Analysis of Interior Color Design Based on Computer Virtual Technology

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Abstract: With the development of the times, computer virtual technology has become more and more popular. Computer virtual technology, which has been widely used in many fields, has also contributed to the development of interior color design. Interior design is a highly specialized subject, which often requires designers to spend a lot of energy and time in the process of interior design. Based on this, this paper analyzes the application of computer virtual technology in interior design industry, expounds the application mode of computer virtual technology in interior color design from many aspects, and the influence of computer information technology on interior color design, so as to provide reference for relevant people.

1. Introduction:
With the continuous development of the current economy, computer technology is also making rapid progress. The computer virtual technology derived from computer technology is naturally making continuous progress. Computer virtual technology is a new technology which can be realized by computer analog digital. It can simulate realistic scenes through three-dimensional dynamic images. The application of this technology can make interior color design better displayed in front of people's eyes, and can satisfy more needs of designers as much as possible. Many bold and innovative ideas of designers can be realized through computer virtual technology. The technology enables people to see the final design results in advance, thus further reducing the communication between designers and employers and greatly improving the work efficiency. Not only that, the application of computer virtual technology in interior color design provides many convenient conditions for saving decoration construction cycle. However, in spite of this, the use of computer virtual technology for interior color design requires a strong professional, for non-professional people, it is difficult to learn this mode.

2. The Present Situation of Computer Virtual Technology
In recent years, with the wide application of computer virtual technology in interior design, the use of this form to make powerful 3D modeling technology has comprehensive and real rendering capabilities, which can perform realistic rendering functions according to the scenes of objects and the environment. People can further experience the effect of interior color design in a smooth and real environment. The computer directly turns the designers' cold drawings into vivid pictures, and consumers can easily and efficiently preview the pictures according to the 3D modeling form, thus proposing more modification suggestions to the designers according to their own requirements, which is beneficial to the communication and cooperation between the two [1].

Computer virtual technology is different from traditional 3D modeling technology. Computer virtual technology can show people an all-round perspective and create art at the same time. Designers can even show their own design ideas in dynamic pictures through their own thinking and thoughts.
The emergence of this technology is equivalent to building a bridge between designers and consumers. Customers can more directly appreciate the design effect and various data in the design. It reduces the communication with designers and can better express the desired design effect. It reduced unnecessary communication between the two due to mutual incomprehension. Customers as non-professionals can point out their dissatisfaction in the design through computer virtual technology. Designers can also show the breakthrough points of creative design to customers through computer virtual technology. This technology has joined the interior color design industry, providing more favorable and convenient conditions for designers and customers. While reducing costs and improving efficiency, it can further shorten the construction period and maximize economic benefits.

3. Application of Computer Virtual Technology in Interior Color Design

At present, computer virtual technology covers a wide range of fields in our life and has achieved remarkable results in interior color design. In the field of interior color design, virtualization can be carried out through this technology, resources nearby can be searched again, and buildings can be inspected and surveyed in all directions. Using this technology to integrate pictures and design, we can feel the direct feeling of architectural design in the general environment [2]. The application of computer virtual technology in interior color design mainly includes the application of virtual technology and the comparative application of dynamic elements, as shown below:

![Figure 1 Application of Computer Virtual Technology in Interior Color Design](image)

According to the above figure, it can be seen that the application of virtual technology and the comparative application of dynamic elements are the application branches of computer virtual technology for interior color design. The following is a simple analysis of it.

3.1. Application of Virtual Technology

At present, it is a very common way to apply computer virtual technology to interior color design. Designers can input the designed original manuscript into the software through a computer, and then after processing pretreatment, integrate it into a three-dimensional model, and finally present it in front of the customers, so that the customers can more directly feel the convenience brought by digital virtual technology for interior color design. However, compared with the traditional design mode, this process inspects the designer's mastery of professional level and the mastery of emerging technologies. The designer wants to communicate with the customer at a deeper level so that the customer can see the virtual model after the design. It needs to use computer virtual technology to make the manuscript more stereoscopic and intuitive and display it in front of the customer in a more vivid way. Not only that, designers need to integrate their own design concepts into 3D modeling, and convey their own design concepts to customers through simulation graphics, so that non-professionals can also understand the final effect of the design in a short time. In short, it is to enable customers to further experience the charm of design in a short period of time with an immersive feeling. Compared with the traditional decoration, this method has better and deeper communication with designers before decoration, so that designers have more opportunities to improve the artwork, further shorten the construction period, improve the work efficiency, and have the effect of getting twice the result with half the effort [3].
3.2. Comparative Application of Dynamic Elements
In the process of interior design, if the designer can really have professional quality and make all-round comparison between computer virtual technology and drawings, it can ensure to further meet the needs of consumers in the design process. In the process of design, we can also make better use of the three-dimensional real-life space to bring greater impact to customers' visual and auditory senses. To build a three-dimensional real-life model by using a combination of various modes is to squeeze and deform the designer into the space, and then the original plane figure becomes more three-dimensional and vivid. So as to become a space with concrete characteristics, allowing customers to more intuitively feel the changes inside the space. This process requires designers themselves to conduct a more comprehensive comparative study of the three-dimensional perspective. In order to enable customers to have a better real feeling of interior design, it is necessary to change the design scheme according to the requirements of computer virtual technology. This feature can also provide more convenient conditions for designers to follow up their work. The software designer can also find the deficiencies in the design process through the simulation space and then improve the design drawings to give customers the most satisfactory answer [4].

4. The Influence of Computer Virtual Technology on Interior Color Design
The influence of computer virtual technology on interior color design mainly has three points: application advantages of computer virtual technology in interior design, computer virtual technology makes interior color design more intuitive, and computer virtual technology provides more accurate estimate of funds for interior color design. As shown in the following figure:

![Figure 2 The Influence of Computer Virtual Technology on Interior Color Design](image)

According to the above figure, it can be seen that the influence of computer virtual technology on interior color design mainly has three points, which will be analyzed briefly according to the specific content below.

4.1. Application Advantages of Computer Virtual Technology in Interior Design
The application of computer virtual technology to the interior color design process can change the shortcomings of traditional design. Based on the customers' more intuitive experience, the application of this mode can enable designers to present the owner's most intuitive experience in the form of three-dimensional images in the designed drawings. Homeowners can also put forward more modification suggestions for designers according to their own preferences and requirements, and there will not be many differences due to design deviation and dissatisfaction in the later decoration process, which is conducive to the construction.

4.2. Computer Virtual Technology Makes Interior Color Design More Intuitive
With the continuous progress of science and technology in our country, the development situation of art is also continuously improving. The three-dimensional image of interior design based on computer virtual technology is more intuitive than traditional image design. Simply presenting the drawings to
customers for viewing can only give customers some limited feelings for some parts, but establishing a three-dimensional model can enable customers to have a full range of intuitive feelings. Using this technology is equivalent to inviting customers to the designer's finished products, which has an immersive effect and allows customers to further examine the designer's works in a state of high concentration. It can be said that the innovation of this method has realized zero distance communication between customers and designers. This more intuitive way is an innovation to the interior color design technology. At the same time, it can also help designers to better save drawings in the preservation of works, which has certain convenience. Not only that, the design system can also help designers to classify the design documents and store them in batches. In this way, customers can find the original design works of designers more easily when looking for their favorite types. So as to further deepen the understanding between designers and customers, so that customers can better experience the designer's own design concept, and facilitate communication between the two.

4.3. Computer Virtual Technology Provides More Accurate Estimate of Funds for Interior Color Design

After using this computer virtual technology for interior design, we can have a better understanding of the budget needs after the design. In the process of design, the data needed in the design process can be understood more intuitively, so as to carry out an objective and all-round decoration cost evaluation. The three-dimensional model can clearly understand the indoor composition of each room and the materials needed for decoration design. Therefore, the final material cost can be calculated through a faster calculation method, thus providing more convenient conditions for the computer to process the budget. Calculating an accurate budget in advance can help customers to arrange expenses and adjust design materials according to the needs of customers' funds, thus avoiding unnecessary decoration expenses caused by changes in various materials during the design process.

5. Concluding remarks

To sum up, the use of computer virtual technology in the interior color design process can bring more intuitive three-dimensional experience to customers. Let customers have a deeper understanding of the designer's own design concept and improve communication with the designer. Accurate budget estimation can also help customers to adjust the funds for decoration design and provide more convenience. Of course, there are still some deficiencies in the process of interior color design by computer virtual technology at this stage, but I believe the rapid development of science and technology will soon make up for the impact of these problems. Computer virtual technology will also be widely used in the interior color design process.

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