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Discussion on the Design of Cultural Commercial Complex—Taking a design of a cultural and commercial complex next to a university in Yichang as an example

Ye Wu^{1*}, Xiao Shao², Guozhu Chen³

¹College of Civil Engineering & Architecture, China Three Gorges University, Yichang, 443002, China. ²College of Medicine, China Three Gorges University, Yichang, 443002, China. ³College of Hydraulic & Environmental Engineering, China Three Gorges University, Yichang, 443002, China.

ABSTRACT

As the social economy develops faster and faster, the functions of commercial complex buildings become more and more diverse. It is not only a place to shop, but also a place to gather a place of popularity. Therefore, in addition to providing a shopping place, it also has the function of providing a gathering place for leisure and entertainment, and can become a landmark building of a city. Therefore, we hope that through the analysis of the design features of this work, a complete and detailed architectural design idea for the design of such commercial complexes can be proposed.

Keywords: Culture; Commercial complex

*Correspondence to Author:

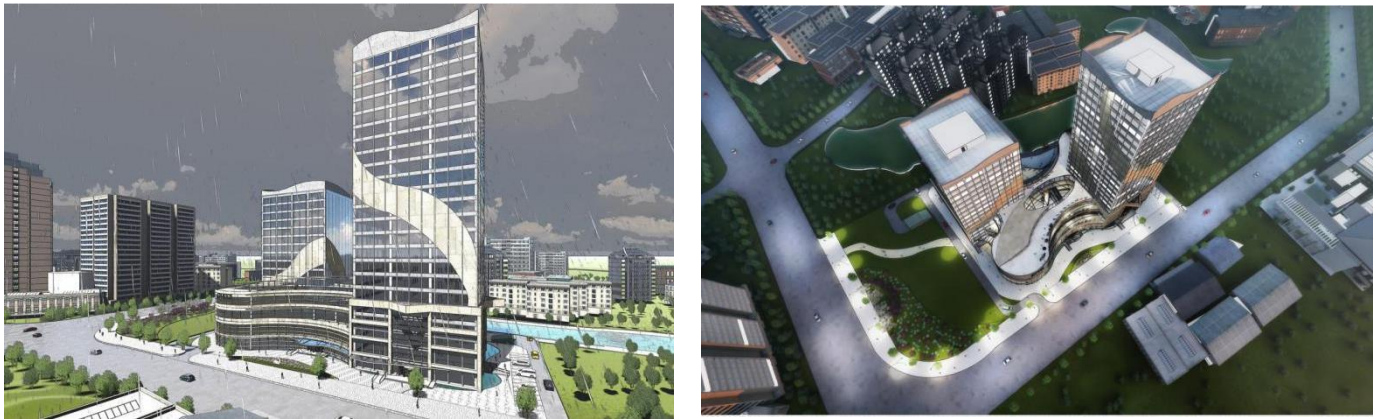
Ye Wu

College of Civil Engineering & Architecture, China Three Gorges University, Yichang, 443002, China.

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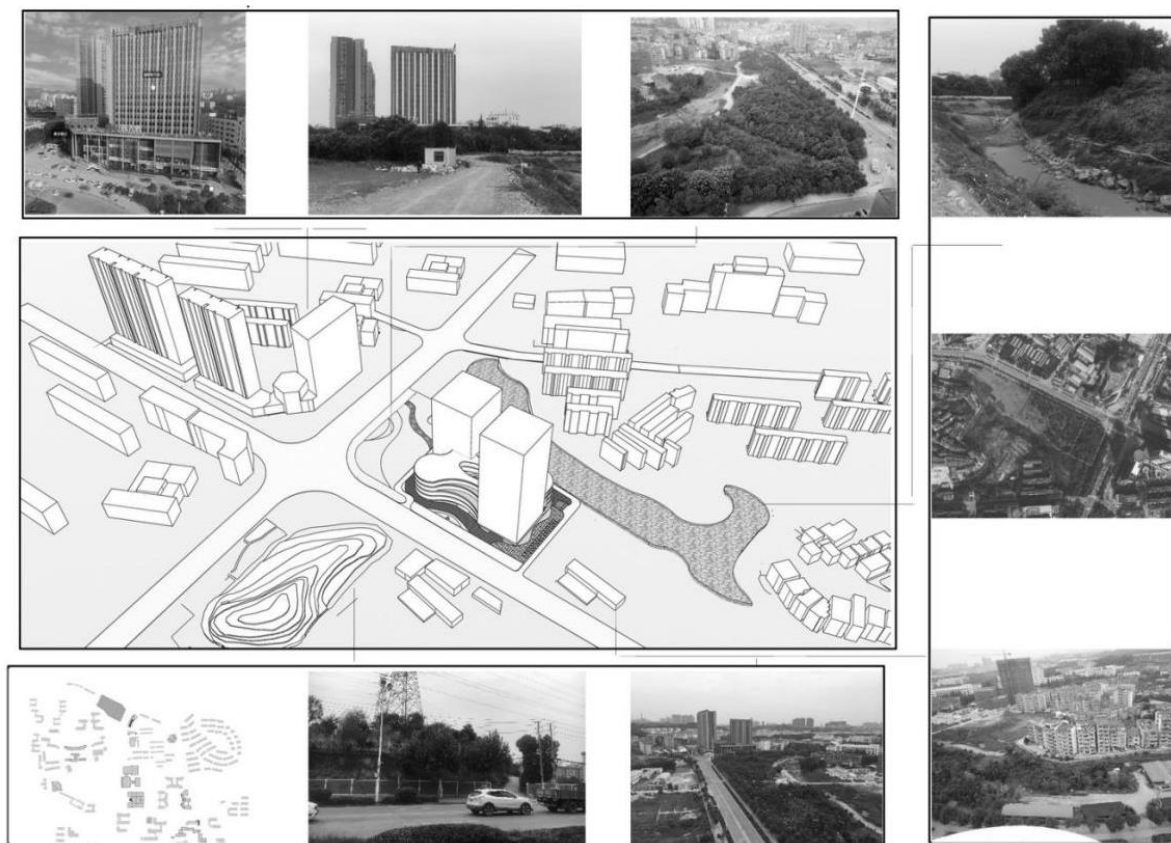
(Figure 1 renderings)

1. Project background

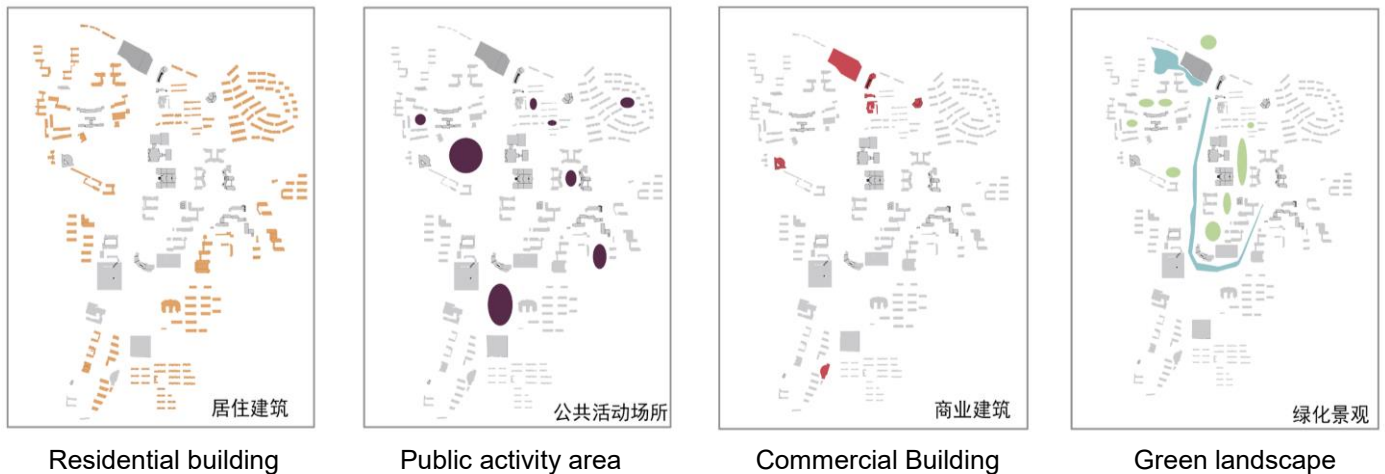
1.1 Base condition

The project is located on the west side of the north gate of a university in Yichang City. It is located at the intersection of Huanghe Road and University Road (Fig. 2), the main road of Yichang. The traffic conditions are good. Yichang itself belongs to a place with a long history and culture. There are famous people such as Wang Zhaojun and Qu Yuan. There are also good

natural landscape tourism resources. The city has 747 tourist attractions and 4 national 5A scenic spots. Designing a commercial complex in the area is inherently unique. This design case is located in the vicinity of Three Gorges University in Yichang City, and has a good cultural atmosphere. Therefore, the author believes that a commercial complex located in such a special area also needs a cultural atmosphere that is consistent with the surrounding environment.



(Figure 2 Base surrounding environment)



(Figure 3 Location Analysis Chart)

1.2 Site SWTO analysis

According to our previous research, the source of tourists around the base is mainly the faculty and staff of the university and the students around the part of the tourists and some of the passengers who may pass by. Therefore, we need to add the necessary function according to the particularity of the source of the business in the commercial design. And because the land is basically suburban, there is a lack of coordinated and unified planning for the surrounding buildings, the buildings are scattered, and there is no public open space for activities. Due to the lack of a mature commercial complex in the region, although there is a Xintiandi business district next to it, it is mainly immature for students, so there is an urgent need for a mature commercial complex to satisfy people's shopping and entertainment activities.

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is basically suburban, there is a lack of coordinated and unified planning for the surrounding buildings, the buildings are scattered, and there is no public open space for activities. Due to the lack of a mature commercial complex in the region, although there is a Xintiandi business district next to it, it is mainly immature for students, so there is an urgent need for a mature commercial complex to satisfy people's shopping and entertainment activities. Therefore, if the commercial complex design that is designed here will actually become a landmark building, it will require us to make outstanding designs to give the building a leading and representative. Around the base (Fig. 3) there is a water feature of Wensi Lake, and there is a hillside in the north. The landscape resources are unique, which is conducive to the use of the surrounding landscape resources to design interesting architectural space. After our analysis of the surrounding buildings, we found that the buildings around the base are mostly low-rise, multi-storey buildings. The architectural form is single and rigid, lacking in characteristics. Therefore, architectural design needs to be unique here, in order to form a geographical focus and form a distinctive landmark building.

2. Concept Generation

In order to meet the needs of customers, we consider designing this commercial complex as a commercial complex integrating leisure, work, travel and accommodation, and cultural exchange. In addition to its commercial functions, it should also have office functions, hotel accommodation, and cultural exhibition functions. Therefore, there is naturally a division of the function of the block. In the following, the author will elaborate on how to implement the concept of the scheme under these constraints (Figure 3). First, we divide the large hotel and accommodation functions into different body functions, and divide them into corresponding positions according to the retreat requirements between tall buildings. Considering the needs of the hotel and office buildings, such as the functional streamlines and landscape views, the hotel needs to be in a quieter environment and needs a good landscape orientation. The hotel building is placed in the southeast corner, and the office building needs convenient transportation conditions. Choose to place it in the northeast corner. In this way, a form of diagonal shift is naturally formed, so that the middle commercial complex part has a good line of sight with the water view. Due to the good landscape conditions of the base, close to Wensi Lake, and the east side of the base is a large green landscape, the echo of architecture and landscape conditions has also become our focus.

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good landscape orientation. The hotel building is placed in the southeast corner, and the office building needs convenient transportation conditions. Choose to place it in the northeast corner. In this way, a form of diagonal shift is naturally formed, so that the middle commercial complex part has a good line of sight with the water view. Due to the good landscape conditions of the base, close to Wensi Lake, and the east side of the base is a large green landscape, the echo of architecture and landscape conditions has also become our focus. First of all, in order to echo the smooth curve of the water body, we also designed the skirt part as a curved form, which not only can respond to the water body shape, but also bring a streamlined dynamic feeling to the commercial part. The curve should not be arbitrarily flowing. We consider that there are more people flowing at the main entrance and exit, and the characteristics of the flow of people thus form the building shape into a natural main entrance plaza.

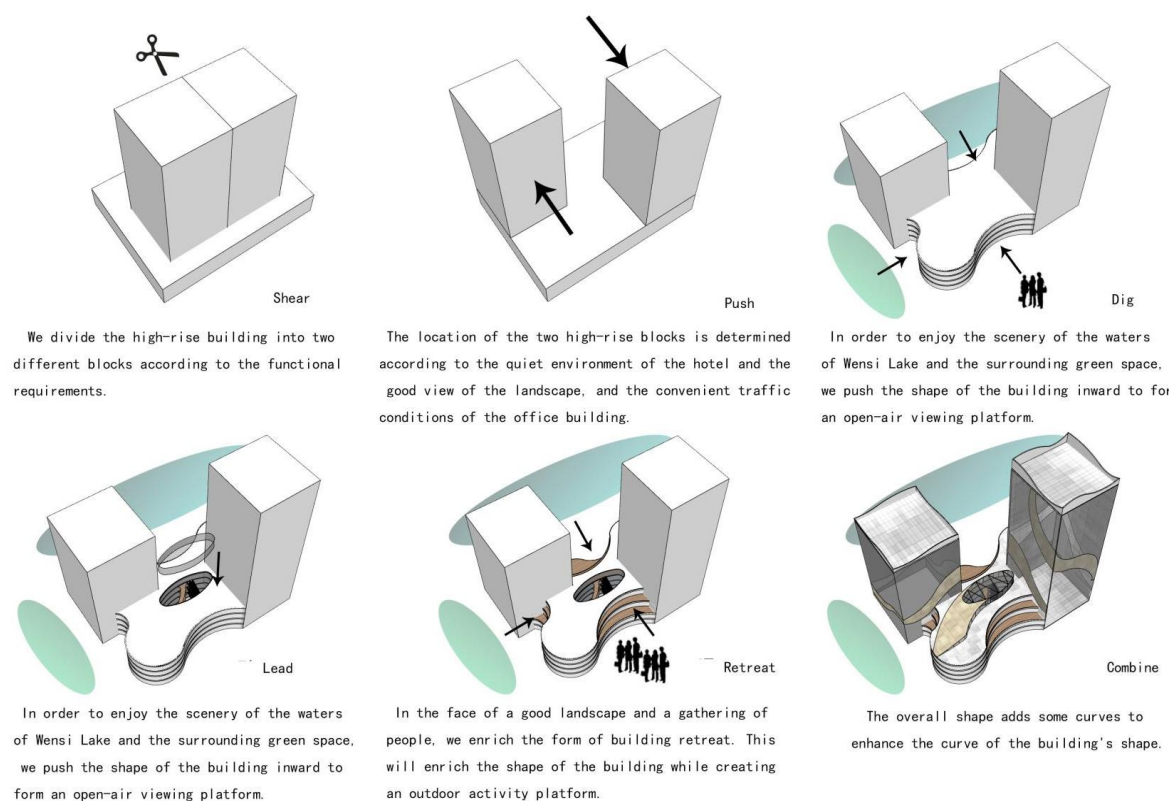
Because Yichang City is a hilly area, and this design is the only mature commercial complex near the university, it should be representative. Therefore, we consider integrating the mountain form of Yichang into the architectural design. We designed the high-rise building into a high-low, one-skinny, fat-skinned form, which is similar to the high and low mountain shape, and the commercial complex of the podium part forms a mountain peak with a stream. At the same time, we placed a high atrium in the podium part to introduce the landscape, sun and air into the building.

In order to make better use of the shape of the building to create a sense of landscape and canyon, we combined the lighting and functional requirements of the podium to transform it from a single curved form to a layered form. At the

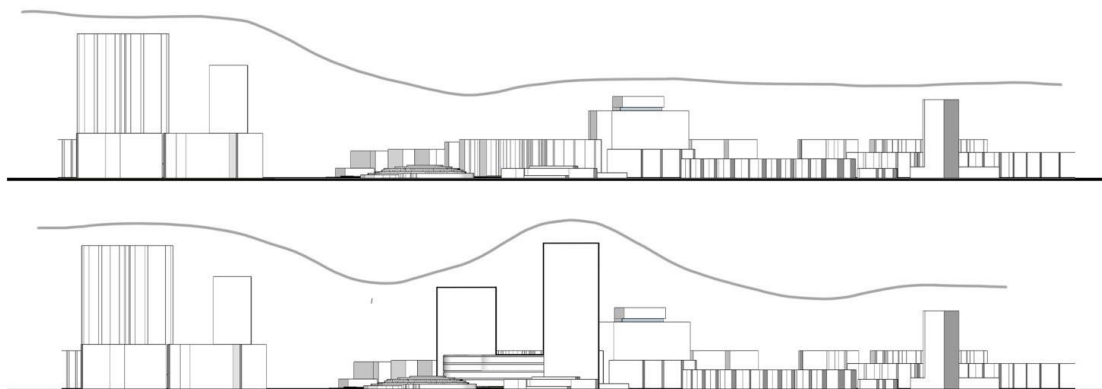
same time, we carry out the form of decommisioning at the primary and secondary entrances and exits, and combine the landscape space with the commercial space. We combine the atrium space with the stair space to create a curved form that enhances the curve of the podium. At the same time, we added a graffiti design to the façade of the high-rise building to soften the rigid form of the building and reduce the awkwardness.

From the image of the city skyline (Figure 5), this block generation logic is logical. Because

this cultural and commercial complex design requires itself to be a landmark building in the area. Therefore, through this architectural design method, we can find that there is a visual center point in the area after this design, which naturally forms a landmark building. And between the two high-rise buildings on the diagonal is a low commercial podium, which forms a visual corridor that communicates the relationship between the building and the surrounding landscape resources.



(Figure 4 Body block analysis)



(Figure 5 Skyline before and after renovation)

3. General plan design

In the layout of the general plan layout, we take into account the principle of maximizing the value of each property in the interior to carry out the spatial layout. Since it has a good landscape display near the main roads of the city, it has the greatest commercial value, so we consider placing the hotel and commercial entrances and exits on the side close to the main road, so that there will be a better city display. And because the hotel needs a quieter environment and a good view, we have placed it on the side close to the lake, which maximizes the landscape. At the same time, according to the previous research, we know that the main traffic of the base is concentrated in the Yellow River Road. Therefore, we consider designing the main entrance of the building close to the main entrance. Taking into account the need for sunshine spacing between buildings and surrounding buildings, we have staggered the blocks to reduce the pressure on the sunshine conditions of the surrounding buildings.

4. Floor plan layout design

The commercial complex itself is confusing and complex, so it needs to be well designed to meet the basic functional requirements of each part without the interlacing of streamlines (Figure 6).

The first is the streamlined design of the hotel section and the office building section. Since both types of buildings have more complicated functional streamlines and plane functions, we consider setting them separately into two different body blocks and setting separate outlets so that there is no flow line crossing problem. At the same time, we combine some logistics management rooms with garage design, so that we can use some building space that is difficult to use. This will facilitate the management and

operation of the entire commercial complex.

Secondly, compared with hotels and office buildings, the streamline function of the podium part of the commercial complex is more complicated. Therefore, in this design, we consider the atrium space and the main stores and shops to form a level of each floor traffic flow. Secondly, compared with hotels and office buildings, the streamline function of the podium part of the commercial complex is more complicated. Therefore, in this design, we consider the atrium space and the main stores and shops to form a level of each floor. Traffic flow. And we interspersed the cultural exhibition space into the commercial space design, so that people can experience the leisure fun brought by the cultural entertainment space after shopping. At the same time, we designed an outdoor rest platform in each floor combined with the retreat space, and combined the activity space with the outdoor platform, so that the outdoor space of the building can be blended with each other.

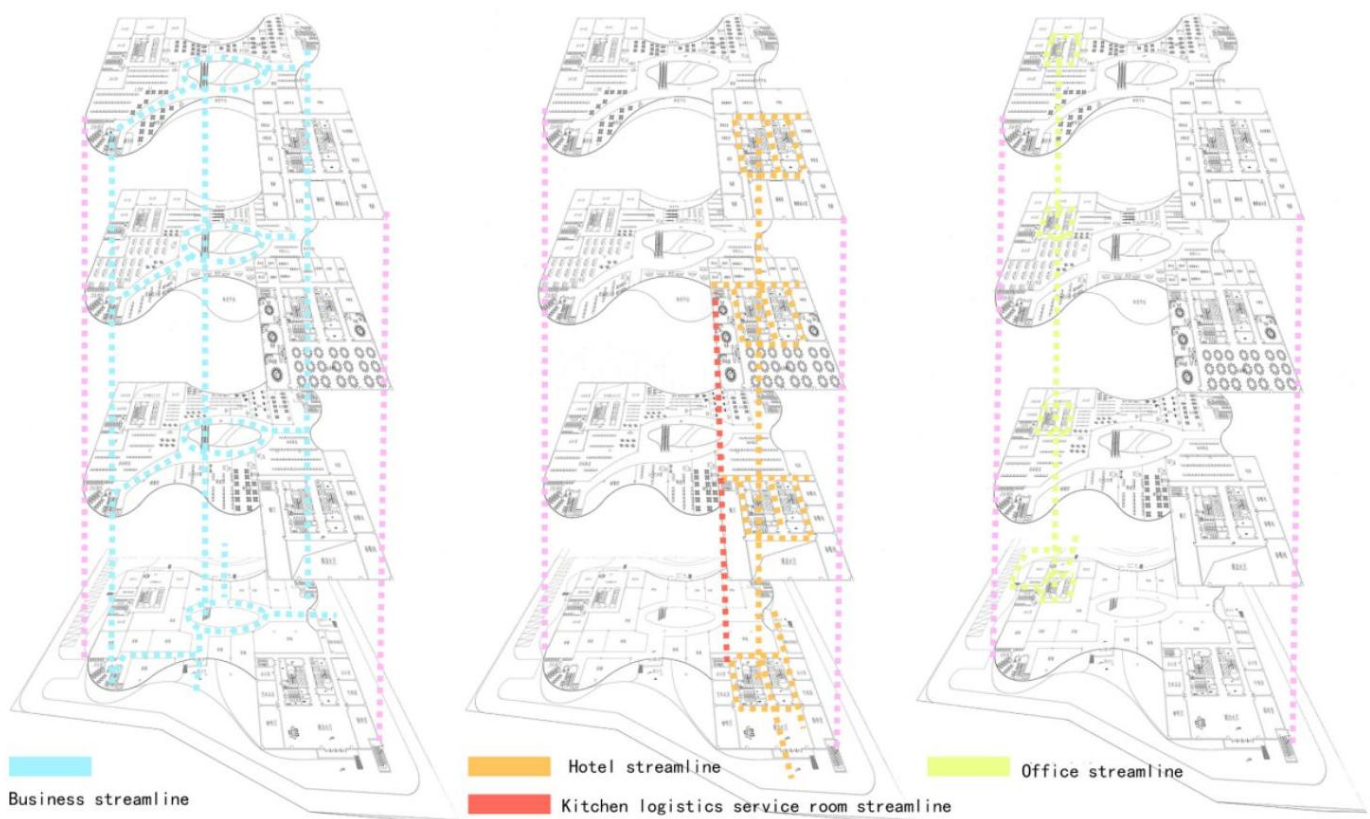
For the special nature of cultural and commercial complexes, we have designed some corresponding functional layouts to enrich the culture of the commercial complex.

By investigating the surrounding residents and faculty and staff, the author draws everyone's opinions and puts some special functions into the building, such as exhibition halls, book bars, tea rooms, studios, etc. This will enrich the function of the building.

For example, in the vicinity of the atrium, where people are easy to gather and create interesting spaces, we set up special exhibition halls for people to rest in the exhibition hall after a break, which is undoubtedly a good function of cultivating sentiment, leisure and entertainment. Secondly, the author considers designing special restaurant areas, such as tea rooms and folk

restaurants, to increase the attraction for tourists who want to experience Yichang characteristics. At this time, the restaurant space is not only a catering service for tourists visiting the city, but also a way to show the local customs of Yichang. And some special formats such as book bars, art shops, wax museums, and ceramics halls can be set to increase the appeal to high-cultural people. Today's book is not only a function of selling books, but also a collection of drinks shops, leisure spaces and other features.

Due to the many teachers and young children nearby, there is a lack of public events. Therefore, we will add functions such as children's entertainment areas and art studios to the commercial part. This will not only meet the requirements of the university campus teachers who may need to open a studio, but also provide entertainment space for young children, so that they can give a safe place for visitors who are shopping with their children. Maximize the value of the business segment.



(Figure 6 building function streamline)

5. Facade design

5.1 Facade design concept

Combining the peaks of the mountains and the beauty of the water, we shape the building into a combination of straight lines and curves. Among them, the part of the group is echoed by the water body, and the flow is tortuous. And in the design of the façade of the high-rise, it is necessary to take into account that the surrou-

nding tourists are mostly young and energetic. The use of graffiti in high-rise buildings decomposes the bulky high-rise mass, so that the building shape becomes cumbersome and flexible. At the same time, the form of this curve can also be adapted to the curved form of the podium to create a sense of dynamic change, making the shape more elegant and beautiful. This paved the way for attracting young people aro-

und.

5.2 Facade material selection

In order to create an environmentally friendly, comfortable and energy-efficient building, we consider the use of different building materials in the design of the facade.

The first is the aspect of the glass curtain wall, we consider the form of a double-layer low-E glass curtain wall. Since the commercial building itself requires a large area of floor-to-ceiling windows, it itself generates a large amount of energy. The double-layer low-E glass has a high visible light transmittance and a low solar radiation transmittance, and thus has excellent applicability in Yichang, a large temperature difference between day and night, and hot summer and cold winter.

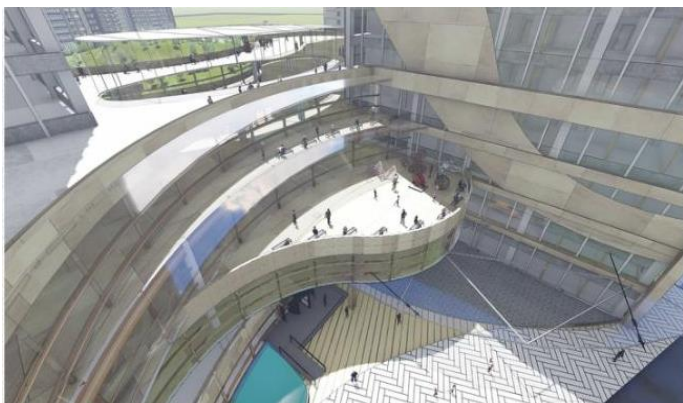
Secondly, in the design of the podium, we consider the use of krion stone to achieve the transverse line design on the skirt. Not only is this material available in more than ninety colors, it can easily be used in any complex shape, and it has excellent properties of no seams, sun corrosion and chemical resistance. Most importantly, it is 100% recyclable, and all products made from this material can be processed and re-

cycled after the end of the life cycle, thus protecting the environment.

6. Characteristic cultural space design

Combined with the retreat, we expanded the exhibition space of the building (Figs. 7, 8, 9, 10) so that we could form an interesting outdoor space.

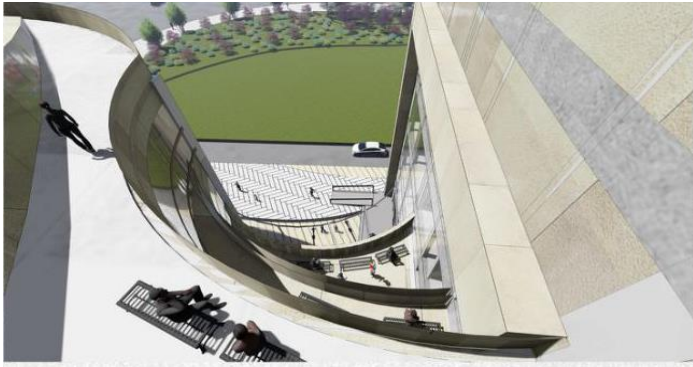
According to our previous analysis, although there are a large number of campus activity venues, such as badminton courts and large playgrounds, most of these spaces will be occupied because of classes, so for residents the activity space is not available. There is a lack of public activity space for residents, so as a landmark building, it is necessary to provide a suitable place for the surrounding residents. Therefore, we combine the retreat of the building with the activity space of the citizens to create an open and meaningful event venue. At the same time, we combine this kind of space to design outdoor exhibitions to form a combination of event space and display space. In the face of the retreat on the side of Lake Vance, we placed a lot of seats for visitors to view. In this way, the space for retreating is not limited to the rich façade and has far-reaching functions.



(Figure 7 Building viewing platform near Wensi Lake View



(Figure 8 View of the rest platform facing the lake view)



(Figure 9 Viewing platform for green landscape)



(Figure 9 Viewing platform for the main entrance)

7. Conclusion

As today's society develops more and more rapidly, cultural business complexes are playing an increasingly important role in people's lives. The commercial complex is not only a place for people to shop, but also a place for people to have a high-quality experience space and entertainment space. Since a successful commercial complex can often gather popularity and become a landmark building in a region, the distinctive design of the commercial complex also accounts for an increasing proportion. We need to consider a number of aspects, including the city's humanities, geography and so on to create a representative commercial complex. The author hopes that with the ideas put forward in this article, the author will be able to design a better commercial complex.

