

A Phenomenological Analysis of Architecture: A Case Study of the 21st Century Museum of Art, Kanazawa

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Abstract: With the continuous development of society, architectural design emphasizes the principle of people-oriented while focusing on the realization of functions. Architectural phenomenology starts from the perspective of people and architecture and achieves better intimacy and interaction with people by optimizing architectural design. In this article, we will take Kazuyo Sejima's representative work, the 21st Century Museum of Art, Kanazawa, as an example and analyze the architectural phenomenology of Kazuyo Sejima's architecture. It has a certain reference significance and value for architectural design in China.

Keywords: Architecture, Phenomenology; Kazuyo Sejima; 21st Century Museum of Art; Kanazawa

1. Introduction

Architecture is a discipline that integrates architectural art and architectural technology, with both aesthetic and practical aspects. In a broad sense, architecture is also a discipline that integrates engineering technology and humanities and arts. Since the beginning of the 21st century, the rapid development of industrial technology has brought more complete functions to buildings. With the gradual development of engineering technology, the humanities and architecture arts are also being paid more and more attention. Architects are gradually aware of the limitations of functionalism. Hence, they no longer only focus on the basic functions of buildings but begin to pay attention to human experience and perception in architectural space^[1]. Architects began looking for solutions in other areas and eventually found that they could design better buildings if they applied phenomenology to space and place. Thus, a phenomenology-based

approach to design has formed a unique branch of architecture.

2. Architectural Phenomenology

Phenomenology originated from the philosophical school founded by the Jewish philosopher Husserl, while phenomenology in a broad sense refers to the phenomenological principles and systems formed under the influence of Husserl's philosophical theories. Phenomena in phenomenology are not necessarily something substantial, they can be obtained not only through sensory talents, but also from all cognitive activities, including feeling, recall, imagination, and judgment. In architecture, phenomenology can be divided into two main categories: the phenomenology of the architectural place and the phenomenology of architectural perception. The former emphasizes the perception of space, while the latter attaches importance to the perception of the five senses of the body, although there are differences between the two, the starting point is based on people-oriented to create space. As one of the leading figures in the Chinese architectural industry, Sejima Kazuyo takes the use of people as the basic starting point and foothold, and she advocates that architectural design should have the characteristics of lightness, thinness, and transparency, and regards the architectural space as a place where behavior occurs, eliminating the limitations of architectural space, and allowing people to follow the random behavior of their hearts in the space. Kazuyo Sejima designs the exterior space with the philosophy of architectural design so that the exterior space is combined with the atmosphere. Among her masterpieces, the 21st Century Museum of Art, Kanazawa embodies the distinctive features of its design philosophy, which we will analyze in detail below.

3. Phenomenology in the Works of Kazuyo Sejima

3.1 Expression of People, Nature, and Place

As one of the outstanding female architects, Kazuyo Sejima has a feminine softness - light and transparent, likes to break the boundary sense of architecture with white walls and glass, the spirit of place is the sensory experience of people, and the phenomenology of architecture believes that human activities and events make space a place. Sejima is very concerned about the interaction between human behavior and space, and she believes that space is a container for human activities, and strives to realize the interaction between space and people in her design [2].

The 21st Century Museum of Art, Kanazawa, is a light, transparent building with a clean exterior that resembles a work of art (Figure 1) and is a complete circle on the outside, with multiple cubes on the inside. The overall space is homogenized: there is no functional division in the interior; There are no primary and secondary entrances; The outer roads of the building also do not distinguish between primary and secondary roads. All the spaces of the art museum are homogeneous and organized at the same level, and at the same time, the building uses glass as the façade, so that the indoor and outdoor can penetrate each other, eliminating the sense of space closure and reducing people's resistance to the unfamiliar environment. Sejima's architecture is not designed at random, but through a large number of simulation experiments, concept drawings, and the final plan of human experience and architectural transparency, Sejima focuses on the use of natural space in the design to bring a sense of belonging and identity to the users of the space.



Figure 1: Aerial view of the 21st Century Museum of Art, Kanazawa

3.2 Physical Perception

In the real world, people need the movement of the body to perceive the aesthetics and functions of the site, human beings use the body to perceive the world, the body maintains continuous movement based on an incomplete state, and the passage of space can bring different sensory experiences. In her design, Sejima pays great attention to people's behavior and spatial experience and pursues the interactive relationship between architecture and people in her design, so her design brings people a free and unconstrained space [3]. In the interior of the 21st Century Museum of Art, Kanazawa, glass materials are used to change the transmission and illumination of light, bringing people a sense of purity and haze, and at the same time weakening the boundaries of the space and making the whole space more intimate. Sejima mainly uses glass materials on the façade of the building (Fig. 2) to make the museum look lighter and more open. In the site, the vegetation is loosely distributed, which can reduce the obstruction of the building by tall trees, and the external viewer can also see the museum completely, which is more conducive to the transparency of the building [4].



Fig.2 The Glass Façade of the 21st Century Museum of Art, Kanazawa

3.3 Materials and Atmosphere

Traditional architectural phenomenology focuses on using the characteristics of materials to create the atmosphere of the place, but in recent years, phenomenology has explored the hidden possibilities of materials and explored the creation of the atmosphere of the place of "material-space". Sejima is good at the design of space integration, creating an atmosphere space will not care too much about the material attributes, but pay more attention to the final atmosphere of the place, her architectural

design characteristics are transparent and light, she pointed out that creating transparency and lightness is not only glass, but transparency is also diverse, transparency means a lot.

(1) The Glass

Glass has the property of physical transparency, which is used in the façade of the building to make people's vision have a strong penetration, more clearly understand the hierarchy of the building, enrich the level of building space, eliminate the sense of closure of the building, and also affect the light of the building.

In the 21st Century Museum of Art, Kanazawa, the façade of the building and the inner courtyard are enclosed by transparent glass, and at the same time, the indoor top lighting, the brightness of the light, and the openness of the whole building are fully considered.

(2) The White Building

White is a color with a low sense of presence, with the highest brightness in the color spectrum, no hue, giving people a sense of purity, brightness, and futurism. Most of Sejima's works are white, and other classic masterpieces such as the Lee Lin Residence, the Kanazawa 21st Century Museum of Art, and the Gifu North House (Sejima Building) are all white. White can weaken the boundaries and massing of the building, reduce the sense of oppression of the building, and at the same time reflect the light in the extended environment, so that the interior and exterior of the building can be integrated, eliminating the boundaries of the building and creating an intimate atmosphere [5].

3.4 The Spatial Details

In placemaking, nothing impresses more than the details, and those architects who pursue the spirit of the place pay special attention to the details of the place. Sejima's architectural spaces are full of detail, and she has refined technical and emotional details^[6]. The Kanazawa Museum of Art embodies the details of Sejima: the architectural space reminds us that the location of the park site is taken into account, the value of the site is homogenized by the circle, and the road in the park is homogenized, so that there is no distinction between primary and secondary, and you can reach the destination at will; Use building blocks of different heights to cater to the skyline; Originally conceived as an outdoor activity space for the kindergarten, morning

glories were carefully planted in the green space outside the glass so that children could get close to nature.

In the center of the art museum, Sejima has set up four outdoor lighting patios, because the diameter of the art museum has reached more than 100 meters, in such a large volume, Sejima does not set up a clear browsing route, visitors are easy to get lost in it, the central windmill-shaped lighting patio has a good guiding role, perfect solution to this problem, Sejima deliberately put the patio in the center of the design, so that visitors in the museum can easily take it as a reference everywhere, And the length and width of the four patios and the green plants around them are distinguished, which can make it easy for visitors to distinguish the direction of the space and the space is not set up with functional partitions and hierarchical divisions, but it gives the internal functions different spatial experiences, to create a homogeneous space in this way, and enrich the spatial hierarchy, and mark it with a unique placemark.

4. Study the Significance of Architectural Phenomenology

The second part of the article focuses on the Kanazawa 21st Century Museum of Art, Kazuyo Sejima's representative architectural work, as an example, and analyzes the phenomenology of architectural places and architectural perception embodied in his design from the aspects of architectural design, spatial design, and human senses. The 21st Century Museum of Art, Kanazawa is a typical example of architecture that integrates architectural phenomenology and is based on the principle of being human-centered, through the rational design of the building, it can bring buildings closer to people. It is worth noting that architectural phenomenology is becoming universal today, and in our analysis of Sejima's architectural works, we have to be surprised that there are many spiritual fits between her architectural works and phenomenology, due to the differences between individuals and groups, phenomenology cannot provide a universal design method for architectural design, but it provides a design starting point - people-centered.

Architectural design considers the use of function, but also pays attention to the fact that architecture is for people with emotions,

Sejima treats architectural space with a rigorous and humble attitude, and gradually forms its architectural style, which pays attention to human sensory experience, human behavior characteristics and other elements, and solves the problem of space and place, which is worthy of reference for the majority of architectural designers [7].

China is currently in an era of rapid development in the real estate industry, in which the blind pursuit of speed, and the important humanistic and artistic spirit in architecture are neglected, which is a very bad phenomenon. Because of the lack of place concept in the construction of architectural space in China, and the indifferent treatment of people's sensory experience, we need to slow down and re-examine the essence of architecture. In short, the people-centered design approach still needs to be worked on in China's urban design.

5. Conclusion

Taking the Kanazawa 21st Century Museum of Art, Kazuyo Sejima, as an example, this paper analyzes the architectural phenomenology of its design from various perspectives. Architecture is a discipline that combines engineering and humanities, and the essence of architectural phenomenology is based on the principle of people-oriented, which is the humanistic embodiment of architecture. Understanding architectural phenomenology, attaching importance to architectural phenomenology, and applying architectural phenomenology has important reference significance and value for architectural design.

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