

The Development of Freeze Animation in the Era of Digital Media

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Abstract. Freeze animation is an important branch in the field of animation, which has been developed for more than a hundred years. Its expression media are rich and diverse and have unique material characteristics and artistic beauty. However, with the continuous development of digital technology, fixed animation is facing the thinking of how to develop. This paper mainly discusses the development, types and expression media of freeze animation, its application in the field of contemporary mainstream media and the opportunities in the digital media age, so as to promote the modernization of freeze animation.

Keywords: Digital age; Freeze animation; Development trend.

1. The Development Course of Freeze Animation

Freeze animation (stop-motion Animation) has been developed for more than 100 years. It is through shooting physical objects one by one, making use of the visual temporary principle of the human eye, and then making it be shown continuously. This creates a character who seems to be alive or any strange character you can imagine. It originated from the ancient cinematography technology. In 1907, at the New York Studio of Vitergraf, an unknown technician invented the "case-by-frame" method of shooting scenes frame by frame with cameras. So that the scene can be reproduced live on the screen. It wasn't long before the "case-by-case" method quickly spread in the film industry, such as the haunted Hotel in 1907, the wonderful Water Pen. With the progress and innovation of science and technology, the creation and connotation of freeze animation have also changed, and their own artistic language has been gradually formed in the course of its development. For example: "Christmas Eve shock" produced in 1993, "Chicken run" produced in 2000, and then to 2006, the fixed animation "Rabbit Curse" and "zombie Bride" of two Oscar best animated short films. People's attention will once again focus on freeze animation, an ancient animation technology.

2. The Types and Representation Media of Freeze Animation

The animation and hand-drawn animation and computer animation form the three main categories of modern animation. It is a special kind of animation, and its unique artistic language is unique in the development of animation. In the process of fixed-cell animation, it has very strong authenticity. The application of the material has great influence on the effect of the film, and the material is the main body of the film. Through comprehensive material and diversified process means, the character and the scene environment are made, and the "cell-by-cell shooting method" is used for the creation, which is a fixed-grid animation, and the difference between the two-dimensional animation and the maximum characteristic of the three-dimensional animation is also the root cause of the eye of the audience. The Application of the Fixed-grid Animation to the Materials A variety of materials, according to the different materials, can be divided into clay animation, paper-cut animation, puppet animation, live freeze animation, 3D printing model animation and so on, among which the previous three materials are the most common.

2.1 Clay Animation

Clay animation mainly uses clay, rubber mud and other plastic materials to make characters and scenes, and the fixed animation is completed by frame. The utility model has the advantages of simple operation, flexible modeling, easy to use, and makes use of the plasticity of the material to make it

deform, so as to achieve the animation effect. Clay animation depends on handmade, so that it has natural, primitive and simple characteristics, giving people a mysterious and close to life feeling. The most representative clay animation company is the Aderman Animation Studio in the UK, which uses clay to create a large number of well-known animations works, such as the Super invincible Dog Series, Little Sheep Sean and so on.

2.2 Paper-cutting Animation

The earliest paper-cut animation in the world was the Adventures of Prince Archimedes by 1926 German female director Lotte Reneg. She is a pioneer of paper-cut cartoons and is recognized as a classic in the field of paper-cut cartoons. The paper-cut animation in our country has its innate advantages. Through the long-term contact with things, the artist forms his own perceptual understanding and understanding, combined with the traditional artistic expression form of shadow play and folk paper-cut. With strong Chinese characteristics and national cultural connotation, it has gradually evolved into a classical art form. The first Chinese paper-cut animation directed by Xenopus in 1958, Zhu Bajie eats Watermelon, has a bright color and knot. The forms of folk paper-cut are refreshing. In 1959, "fishing Boy" and "Ji Gong Dou Cricket" were launched. "Mouse married Girl", "gourd Brothers", "Ginseng Doll" produced by Shanghai Art Film Studio in the 1980s, etc. These classic paper-cut animations have won international honors and academic recognition.

2.3 Puppet Animation

Puppet animation can be divided into puppets, puppets or metal silica gel mixed materials made of characters, animation characters are mainly wood, but also supplemented by gypsum, rubber, plastics, steel, sponges and wire and so on. Its role is more stereoscopic and lifelike. There are many classic puppet cartoons at home and abroad, such as Ma Liang, Avanti, goat, Tim Burton Gothic film zombie bride, box monster produced by Universal Pictures in 2014, and so on. Due to the high cost of puppet animation production, long cycle and high requirements for creators, puppet animation in China has been quiet for more than 20 years. The new media created the online puppet animation series Ninja Homeboy.

2.4 Experimental Freeze Animation of Comprehensive Materials

The expression form of freeze animation is various, its biggest characteristic is material property. In addition to the above main creative materials, but also often use wire, sand, matches, lines, toys, building blocks, dolls and other physical materials for creation. The use of different materials to present different animation styles, very creative art. For example, PES's avocado Salad was nominated for the 85th Oscar for Best Animation short Film, which is fresh, interesting and creative.

In addition, there is also the real person freeze animation-that is, using the real person as the animation character to combine the scene to shoot frame by frame, such as the art master Yang Shiyun Meyer's "the Food Society" series, the Norman McLaren's "neighbor", Live funny freeze short film < Speed Dating > and so on.

3. The Application of Freeze Animation in the Field of Contemporary Mainstream Media

With the rapid development of digital technology, the definition of freeze animation is constantly expanding, its creative thinking is extensive, the production materials are rich, and the forms of expression are various. The production technology and mode of thinking are more flexible and intuitionistic than two-dimensional animation and three-dimensional animation, so they are widely used in the field of contemporary mainstream media.

3.1 Application in Commercial Advertising Production

The application of freeze animation technique in commercial advertisement production conforms to the development of the times, the creative expression form, the distinct role image, the gorgeous

color unifies the dynamic soundtrack, has injected the new vitality to the commercial advertisement. Such as international brands Chanel, Sony, LV, HP, Honda and so on, in their commercial advertising films, the use of different fixed animation forms, vivid display of brand functions and characteristics, resulting in an excellent advertising effect. Take LV to launch the new technical mobile phone sleeve as an example, it uses the mobile phone sleeve square, the color is colorful, and has the unique retro flavor characteristic, reproduces the last century 8 Classic pixel games in the 2000s-Tetris, bricks, flying planes, and so on, further drew closer the distance between the brand and the public, especially the post-80s and post-90s consumers.

3.2 The Application of Special Effects in Film

In the 1933 black-and-white film King Kong, King Kong climbed onto the Empire State Building to catch the plane using freeze animation technology, cleverly integrating animation, real people and models into a classic in the history of the world film. In an age when there was no computer and computer image technology (CG technology) did not yet appear, the film pioneered the stunt film. With the development of the times, the fixed animation shooting method is more diversified, which makes it become one of the important tools of film shooting. For example, George Lukas stunt studio, monster chess holographic picture in Star Wars, steel wire iron in Terminator Frame and so on, all use the fixed animation shooting technology, flexibly combine the scene and the character, realize the unexpected stunt effect, bring the audience into the surreal science fiction world, enjoy the magic journey that the film stunt brings to us.

3.3 The Application of MTV

The use of fixed animation shooting techniques in MTV production has become one of the mainstream media expression techniques, such as the British rock band cool play band in its 2009 release of "Strawberry Swing > MTV, the characters use real person freeze combined with hand-painted animation background, In order to save a girl in a cup from becoming Superman, the master broke through many obstacles and came to her. The whole song is sweet and expresses your most precious feelings. The novel form is that the song's MV was nominated for Best Breakthrough at the 2010 MTV Music Video Awards. Another such as < In MovingOn>, the animation director, Ainslie Henderson, is an animated MTV for the British rock band James. It is made by hand-by-frame with yellow wool, and tells a story of death. The "disease and love", the "the disappearance of life" and the "the birth of new life" are explained vividly, very sad and fully reflect the life is like fine wool. In 2011, the TV channel of Zhejiang Satellite TV in China has grown up, using the method of fixed-grid animation, and is deeply loved by the young people.

4. Opportunities in the Era of Digital Media

4.1 The Advantages of Freeze Animation

With the increasing maturity of CG technology and the rapid development of animation industry, freeze animation has its own advantages: 1. The true aesthetic feeling of the use of materials; The authenticity of materials can never be too far away. Artists combine and express their own understanding of the texture of materials in life, so that the original inanimate object has "life" and makes it have a simple affinity. 2. Fixed animation has the aesthetic feeling of manual vision which cannot be compared with other forms of animation. High precision model making can realize a lot of close-up lenses, which is superior to special effects shooting. With the development of digital animation, the trend of digital animation is becoming more and more popular. People are aesthetically tired, begin to retro, pursue the original natural aesthetic feeling in the form of fixed animation, from character modeling to the construction of scene and light, the artistic thinking and manual skills of the creator. 3. The production cost is relatively low and so on; using the objects that can be seen everywhere to create, so that the animation short film can produce a variety of works at a very low cost. Therefore, many artists, animators or students use fixed animation to express their ideas, the work is very creative.

4.2 Opportunities Brought about by Digitization

With the continuous development of digital technology, freeze animation production has entered a new stage. While retaining the original traditional production techniques, combined with the new technology, the animation production efficiency has been greatly improved. It is convenient to use AE and PR software for digital editing, blue screen matting technology, special effects addition and so on, which strengthens the creativity and convenience of post-production, and greatly improves the viewing value of freeze animation. So that it has both authenticity and shock.

5. Summary

In conclusion, the content of the fixed-lattice animation material is rich, the performance is various, the creative process is more complex, but its unique artistic charm is enduring. In that background of the digital media, the digital technology inject new vitality into the fixed-form animation, develops a wider creation space, overcomes the defect of the traditional creation mode, greatly improves the work efficiency, effectively saves the production cost, All-round development of the fixed-grid animation is promoted in a comprehensive way.

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(1) Textual Research on Ancient Village Architecture and "three sculptures" in Jinxi County in Ming and Qing dynasties-A case study on the Construction Feasibility of "Digital Museum of Folk Culture".

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(2) Design of clothing display Digital experience Hall of Jiangxi Garment College based on New Media Art Science and Technology Project of Jiangxi Education Department, Nov 2016 GJJ161209.

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