Application Analysis of E-Commerce Web Design based on Cinema 4D Technology

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Abstract: Due to the limitations of software technology, traditional web design cannot fully realize the construction of three-dimensional graphics of complex real scenes, and cannot meet the needs of users' visual reality experience. In order to further improve the design efficiency, present the real space scene design, and shorten the distance between the design and the user, it is proposed to build a three-dimensional model based on Cinema4D software, and use the material that comes with C4D to give the model texture maps, rendering from the perspective of light color and light type light. Then it integrates the advantages of Photoshop's color and synthesis technology, design Taobao shop display effect, and study its application effect through actual case design. Example design effect shows that the layout of the scene in the design renderings is reasonable, the visualization effect is excellent; the lighting is realistic, the light and shadow change significantly, and the details are handled well.

1. Introduction

As a user-friendly 3D design software, C4D is not only stable in performance, but also easier to operate, suitable for novices to learn as an introductory tool. With the release of the cool pages of a large number of TOP merchants at 618, Double 11 and other events every year, Tmall and JD.com's official promotional pages have also begun to be produced in C4D. So that now C4D has become a mess. Even in many e-commerce companies, C4D has been listed as a bonus item for job seekers, which means that the same e-commerce designers, e-commerce designers who know C4D are more popular in e-commerce companies and have a competitive advantage.

2. Overview of C4D

C4D, the full name Cinema4D, is a 3D design software developed by MaxonComputer in Germany. Whether it's modeling, animation, lighting, materials, or rendering, it's not a problem. Today's C4D is widely used in film and television special effects, visual advertising, product advertising, e-commerce, industrial design, indoor and outdoor rendering, artistic creation and other fields. One of the mainstream designs. Cinema4D, which literally means "4D movie", but itself is a comprehensive advanced 3D drawing software. In recent years, with the growth of the e-commerce industry, businesses have gradually increased their requirements for differentiated design. With its powerful functions and unique visual effects, C4D has quickly become a trend in web design.
3. E-commerce web design

E-commerce web design refers to an intermediary that is based on images, colors, text, and other visual elements and combines multimedia technology to convey business product information and complete human-computer interaction. Its fundamental task is to satisfy the basic functions of business while conveying the visual form of beauty to the public. The design range of the web interface is very wide, and it is the product of the combination of vision and hearing, technology and art. Web interface design is an artistic form of expression that provides better life services and visual enjoyment for the public after comprehensive consideration of technologies such as human-computer interaction, operation logic, and visual design aesthetics. The operability of the interface function layout, the artistry of the interface design style and the overall aesthetics of the page are all elements to be considered in the web interface. Only with multi-faceted consideration, design can take into account the dual meanings of function and aesthetics, and is recognized by the public.

4. The application of C4D in E-commerce web design

Many small workshop-style shops often have limited funds and limited manpower. New products involve white photography and page design, and you want him to often spend money to buy some photo props. Or to build a scene to see the truth, and C4D can model and render almost any scene or picture that the designer thinks of, but it also saves costs. Of course, the premise is that the designer can use this software. C4D's three-dimensional production screen is more three-dimensional and immersive, the scene rendering is more vivid, and the color level is richer. The body visual effect is fully personalized. And compared to Photoshop (PS), AI and other plane software, C4D processing 3D effect is more efficient and convenient, and the effect is more vivid and vivid. The most important function of C4D is the construction of scenes. C4D usually takes two steps to complete a work, one is modeling, and the other is rendering. In analogy with PS, modeling is to draw paths, and rendering is the effect of PS. C4D is much more complicated than PS, but if you learn to model and render, you can basically make works. Then use Cinema4D to make the scene model, which is equivalent to the basis of shaping the phantom shape. It needs to have a certain modeling control ability for the product's own shape, and the overall and partial cooperation, as shown in Figure 1.

![Figure 1 The Structure of Scenes Model](image)

Finally, use the material that comes with C4D to give the model texture maps, and render the light from the perspective of light color and light type. Material refers to the texture of an object, which can be
seen as a combination of material and texture. The space we live in is full of "materials". Different objects correspond to their respective attributes, mostly from the brain's collection and cognition of the living environment, and the construction of e-commerce products When, match the texture of its material. Specific to the production of a single unit, it can be set according to its own attributes & environment. When designing and making e-commerce web pages, you need to choose the lighting according to the actual needs of product display, including color temperature, angle, etc., as shown in Figure 2.

![Figure 2 Display the Model Material and Lighting](image)

5. The design example
The design example in this article is an indoor space e-commerce webpage design and production, using C4D software to build 3D graphics that realize complex real scenes. First build a three-dimensional model based on C4D software, use built-in texture, extrusion, cutter, polygon hole and other tools to build a basic 3D model, and then use C4D's own materials to give the model texture map, use polyester, metal, matte, cloth, Glass and the like are used as normal materials to assign materials to each part of the model. Finally set up the lights, including point light (target spotlight) similar to the stage spotlight effect. We can add a target label to the point light to make it a target spotlight; the area light, which uses a more light, belongs to a surface light source, and can get softer shadows; IES light, the light type of the IES light domain file, can Simulate the effect of wall lamps and desk lamps; infinite light, which can be imagined as sunlight, is a light source that does not attenuate. Set the attenuation of the light, set the maximum number of samples, turn on the object projection, and render. In the rendering settings, you can turn on environment absorption and global illumination to make the rendering settings more realistic. Import the obtained renderings into PS for processing and toning, and get the e-commerce webpage design as shown in Figure 3. It can be seen that the layout of the designed scene map is reasonable, the screen ratio is normal, the visualization effect is good, the color matching is appropriate, the scene is real, the lighting and shadow feedback are correct, the lighting rendering is realistic, the light and the shadow change significantly, the detail processing is better, the overall effect picture The quality is higher.
6. Conclusion
In conclusion, as the media becomes more and more abundant, the public has less and less time for interface browsing. How to attract consumers to stay on the page in a short time has become the key to e-commerce web interface design. As a contemporary web designer, if you want to design a good web page, you must first remain sensitive to new things, dare to break the tradition, define web design from a new perspective, and design a more novel interface. Moreover, we must be proficient in various computer technologies such as C4D to better serve the e-commerce web design itself.

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