

# Research on the Utilization of Digital Animation in Red Culture Documentaries

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**Abstract:** Driven by science and technology, digital animation has risen rapidly, affecting the creation of documentaries in a subtle way. Influenced by digital animation, the creative ideas and methods of red culture documentaries have changed greatly. Digital animation has enriched the expression method of red culture documentary with its unique audiovisual language form, which brings strong visual impact and novel aesthetic feeling to the audience. The combination of red culture documentary and digital animation is in line with the development trend of the times, and it also promotes the development of red culture documentary while digital animation continues to develop, improves the viewing effect, increases the audience group, and better protects and carries forward the red culture.

**Keywords:** Digital Animation; Red Culture Documentary; Creation of Documentaries.

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## 1. Introduction

As a witness of the course of the times, red culture documentaries contain rich cultural connotations and red spirit, carrying the common memory and development history of the whole Chinese nation. Remembering history, promoting and inheriting red culture is of great significance to the continuation of Chinese culture. For the creation of red culture documentary film is mostly still using the traditional mode of creation, to the actual shooting and commentary based on the inherent mode of the movie presentation in a single state, the number of viewers gradually decline, the dissemination effect is not good. Digital animation, as an important art form in the display of audiovisual language, is constantly developing under the influence of time and technology. In the past, digital animation is mainly presented in the form of animated films, nowadays, the fusion of major arts and cultures has opened up a new track for digital animation. With the development of society and the maturity of filming technology, to film the record form to show the picture of red culture documentary cannot meet people's needs, and began to carry out innovative research on its methods of expression, digital animation began to appear in the creation of red culture documentary. In the form of film and television will be presented in the form of revolutionary history, so as to preserve the red memory, inheritance and carry forward the red culture. The use of digital animation in red culture documentaries, so that people see the infinite potential of digital animation to show red culture, and continue to explore more possibilities of digital animation in red subject documentaries, the rational use of digital animation, presenting the red culture documentaries of excellence.

## 2. The Feasibility of Using Digital Animation in Red Culture Documentaries

### (1) Make up for the lack of graphics

Digital animation, as the name suggests, is the animation created by digital technology. In the new era, the continuous

development of science and technology makes the development of documentaries greatly affected, and brings new vitality to the development of red culture documentaries. Previously, the creation of red cultural documentaries was mainly based on live shooting, focusing on the exposition of the content of the film, with the development of society, the audience is not limited to the requirements of the movie, and began to pursue the visual and auditory enjoyment. In the production process of red culture documentary, due to the age, data damage or loss of the movie audio-visual screen content is missing. The emergence of digital animation, to a large extent, makes up for this major problem in red cultural documentaries, through computer technology will not be able to shoot or damaged images presented. A series of red cultural documentaries such as "Eleven Books", "Shining Memory" and "Red Mark" have emerged one after another, and most of them simulate and construct the characters, scenes and stories related to red history through digital animation technology. Take "Glittering Memory" as an example, the film uses digital technology to draw ink and watercolor style illustrations, combined with digital animation technology to present historical characters and historical scenes in a dynamic form, showing the audience the journey of the Southwest Associated Universities in the midst of artillery fire. The application of digital animation provides creators with unlimited creative space, and creators have absolute freedom in the virtual world created, and any creativity can be realized here, no matter it is the restoration of objects, scenes, or characters, digital animation can ultimately show them in the form of visualization. Therefore, digital animation can largely make up for the lack of images in red culture documentaries and open up a new path for its development.

### (2) Enhancing the audiovisual experience

For the impression of red culture documentary, people mostly think that red culture documentary is boring. The special nature of red culture documentary requires that its content must be objective, authentic and authoritative, therefore, in the past, the production of red culture documentary is mainly accomplished through the filming of materials and documents, narration and interviews with the characters, with a single screen effect and mainly relying on

the narration to convey the information. Moreover, this type of film itself has a certain degree of professionalism, for the obscure and difficult to understand the content, the screen effect and narration cannot make the audience quickly understand, and need to be repeatedly watched in order to comprehend. This also caused the audience for the red culture documentary stereotype. The appearance of digital animation breaks the audience's inherent impression of red culture documentary. As a cross-discipline, the creation of digital animation involves the knowledge of many fields, including computer graphics, animation principles, digital image processing, etc. At the same time, digital animation integrates painting, music, photography and other arts, which is diversified and enriches the creation of red cultural documentaries. Digital animation uses its vivid dynamic picture and image expression to present complex or abstract information in an intuitive and vivid way. For example, digital animation is used to present the route map of Huo Nguo attacked on Xiongnu in "Hexi Corridor". This form is also applicable to red cultural documentaries, which clearly shows the revolutionary situation and marching or attacking routes with the help of digital animation, so that the audience can understand and absorb the information quickly, and realize the high efficiency and dissemination of red cultural education. Digital animation through the visual (screen color, light and shadow, action, etc.), auditory (dubbing, sound effects) these elements, presenting image, vivid audio-visual effects, combined with each other for the audience to bring a different visual experience.

### (3) Savings in production costs

Digital animation is characterized by both freedom and flexibility, providing creators with unprecedented creative space and creative environment. Everything about the realization of digital animation is done under the role of computer, formed in the digital world created by the computer. The production of red culture documentaries mainly based on filming requires sufficient cost investment. In the scene of the layout and the actors on the need to spend a lot of manpower, material and financial resources, this mode of production can not be a lot of factors, the shooting environment, shooting the weather and the state of the actors will affect the production progress, the later found that the problem of modification is also very troublesome, so as far as possible in the production at the time of the shooting, to avoid the later footage of the make-up shots. The use of digital animation is a good solution to this problem, the digital world in the computer is not affected by the real environment, in the later modification and adjustment, the creator as long as the source files saved in the production process can be at any time on the characters, scenes, animation effects and other aspects of the modification and adjustment. The flexibility of this convenient modification and adjustment makes the creators able to achieve satisfactory results through insufficient trial and error. The use of digital animation plays an important role in the production efficiency and visual effect of red culture documentaries.

## 3. Principles of Digital Animation Used in Red Culture Documentaries

### (1) Artistic processing, presenting objective truth

The Red Culture documentary focuses on the characters and events in the history of the revolution, and contains a profound cultural and spiritual narrative. The objective

authenticity of red culture documentaries requires the authenticity of revolutionary historical materials, and the existing revolutionary sites and revolutionary cultural relics must not be fabricated. But because the time cannot go back, so that the revolutionary history cannot start again, it also caused the lack of materials in the red culture documentary. It refers to the artistic creation of the disappeared revolutionary historical scenes, characters and events through digital animation, and the pursuit of reality in the digital virtual world, so as to achieve the objective and true embodiment of information transmission, character relations and emotional expression.

The objective reality created by digital animation is divided into figurative reality and imaginative reality. In the real shaping of characters, the free attribute of digital animation makes it unrestricted in the image of characters, costumes and other aspects, and follows the revolutionary history to create characters in line with the social background and cultural environment at that time. To restore the scene, the free attribute of digital animation makes it have unlimited space to build the scene, and a variety of technical means to freely combine to realize the restoration of the scene; this kind of characters and scenes produced by digital animation is the visualization of revolutionary history to show the figurative creation. At the same time, the artistic expression of digital animation makes the thought and emotion of the red-themed documentary show up in the image and interesting picture, and this kind of non-intuitive expression can cause the audience to think about the red culture at a deeper level. In the dubbing, sound effects and other auditory feelings and color, composition and other visual feelings together, bring the audience a more intense atmosphere and deep emotional experience, a deep understanding of the red subject documentary character relationships, inner emotions and cultural spirit. Digital animation has infinite creativity and expressive power, and can present the objective reality of red cultural documentaries in a unique way.

### (2) Stick to the theme and keep the percentage reasonable

Red culture documentary narrates the revolutionary history by narrative method, brings the audience into the specific revolutionary situation, so that the audience can deeply understand the red culture and trigger the emotional resonance; presents the revolutionary symbols or red elements with symbolic significance and emotional color in the form of visualization to stimulate the audience's patriotic feelings and national consciousness; red subject matter documentaries "have a wealth of connotation and far-reaching significance. The use of digital animation in the red culture documentary needs to be tightly focused on the theme of red culture, digital animation as a narrative tool of the film, can enhance the film's picture expression, and strengthen the transmission of ideas and emotions. The use of digital animation closely follow the theme, can more accurately convey the core content of the documentary and ideological feelings, enhance the protection and promotion of red culture. Red culture documentary involves complex historical background and character relationship, the use of digital animation makes the complex relationship become clear, it will be with the audience to understand, in order to ensure the consistency of the documentary as a whole, the creation of digital animation is closely around the red culture, so that the audience can watch the movie in the end, there will be no confusion or jumping out of the situation, to enhance the relevance of the digital animation and the expression of. The

expression methods of digital animation are various, three-dimensional, two-dimensional, cartoon, realistic and so on, with its unique charm to show the key information in the documentary, the use of these methods is connected with the red theme, to convey the red thought and the red spirit.

The use of digital animation in documentary can be divided into documentary and animation documentary, and its division is based on the proportion of digital animation in documentary. In the red culture documentaries such as “Nine Zeroes”, “Shining Memory” and “Red Mark”, the proportion of digital animation can be found to be relatively low, and it is more for the documentary expression of red culture, in which digital animation plays an auxiliary role. Reasonable use of digital animation, control the length and style of digital animation to ensure the coordination and unity between digital animation and red culture documentaries. Increase the proportion of the actual shooting part of the red documentary, reduce the proportion of the content of the virtual construction part of the digital animation, the boring nature of the documentary itself is easy to make the audience feel sleepy in the audience process, the use of digital animation to bring the audience visual impact with novel visual images, never dispel the sleepiness. Follow the principle of moderate use, to avoid the emergence of the documentary will be changed to animation documentary, to ensure that the essence of the documentary.

#### (3) Audio-visual integration, keep the picture consistent

As a form of audiovisual language expression, digital animation has a strong cross-cultural communication ability. In the documentary with the theme of red text, the application of digital animation breaks the boundaries of language and culture, and the combination of the two strengthens the intermingling of culture and art, culture and science and technology. Digital animation makes viewers from all over the world realize the red story and red emotion with vivid and graphic language. This cross-disciplinary integration is conducive to the dissemination of documentaries and enhances the promotion and dissemination of red culture documentaries. The use of digital animation makes the audience get a more immersive experience, so that the original difficult to understand the emotions in the generation of experience becomes easy to understand and impressive. The production of red culture documentary also includes the content of live shooting, and the combination of digital animation and live shooting has become an indispensable means of expression. The style, light and shadow, color and other elements of the digital animation should be consistent with the content of the film, to achieve the overall coordination of the screen. The combination of digital animation content and red culture documentary content should have certain logic, and the connection between the two should be natural and smooth.

The sound in the red culture documentary will also drive the audience's emotion inadvertently and play an important role. Red culture documentaries are usually narrated by pictures throughout the movie, and the special attributes of this type of documentary make the sound have a solemn sense and a sense of gravity, leading the audience to experience the red culture. The sound also includes sound effects and music, which play a role in creating the atmosphere, and the sound and picture should maintain a high degree of consistency, and the audio-visual joint effect causes the audience's emotional fluctuations and deepens the memory of the red culture.

## 4. The Effect of Digital Animation in The Use of Red Culture Documentaries

### (1) Enriching picture expression

In the development of red culture documentaries, the development of the times influences the audience's pursuit of red culture documentary images. From the beginning of the black and white picture to the color picture to the present animation picture, the expression form of the red culture documentary is increasing, especially the addition of digital animation, which greatly enriches the picture expression of the red culture documentary. Digital animation is the integration of art and technology. Containing two-dimensional animation, three-dimensional animation, stop-motion animation and other types of digital animation art, two-dimensional production, three-dimensional production, animation effects and other types of digital animation technology, realism, ink, cartoon and other types of digital animation styles, which together form the diversity of digital animation, the free combination of this diversity for the creation of the red subject matter of the creation of documentaries provide a variety of creative means, digital animation of a variety of creative means and The combination of digital animation with real photography and oral narration greatly enriches the picture expression form of red-themed documentaries, thus bringing the audience a richer visual experience.

Taking “The Eleven Letters Witnessing the Beginning Heart and Mission” as an example, using the letters as the background, digital animation is used to create the story of Xun Huaizhou from his childhood to becoming a warrior at the age of 15, and joining the Communist Party of China (CPC) at the age of 16, which vividly demonstrates the course of his realization of his revolutionary aspirations. In the segment about Zhang Chaoxie, digital animation technology is used to create visual art, with the ground in the middle of the screen as the dividing line, and the upper and lower characters are reversed to express that the characters are separated from the yin and yang, indicating that Zhang Chaoxie sacrificed himself heroically in the revolution. Diversified artistic expression in the role of digital animation reasonable integration, sand painting, two-dimensional animation, visual special effects, actor narration, etc. so that the “eleven books” in the letter content of the vivid presentation of the hero image of three-dimensional presentation, showing 11 martyrs of the revolutionary faith and revolutionary spirit. Digital animation has unique aesthetic characteristics, through the use of digital technology to achieve dynamic effects show a very characteristic artistic aesthetics, through artistic aesthetics and the audience to produce emotional resonance. A variety of forms of expression and aesthetic value of the common picture with the role of enriching the red cultural documentaries in the picture content and emotional expression.

### (2) Increasing the audience

Compared to other types of films, the documentary audience group itself is less, red culture documentary in many types of documentaries more serious, its audience group is even less, mostly for the elite crowd or the elderly group. With the progress of the level of science and technology and the improvement of the public aesthetic awareness, the style of documentary film began to diversify the direction of development, the expression of the method in the continuous

and gradual enrichment, boutique, youth, advancing with the times, and gradually remove the red subject matter of the documentary film “old people” label, to the “youth” direction. The direction of “youthfulness”. As far as digital animation is concerned, the proportion of teenagers in its audience group is relatively high. Undoubtedly, the emergence of new technologies often prioritize the acceptance of the youth group. Most of the groups in this age stage have active thinking, high acceptance, and like to pursue new things and new technology. At the same time, as the hope of the future of a country, teenagers should learn red culture, so that teenagers will gradually become the audience group of red culture documentaries. The use of digital animation in red culture documentaries opens a new track for the development of red culture documentaries, and the rich expression brings strong visual effects, attracts the audience's attention, and increases the audience group.

### (3) Enhancing communication effectiveness

Digging deep into the red culture, creating red culture documentaries, presenting them in a form that meets the characteristics of the development of the times, and promoting the red culture, the use of digital animation has undoubtedly become a good choice. The motion attributes and expression mode of digital animation make the red culture documentary vivid and interesting, and enhance the communication effect. With the help of new media and Internet dissemination of red culture documentary, the innovative use of digital animation will attract many people to understand the red culture; in order to comply with the “fast-paced” mode of life, the use of digital animation technology will be a large piece of red culture documentary editing information, the formation of a number of short and concise clips put on the short video platform to enhance the speed of dissemination and expand the scope of dissemination. Dissemination speed, expand the scope of dissemination. Digital animation can effectively innovate the communication mode and enrich the communication path with its own interactivity and three-dimensional type, so as to enhance the communication power of red culture.

## 5. Conclusion

Documentary is a movie or television art form that takes real life as the material for creation, takes real people and real events as the object of expression, and processes and shows them artistically to show the essence of reality and provoke people's thinking with reality. With the real as the core of the red culture documentary, with the function of storing the real life situation and the development of events, in education and publicity play an important role. With the continuous improvement of the level of science and technology and the richness of the creative form, the red culture documentary has gradually developed from a small base and a high level of viewing groups into a movie that the public loves to watch

and is easy to understand. With the gradual maturity of digital technology, the use of digital animation in red culture documentaries is also gradually increasing, the public is also attracted by this unique means of creation, more and more people like to watch red culture documentaries. The combination of the two, in line with the trend of the times, to meet the needs of the public, and to promote the healthy development of red cultural documentaries.

Digital animation is widely used in the creation of documentaries and has gradually become an important means of creating documentaries. In the film, digital animation is not all, but as an auxiliary means, connecting the past and the present, enriching the expression method of red culture documentary and also giving digital animation distinctive revolutionary color and cultural connotation. With the red culture as the material basis combined with the creation of digital animation, under the impact of digital technology, red culture documentaries continue to push the boundaries, jumping out of the red documentary creation of the inherent mode and framework, into the era of characteristics and technology, so as to realize in the new era to better promote the red culture and enhance the cohesion of the nation.

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