

Furniture Design Under the Original Ecological Background

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Abstract: The original ecological furniture design is a new form of the development of the domestic design industry, in which the main application is fair-faced concrete materials. And clear concrete refers to the use of the natural texture of concrete as the surface, has a unique advantage in the form of furniture design. It does not need to add chemical coating in the application process, which is an important embodiment of inculcating green ideas in furniture design. Based on the application of fair-faced concrete in furniture design, this paper analyzes the concrete form design from the perspective of realistic form design and conceptual form design, aiming to improve the attention of relevant people to furniture form design and improve the application effect of fair-faced concrete.

Keywords: Furniture design; Form design; Environmental protection concept

Introduction: The concept of green environmental protection is widely used in the construction industry, and fair-faced concrete gradually gives play to its advantages. In the application process, it only needs to be poured once, without decoration. Under normal circumstances, fair-faced concrete has the characteristics of solemn, simple, uniform color, and so on. It can show certain structural and artistic aesthetic feeling in

the furniture shape design. Under the application background of a large number of chemical additive materials, it is of important practical significance to elaborate on the shape design of fair-faced concrete, as follows.

I. Overview of fair-faced concrete

Fair-faced concrete was widely used in architectural engineering at the end of the 20th century. There are iconic fair-faced concrete buildings in Shanghai, Nanjing, Wuhan, and other big cities in China.

In the process of continuous research and application, its shortcomings in architectural engineering have been gradually optimized, and its unique application advantages have been brought into play in the design of concrete furniture and lamps.

Clear concrete refers to a casting molding, and the use of the transparent protective agent for concrete protection, treatment, so that its performance in a smooth state, there is no obvious color difference.

The application of fair-faced concrete to specific furniture shape design has the following advantages. First of all, fair-faced concrete furniture has the characteristics of green and pollution-free, and it will not emit pollution gas, which is an important guarantee for the development of China's ecological concept.

Secondly, clear concrete furniture has strong mechanical characteristics, which effectively avoids problems such as leakage of pulp and pores in furniture design.

Finally, it maintains the original ecology of the building with a new design concept of furniture and has certain aesthetic and artistic features, which is the result of the development and progress of concrete technology in China.

II. Content of concrete form design

Traditional design methods of architectural components can no longer meet the actual needs. In the process of social transformation and development, it is of great practical significance to design the forms of products and products according to the characteristics of original materials.

In the modeling design of industrial products, the factors affecting the design concept are very complex, from the point of view of form design analysis, according to the actual form of the product and the concept of the outline. The realistic form refers to the fact that fair-faced concrete has the characteristics of material-based properties in the form design of furniture. It has certain characteristics of fixed properties and is perceived by the public in specific forms. An ideal-form design refers to furniture design that has certain artistic characteristics and concept connotation and shows its ideal-characteristics with the help of reality in the form of vanity [1].

III. Shape design of fair-faced concrete furniture

1. Realistic form design

Realistic form design mainly refers to the design of the appearance of furniture products, which cannot be separated from the material properties of product design. In the design process, the material properties and processing properties need to be clarified.

(1). Material property design

Based on the analysis of the properties of raw concrete, it can be divided into inorganic materials according to the application of different materials. Fair-faced concrete and organic concrete are rarely used in furniture design due to their high cost and lagging implementation of the environmental protection concept. This paper mainly discusses the material design of inorganic clear concrete, which has strong physical properties in material properties and certain advantages in application life.

When fair-faced concrete is applied to specific furniture design, the material has good fusion and diversity in form. In the process of design, the designers should pay attention to the bulk density of concrete and the cost input of material design. Due to its plasticity and good limited property, clear concrete can become one of the important carriers of designers' imagination in furniture form design according to the essential properties of concrete materials.

Therefore, in the form design of furniture, from the perspective of material properties, designers can design the appearance form according to

requirements, and only need to transfer the design focus to the material quality, performance, weight and other parameters [2].

(2). Design of machining properties

In the material property design, the designer can simulate the appearance of the material freely, but the processing technology is the foundation to guarantee the shape design.

The concrete is applied to the concrete furniture form design, and it is designed in an industrialized way. The first is the need to pour concrete, the second is to roll it, the third is to mold it, the fourth is the centrifugal molding process, the fifth is the secondary processing of the molding.

As the primary condition of the concrete form design for furniture application, the pouring technology is different from the pouring construction design of other materials, there is no need for additional equipment input in the pouring of the concrete, and the temperature requirement is also relatively low.

In the form design, fair-faced concrete also has some drawbacks, which seriously hinders its application in furniture form design. The solidification period of fair-faced concrete is relatively long, and it needs to be poured and formed at one time, which requires high requirements for formwork. After the solidification of fair-faced concrete, it still needs a curing period of nearly half a month.

In the design, it is necessary to consider the forming cycle of concrete, take corresponding measures to reduce the time of initial setting, and use a one-time mold in the application of mold as far as possible to reduce the construction cost of furniture. In the form design of clear concrete furniture, its form will be affected by various factors, including the structure of materials, casting technology, etc. Therefore, in the form design of furniture concrete, we should pay attention to the following points.

It is the mono modeling of furniture that should be reasonable, its are affected by building volume in exterior dimension design, volume wants to maintain as far as possible in 0.8 cubic meters or so. In the molding process, it is also necessary to pay attention to its edges and corners. Since the concrete is only poured once, its safety in the process of production, transportation, and application should be considered to avoid the serious bump. In addition, due to the non-fixed form of fair-faced concrete, its design should be combined with the objective needs of different buildings.

There are three kinds of fair-faced concrete in realistic form design, which are independent, juxtaposed, and embedded. In the form design, the concrete with different form characteristics should be designed to meet the actual needs of the building as far as possible. Independence refers to the furniture that does not need to be integrated with other products but can exist independently in the building. In the real form design, there are signs such as tables, chairs, and tea tables. Juxtaposition type refers to the existence of designed furniture in a complete set, in combination with furniture, such as sofa, shelves, and so on. Embeddedness means that it can be embedded in a

building and combined with other building structures to form a unified whole. Generally, embedded-type concrete furniture can be divided into two types. The first type is independent concrete structure furniture, which can be designed according to the form of the building, embedded into the wall, and exist in the building in the form of entity. The other is an independent modeling product, which itself is an organic component of the building entity. The structure is based on the inherent strength characteristics of clear concrete, suitable for making overhanging tables, tables, cabinets, and other larger objects.

2. Conceptual form design

There is a certain internal connection between the conceptual form design and the traditional ideas in China, which describes the interdependent conditions between the forms and the gods utilizing the dialectical relationship between the forms and the gods. If a product is only tangible but without god, it has no depth in concept and cannot be beautiful. If a product has only ideas, it cannot be understood in form and cannot show the real value of the product.

In the field of design, the conceptual form design is called the life state of the product. In the design of fair-faced concrete furniture, designers need to consider the realistic and conceptual forms of furniture. Clarify the interdependence between the two.

Conceptual form design is an important method to enrich the actual form connotation of furniture. In conceptual form design, the unity between the

beauty of form and the beauty of connotation should be fully adhered to show the life state of fair-faced concrete [3].

From two angles were analyzed, and the concept of property form design and reality are the two aspects of furniture product design, to talk about a problem is divided into two content, two design concept cannot be completely separated, also cannot choose one and need to incorporate two ideas, to complement each other, play to the maximum value of furniture product design.

In the process of shaping the idea form, designers should shape the idea form of furniture from two angles. First of all, the change of scale will have an impact on the concept form. In the same design of three fair-faced concrete products, three products are processed with different chamfered corners. From the perspective of visual analysis, different chamfered products are different in the concept form. Based on the analysis of visual art, some products will be more mellow in the form of expression, some products are more straight and straight in the form of expression, some furniture products are full of fluidity in the form, different scales will show different life state of the furniture. Second, the change of the material has a certain effect on the concept of form design, the same appearance of concrete in the form of furniture, a color processing, the other doesn't make any processing, carefully check between the two, after processing of furniture presents a vivid color, it's on the form also is smaller and lighter, and not processed on the concept of furniture holds the feeling of primitive simplicity of concrete material. The different realistic forms generated by the surface changes of materials have also completed the shaping of different

psychological forms of mental forms, and the selection of materials has also fully completed the conceptual shape design of furniture products [4].

Finally, the concept of the different environment on water concrete furniture form also has a certain influence, if the two same concrete furniture placed in different environments, a place it in the attic, a place in the apartment, because of its environment, which shows the idea of shape is very different, chair furniture, for example, if put it in the ornate apartment, it will produce great contrast with the environment, and place it in the attic, it's more atmosphere in terms of concept, highlight certain plain and delicate feeling.

Therefore, in the realistic form design of fair-faced concrete, the psychological form and concept form will also be shaped, and the furniture design will be more perfect. When designers design the conceptual form of clear concrete furniture, they should focus on the relationship between the realistic form and the conceptual form, to highlight the content of the conceptual form design of furniture. When designing fair-faced concrete, designers should take the guiding role of ideas in the form design and carry them through the real form design.

In the current form design of fair-faced concrete, it is necessary to adhere to the integration of concept and practice as far as possible, actively explore the application scope of fair-faced concrete furniture, strengthen the development of fair-faced concrete furniture accessories, and attach importance to the development of the concept of form design [5].

Conclusion: In a word, strengthening the form design and application of clear concrete is an objective requirement of social development. Various concrete materials are widely used in the construction industry, and the environmental problems and pollution caused by them have been paid great attention to the government and relevant departments. Our country should strengthen the application research of clear concrete, give corresponding fund and technical support, give play to unique advantage in furniture form design, promote the development of our country green environmental protection idea continuously.

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