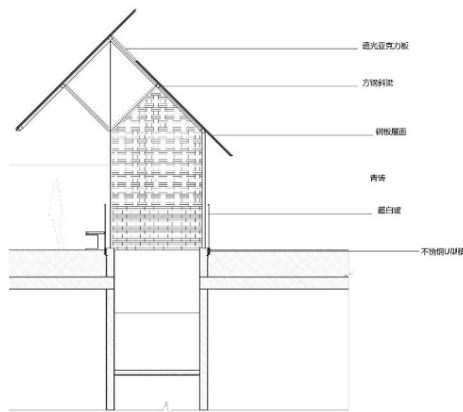
荷花塔剖面图
Lotus Tower section





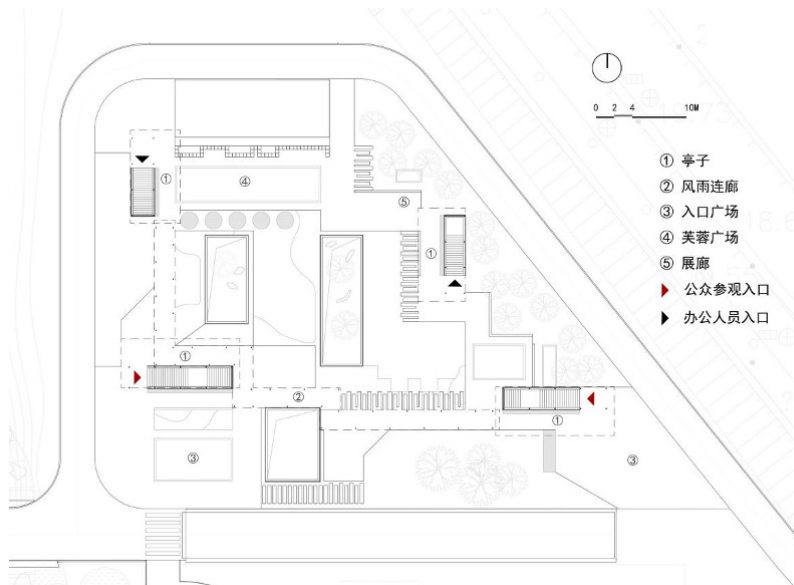
地下配套建筑：园林的显性与隐性呈现

Underground Facilities: Explicit and Implicit Presentation of Gardens

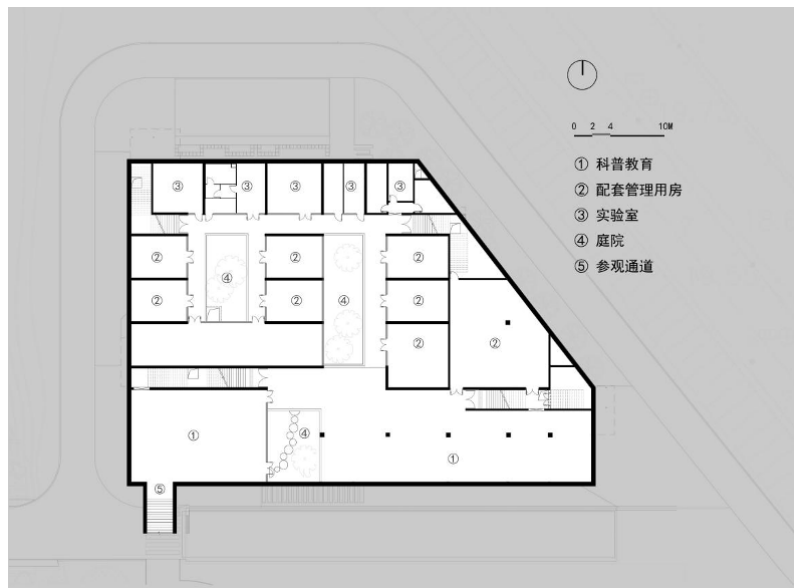
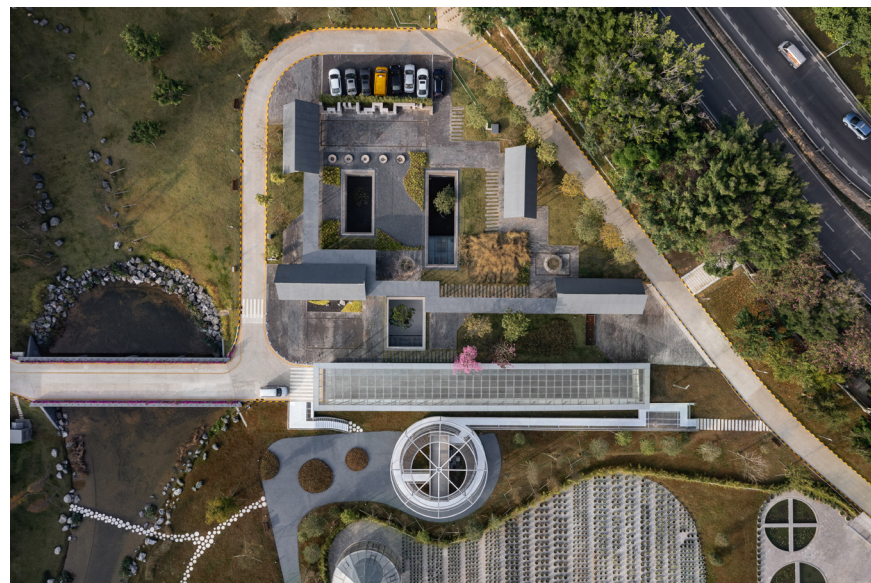


配套办公区廊亭大样
Supporting office Area Gallery Pavilion layout





配套办公区平面图
Plan of supporting Office Area



配套办公区 (-1F) 平面图
Supporting Office Area (-1F) Plan

北端地下配套建筑整体主要功能为办公空间，因其位于洪湖公园的末端，位置较偏。如何创造足够的吸引力，引导公众发现并步行而至，这是个关键的设计问题。在此，我们采取了“软硬兼施”的设计策略：一方面是在办公功能之外，增加公共教育及科普功能，例如结合地下开放花园，设置一个可对公众开放的净水科普展厅；另一方面，在地面层，尝试做出一个有特色的公共空间及园林作为景观亮点及展厅的暖场区域，以吸引人流。

The northernmost underground supporting building was planned as office space. As it stood at the end of the Park, geographically out of the way, how to create enough magnets to guide the public to discover and walk to it became a key design issue. As response, we adopted a design strategy that emphasizes both software and hardware. On the one hand, we added the functions of public education and science popularization on top of office function, such as creating a water purification exhibition hall in combination with the underground open garden; on the other hand, we tried to create a distinctive public space and garden on ground level as the landscape highlight and the pre-function zone of the exhibition hall to attract people.



深圳荷水文化基地是南沙原创团队多年来在基础设施公共化系列里，对净水生产与景观建筑跨界设计实践的重要尝试。但因其与地下净水厂以及地表防洪工程要求息息相关，作为方案设计师，我们需要对景观设计背后的技术逻辑及生产流程及其逻辑有一定深度的理解和研究，并在此基础上超越工程逻辑，尝试创造一个符合空间美学、社区友好的公共空间场所。

Shenzhen Lotus Water Culture Base It represents important attempt of NODE in infrastructure publicization projects over the years in terms of interdisciplinary design practice of water purification and landscape architecture. We had to achieve sufficient understanding and conduct necessary research about the technical logic and production process/logic behind the landscape design, as the surface landscape is closely related to the underground facility and the surface flood control requirements. On this basis, we intended to go beyond the engineering logic, and tried to create an aesthetic and community-friendly public space.