

Analysis of the Fusion of Postmodern Technology and Oil Painting Art in the Film "Loving Vincent"

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Abstract. This paper explores the unique fusion of postmodern technology and oil painting art in the film "Loving Vincent" and analyzes how this fusion impacts the aesthetics of the film. Firstly, the article introduces the application of oil painting art in cinema, as well as the utilization of rotoscoping techniques by the film's production team to faithfully recreate Vincent van Gogh's distinctive painting style within the movie, and how it captivates the audience, leaving a profound impression. Secondly, the paper delves into how postmodern technology enhances the visual effects of the film, allowing filmmakers to imbue the screen with the texture and texture of an oil painting, and how the elements and techniques of oil painting are seamlessly integrated into the film to offer a unique cinematic experience for the audience. Subsequently, the article analyzes the influence of this fusion on film aesthetics, including the embellishment of visual effects in film, the innovative interpretation of cinematic ambiance, and the expansion of narrative aesthetics in cinema. Finally, the paper concludes that the fusion of postmodern technology and oil painting art has introduced fresh creativity and aesthetic value to the realm of cinema, affording filmmakers greater artistic freedom while expanding the visual and aesthetic experiences of filmgoers, thus opening up new possibilities for the future of film production.

Keywords: Film "Loving Vincent"; Postmodern Technology; Oil Painting Art; Innovative Fusion.

1. Introduction

The fusion of postmodern technology and oil painting art in cinema has introduced a plethora of innovative and expressive techniques. Diverse Animation Styles: Utilizing postmodern technology, filmmakers can replicate various oil painting styles, including Impressionism, Cubism, and Abstract Expressionism. Abstract Expressionist painting lacks a unified manifesto and style, with each artist's work being distinct. Nevertheless, they share common principles and fundamental creative rules, such as "automatism" and "biomorphic abstraction." Their art is characterized by spontaneity, dynamism, non-representation, anti-formalism, and creative freedom, enabling films to express emotions and themes through various artistic forms.

2. Application of Postmodern Technology in Cinema

2.1. The Diversity of Postmodern Technology in Film

"Postmodern technology" is typically regarded as a range of advanced or innovative technologies used in the context of postmodernist art, culture, or society. Postmodernism is a cultural and intellectual movement that emerged in the latter half of the 20th century, emphasizing cultural diversity, anti-traditionalism, de-normalization, and anti-rationalism. Consequently, in the backdrop of postmodernism, technological applications often exhibit uniqueness and diversity. Artistic creation heavily relies on a diverse pool of creative resources, with digital media technology providing artists with the necessary resources. Scientific and technical advancements, in turn, extend and enhance artists' cognitive and interpretive capabilities, enriching the forms of artistic expression and broadening the space for creative work.

Postmodern technology encompasses various digital technologies, computer technology, virtual reality, augmented reality, digital art, network technology, digital media, and more. These



technologies are frequently employed to stimulate innovation in art, culture, and media, reflecting key postmodernist characteristics, such as anti-normalization, diversity, dispersion, and the transcendence of traditional boundaries. The application of postmodern technology empowers artists, creators, and cultural producers to rethink and express their viewpoints in novel ways, offering audiences and users a richer and more diverse cultural and media experience. Presently, the rapid evolution of digital media technology has brought forth a variety of new media forms, including 3D stereoscopic imagery, virtual reality, holographic projection, and other innovative mediums, making artificial intelligence a dynamic force in the realm of media development.

The film "Loving Vincent" stands as a remarkable masterpiece of postmodern animation cinema, celebrated for its unique technological diversity. This film fuses oil painting with animation through various postmodern technologies, breathing life into static artworks. It employs entirely hand-painted oil paintings in conjunction with animation techniques, infusing the film with the vibrancy and colors reminiscent of Van Gogh's works. The film's most distinctive feature is the use of oil painting animation technology, where each frame is meticulously hand-painted by professional oil painters. The film incorporates over 65,000 oil paintings, with each frame being an individual oil painting, capturing Van Gogh's unique brushwork and color palette. This technology imparts the film with the distinctive style and texture of Van Gogh's paintings. After the oil painting animation is completed, these frames are digitized, and the film is crafted using post-production synthesis techniques. This includes color correction to seamlessly link different oil painting frames, creating a coherent visual narrative. The animation of characters involves the combination of actors' performances, later transformed into oil painting characters through animation techniques, meticulously hand-painted frame by frame. This method maintains a sense of realism and vitality in the portrayal of characters. Audiences can witness Van Gogh's friends, family, and the characters from his paintings come to life in the form of oil paintings within the film.

2.2. Innovative Expression of Van Gogh's Art in Animation

In animation films, creators must base their work on Van Gogh's original art. However, due to the need to balance composition, story development, and emotional expression within the film's plot, post-production work becomes particularly vital. This re-creation involves numerous creative elements, aiming to achieve consistency with the artwork featured in the film. Postmodern technology is employed to create storyboards, simulate scenes, determine character movements, integrate virtual reality, involve live actors in green screen shooting, utilize computer motion capture, and apply post-rendering with animation techniques. Ultimately, hand-painted oil frames are created for every animation frame.

For example, the scene in which Joseph Roulin helps the intoxicated Armand Roulin to walk is inspired by Van Gogh's "Ruins of the Castle of Ali-Ben Ahmed." In "Loving Vincent," scenes resembling these four related works are portrayed, albeit with some adjustments due to the film's fixed screen size and specific narrative requirements. The color temperature in the film shifts from the warm tones of the original works in the daytime to the cool hues of a summer night, creating a refreshing and serene atmosphere.

Regarding emotional expression, the film uses a combination of color, lines, and visual composition to poignantly convey Van Gogh's inner emotions, particularly his loneliness, suffering, and unwavering dedication to art. This emotional expression results from the interplay of colors, lines, and visual elements, deeply resonating with the audience. However, it is important to note that the art world encompasses various interpretations, with elements of Impressionism, Post-Impressionism, Cubism, and even the Fauvist style of artists like Matisse often being considered part of the broader movement of Abstract Expressionism. Van Gogh, as a master of abstraction, produced works that are challenging to surpass. During the innovative expression in the animated film, certain aspects, such as the use of color, warm and cool contrasts, tonal relationships, and the control of color brightness, become difficult to reproduce. Van Gogh's perspective on composition, seen through the lens of an Impressionist father, is nearly impossible for the average person to replicate. Conventional thinking

or innovative approaches can only offer limited insights into such compositions, as Van Gogh's environment, his contemplations, and inner struggles at that particular time and place remain largely beyond our comprehension. The desire for creative expression that springs from one's innermost thoughts and feelings is not innovation, not an element of composition, and certainly not aimed at pleasing the audience; it is the genuine portrayal of Vincent van Gogh's innermost thoughts and feelings, a testament to the true heart of this great artist.

The film "Loving Vincent," through its innovative method of presenting art, successfully captures the style, emotions, and creative spirit of Van Gogh. This novel expression not only deepens the audience's understanding of this great artist but also brings new possibilities to film production and artistic presentation.

2.3. The Impact of Postmodern Technology on Animated Films

Postmodern technology has had a profound impact on animated films, altering their production methods, presentation forms, and audience experiences. The rise of computer technology has led to the widespread use of CGI in animated movies. CGI enables the creation of highly realistic virtual worlds, making characters, settings, and special effects appear more lifelike. This allows animated films to portray details and complexities that were previously unimaginable, such as skin textures, fur, and fluid simulations.

For instance, "The Croods" utilized CGI and 3D technology to create a vivid prehistoric world with lifelike characters and impressive special effects. CGI allows characters to express emotions in great detail, while 3D technology enhances the audience's immersion.

Furthermore, 3D animation, driven by postmodern technology, has changed the appearance of animated films and the audience's viewing experience. 3D animation offers more realism, making viewers feel like they are part of the movie's world. Pixar's first computer-animated feature film, "Toy Story," marked the beginning of the computer-generated 3D era in animated filmmaking. The film not only held profound significance for Pixar Animation Studios but also played a crucial role in the development of the global animation film industry. It ushered in a new era of animated filmmaking, revolutionizing the way animated films are made and establishing computer-generated graphics as the mainstream.

Postmodern technology introduced virtual reality (VR) and augmented reality (AR) techniques, allowing audiences to interact with films and immerse themselves more deeply in the story. For example, viewers can use VR headsets to experience the animated world firsthand or use AR applications to integrate virtual elements into the real world.

The proliferation of digital painting, modeling, and animation tools has made animation production more accessible. Artists and filmmakers can use these tools to create complex characters and scenes without relying on traditional hand-drawing and animation techniques. The film "Frozen" employed digital painting tools to create impressive characters and scenes. Digital production tools allow filmmakers to easily control characters' expressions and movements to convey emotions.

In summary, postmodern technology has significantly transformed the animation industry, providing a range of new tools and techniques that enhance the creative process.

3. The Application of Oil Painting Art in Film

3.1. Presentation of Oil Painting Art in Film

In recent years, digital media has entered a rapid development phase, with the technology continually maturing and finding wide-ranging applications in various industries. Notably, the animation industry has seen positive results from its application. The film "Loving Vincent" utilizes a unique visual presentation that incorporates Van Gogh's oil painting style into the film. The filmmakers profoundly understood the application of rotoscope technology to replicate Van Gogh's painting style, an

endeavor that demanded time and effort. They actively emphasized this in the film's promotion, showcasing their dedication. As the film was screened, audiences expressed deep impressions of the visual aesthetics of Van Gogh's oil paintings. Some were even moved to tears by the visuals. This demonstrated that the filmmakers' efforts and creativity had successfully engaged the audience, leaving a profound impression on both the visual and emotional aspects of the film.

Under the influence of postmodern technology, characters in the film are given an oil painting texture. Characters are portrayed by actors and then hand-painted by oil painters. This production method makes the characters in the film come to life just like Van Gogh's paintings while preserving the actors' distinctive features. The oil paintings in the film can be broadly categorized into three types: Van Gogh's original paintings, re-created and processed Van Gogh oil paintings, and original oil paintings created for the film. These paintings have different roles or functions in the film but collectively achieve the fundamental unity of film time, space, and dramatic logic. The film aims to recreate Van Gogh's oil painting style, including his brushwork, colors, and composition. Audiences can see scenes from many of Van Gogh's famous works, such as "Starry Night" and "Sunflowers." Although every frame is a hand-painted oil work, the film's director and editor have meticulously combined these images to achieve smooth animation.

This technique allows the audience to appreciate the dynamic presentation of Van Gogh's paintings on the screen. The film's narrative revolves around a young man's investigation into Van Gogh's death, with the movements of the oil-painted characters serving as the story's thread. The film not only unfolds the plot but also incorporates elements of oil painting, enabling the audience to explore Van Gogh's life and art. This synergy with Van Gogh's painting style enhances the audience's understanding of the great artist's life and works.

3.2. The Fusion of Oil Painting Art and Postmodern Technology

Enhanced Visual Effects: Postmodern technology allows filmmakers to introduce oil painting-like textures and textures into the film's visuals. This can be achieved through digital compositing and visual effects, giving viewers a sense of oil paintings on canvas. "Loving Vincent" serves as a magnificent artistic scroll based on the deep fusion of oil painting and animation arts. The film encompasses not only the artistic creations of oil painters but also the exquisite craftsmanship of cinematic art. These two elements interweave and jointly create an unparalleled artistic scroll. Through the power of art and artistic expression, the visuals are infused with a spiritual breath, enabling the audience to deeply feel the warmth within. Every brushstroke, every color, and every line is meticulously crafted, touching the emotions deep within people's hearts and imbuing the entire canvas with the charm of life's light and shadow. Viewers seem to see Van Gogh's scenes, painted with genuine emotions and colors, and feel the warmth conveyed therein.

Character and Scene Design: Oil painting art can serve as a source of inspiration for character and scene design. Characters and backgrounds in the film can be crafted to resemble the characters and scenery in oil paintings, creating a unique and unforgettable visual experience. The film also utilizes rotoscope technology to render characters and objects realistically comfortable. Rotoscope technology involves initially filming real-life objects in motion (e.g., people walking) on film and then placing paper (or cellophane) on the film and retracing the motion with a pen. In the production of "Loving Vincent," real-life shooting was performed first, and then these filmed images were hand-painted frame by frame on oil canvases to create continuous oil painting frames. Finally, these oil painting frames were shot frame by frame to produce a 2D animation work.

4. The Impact of the Fusion of Postmodern Technology and Oil Painting Art on Film Aesthetics

4.1. Fusion Enhances the Aesthetics of Film Visual Effects

In the past, some directors attempted artistic practices that combined painting and film to enhance the visual aesthetics of their works. "Loving Vincent" tells the story of the painter Van Gogh through his own paintings, achieving a profound integration of visual media and narrative depth. For the first time, "Loving Vincent" attempted to translate the visual elements from the original paintings into a unique narrative form, seamlessly blending visual style with narrative depth. The film primarily presents a multi-perspective narrative by showcasing the townspeople's memories of Van Gogh, leading the audience to understand Van Gogh's life. To objectively portray Van Gogh's life, the director incorporated characters and settings from the original paintings into the film, constructing the plot's narrative. The participating characters and scenes in these narratives are derived from materials from Van Gogh's real life, including his letters and biographical information. As Van Gogh once wrote in a letter, "Living here for a while, you would understand how Japanese painters look at things with their eyes and have different feelings about colors. Staying here, I can release my personality better." These elements allowed the content from the original paintings to be transformed into material media in the film, which expressed a visual narrative language. Visual language became the medium of narrative. In some sense, visual narratives share basic artistic symbols with textual narratives, aligning with the film's content, ultimately resulting in the organic fusion of visual effects and narrative. Narrative structure is a fundamental feature of narrative form, reflecting human reflection on life, organizing life experiences into events linked by time and causality.

4.2. Fusion Leads to Innovative Interpretations of Film Ambiance

The fusion of oil painting and animation emerged in the late 19th and early 20th centuries, as the art of animation began to explore "dynamic" sensory experiences, marking a journey of exploration that emphasized the "dynamic" nature of art. Over a century of development, animation art has accumulated rich results. Unlike traditional painting, animation art emphasizes the creative and imaginative expression of subjective consciousness in action and dynamic language. "The narrative of animation is not the simplified construction of the plot, nor is it the same as the narrative of general film and television dramas. Its main feature is to develop the plot conception using the thinking mode of animation." With the continuous development of diverse art in contemporary society, the increasing demand for progress in aesthetics, and the diversity of postmodern technology, it is an inevitable trend to integrate across disciplines in the field of animated films. In the process of fusion and exploration, new breakthroughs in film ambiance are achieved.

Oil painting and animation are two fundamentally different art forms that attempt to convey the essence of one art through another medium, creating a new ambiance for the new medium, which is objectively challenging. This is mainly because, compared to animation, oil painting works physically exist, while animation is presented in a virtual state. While animation works also require a great deal of hand-drawing and computer drawing to complete keyframes, this is just one aspect of the connection between animation and traditional painting. However, the creation of oil painting works is not as simple as applying a few brush strokes and colors. It involves a complex system of techniques. For an animated work to reach the complexity of oil painting is nearly impossible. Moreover, oil painting art has evolved over several centuries and has given rise to various movements, such as abstraction, Fauvism, surrealism, and Dadaism. Walter Benjamin once commented on Dadaism: "In the hands of the Dadaists, the work of art changed from a fascinating visual phenomenon or an impressive musical work into a fired bullet that struck the viewer, giving the work of art a tactile quality." In the absence of extensive knowledge of oil painting art, it is challenging to understand the essence or core expression of these movements, as they are not as easily understood and accepted as realism or naturalism. In contrast, animation art, because it has not gone through such a long history of development, focuses more on clarity and uses vivid animation language to emphasize the core

and key points it wants to convey. This explains why animation and oil painting differ in their presentation: animation works depend on open mediums like mobile devices and the internet for distribution, while oil paintings are typically displayed in venues such as museums and art galleries. Of course, from a technical application perspective, animation production involves complex technical challenges like photography and compositing, which also limit the possibilities of integrating other art forms with animation.

Filmmakers have made relentless efforts and finally achieved a breakthrough in the late 20th century by integrating oil painting art into animated films. Russian artist Alexander Petrov's work, "The Old Man and the Sea," was created using oil painting techniques and received an Academy Award for Best Animated Short Film. He spent three years meticulously creating 29,000 oil paintings on frosted glass for each frame of the animation. This innovative approach resolved the issue of "cine-painting" in animation production, showcasing new possibilities for oil painting art. Alexander Petrov's work is filled with a rich Romantic Realism style, influenced by Russian oil painting masters Levitan and Konev, presenting highly realistic characters, animals, and landscapes with a unique expressive style. He believed that combining film and painting art could create new visual effects, and this innovation achieved success in the field of animation, establishing him as a significant figure in the world of animation.

Furthermore, the creation of "Loving Vincent," which combines postmodern technology with oil painting art, also successfully demonstrates that the fusion of diverse artistic media can bring new possibilities for film development and aesthetics. These practices offer new directions for the future development of film, breaking through traditional film ambiance and advancing film aesthetics.

4.3. Fusion Expands the Narrative Aesthetics of Film

Examining the development of world animation art, a recurring pattern seems to be the progression from simplicity to complexity, from black and white to color, from silent to sound, from 2D to 3D, and from flat to stereoscopic. This evolution process demonstrates that the aesthetics of animation art change with the aesthetic trends of the times and present diverse development paths in different cultural contexts.

In his book "Understanding Media: The Extensions of Man," media theorist Marshall McLuhan clearly stated, "Any new medium is a process of evolution, a process of biological unfolding. It opens up a new realm for human sensory perception and new areas of activity."

Animation art, with its unique nature, provides animated films with a broader creative space, free from the constraints of actor performance, allowing for boundless creativity. For example, in the 20th century, Chinese animation schools created globally unique forms of animation, such as puppet animation, porcelain animation, clay animation, and ink animation, emphasizing that the essence of animation is "not a specific shooting technique" but "a means of using the characteristics of film and video to bring inanimate images to life." This demonstrates that the aesthetic features of animation art are not limited to a single form but encompass various ways to express visual aesthetics and create visual forms. Therefore, compared to other types of films, animated films focus more on achieving aesthetic breakthroughs in visual form. While live-action films are still exploring frame rates and transitioning between 2D and 3D or 4D, animation art demonstrates tremendous creativity and influence through its continuously changing visual expressions.

"Loving Vincent" is a unique work of animation art that subverts traditional animation by adopting an oil painting form and reexamines animated films. The film not only uses the form of oil painting on the surface but also integrates Van Gogh's painting techniques into the visual presentation of the film. For example, the film uses deep blue skies and bright yellow starlight, along with concise brushstrokes, to depict the flickering of stars at night, capturing the movement of the brush on the canvas. Additionally, the film follows Van Gogh's painting techniques and principles to depict characters, streets, and the sky as having a fluid quality, imbuing the visuals with vitality and rhythm.

The film emphasizes and interprets Van Gogh's significant works, presenting changes in characters and scenes from an original perspective, transforming the audience's viewing process into an appreciation of Van Gogh's artworks. Audiences seem to be admiring Van Gogh's paintings, experiencing the unique warm color palette in the film. Therefore, the film's aesthetic characteristics go beyond ordinary animation aesthetics, blending the artist's aesthetic creation with the art of animation, achieving a true breakthrough in animation film aesthetics.

In summary, postmodern technology has injected new life and creativity into animated films, propelling their continuous development and evolution. It provides more creative freedom, enhances production efficiency, and the diversity of postmodern technology is not isolated; in the production of animated films, these technologies mutually apply and collaborate. "Loving Vincent" also employed various postmodern technologies to enhance the audience's viewing experience. The ongoing advancement of these technologies will continue to shape the future of animated films in new forms and higher quality. In conclusion, applying digital media technology to the animation industry can promote the industry's ongoing development.

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