ITS

Film Architecture and Lens Narration - Exploring the Expression of Montage Technique in Space Design

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Abstract:

This paper aims to explore the expression of montage technique in space design from the perspective of film lens narration, analyze how montage technique shows the narrative, spirituality and sense of sequence in space with the research methods of literature comparison, theoretical analysis and theoretical practice, and summarize the design experience under this method. This paper first combs and summarizes the development of montage theory, then analyzes the embodiment of the theory in architectural examples, and finally applies the theoretical method to specific design practice. It is found that the film montage narrative and architectural space narrative have the same merits, hoping to summarize the corresponding experience and provide more design perspectives and design references for space design.

1. Introduction

As a comprehensive art, architecture and film undertake multi-dimensional functional requirements respectively. Architecture shows its spirit, function and aesthetics through space. On the other hand, film art shows the narrative, tortuosity and connotation of the story through lens and montage. [1] Although the two kinds of art have their own characteristics in many aspects, they also have many similarities. For example, montage originally came from architectural language, and its original meaning is assembly and construction, that is, to show the composition of architecture, while the corresponding film is editing; [2] In narrative, architecture and film should consider the primary and secondary, ups and downs and climax of space or plot. Just as Pascal schuning of AA Architecture Institute in Britain said in his work a declaration of film architecture: only through a deconstructed architecture can the imagination of architecture itself be rebuilt And therefore re experienced. Film architecture exists through the presence of absence [3]. The film narrative of

ITS

architecture exists in space, which can be deconstructed and reconstructed to provide a new sense of experience.

For a long time, the architectural space design usually starts from the functional arrangement, and then uses the traffic space connection to endow the materials and furnishings to complete the whole design process. [4] Such a design process often ignores the narrative and spiritual expression of the space. Because the architectural space creation and the film creation reveal the same merits in many aspects, this paper aims to explore the application of the film montage technique in the architectural space, try to translate this method into specific design practice, and summarize the experience of space design under this creative method.

2. Montage Concept and Narrative Structure

2.1. Concept of Montage

The word montage comes from architecture. It is a transliteration of French montage. It originally means assembly and installation, and has the connotation of composition. Eisenstein, a Russian artist, believes that montage is a unique way of composition and expression of a complete film, that is, selecting different fragments in the film and listing them together can multiply the content and image of the film. Marcel Mardan, a famous French philosopher, believes that montage itself is an architectural word. When applied to movies, it refers to the combination of pictures. Montage makes the film dynamic. [5] It can be said that the film makes montage, and montage also saves the film.

According to the above concepts, montage can be popularly defined as: in a complete image work, each narrative segment is superimposed into a continuous, narrative and connotative story content by means of decomposition, combination, movement and metaphor.

2.2. Development of Montage

The development of montage was accompanied by the development and breakthrough of film narration. At the end of the 19th century, the Lumiere brothers used a projector to shoot the first film in history, the train arrives at the station. Then the French director George merry created a dramatic film, which brought the film into a new era of narration; At the beginning of the 20th century, American director David Griffith first adopted the technique of parallel editing and created "alternate montage"; In the 1920s and 1930s, the Soviet montage school established a systematic theory for film montages, and classified and practiced montages; After the 1960s, French theorist Christian Metz summarized montage and established the theory of "eight combination segments"; In the 1970s, film development was increasingly based on digital technology and computer special effects. The montage experience was more infectious from the flat screen display to people's three-dimensional senses. [6]
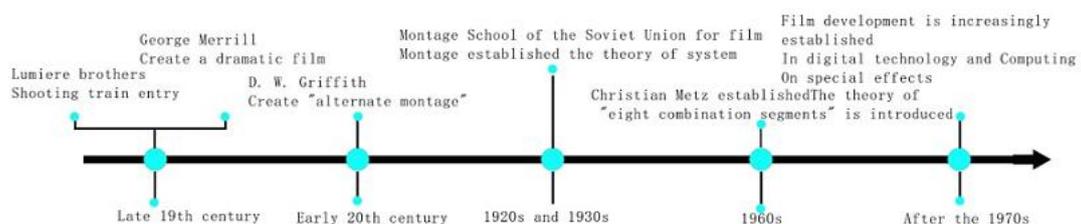

Figure 1. Development Course of Montage.

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After more than 100 years of development, montage theory has been continuously expanded and supplemented, which has greatly enriched people's film viewing experience. (Figure 1)

2.3. Classification of Montage

The classification of montages can be divided into many types according to different perspectives and understandings, but in the film industry, montages are mainly divided into narrative montages and performance montages.[7]

Narrative montages can be divided into linear montages, parallel montages, cross montages and repeated montages. (Table 1)

Table 1. Classification and concept of narrative montage.

Narrative montage classification	concept
linear montage	The logic and cause and effect of the story are conveyed through continuous story narration.
Cross-Cutting	Two or more plots appear in different time and space. Multiple stories are narrated in parallel through editing and collage, and finally the story theme is conveyed.
Cross Montage	It refers to the cross development and narration of different stories at the same time, and finally converge to show some cause and effect.
Repeat Montage	Repetition montage emphasizes and renders the theme of a story by using repeated shots and pictures.

Performance montage can be divided into metaphor montage, psychological montage and contrast montage. (Table 2)

Table 2. Shows the classification and concept of montage.

Performance montage classification	concept
Metaphorical Montage	Use different lenses for analogy and editing to show a certain association and moral meaning, and show the connotation of the story.
psychological montage	In the film, some symbols and abstract intentions are used to show the emotional and psychological state of the characters, and finally form a resonance with the audience.
Contrast Montage	Use the lens or sound painting to form the contrast and conflict between things, so as to strengthen the focus of the content.

2.4. Narrative Concept and Structure

Generally speaking, the concept of narration is to use plot and content to tell a story theme. In the film, narration uses montage and lens to convey the connotation of the story. The process of narration needs to consider the structure and plot of the story. The arrangement of the structure will affect the trend of the plot and the way of telling. [8]

Narrative structure is the core of narrative. According to the development of the times, the richness of montage type profoundly affects the form of narrative structure. According to the development of the times, the narrative structure can be divided into linear narrative, modernist narrative structure that breaks the traditional narrative, and postmodern narrative structure that emphasizes breaking the logic. (Figure 2)
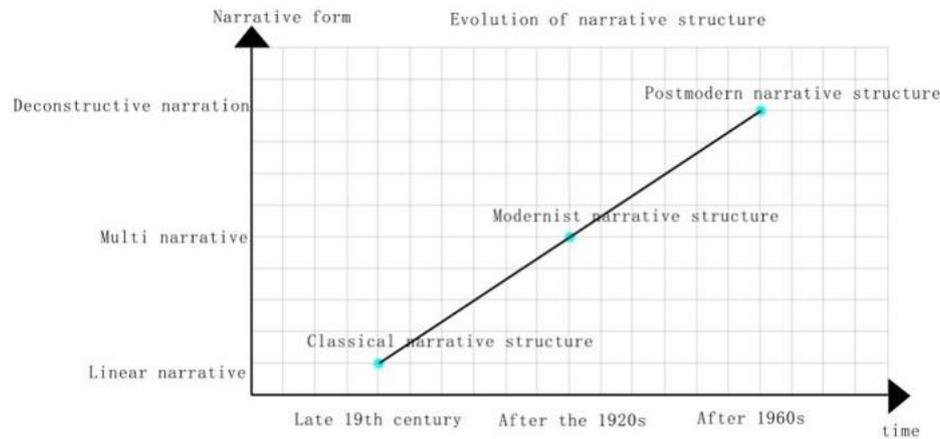
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Figure 2. *Evolution of the narrative structure.*

3. Application of Montage Technique in Space Design

3.1. Relationship Between Film Montage and Architectural Design

Film and architecture share a common process in narration, that is, narration - lens - reception. In this process, the lens is very important. In the film, the performance narrative needs to use the lens, use the lens to record the content, and use the montage to express the story connotation. [9] Correspondingly, in the architectural language, the lens is the eyes of tourists. Static photography cannot clearly capture the movement, time and speed in the spatial state, and people have to move with their eyes. As a "camera", when people observe buildings, they are in different positions and experience different buildings. At the same time, as a carrier of narration, the different composition of architectural space can also bring different narrative experiences to tourists.

3.2. Application of Narrative Montage in Space Design

Linear montage and parallel montage in narrative montage are widely used in films. For example, in the classic film Godfather II, the stories of the first generation and the second generation of Godfathers are narrated in parallel. Their story lines develop linearly. The two story lines complement and enrich each other, and finally show the gratitude and resentment under the background of the two times. (Figure 3)
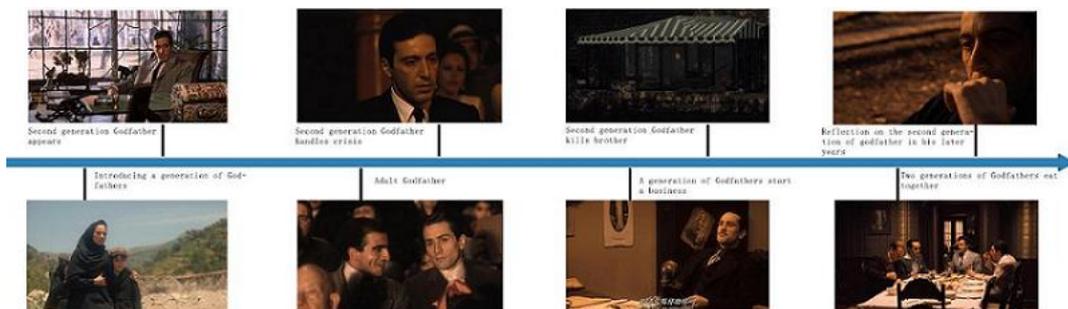

**Figure 3.** *Narrative structure of the film "The Godfather II".*

This technique is often presented in architectural space design. For example, the ribbon church designed by the famous Japanese architect Taki Nakamura is located on the hillside of the back garden of Bella Vista sakaigahama Resort Hotel, Hiroshima, which can enjoy a panoramic view of the inland sea in Seto, Japan. The whole church

ITS

is formed by winding two spiral stairs in the form of "ribbons". The bride and groom spiral up from the ends of the two stairs respectively, and finally reach the top together, merge into one, and then go downstairs together. (Figure 4) this technique is often shown in architectural space design. For example, the ribbon church designed by the well-known Japanese architect Takashi Nakamura is located on the hillside of the back garden of Bella Vista sakaigahama Resort Hotel, Hiroshima Causeway Road. You can enjoy the full view of the inland sea in Seto, Japan. [10] The whole church is formed by winding two spiral stairs in the form of "ribbons". The bride and groom spiral up from the ends of the two stairs respectively, and finally reach the top together, merge into one, and then go downstairs together. (Figure 4)

Figure 4. Ribbon Church Scene.

According to the linear montage and parallel montage theory of narrative montage, the port of the ribbon church symbolizes the starting point of the story, the spiral staircase symbolizes the process of the story, the top symbolizes the climax of the story, and the common downstairs symbolizes the end of the story. As the narrative lens and story experience, the bride and groom experience the narrative path provided by the building in the process of circling up. Its narration is deconstructed into narration (wedding ceremony) - lens (bride and groom) - Acceptance (love, beauty and expectation). The space of the building is based on a series of sequential organizations. By skillfully using the technique of parallel montage, it shows the linear narration of two paths respectively, realizing the cinematic narrative space. (Figure 5)
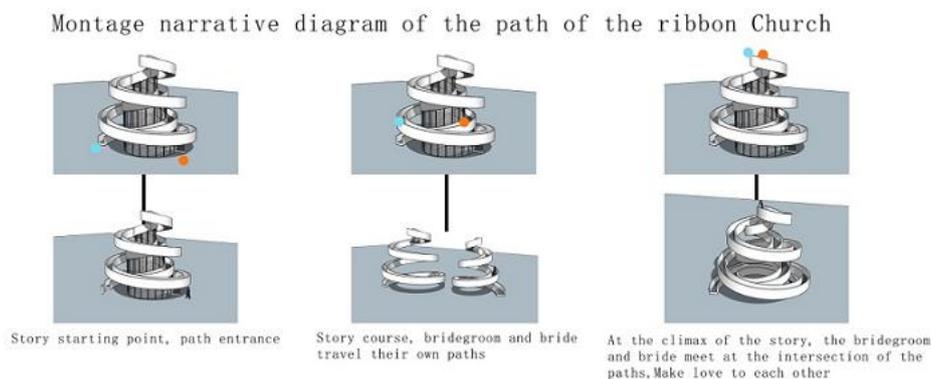
Figure 5. Ribbon Church path montage narrative diagram.

3.3. Show the Application of Montage in Space Design

Performance montage uses psychological montage, comparative montage and metaphorical montage to express the potential connotation of the characters or stories in the film, so as to express the deep meaning of the story. For example, in the classic film "a sudden release of spring", the upper and lower scenes use the technique of contrast montage, using black-and-white and color to show that the two protagonists

ITS

gradually change from cold war and bad relations to relaxation and reconciliation; At the end of the film "city of love", the hero slowly plays the piano under the eyes of the heroine, and the lens gradually changes to the better life of the hero and heroine in the future, and finally returns to reality. The lens reveals that those better lives are just the hero's inner fantasy. The above lens films use psychological montage to express the character's inner thoughts and convey the connotation of the story; In the film "the party at the South Station", the metaphorical montage technique is used to show the eyes of animals and the gaze of the protagonist in the upper and lower shots respectively. The two shots suggest that the protagonist is chasing criminals, conveying the potential information of the story. (Figure 6)

Figure 6. The Montage in the film.

Montage technique is also widely used in architectural space design, such as exhibition hall, meditation space, lighting space, etc. [11] The Jewish Memorial in Berlin, designed by the famous architect libeskin, uses the technique of montage in its internal space. First of all, in terms of axis expression, the shape of the Jewish memorial was generated by means of deconstruction on the x-axis and y-axis, making the shape full of twists and turns and breaking the sense of harmony brought about by rationalism through the twisting, irregular and irrational broken line form. During the tour, people experienced the fragmentation and historical grief brought about by the turning path (Figure 7); On the other hand, in space, psychological montage, comparative montage and metaphorical montage are used in many places to show the historical connotation of space, that is, narrative - montage is used to construct historical metaphors for scenes, lens - tourists experience different historical metaphorical scenes in space, and receive - the historical heaviness brought by scenes.

Figure 7. Axis deconstruction of Jewish Memorial Hall.

Figure 8. Montage Application in the Jewish Memorial Hall.

In terms of specific techniques, libeskin uses the contrast montage technique to show the contrast of light inside the space, that is, the full indoor light and the cramped natural light suggest that the traveler is about to enter the historical scene of grief; Using psychological montage technique to carve the building skin, the facade is full of broken texture. By observing these incomplete textures, tourists can experience the trauma suffered by Jews in their hearts; It is a device full of human faces in the corridor by means of metaphorical montage. The raw material of the device is bullet

casings during World War II. The expression of these faces is full of pain and sadness. When people step on this corridor, they seem to be able to deeply feel the pain suffered by Jews in those years from their own footsteps. [12] The face is a metaphor for thousands of souls who have suffered painful experiences. (Figure 8)

4. Translation of Montage Technique in Space Design

Through the analysis of the montage theory and the study of the practice of the theory in architectural examples, it can be found that the montage technique is often reflected in the narrative process of architecture. This section intends to apply this technique to the specific design. Through the design of the space of a site, it attempts to translate the montage technique into the specific space design, and shows the cinematic narrative scene.

4.1. Design Background and Requirements

This design is a shared space design for the southeast corner of a campus in southern China. The southeast corner has been shelved for a long time. The design aims to design a shared space that allows teachers and students to entertain, study and communicate (Figure 9). In terms of climate characteristics, due to the natural subtropical climate in the south, the southeast corner is hot and rainy in summer and mild and rainy in winter, so ventilation design under humid and hot environment should be considered; In terms of functional requirements, the venue should provide corresponding teaching space, activity space, communication space and exhibition space, and carry out reasonable zoning; The path distribution needs to be reasonably arranged, so that the streamline is smooth and has a sense of sequence, so as to avoid path repetition and tediousness. To sum up, the site needs to provide a shared space that can not only meet the needs of sharing and functional use, but also reasonably combine the climate and reflect the regional characteristics.
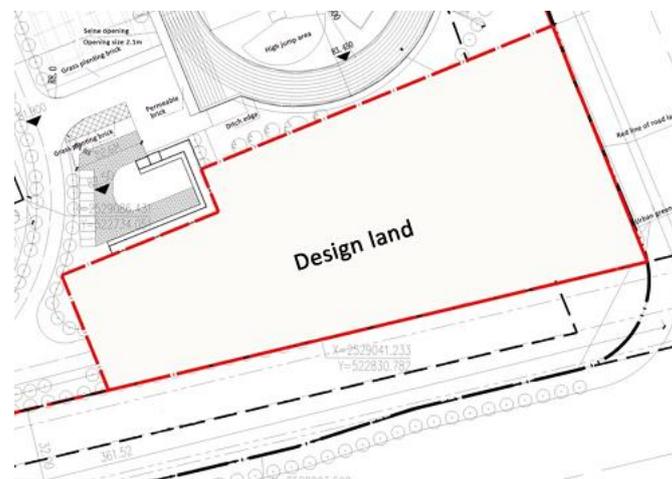

Figure 9. *Design Land and Red Line.*

4.2. Design Framework and Concept

This design introduces the montage technique into the site space design. Narrative, lens and reception are taken as the narrative framework, that is, narrative (Scene Travel) - lens (students, teachers and personnel outside the school) - reception (Regional Association). (Figure 10)

ITS

In terms of design concept, the cinematic garden atmosphere is intended to be the core of the design. First, the story is partitioned in the site, and then the required functional sites (i.e. promoting the plot of the story) are placed in each zone. Parallel montage and linear montage are placed in the site to generate space paths (story trend). Finally, psychological montage, comparative montage and metaphorical montage are used in the unique story nodes, Make tourists have unique regional associations and deepen the connotation of the story. In terms of architectural form, easy and continuous sheet walls are used to enclose and cut out the spatial form and respective spatial areas. (Figure 11)
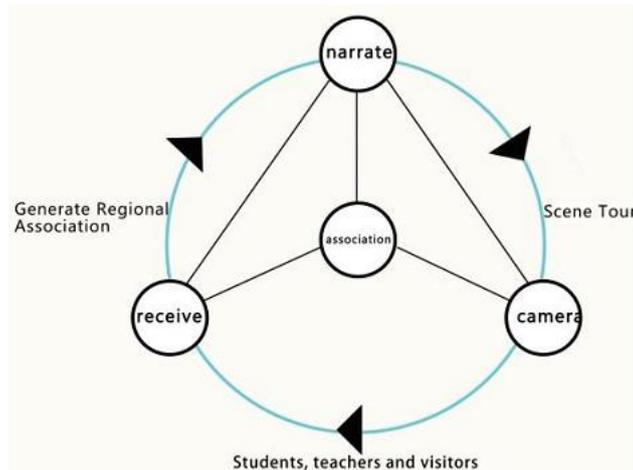
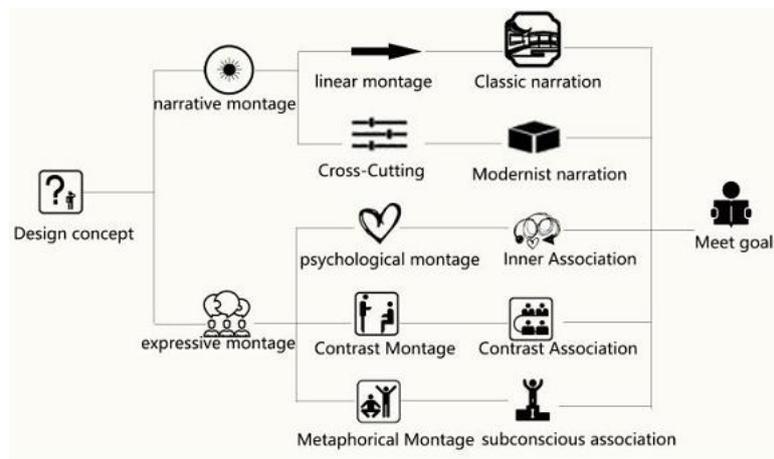

Figure 10. Narrative Structure.

Figure 11. Narrative Structure.

4.3. Specific Operation

In the story area, the starting point area (entrance space), process area (experience space), climax area (Central Square) and end area (exit space) are divided in the site. Each area is continuous and interacts with each other. Tourists can clearly understand their own spatial location and upcoming spatial activities in the space. (Figure 12)

As for the spatial path, due to the large area of the whole site, a single spatial path cannot effectively connect the corresponding functions. At the same time, a single path will limit the autonomy and selectivity of school personnel in the space and weaken their sharing. Therefore, two parallel story lines are intentionally placed in the design to enrich the path experience of the site space (Figure 13). The two story lines

ITS

radiate the East and west areas of the site and develop linearly. In the montage theory, both story lines should meet the sequence of starting point, development, climax and ending. In terms of specific treatment, the two paths start from the same starting point according to the arranged function points (Figure 14), go through the experience area, meet in the climax area, and finally end the whole space narrative in the end area.
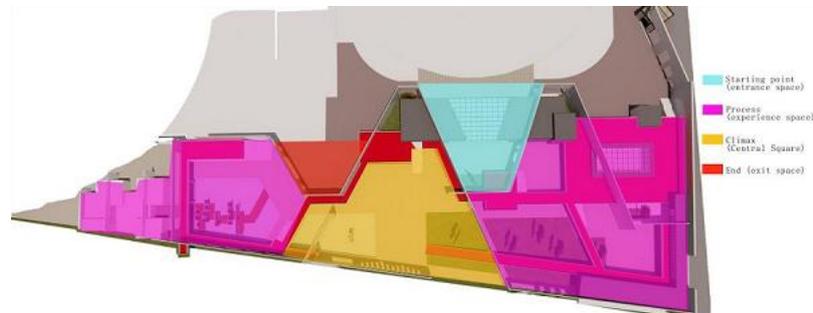
Figure 12. Narrative Section.
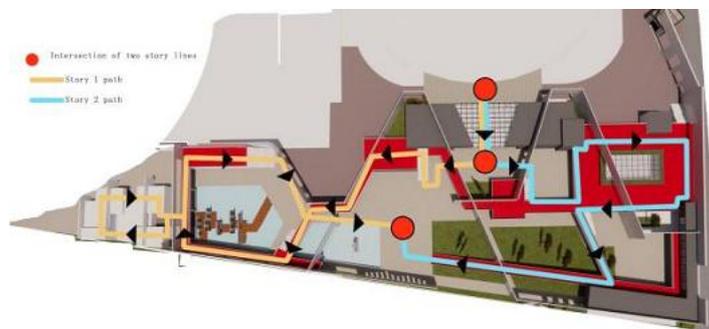
Figure 13. Narrative section.
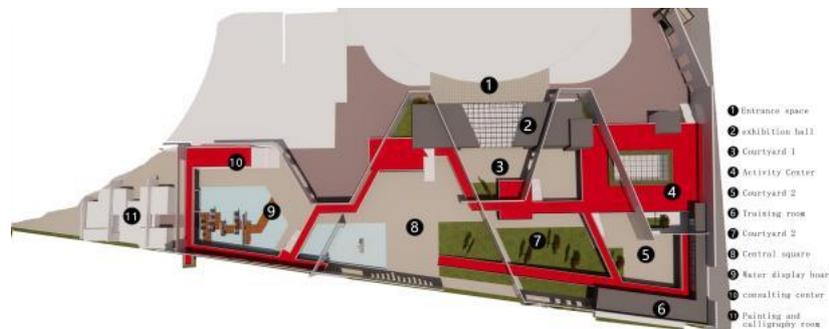
Figure 14. Distribution of function points.

Establish regional connotation Association. The connotation of space design is to show the cinematic garden atmosphere, and to show psychological association, comparative Association and metaphorical Association in the special nodes of the space path. First, frame plants are placed in the space courtyard, so that visitors can associate with the interior courtyard in the garden and have a connection with the garden scene; Secondly, in the path bridge, the wall is used to compare the light with the frame scene. The front and rear paths move from the light scene full of inward and blocked light to the outward and bright light scene, and from the inward to the outward, giving people a sense of space that is restrained first and then raised and opened up; Finally, a continuous frame view wall is introduced into the path, and the excavated piece wall vaguely shows the greening scene of the separated landscape. By using the frame view and the frame view of the garden, visitors can establish a vague

ITS

Garden Association in the process of traveling, generate a metaphor, and deepen the connotation of the space and the garden atmosphere. (Figure 15)

Figure 15. The display of montage in space.

In terms of architectural form, it mainly adopts the slice wall, modernist architectural form and space corridor. Digging holes in the slice wall can not only produce the effect of frame scenery, but also guide the flow line and bring ventilation. It should effectively have a sense of the times on the site climate and modernist architectural impact, and can also flexibly organize the architectural form. [13] The air corridor can not only meet the multi-level flow of people in the vertical space, but also avoid obstructing the path to the ground greening Arrangement of water tank. (Figure 16)

Figure 16. Aerial view of shared space design.

5. Conclusions

Both film and architecture are the art of space and time. Film narration is inseparable from the presentation of montage techniques. Under the lens record, the film reorganizes and deconstructs time and space. Different montage techniques tell audiences a variety of dream like stories. Correspondingly, the building rubs time into the space interface, and the user, as the lens itself, perceives the changes of time in the space and experiences the narrative sense brought by the space itself.

This paper analyzes the film narrative structure and the use of montage technique in architectural space, and finds that architecture and film have similarities in many characteristics. The film structure is inseparable from narrative - lens - reception, and architecture also needs the three-stage structure of narrative, lens and reception to

ITS

present the spatial connotation. In terms of concrete expression, the form and function of space convey narration, the lens (user) receives spatial information, and the user associates the spirit and connotation of space through his mind. At the same time, the narrative nature of space is hidden in the space sequence, interface, light, material, etc. different sequence arrangements can provide different story trends for tourists and thus affect the travel mood of users. Secondly, as the key point of the plot, space nodes often need to set up some space forms full of phenotypic montages to deepen the connotation of space and bring some spiritual perception to users.

To sum up, by exploring the development of montage theory, the application of montage technique in architectural examples and the translation of montage technique in specific design, this paper hopes to provide some new creative ideas for architectural space design, that is, from the perspective of film lens, montage technique is used to generate architectural space partitions, paths and nodes, and finally the narrative core is rooted in the whole design process, Make the traveler feel that he is the witness in the story at all times in the use of space, and automatically form the plot of the story in his mind, and finally form a complete story line. Finally, I hope that the exploration and practice of this paper can provide more design perspectives for architectural design and show more narrative connotation for space.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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