



The Art of Matte Painting

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Abstract

Matte painting is an adaptable and dynamic art medium that creates visually attractive and immersive settings by fusing digital technologies with conventional painting processes. The core of matte painting is examined in this abstract, along with its methods, uses, and aesthetic value. By demonstrating how these components add to the overall story and visual impact, it emphasizes the significance of composition and concept in matte painting. The abstract delves at the evolution of matte painting in light of technological breakthroughs, including the transition from conventional paint to digital approaches. It clarifies the relationship between paint and pixels, highlighting the benefits and drawbacks of each strategy. In addition, the abstract highlights how important matte painting is to the creation of compelling and convincing worlds in visual media like movies, video games, and ads. All things considered, these abstract captures the complex qualities of matte painting, honoring its creative skill, technical mastery, and capacity to immerse spectators in astonishing worlds of the imagination.

Keywords: Matte Painting, Visual Arts, Digital Media, Film Studies, Historical Evolution, Traditional Techniques, Digital Art.

Introduction

Since the beginning of filmmaking, matte painting has existed. Since the first example appeared in 1907, it has been consistently utilized.[1]

In order to create realistic or imaginative settings, landscapes, or sets that would be too expensive, impractical, or impossible to build physically, matte painting is a technique utilized in the film, television, and gaming industries. It entails painting intricate, realistic visuals that meld well with computer-generated imagery (CGI) or live-action video.

is a method that makes it possible to create any sort of imagined landscape using illustrations and photos; when these two are properly combined, realistic results with an incredible amount of detail are produced. [2]

It is frequently employed to produce expansive vistas, future cityscapes, historical settings, or any other situation that calls for more visual effects than are practically possible.

Matte painting is an essential component of the visual effects industry and plays a critical role in visual storytelling.[3]

The screenplay, storyboards, and concept art are usually studied by matte painters before they start work in order to determine the intended tone and appearance of the scene. Subsequently, they produce intricate digital paintings, painstakingly constructing each component of the surroundings, including sky, buildings, textures, and lighting. The aim is to create a unified and convincing visual composition by skillfully integrating the painted pieces with the live-action film.[4]

Traditional matte painting

Traditionally, matte painters would combine live-action film with a composite picture they had created using a variety of tools and methods. Painting on big glass panels or canvas using oil paints, acrylics, or other conventional painting media was usually the procedure. Painters would painstakingly create the intended scene, frequently adding minute details and textures to blend in with the surroundings (see **Figure 1**). [4]

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Receive Date: 28 December 2023, Accept Date: 13 February 2024

DOI: 10.21608/jtcps.2024.259018.1271

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Figure 1: Harrison Ellen shaw at work on the view of Luke's crash landing. [2]

The painted panel would be positioned in front of the camera, with some portions left unpainted or trimmed away to let the actors or other components to show in the front. This would allow the matte painting to be seamlessly integrated with the live-action film. The merged image would then be captured by the camera, giving the final shot the appearance of a large and realistic setting. See figure 2. [5]

To guarantee a smooth transition between the painted and live-action parts, traditional matte painting required a high degree of talent from painters who had a thorough grasp of perspective, lighting, and color theory. It was a laborious procedure that required accuracy and close attention to detail.[2]

Evolution of Matte Painting in films

Several of the first movies made extensive and ornate sets with this method, which was neither practical nor economical to build in real life.

Filmmakers employed matte painting to expand their physical sets and give the impression of more expansive and intricate landscapes during the silent cinema period. [6]

"A Trip to the Moon" (1902) "by Georges Méliès is one of the first movies to make considerable use of matte painting methods. Méliès used meticulously painted matte backdrops to create surreal and exotic settings for this silent picture. The usage of matte paintings is evident in the movie's moments where the protagonists visit the moon and come across a variety of surreal settings.. [1]

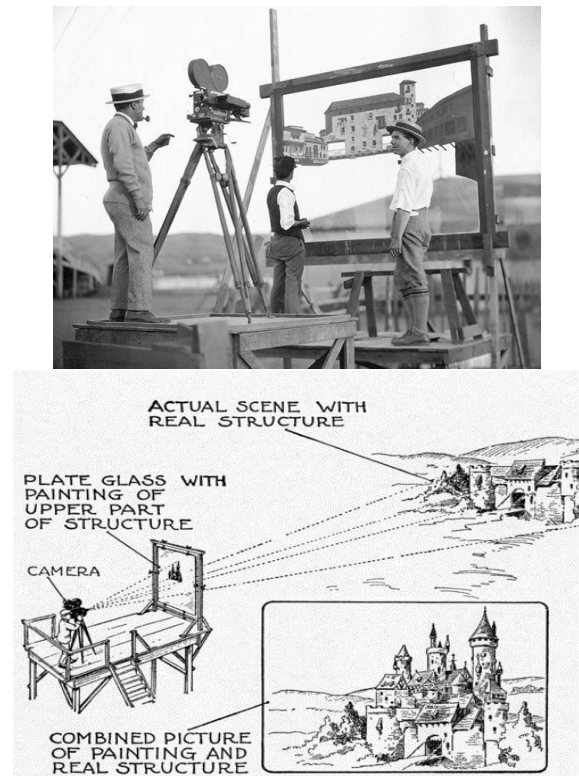


Figure 2: Glass matte painting and live-action are composited together on the film negative

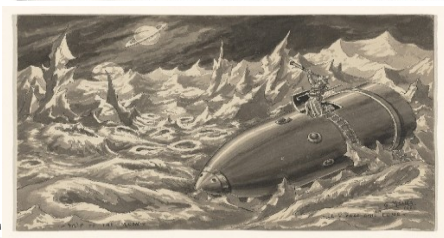
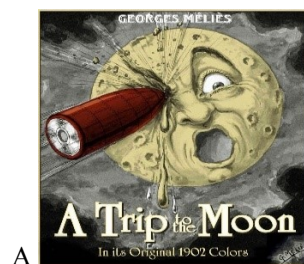


Figure 3 : photos from A Trip to the Moon 1902
a) Cover art for "A Trip to the Moon" in its 1902 colors,
b and c) Earthlight, preparatory drawing for the film A Trip to the Moon (Le Voyage dans la lune, 1902)

This technique was later used in the creation of backgrounds, barracks, or castles and carrots as in King Kong (1933). See Figure 4



Figure 4: Footage from the film King Kong (1933) painted with matte painting technique

On King Kong, matte painting was employed methodically. It is made out of flat art components that provide the impression of depth. Foreground details were given by paintings made on glass. Extra sections of jungle would be painted on two or three glass pieces that were arranged in a z-axis. They would then be enhanced with additional realistic components to assist give the picture a three-dimensional appearance, such as tiny leaves, shrubs, and genuine grass. Paintings would frequently also serve as the background. [5]

In this instance, a loose, almost impressionist-like matte painting might work well as a distant picture and contribute to the feeling of depth.[4]

The shot made with the foreground glasses, the miniature jungle and the background flat matte painting would result in a harmonious composition. [7]

And Dracula (1931) directed and co-produced by Tod Browning from a screenplay written by Garrett Fort and starring Bela Lugosi in the title role [7]

The history of matte painting begins in the early days of motion pictures, when filmmakers expanded the visual reach of their sets by painting on glass using conventional methods. In order to produce amazingly realistic and fanciful worlds, matte painting has undergone a major evolution

throughout time, utilizing digital technologies. [8]The article explores matte painting's historical background, highlighting significant turning points and inventions that have influenced the medium's development.[3]



Figure 5: Footage from the film Dracula (1931) painted with matte painting technique

Paint vs. Pixels

Of course! When examining the subject of paint vs pixels in matte painting, keep the following considerations in mind:

Aesthetic Characteristics

Because matte painting is a tactile medium, traditional paint methods can have a distinctive organic character. It may be difficult to simulate the depth and realism of paint digitally due to its texture, brushwork, and physicality. Digital technologies, on the other hand, provide exact control over minutiae, enabling smooth elemental integration and the production of remarkably realistic outcomes.[2, 9-21]

Creative Liberty: Conventional painting methods provide painters a practical, instinctive method that for impromptu brushwork and exploration.[3]

Technical considerations: Conventional matte painting frequently necessitates a great deal of physical materials, planning, and preparation.

Artists must take into account elements like perspective, lighting, and color mixing methods. Conversely, digital matte painting is dependent on technology and software that demands technical knowledge and expertise. [22]

Workflow and Efficiency: The speed and efficiency of the workflow are two benefits of digital matte painting. Without actual materials or long drying times, artists may create in layers, make adjustments rapidly, and try out multiple variants. On the other hand, traditional matte painting may offer a more tactile and immersive experience, enabling artists to interact with the painting process in person. [23]

Integration and Hybrid Approaches: A lot of artists working today use a hybrid approach that combines digital tools with conventional painting methods. They may utilize a conventional painting as a foundation and then use digital techniques to enhance it, or they may paint pieces digitally and then use classic painting techniques to add depth and texture. Artists are able to take advantage of the advantages of both paint and pixels, resulting in distinctive and captivating matte paintings. [22]

It's crucial to remember that in the end, the decision between paint and pixels in matte painting comes down to the tastes of the artist, the creative objectives, and the particular needs of the job. Both strategies offer advantages and are compatible, adding to the variety and creativity of matte painting.

Techniques and Tools

A key component of this paper is a thorough analysis of the many methods and instruments used in matte painting. [8] In the past, artists used to paint actual pictures on canvases or glass, but with the development of digital technology, they now use strong software like Adobe Photoshop and specialist 3D modeling programs. The piece deconstructs the process of making a matte painting from conception to completion, offering insights into the skill set needed for this complex artistic medium. [24]

Composition and Concept

Composition and concept are crucial elements in matte painting, as they help create visually appealing and meaningful images. Here's a closer look at the significance of composition and concept in matte painting. [5]

Composition

Visual Flow: Composition guides the viewer's eye through the image and creates a sense of visual flow. Artists strategically arrange elements such as

foreground, middle ground, and background to lead the viewer's gaze and create a dynamic and balanced composition. [25]

Rule of Thirds: Often utilized in matte painting, the rule of thirds is a compositional principle. Artists may create a visually appealing and harmonious composition by dividing the image into both horizontal and vertical thirds. This allows them to place important focus points or pieces along these lines or at their intersections. [5]

Perspective and Depth: The goal of matte paintings is frequently to provide an appearance of depth and space. Artists create a believable three-dimensional space in their compositions by employing perspective methods like vanishing points and horizon lines. This increases realism and helps the spectator get fully immersed in the painted scene. [3]

Framing and Negative Space: These two elements can help to define the composition and highlight the focal point or primary topic. In order to establish focus and balance, artists carefully analyze how objects interact with the frame's boundaries and make use of negative space. [3]

Concept

Storytelling and Narrative: Matte paintings serve as visual storytelling tools. The concept behind a matte painting influences the environment, mood, and atmosphere depicted. [4]

Emotional Impact: The idea of a matte painting has the power to arouse particular feelings or attitudes in the observer. In order to achieve the required emotional impact, artists carefully consider lighting, atmospheric effects, and color palettes. The concept affects the entire tone and emotional response regardless of whether it's a peaceful environment or an apocalyptic cityscape. [5]

Integrity with the Project: Matte paintings are frequently made for certain projects, such commercials, video games, or motion pictures. In order to guarantee that the matte painting blends in smoothly with the visual language and concept of the project, artists take into account the story, thematic components, and the overall aesthetic and style of the project. [25]

Symbolism and Metaphor: By employing symbolism and metaphor, matte paintings can get more conceptual depth. Artists may add levels of interpretation and complexity to an overall concept by using visual elements that have symbolic importance. [22]

Matte painters may successfully convey their intended message, produce visually striking images, and add to the project's overall story and aesthetic by paying close attention to composition and concept. [22] These components complement one another to direct the viewer's experience and arouse

feelings, making composition and concept essential factors to take into account when practicing matte painting.[8]

Steps to create a movie scene using technical programs:

Photos used in the scene

Here are the pictures that I used to create the matte painting for this example:



Figure 6

To maximize the effect of the castle on the landscape, I strive to adhere to the rule of thirds and place it at the intersection of the correct grid.

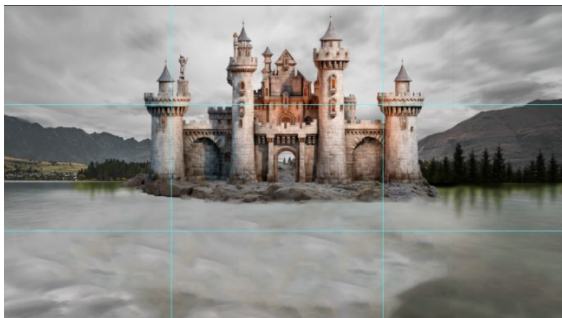


Figure 7: Picture composition and Cropping the background

Adding some rocks in front of the castle helps to give more depth to the picture. However, I try to be careful not to make it too big so that it does not "clog" the picture! [24]

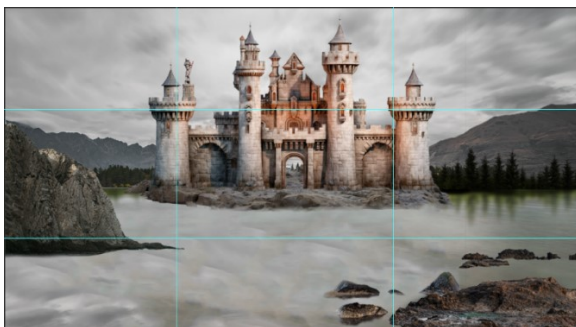


Figure 8: Adding mountains and rocks

To make the photo look more vivid, I import a ship.

I crop the ship and use the brush tool to draw on it. I decided to give it shadows so that it could easily blend in with the magnificent scene.

Telling a story through your illustration is very important because it adds meaning and depth to your photos!



Figure 9: Adding The Ship

I add fog after everything has been corrected. A thing has to be veiled in more mist the farther it is from us. The scene is enriched and given depth by the presence of fog. I make a layer and paint over it to do this. For instance, I take a sample of the sky's hue and use low opacity paint to directly paint the mountains in the backdrop. [8]

I continue this way across the entire picture.



Figure 10: Adding depth, shadows and lighting (Aerial perspective)

More details and Final Look

Details such as clouds and sunlight make the photo look more polished.[24]

And one of these details is to increase the contrast between the images to give the scene a cinematic look and adjust the filters of camera raw filter.



Figure 11

Challenges and Innovations

No art form is without its challenges, and matte painting is no exception. The article discusses the common challenges faced by matte painters, such as achieving realistic lighting and perspective. Moreover, it highlights recent innovations and advancements in technology that have revolutionized the field, making the creation of matte paintings more accessible and efficient. [8]

The Future of Matte Painting

As artists experiment with new techniques and technology continues to advance, the future of matte painting is full of intriguing possibilities. The following are some possible paths and developments that might influence matte painting in the future.[26]

Digital Advancements: Matte painting is expected to become even more integrated into the digital sphere because to the quick development of digital tools and software. Increased sophisticated digital painting tools, 3D modeling programs, and virtual reality (VR) technology will be available to artists, enabling increased accuracy, effectiveness, and immersive experiences.[27]

Real-time rendering: With the development of more complex real-time rendering technologies, artists are now able to build and modify virtual worlds in real time. By enabling artists to make quick edits and view the results right away, this technology has the potential to completely transform matte painting and create a more dynamic and user-friendly process.[28]

Augmented Reality (AR): Matte painting has the potential to move beyond conventional 2D surfaces and into the world of interactive experiences as AR technology develops. Digital matte paintings that smoothly blend with the actual world might be used by artists to create immersive settings and enhance narrative through augmented reality installations or experiences. [26]

Integration with Video Games and Film: Matte painting has long been an essential part of visual effects in video games, and it will probably

continue to play a bigger part in the industry. It will be possible for artists to create ever more realistic and seamless visual worlds for movies and video games with the combination of matte painting with advances in CGI, motion capture, and virtual production techniques.[27]

Environmental Sustainability: Matte painting may be able to help develop sustainable substitutes for actual set building as environmental concerns continue to rise. Artists may minimize waste and environmental effect by reducing the need for large physical sets by generating realistic and complex landscapes digitally.[28]

Global Accessibility and cooperation: In a number of creative domains, the internet and digital platforms have already completely transformed accessibility and cooperation. Matte painters may cooperate virtually in the future, sharing and working on projects simultaneously, no matter where they are physically located. This would allow artists from different cultures and backgrounds to work together, which would promote creativity and innovation.[27]

Fusion and Artistic Experimentation: In the future of matte painting, artists are probably going to push the limits of conventional methods and combine them with other forms of art. Anticipate the merging of matte painting with fields like generative art, projection mapping, virtual reality, and interactive installations to create one-of-a-kind, fully immersive visual experiences.[26]

It's crucial to remember that these forecasts are theoretical and predicated on current developments in technology. In the end, how artists use their imagination, inventiveness, and originality to explore new avenues and adjust to technological changes will determine the direction of matte painting.

Conclusion

Matte painting is an enthralling art form that fuses creative vision, technical proficiency, and narrative. Creating realistic and engaging settings via the deft integration of several elements—painting, digital methods, composition, and concept—is the art of matte painting.

In matte painting, composition is essential because it directs the viewer's gaze, develops perspective and depth, and produces visual balance. Artists may create compositions that captivate the eye and amplify the overall visual appeal by employing strategies like as the rule of thirds, framing, and the use of negative space.

Since it establishes the story, and emotional resonance of the artwork, concept is just as significant in matte painting. Artists use color, lighting, and symbolism to improve the visual effect and transmit distinct emotions while taking into

account the project's objectives and intended storytelling aspects. The idea behind a matte painting guarantees the artwork's smooth integration into the broader visual language and helps link it with the wider project.

The flexible medium of matte painting enables the use of both conventional painting methods and digital tools. For the purpose of creating original and striking compositions, artists are free to experiment with different techniques and even blend them together. The artist's tastes, the demands of the project, and the desired aesthetic results all play a role in the decision between paint and pixels.

In the end, matte painting is a technique that displays an artist's technical proficiency, inventiveness, and capacity to immerse spectators in imaginary or actual environments. Matte painters can produce amazing images that enthrall viewers and add to the immersive storytelling experience in movies, video games, and other visual media by deftly balancing composition and concept.

Conflict of Interest

The authors declared no competing interests in the publication of this article

Acknowledgment

The authors are gratefully grateful to acknowledge the Faculty of Applied Arts, Benha University. Furthermore, the authors are gratefully grateful to acknowledge the Central Labs Services (CLS) and Centre of Excellence for Innovative Textiles Technology (CEITT) in Textile Research and Technology Institute (TRTI), National Research Centre (NRC) for the facilities provided.

Funds

The authors declare that there is no funding source

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فن الرسم غير اللامع

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المستخلص

الرسم غير اللامع هو وسيلة فنية قابلة للتكيف وديناميكية تخلق إعدادات جذابة وغامرة بصرياً من خلال دمج التقنيات الرقمية مع عمليات الرسم التقليدية. يتم فحص جوهر الرسم غير اللامع في هذا الملخص، إلى جانب أساليبه واستخداماته وقيمه الجمالية. من خلال إظهار كيفية إضافة هذه المكونات إلى القصة الشاملة والتأثير البصري، فإنه يؤكد على أهمية التكوين والمفهوم في الرسم غير اللامع. يتطرق الملخص إلى تطور الرسم غير اللامع في ضوء التقدم التكنولوجي، بما في ذلك الانتقال من الطلاء التقليدي إلى الأساليب الرقمية. ويوضح العلاقة بين الطلاء والبكسلات، ويسلط الضوء على مزايا وعيوب كل استراتيجية. بالإضافة إلى ذلك، يسلط الملخص الضوء على مدى أهمية الرسم غير اللامع في إنشاء عوالم مقنعة ومقنعة في الوسائط المرئية مثل الأفلام وألعاب الفيديو والإعلانات. بعد أخذ كل الأمور بعين الاعتبار، فإن هذه الملخصات تجسد الصفات المعقدة للرسم غير اللامع، وتكريم مهاراتها الإبداعية، وإتقانها الفني، وقدرتها على غمر المتفرجين في عوالم مذهلة من الخيال.

الكلمات المفتاحية: الرسم غير اللامع، الفنون البصرية، الوسائط الرقمية، دراسات الأفلام، التطور التاريخي، التقنيات التقليدية، الفن الرقمي.