

Research on the Application of Digital Media Technology in Paper-Cut Animation

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Abstract: Paper-cut animation is a combination of traditional Chinese paper-cut art and animation technology. It truly creates a good work of art by integrating the science and technology contained in the animation art and the modeling characteristics of paper-cut art. In the production of paper-cut animation, the reasonable use of digital media technology is the key to the development of science and technology in the new era. This paper first analyzes the status quo of Chinese paper-cut animation, then explores the application significance of digital media technology in paper-cut animation, and puts forward the application path of digital media technology in multiple aspects of paper-cut animation, the specific content is as follows.

1. Introduction

China's traditional paper-cut art and animation integration, gradually formed a strong sense of history, rich in cultural details of the paper-cut animation. The technique of hollow-out paper cutting is used to depict the full plot of the story, and the characters are depicted with paper and scissors. It is also necessary to depict the colors manually, assemble the joints, and combine the specific plots and content shooting of the story, which can intuitively reflect the superb memory of the traditional folk artists. Even so, under the influence of social development environment and demand changes in the new era, the traditional Chinese paper-cut culture and art cannot be effectively carried forward. Therefore, for many paper-cut art lovers and paper-cut animation producers, they should analyze the aesthetic changes of the public based on the current social development trend. The patient creation mode is adopted to further improve the traditional art production process, so that the public can find the beauty of silhouette animation, and effectively inherit and carry forward the traditional Chinese culture.

2. The Present Situation of Chinese Paper-Cut Animation

For China's paper-cut animation, it has a strong historical and cultural heritage. However, after a long time of development, it will be impacted by the emerging culture. At present, China's paper-cut animation has lost its former glory and its development prospects are not good. At the present stage, many young people born in the 1990s and 2000s basically do not know enough about the traditional

paper-cut animation in China. Few people have even seen the paper-cut animation and do not understand that this form of animation is the traditional culture of our country. The reasons leading to the development of this phenomenon are generally shown as the following factors:

Firstly, domestic and foreign computer animation, cinema animation occupies the market, many children, young people are more inclined to these modern forms of animation. The paper-cut animation has a strong folk color, and there is a certain gap between it and computer animation and cinema animation in vision, so it cannot occupy a favorable position in the animation market^[1]. Basically, people born before the 1970s will have a certain understanding of paper-cut animation, and these people because of their own work pressure, or other factors, few people go to watch paper-cut animation.

Secondly, most of the movie theaters are European and American movies and computer animation, and there is no theater dedicated to showing paper-cut animation. With the continuous development and progress of new media, people are more willing to watch videos on network media, but it is almost impossible to see paper-cut animation broadcast on these platforms. Because most of the communication platforms are to obtain commercial interests as the core goal, will choose the flow of better films to broadcast. And paper-cut animation is not valued and recognized by the market, and there are few opportunities for publicity, so it is not understood and loved by the majority of young people.

Thirdly, because the innovation level of paper-cut animation itself is not high, there are few new films in the animation market, so gradually launched the animation market. Under the background of the continuous development of computer technology, many people who like animation make animations by using computer software, which leads to the lack of good inheritance opportunities for paper-cut animation and the lack of professional producers^[2]. Moreover, in the stage of shooting traditional paper-cut animation, it needs to spend too much money and manpower, and the production cycle is long, so it cannot keep up with the development and change speed of the current market.

Chinese paper-cut animation also has its own glorious period, but with the continuous development of digital technology, the public aesthetic has changed to a certain extent. Most young people are attracted to things that are creative and unique. This is also the fundamental reason why paper-cut animation gradually fades out of people's vision^[3]. The traditional shooting and production methods of Chinese paper-cut animation can no longer keep up with the development trend of The Times, and there are certain differences with people's aesthetic standards and values. If they want to smoothly promote the inheritance and development of folk culture, paper-cut animation creators should combine the current advanced mathematical media technology to achieve the goal of integration with new media, reflect a new form of expression, expand market influence and publicize traditional Chinese culture at the same time.

3. Application Significance of Digital Media Technology in Paper-Cut Animation

In order to attract more young people to watch paper-cut animation, it is necessary to fully consider the development situation of the current era, analyze the needs and aesthetic standards of the current young people, and reposition the traditional folk art with the spirit of innovation. In the stage of creating paper-cut animation, the reasonable integration of digital media technology can achieve good artistic performance.

First of all, with the help of digital media technology, can enrich the ideas of paper-cut animation creators. Because the development trend of today's society is digitalization and informatization, with the popularization and development of the Internet platform, people's thinking is no longer limited to a fixed scope. With the help of network technology, people can quickly get the

information they are interested in, but also can effectively enrich people's knowledge system. In addition, it will bring more creative inspiration to the creative staff and enrich the artistic expression form of paper-cut animation^[4]. Through the integration of advanced mathematical technology, to achieve the development and innovation of paper-cut animation art, and effectively enrich the thinking of the creators. The whimsical ideas expressed in paper-cut animation can be reflected with the help of advanced digital media technology, and further enrich the artistic expression of traditional paper-cut animation.

Secondly, the effective transformation of the mode of production. In the field of film production, the use of digital media technology can make 3D movies for people, making the picture more realistic, to achieve a good visual performance effect, give the audience a new visual stimulation. And the production of paper-cut animation, you can also use 3D technology to gradually innovate the transmission mode and production mode of paper-cut animation. Through the reasonable use of digital media technology, the different aspects of paper-cut animation are intuitively displayed to the public, and a relatively broad space for creation and development is obtained^[5]. At the same time, the digital development of paper-cut animation should be promoted by the reasonable use of the technical information collection function of digital media. It can not only shorten the time consumed by post-production animation, but also reflect the high efficiency of paper-cut animation creation. However, we should pay attention to the problem that when using new digital media technology, we should innovate rich creative forms to provide the public with creative works of art, but we also need to retain the traditional creative skills of paper-cut animation.

4. Application Path of Digital Media Technology in Paper-Cut Animation

4.1 Make Good Use of Digital Media Technology to Enrich the Visual Transmission Effect of Paper-Cut Animation

The emergence of digital media technology has not only changed people's working mode and living mode, but also exerted a great influence on people's artistic aesthetics and thinking mode. The emergence of new technology has unique advantages, but if it can be used scientifically, it can play a higher value^[6]. Whether for the inheritance effect of art or the development of the animation market, it is very important to integrate digital media technology into the paper-cut animation, which is more in line with the way people receive information. Most people pay attention to traditional art, but they are not limited to inheriting ideas, but pay attention to how to put the traditional craft into practice, so as to create works with artistic value, effectively stimulate people's vision, and bring people high-quality artistic enjoyment. In many design fields, there have been a lot of designers, have folk culture, traditional culture and art elements into the modern design.

Paper-cut animation itself belongs to the art originated from folk development, which implies auspiciousness, happiness and reunion, and is conducive to forming a good identity foundation. For China's traditional customs, most of them are more inclined to spread the good meaning, so it is easier to get the approval of the masses. But these are only the basis for people to accept paper-cut animation. Under the background of the new era, the public is more accustomed to the artistic expression with personality and strong interaction, which can create real scenes for people. For the traditional paper-cut animation, it is mainly the use of two-dimensional space plane, as a good way of artistic expression, in a static method, intuitive expression of a variety of forms. Animation has the characteristics of space and practice, so the animation creation of paper cutting art is no longer a static form. Through the scientific use of digital media technology, the multi-dimensional space of animation can be intuitively reflected, visually stimulating people, so that they can fully understand the changes in the story situation. Digital media technology not only enriches the language of the lens, but also changes the visual effect of the traditional two-dimensional plane, bringing a new

presentation form for the paper-cut animation. In the creation process of paper-cut animation, in order to reflect a good three-dimensional effect, you can use three-dimensional animation, film and television production commonly used techniques of expression: with the camera, through the position, etc., and complete the changes of the scene, enriching the sense of hierarchy of characters. With the hollow-out technique of paper-cut art, it presents a good visual effect to the public. In the production of silhouette animation, give play to the advantages of digital new media technology, innovative creative thinking. For example, in the way of mutual integration of silhouette animation art and advertising creativity, in 2015, the world-famous brand Lancome integrated paper cutting art into the advertising, and showed the national characteristics in a modern way, presenting a happy and peaceful atmosphere. In the whole advertising film shooting process, not only has a strong Chinese characteristics, but also has a strong sense of fashion, modern sense, the picture is very exquisite. This advertisement film reflects the multi-dimensional space of paper-cut art, based on a new way of communication and thinking, to achieve the promotion and promotion of traditional paper-cut art, which is worth drawing reference from paper-cut lovers.

4.2 Digital Media Technology Should Be Used Reasonably in Each Link of Paper-Cut Animation Creation

In the actual paper-cut animation production and creation process, it is very important to do a good job in the early creation process, but also to promote the smooth progress of the follow-up work. And the reasonable use of digital media technology, can have a more accurate positioning of the paper-cut animation market in the early stage, but also can achieve a good early publicity effect. The adoption of new means of communication and communication methods can, to a certain extent, clarify the precise positioning of paper-cut animation, but also effectively improve the market's level of understanding of paper-cut animation and expand the scope of influence of paper-cut animation. With the help of advanced network technology, people can obtain more abundant information creation materials^[7]. For example, in the stage of traditional paper-cut animation creation, the use of artificial coloring will face certain limitations, and the coloring effect is not good. The conversion of manual coloring into digital coloring can achieve a good coloring effect and enrich the color expression of paper-cut animation. Using digital technology to color, the choice and use of color space is larger, the creator in the production of animation, can give full play to their imagination, create perfect works of art.

In the middle stage of paper-cut animation production, production technology has a greater impact on the work. Therefore, in the actual creation process, the production art belongs to the key link that can not be ignored, the 3D technology into the stage of paper-cut animation production, can make the work more image, attract the public's eye. Creators can observe and adjust the expressions of characters more carefully in the stage of animation character design. Digital technology and high-definition camera fusion, can express the traditional paper-cut animation can not express things. The use of digital processing, so that more people can enjoy the paper-cut animation. For example, when the traditional paper-cut animation depicts the Angle of characters, it can change the fixed posture and carry out digital processing to achieve a good performance effect of characters.

After the animation market research and analysis, we learned that only by using digital media technology to package and publicize paper-cut animation can contemporary young people have a clearer understanding of paper-cut animation and constantly expand the scope of the market. Adopt new media and means to realize the inheritance of paper-cut animation art. The animation art of paper-cut has strong cultural connotation and national characteristics, which is worthy of being carried forward and inherited by more people. And how to successfully complete the inheritance

and carry forward the responsibility, can not leave the efforts of paper-cut lovers. In the production of paper-cut animation, digital media technology needs to be implemented into all links, in order to achieve the effect that human can not present, incisively and vividly play the beauty of paper-cut animation, improve the public attention and love.

4.3 Digital Media Technology is Applied in the Post-Transmission of Paper-Cut Animation

For the later dissemination of paper-cut animation, digital media technology can be reasonably applied. For the analysis of the traditional paper-cut animation performance, it is generally presented by the way of film shooting and small theater. But at that time, China's economic development lagged behind, the masses of the form of entertainment less. In today's era, the development of new media is fast, and the transmission mode of paper-cut animation also needs to reflect the characteristics of diversification, so as to attract more people interested in paper-cut animation and appreciate this traditional and connotation of culture and art^[8]. For example, special websites are set up on the Internet to publicize the art of paper-cut animation, so that more young people can browse the information and videos related to paper-cut animation on the Internet, and leave places for the audience to comment. The creators of paper-cut animation can absorb the opinions put forward by netizens to understand the areas that need to be improved in animation production, so as to meet the public's actual demand for entertainment. You can also open a professional paper-cut animation topic on the microblog platform, and use three-dimensional technology to show paper-cut animation, but also not restricted to the traditional form of paper-cut animation. At the same time, the discussion of paper-cut animation should be increased on Weibo hot search to attract public attention, making paper-cut animation become a more popular form of artistic expression, bringing people good audio-visual enjoyment and feeling the charm of traditional art, so as to broaden the spread of paper-cut animation to a certain extent.

5. Conclusion

In a word, Chinese paper-cut animation not only reflects the wisdom of the folk artists of the past dynasties, but also brings new artistic enjoyment to modern people. Therefore, the creators of silhouette animation need to pay more attention to the development and inheritance of traditional culture, with the help of advanced digital media technology, and the integration of paper cutting art. Take a whole new approach, China's folk art is displayed and traditional culture is well publicized, so that contemporary people can have a better understanding of traditional Chinese culture, form a good aesthetic awareness, and encourage more young people to participate in the process of carrying forward the traditional paper-cut culture.

References

- [1] Shi Chunzhao, Che Shoushen, Wang Hui, Yang Jingzong. *Research on the application of digital media technology in paper-cut animation creation [J]. Electronic Technology and Software Engineering, 2020(20):122-123.*
- [2] LIU Yan. *Application of Digital Media Technology in the Creation of Paper-cut Animation [J]. Journal of Shandong Agricultural Engineering University, 2020, 37(04): 16-18.*
- [3] Zhang Mengfan. *Exploration on the combination of digital media technology and paper-cut animation [J]. Research of Communication Force, 2019, 3(18): 288.*
- [4] YANG Yu, JIANG Jiping. *Exploration on the combination of digital media technology and paper-cut animation [J]. Computer Knowledge and Technology, 2017, 13(21): 185-187.*
- [5] Wang Xiaohong. *Practical Application of Digital Media Technology in Paper-cut Animation [J]. News Research Guide, 2015, 6(21): 210.*
- [6] Fu Yao. *Application of Paper-cut Animation in Digital Media Technology [J]. Modern Decoration*

(Theory),2015(04):157-158.

[7] Chen Xu. *The Innovation and Development of Chinese Paper-cut Animation in the Digital Media Era* [J]. *Art of Design (Journal of Shandong Institute of Arts and Crafts)*,2015(02):111-116.

[8] WAN Xuemei. *Application Analysis of Paper-cut Animation in Digital Media Technology* [J]. *News Research Guide*,2015,6(01):80.