
Cave Window Symbols in Exhibition Space Transition-Case Study of the Exhibition Space of Museums

Yi Zhong, Jie Feng

China Academy of Art & Space Design, Shanghai, China

Email address:

echo.zhongyi@foxmail.com (Yi Zhong), 1743624742@qq.com (Jie Feng)

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Abstract: By analyzing the cave windows in classical gardens, this paper introduces that the exhibition space of museums, as a space segmentation symbol. Both The Oriental Metropolitan Museum and Folk Art Museum of China Academy of Art are taken as examples to expound on the methods of shaping transitions in exhibition space with cave windows.

Keywords: Cave Window Symbol, Museum, Transition Space, Transparent Layer, Presence

1. Introduction

Cave window, as one of the most important composing elements in classic gardens, differs from tunnel portal in its higher position that does not allow the passage of people (Expression of the Artistic Conception of Classical Gardens in Yangtze Delta Area from the Window and Door Openings). Cave windows, which are usually built in the middle of the wall or at passage connections in geometrical shapes, can guide visitors to enjoy the landscape while meeting the demands for lighting. Through the space division of one layer, two layers and even more layers and then the extremely changeable space types, it makes people obtain diversified aesthetic experience. (Space Aesthetics Function of The Ancient Garden in Suzhou published in the magazine -Zhuang shi) The exhibition demand of contemporary cultural museum not only expressed the object and text content, but pay more attention to the experience of viewing exhibition and emotional atmosphere conveyed by the venue environment. Ieoh Ming Pei ever said: 'In the west, it is just window, which can let in the rays and fresh air. However, to Chinese, it is a frame and the scenery is always outside of it.' The scenery at the two sides of the window seems to be separated, but gives people cool feeling. (The Application of Traditional Windows in the New Museum in Suzhou) The classical elements corresponded to the display theme integrated in the design, combined with the using of local classical architectural symbols, brings scene into the museum. It greatly enhances the atmosphere of the museum display, and guide the audience to understand the cultural connotation.

2. The Switching of Cave Window in Classic Gardens and Exhibition Space

2.1. The Commonality of Classical Garden and Museum Exhibit

From viewers' perspectives, classical gardens create time for contemplation and movement. Using cave window structures layer by layer, through one or more divisions of spatial levels, create a unified but changing space. "Separation", "hide", "penetration" and "fold" are main techniques to divide space, generate beautiful scenery, and, with corridors, guide the audience to deeper aesthetic affinity.

Classical gardens have many similarities with modern museums. Gardens are mostly built in cities without taking up much space. Garden designers need to recreate images and intentions of natural landscape in limited space. Modern museums not only display tangible exhibits, but also guide visitors' viewing experiences and convey the humanistic spirit related to the subject. Museum designers should build within limited space and convey humanistic feelings on the basis of displaying the tangible exhibits at same time.

2.2. Cave Window Symbols Guide the Visiting Streamline

Classical gardens follow the pre-designed viewing route, or the path-directed spatial narrative. "Path means passage" (Guang- Ya, the first encyclopedia dictionary in China). The

word “path” well explains dynamic experiences of people in the space, which enables observers to obtain different visual experiences along with changes in their position from the cave window by nimbly combining the landscape with sight. Sights are edited and reorganized through opposite sceneries, divided sceneries, enframed sceneries, leaking through sceneries, vista sceneries and view borrowing so as to pursue the present sightseeing experience of “varying sceneries with changing view-points”. Cave windows, as a way of handling space boundary, demonstrates features such as guiding scenery and communication. Exhibition space in museums can cut, decompose and alternate space, and pre-organize spatial relationship through different transition arrangements in presupposed visit routes so as to help audiences make new discoveries and repeatedly read and to build up a changeable exhibition space.

3. Softening of Transitions with Cave Window Symbols

3.1. The Transitional Middle Structure Shaped Around the Symbol of Cave Window

“Everywhere is connected with beautiful scenery from all perspective” (Ji Cheng, Ming Dynasty). Cave windows depict an alternating, changeable and extending space in classical gardens. Focusing on the continuity and flowability of garden-viewing experience, cave windows separate and connect difference space and integrate natural sceneries with unreal and real space of architectures, thus implicate internal relationship of space. Cave windows introduced in this paper refers to not only a formal entity, but also a nonlinear causal relationship of interface. Interface switch fuzzes up boundary of space unit through the superposition and overlapping of space, thus forming a softened transition.

Exhibition space in museums is usually arranged according to single exhibition-visiting streamline. There are necessary connections in the transition from one space to another. Here the role of exhibition-visiting streamline is similar to that of “paths” and “corridors” in classical gardens. The narrative-based arrangement is usually clearly directed. Streamlines directly determine visual experiences and spatial experiences obtained by audiences and implies time elements of exhibition actions. Rhythm and quality of visual experience has direct bearings on the overall effect of exhibition visiting. Excessively predictable visual experiences might sap the audiences’ exploration enthusiasm. Cave window, as a congruent point of gardens, can guide audiences, whose design origin is the dynamic spontaneity of audiences. Experiences of walking through the space with cave windows, combined with present feelings and exploration of the next space, is in line with the enframed scenery design of space in classical gardens. Transition zones between fields inside and outside the cave window are carefully planned, including the landscape of the space and audiences present. Cave windows undertaking the transitions functions are not merely a space boundary, but also a intermediate structure of the front and back exhibition area, or a staying area with uncertainties.

3.2. The Transition of "Celadon Lotus Statue" in the Oriental Metropolitan Museum

The Oriental Metropolitan Museum was rebuilt on the site of Jian kang City, where is the site of the former Six Dynasties. It is the first museum of China to show Nanjing's history and culture with the themes of Soochow, Eastern Jin, Song, Qi, Liang and Chen Dynasties. Figure below is the plane graph of the First Exhibition Hall of The Oriental Metropolitan Museum (Figure 1, from the digital signage system of The Oriental Metropolitan Museum).



Figure 1. Plane graph of the First Exhibition Hall of The Oriental Metropolitan Museum.

The area marked blue is the exhibition area for Celadon Lotus Zun (Figure 2) (Vase) (hereinafter referred to as The Lotus Zun), an important exhibit shown in the right figure. It can be found from the plane graph that this area is the intermediate zone between exhibition area for celadon cultural relics and exhibition area for stone cultural relics. The flow line of audiences is designed around the square exhibition area of The Lotus Zun. The small space in the transition zone of the exhibition area takes the circular cave

window as the center, thus creating a small space that can serve as the intermediate structure. Cave window here is designed to perfection. Transforming the cave window into a presentation of circle and abstract symbols, taking into account audience's acceptance, and ensuring the leading role of the exhibits simultaneously, which emphasizes the particularity of exhibits in an independent way. An 80-cm-diameter circular cave window that is 110 cm higher above the ground is built in the center of the partition

between the small space and passage. The cave window can bring into eyes The Lotus Zun and audiences in the space, fancying visitors as if people go into paintings by themselves. Visitors inside can also enjoy the elegant view flowing in front of the landscape background in the cave window. By borrowing external light and shadow effect, cave window makes the space transparent and flexible, combined "nature" with "poetry" to create immersive scene experiences.



Figure 2. Exhibition area for Celadon Lotus Zun (Vase).

3.3. The Transition Space of Mutual Landscape Painting

Mutual landscape painting creates connections between strange audiences, and forms a weak interaction. The first half of the first exhibition hall of the Oriental Metropolitan Museum tells about the beautiful color of the celadon cultural relics and porcelain, so the atmosphere of this space is lighter. The second half of the exhibition is mainly about stone carvings and unearthed cultural relics of the tomb, with a heavy atmosphere. The small space of lotus statue plays a dual transition role of space dimension and atmosphere. Compared with two dark major exhibition areas in the front and back, this intermediate structure has more natural light and houses fewer on-display cultural relics. The form of cave window has shifted people's attention from exhibits to present space. As a blank space in the whole exhibition-visiting rhythm, it can soften the transition functions. At the same time, the form of the window mixes exhibits, indoor scenes and corridor landscape together, forming a distant comparison of the landscape, producing multiple level of feelings, and making the transition of small space simple but full of depth.

Similar techniques are used in the design of indoor building by Ieoh Ming Pei. The wall rest at the new Suzhou Museum opened on a square hole in the window, inside and outside of the window two square but seemingly separated scenery hidden but beautiful spot. A square cave window opened on the wall of the rest area in the new museum of Suzhou, where both inside and outside the window scenery seem to be separated from each other but have its own view. (Figure 3)



Figure 3. The new Suzhou Museum.

Swaying bamboo in the courtyard and the sky in the distance seem to be attached to the window frame and included in the room, which have become a part of the wall. Seeing from outside to inside, the flow of audiences figure in the museum has also become the embellishment of the outdoor landscape.

4. Transparent Layers Built by Cave Windows

Exhibition space with cave window as transition has combined two spatial layers by an obscure but transparent area. Space images are designed to be felt by audiences through the cave window. Images in adjacent space overlaps with each other. Despite a clear and definite boundary in the spatial arrangement between fields, audiences are allowed to experience exhibition contents of the adjacent space. The experience of "stepping into the next exhibition all in advance" serves as guidance and implication for the audiences. Spatial layers become open and flowing, establishing tacit interaction with audiences. Due to the transparency and obscurity of the transition space, audiences have more opportunities to read. It is the softening of transitions that integrates active behaviors of audience into the space and bring about more interest and charm that deserves repeated reading in the space.





Figure 4. The area between the lobby and the first exhibition hall of Folk Art Museum of China Academy of Art.

Figure 4 show the area between the lobby and the first exhibition hall of Folk Art Museum of China Academy of Art (hereinafter referred to as Folk Art Museum). The thick wooden frame conveys classical Chinese beauty. The hollow-out in the middle of the frame can represent as a modern expression of classical cave window symbol, which embeds a “transparent” layer into the space together with the transition area built by fabrics. Figure 5 is the plane graph of the folk art museum; the area marked blue is the transition area, which is located between the lobby and seating devices exhibition area.



Figure 5. Plane graph of the folk art museum.

The construction technique of enframed scenery dissolves the sequential order of some of the spatial organization, shifting sceneries in the back exhibition hall forward, isolating itself from the fabrics and overlapping with transition areas. For these reasons, it becomes the major image element of the

lobby. Motions from audiences in the back exhibition hall permeates forward, forming weak association with the audiences present in the lobby. The Folk Art Museum is built along a hill with unique architectural structures (Figure 6 is the profile map of the Folk Art Museum).

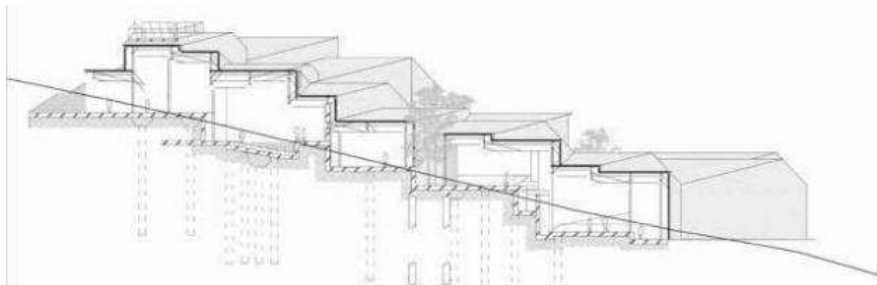


Figure 6. Profile map of the Folk Art Museum.

As the exhibition continues, audiences in the seating device exhibition hall gradually raise their eyes, experiencing change of space through the cave window. Layers in the middle of the two halls display a classical image of integrating people in the paintings. Exhibition halls in the front and back are turned into a continuous whole through the enframed scenery of cave window, which guarantees the continuity of the contents in the two space.

5. The Presence State Triggered by Cave Window

5.1. Cave Window Leads Narrative Turn

Cave windows, placed in the intermediate zone of

communication, serve as turning points of spatial narrative. The exhibition space for The Lotus Zun in the Oriental Metropolitan Museum is placed at such a key point. The front exhibition hall houses refreshing and elegant celadon works while the back exhibition hall mainly displays cultural relics with a heavy tone, such as the stone tablets, stone inscriptions as well as the inscriptions on the memorial tablet within a tomb. With the change from a cheerful atmosphere to a heavy one, the illumination in the exhibition hall should also be turned stable. It is at this point that audiences experience the dual change in subject logic and spatial atmosphere. Natural light is introduced into the exhibition hall for The Lotus Zun, which demonstrates a new change in the light rhythm (Figure 7 shows the corridor outside the exhibition hall for The Lotus Zun and Figure 8 is the picture of the exhibition hall for the

stone inscriptions).



Figure 7. Corridor outside the exhibition hall for *The Lotus Zun and Figure*.



Figure 8. Picture of the exhibition hall for the stone inscriptions.

The brighter transition space also lays a foundation for the entrance into the next exhibition hall. When entering the darker exhibition hall for stone inscriptions, audiences can easily feel the profoundness of the historic relics.

5.2. Cave Window Guides Audiences to Communicate Actively

The dynamics and growth of audiences stimulate uncertainty elements in the space. Audiences, as the element of showing presence as an important element, affects the form of space presence. The relationship between audiences and show is not one-way, audiences and exhibition have temporary "correlation". A weak correlation generated between the people of both the sides of the cave window. The accidental association caused by the softening transition makes audiences demonstrate group relevance.

The "transparency" of cave window transitions has contributed to the "relative motion" of individuals in the front and back exhibition halls. Individuals present in the space possess the dual perspective of both audiences and exhibition. Individuals also have multiple perceptions of elements of the exhibition hall while communicating both inside and outside the cave window. The circular cave window in Figure 9 is a prominent place for audiences to voluntarily look for the interest and charm of this space. The interior and exterior

space are similar but not identical. So as to explore different relationships between themselves and the front and back of the cave window, audiences more than once walk through this intermediate zone to read; in this sense, the transition space has become a highly-participated open site. Audiences at the "transparent" layer stay in two spaces. States of individuals in these two spaces are independent but complement with each other; at the same time, they restrict and inspire each other. Although sight is partially restricted, it breaks the limitations as objects and becomes the present subject of the space.



Figure 9. Corridor outside the exhibition hall for *The Lotus Zun and Figure*.

6. Conclusion

Cave windows, which are originally applied to decorate walls in classical gardens, are signified in the exhibition of modern museums. With its functions, such as enframed scenery and borrowed scenery preserved and on the basis of the lighting and space creation. In addition to its' enframing and borrowing scenery function, with lighting and space creation, it can turn the narrative, soften transitions, building up transparent layers and highlight the major exhibition areas. Cave windows also draw upon the interest and charm of "varying scenery with changing view-points" in classic gardens and add the spatial interest experienced by audiences in the whole process of visiting the exhibition. Apart from its function of enriching the transition space of exhibition area of museums, such poetic cave window symbols also enhance the artistic conception of the whole exhibition space.

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