

**Huitong Village Redevelopment: From a historical village to
a sustainably developed university town.**

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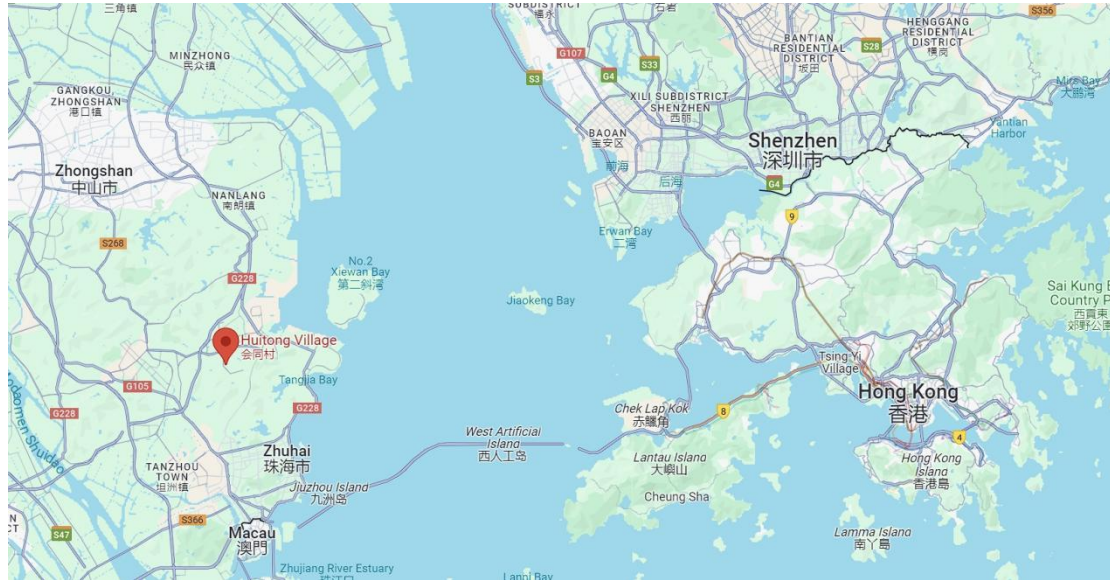
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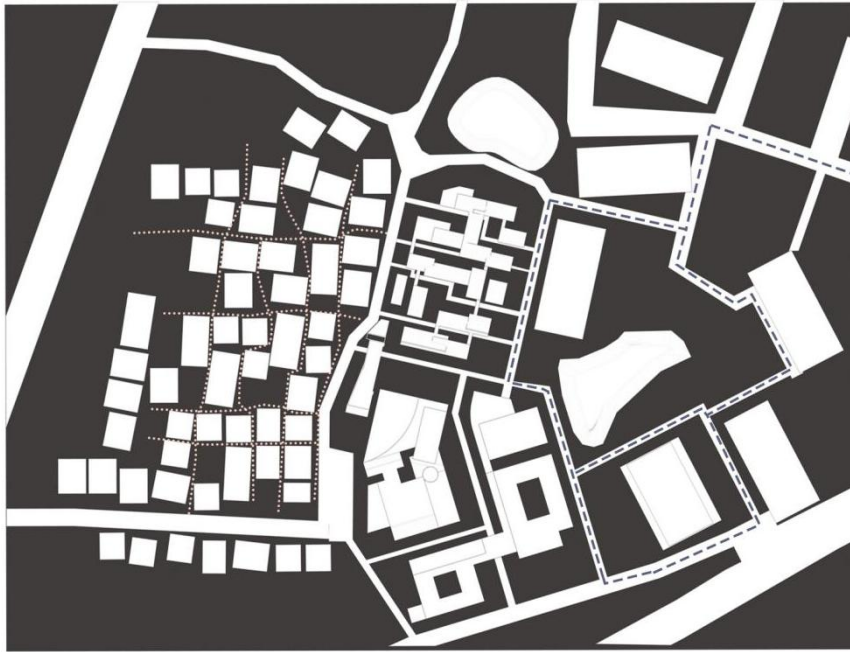
1. About The Site

Location: Huitong Village, Zhuhai, Guangdong Province, China



Huitong Village is an ancient village that has existed in Zhuhai City, Guangdong Province in southern China for nearly 300 years. Since the Qing Dynasty, when opium war began, the coastal areas of Guangdong Province became the main gateway for trade between China and the West, and a large number of local villagers from Huitong Village were influenced by this and participate in both domestic and overseas trade and commerce, thus making the village an economically developed area in the region at that time. The architectural style of the village itself was also influenced by the West to a certain extent. After a century of war and chaos, the village was fortunate enough to be well preserved. However, a large number of local residents have dispersed to live in different parts of the world, leaving only a few old people and a small number of young people totaling about 150 people in the village. Until 2010, the local economy was in the backward stage, if compared with the development of the neighboring cities and some other coastal villages.



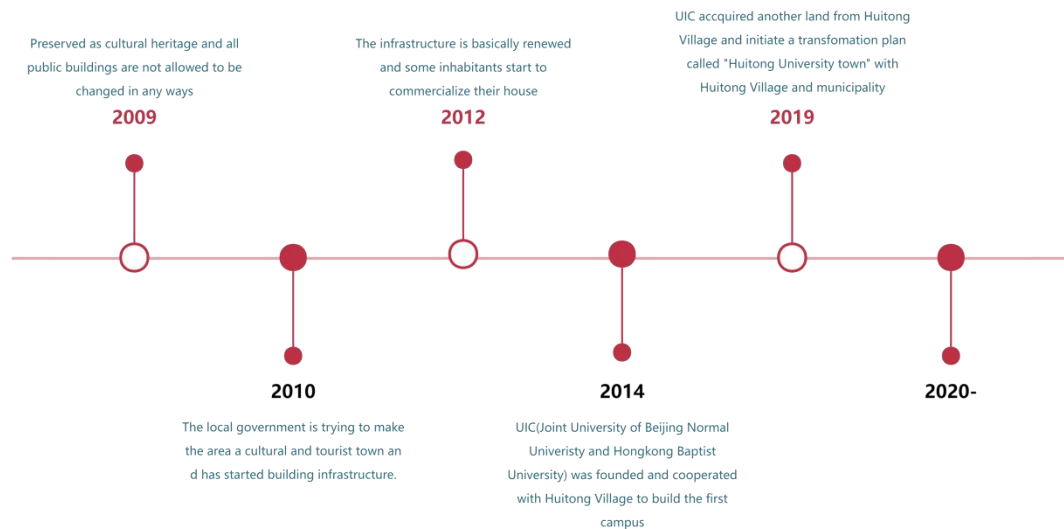


From the physical perspective, the region is surrounded by three territories, the ancient villages, cities and campuses. People generally stop at the borders and return to their own territories. Even if there are a few isolated roads, people are often not interested in crossing the barriers to another territory and readjusting to the change in spatial scale. In addition, the existence of these barriers has cut off the extension of nature, commerce, and communication.

On a smaller spatial scale, it is clear that on one side of the village, people walk aimlessly amongst the buildings with no clear direction or route along the narrow alleys, a few public spaces for rest and socialising are formed in the enclosure of the walls of the houses and courtyards, and in the centre of these spaces some tall trees serve as the main attraction to draw people in. Behind the walls of each house, there are hidden trees and plants that are half exposed, stimulating the curiosity to explore the space. On the side of the university campus, the behavioural patterns of students and teachers are more clearly defined, as people move along the planned internal paths of the campus between the dormitories, the teaching areas and the common areas, with the wide squares and the external spaces of the buildings becoming the main gathering points, all with exposed greenery and sight.

The two different patterns of behaviour reflect the different states of people's lives in one space. But in addition to this physical level of isolation, people's mental isolation is a more difficult problem. The local villagers often have not received enough education, and their relatively closed environment has made them feel unfamiliar with the outside world. What do they think when huge artificial objects suddenly appear on the land where they have lived for generations? The masses of concrete, glass and wide squares were not familiar objects, and they were confused by the content of the discussions between the students and teachers who occasionally came to the village. Over time, these unfamiliar objects made them resistant and distrustful of the outside world. An appropriate scale of transition becomes an inevitable need, both on the spiritual and physical levels. There should be a platform for the different groups to come into contact with each other, to get to know each other in life, in work and in the company of each other, and to enjoy the good things of the region together.

2. Development Of The Village



In 2010, the Zhuhai Municipal Government, Beijing Normal University and Hong Kong Baptist University agreed to cooperate and build a joint university in GaoXin County, where Huitong Village is located, and plan the construction of the campus in phases, thus hoping to form a large-scale higher education base. In this process, the protection and development of Huitong Village has been emphasized by the local government. After the restoration and preservation of the old buildings, the local infrastructure was completely renewed. Some new apartments and commercialized places were built on the unused land owned by the village by bringing in external investment. For the old buildings in the village, except for the important cultural buildings such as ancestral halls or public buildings such as squares, which are not allowed to be renovated in any way, some of the residences where the owners can still be contacted and are interested in renovating the buildings for commercial use have been converted into cafes, bookstores, or hotel/Airbnb



Since 2014, UIC, the joint university formed by Beijing Normal University and Hong Kong Baptist University, and Huitong Village entered into a partnership to formally acquire land for the first phase of the campus, with the goal of building a university town together. In 2019, UIC and Huitong Village agreed on an initiative called 'Huitong University Town' and began to gradually transform the village, with some of the buildings' functions becoming linked to the university's teaching activities, such as the establishment of a centre for the study of the region's history and the participation of students in the practice of local customs and cultures. Some of the public spaces in the village have introduced more corners that can be consumed or used by students and teachers.



3. Benefits From The Previous Development

1. The village is well-preserved not only the building but also the **culture and community, which can be kept as unique and attractive features of the village.**
2. Local villagers' income **have increased 2-3 times on average, which gave them more motivation and confidence** to participate in further development.
3. Infrastructure, including roads, energy, internet, has been greatly improved, which

laying the foundation for the future development of this village.

4. Except the traditional industry like farming, **more industries** such as hotel and catering had been introduced into the village.

5. With the previous development, more and more people are **starting to pay attention on this area**, which is gradually becoming an important academic centre of the city.



4. Existing Issues

1. **The long-staying population**, which was seen as the main group to keep the region sustainably develop, **has not grown as much as the initiative expected**.

On the one hand, the vast majority of the population that comes to the village consists of tourists, whose interaction with the village is often limited to visiting, taking pictures, resting, etc. A few visitors may choose to make consumption in the village, but only to buy some food and then leave. There are basically no tourists who choose to stay in the village overnight.

On the other hand, students and teachers from the university direction, after completing their studies in the village, except for a few who may choose to take a walk, most of them go back to their campuses because there are not many more interesting spaces to stay in the area.

2. Local industries are poorly run because there is **no clear plans and strategies of the development** of this region.

The local industries are operating independently in a very fragmented way, and do not form a complete industrial chain, in the face of some special circumstances, such as Covid-19 these individual businesses can easily close down and hard to find a buyer who is willing to buy.

On the other hand, these emerging sectors such as catering and hotels do not have well developed service standards due to the lack of entities responsible for integration and operations. There is a general lack of interest in these places of consumption, both among tourists and students and academics from campuses.

3. The **well-functioning infrastructure, beautiful natural environment and unique cultural and historical background have not been fully utilized** by previous developments.

According to what can be observed so far, despite the fact that the local area has convenient and well-functioning infrastructures and public facilities after a series of developments, such as new car parks of adequate size and flat roads, these roads start to become uninteresting and desolate at the connection with the university campus, despite the fact that they are surrounded by beautiful mountains, lakes and rich vegetation. People don't choose to enter these areas to explore the beautiful scenery.

In addition, the landscape of the houses in the village with their distinctive traditional Chinese architecture is well preserved, but the beautiful eaves, walls and wooden beams are only used as furnishings, with no further 'extension' for people to experience, and in the connection area with the university campus these unique elements are suddenly interrupted.



5. Why This Project?

1. **The location itself is interesting**, considering its historical and cultural background, the close relationship with the university and the government.

It was a collision that appeared out of nowhere. Constructs representing different properties, forms, wills and histories appear in each other's view without leaving much time for reflection. More and more discussions about boundaries, meetings and connections are being

held, more memories are being brought up and more fantasies about the future are being expressed on this land at the same time. On the one hand, there is a two hundred year old traditional residential village, and on the other hand, there is the campus of a joint University, which represents the most advanced academic cooperation. This collision of the old and the new, the traditional and the modern, the residential community and the educational campus is both novel and troubling to many who observe it happening.

2. Confusion has arisen over the development of this village, both in terms of the **configuration of available resources and the direction of the future.**

Some previous attempts to intervene in this collision did not have the desired effect, the clearly re-drawn borders made villagers and students reluctant to step into each other's territories, the expectation of activating the development of the existing area by having more people living in the area was not fulfilled, some industrial cooperation between the village and the university was not well sustained, the area situated around the border is not made any more interesting by the collision of the village and the university, The area around the border does not become more interesting due to the collision between the village and the university, and some of the special advantages of the area, such as the history, the natural environment, the infrastructure, etc., are not fully utilized.

3. This project can be seen as an experiment in **small-scale academic living communities in the form of university town** that have not emerged in China.

In China, the presence of higher education institutions takes the form of a one-off master planning of a large piece of land in the city. This includes a clear demarcation of residential, activity and teaching areas within the university. In some cities, different universities are clustered together in a corner to form a 'university city'. It is very rare for a university like UIC to be in direct dialogue with nature and ancient villages alone, and it is this unique environment that makes it possible to have small university towns rather than city-like university clusters. The significance of this project is that it offers alternative possibilities for the existence of many higher education institutions in China, which may bring better living and academic experiences to the users of these institutions.

6. The Goals

1. Create an favourable environment where people **want to stay, live and work**, not just pass by to take photos and walk around.

Nowadays, Huitong Village usually only represents a symbol of a tourist attraction. Whether for students or tourists, the purpose of entering the area is to have a short experience of the quiet traditional village with its alleys and old trees, but that's about it. A village is not a museum or an exhibition hall, but a place that should be filled with the fun of life and allow people to get down to work. It is in life and work that the value of the human being is valued

and reflected, rather than just being part of the backdrop.

2. To help Huitong Village rediscover **the balance between modernity and tradition, development and conservation, artificial constructions and nature.**

Some buffer space needs to be put in place. The conflicting parties themselves can be used and actively involved in the dialogue. Sustainable economic development should be structured with the utmost respect for the local context, with clear business development plans and clear lines of industrial development. There should be more buffer spaces with different dimensions between the modern international academic base and the traditional Chinese countryside, where the demands of both sides can be satisfied. The harmonious relationship between artificial construction and nature in traditional villages should be further extended in these buffer zones, and more layered landscapes could make the whole area more attractive.

7. The Role As Architect

1. From the space perspective, **break down the physical barrier** between the village and the campus and **re-shape the in-between area.**

Looking at the circulation of people and the form of spatial composition of the area based on the existing traffic and road system. This includes how people move, where they stop for short periods of time and which areas they avoid trying to enter. How do different elements such as alleys, corners and nature play a role in guiding this circulation? What is the spatial scale of the village and the campus? How are the different spaces connected, divided and overlapped? Based on these observations, it is possible to decide how to break down the boundaries and the scale, form and connection of the in-between areas.

3. Meets the needs of the students, academics and villagers, **provide quiet and comfortable housing that does not make them feel isolated.**

Analyzing the needs of the academics, students and villagers, it is clear that they want quiet and comfortable housing that does not make them feel isolated. For people who have been living in apartments in the city for a long time, enclosed high-rise buildings do not guarantee privacy or real comfort. Instead, people live with walls, doors and windows and are far from nature and face-to-face interaction. For the villagers, they wished to have brighter and more open spaces for their activities while retaining the quietness and privacy of a traditional building. The simpler and more functional layout of the building blocks also allows for more greenery.

4. **Re-allocate and integrate local educational, natural and spatial resources** to create attractive neighborhoods while **setting a clear direction for economic development.**

The village of Huitong has excellent educational resources and beautiful natural conditions due to its unique location, while there is still a large amount of available land in and around the middle of the village and the school district. The previous development plan did not adequately analyse and integrate these resources, resulting in a single model of local industrial development and no real participation by villagers in the development plan. On this basis, the selection of the education and training sector, which has more economic potential, as the core industry for future economic development will not only make full use of the educational resources from the university, but also provide students and scholars with a better reason to live here for a long period of time. In addition, the neighbouring catering and hospitality industries can be used to serve a wider range of customers, and in addition to tourists, a large number of people from outside the area who are involved in education and training will contribute to the local economy. At the same time, these rich educational programmes facilitate local villagers' access to education and provide jobs for them.

8. Design Proposal

(1) Statement of Design (not including the commercial area)

Land area: **24,635 m²**

Site area: **20,478 m²**

Building area: about **9,000 m² / 0.7 (Building Coefficient) = 12857 m²**

Floor area ratio: about **0.52**

Functional building area: **9000 m²**

Building intensity: **less than 9,000/20,478=0.4**

Average floor: **2**

Green area: **above 4096 m²**

Green ratio: **above 20%**

Parking Space for Vehicles: above 80 (ground)

Parking Space for Bicycles: above 200

Function area:

1. Open Institute 3000 m²

1.1. Common Classroom 12*50=600 m²

1.2. Workshop 4*125=500 m²

1.3. Seminar Room 20*30=600 m²

1.4. Lecture Hall 600 m²

1.5. Office Room 400 m²

1.6. Storage 300 m²

2. Public Dining Hall 2000 m²

2.1. Dining Area 900 m²

2.2. Kitchen 900 m²

2.3. Store 200 m²

3. Dormitory 3000 m²

3.1. Guestroom 25*20*3=1500 m²

3.2. Library 450 m²

3.3. Gym 450m²

3.4. Services 600 m²

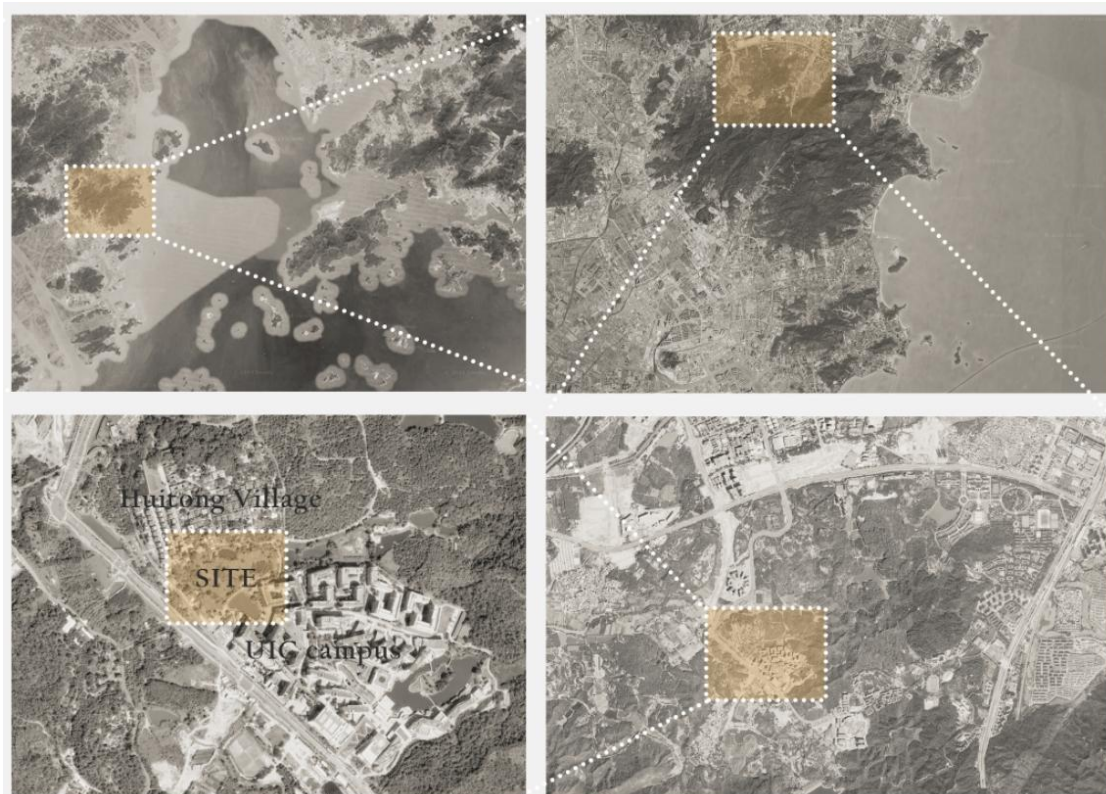
4. Auditorium 1000 m²

4.1. Main Hall 800 m²

4.2. Office Room 200 m²

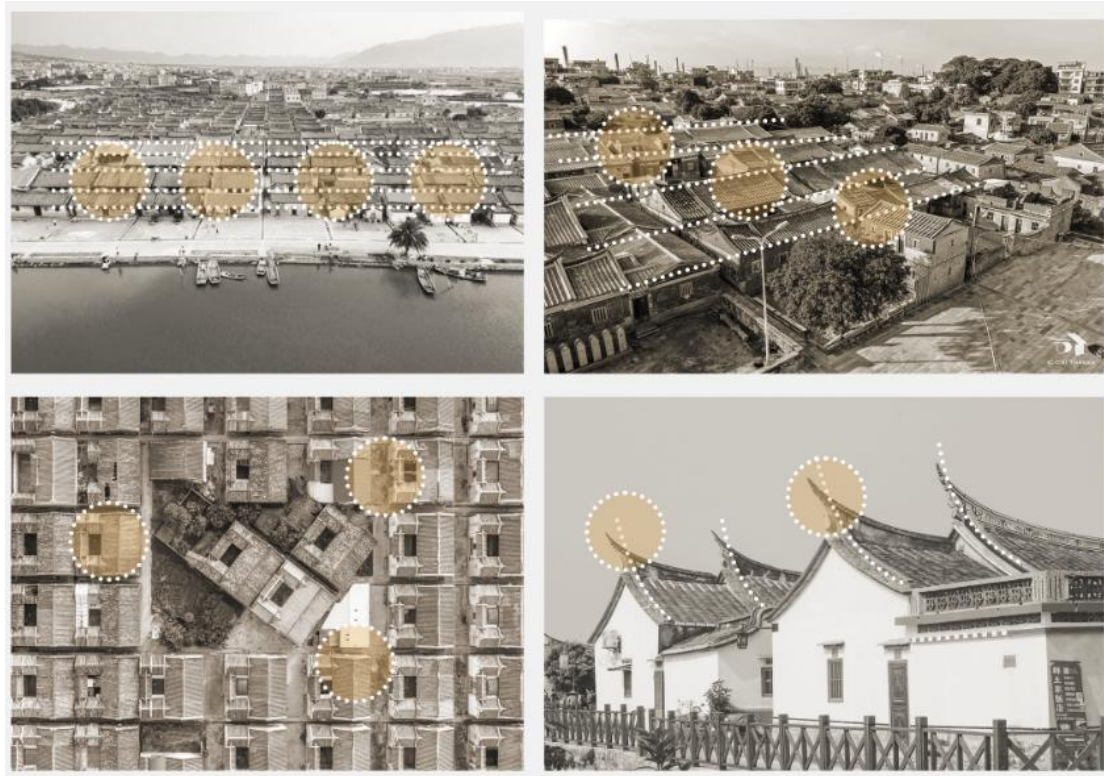
5. Covered Outdoor Space 1000 m²

(2) Site Analyze



Huitong Village is situated in Zhuhai city, approximately five kilometres from the local government. It comprises 38 traditional Guangfu dwellings, characterised by mixed brick and wood structures, hard hill roofs, green brick walls, grey tiled surfaces, decorated with colourful paintings and wood carvings. The site is between the old village of Huitong and the UIC campus.

(3) Traditional Construction Elements



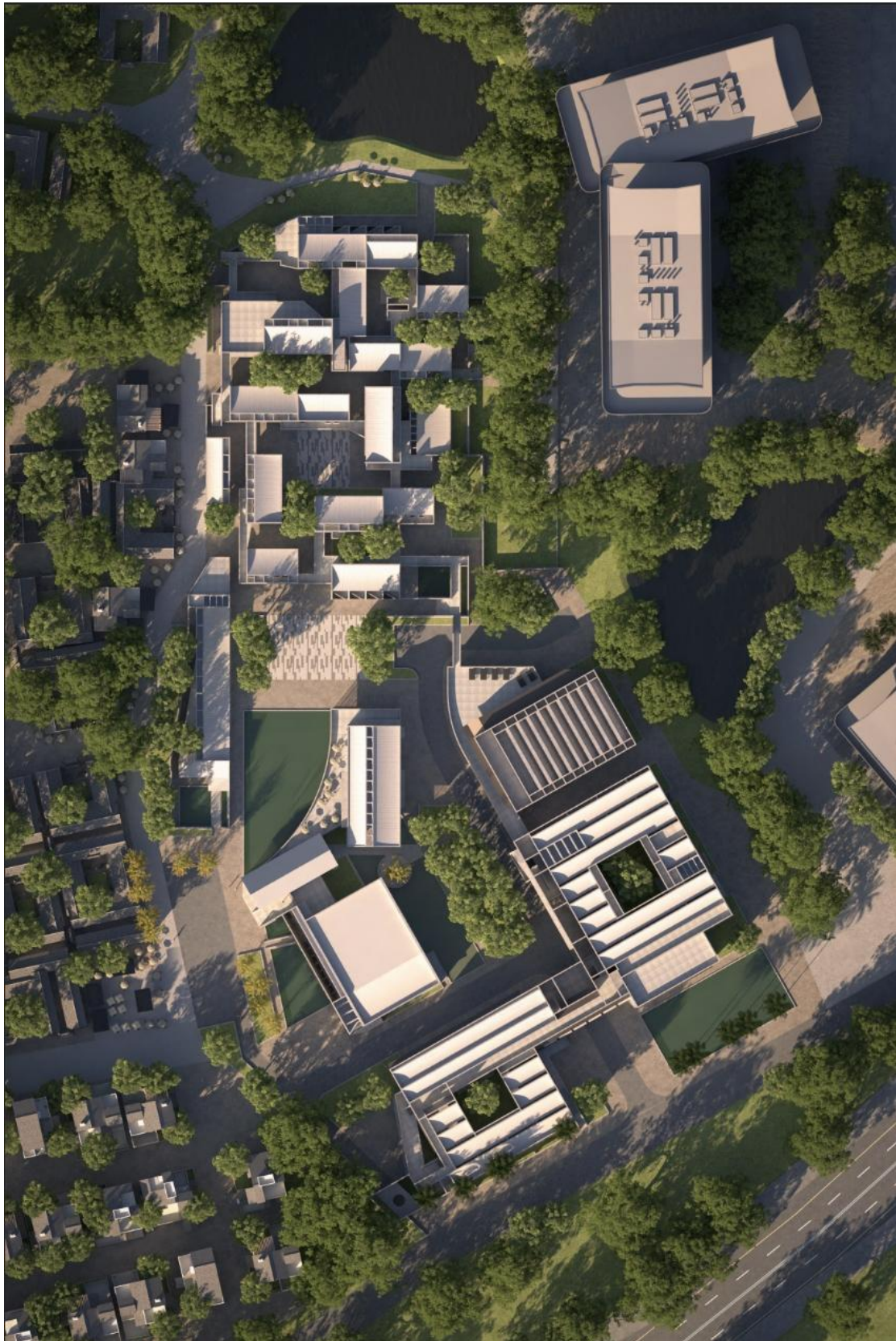
Traditional Roof:

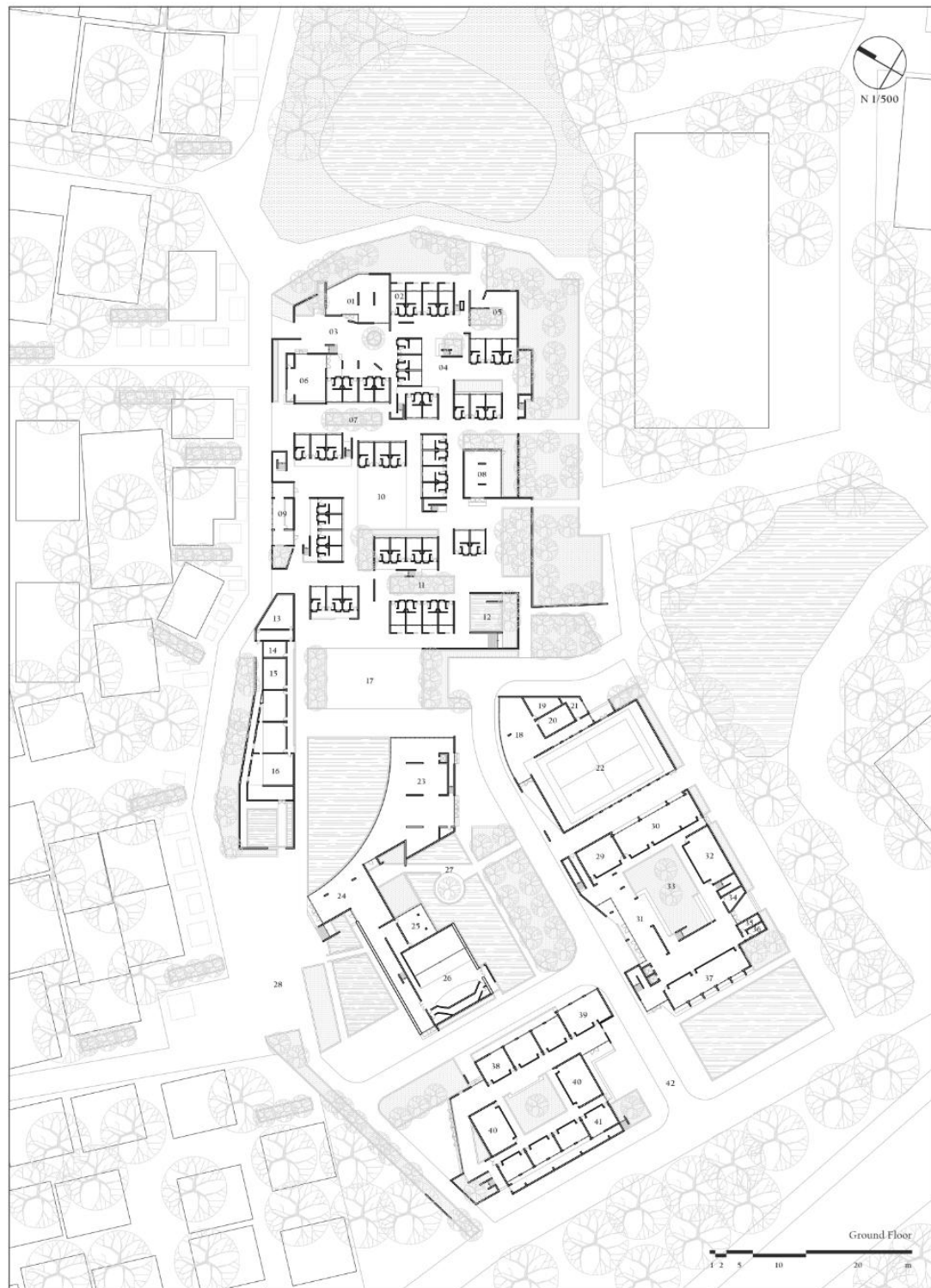
The principal ridge of the roof of the Min-nan temple building is curved, and the corner of the ridge is elevated to a considerable degree, which results in the principal ridge being curved to a considerable extent, thus visually overcoming the rigidity of the principal ridge.

Ventilation:

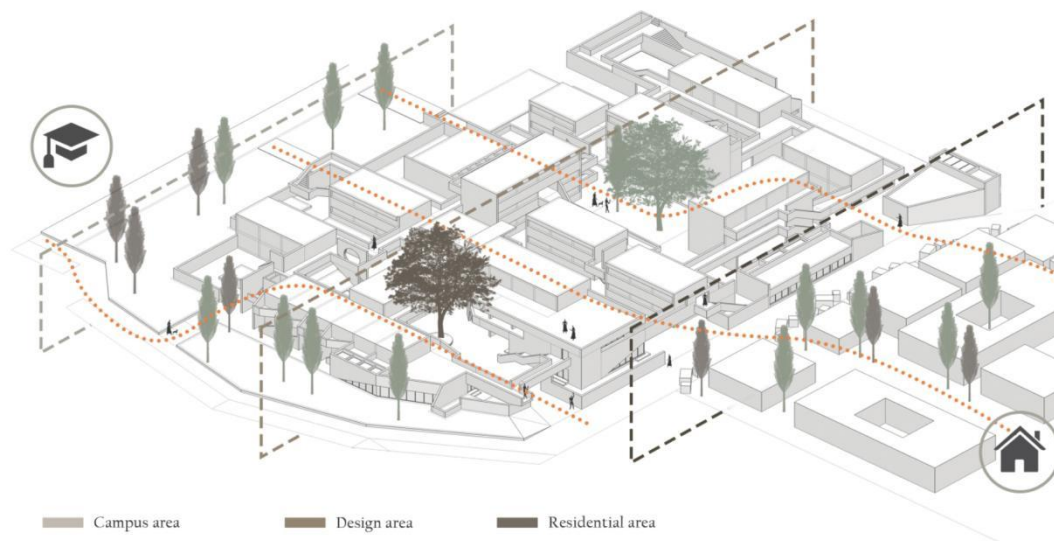
In the long hot and humid climate of Lingnan, ventilation is more important than shading and insulation. Cold alley has the function of organizing natural ventilation in building design. Cold alley cross-section area is small, through here when the wind speed will increase, the wind pressure will be reduced, and the cold alley connected to the rooms of the hotter air will be taken out, the cooler air will enter the complementary, so as to achieve the effect of ventilation.

(4) Connection and Circulation

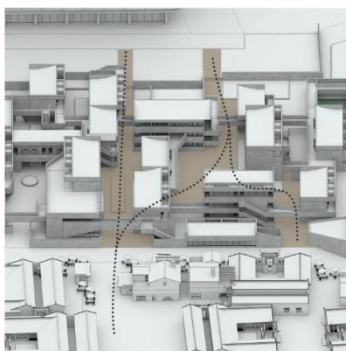




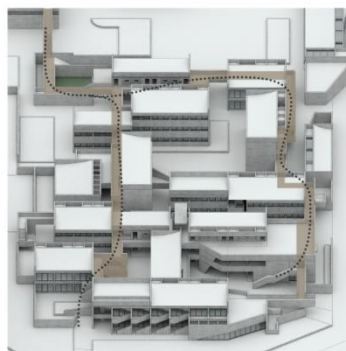
01 community library	11 courtyard	21 office room	31 school foyer	41 meeting room
02 guestroom	12 private yard	22 gym stadium	32 media classroom	42 entrance
03 alley	13 small lecture room	23 art exhibition	33 patio	
04 central garden	14 office room	24 auditorium	34 mail room	
05 private garden	15 exhibition classroom	25 rehearsal hall	35 female restroom	
06 study room	16 reception	26 lecture hall	36 male restroom	
07 public garden	17 main plaza	27 yard of discernment	37 activity room	
08 cafe	18 stadium foyer	28 foreyard	38 ordinary classroom	
09 store	19 female changing room	29 office room	39 science classroom	
10 square	20 male changing room	30 workshop classroom	40 large classroom	



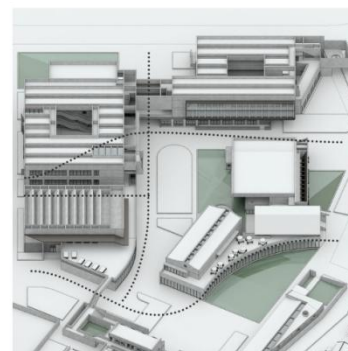
A similar three-level structure exists in the general plan of the site. As the site is in the transition zone between the ancient village of Huitong and the university campus, the design has to consider how to connect the two completely different life scenes, not only in terms of the function and positioning of the buildings, but also in terms of ensuring that the paths therein are unobstructed. The teaching area on the south side is mainly in the form of roads connecting the village, the campus and the external city roads, while the residential area on the north side is mainly in the form of stone and brick paths connecting the campus and the active village.



Ground Floor Layer



First Floor Layer



Road System

The connecting paths on the north side of the residential area are highly concave and convex, with each path connecting multiple spatial nodes, including small plazas, covered galleries, and lawns. This route is full of life scenes.

Access to the residential area within the site is also enabled by a first floor terrace and corridor to enable direct student access from the halls of residence to the teaching spaces. The first floor platforms form a loop in the residential area and provide stairs to the first or third floor at important points.

The main consideration for the teaching area is the need for safe evacuation of the site, so the carriageway roads in the area mainly undertake the east-west connection. In addition, the access roads between the buildings can also be easily passed through.



Section

The height of the buildings rises gradually from the direction of the village towards the campus, and the facade gradually changes from the traditional Chinese architectural style to modern geometric lines. The surrounding natural environment permeates the whole area.

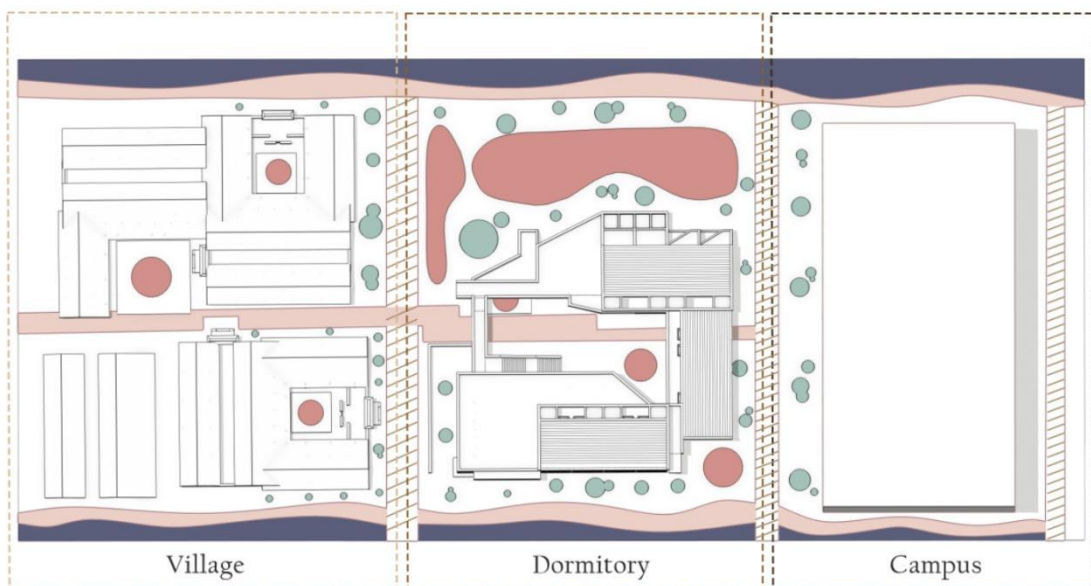
(5) Transition



One expectation, based on the principle of reducing people's discomfort, is that people should not feel a sharp drop when travelling between villages and residential areas. The height of the buildings, the variations in the width of the alleys, similar design languages such as corners and low walls, fully or partially exposed trees with the proper height, all these elements can help to make the transition to the different areas in a more natural and comfortable way.

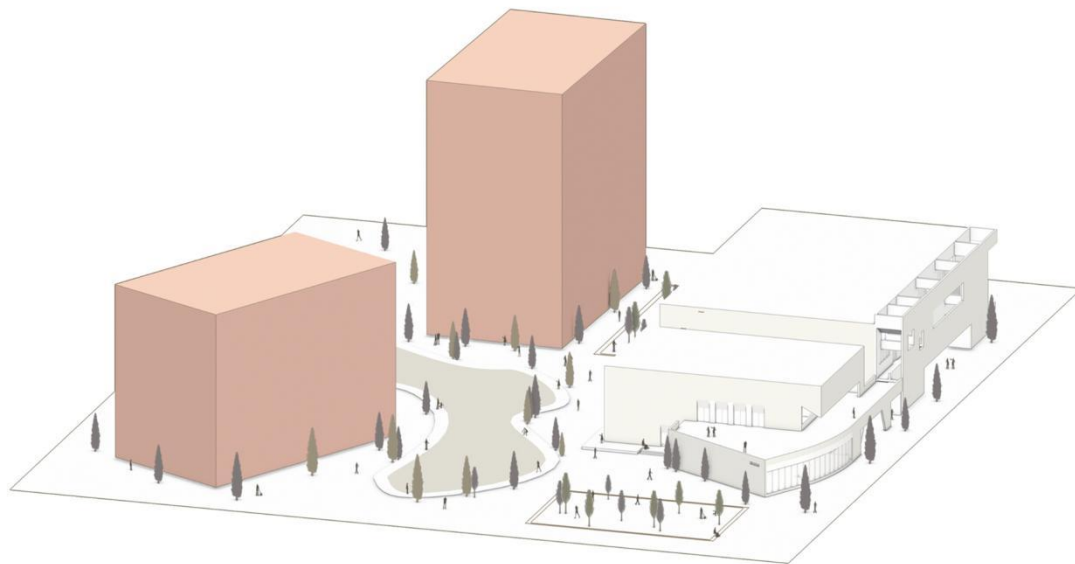


On a larger scale, the transition from a traditional village to a university campus requires a slow and natural process. Realising this process requires a comprehensive analysis of the transport system, artificial landscape spots, random plants inside the area and nature outside the area, rather than trying to give solutions from one isolated perspective.



The Process ■ Pedestrian ■ Landscape Spot ■ Plants ■ Nature Road

On the edges of the area, the pedestrian that run through the three zones are wrapped in the surrounded nature, thus providing the best and most sustained experience of interaction with nature for those who pass through the area rather than choosing to stay. For those who prefer to explore internally, the combination of more identical artificial landscape points and more random planting and by extending to the end of the transition zone allows people to find a space to take a rest anywhere in the area.



Buffer zone

Education Center Lake Campus

Unlike residential areas that are surrounded by nature, educational areas and campus boundaries are more framed by major city roads and public facilities such as car parks. Here it is more important to consider how to create buffer zones between them. On the basis of the already existing water, plants of different densities and species are scattered in squares, gardens and lakes.



The transition from outdoors to indoors is divided into different layers. These layers include grass, bush, trees, building shells that provide additional shade and space, and outdoor traffic spaces. The boundaries between indoors and outdoors are blurred.

Ex---Interior

Shell Facade

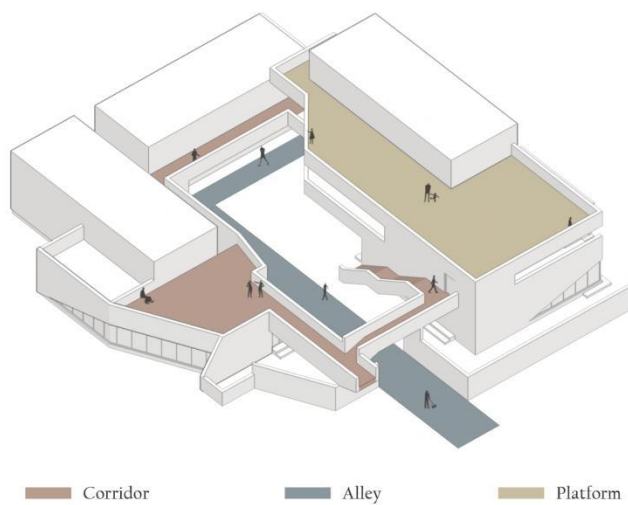
(6) Meeting



Meetings include the choice of how people meet, the co-creation of meeting spaces between different buildings, and the differences and interests mapped by the meeting of modern and traditional affairs.

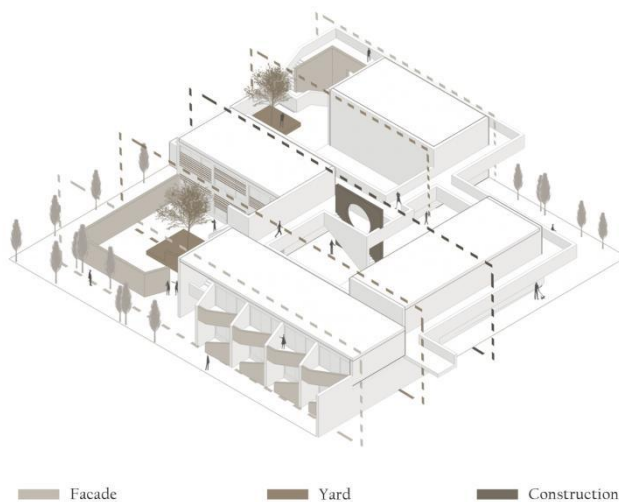


As a centralized area of several public buildings, one side of it faces the outside world, while on the other side it needs to face a large number of people moving around inside. This space, enclosed by three different volumes and angles, forms a meeting point. The question to be answered by this meeting point is how to guide and restrain people from the outside world on a larger scale into a smaller scale environment, while at the same time keeping the space as organized and comfortable as possible.



Circulation

In order to provide the openness not often found in urban flats and the need for frequent interaction between groups of residents, the circulation of the different floors crosses each other and creates enough space for people to meet, both horizontally and vertically.



Layers of Privacy

Considering that this residential area is supposed to offer quality that are missing from urban flats, privacy has been intentionally layered. The first level starts from the facade of the building and consists of low walls, trees and balcony elements. The second layer consists of the yard and the plants in it, and the third layer consists of shutters on the windows and some traditional construction in the public spaces.

The advantage of this is that people with different privacy preferences can have the option of choosing where they want to meet others, and it is also a common practice in traditional Chinese gardens for indirect contact.

(7) Reference



Traditionally, the architecture of the coastal region of southeastern China has a distinctive style called the ‘Ling Nan’ style, which, unlike the northern region of China where the emphasis is on man-made landscapes and structures, seeks to integrate architecture with dense trees and the natural environment. The height, distribution and orientation of the buildings are influenced by the natural environment.

“LingNan”Style, which characterized by mixed brick and wooden structures, hard hill roofs, green brick walls, grey tiled surfaces, colourful paintings and wood carvings, Walls and house facades are integrated and form a continuous landscape, the orientation of each building is not standardized, depending on the owner's preference and the shape of the yard. Between these buildings of different orientations and sizes, the alleyways, which are the main traffic spaces, and the communal spaces, which provide a resting and socializing space, are squeezed out, and trees of different heights are placed according to the size of these spaces to provide a differentiated view. The different heights of the trees are arranged according to the size of these spaces to provide a different landscape experience.

Another important feature of Lingnan architecture is that buildings do not seek to isolate or centralise groups of buildings; rather, it is more important to connect buildings and create a continuous spatial experience through corridors and nodes of man-made and

natural landscapes. The presence of water, despite the many problems it poses such as mosquitoes and storage, remains as the foundation of the gallery system in Lingnan architecture.

Reflection

For this project, it is worth giving further consideration to the fact that whilst ideally at some point in the future the residential areas of the project will become part of this village. However, due to the size of the area, this sustainable community will have to stop its development. In addition to the fixed urban roads in the neighbourhood, the surrounding indestructible nature and the protected village will be an obstacle to the development of the area. On the other hand, whether the economic development strategy centred on the education and training industry will be quickly accepted by the local villagers is another question to be pondered. Compared to agriculture, the education industry often takes a longer time to bring returns to villagers. Apart from that, for students and scholars from outside, what other advantages does such an academic town have that a city does not? Can the existing neighbourhood businesses, mainly small-scale restaurants, satisfy their needs compared to the more convenient and abundant medical care, transport and consumption venues in the city?