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Spatial narrative research with architecture as the media

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ABSTRACT

With the development of economic globalization and the information age, architecture has gradually become a kind of seal of politics, capital and culture, and is divorced from the spirit and life experience of the existing places in the region. Therefore, the field of architecture constantly seeks new research paradigm from the interdisciplinary perspective and reconsiders the creative activities of architecture. From the late last century, with the introduction of architecture by postmodern philosophy, semiotics, geographical psychology, phenomenology and cultural anthropology, there has been a cross-research between architecture and narratology. The recent research hopes to conduct an in-depth analysis of the theory of architectural spatial narrative and its development in the context of complex disciplines, and to research spatial narrative as a design methodology for architecture.

KEYWORDS

narratology, spatial narrative, situationism, spatial implication

1. INTRODUCTION

Narrative, as an artistic expression, has developed into a more complete system in literature, painting, film and other artistic fields. Space narrative as a kind of architectural design methodology is in the process of exploring and establishing its theoretical significance.

It was in the 1960s, with Robert Venturi [1], as the landmark starting point, that architects began to reflect and widely discuss the significance in which modernism has created uninteresting stereotype spaces in the living environments of different cultures, regions and ethnic groups. Among many theories that reflect on the connotation of space, space narrative provides a new research direction as a multidisciplinary cross-disciplinary architecture theory. Aldo Rossi [2], Christopher Alexander [3], Christian Norberg-Schulz [4], Kenneth Frampton [5], Wang Shu [6], etc., all of them focus on spatial connotation from the critical perspective of modernism.

The modern space production pays attention to the relation of material function and ignores the relation of social and cultural emotion. However, consumers and users in the information age are more enthusiastic about the diversified emotional experience under the aesthetic vision of daily life. At the same time, the functional paradigm of modern architecture is insufficient to measure or interpret the complex relationship and semantic characteristics of pioneer architecture. Spatial narrative, as a design program, is a progress of postmodernist architectural design. Thinking about the significance of architecture beyond the noumenon, modern architecture is made to jump out of the "mire of concrete and mortar" by means of spatial narration, and a series of severe and complex problems are responded to in the contemporary context.

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2. METHODOLOGY

2.1. Architectural modernology

No design is born out of thin air, it has its past and reasons. Based on the original site, space and environment understanding and understanding, become a good design of the fundamental. The Japanese Wajiro Kon first proposed the “modernology” [7] that is present life research. Modernology investigates not only people’s daily behavior, but also at what they owned, wore and more. In recent years, modernology has been widely applied in architectural design, bringing the floating concept of architectural design and urban construction to life, so that more people can experience and participate in it. Architects reverse reason all kinds of information, present and apply events, key words and life values in the design. Spatial narrative can present the different social cultures, the spirit and state of human civilization in history [8].

2.2. Architectural narratology

Narrative, as a basic way of human cognition of the world and social communication, has accompanied the development of human society. Although the relationship between architecture and narrative can be traced back to the construction of the Acropolis of Athens in ancient Greece, the research data shows: In the 1960s, the deconstruction, influenced by the trend of structuralism, was the beginning of narrative intervention architecture. Narrative as a design method was first applied to the creation of modern architecture in the early 1980s.

Bernard Tschumi and Nigel Coates, who taught at AA School in London, took the lead in guiding the interdisciplinary exploration and practice of narrative between architecture and literature, film, and performance space. The book published by the AA School [9] in 1983 shows the student work guided by Tschumi and Coates: Drawing on the narrative strategy, a series of architectural works of comic style are designed through the translation of spatial experience and spatial time dimension.

In 1983 Nigel Coates and his students formed a research group according to Guy Debord [10]. They borrowed the thoughts and strategies of situationist international, mapping a city image that blends reality with ideal. In 2012 Nigel Coates [11] further systematically illustrate the relationship between narrative and architecture.

Bernard Tschumi [12], proposed the importance of events, procedures and violence to architecture. This book discusses whether there is narratology in architecture, expounds the intersection between architecture and literature as well as discourse symbols, and discusses the spatial narration of social culture. This provided theoretical guidance for the subsequent project of Parc de la Villette (1983).

Rem Koolhaas’s graduation design [13] was the beginning of his architectural narrative. Rem Koolhaas [14] integrated the knowledge of society, politics, culture, consumption and other aspects with architecture, which

became a classic narrative text of architectural theory. Koolhaas brought the performance of film narrative into architectural design.

Sophia Psarara [15] from the University of Michigan in the United States, compares the relationship between narrative and architecture in a systematic way, and clarifies the value of narrative for architecture.

The architects represented by Benjamin Stinson [16], Zhang Nan [17], Zhang Yonghe [18] and Lu Shaoming [19] expounded the significance of spatial narrative from the cultural appeal of spatial experience and emotional resonance. The architects represented by Christian Norberg-Schulz [20], Liu Jiakun [21], Daniel Libeskind [22] and Wang Shu [23], expounded the spatial narrative from the perspective of architectural region, history and memory. The architects, represented by Steven Holl and Peter Zumthor [24], express the narrative characteristics from the aspects of site, materials and construction.

Thus it can be seen that interdisciplinary and architectural practice has promoted the rapid development of spatial narrative theory. In architecture, spatial narrative presents a theoretical crossover with phenomenology, semiotics, imaging and other specialties and in the design expression presents the multi-media, multi-angle. The spatial narrative theory also pays attention to the regional nature of architecture, the spirit of place, the spatial experience and other aspects.

3. A SPATIAL NARRATIVE CASE OF ARCHITECTURE

Take a conceptual plan of urban public space designed by the author as an example to illustrate the application and function of spatial narrative in design. The project is located in Beijing’s Zhongguancun Science and Technology Park, China’s “Silicon Valley” Zhongguancun overpass No. 1 is a “mouth-shaped” pedestrian bridge with a total length of 328 m and a main bridge of 5–7 m wide. There are a total of 3 walking stairs, 8 escalators, and 4 barrier-free straight stairs, which can meet the traffic needs in multiple directions (Fig. 1).

3.1. The history of Zhongguancun

The development history of Zhongguancun is also very similar to Silicon Valley. Silicon Valley was an orchard in 1914, and Zhongguancun, then, was a desolate graveyard. In the 1950s, an idea from Stanford University made Silicon Valley what it is today. In the 1980s, due to the transformation of industry-university-research achievements of Tsinghua University, Peking University and other universities, the graveyard “Zhongguancun” developed into today’s Zhongguancun. There is only one Zhongguancun in China and only one Silicon Valley in the United States. They are both products of the times and cannot be duplicated.

Zhongguancun has gone through the development period of Electronic Street, Beijing New Technology





Fig. 1. Zhongguancun overpass No. 1, Beijing, China (Photo by X. Kang)

Industry Development Test Area, Zhongguancun Science Park, Zhongguancun National Independent Innovation Demonstration Zone, etc., and has become a banner of innovation and development in China and a world-renowned high-tech park.

3.2. History and environmental analysis of Zhongguancun overpass No. 1

Due to the fact that many electronic product malls gather on both sides of the road in Zhongguancun area, colleges and universities are clustered nearby, with large flow of people and dense traffic flow, which leads to traffic disorder. Zhongguancun overpass No. 1 was built to solve the problem of urban traffic. Construction started on December 30, 2010 and officially put into use on December 27, 2011.

Although Zhongguancun overpass No. 1 has been reorganized to separate cars from people, it is still one of the most famous traffic jams in Beijing, especially Zhongguancun overpass No. 1 (Fig. 2). It has been calculated that pedestrians have to pass the Zhongguancun overpass No. 1, at least three to five minutes of red light waiting time; motor vehicles on the fourth ring road, at least 20 min to pass the



Fig. 2. Zhongguancun overpass No. 1 during off-duty hours (Photo by X. Kang)

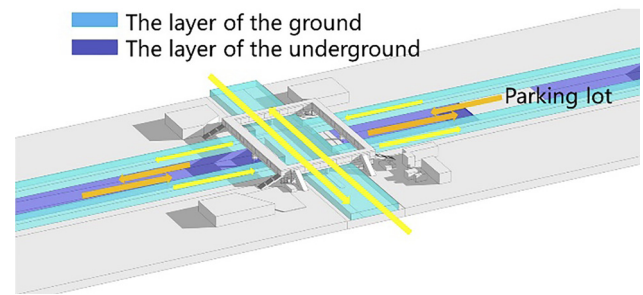


Fig. 3. Motor vehicle driving space of Zhongguancun overpass No. 1 (Drawing by X. Kang)

Zhongguancun overpass No. 1 in the morning and evening peak become an important activity place in the urban public space [25], which is also the origin of this project to design a museum of urban memory.

3.3. Spatial analysis of Zhongguancun overpass No. 1

The motor vehicle driving space of Zhongguancun overpass No. 1 is vertically divided into two layers: the underground layer and the ground layer (Fig. 3). The space for non-motorized vehicles includes the ground layer and the bridge layer. The traffic is mainly concentrated in the southwest corner of the overpass at the A1 exit of Zhongguancun Subway Station. In addition, through analysis, it can be found that there are still underutilized spaces in overpass No. 1, which are the two traffic islands under the overpass, the inner ring space of the inner corridor and the roof of the overpass. These three Spaces provide space possibilities for the design (Fig. 4).

3.4. Mayfly – the museum of time

Due to its unique geographical location and surrounding environment, Zhongguancun overpass No. 1 has formed regional urban memory and landscape, which is humanistic and narrative. This opens up the possibility of building an

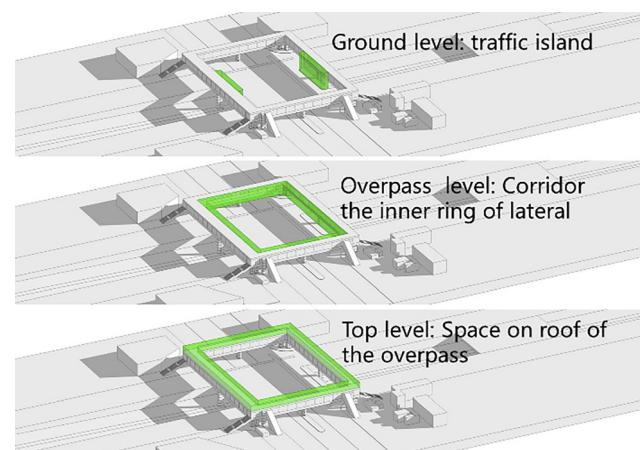


Fig. 4. Available spatial diagram of Zhongguancun overpass No. 1 (Drawing by X. Kang)

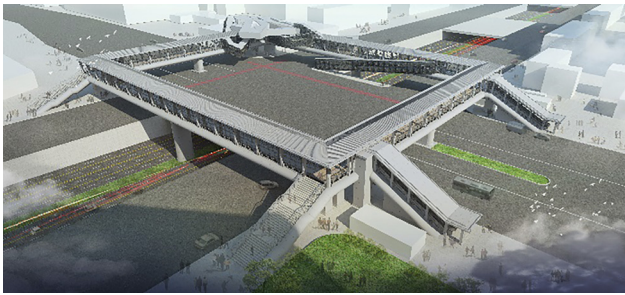


Fig. 5. Mayfly – The Museum of time (Drawing by X. Kang)



Fig. 7. Mayfly – The Museum of time (Drawing by X. Kang)

art museum about the city's memory and stories of the times.

The narrative theme used in the conceptual design is "light and shadow of time". Because the two corner spaces on the south side of the glyph-shaped overpass are adjacent to the subway station and the crowd is dense, the upper roof space in the northeast corner of the glyph-shaped overpass creates a public space for urban memory. Just as Le Corbusier's Ronchamp Church brings people a sense of sacred awe, the art museum of time also hopes to tell stories and convey emotions through space (Fig. 5). The museum in the corner of the overpass is like a mayfly. This insect has only one day of life. It has experienced birth, aging, sickness and death and changes in the world in a short period of time. This is similar to the story of the No. 1 overpass in Zhongguancun.

The geometric shape of the outer contour conforms to the modern aesthetics of contemporary architectural design. Through the combination of six loop-shaped corridor spaces, the moving line of the space is lengthened to connect the space with a continuous narrative theme space. The traffic island at the top of the overpass, inside the overpass and at the bottom of the overpass is connected with a walking ladder, making full use of the space and giving the possibility of multi-dimensional construction of the space (Fig. 6). The square colored window holes on the wall of the museum do not affect the complete display wall, but also constitute the exhibits of time. They shape the connection points of the spatial narrative and are also a small window into the city story (Fig. 7).



Fig. 6. Mayfly – The Museum of time (Drawing by X. Kang)

4. CONCLUSION

A city is a small universe, a place where human beings live together and gain social identity. The museum, on the other hand, is big machines for people to see the world, where they can think, communicate, question, feel confused and suddenly enlightened. Each person is a barometer of what is going on in the world, and what you acquire will eventually shape something new through you.

Spatial narrative can present the different social cultures, the spirit and state of human civilization in history. The theoretical research of spatial narrative as an architectural design methodology lies in incorporating architecture into the narrative dimension, through cross-discipline, theoretical penetration and development, in order to expand the field of architectural, and provide new concepts and mechanism for architectural design. The theoretical research of spatial narrative also lies in the emphasis on the relationship between the physical space and the spirit of the place, the external environment and the experiencers (people). Through the narrative research of architectural space, it is beneficial to the in-depth understanding, analysis, expression and innovation of architectural design.

The spatial spirit and realistic construction of space make spatial narrative possible. In the process of modernist architecture with a series of problems such as the all-pervasive capital, the explosion of information, the accelerated iteration of technology, the global urbanization, the loss of certainty, etc., spatial narrative, as a methodology, provides a meaningful answer to this unprecedentedly complex and changeable world. Spatial narrative can guide the design practice of architecture, and practice is also the best way to test the theory and the best feedback. The relevant case research in history can also supplement the theory of spatial narration.

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