

Study of Three-Dimensional Space Expression in Plane Composition

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Abstract: With the advancement of technology and the expansion of people's life needs, some new design concepts continue to emerge. The function of space is no longer limited to satisfying people's basic life needs, but also the pursuit of visual beauty. Currently, plane constituent elements are applied to three-dimensional space design, and the artistic effect of the combination of the two is more novel. The plane constitutes the combination and application of middle shape and shape, which can be extended to the field of environmental space design. At the same time, the design language and cultural characteristics of the graphic elements can be conveyed to people through the medium of environmental space, which is more conducive to creating highly individual design works. In the design of the environment where people live and work, the guidance system should not only meet the scientific guidance function, but also have a certain artistic value to meet the environmental needs and people's increasing aesthetic needs. The ingenious integration of the shape, color, texture and other elements of the plane composition into the guide design can make the guide system not only functional, but also more compatible with the surrounding environment, and reflect a certain spatial artistry.

1. Introduction

The basic training of plane composition plays an extremely important role in the course of art design. It is an important training method for students to master the law of form beauty and create form beauty. Due to professional characteristics, different professional plane composition training focuses will be different. In addition to the composition training in a single plane in the environment art major, I think it is necessary to cultivate students' three-dimensional (logic, connection, spatial) thinking. Let them think about the relationship between the single side and the single side, between the side and the space, and use a three-dimensional thinking to understand and solve the relationship between the part and the whole.

2. Plane Elements in Space Design

Graphic elements refer to designers who decompose and combine common things in people's daily life, and then process the information to make it visible graphics, text and colors, so that the public can receive relevant information. The plane constituent elements in the space design are not simple elements piled up, but the use of elements to plan the space layout and traffic routes with originality. The graphics in the space are composed of three basic elements: point, line and surface. Point is a relative concept in design. The basis for judging points is not the size of the point, but the ratio of the pattern to the surrounding environment. Points have size and shape, the smaller the point, the stronger the concentration. The difference in the position of the point will bring about different psychological feelings. When there is only one point, people will be attracted by this point. Therefore, the point has the effect of focusing on the line of sight. For example, the Japanese artist Yayoi Kusama's dot-themed art work arranges different dots on the sofas, tables, coffee tables and other daily necessities in the space to create a space with psychedelic colors. The outline of the object matches the dots, creating a looming effect.

The points move in a certain order to form a line. Lines can convey the different emotions of the designer and play a great role in dividing the space. The extension of the line will give people a sense of direction and guidance. A surface is formed by an arrangement of lines, with a width and a

length, and usually refers to changes in a two-dimensional space. In the three-dimensional space, designers can use different forms of surfaces to convey design ideas and plan spatial layout. From the morphological point of view, the shape of the surface can be concrete or abstract. The combination of themes in the space requires design, and attention should be paid to the combination of the use of shape and the entire indoor environment. In terms of nature, the face is divided into two categories, one is the real face, and the other is the virtual face. The virtual face is not necessarily the real face, but it will be perceived by people. For example, the layout design of a restaurant can generally be divided into physical space and virtual space. In terms of privacy, the space surrounded by the real surface is more private. The virtual space can form a virtual space through the virtual surface of lighting rendering, furniture placement and other furnishings. In short, graphics belong to a kind of plane composition element with rich meaning and can bring strong visual effects to people. It is an indispensable element in space design. It's easier to express the design intent when the graphics are arranged properly. In accordance with the design principles of plane composition, designers can choose a variety of expressions, such as repeated composition can bring strong shock and enhance the atmosphere.

3. The Role of Plane Components in Space Design

Plane constituent elements can be used not only in plane design, but also in three-dimensional space design and bring refreshing effects. The combination of the unique effects of the plane constituent elements and the three-dimensional space is an exploration and innovation of space design, which can enrich the visual effects while retaining the spiritual connotation, enhance the viewing of the space, and bring people visual and psychological Satisfy. In the process of using graphic elements, designers should pay attention to scientific and reasonable use, rather than mechanically. For example, in interior design, designers should consider the needs and preferences of customers while considering practicality, and reflect the style of the space through the design of plane components, or show the function of the interior space through the design of plane components. Diversity enhances the orientation of the space. Generally speaking, the main functions of plane components are as follows.

With the advancement of science and technology, people's needs for the surrounding environment have also changed. In addition to the most basic functions, whether to use the basic principles and laws of beauty to design is also an indispensable standard. In a space, plane constituent elements must use their external aesthetic characteristics to show their spiritual connotations through space media. There is a complementary relationship between space design and plane composition. It has a guiding role in the development of space design. There are many types of space design, but people's pursuit of vision is continuously improving. Using plane constituent elements to enhance the interest of the space can relieve people's aesthetic fatigue; simplifying some designs with low practical value can highlight the overall effect of the space. As people's needs change, the function of space is constantly changing. Space design involves many fields, including public art, industrial design, interaction design, etc.

The use of plane constituent elements can enhance the science and functionality of the space. Close the distance between space and people, and convey spatial information. In an environment where the public pursues visual culture, designers can use plane elements to convey some semantic and visual information. For example, the gradual composition in the plane composition has a strong regularity in the form. This composition form itself has a strong sense of perspective and spatial extension, can enhance the rhythm of the space, and lead the direction in the space guide design. Can add interest and sense of extension. The plane composition elements endow the space with certain spiritual value and connotation, can create different space atmospheres, and make the viewer feel strong emotions by using different elements.

4. Application Principles of Plane Constituent Elements

Nowadays, many designers apply graphic design to three-dimensional space. In addition to

adding the artistic beauty of the space, it is also practical and functional. With the continuous changes in design techniques and styles, designers need to improve design techniques and techniques and master new methods. At the same time, they must also pay attention to the coordination of different elements to jointly create a harmonious and rich space effect. 1. Principles of comparison and coordination In previous designs, space design work is often done based on two-dimensional planes. With the advancement of science and technology, today's space design is no longer limited to two-dimensional space. Computer-aided design breaks the constraints of dimensionality. Graphics are the basic elements in design. The primary and secondary relationship and sense of hierarchy of graphics will affect the overall effect of the space. Designers can use graphic changes to create a space atmosphere.

The principle of balance and harmony of points, lines, and planes. The changes of plane constituent elements depend on the evolution of the basic shape, which can be changes in size, shape, color, texture, etc. For example, the space art works of artist Yayoi Kusama make full use of dot elements for rhythmic arrangement, with strong power between the dots; bold use of contrasting colors in color, but the overall effect tends to be balanced, bringing the viewer Come visually psychedelic. In daily life, people feel that the closedness of space is brought about by edge lines. This kind of element has the function of delimiting and dividing the space, thus making the abstract elements composed of plane three-dimensional. Plane elements such as points, lines and planes do not exist in isolation. Designers should choose carefully in space design and pay attention to the connection between elements and patterns to create a harmonious relationship. The principle of the practicality of the elements. The graphics formed by the plane originate from life and can bring different aesthetic experiences and psychological resonance to people. Adjusting the composition of the plane elements can enrich the visual space. When designing, the designer should consider the connotation of each plane composition element, use texture and other auxiliary design, to create a kind of orderly beauty between different textures, and leave space for imagination. For example, the German Bauhaus design concept is modern and avant-garde in the era, and it has become synonymous with modernist style. Its space design perfectly combines points, lines and planes with multiple plane elements, which is very modern.

In space design, proper application of plane elements can not only create an innovative space, but also guide the development direction of space design.

For design works to have a strong visual effect and make people impressive, graphics with distinctive themes are essential. In space design, graphics are the main elements that constitute the connotation of the theme, and are widely used in various occasions, such as fast food restaurants, office spaces, and hotel lobbies. The design of graphics is becoming more and more diversified and more in line with modern design concepts. Designers can convey their intentions through graphics.

Designers can arrange graphics according to a variety of combinations, such as repetitive composition, gradual composition, special composition, etc., according to different theme effects and functions, and choose the combination method by themselves. Whether it is to render the atmosphere or convey a certain intention, it is inseparable from the psychological cues of graphics. Designers can reflect their own artistic interest through design works and highlight design details.

The font design plays a role as a starting point in the graphic composition. The font in the space should be combined with the theme. For example, the font design in the hotel space is to play a decorative role, which can promote the combination of ornamental function and artistry, and enhance the space atmosphere. For another example, when using fonts in offices such as companies, pay attention to the use of fonts, arrange the text reasonably, and combine other plane components of the space on the basis of accurately conveying information to make them echo each other, thereby highlighting the overall artistic effect.

5. Conclusion

The scientific, reasonable and appropriate use of plane elements in space design can not only give full play to the function of the space, but also implicitly convey the design intent, bring people the enjoyment of beauty, and enhance the taste and level of the space. Nowadays, it has become an

inevitable trend of design development to apply plane constituent elements to space design, and plane constituent elements will have more room for development in the future. Therefore, when designers choose graphic elements, they must combine design themes on the one hand and consider the needs of users on the other. The ultimate goal of space design is to serve users, and designers should combine plane composition elements to better serve people's lives.

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