Research on Digital Application of Film and Tv Special Effects to Visual Design

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Abstract: the Digital Application of Special Effects to Visual Design is Mainly Realized through the Effective Processing of Data by Computer. after the Detailed Discussion of Digital Processing of Special Effects and Digital Special Effects in Visual Design, It is Concluded That the Digital Application of Film and Tv Special Effects to Visual Design is Helpful to Broaden people's Thinking, Expand people's Imagination and Promote the Better Development of Visual Design. the Application Mainly Takes Advantages of the Data Processing Function of Computer, Makes Simulation with Reference to the Physical Laws of Light, Electricity and Mechanics, Perfectly Combines Various Attributes with Specified Development Mode and Finally Produces Works.

1. Introduction

The man-made fictions and illusions created by artists in films are called special effects, which make actors avoid risks, reduce the cost of film production, and impress the audience. With the rapid development of computer information technology, the data processing function is becoming more and more powerful. Equipment code is an effective operation of data. Through appropriate modification of many image contents, more image colors and more accurate structures can be achieved. After the image effect is digitized, the authenticity, overall effect and artistry of the work can be enhanced. The digitization of image effect changes the progress of computer technology through digital model (such as image composition and color), and binary code is applied to data. In addition to proper renovation, rich colors, more accurate configuration and content storage for the audience, the digital processing software in computers has also advanced computing settings for image contents. Special scenes refer to those that cannot be realized in real life. The special lens used in film production belong to the traditional technology, which is made by model making, makeup, optical synthesis, professional shooting, etc. The development trend of image professional lens synthesized by digital technology is not obvious.

2. Digital Processing of Film and Tv Special Effects

The creative animation of computer digital technology helps to stand out from the tedious process of traditional frame animation production. Some optical effects and drawing command independent variables or plug-ins can be used. Some software make the picture form visual effects, improve the quality of film and TV, enhance the visual impact, and meet the higher viewing requirements of the audience by writing expressions.

2.1 Digital Production of Scene Atmosphere

In the design of video scenes, reasonable spatial layout, comprehensive thinking, flash, light, semi smooth substrate, etc. can produce necessary effects and a positive impact on the scene atmosphere. In addition to JEMAX, CODEV also has many optical effect programs. Over the years, users all over the world have successfully used CODEV in large capacity camera lens, microscope, spectral instrument, space optical system, laser scanner system, hologram system, infrared imaging system and ultraviolet wide-angle system. It provides a unique "lens miracle" function, as well as parameters required by users to enter the system (such as edge, relative hole, vision and proportion). Moreover, it can deal with its own patent warehouse and select the structure. All kinds of objects in the plane can produce better and more reasonable images. Especially the optical effect can ensure

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the reality of the object, and well express the scene design of the object. By applying light, the overall appearance of the object can be determined. By effectively eliminating the image deviation in real camera shooting, the displayed image content tends to be more real. It is important to effectively highlight the environmental atmosphere so that the effect is clearly visible.

2.2 Digital Application of Particle Effect to Film and Tv Production

In image production, it is suggested to make use of digital processor to combine particles with AE, Particle Illumination and so on. However, because particle motion affects the environment, especially the subtle changes in the environment, so a relatively stable environment needs to be established to operate particle motion. It ensures the effect required to allow particles to move freely in the scene they are designed, allows to set the fixed application mode to fine particles, and completes the particle task according to the design, cleverly solving some problems.

2.3 Digital Painting Effect in Film and Tv Special Effects

Different from general effects, digital painting effect has no special requirements and restrictions on scene conditions, so the application of painting effect is more extensive. Image effect includes optical system effect mode and particle system effect mode. In Figure effect, we often apply both above mentioned effect modes. In special scenes, only brush tool is used to draw a simple curve. The important function of the brush is to correctly handle the color. When making an image, you must first select and edit the object to be described, so that you can manipulate various brushes and make the object look clearer.

3. Digital Requirements in Visual Design

The visual theme that the audience can directly feel when watching films has deepened the application of digitalization to the development of visual design, thus increasing the demand for visual design of the audience.

3.1 Shots and Scenes Are Well-Proportioned

Through the digitalization process of all kinds of highlights in the videos, it is possible to distinguish the events of people in the spatial dimension more clearly, greatly improve the sincerity shown on the screen, and highlight the temperature effect of light more strongly. The camera's macro scene design can also control the field of vision. Another element of background, that is, the adjustment of the scene before and after the image, does not meet the configuration mode of each component. In the process of moving lens, it is essential to pay more attention to the sense of scene size, which is rich in long-diameter elements.

3.2 Film and Tv Atmosphere Affects Visual Design

Music and the breath of light in the video scene make the scene that directly stimulates the audience's hearing abstract, which makes it impossible to effectively combine the tones of two kinds of music. The level has been raised indirectly and can even be made more complete by lighting. Secondly, weather condition is one of the important elements of visual design. The color and contrast produced by the interaction between light and particles directly determine the overall color of the film, thus creating the overall emotional atmosphere.

3.3 Pursuit of Authenticity in Film and Tv Production

Even if the audience watches films, the scene design does not mean that the introduction of real computer digital technology (through the basic scene judgment to distinguish the scene effect) can produce many scenes through the effect synthesis, which depends on the effects produced. In the past, this kind of digital design reduces the reception effect by reducing the deviation between the image and reality. The rate of return has changed the correct meaning of visual design, which has in turn developed visual design. While meeting the audience's visual needs based on quality, they have obtained the central idea of expressing the film scene, which goes beyond the development of

production level of special effects. However, in some particular scenes, truth is the most beautiful. In the development of video production, the authenticity of scenes cannot be ignored forever.

4. Influencing Factors of Visual Design of Film and Tv Works

4.1 Lens Design

The quality of visual lens design directly affects the atmosphere of scenes in the film. A good scene arouses the mood of the protagonist and improves the authenticity of the film. It enables the audience to feel the emotion of the protagonist. By reasonably adjusting the front and back scenes in the macro scene design, it can meet the necessary steps in the camera shooting process, thus ensuring the richness of long-distance elements during the later editing period.

China has tried to make digital films since 1995. Generally speaking, digital technology is relatively weak, "Warriors of Heaven and Earth" is the first "big film" of Chinese digital films. The lack of a sense of history and CG technology makes the war scene quite thin.

4.2 Atmosphere of Film and Tv

For the audience, TV work is a kind of audio-visual nostalgia. In film scenes, music and the breath of light are very small or missing elements. In response, the audience always immerse themselves in the dramatic development of imagination on the basis of music analysis, thus improving the implementation level of visual design. It is also important to deal with lighting in scene effects. In the process of viewing, the interest of the viewer to watch the change of the light beam directly affects the color, saturation, and discrimination. Imperfect overall tone and light processing will affect the expression of films. These factors should be considered in the visual design.

4.3 Authenticity of Works

In the later stage of special effects, the audience not only appreciate the film and TV works, but also judge the authenticity of special effects. Under the influence of digital effects, the audience seems to be tired of "attack" and "bombing". Hollywood began to introduce digital production technology since the 1970s, and released films such as Alien, Star Wars, etc., thus placing the traditional narrative mode in a macro perspective. Digital technology has become an essential element in every blockbuster. Therefore, in the current film and TV production, it is very serious to pursue the magic visual effect but ignore the connotation of the work. For example, films such as "Hero" and "The Promise" are shocking in visual effect, but empty and boring in the internal performance of characters. Moreover, in the production of digital special effects, special effects technology not only increases the plot score of the film and TV works, but also affects the development of the plots.

5. Significance of Digital Application of Film and Tv Special Effects to Visual Design

Film and TV digital special effects classify character, scenery, sound, light and color, lens movement, etc. as elements of audio-visual language. It can be imagined that if there is no digital special effect, there will be no hacker matrix, no narrative structure and philosophy like Hacker matrix, and no image of static rotating perspective as a model. The Waldrovsky brothers began to narrate stories and to render pictures with special effects when they wrote scripts. With the continuous growth of digital special effects in the film and TV, the development space becomes wider and wider. More audiences begin to accept and gradually like digital modern film and TV works, so that they are able to better understand the theme of these works, which is consistent with the main purpose of visual design. In addition, the performance and main features of various scenes can display the digital special effects well, which is conducive to highlighting the theme of film and TV works. Therefore, it can be said that the digitization of special effects has a great influence and promotion on the development of visual design.

6. Conclusion

The scene special effects in film and TV production produce huge visual impacts to the audience. The synthesis of special effects enriches the content of film and TV works and improve the enthusiasm of the audience to watch. It can be said that the digital application of special effects to visual design broadens people's thinking and is conducive to the better development of special effects production. With the development of the times, the nature and function of special effects are gradually recognized and used by Chinese filmmakers. The scene special effects in the film and TV production have brought a strong shock to the audience's vision and greatly enriched the film and TV contents, making more audiences happy to enjoy the works. The application of digital special effects has broadened people's thinking, and made the production of film and TV special effects develop towards a more brilliant tomorrow. This paper introduces the methods of making special effects and the main factors affecting the visual design of special effects. It is suggested that special effects of film and TV should be better combined with the connotation of works, be used to serve the content of film and TV and stress the main position of the audience in television. It is also necessary to pay attention to the appreciation of film and TV works so as to improve the aesthetic interest of the audience.

References

[1] Yu Xiaoni. (2018). Research on Digital Application of Special Effects to Visual Design. Electronic World, no. 16, pp. 246.

[2] Ma Wenlian, Zhang Nanling. (2018). Application of Dynamic Composition to Visual Communication Design. Art Technology, vol. 28, no. 08, pp. 196-197.

[3] Hou Yanjun. (2018). Digital Application of Special Effects to Visual Design. News Research Ruide, no. 8, pp. 126-127.

[4] Gao Ziying. (2018). Digital Application of Special Effects to Visual Eesign. Electronic Production, no. 9, pp. 98.

[5] Hao Jingjing. (2018). Visual Representation of CG Scene in Strange Space, Jilin Art College.

[6] Wang Kun. (2018). Multidimensional Communication Design Based on CG Technology and Its Application to CIS, Shandong University