# **Analyzing "The Terminator" Film Series Base on the Development of American Hollywood Science Fiction Films**

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Abstract: In the 1980s, Hollywood science fiction films had a better viewing experience due to the advancement of special effect technology. George Lucas released "STAR WAR II" and "STAR WAR III", at the same time, James Cameron's "The Terminator" series became classic while science fiction films glowed with vigorous development trend. In the development and innovation of science fiction films, James Cameron is the director who could not be ignored. His films not only bring innovation in special effects, but also have profound ideological and cultural connotations. The combination of film art and scientific technology also has a new development in Hollywood. Technological progress constantly innovates to expand the artistic expression of films. This paper is intended to show the changes between science fiction films in 1980s and the 21st century by comparing "THE TERMINATOR" film series, extracting the characteristics and patterns of Hollywood science fiction film creation to get inspiration for the development of Chinese science fiction films.

**Keywords:** Terminator; science fiction film; technological innovation; ideological and cultural connotation

#### 1. Introduction

As we all know, James Cameron only got involved in three "THE TERMINATOR" films production, respectively, "TERMINATOR I", "TERMINATOR II: JUDGEMENT DAY", "TERMINATOR VI: DARK DESTINY". The first two "TERMINATOR" films reached a fairly high status in film history. Due to copyright issues, James Cameron refused the offer of a sequel. Then the series of films began to decline from the third film due to the weak and clichéd plot word. Fortunately, in 2019, James Cameron got back the rights to "THE TERMINATOR", and he personally involved in writing and producing "TERMINATOR VI: DARK DESTINY", pulling "THE TERMINATOR" back on track. Therefore, this paper takes these three Terminator series from different periods as examples to analyze the progress and innovation of special effects in Hollywood science fiction films, reflecting the character traits and deep ideological connotations in science fiction films of different periods through the picture language and story content.

# 2. Research background

With the rapid growth in new group of teenagers after the war, the old clichéd stories could not satisfy the audience any more. In order to meet the market demand, a number of early science fiction films with strong personal style emerged in the late 60s and early 70s. The first group of young people who graduated from film schools in this period started to make films, innovating techniques and reforming them, which in a way led to the rise of the film industry and thus had a profound impact on the development of the genre.

Among them was George Lucas, who later made the Star Wars series. STAR WAR was the beginning of a visual effects renaissance that woke up this sleeping giant. But for a long time after the release of the first STAR WAR film, interstellar science fiction films were unable to reach the same height, not because they're not attractive to audiences, but the grand interstellar scenes and a large number of alien civilizations could not be interpreted to the best with simple special effects and studio props. <sup>[1]</sup>Since the cost of computer special effects production determines the film budget, science fiction films in the 1980s was in an embarrassing situation of market, the objective conditions kept limiting the development of science fiction films since the lack of technology. A large number of

filmmakers tried to make bold innovations in the seemingly difficult years, and Cameron's "TERMINATOR I" stood out in this wave, giving science fiction films both novel and shocking visual effects.

Industrial Light and Magic has also made a huge contribution to the visual effects of today's movies step by step.

# 2.1. Industrial Light & Magic redesigned the Dooman optical press

Multiple optical soft films can be recorded for repeated photography and composited onto a single film.<sup>[2]</sup>

# 2.2. John Dykstra designed the revolutionary DUK straflex

The DUKstraflex makes it possible to mix a large number of elements into one dynamic shot, freeing the camera from the constraints of 100 years of static shooting.

# 2.3. Ed Catmul Applied Advanced Computer Technology

The technology creates curved, smooth surfaces and adds texture to the exterior which is a new leap forward in computer image processing, also known as CG technology. Today's powerful computer imaging technologies have their roots in early CG technology. In 1982 Paramount used this technology to create "STAR TREK: THE WRATH OF KHAN". While developing the hard software, they spent five months improving the material mapping motion blur, digital painting of scenes and editing procedures to achieve the first computer-composed visual effects shots in a movie. This was followed by the birth of the first computer-generated character in film history, the stained glass man in "YOUNG SHERLOCK HOLMES".

# 2.4. CG Technology

In the late 1980s, computers threatened the status of analog imitation video machines, and the Lucas film computer group developed amazing tools-the first digital editing system, the first digital audio editing system, the first film laser scanner and powerful graphics processing computers-that enabled digital compositing and processing of high-resolution images. Pixar and its processing software, called Renderer, enabled groundbreaking computer-animated shorts to be made. Visual effects soon took hold in dramatic and comedic films and other forms of film and television, and everyone began to try their hand at scripting films that had previously been impossible. After James Cameron felt that he had developed the CG animation techniques he wanted, he created a character in "THE TERMINATOR" that had to be done with computer graphics. This was a breakthrough for both CG and film, and Industrial Light & Magic used an innovative laser scanning program to capture the actor's posture and expressions to simulate and shape that actor's realistic computer form.

# 3. Technological innovation of Terminator

# 3.1. CG Technology Innovation

There is a scene at the end of the film is the T-800 getting out of the fire, approaching the protagonist, this shot needs to show the entire robot skeleton of the full picture, at that time, the digital CG technology is unable to create a free walking robot form through computer synthesis. Cameron combined the local close-up shots and the overall robot walking shot interspersed with the editing techniques to shape the character, to achieve the shock of audio-visual fluency Real picture sense, [3] although it was still slightly crude comparing with today's special effects, but the effect brought in the 80s is epoch-making. Then the robot's overall framing walking picture was completed by using the mature stop-motion animation.

# 3.2. Innovations in model construction

"TERMINATOR I" in the T-800 in front of the mirror makeup scene shooting is done through the model production, Cameron found Stan Winston as the designer. Models in "THE TERMINATOR" used traditional model making, where a humanoid prop is cast from clay models, plaster, fiber and steel

frame skeleton together, done by a number of art crews took several months to complete. Then the special effects makeup created a model of Arnold's face that could not be replicated, creating an unparalleled robot image. In addition, Stan also made a realistic fake hand for the film, making the scene of operating on the terminator's own eyes full of tension and realism.

# 3.3. Technological breakthroughs in the digital field

After the success of "TERMINATOR I", Cameron did not immediately made a sequel, but returned only after seven years with "TERMINATOR II: JUDGMENT DAY", because the film appeared in a new villain robot T-1000, he is a liquid metal form, and this setting is unheard of at the time. Shooting the liquid Terminator in the 1980s is also a big problem based on the technical background. So Cameron waited until the early 1990s to systematize the computer digital technology before the sequel was brought to the big screen. The later "JURASSIC PARK" was the first time in the history of cinema that characters were digitally created, breathing, with real skin, muscles and movement. [4] The visual effects were close at hand, and the huge characters brought science fiction into close up. At the same time, "Forrest Gump" is the opposite and low-key way to produce imperceptible technology. For example, Renderman (a computer graphics rendering system) was used to create the ping pong ball shot in the film, which created a new beginning for film production.

# 3.4. CG technology to reunite the classics

CG technology in the 21st century continues to mature, virtual scene production is becoming more and more common, film shooting can completely break through the time and space constraints. The traditional film can not be achieved in the shot screen, CG technology can almost all easily handle. After 28 years, produced by James Cameron, strength director Tim Miller, Arnold Schwarzenegger, Linda Hamilton starred in the "TERMINATOR VI: DARK DESTINY" return. The whole film includes many action elements, such as bulldozers racing on the highway, the Terminator's magnificent diversion, the full-bodied water battles, air battles, allowing the audience to experience a passionate visual feast. Behind the well-produced scenes, most of these scenes are derived from CG technology. Today's CG technology no longer needs to be matched by editing techniques, this technology can not only create virtual characters, production rendering virtual scenes, but also make the live actors and virtual reality world perfectly integrated together. The film "TERMINATOR VI: DARK DESTINY" has completely changed the traditional film production process, no longer using the traditional live-action shooting, but the virtual characters and virtual scenes rendered composite as a filming method.

#### 4. The cultural connotations of the Terminator film series

The rise of a patriarchal view of society in the 1980s, domestic violence in the United States and the low status of women in Western society as a whole, the influence of this social background also prompted Cameron to express the perceived new feminist spirit of the times through his films. So he incorporated his feminist ideas into his films, using the unique artistic means of film to promote the spread and development of feminist ideas.<sup>[5]</sup> In addition, Cameron's wife and his mother also influenced him. It's often to be found the female perspective as the entry point of the story in his film. He once said, "I've always liked women who are physically strong and live a healthy life, very independent like my mother, and perhaps the closest to my ideal model around, is that type." Thus the feminist stance of affirming women's abilities has been reflected in the Terminator series and continues to be a part of subsequent creations.

At that time, the social status of men and women was not equal, and the concept of patriarchy was deep-rooted. In many countries, women are still seen as subordinates of the male society, so women's rights and status are generally not recognized by society and are in a state of absence. In the "THE TERMINATOR" film series, the main female characters are hotel waiters, housewives, or lower class social workers, while the male characters are police officers, engineers, executives, etc.<sup>[6]</sup> This is actually an artistic processing of real life through the film's drawing surface, reflecting and not according to individual ability or work level to distinguish the division, the moral of such a set role is: the whole social environment of the patriarchal society and gender discrimination is still the reality in the problem. "TERMINATOR I" female protagonist Sarah Connor is a restaurant waitress, the character image is weak, the whole film needs to rely on the protection of the main male Kyle to escape from the chase. There's only one female role in "TERMINATOR II". Although Connor already has

some combat skills, but still needs to protect his son John with the help of the T-800. It can be seen that Cameron wanted to reflect the social status of women in real life and the general lack of feminism in social attitudes through the distribution of roles in the film and the proportion of male and female characters.

In recent years, there is no shortage of movies with the image of "big female lead" in the movie market, such as "OCEAN'S 8" and "ANNIHILATION", but some of the so-called big female lead dramas are just to please women, but the essence is still relying on the power of men to help themselves to success. After 28 years, "TERMINATOR VI: DARK DESTINY" also caters to the background of the times. There was a big change in the distribution of roles and the proportion of men and women. In "TERMINATOR VI", the future leader of the human race is no longer Connor's son, but Dany. The future protector is no longer a male hero like Schwarzenegger, but an "enhanced human" Grace between human and machine. The appearance of the female leader Dany and "enhanced human" Grace, means the awakening of women.

# 5. Narrative paradigm of science fiction films

Based on the audience-centered principle, American science fiction films have produced a programmed and repeatable narrative paradigm, i.e., using cause and effect as the narrative logic, setting up a compact and coherent plot, and paying attention to interspersed, soothing and romantic plots and scenes in a tense narrative. [7] Most Hollywood science fiction films follow 15 creative beats to narrate, organizing the 120-minute film in 15 rhythmic points to form a story with ups and downs in the plot, providing the audience with the maximum viewing experience. It can be said that the success of American science fiction films is inseparable from their choice of a universal narrative paradigm, in addition to the support of the entire Hollywood film empire in terms of material technology and promotion. James Cameron's "THE TERMINATOR" is an example of this kind of programmed narrative.

In "TERMINATOR I", the T-800's initial pursuit of Sarah ends in failure due to Kyle's intervention. Kyle covers Sarah to safety, while the T-800 presses on, killing at the police station and repairing its own body after it is damaged. This provides the audience with a breath point, as Sarah and Kyle open their hearts to each other at the hotel and state their love. This period of affectionate literature scene also becomes a psychological buffer for the audience, for later both sides to meet and start a fiery head-to-head matchup to prepare. "TERMINATOR VI: DARK DESTINY" is also the same, REV-9 at the beginning of the heroine Dany relentless pursuit, with the help of "enhanced human" Grace and the extraordinary Sarah to escape, then, the pace in finding Sarah has been secretly helping the T-800 slowed down, the T-800 to Sarah and his party told him these T-800 told Sarah and his party about his mental and emotional changes over the years, he was learning human emotions in the process of repentance for what he had done in the past, 20 years has been secretly helping Sarah to hunt other Terminators, this scene is also a pavement for the intense battle later.

# 6. The inspiration of Hollywood science fiction films to the development of Chinese science fiction films

Compared with the century-long history of Western cinema, Chinese cinema started late and cannot be competent to Hollywood films, which has a profound film culture, in terms of filming hardware and filming techniques. But through the inheritance and development of seven generations of film directors from the 1940s to the present, Chinese cinema has shown promising growth. [8] While Hollywood films are sweeping the world today, how to survive in the cracks and find a suitable development path to create a Chinese film style is still a pressing problem for Chinese films.

Through the development of the science fiction film series "THE TERMINATOR", we can find the following insights:

# 6.1. Discovering your own unique ideological themes

It is because Cameron has learned and developed his own system in the mature film production system that he has created a different style and connotation in the Hollywood drama model. His films have a strong personal label and he believes in his own ideas and abilities, which is why we can see the reflection on nature and life in the intergalactic science fiction film "AVATAR", and the concern for

black people, women, and marginalized people in the crossover science fiction film "THE TERMINATOR". [9] In the same way, we can see the concern for marginalized people such as black people, women, and mentally sick people in the science fiction film "THE TERMINATOR". Therefore, in the process of creating Chinese films, we should discover more valuable ideas and Chinese directors should not follow the trend, but should be brave enough to discover something unique and different to enhance the depth of the film.

#### 6.2. Be innovative

The success of "The Terminator" is not only due to director Cameron's continuous innovation in technology, but also the bold and rich imagination in characterization, as well as the constant changes in character traits. Through the continuous creation of new ideas to science fiction films to inject a diverse soul. The film will soon be forgotten if there is no innovation behind the scene but follow the trend.

# 7. Conclusion

Due to the difference in cultural traditions between China and the United States, the two countries have very different cultural and artistic qualities. The art form in the United States after the territorial expansion and industrial revolution is more like a dye-pot, with all kinds of art forms mixed with each other, while the art in China is more inclined to the inheritance and development of thousands of years of excellent traditional culture, so this determines the relative weakness of Chinese filmmakers in terms of thinking mode and technology. However, from the point of view of China's science fiction films in recent years, such as "THE TETURN OF THE GREAT SAGE", "NEZHA'S MAGIC BOY" and "WANDERING EARTH", their special effects technology is also noteworthy, therefore, truly excellent science fiction films do not entirely rely on technology. Chinese legends, myths, and metaphysical stories are also sought after by the world. The same story elements need to be constantly pushed, measured and thought through by the director to make it a story with advantages, which is the key to the maturity of Chinese science fiction movies.

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