## The Application of Traditional Shadow Play Elements in Modern Opera Animation Creation

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Abstract: As a treasure of Chinese art and culture, shadow play has not developed with the development of science and technology. On the contrary, its inheritance has become a great challenge. In recent years, the development of shadow play art has attracted more and more attention. People began to try to integrate shadow play elements into digital media creation, which caused a good response. Its unique modeling and national temperament bring humorous emotional atmosphere to the audience, as well as its unique light and shadow effects, musical singing and performance forms, which make shadow play a popular folk art. Shadow play art is the most unforgettable, the most special and the most skillful. As the descendants of China who have this honor, we need to continue to inherit its essence, and rely on modern digital technology to absorb the essence of shadow play elements into animation design to make up for the national characteristics of animation industry. This creation aims at inheriting the development of shadow play art by presenting the shadow play elements with digital animation technology. At the same time, in the process of design and production, it explores and studies how to combine the two, in what form, and in what digital technology, so as to produce shadow play animation with both traditional cultural connotation and characteristics of the times.

### 1. Introduction

Throughout the history of China's animation development, the early Chinese animation had a glorious period. China's animation masters have the courage to innovate and created excellent works with national characteristics, which is in line with the needs of the society at that time. Many works are even the best in the history of China's animation development[1]. Today, in the face of the continuous innovation of new technologies and new media in the world, China's animation industry has lagged behind, and has been relentlessly impacted by the animation industry in developed countries such as the West, so that foreign animation creation has penetrated into China's national cultural territory, which makes us ashamed[2]. Shadow play art is a unique art form with a long history of development and profound cultural implications in China. It not only reflects the production techniques of China's folk arts and crafts, but also shows the characteristics and style of China's opera performance. It can be said that it is a unique folk art form combining these two arts, which has been known as the cultural treasure of Chinese national art[3]. Shadow play is a general term for shadow play and shadow play figure products, and it is one of the earliest operas in China. The "shadow man" in the play is made of donkey skin, cowhide and sheepskin through scraping, drawing, carving, coloring, leveling, oiling and binding according to the design of the characters and background scenes in the play. Vivid figures and costumes, coupled with smooth carving and gorgeous coloring, have achieved the artistic effect of being transparent and flexible. The charm of shadow play lies in: generalization and conciseness; Exaggerated and interesting; Colorful; Fine carving; Comprehensive[4].

With the advent and development of science and technology, the survival of shadow play art with a history of more than 100 years is threatened. If you want to continue to inherit and develop this ancient art, you must first overcome the current state. However, we are gratified that the involvement of modern media and the Internet has brought new life to this ancient art, and a large

number of people have slowly recovered their enthusiasm for it, and some elements of shadow play have also been integrated in the creation of some animation[5]. Since the's, "Making havoc in the Heavenly Palace" has successfully absorbed the elements of traditional Chinese painting, made gratifying achievements, and won many awards at home and abroad. After the 1990s, animation with Chinese national style rarely appeared. The film materials referred to by the author's theoretical research, such as "Zhang Fei Examines Melons", "Fisherman", "Rat Marries Daughter", "Pride General", are all animation works with relatively early shadow play elements[6]. Nowadays, shadow play elements are widely used in the field of art, from the film "To Live" using shadow play throughout the film, to the application of shadow play elements in the title of Kung Fu Panda 2 in the United States, to the successful application of shadow play artistic modeling in the "Beautiful Sunset" dance in the Spring Festival Evening of. Numerous achievements show that the shadow play art has unlimited artistic potential[7].

Therefore, through the analysis of the production, aesthetic characteristics, style and genre of shadow play, combined with the characteristics of shadow play and animation, this paper extracts excellent shadow play elements that can be used in animation design. Summarize the success of national animation and foreign animation in the 1950s and 1960s, explore the development trend of traditional shadow play art and animation art under the conditions of current social development and digital media technology, and study the development potential and inevitable trend of combination of shadow play elements and animation technology.

## 2. The Application of Shadow Play Art in Chinese Traditional Cartoon

## 2.1 The Commonality of Motion Characteristics between Shadow Play and Animation

The movement characteristics of shadow play and animation have certain commonality. The original purpose of shadow play and animation play is to bring the audience audio-visual enjoyment through the display of "movement" [8]. Among them, the "movement" of shadow play art mainly relies on the artist to control the joint points of the shadow man's head and limbs through a main pole and two juggling poles at the ends of his hands, so that the characters can nod and shake their heads, pull and push, swing and shake, lean and back, etc., and the movement of the characters in animation is mainly realized by typing key frames. Fast pace is the biggest obstacle in today's society. Under the impact of the wave of the digital age, people's pace of life is accelerating, and the form of entertainment is more concise, diverse and interesting[9]. Have a strong impact on vision and hearing. Shadow play, an ancient art form, does not have much development momentum, and old artists are scattered among the people, some ancient crafts are gradually lost, and the overall development of shadow play is slow and lagging behind. Seems to be gradually forgotten by people. Therefore, it itself is constantly seeking development[10].

It is difficult to find classic works in Chinese animation except for Huluwa, Nezha and Sun Wukong. The animation with Chinese style is slowly fading. At this time, the shadow puppets listed as the world's intangible cultural heritage need to be on the stage of history again. Applying the color, music, sculpture and expression of shadow play to animation creation can not only give the shadow play a new look, but also make the animation have a new story content and plot. For example, in the shadow play animated film "Peach Blossom Land", the difference in the walking posture of officials and fishermen can show their differences in personality characteristics. Both shadow play and animated character actions are exaggerated. Due to the special performance mode of shadow play, it can not be as smooth and flexible as real people, but the unique rhythm beauty generated by these exaggerated dynamics is not possessed by other artistic performance modes. The shape of the shadow play is planar and two-dimensional, and the image of the shadow man mainly adopts the side five-face and the side seven-face. Most of his role models give up the perspective relationship and are not restricted by the proportional relationship, and form new models through exaggeration, deformation and reorganization. It is more conducive to the direct transmission of story information to apply the simple and aesthetic shadow play modeling to the animation character design. Secondly, the role costume design can be combined with the use of lines in the traditional shadow play, which is mainly carved lines, with rich and colorful patterns and strong decoration, and fully inherits the characteristics of paper-cutting art. Integrating the unique modeling features of shadow play into animation character design will bring us different ideas and horizons and inject new vitality into animation creation.

# 2.2 The Relationship between Shadow Play Modeling Elements and Animation Character Modeling

The shadow play has gradually formed its own unique clothing style in the long history of development. The main style features are as follows: First, the shadow play art is a comprehensive art that integrates a variety of handicraft techniques, integrating the traditional line drawing form and mainly carving. Generally, plum blossom and fog flower are used in the pattern of shadow play. At the same time, the pattern elements of shadow play also have people's pursuit of a happy life. For example, "disc long knot", also known as concentric knot, is used to express the feelings between men and women. Second, the color of shadow play art is very rich, most of which use the popular red color, which is gorgeous. Most of the shadow plays are in red, yellow, black and other colors. The selection of costume colors for the role of the shadow play is mostly folk colors, reflecting the true portrayal of people's hearts. "The figure modeling is generally divided into two parts: 'head alley' and 'body clip'. The head modeling of the actor is divided into two parts: facial makeup and headwear. The 'body clip' is also called 'punch', which is the body clothing of the shadow figure, including the dragon robe, linbao, official clothing, military armor, fairy clothing and other categories". Artistic and theatrical role modeling: "The design is based on the combination of abstract and realistic techniques, and the figure's appearance is vivid, vivid, exaggerated and humorous. The image is portrayed by line hollow-out method, and the color is concise, flat and colored.

Under the back light, the visual effect is transparent and gorgeous. "Drawing lines and coloring all have artistic characteristics, and they emphasize the spirit likeness in modeling and action manner. When performing, the music performance and stage effect are full, and the looming performance is more artistic, using the way of image expression. Shadow play can be viewed as an excellent work of art when it is not performing, with typical artistic modeling characteristics and artistic style. The use of light and shadow plays an irreplaceable role in shadow play. Shadow play is bright and bright under the illumination of light, and then cast on the curtain, which adds hazy artistic beauty to the performance. Combining light and shadow with animation can make the film more aesthetic and interesting, and create an artistic animation film with China characteristics. Animation character modeling should carefully consider the relationship between the two when drawing the elements of shadow play clothing, and at the same time pay attention to the changes of the overall modeling characteristics of the role, and be closely related to the characteristics of the human body. Pay attention to highlight the structure of the character, so that the plane and the threedimensional are perfectly presented. You can also integrate the color, meaning and pattern of the shadow play elements into the design of the animated character, and further express the characteristics of the character to better reflect the classical beauty, as shown in Figure 1.



Fig.1 Animation Modeling

Apply the clothing elements in the shadow play to the animation character design, so that the shadow play art can be fully displayed, improve the visual effect of the shadow play art, and promote the inheritance of the shadow play art in China. From the above analysis, we can see that the animation character design and shadow play elements interact and promote each other. Animation character modeling provides a better development premise for the development of shadow play art. At the same time, the costume elements of shadow play provide a rich source of creation for character design, making the innovation of China's animation more national.

#### 3. Research on Shadow Play Elements in Animation Character Modeling Design

## 3.1 The Application of Shadow Play Modeling Elements in Animated Character Performance

The unique modeling concept of excellent cartoons is indispensable. Only by observing this modeling concept can the characters, things and scenes in the film achieve a highly unified, pleasant and harmonious effect. This concept of modeling should have a certain cultural background, and the modeling of folk shadow play characters is characterized by exaggeration and deformation, which is widely circulated among the people. There is a new trend in the market of animated films and derivatives. According to the public's love for this new form of animation, we can analyze that the development prospect of animated films combined with shadow play and animation should be optimistic. This new situation conforms to the development of society and meets people's needs. At the same time, it can also be used as one of the means to publicize our national culture. With the acceleration of globalization, the exchanges between countries are getting closer and closer. As a result, many foreign animation companies are full of great enthusiasm for our native national elements, and also provide a source of inspiration for their animation innovation. Therefore, our country should make good use of our own national elements and the animation industry to achieve a perfect form and create our own representative animation works. At the same time, as a very important intangible cultural heritage of our country, it has its own unique property rights and national characteristics. The shadow play presented on the shadow play curtain has the characteristics of dynamic movement, and the visual effect of each movement is smooth and interesting. "The outline of the shadow play is clean and neat, the outline of the figure, clothing and limbs is mainly straight lines, and the lines in the head lane and clothing are mainly arc lines with different widths and lengths.

The shadow carving lines are divided into dotted lines, solid lines, dotted lines, drawn lines and so on according to the characteristics of the line and knife. The dotted and solid lines refer to the intermittent lines, which are generally used in the contour edge and decorative function, and are

more used in the carving of ladies' clothing and royal nobles. The so-called dark line is also a solid line, which refers to the use of a knife to draw a line on the cowhide without cutting through the cowhide. It is usually used at the joint points of the shadow, such as the neck, wrist, waist, etc. Line drawing refers to drawing patterns and lines with a brush. It is generally used to depict the edges of streamers and clothing, playing a role of beautification, embellishment and decoration. Therefore, shadow play is a collection of painting art. As a unique art form, shadow play has its own uniqueness in color application. The color is mainly red, yellow, white, green and black. The shadow play is thin and transparent, so it needs to be painted on both sides of the front and back, and then painted with a layer of varnish or oil on the surface, so that the work can be bright and thick, showing a visual effect different from other works of art. In the movie performance, the shadow play under the light on the screen presents a beautiful feeling of color and reality. As shown in Figure 2.



Fig.2 Screenshot of "Monkey King Three Beats White Bone Essence"

The coloring of shadow figures is also different in age. According to the difference between the old and the young, the poor and the rich, selecting the appropriate coloring mode can accurately express the character's personality characteristics. Dan characters are young and beautiful, so they often choose high-purity colors. The edges can be coordinated by heavy pressure of thick ink. Some people use the natural color of cowhide to paint the edge with dark color, and paint the inside with light color. The knife pattern is white, showing a generous and elegant style.

#### 3.2 The Prospect of Applying Shadow Elements to Animation Creation

In recent years, China's animation has gradually developed, and a number of excellent domestic animations have emerged, such as "The Return of the Great Sage", "The Great Protector", "Big Fish and Begonia", etc. These animations contain a large number of traditional elements, which is gratifying. But we have to admit that we can always see the shadow of foreign excellent animation in these works. The animation with "Chinese style" has become the new direction of China's animation development and the prerequisite for the vigorous development of China's animation. However, as a traditional art form with stage characteristics and cultural heritage, shadow play is rarely used in modern animation creation, which is the gap of China's original animation. As an excellent traditional art form in China, shadow play is gradually forgotten in the current fast-paced life. Only by combining "new" and "old" can we ensure that the excellent traditional culture of

shadow play will not disappear. In animation creation, shadow play will no longer be limited to a single form of expression. It can use focus plane language such as montage, freeze-frame, close-up and so on to carefully shape the character and facial expression of shadow play characters, making the film more exciting. With the flight route of the protagonist Ying Bao as the trajectory and the different stages of the historical development of shadow play as the node, the audience can deeply understand the history, politics and culture of shadow play. As the spirit guarding the cultural treasure of shadow play, Yingbao has personally experienced the rise, development, prevalence and decline of shadow play, which leads to the rise, inheritance, transformation and integration of the story.

Of course, culture also needs to be inherited. Despite the economic prosperity and rapid development of science and technology in today's era, as a national art, we must discard its dross and take its essence from its culture. Based on traditional culture, establish a positive, upward and healthy world outlook. In modern shadow play animation, what viewers appreciate is the development of culture, the praise of life and the promotion of social development, which plays a certain positive role, thus producing more excellent works that people like to see. For example, the animated character image produced by the author absorbs the elements of traditional shadow play art into the costumes of the animation, and carries out appropriate exaggerated deformation, which will better represent the character's character and external characteristics. The integration of shadow play elements and animated characters is a general summary based on the artistic connotation of shadow play and shadow play elements, which can be applied to the production and design of animation. National things are the most intimate. When we see our national works win international praise in our country, we must take root in the fertile cultural soil of our country and explore our own development path based on local culture in order to revive our original animation. It is suggested that in animation design, we should grasp the characteristics of shadow play modeling, the national spirit connotation of shadow play and the body language of shadow play performance, and strive to create cartoons that not only meet the needs of the public, but also carry forward culture and tradition. Only in this way can we revitalize the animation industry in China, and at the same time bring the essence of shadow play back to people's lives and realize the dream of killing two birds with one stone.

#### 4. Conclusions

With the continuous development of digital technology, animation industry plays an increasingly important role in cultural development, and the role of an excellent animation film in the spread of national culture and spirit can not be ignored. Although the shadow play art is old, it exudes the breath of life; Although petite, it savors the vicissitudes of history. Its profound artistic culture has nurtured generations of Chinese sons and daughters. The ingenious combination of the elements of shadow play and modern animation to create animation with unique Chinese characteristics can not only inherit this traditional art, but also enrich the spiritual connotation that modern animation lacks, and create new ideological sources and materials for the innovation of animation. At the same time, it will also promote the development of Chinese animation and have new opportunities. This paper attempts to incorporate the unique artistic elements and characteristics of shadow play into the innovation of animation in China, which is of vital importance to the creation of animation with unique China characteristics. In addition, animation made by computer will play an extremely important practical role in the process of art communication.

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