

Study on the Effects of Art Style for the Cost Control of Animation Production- Taking the cartoon film production of China pavilion in “2015 Milan Expo” as an example

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Abstract. For the original animation enterprises, the cost control is the difficulty for the development of enterprise. The choice of art style profoundly influences the production costs and market operating strategies for animated films. China’s annual production of animation has now surpassed 260,000 minutes, but the rapid increase in production does not bring prosperity to China’s domestic animation film market. Chinese animation does not like the large anime powers such as America and Japan to form its own unique features, and the market competitiveness of animated art style and animated films with competitive advantages is low. In this paper, taking the cartoon film production of China Pavilion in “2015 Milan Expo” as an Example, through systematic teasing of the art style once appeared in China’s animation and taking the successful use of traditional painting in the animated film production of this World Expo, it explores the positive market competitive advantages of art style in the cost control of animation production, providing a new idea for the development of China’s animation industry.

Objective Factors Influenced the Art Style Formation of Animation

The art style formation of animation is the result of complex and changeable environment and creative demand balance, which is bound to be restricted and influenced by various subjective and objective factors, such as: the historical sediment, the aesthetic orientation of the era, the features and constraints of production process and the operating ways of market investment, play a decisive role in the choice of art style. Under the influence of many factors, the choice of art style may not be the most outstanding artistic accumulation of this era, but is often the most appropriate production way to coordinate various restraining factors. The animation industries in the developed countries are not exception.

For example: For the American Marvel Comics and DC Comics, they have their own well-known cartoon characters: Superman, Batman, Spiderman and other successful roles, their influences cover the whole world, representing the mainstream style of American animation. Although the two companies have different features, there are profound monitoring relationships between the practitioners indeed to influence each other. In the 1930s, the topic choosing of the two companies is wide, and in addition to the superhero, there is also a wide variety of realistic themes, but after World War II, due to the legal restrictions of the US publishing industry, it makes the superhero become the most secure and unrestricted topic directions, so a variety of people with super powers appear.

With the rapid expansion of the capacity of the market, it must improve the drawing speed of animation. How to produce the unified images for various painters, has become an important problem within the company needs to be urgently solved to enhance the competitiveness. Therefore, the cartoon characters start to have large-scaled and unified directions. The same choice of the two companies is: characters are mainly muscular men worn tights, and at the same time, they are distinguished by the decoration on clothing, hairstyles props and other details. The results produced are: only requiring the painters to master the knowledge of human anatomy. It takes the plain black as the dark part of the surface with strong color contrast, so it can be collaborative creation with large scales, while maintaining the unification of characters and strong visual impacts. Under the restraints

of topic selection direction, market demand, workflow and so on, the art style of American cartoon has formed distinctive features. (See Figure 1)



Figure. 1

For Japanese Shogakukan and Shueisha, in their early stages of development, they also have tried a variety of creative styles of animation, in which the most featured one is “big eyes”. About the origin of “big eyes”, there are different views. Compared and combined with the actual production, the explanation is Japanese animation is produced on a weekly basis, and every week, it needs the production team to produce 19 minutes’ animation. The emergence of big eyes, it can omit the micro-expressions for the specific characters and choose the high-point flashes as the core production of original painting, which saves a lot of labor. Therefore, the production national art style of animation, and in addition to the aesthetic tendencies of the creators themselves, so what is more important is the product of various reality production conditions and influential balance of cultural orientation

Influence of Traditional Chinese Styles of Animation towards Cost Control

Cost can be simply interpreted as the total cost required for producing a product. Since the founding of New China, the development of animation is growing vigorously. Chinese animation workers have tried a lot of artistic creations, which produce a number of animation works affecting the world. But these works have a unified problem, which can not conduct market-oriented production with large scales, and the commercial viability is very different from the American and Japanese animation. Inducing the art style, it can be divided into the following categories: first category: Ink animation, which created by the Animation Film Studio can be divided into two kinds. The first kind contains *Little Tadpole Looking for Mon* and *Reed Pipe*, and the image design and artistic design of the two animation films are Qi Baishi and Li Keran, who are recognized as Chinese painting masters at that time. However, due to the production of animation films require layered coloring, and its production process is very complex, so it needs more time and labor to produce a short film. It is because of such pursuit of art without thinking about the cost, Chinese ink animation has won wide praise in the world, but the detachment of artistic and commercial values also makes the ink animation face the unsustainable embarrassment. The representative works of the other kind in the Animation Film Studio is *Struggle between Snipe and Clam*, and in order to save costs, based on the paper-cutting animation, it brushes each piece of element, and then achieves the effect of ink smudges. However, due to it takes paper-cutting animation as the basic technology, which is lack of the exaggerated expression tension of the original painting, so it does not have the carrying capacity of producing a long animation. (See Figure 2)



Figure. 2

With the development ink animation, the Animation Film Studio has also produced a series of paper-cutting animation, including *Jigong Fight Cricket* and *Zhu Bajie Eats Watermelon*, which are very popular. The animation market tends to be mature, which makes the audience also accumulates a large number of film and TV viewing experience, adapts to the cut of fast-paced shot, so the low-paced paper-cutting animation has been unable to adapt to the needs of visual language for today's audiences.

Fire Boy and *China Doll* are the excellent animation art short film produced by the Animation Film Studio. The art style of the former in from the bandhnu of Hani nationality, and the latter one is the stop-motion animation taken the chinaware briquette as the characters, and both of them have strong national art style. But due to the art style is too localized, causing it can not be promoted in a large scale, and the choices of creation subjects have obvious limitations.

In 1980s, influenced by Chinese literati painting, the Animation Film Studio has also launched a series of animation works taking the Chinese new literati painting as the reference of art style, including the world-class animation short films such as *Three Monks* and *Beauty Selection*, and also the animation series such as *Ha-ha Flowers in the Mirror*. But for such kind of animation production, it needs the main creators have a high aesthetic cultivation and creative ability, otherwise it is difficult to adapt to the large-scale process of production needs in today's animation companies.

The above listed art styles of animation have created outstanding animation works with high influences, which can make today's animation produces to create the excellent artist short films based on the previous explorations. However, there are process productions difficult to apply to the standardization, or at the same time to ensure the quantity, the quality is difficult to guarantee. The unification of production quantity and quality of production restricts the development of the animation industry, which can not form a healthy animation industry chain. Forming the mainstream direction of the development of animated art style with Chinese features is the key choice to promote China's animation industry with world competition.

Exploration on the Development of China's Animated Art Style

Chinese animation predecessors have done all sorts of attempts on the art style, which lay a solid foundation for future creation. The creations for the elder animation art works all are full of Chinese art features, which are presented in their works, or ink, or paper-cutting, or porcelain, or new literati painting. As a latecomer, in addition to the existing forms, we have to think about what kind of art forms can be applied into animation in the folk, and what kind of art expression forms can be used in the animated film and television works. Summed up the essence of Chinese traditional beauty, how to integrate the essence of Chinese traditional painting connotation into animation creation based on the animation production process to form a unique animation art, and to promote the development local animation industry, is a problem the animation produces should think deeply.

The formation of Chinese traditional painting features is largely determined by the use of painting tools. In the meaning of Chinese, the pen and ink contain the meaning of painting tools, which are also the general terms of Chinese painting techniques. The randomness of painting scene has also become one of the artistic painting features. However, such artistic effects generated randomly can not be copied and do not comply with the basic rules of animation production process, and especially

for the use of traditional 2D animation production, it is time-consuming, labor-intensive and has huge costs.

The layout of Chinese traditional painting is related to the size of paper, which has been established in the past creations and has established its own system, or taking feet as the unit, or taking cutting method as the unit, or streamer hand scroll, or vertical shaft painting. The composition and layout of painting content is determined by the size of Chinese art paper, supplementing by the handprint of preface and postscript. Such art form is self-contained, well-developed, and is difficult to match the ration of the screen and television.

The cavalier perspective, plane modeling and color of Chinese traditional painting are from the way for ancient Chinese people to observe the world, which are not applied to the internal formed rules of visual language. The cavalier perspective can not bear the weight of scene's diverse and change, and plane modeling does not apply to the space reproduction of film and television works, and the color with water and ink does not apply to the aesthetic needs of today's market.

Exploration of Milan Project on the Art Style of Chinese Animation

Although there are many constraints of practical problems, it still has development space for integrating the Chinese painting and animation, which are two kinds of mature art forms. Since the twentieth century, Chinese traditional painting has injected three times of new blood after the exchange of Chinese and Western cultures, which are: Xu Beihong integrates the western realistic techniques with the traditional ink system of literati painting; Lin Fengmian integrates the techniques of fauvism with the expression ways of Chinese folk art; Wu Guanzhong strives to create a new tradition of ink painting on the basis of learning from the Western modernism about formal beauty research.

Commissioned by the China Film Group, the team of Professor Sun Zhe in Animation Department in Chengdu University has undertaken the production task of China Pavilion's main film for 2015 Milan Expo (Due to the confidentiality agreements, this article hides the content and name of the project), and the film uses the production method of combining real shot with animation.

In the film production, the head of Animation Department, Professor Shu Zhe boldly uses Chinese traditional painting into the film creation, forming a distinctive artistic style, which creates a new direction for Chinese animation film creation, and shows the suspended appearance of China Pavilion in the World Expo.

The method adopted by the project team is to planarize the rich gradations in the shot, to take the shooting scale as layered basis, and to compress the gradation of 3D space into a number of representative flat gradations. On this basis, it extracts the generalization of basic type, pursues the meaningful form between point, line and surface, as well as between square, corner and circle. It has simplified the traditional ink method of line modeling, and is replaced by using the contrast between different brightness colors to strengthen the rhythm of frames.

On the basis of using computer to draw, it omits the hiding and showing, dry and wet in the traditional pen and ink, emphasizes the density layout of geometry and lines, emphasizes the importance of formal beauty and self-expression in artistic creation, and integrates the "imagery", "freehand brushwork" and "artistic conception" on the aesthetics of Chinese art into the animation creation. The transplant of nationalized animation style in the shot contains the color and form rule of Western painting, and injects the aesthetic taste of Chinese people through the extraction of imagery.

There are four characteristics: firstly, it ensures manifestation of Chinese art style in the greatest degree under many realistic constraints; secondly, it avoids the paste of simple "Chinese symbols", which embodies the essence of Chinese painting from the art form itself; thirdly, it provides an operational platform for presenting the story connotation with visual languages; fourthly, it is in line with the requirements of animation's business model on the basis of rapid production.

The Promotion and Application Future for the Artistic Form in “Milan Project” on the Commercial Animation

Whether the transition of one animation art form can represent the form of Chinese animation art needs to be examined and finally concluded in the commercial market. As a complete project process of commercial animation, it needs to experience the stages such as “project planning”, “project positioning”, “project production”, “product launching”, “market operation”, and “market feedback”, etc.

Due to the “Milan Project” is on the basis of animation production, considering the integration of Chinese painting, so the project team does not inherit the past simplicity of taking Chinese painting form as the premise, and configuring the common ideas of expressing by the animation methods, but in the early stage of the film, in an open and tolerant attitude, it sets up the character design, scene design and action design to meet the requirement of animation creation, effectively avoiding the side effects of relative performance limitations generated from the excessive brightness of forms.

In the production process of project, due to the character design, scene design and divided shot adopt the basic expression form of layered frames, which is in line with the production process of commercial animation, and is convenient to detailing, splitting and teamwork. And to centralize the core artist manifestation force in the early stage, it has the work space of large-scale and standardized production for the middle and later periods of animation production,

In the process of industrialization for Chinese original “animation”, we must find the production in line with China’s animation production process and unique styles. The animation film design of China Pavilion in Milan World Expo provides a useful exploration for Chinese animation.

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