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Discussion on the Form Design of Public Field Buildings

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Abstract: In recent years, with the continuous development of The Times, especially the continuous improvement of people's consumption level, the form of architecture has gradually attracted attention. People's requirements for architecture are not limited to functionality and practicality, but also gradually improve aesthetic requirements. In the context of social development, low carbon, environmental protection and green design started into the limelight, "adhere to the harmonious coexistence between man and nature", "garden city, livable city", "city" sponge concept of green ecological city began to concern, such as urban park design, the author of this paper, from the perspective of the architectural form, application of public field construction, Public field in the design of architectural form, not only should consider the practicability of building, also should consider other aspects related to construction, should be content in the public field in the design of architectural form and reasonable application, at the same time building relationships with the local humanities consciousness and environmental awareness and should not be ignored, should go to search and a large amount of information about the region with the most appropriate way, According to people's feelings and consciousness or local environmental conditions, to design buildings and surrounding buildings, so as to achieve coordination between people and the environment, complement each other.

Keywords: Publicity; Architectural Form; Field Domain; Ecological City.

1. Introduction

With the rapid development of the times, the public domain has gradually entered people's sight, and the rapid development of the economy People's requirements for architecture are not limited to functionality, but also gradually enhance their requirements for aesthetics, applicability, and carrying cultural and historical connotations. At the same time, green design and low-carbon environmental protection are the main trends of this era, and urban parks are also derived from this era. The concept of public nature and architectural design are gradually adapting and integrating, and the architectural form is also developing towards the field of public nature, in order to cater to the public, strive to achieve an effective unity of architectural form functionality and aesthetics.

2. Architectural Design of Public Fields

2.1. The Formation of Architectural Form

2.1.1. The Evolution and Development of Architectural Form

From ancient times to the present, both science and technology and material economy have been constantly developing and advancing. People's views and understanding of culture and art are constantly being impacted, and architecture is also facing challenges. The architectural form is constantly changing, from the practical architecture of primitive society (as shown in Figure 1) to the artistic architecture of the handicraft society that emphasizes classical artistic beauty (as shown in Figure 2), to the functional architecture of the industrial society that emphasizes modern mechanical aesthetics (as shown in Figure 3), and finally to the environmental architecture of the information society that emphasizes logical beauty (as shown in Figure 4), the architectural form is constantly evolving and developing.

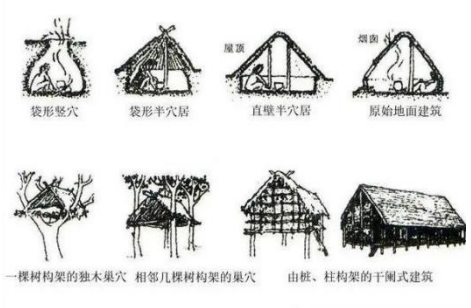


Figure 1. The practical architecture of primitive society



Figure 2. The artistic architecture of the handicraft society that emphasizes classical artistic beauty



Figure 3. The functional architecture of the industrial society that emphasizes modern mechanical aesthetics



Figure 4. Environmental architecture of the information society that emphasizes logical beauty

2.2. Research on Architectural Form in the Public Domain

Regarding the study of architecture, the exterior design and internal spatial structure can be collectively referred to as architectural form, which is an important manifestation of architectural art. For itself, its aesthetics are achieved by the exterior design of the building and its internal space design, and its practicality is judged by whether the building space meets the functional requirements of its location. Nowadays, architectural forms can be divided into several categories based on demand: residential buildings, public buildings, industrial buildings, and agricultural buildings. In the public domain, architectural forms refer to buildings as an objective existence of public spaces, and what needs to be presented in public spaces must be a type of building that meets the public's aesthetic, Simply put, the architectural form in the public domain should be in line with the public rather than a small group of people. Buildings in a public domain actually have a certain degree of compulsion, which means that anyone can evaluate their functionality and appearance. If this building does not meet the aesthetic standards or needs of the public, it can be considered a failure.

3. The Concept and Principles of Public Field Architectural Form

3.1. Concept of Public Field Architectural Form

Architectural form can actually be understood as abstract "points, lines, surfaces, and bodies" endowed with elements such as shape, size, texture, and so on. These abstract points, lines, and surfaces are transformed into each other in a certain way to create rich morphological changes. The form of architecture is actually the "contact" of the body - the body maintains its own posture, emphasizing the parts and angles of contact between the two bodies; 'Overlap' - where a form overlaps with a part of its position at the intersection of forms; 'Transparent overlapping' - two forms are interlaced, with one form being the main one; Union - the fusion of forms to form a new form; "Deficiency" - the reduction of one form by another; 'Coincidence' - One form is completely contained within another form, and other methods are used to shape it in order to achieve different effect requirements .

Regarding architectural modeling, the method mainly involves two aspects: plane composition and three-dimensional composition, mainly using the methods of "unit", "segmentation", and "deformation" for modeling. Unit "refers to the use of basic shapes such as squares, circles, and triangles to form new shapes through continuous repetition." Segmentation "refers to reshaping the original shape into a new form through methods such as cutting and displacement." Deformation "refers to breaking the original concept of shape and analyzing it.

3.2. Principles of Public Field Architectural Form

3.2.1. Principles of Practicality and Applicability

In the form design of public domain buildings, practicality and applicability should be achieved. Firstly, the building should meet the needs of the site. It is a purposeful building, such as meeting the requirements of shopping or leisure. Secondly, the basic concept of people-oriented should be fully reflected, to meet the reasonable needs of different groups of people, and to save resources and protect the environment is currently advocated in China, Therefore, in the design process, emphasis should be placed on practicality rather than extravagance and emptiness. When selecting materials, the concept of low-carbon and environmental protection should also be practiced, and green energy and environmentally friendly materials should be used more. This can not only save resources, but also avoid harmful substances from harming people, achieving applicability instead of excessive design.

3.2.2. Principles of Holism and Aesthetics

The architectural form should not only achieve practicality and practicality, but also balance integrity and aesthetics. Integrity means that all elements within the field should be interrelated and influence each other. The form of the building should be consistent with the design elements of the field, and should be consistent with the overall direction expressed by the entire space. It should not be unique or break the integrity. For example, green building decoration, in addition to meticulously carving the building itself, the surrounding environment also needs to be strictly considered. Therefore, in architectural decoration design, it is necessary to consider the overall coordination between the building and the environment, allowing the environment to set off the building, while also protecting the environment to create a sense of harmonious coexistence. [6] At the same time, aesthetics is not just about beauty. It pursues a form that meets the needs of the public. While expressing beauty, it also needs to conform to the sense of the nation and the times. At the same time, it also shoulders the responsibility of carrying on the inheritance of technology, the history of this city and country, and wanting to showcase it to the outside world. On the basis of meeting the required cost, function, quality, and durability requirements of the building, he also needs to consider the environmental attributes of the building.

4. Practice of Completing the Form of Public Field Architecture

4.1. Background

The project is located in the city center (as shown in Figure 5) and belongs to urban park design. Urban parks refer to public spaces with different functions that can meet people's leisure and entertainment needs. They not only meet people's material and spiritual needs, but also spread urban culture and showcase urban charm. Urban parks are composed of different terrain height differences, vegetation, water bodies, roads, squares, buildings, structures, and various public facilities. Most urban parks are constructed artificially, which is in line with the original ecological model of the local area. At the same time, urban parks also carry the local cultural charm.

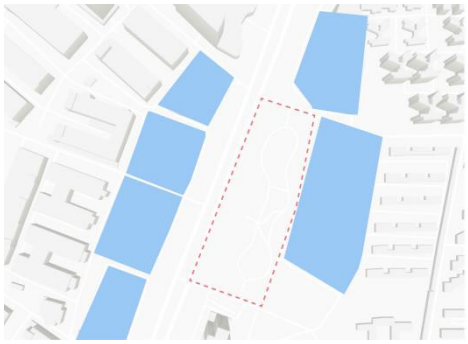


Figure 5. The urban park designs

4.2. Purpose Practical Application

The project is themed on "Symbiosis". Faced with the advent of the era of carbon peak and the increasing demand for sustainable design, it explores how to perfectly express the design theme and achieve design goals while better implementing green design to address carbon emissions issues, achieving harmonious coexistence between humans and nature, and modern architectural forms and organic natural environments.

This urban park is mainly designed with curves, both in terms of architecture and landscape, to alleviate the bustling and fast-paced life of the metropolis. The park adopts a leisurely, comfortable, clean and natural slow-paced approach, creating a green resting space in the middle of the city. We hope to alleviate physical and mental fatigue and make people relaxed and happy through this way. It does not involve complex functional forms, mainly composed of bookstore, runway, forest oxygen bar, central square, and sunshine lawn. (As shown in Figures 6) Firstly, we have designed a walking track that can circulate infinitely, with neatly arranged trees planted on both sides of the path. Citizens can wander along this track, enjoying the hazy beauty of sunlight shining through leaves on the grass. When you're tired from walking, stop on the wooden seats by the roadside, take a look at the scenery and the crowd, enjoy the slow pace brought by nature, and feel the beauty of life.



Figure 6. Urban Park design concept and details

Leaving the runway, the remaining space, whether it's a bookstore or a sunny lawn, a forest oxygen bar, or a central square, is actually focused on slow living. In an era of advanced information technology, fragmented time is filled with mobile phones. The last time I read a paper book, I forgot whether it was vague or not. Here, I hope that in the fast-paced urban space, we can walk aimlessly, we can read carefree and truly enjoy ourselves in peace of mind. At the same time, we can try to create opportunities to meet acquaintances and strangers here, because we can talk freely. We can get to know each other because we share the same interests, or intertwine because we are unfamiliar and curious. In this urban park, different groups can interweave and integrate with each other, which is the charm we hope to achieve in this design.

The emergence of urban parks aims to achieve a harmonious integration of urban and natural landscapes. Here, people are no longer the protagonists, but rather participants, learning to integrate into nature and enjoy it. This approach is not just a novel experience in the middle of the city. At the same time, the city park is suitable for all groups of people, whether it's college students who clock in for photos, children who are babbling, or elderly people who are over the age of seventy, they can enjoy their own leisure time here.

4.3. Analysis of the Architectural form of the Project

The building is mainly operated in the form of bookstores, and books are the carrier of culture and history. Whether it is inheritance or learning, they are actually inseparable from the help of books. In an era of advanced information technology, electronic devices can be considered almost universal, and electronic books have also become widespread. Is it necessary to have paper books? Undoubtedly, the answer is certainly necessary. Electronic books are indeed convenient and lightweight, but how much can you remember or learn. The building has spaces for reading, book sales, toilets, small water bars, and outdoor platforms to meet the diverse needs of customers. The surrounding trees of the building surround it, and the gentle breeze and sunshine on the balcony are also a comfort.

The building adopts a one and a half story structure, which not only meets the requirements of a staggered number of styles, but also provides more outdoor space. The balcony on the second floor is composed of four different areas, meeting the customer's semi privacy requirements under certain conditions. The glass fence also eliminates the sense of boundary between indoor and outdoor spaces, allowing the building to better integrate into the environment, rather than being independent of the scene. The use of skylights increases the injection of natural light, not only adding a touch of atmosphere, but also saving energy and avoiding waste. The exterior walls of the building are basically composed of glass structures, which use laminated energy-saving and environmentally friendly glass. It can not only meet the indoor lighting needs, but also has a low density and strong sound insulation effect. This can provide a quiet atmosphere for the indoor bookstore space.

5. The Development Direction of Public Field Space Design

5.1. Innovation in Public Field Space

The first thing that should be established in public domain space is the division of dynamic and static spaces. It should be ensured that there is no interference between the dynamic and static spaces, and then further division of the space should be carried out. In other words, you need to determine whether the space is static or dynamic.

In the construction of urban public spaces, due to rapid economic development, cities can better promote themselves through some outdoor venues. In this context, public venues are also constantly innovating. If we want to better showcase historical culture and promote internal and external spiritual requirements, we need to continuously strengthen the implementation of the main content. Based on the long-term development plans of each region, specific historical imprint ideas [9]. Layout from a comprehensive design perspective, combine the environmental concept of the area, develop

reasonable carrier planning ideas, and disseminate the aspect that the area wants to bring to tourists or face the world.

5.2. Prospects for the Form of Public Field Architecture

In the trend of the era of carbon peak, buildings in the public domain are gradually shifting towards green buildings. The path that greens buildings point to is far from simply pursuing some measures or technologies, but rather to consider and understand the transformation of the root of architectural ideology, namely the transformation of architectural views. The architectural form has shifted from the original concept of strong functionality or aesthetics to achieving aesthetics while meeting practicality. At the same time, due to the emergence of new green materials and the maturity and innovation of construction technology, more and more architectural forms have emerged, and the architectural form has also begun to bear the meaning of environmental protection, green, and other design concepts that this era wants to express. It can be speculated that, In the future, the architecture of public areas will gradually shift towards integrating into nature, and the design of urban central parks may become more common. Different urban parks will carry the culture and history of the city or the area.

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