

SUN YAT-SEN
UNIVERSITY
ORGANICALLY GROWN CAMPUS

Project title:
Sun Yat-sen University Shenzhen Construction Project Landscape Design

Project category:
Social and Community Health

Project location:
Shenzhen, Guangdong province, China

Design year:
2018

Year Cpmplete:
2023

Project Statement

Sun Yat-sen University is one of an world-class universities in China. In order to meet the requirements of the development of the university, strengthen the contact with the Pearl River Delta region. Also promoting scientific & technological innovation, cultivate talents and local economic development and urban cultural construction. In 2015, the establishment of Shenzhen campus was approved. The landscape design project of Sun Yat-sen University Shenzhen Campus exemplifies a seamless connection between an academic culture and campus design. With the total area of 144.82 ha which include architecture area occupying 127 ha. This new campus conveys the ***inheritance of the spirit of Dr. Sun Yat-sen*** and the esteem of CUHK academic. The layout develops the connections to the main campus in Guangzhou and embodies aspirations for the future development. This project is clothed in a contemporary landscape design language that evokes the multiple identities of Sun Yat-sen University Shenzhen campus into real scenes with the human scale. The expansive spatial environment serves as a tangible declaration of the school's educational mission, which not only emphasizes the free and rigorous academic atmosphere, but also creates an inclusive and open campus environment. The project implements the university sustainable ***low-carbon goals*** and integrate the concept of ***green and healthy*** into all facets of campus life.

KEY WORD:
Green | Healthy | Low carbon | Inheritance



PROJECT NARRATIVE AND CONTENTS

BACKGROUND & HISTORY

Shenzhen is a top 3 national financial center in China. This project is situated in Guangming New District which belongs to Baoan District of Shenzhen, Guangdong Province. This new district located in the northwest of Shenzhen and listed as the first batch of national comprehensive pilot areas for new urbanization. The convenient transportation is around the campus as well as the road network focusing on the "nine vertical and eight horizontal" urban main road is fully carried out.





DESIGN CHALLENGE

1. Connectivity of the landscape

Connectivity is a central challenge of the first phase of campus planning which seeks to connect individuals with campus functions closely, thus establishing a distinct sense of place that is special to Sun Yat-sen University. One of the difficulties of design is creating a seamless and fluid experience throughout the campus while taking into account the complexity. Also, how to incorporate efficient living networks should be considered.

2. Site selection base on mountain

Rich natural resources are always present in mountainous areas. However, the surrounding ecological environment would influence by campus construction. The site is elevated between 11 and 128 meters in a hilly region with a large number of height variations and slopes. The main challenges of this project is preserving the surrounding natural ecosystem balance, in order to keep sustainable development. Construct a sturdy, secure, beautiful and practical landscape space.

3. Consideration of cultural inheritance

Despite its lengthy history and rich cultural legacy, Sun Yat-sen University's campus still needs to be able to accommodate modern teaching, research, and student life. The requirements of creative development and the transmission of traditional culture must be considered in landscape design. Furthermore, it is imperative that the design incorporates both current vitality and a historical feeling in order to embody the spirit of inheritance and vision of Sun Yat-sen University.



DESIGN STRATEGIES

1. Connectivity with the natural mountain and Humanities campus

1.1 Create an orderly landscape space with axis

This young campus carries a weighty legacy of the main campus and sequence of the comprehensive service building, library, auditorium as a virtual axis, which adding landscape order. Whereas the contemporary landscape design of the new university, creates an environment with a specifically Lingnan aesthetic.

1.2 Improving connection with the corridor space

The galleries on both sides of the house are the essence of traditional Lingnan architecture, which serves the purpose of coordinating natural ventilation in architectural design. As a results of the hot and humid Lingnan area demands ventilation. In light of this, the location is built with picturesque corridors in three categories.

1.3 Build landscape campus based on mountain forest park

To make the mountain environment more recognized and ornamental, the mountain trail is built to produce a distinctive landscape with trees lining the route. Preserve the original lush, mountainous vegetation and level the vegetation appropriately. Leaf trees and flowering ground are placed on the main road both sides of the mountain, with the existing vegetation serving as the backdrop. Preserve the natural litchi forest and enhance the landscape diversity and engagement by planting fruit trees such as pineapple, loquat, longan, and others close by to form a fruit garden.

2. Enhance the using experience of campus public space

2.1 Provide a dynamic public communication space

The optimal use of the outside space realized by the multi-atrium space design. The landscape maintains the continuous vitality of the architecture space. Each atrium contains a variety of rest areas, collaboration and study spaces as well as student play spaces. It aims to create a larger social environment and comfortable study precinct. Furthermore, the open atrium area can be used as a venue for mini-concerts, job fairs or other forms of student activities. The atrium transcending spatial boundaries, smoothly connecting different functions, fostering a sense of unity and belonging.

2.2 Creating an artistic campus atmosphere

With the goal “Art in Campus”, the design leverages the potent role of culture and empowers art. Employing a contemporary visual language, it re-imagines the traditional academic environment. It undertakes diversity transformation and contrast conflict that promote human comfort. While walking to the class, students may take in a “music feast”. Sitting on the ground in a public square is a wonderful picturesque sketch. This approach generates a seamless fusion of the artistic realm and scientific research life.

2.3 A multi-court space that encourages learning at any time

The design supports the concept of “learning at anytime and anyplace.” Diverse learning environments extend beyond the traditional confines of the buildings. People can readily find a tranquil corner, to capture fleeting moments of inspiration. These spaces support the idea of knowledge acquisition transcending the confines of textbooks but also from interactions and observations. Open courtyards, glazed atriums, and open staircases are interspersed throughout the campus, facilitating chance encounters and interpersonal exchanges.

DESIGN STRATEGIES

3. The legacy of the old campus and the infiltration of Lingnan culture

3.1 Memory: Rebuilt the gate for one hundred years (From Guangzhou to Shenzhen)

The traditional gate of the old campus has witnessed the historical changes and development of the Sun Yat-sen university for one century, and is the place where the school spirit lies. Under the principle of using the original building materials and construction as much as possible, the main gate was rebuilt on the south side of the Shenzhen campus. Bearing in mind the school purpose of Sun Yat-sen University: "learn, interrogate, deliberate, discerning, and practicing".

3.2 Inheritance: Sun Yat-sen spirit in the new era

As a great forerunner modern democratic revolution of China, Mr. Sun Yat-sen advocated the pioneering spirit of patriotism and pursuit of truth. The Sun Yat-sen statue located in Xiangshan Square is the core of the campus, which determines the basic form of the space. The library, adjacent to the statue of Sun Yat-sen, combines with the Zhongta corridor to form a complete circular pattern. It is precisely because of the continuation of this Sun Yat-sen spirit in the spatial pattern, which always inspires the students of CUHK to work hard for the revitalization of China and become youth with international vision and social responsibility in the new era.

3.3 It integrates the architectural features of Lingnan characteristics

The architecture connects countless historical scenes and campus functions with spatial and cultural threads. The teaching building with Lingnan style adopts the form of sloping roof, with University red as the keynote. The litchi surface rust stone material and the details such as molding and parquet are added to reflect the dignified of the building. Although the architectural style is quite modern, it remains in the pattern, height and color to maintain a kind of respect for the historical features.

4. Ecological restoration to create a sustainable campus

4.1 Slope protection

Adhering to the concept of "Coexistence between Human and Nature", Sun Yat-Sen University Shenzhen Campus actively responds to the environmental challenges in the real world with actions. To build a stable three-dimensional greening relationship, new materials and technologies which plays the role of soil consolidation and slope protection. A gentle transition zone facilitates the planting of selected trees, enabling them to have a stable and workable planting zone. The hillside is designed to connect with nature, and the green environment, achieving the goal of ecological sustainability.

4.2 Forming the campus ecosystem through a variety of plant designs

The plant masterplan proposes a vision of 'organic growth', and the campus is regarded as a living organism. The design preserves the vegetation of the original mountain, and properly combs the vegetation levels. The growth and needs of the campus and students interact with each other in a dynamic and sustainable manner. Use plants to redefine the function of green space inside the campus, and increase the outdoor space of colored leaf trees to assist teaching. Form a high-quality small environment inside the campus to further improve the campus's ability to optimize the impact of the external environment.

4.3 Responding to climate change actively with the waterscape garden

The installation of rain gardens to create a miniature ecosystem in the central area of campus in order to mitigate the effects of extreme weather. This ecosystem is displayed through landscape design combined with the greening and functional space of the campus to popularize the concept of ecological environmental protection and low-carbon life. Recently, the waterscape garden is integrated into the teaching as well, giving students pursuing relevant degrees practice through experiments and other means. This allows the students to represent the global perspective of education and community values in university.

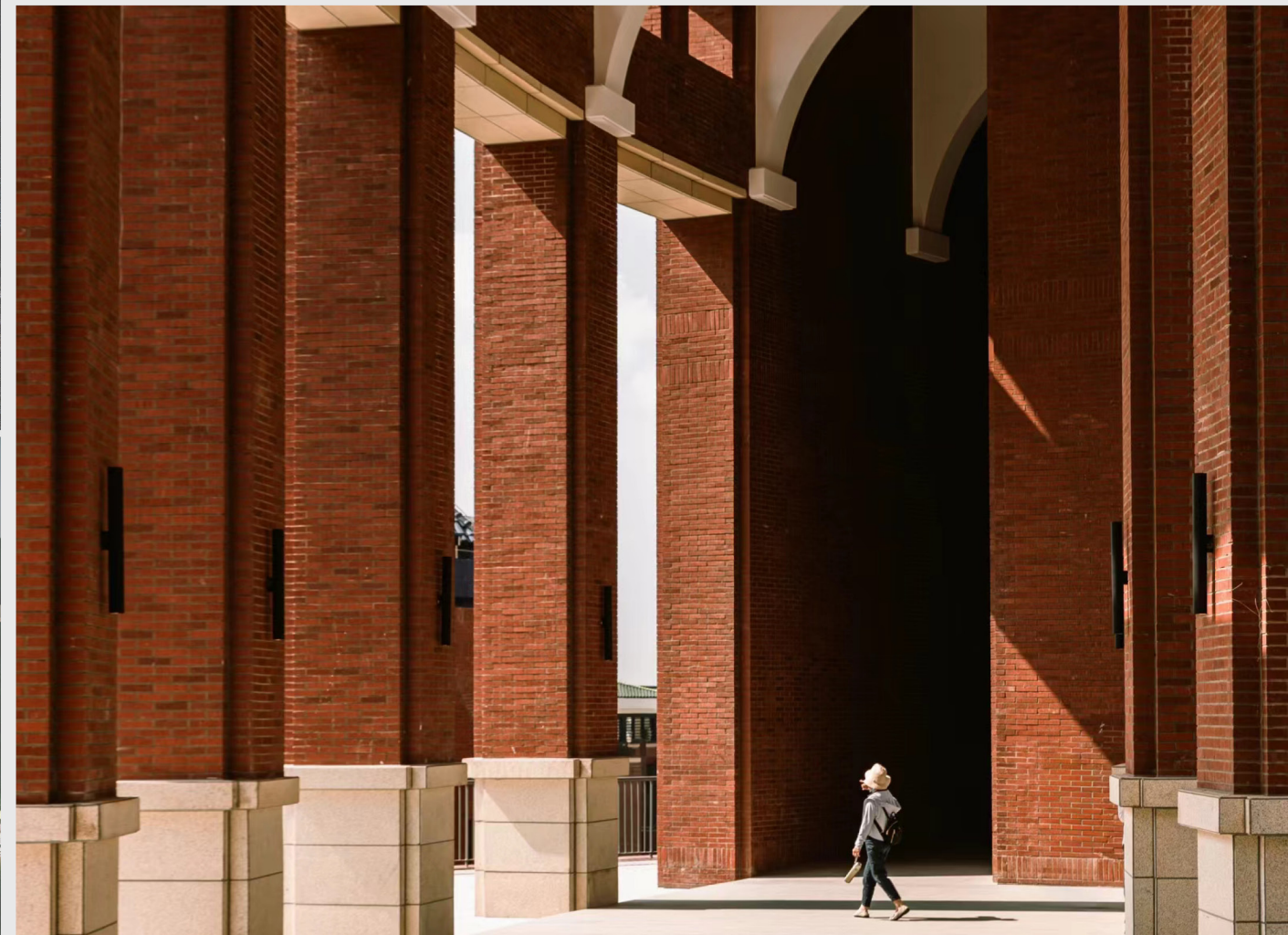


- ▼ **Subject corridor:** The main teaching buildings are connected by the subject corridor, which is the most often utilized circular corridor.
- ▼ **Visual corridor:** The three north-south corridors that make up the orchid gallery, coconut shadow gallery, and redbud gallery are the three components of the visual corridor.
- ▼ **Building corridors :** The building corridor is distributed in the building block.

▲ The main axis

The mountain trail ►

The name comes from the Xie Lingyun, a famous scholar and landscape poet in Wei and Jin dynasties. The construction of recreation trails in the mountains represents a relaxed attitude towards nature.





◀ The square in front of the library is composed of the stage of searching and the motto of the school.

▲ The high stage is means "The road ahead will be long ,Our climb will be steep.", implying the road of climbing the peak of learning tirelessly.



Multi-atrium space design ▶

Rest areas, collaboration
and study spaces as well
as student play spaces.



▲ Dynamic public
communication space

◀ Encourages learning at any
time

Artistic campus atmosphere ▶



Rebuilt the gate ▶

Sun Yat-sen statue ▼

▼ Cultural element

▼ The school badge in detail





Slope protection design ▲

Adhering to the concept of "Coexistence between Human and Nature". Achieving the goal of ecological sustainability.



◀ To build a stable three-dimensional greening relationship, new materials and technologies which plays the role of soil consolidation and slope protection.

The sustainable low-carbon goals and integrate the concept of green and healthy into all facets of campus life.



- ▼ Proposes a vision of ‘Organic Growth’
Forming the campus ecosystem through a variety of plant designs
- ◀ Small environment

Roystonea regia ▼



▲ Overall Landscape

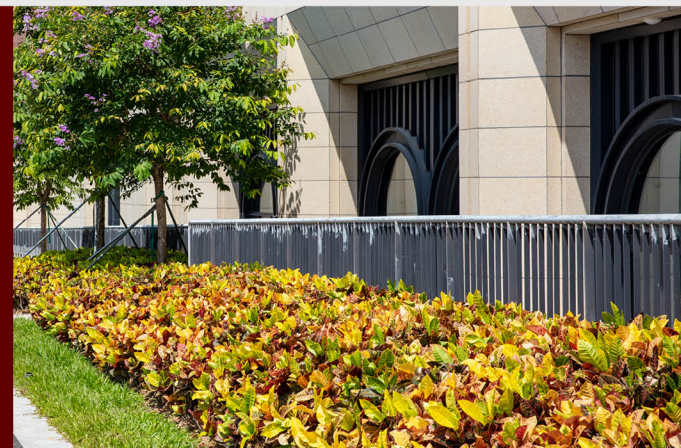
◀ Preserve the lychee forest

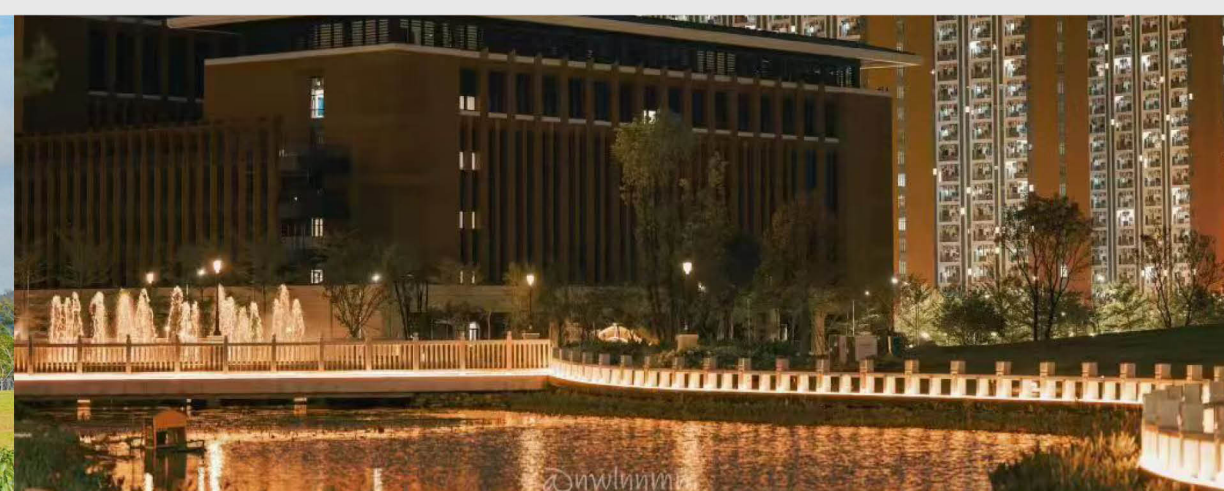
Codiaeum
variegatum (L.) A.
Juss. ▶

Lagerstroemia
speciosa (L.) Pers. ▶

Ixora chinensis
Lam. ▶

Bougainvillea
spectabilis Willd. ▶





▲ The concept of ecological environmental protection and low-carbon life.

◀ Miniature ecosystem

CURRENT USE SITUATION
(UNTIL 2024.6)



▲ The lawn in front of the library is used as a venue for campus concerts. The design of the step becomes a natural "auditorium".

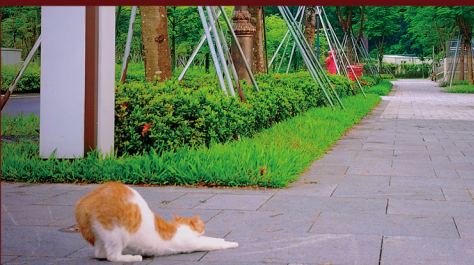


▲ Students perform Musical Instruments on the lawn.



▲ Students voluntarily organize interpreters to explain the design concept and plants introduction of the campus to visitors

2024.6
The official Weibo account of the campus announced that the **shuttle bus** was officially opened to use



▲ The campus has attracted stray kitties and become a "pet-friendly" campus environment.

▲ The designed traffic routes cover all campus area, achieving a zero-walking campus life

2024.5
KFC and global chain Lawson convenience store in campus have officially opened to students, according to the campus's official Weibo account



Campus mini-ecological garden experiment



◀ Shenzhen campus has designed the world's largest **bike-sharing system**, and students can find the nearest bike on their APP.

◀ The design attaches importance to **low-carbon**, and **electric vehicles** can be found everywhere.



▼ The campus is equipped with **smart cleaning vehicles** to keep clean, while realizing the design goal of the **green and healthy campus**.



MORE EXCITING AWAITS THIS NEW CAMPUS



FIGURE LEGENDS

01 CEREMONIAL LAWN
02 ZHONGSHAN STATUE
03 MIRROR POOL
04 STEPS OF SEARCH
05 SCHOOL MOTTO

06 BELL TOWER CLOISTER
07 PAVILION
08 ESCAPE FAIRY PAVILION
09 MEMORIAL GARDEN
10 JADE BELT LAKE

11 WISDOM GARDEN
12 THOUGHT GARDEN
13 LIYUAN
14 WEN HUA TING
15 TRACEABILITY COURT

16 NATIONAL LIGHT COURT
17 THE COURT OF GREEN GRASS
18 SQUARE WELL COURT
19 TO THE COURT
20 WAKE UP THE LION COURT

MASTERPLAN

The superposition of “space, time and architecture” also fits into the process of a century-old school that has been abandoned and developed in succession. After the completion of the campus, the impression left by the campus is not brand new. It is a glimpse of the past, but it presents a sense of history and time, as if the campus was born here, grown here.