

Analysis of the Development of Domestic 3D Animation - Take *Nezha: Birth of the Demon Child as* an Example

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Abstract. The Chinese film *Nezha: Birth of the Demon Child* was released in 2019 and has been a remarkable success, both commercially and artistically. In order to gain a deeper understanding of the future development of 3D animation films in China, the film is selected as an entry point to discuss the direction of the development of Chinese animation films. This paper summarizes the advantages and shortcomings in the presentation of the film: the spiritual core is full of drama, and it has made a complete adaptation and renovation for the well-known mythological story, as well as a great effort in 3D technology and visualization. However, commercial routines are more obvious, and the level of script writing method and the level of animation production need to be improved. Such an example is a great inspiration and reminder for the future development of animation in China, which still has a lot of potential in the path of continuous development and innovation.

Keywords: Nezha · Chinese 3D animation · script writing method

1 Introduction

The domestic animation Nezha: Birth of the Demon Child (Nezha) is undoubtedly the most anticipated by the audience. Its pre-sale box office has exceeded 100 million, and the current Douban score is 8.8 points, far exceeding the masterpieces of the Chinese comics Big Fish and Begonia and Monkey King: Hero Is Back in recent years. Although the score has dropped to 8.4 from the later stage to the present, and the word of mouth has fallen to the altar, it does not affect the discussion and love of this 3D animated movie in China [1]. Nezha is a successful product with serious production and rich commercial elements; but there is still a lot of room for improvement in terms of artistic level [2]. Therefore, a study on the future development of Nezha and Chinese 3D films will help clarify the strengths and weaknesses of China's 3D film industry and successfully

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transform and upgrade to be among the industry leaders in the face of the vast market demand and fierce competition from overseas films.

This paper takes *Nezha*, the number one animated film at the Chinese box office, and combines theoretical knowledge from the disciplines of aesthetics and film and television art.

By analyzing the key points of the film's artistic use layer by layer, this paper analyzes the classic examples of outstanding foreign 3D films through small cuts to see the big picture. The study of *Nezha* helps to enrich the theoretical system of animated film creation with Chinese characteristics and promotes the deepening and connotation of related theories in the content of future domestic films and domestic animated films, which has certain theoretical innovation significance.

Moreover, with the rapid development of contemporary computer technology and information and communication technology, 3D technology has also achieved great development results and has gradually penetrated into all fields of society. In addition, the practical use of 3D technology in digital media art animation design is applied to make the animation design work more smoothly. The study of the production and processing of the large number of 3D animations used in *Nezha* has some research value in classifying the strengths and weaknesses of China's 3D animation industry, facilitating other future research and bringing innovation to the conception and production of future Chinese 3D films [3].

2 Film Nezha Introduction

Nezha is a three-dimensional motion, which is a big breakthrough in Chinese films. To begin with, the storyline can be simplified into a sentence: although Nezha was carrying a magic pill, he fought against the god on the sky till the end, and he mastered his own destiny. The misplaced destiny becomes the starting point for the narrative of Nezha. The film replaces the original story of Nezha's life as a spirit pearl with a magic pill reincarnation, thus laying down the two "mountains" of Nezha's growth: the villagers' stereotypes and the heavenly curse. In this way, the two "mountains" of Nezha's growth are laid down. Even though Ao Bing is a reincarnation of the Dragon Pearl, he is rejected by the world because he is a dragon. But with the development of the spirit pearl and the magic pill two mutually exclusive, the spirit pearl reincarnation of Ao Bing needs to get "approval" by destroying Ne Zha, who is reincarnated by the Magic Pill, so he is willing to "ice the Chen Tang Pass".

Nezha's story is based on the "Legend of the Gods" and culminates in his choice to return his flesh to his parents by picking their bones. Nezha's use of bones for flesh was a way to clear the line with his parents in order to better fulfill his filial duty. This practice was not only limited to filial piety in the society of the time [3].

This is a seemingly natural confrontation between good and evil, with the spirit pearl representing justice and the demon pill representing evil, but because of the different opportunities in life, Nezha becomes the one who protects everyone, while Aobing, the spirit pearl, loses himself in the journey of life. Ao Bing is aroused by Nezha's friendship and the yin and yang merge again to face the calamity together.

3 The Advantages of this Film

3.1 Huge Success at the Domestic Box Office

The production level and standard of Nezha is awesome. The breathtaking box office success is enough to prove it (See Table 1).

There are two simple reasons why Chinese audiences pay for this movie: to support domestic movies; to encourage the development of domestic 3D animation movies. But it is not difficult to find that there is still a big gap between China's 3D animation and the international one. Domestic audiences always have double standards when watching Chinese and foreign films: when watching and appreciating Chinese films, they always lower their expectations to a very low standard. As long as the film exceeds the expected value, it can be called an excellent movie.

3.2 Dramatic and Innovative Spiritual Core

The story of Nezha is already a household fairy tale in China, so what the creator of the film did is by no means a simple re-enactment and renovation. They reinvigorated this ancient myth and made the audience realize that on a deeper spiritual level, people have always shared some simple truths with their ancestors. Profound artistic creation can often restore the complexity of the real world to the greatest extent. Audiences are no longer the children who were content to appreciate the face-to-face struggles of good and bad. Therefore, only by transcending righteousness and evil and exploring in a higher dimension why righteousness and evil are born, and why they oppose each other, can a story become fuller and moving. Excitingly, Nezha did it.

Different from the original mythology, 'Destiny' is the new theme of the film. Nezha has also changed from a righteous character to a small monster who has been feared and disliked by everyone since birth. Just think, if a child is born and is reviled and imprisoned because of his origin, what does this mean to him? Even though he behaves friendly, people around him still speculate on him with the greatest malice and keep away from him; it is other children who can throw dirt and rotten eggs at him wantonly, not believing that he will do anything well. This is Ne Zha's dark childhood: he decides

Worldwide box office 726 million (USD)	
Chinese mainland	719 million
North America	3.695 million
Australia	1.566 million
Vietnam	909 thousand
New Zealand	280 thousand
UK	55 thousand
The cumulative box office (online and offline) 5.035 billion (USD)	

 Table 1. Worldwide box office of Nezha: Birth of the Demon Child [4]

to give up on himself after discovering that everyone has abandoned him. "I am a little monster, free and at ease, killing people without blinking an eye, eating people without salt." Nezha, who has been scorned by the world, retaliates against those who have bad intentions with double depravity. At this time, he had already decided that he was born to be a devil. The audience then sympathizes with what happened to him and begins to expect how he will fight against fate.

The creators further explained the main theme of the film by recreating Ao Bing, the prince of the dragon who oppresses the people, killed by Nezha in the mythical story. People are determined by nature and the growth environment, and the latter often plays a more important role. In the new version, Ao Bing is a simple and kind good boy with his own aura as soon as he appears on the stage. He is kind-hearted, works hard, and is well-behaved and sensible. He was lucky enough to get the other half of the powerful Primordial Bead: the Spirit Bead, which symbolizes kindness. But unfortunately, he didn't have a good father like Nezha. From beginning to end, he was used as a tool for the revival of the dragon race. He had to take on the honor and future of the entire family, while his father never thought whether this was a burden he could bear. He was born to fulfill his father's request and fulfill his Shifu's entrustment, but his sanity reminded him that everything was wrong from the beginning. This was a hurdle that he couldn't overcome when he made the crazy decision of freezing Chentang town and killing everyone.

The movie has a very clever design. Before Ao Bing set off, his father and all the elders of the dragon clan tore off the hardest dragon scales on their body and made him an invulnerable dragon armor. When Nezha was punished by Tianlei (a punishment from the gods), Ao Bing stepped forward and sacrificed Wanlongjia (the invulnerable dragon armor) to protect him. So, this piece of equipment that was supposed to be used to complete the dragon mission was finally used by Ao Bing to protect the kindness in his heart. Therefore, despite nearly killing all Chentangguan people, Ao Bing still won the favor of the audience. His comparison with Nezha's nature shows that even the best may go astray; and even the evilest may be influenced by love. At the same time, his awakening at the last moment also reflects that the kindness of human nature has never been extinguished, but will only be tested. People's own judgments and decisions, and following their own hearts rather than the arrangements of their parents, are the first stops for people to embark on their own journey in life.

The theme of this film is also similar to the film Turning Red produced by Pixar, which reflects the common characteristics of Chinese-style families. Growth is to make life choices independently, and to be a hero is to bravely take on responsibilities that do not belong to people. The plot smoothly completes the two-layer explanation of the themes of "growth" and "hero" and progresses. It is no exaggeration to say that the audience can see the power of Chinese animation from Nezha.

3.3 3D Special Effects

In most people's perception, it is very difficult to produce excellent 3D special effects, and the requirements for human and material resources are significant. The demand for manpower is not only on the number of personnel but also on the technology. The age of the technicians and their project experience are important factors; while the physical requirements are reflected in the computers, as a large number of special effects, models and renders require a very high computer configuration to support them. For the audience, the most direct way to test the excitement of an animated movie on the big screen is the lens design and completion. Only by creating a different impact visually for the audience can attract more people's attention and further realize its commercial value [5].

As the first 3D IMAX animated film in China, the special effects shots of Nezha were greatly improved in terms of level and magnitude. With the help of more than 60 production teams across the country, the film's post-production process took three years and involved more than 5,000 preliminary design shots and more than 1,400 special effects shots, of which about 80% were exciting action shots, resulting in an exquisite and stunning 3D animation effect [6]. In the final fight between the Nezha, Taiyi, Shen Gongbao and Aobing, for example, the long shot of the fight for the brush lasts about 40 s and is almost shot in a "one take" style. The camera follows the trajectory of the brush and the characters' fights to connect the multi-dimensional time and space in the film in a smooth and natural way [6]. The camera's propulsion, scene depth, and the characters' movements are perfectly matched to make the audience feel the aesthetic experience of the illusionary world directly in the tension of the frame.

3.4 Color Design

Color design and performance largely influence the quality of the film and animation, as well as subconsciously affect the emotions of the audience [7]. The main colors of Nezha are white, gravish blue and gravish green, which represent the immortal world, the deep sea and the human world respectively [7]. Other parts of the film are colored according to the needs of the plot, including the color symbols of the Chinese green landscape. Although the film does not use too much color in the scenery frame, the light saturation of the color system shows the magnificent view, which makes people feel relaxed and comfortable. At the same time, the film also reflects the transformation of time and space through color, showing positive feelings with relaxed and natural scenes, and conveying negative emotions with horrible and dull colors [7]. The color of the whole movie brings visual beauty and infectious power to the audience with an invisible language, which creates a unique and creative color style. In terms of characterization, the film uses conflicting reds and blues. The red of the fire symbolizes passion, and the blue of the ocean gives people a cold and mystery. The clash of ice and fire creates a visual impact, but at the same time, the fusion of the two creates an emotional complement, which implies the concept of convergence. In short, animated visuals are an art required by the plot. Nezha builds a color language system that is both strongly confrontational and diversely integrated. Although Chinese animation production started a little later than other countries in Europe and the United States, it has still shown a relatively fast pace of development in the world and has made remarkable achievements in a short period of time [8].

4 The Shortcomings of the Film

4.1 Scripts and Characters

The script writing method is close to the traditional commercial film routine. Many Chinese people think that the play is very good. This "good" impression comes from the rhythm or emotion of the play itself. But the script writing method is close to the traditional commercial film routine, which is actually quite old-fashioned. The jokes are also a little ordinary and low-level, which cannot be accepted by the public or even the international audience.

The commercial elements in the film are very dense. It is just like the Hong Kong 'Nine Books' play method. The method of 'Nine Books' is that within each 10 min play, it is necessary to calculate whether there are some comedy, spectacle, sensational or sensual things in these 10 min. This structure was very common in Hong Kong commercial movies but was later abandoned. 'Nine Books' writing method focuses too much on the accumulation of commercial elements, and often ignores the characters, and this separates the commercial elements from the drama itself. The appropriate addition of functional characters can play a role in driving the development of the plot, but the main characters, Taiyi Zhenren is only responsible for creating the 'comedy' position throughout the whole process. The playwright did not put enough ink on his relationship with the characteristics. In order to pile up comedic elements, Shen Gongbao, the villain image, was added with the setting of 'stuttering'. Such character building is undoubtedly incomplete and lacks authenticity, and it is difficult to impress the audience.

The film has too much emphasis on commercial elements and ignores the shaping of characters It also lacks character motives and completeness. Li Jing inexplicably uncovered Ao Bing's veil in the final scene, which led to a deterioration of the situation. Ao Bing's attitude swayed from side to side, and his motives were very erratic. In this scene, the behavioral logic of these characters is handed over to the creation of commercial fights and spectacle scenes. The most important reason is that when these animated characters are given a distinct personality, the animation characters on the screen show the greatest degree of realism [9]. Matching the dynamic and cool audiovisual style is the film's narrative regrets. Director Zhao Ji said that 'Nezha Reborn' is the most difficult project he has ever done in chasing the light. The lack of good animation writers is one of the biggest difficulties faced by the production team [10]. As far as the current domestic animation film industry is concerned, the text narrative that can make the audience have emotional resonance is the basis of all image presentation, and the delicate character portrayal is the cornerstone of successful narrative text.

4.2 Theme

In terms of the main theme, the object of Nezha's resistance is 'destiny'. But the 'destiny' in this play is illusory, with neither characters nor traces, of a natural disaster like fatalism. In fact, this kind of the theme of resisting fate had been seen in martial arts novels, it is

not new at all. However, in those martial arts novels, the objects of resistance of the socalled 'heretical' protagonists are also very concrete: whether it is Secular prejudice or the hypocrisy and threats of decent people. 'Destiny' of Nezha's resistance is completely nihilistic. Whether it is due to the limitation of the censorship context or the preference of the producer. It often happens in Chinese movies that people don't know whom to resist. People don't know why the situation was resisting, but in the end, it was a sentence of God's will to explain everything, and then use it to sensationalize it. It is difficult for some modern people to resonate. Good storytelling is the foundation and the source of confidence in intercultural communication for a real cultural export [11].

4.3 Technical Level of Production

Although the technical level, including production level and picture, reflects a small step forward in domestic 3D animation, there is still a big gap with the international one. From the perspective of a single frame, the hair, the texture of the clothes, the detail of the background, and the perfect lighting in the Pixar 3D animated film are all crushing Nezha. If people compare the moving state of the characters, they will find that Nezha is much inferior.

Among the many movie reviews from the audience, the most frequently heard voices are: this is an entertaining movie, it is enough to be happy to watch it; the domestic animation is so excellent that there is no need to pick eggs in the bones, etc....

No one can deny that this movie is well made, but to be honest, apart from the animation production, there is no obvious improvement compared to The Return of the Monkey King (2015). It is precise because Nezha represents the highest level of contemporary Chinese animation films. Therefore, it is even more necessary to examine it with a dialectical and objective attitude. Chinese animation still has a long way to go.

5 Conclusion

In general, with the rapid development of contemporary computer technology and ICT, the production level of domestic 3D animation films is constantly improving, with great breakthroughs in terms of quality and quantity. As an animation for a wide range of audiences, Nezha breaks the label of under-aged and quick-fix Chinese animation with its accessible and warm-hearted style, while at the same time combining traditional culture and modern elements to convey positive values to the audience. The success of the box office results shows the great support of the Chinese public, both psychologically and practically. It also proves that even as adults enter society, a large proportion of the population remains welcoming and interested in the animation genre. However, this is only a tiny step in the development of Chinese animated 3D films, and there is still a lot of space for progress compared to international standards. In these days of development opportunities, the only way forward for Chinese films is to keep investing in and polishing the highest quality works. From the success of Nezha, the combination of the contemporary context and the spirituality of the traditional culture is the hallmark of Chinese 3D animation films, and it is also a concept that the industry must uphold in the future. The artistic and technical aspects of the film need to be strengthened by

a growing team of excellent Chinese animators to break through the bottlenecks and achieve transformation. Only when the film resonates with the audience psychologically and emotionally, as well as gains their appreciation in terms of technology and graphics, can it be considered a truly outstanding film. After rethinking and learning from the works of its predecessors, China's 3D film industry will surely have its day to shine in the international market.

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