

Research on the Influence of 3D Animation Technology on Interior Design Projects

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Abstract: With its realistic design effects, 3D animation technology has been widely used in the fields of interior design and environmental construction. Although the application of three-dimensional technology greatly facilitates the design of houses, there is great room for development. This article will describe in detail the related concepts of 3D animation technology, with interior design projects as the main entry point, and explore the impact of this technology on national architectural design in many ways, and help readers to understand the relationship between 3D animation technology and interior design projects. The application connection will lay a solid foundation for more technical researchers to devote themselves to it in the future.

Keywords: 3D Animation Technology; Interior Design Project; Influence and Research

With the rapid development of Internet technology, 3D animation modeling technology is gradually applied to the development of all walks of life. With the help of animation simulation thinking, the buildings in real life are scaled down and built on a computer simulator, so that design problems can be directly displayed in front of the builders, which greatly enhances the feasibility and feasibility of design. Constructive, reducing the risk of construction investment. Not only that, the application of 3D animation technology to build life is a concrete manifestation of digital information entering human daily life, and it is also the key to my country's march into the technological era.

1. Briefly summarize the related concepts of 3D animation technology

The three-dimensional animation technology uses virtual modeling technology as the basic principle, and uses animation technology to synthesize, and display the concept map three-dimensionally in front of the designer. With the help of the research results of the electronic technology industry researchers, today's 3D animation technology can no longer collect building information through professional technical equipment, and only through the scan of the mobile phone mobile client, the size of the model can be roughly estimated, breaking the previous application the limitations of this broaden the scope of application.

With the end of the third scientific and technological revolution, so far, computer science and technology have seen a prosperous development trend. Three-dimensional animation technology has gradually entered the fields of architectural design and medical simulation from the film and television industry. With its own high-level ability to simulate environmental construction of buildings, it has promoted the birth of more emerging industries. And, although it is called animation technology, it has more skills than animation itself. Taking interior design projects as an example, the

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3D animation technology uses the animation playback mode to smoothly display the virtual building to the viewer in the form of animation, providing a good visual experience; In addition, this technology changes the original single mode of animation and adds the functions such as color change, shape design, and stretching change greatly facilitate the designer to construct a building that meets the ideals of the original owner.

2. The application status of my country's interior design projects and 3D animation technology

2.1 The development status of interior design projects

With the continuous exchange of world cultures, the people's interior design of houses has gradually become diversified. For example, the design of some shopping malls, museums, etc., not only incorporates traditional Chinese design elements, but also Western European and American styles. However, because the domestic interior design team members do not have complete art design simulation equipment, and the information exchange with other inspection teams such as material selection and environmental considerations is not perfect, it makes interior design projects difficult and difficult to achieve the expected results of the design.

2.2 Application status of 3D animation technology

So far, although 3D animation technology has been applied in architectural design, there are still some factors that hinder the wide spread and application of this technology. On the one hand, due to the research differences in science and technology at home and abroad, the design team uses different technical means when applying 3D animation technology. Coupled with the differences between cultural concepts and aesthetics, this hinders the exchanges between culture and art at home and abroad. This is also one of the reasons why some designers choose to communicate directly instead of using 3D animation technology. On the other hand, due to the insufficient development of computer science and technology in my country, some technologies cannot meet the design requirements.

3. The influence of widely applying 3D animation technology to interior design projects

Through the understanding of the above content, the 3D animation technology is based on animation creation, which improves the sense of experience through visual presentation. Therefore, the impact of this technology on interior design can be divided into the following two parts:

3.1 The influence of technology application on the performance of design project results

3.1.1 Improved customers' sense of identity with design results and facilitated communication with design workers

Simulate the real scene through science and technology, and present the design draft three-dimensionally to the customer. Customers can see the design results of the project from the perspective of God. With the help of 3D animation technology, it is possible to add colors and change shapes to the facilities in the model so that they can be truly displayed in front of customers. Taking the living room display as an example, customers can choose the style of the scene according to their needs. Whether it is a home style or a minimalist style, the customer can express to the designer their willingness to add design ideas and allow the designer to make certain changes. At the same time, the display of the picture is more convenient for communication and ideas between customers and designers. This not only improves the problem of low customer participation rate and dissatisfaction with the design results in the process of traditional design engineering, but also allows the customer's ideas to be clearly communicated, and strengthens the communication between the designer and the customer. Therefore, the customer's sense of identity with their design results will naturally increase.

3.1.2 Enriched the application of interior design elements, comprehensive improvement and detailed processing bring a good sense of experience to customers

For traditional interior design projects, most of the design results displayed to customers are through drawings or on-site descriptions. It is difficult for non-professionals to clearly express the design results of the designer through imagination. However, the application of 3D animation technology design solutions can solve this problem and better deal with details. For example, the adjustments of indoor objects, window screen patterns, etc. can be changed through three-dimensional animation technology, so as to find patterns and elements suitable for the design style. In addition, due

to the continuous exchange and integration of Chinese and Western cultures, some young people will add European and American popular elements to their interior design. At this time, using three-dimensional animation technology, it is very convenient to adjust the lights, patterns, etc. in the house, quickly and efficiently show the results to customers, and bring customers a good sense of experience.

3.1.3 Vivid and concrete design model display, reflecting the design results from multiple angles

With the advancement of the technological wave, with the help of the development and progress of computer science and technology, film and television technologies such as wide-angle overhead view or spherical lens have been fully developed and used in 3D animation technology. After mastering a photography skill, the designer can use the corresponding equipment to take pictures of the designed objects from multiple angles and transfer them to the virtual design software for model construction. For example, the panoramic display images of various universities also use this technology. The display effect of its campus is reflected from high to low, from far to near, from teaching buildings to canteens, etc., allowing students to feel the real beauty of the campus. The display of such a vivid and concrete design model provides users with a visual impact, increases the authenticity of the model, and makes people feel like they are on the scene.

3.2 The deep influence of 3D animation on architectural interior design

3.2.1 Greatly reduce the waste of resources and reduce the consumption of funds

The application of 3D animation technology to reduce resource waste can be roughly divided into two aspects. One is to reduce the waste of time and resources. You know, to complete a complete design work, in addition to the interior design, there is also the design of the house frame. However, the construction time of most house frame models is longer than that of interior design, especially in the details, where the requirements are more stringent. The use of three-dimensional animation design can make the two aspects of work go on simultaneously and reduce the waste of time. On the other hand, it reduces the waste of funds. Because of the need to carry out interior design, it is inevitable that there will be disagreements between the designer and the client. Therefore, designers can use this technology to show the design results to customers, so that customers can put forward their needs and continuously improve, which fundamentally avoids material waste, reduces design costs, and reduces capital consumption.

3.2.2 Turn static into motion, which is convenient for the reflection of design highlights

The main feature of 3D animation technology is that it can make static things more vivid. For example, before visiting a certain museum, we can search for the panorama of the museum in its corresponding official account. In the process of screen display, there will usually be music. It will also adjust the scene display in the hall according to the time of day, so that viewers can see different scenes of the venue whether it is in spring or winter, in bright or dark scenes. Such a design effect of turning static into motion allows customers to deepen their sense of the scene through visual, auditory and other aspects, to show designers where the highlights of the design are in advance, to set off the atmosphere in advance, to promote emotional resonance, and it is also more conducive to the formation of a common point of view for both parties.

4. Conclusion

In short, having a rich color foundation, flexible design skills and convenient equipment are the keys to the wide application of 3D animation technology in interior design projects. I believe that with the continuous efforts of Chinese scientific researchers, virtual modeling technology can be improved and more complete technical means can be developed. Its application range can not only stop at the design category, but penetrate all walks of life to provide a better life for mankind. With greater convenience, more people can experience the benefits of technology in life.

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