





## **Design Strategy**

## Multi-level platforms with a grand view

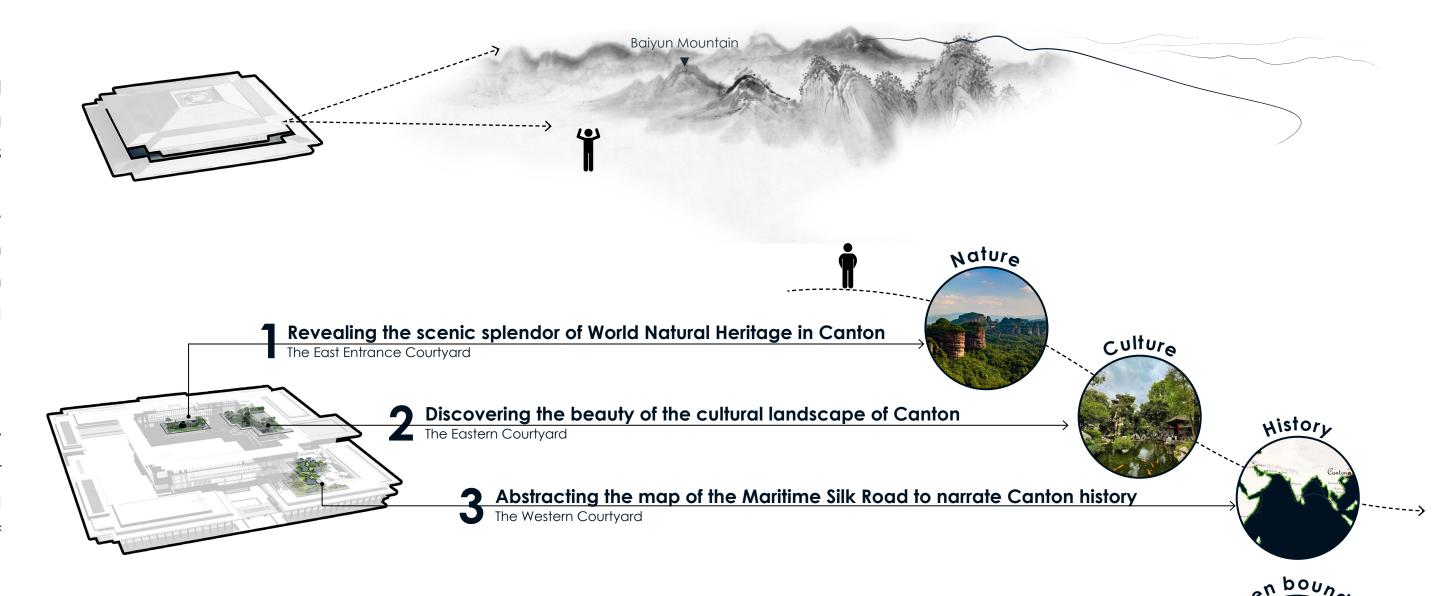
The landscape design of the second and third floors has been consciously crafted with a minimalist approach, using landscaping methods such as "interface blending" and "elevated viewing angles" to guide visitors' sight toward the breathtaking mountain scenery. This creates an immersive viewing platform where visitors can indulge in the beauty of the greenery and get a panoramic view of the magnificent landscape.

#### Canton stories in the courtyard

Based on the core concept of "Scenic Beauty Infused with Cantonese Charm", three inner courtyards have been created, each with a different theme and tailored to meet the needs of functional and visual barriers.

# The grandeur of the architecture demonstrated by the exterior landscape

The exterior landscape, named "National Custom Greeting", welcomes guests with a grandeur environment. While meeting the varied circulation requirements of conferences and serving attendants such as honored guests, logistics personnel, media, security, etc., the design of the exterior landscape also serves to accentuate the magnificence of the building.



#### Embracing a biophilic design

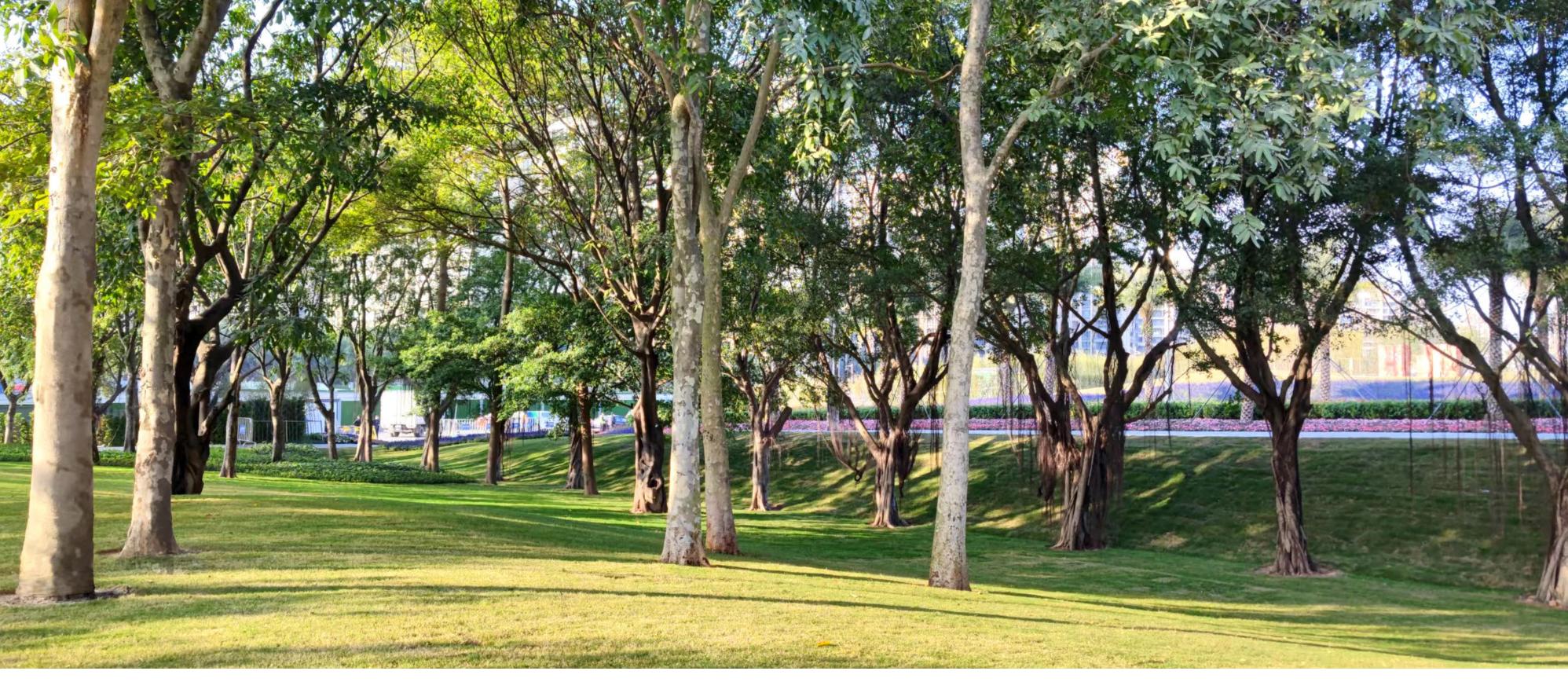
The conference center's design incorporates lush greenery that perfectly complements Baiyun Mountain, creating a refreshing and tranquil atmosphere throughout the space.



Southern Main Entrance Plaza

By taking into account the need to capture the complete southern facade of the architecture with a wide-angle lens and to accommodate photo opportunities for VIPs, the scale and proportions of the southern main entrance plaza are carefully designed and flexible for multiple outdoor events.





## Peripheral landscape design strategy

# 2. Utilizing native plants

A welcoming atmosphere is created, and the unique characteristics of the exterior landscape are showcased by native plants.











# 3. Dissolving the architectural boundaries

To soften the imposing presence of the main building, a shallow reflective pool is placed outside the boundaries of the structure, creating a gentle transition between the architectural and natural elements. At night, the illuminated water surface mirrors the building, producing a grand, refined, and pure atmosphere.



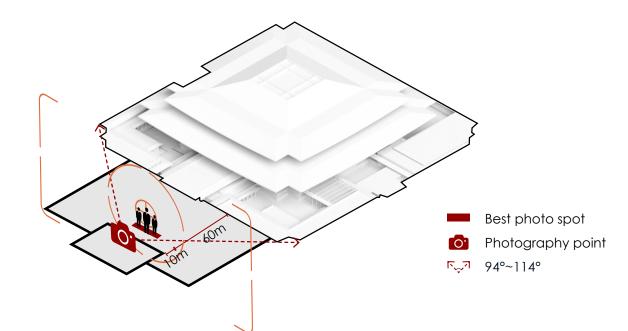
## Peripheral landscape design strategy

# 4. Framing the picturesque architecture

Based on the maximum angle of view of a wide-angle lens which is between 94° and 114°, the scale and proportions of the Southern Main Entrance Plaza are designed to frame the whole architecture.









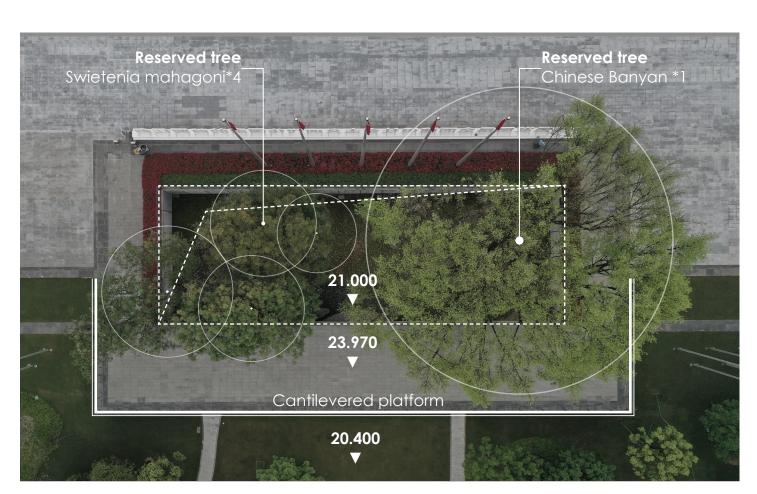


## Peripheral landscape design strategy

# 5. Preserving existing trees

Develop a landscape design plan based on the current state of the site while maximizing the preservation of existing trees. Protective measures for trees include providing adequate growing space, preserving their natural habitat, installing protective barriers to prevent human disturbance, and spreading gravels to avoid standing water around the tree roots. Furthermore, the surrounding space will be more fully utilized by incorporating sunken resting areas.











- 01. Conduct on-site investigations at Danxia Mountains in Guangdong to study the Mountainscape and texture of the mountain surface.
- 02. Conduct 3D modeling, creating 1:100 physical models. and analyzing the spatial relationships within the courtyard.
- 03. Analyze the mass of the artificial mountains by fabric projection on site.
- 04. Create 1:50 mud physical models.

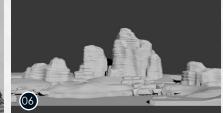






- 05. Refine the design of the artificial mountains' surface texture through manual drafting and parametric design.
- 06. Further develop the surface texture through 3D modeling.
- 07. Improve the details of the surface texture with 1:5 foam physical models.
- 08. Create 1:1 partial physical models with natural sandstones to further improve texture details.











- 09. Study the characteristics of vegetation at Danxia Mountains.
- 10. Study plant volume and positioning through 3D modeling.
- 11. Reevaluate the landscape design through physical models and analysis on plant morphology.
- 12. Experiment with a variety of plants on-site to achieve the most natural and authentic landscaping effect.



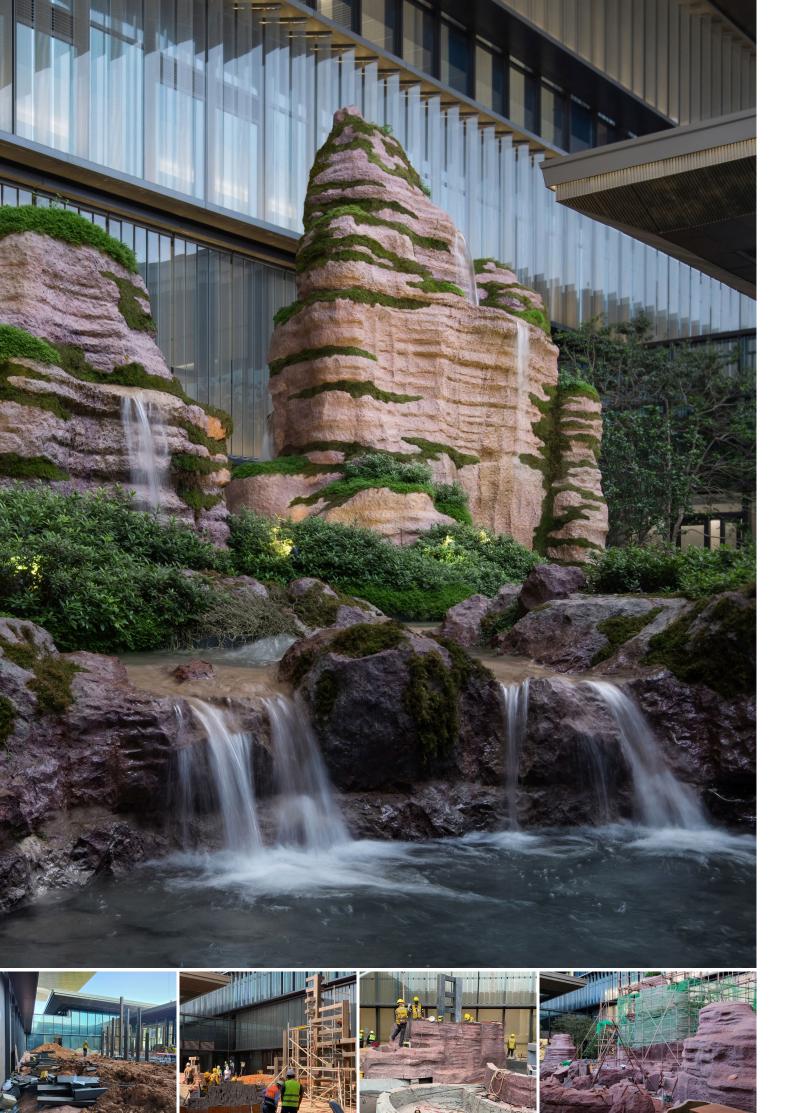






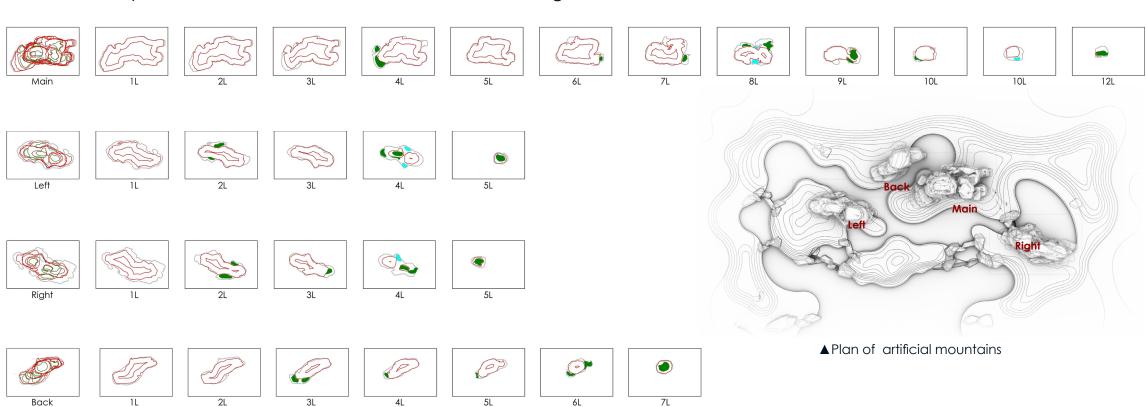
# Design details

The courtyard features 5 artificial mountain peaks, the highest of which stands at 7.5 meters, and the second highest at approximately 4.5 meters. To convey the essence of the Danxia Mountain landform, the design team conducted extensive on-site inspections, material comparisons, and selection processes. Eventually, the teams decided on the sturdy Ningde red sandstone as the primary material. A series of techniques were used, such as hand drawings, parametric-modeling design, 1:50 scale mud models, 1:20 foam models, and 1:1 partial physical models, to reproduce the mountain's texture and details and to recreate the charm of the Danxia Mountain landform.

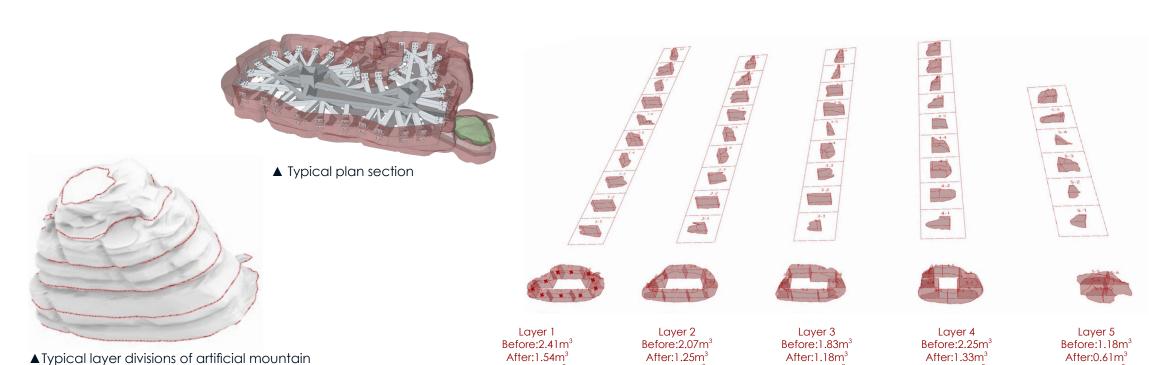


#### Structure Study and Construction Methods of Artificial Mountains

- 01. The size of Ningde sandstone quarry is within the range of 1200mm (length) x 600mm (height) x 150-350mm (thickness). The artificial mountains was divided into 29 layers. Each layer is 600mm in height, and all the layers together make up 4 artificial mountains.
- 02. The 29 layers of the 4 artificial mountains were further segmented into 375 blocks.



03. The structure consists of a primary steel framework for contouring, a secondary structure with a steel keel, bolted fixation of the stones, and auxiliary fixation through a mortise and tenon structure above and below the stone.



Loss:0.82m<sup>3</sup>

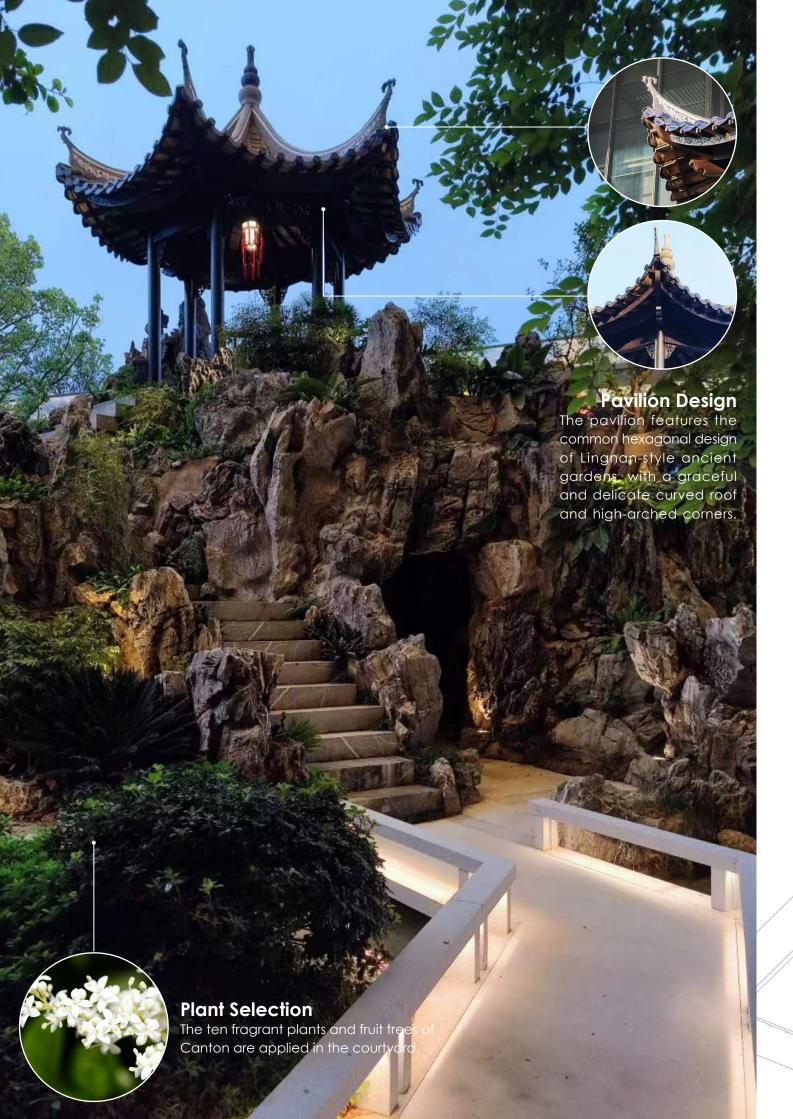
Loss:0.65m<sup>3</sup>

Loss:0.92m<sup>3</sup>

Loss:0.57m<sup>3</sup>

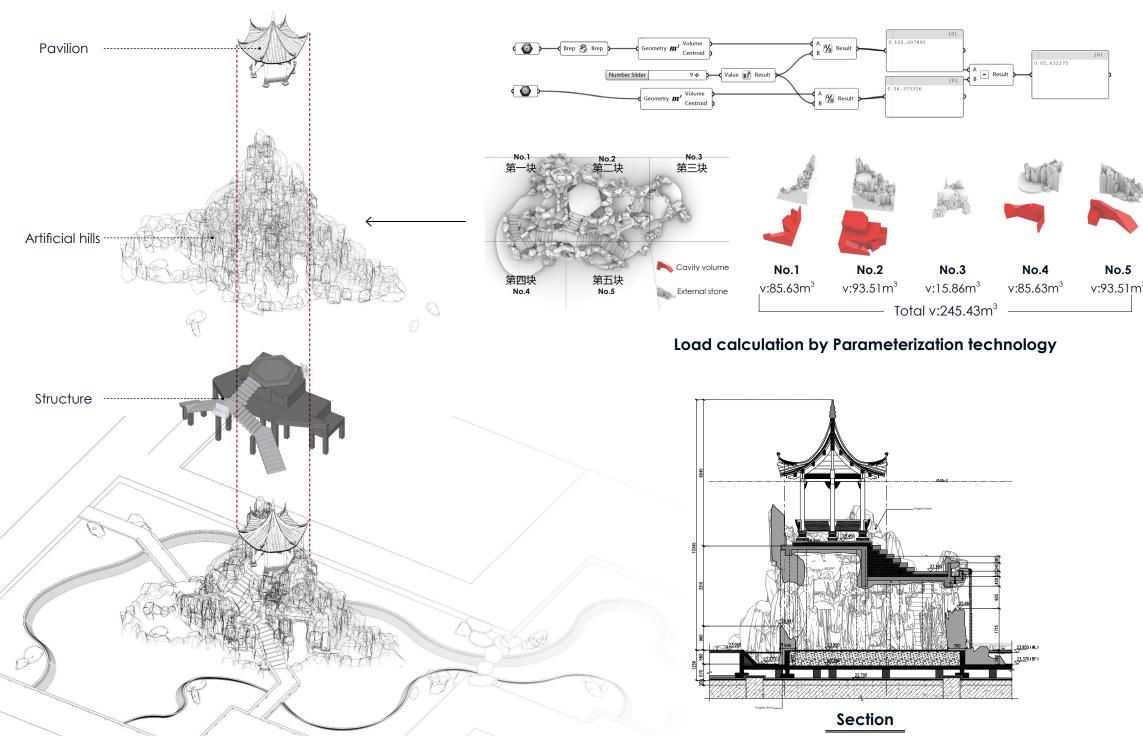
Loss:0.87m<sup>3</sup>



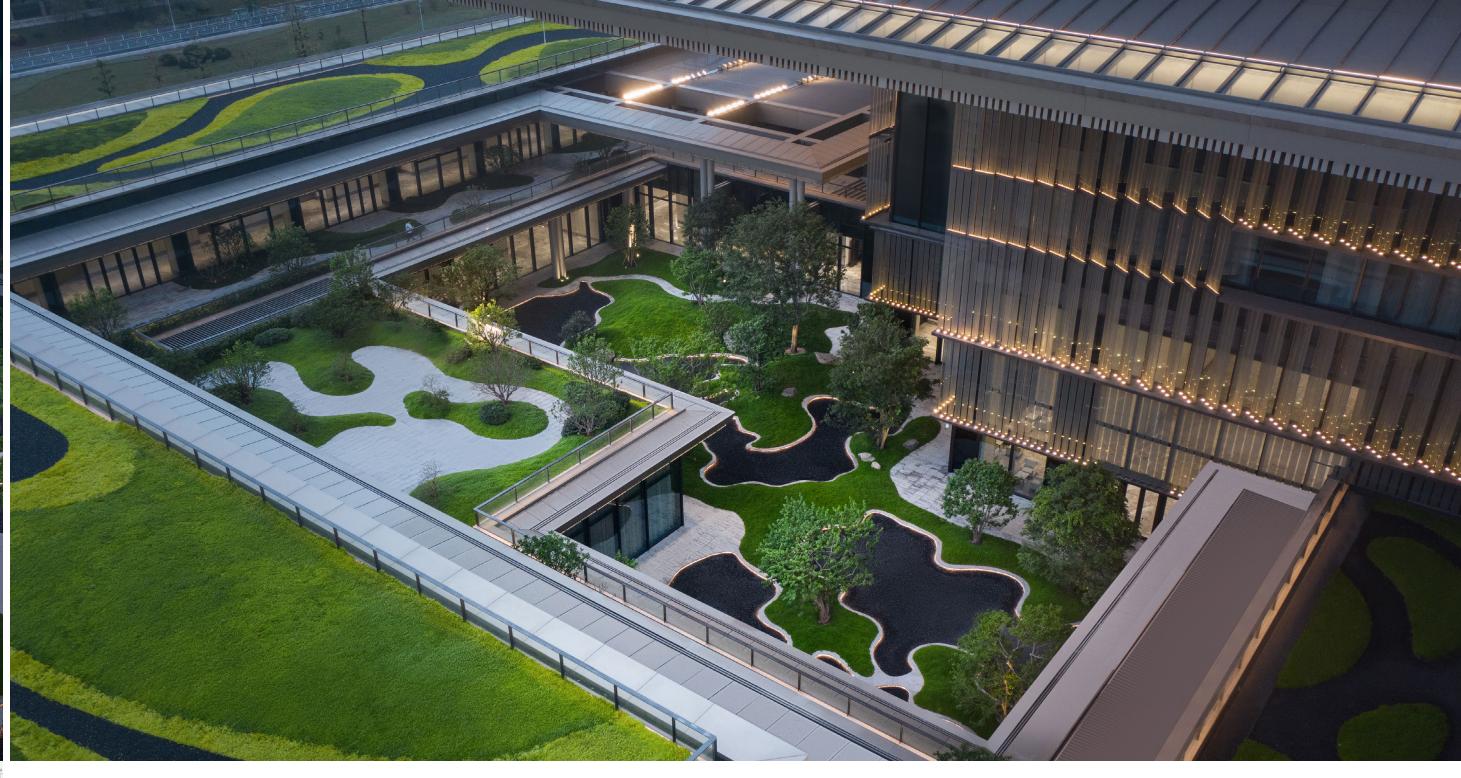


# Structural Design

The artificial hills are located right above the roof of a civil air-defense bunker which can only withstand an extremely light load limit of 500 tons. To address this challenge, the design team opted for a slab and beam structure with external dry-hanging Yingde natural stones to construct the hills. Parameterization technology was first used to exclude the hollow parts of the hills and accurately determine the overall volume of Yingde stones. The bunker roof beneath the hills was then divided into 5 parts, with structural reinforcement based on the load condition of each part, thus achieving a balance between the landscape effect and the bunker roof load.









# 8. Abstracting the historical map of Maritime Silk Road of Canton

Design concept: The western courtyard landscape serves as the reception area for foreign guests with the theme of "The Historical Maritime Silk Road of Canton". The courtyard's layout incorporates an abstract representation of the ancient Silk Road map, which tells the story of Canton's trading history. Employing a modern and minimalist design approach, the courtyard features well-spaced and lively trees along with dynamic lighting.

Design details: The stone material used in the western courtyard is grey granite, with more than 300 pieces of stone custom-processed using precise CNC (Computer Numerical Control) cutting technology to outline the contour of the ancient Silk Road map. The turf slopes are complemented by shade-tolerant plants such as Osmanthus, Podocarpus, and Wintergreen based on lighting analysis of the courtyard.



# Multi-level observation platforms and roof gardens

Incorporating landscape views in both the internal and external spaces of the building, the minimalist design of the multi-level observation platforms and roof gardens create an integrated and grand atmosphere that extends from the interior to the exterior. With limited soil coverage, the second level roof garden features simple paving and micro-terrain landscaping that leads visitors along a winding path with constantly changing scenery through the use of small trees and shrubs. The third and fifth level platforms offer views of lush greenery, presenting a panoramic view of Baiyun Mountain and Dajinzhong Reservoir and a visual effect whereby Baiyun Mountain appears to have half emerged with the site.



