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# Research on the design of characteristic space in exhibition architecture

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**Abstract:** From the point of view of using function, exhibition architectures have their particularities in space composition. Spatial organization order is different from other buildings. It needs a free and infinite space form to guide exhibits to communicate with tourists. On the basis of understanding the characteristic space of existing exhibition buildings, this paper analyses the space design countermeasures of exhibition architectures.

## 1. Introduction

The exhibition building space is composed of many parts. Generally speaking, it can be divided into three parts: the main use part, the auxiliary part and the traffic connection part[1]. Between the use part of space and the auxiliary part, between the main use part and the secondary use part, between the auxiliary part and the auxiliary part, between the upstairs and downstairs, between indoors and outdoors, and so on, are inseparable from the traffic connection part. Generally, the entrance, passage, hall, lobby, staircase, elevator, escalator and so on are called the traffic connection space of the building[2].

Traffic links require appropriate height, width and shape. Streamlines are simple, clear and not tortuous, which can play a clear guiding role in human activities[3]. For example, in the spiral traffic space of the Guggenheim Gallery, visitors have to move in a forced sequence. For visitors, they get a complete hint in such a traffic space and visit every exhibition area according to the designer's intention.

## 2. Fusion of function and layout

The leisure function is introduced into the exhibition space, which includes some functional facilities such as landscape, sketches, rest chairs, courtyards and so on, which are helpful to enhance the single exhibition function of the exhibition space[4]. Enriching the space experience of the showroom enables the audience to interact with the exhibits and their surrounding environment while enjoying the exhibits. Museums should not only focus on creating a pure exhibition space, but also on the construction of public space in the exhibition space. Architects should create public areas suitable for different display spaces. While creating exhibition route, it also creates a public route. The combination of the two can form a better museum tour route. In fact, the public line emphasizes that the public in the exhibition room is as important as the exhibits. It should provide the public with a comfortable environment, interactive form and viewing perspective[5]. Therefore, display space needs to introduce a variety of leisure functions. Leisure function can be introduced in different ways.



### 2.1. Importing leisure facilities

The rest chair and greening sketches are directly brought into the exhibition space, and coordinated with the exhibition space to form a more comfortable environment for visitors to rest and enjoy the works during the rest[6]. This leisure facility can be used for rest or as part of the exhibition. It also provides new perspectives and new ways of interaction for viewers to view works of art. Two examples are shown in shown in figure 1 and figure 2.



Figure 1. China art palace exhibition hall

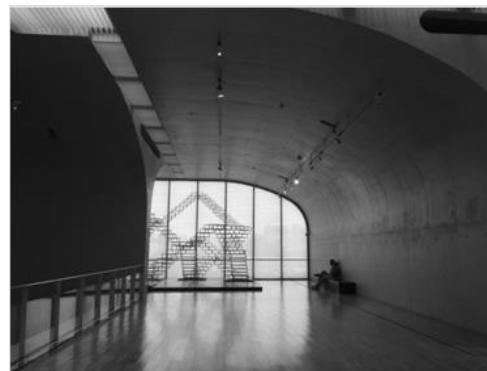


Figure 2. West bank gallery exhibition hall of art museum

### 2.2. Importing whole space environment

The complete space environment is brought into the exhibition space as a supplement and promotion of space. Small courtyards or leisure areas can be introduced for increasing spatial hierarchy[7].

The Culture Museum in Zhejiang Province is located in a water-themed park. As shown in figure 3, the whole building is embedded in the artificial terrain to show its sculptural characteristics. The Museum consists of four strip blocks, and the courtyard is placed in each block. These courtyards are not only part of the tour route, but also serve to connect different exhibition halls. Although the museum exhibition hall is linear, the carefully designed indoor courtyard not only serves as natural lighting space and leisure space, but also adds layers to relatively independent tour route of the museum.



Figure 3. Courtyard scene of culture museum

### 2.3. Using the technique of borrowing scenery

This method is quite common in Chinese classical gardens. As using in the exhibition space of museums, it can ensure the integrity of exhibition while introducing lively landscape factors into the space[8].

Borrowing scenery can be horizontally. By processing the local maintenance structure of the building, the outdoor landscape can be appropriately entered into the exhibition space. Through borrowing scenery, the Suzhou museum integrates outdoor gardens into exhibits, as shown in figure 4.



Figure 4. Interior scene of Suzhou museum

## 3. Inclusion of non-exhibition space and exhibition hall

Non-display space mainly refers to some leisure facilities, commercial facilities, etc. These functional facilities can be divided into the following types from the spatial location.

### 3.1. Dot layout

This kind of non-exhibition space is generally aimed at museums with clear types. Its leisure or commercial facilities are relatively large, and its importance is second only to the showroom. Therefore, it can only be arranged in an appropriate location, independent of the showroom. For example, the commercial function of the silk museum is very important. Thus, on the first floor of the main entrance of the museum, there are various large shopping malls, which occupy almost the whole floor, as shown in figure.5, At the same time, a shopping mall is set up separately for tourists to choose on the tour route. It can be said that the proper introduction of its commercial functions not only meets the purchase needs of tourists, but also increases the revenue of museums.

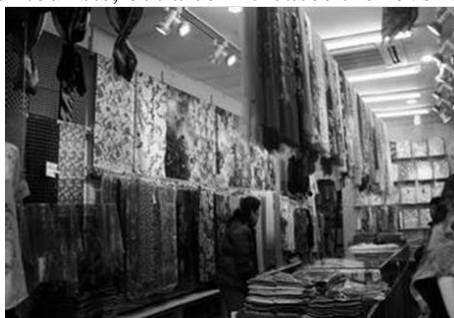


Figure 5. Inside the silk museum mall

### 3.2. Surround layout

There are two situations in this layout: one is that leisure business is relatively small and loose. In order to facilitate the organization of museum space, it should be surrounded by the main exhibition hall to better organize space. The second is a new concept of museums. The museum will be regarded as a comprehensive place of culture and leisure. Museum can better meet the needs of visitors to visit, leisure, and shopping integration. In this way, it is necessary to enlarge the scale of leisure and commercial functions of museums to form a certain scale and continuity, around or partially around the exhibition hall. Visitors can use museums as a good place for leisure. For example, the Chinese art

palace in Shanghai has introduced this concept into it. As shown in figure 6, the underground floor of the China pavilion is full of commercial and leisure functions, including cultural services, art exchanges, catering and leisure areas. This part alone covers tens of thousands of square meters.



Figure 6. Chinese art palace scenes

Designer positioned it as the living room of the city at the beginning of the design, emphasizing the openness and citizenship of the museum itself. Put the public hall of the museum outside the ticket-checking area and design it as a space for cultural exchange in the city. At the same time, it emphasizes that museums provide good services for citizens cultural and leisure activities, such as stores, cafes, restaurants and so on. Even after the closure of the exhibition, it will still be open to the public.

### 3.3. Interlude layout

This layout requires in-depth study of the relationship between audience visits and leisure business. A good balance between them needs to be achieved in order to make this layout get a better effect.

## 4. Interaction between external space and internal function

External space is an easily neglected part of exhibition architecture design, and the relationship between external space and internal functions is less considered. This is mainly for the museum exhibition function. Large museums usually have outdoor exhibition halls in addition to indoor exhibition halls. The function of indoor and outdoor exhibition halls is very important, which can facilitate the layout of exhibits, and more importantly, can ensure the integrity of the sequence of visits. The memorial museum for the victims creates a complete viewing sequence, and renders a solemn and stirring atmosphere through the sculptures in the exhibition area outside the entrance and the statue of peace sculptures at the end of the sequence.

## 5. Summary

The spirit of place expressed in the intermediary space of exhibition architecture not only provides space and material carrying for public activities, but also expresses the connotation of ideology and culture. At the same time, people's feelings, emotions and cultural experiences are integrated in space, leaving deep memories in people's hearts. The starting point of space design of exhibition building intermediary not only includes space design, but also considers the environmental atmosphere and quality of space. It is the interaction between cultural buildings and the surrounding environment of the city. Through such humanized and artistic design, place spirit makes these experiences constitute the collective memory of a building.

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