Brosch AI - Distorted Dreams:

Expanding and Animating an Archive With AI

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Figure 1: Insight into the six-minute animated film _Brosch AI - Distorted Dreams_ [10] .

ABSTRACT

Brosch AI - Distorted Dreams explores the intersection of artificial intelligence, art, archives, and animation. The project transforms the archive of Upper Austrian artist Klemens Brosch (1894– 1926) into an AI-animated film. While AI image-generation tools typically rely on online archives, museum collections often provide only low-quality digital reproductions. By utilizing high-resolution images from Brosch's archive, this project investigates the potential of AI-driven animation while addressing challenges related to stylistic control, and creative authenticity. The findings demonstrate that while AI can produce high-quality outputs, extensive refinement and iterative adjustments are necessary to preserve the essence of Brosch's work. The project sparks critical discussions on authorship, originality, and the evolving role of technology in artistic creation.

CCS CONCEPTS

• **Computing methodologies** → **Animation**; **Artificial intelligence**; **Machine learning**; • **Applied computing** → **Media arts**.

KEYWORDS

AI, AI and ethics, animation, media archive

1 Introduction

Since the emergence of AI tools for generating images and animations, numerous discussions have arisen regarding copyright issues, biases, stereotypical outputs, and clichés in AI-generated artworks. AI-based image generation tools rely on online-available images as training data, enabling them to create images and animations based on user prompts. However, image archives from museums and collections are often only partially available online and frequently in low quality. To achieve high-quality outputs, a well-curated image database with high-resolution digital reproductions is essential.

In this study, we demonstrate how the image archive of Upper Austrian artist Klemens Brosch can be transformed into an animated film using AI tools. The project _Brosch AI - Distorted Dreams_ [10] explores how AI-based tools can animate and expand Brosch's artistic legacy, while also highlighting the limits of cultural heritage interpretation [11]. We examine the potential of current AI tools to enhance historical artworks and create added value through digital augmentation.

The results reveal that while AI tools can generate high-quality outputs quickly, the process lacks control over specific artistic styles and details. The final animation exemplifies the fine balance between what is currently achievable with AI tools and the limitations that still exist in this context.

2 AI tools in Animation

The origins of AI-driven image generation are traced back to early experiments in computer graphics and algorithmic art in the 1960s [1, 13]. A pivotal moment in this field was the emergence of Convolutional Neural Networks (CNNs) [2] and, in particular, the introduction of Generative Adversarial Networks (GANs) in 2014 [3]. A significant milestone in this evolution was Glenn Marshall's AI-generated short film _The Crow_ (2022) [7]. In this project, Marshall utilized style transfer and various AI techniques to morph a dancer's movements into the fluid and dynamic form of a crow,

showcasing how machine learning models can manipulate and reinterpret visual aesthetics. Similarly, Sujin Kim's animated short films *Dissolution* (2023) and *Cunabula* (2023) [5] showcased how artists can harness AI-driven Style Transfer to reinforce a specific artistic vision. In these works, AI was used not merely as a tool for digital enhancement but as an integral part of the creative process, guiding the transformation of imagery in a way that aligned with the conceptual and aesthetic goals of the project [5]. These films exemplify the growing potential of AI-assisted art in crafting unique and immersive visual narratives. The continuous advancement of AI-driven image generation, particularly in the realms of deep learning and neural style transfer, marks a transformative shift in digital art. These technologies extend the creative toolkit of artists and designers, providing new methods for reinterpreting traditional artistic styles, generating novel compositions, and automating complex visual effects. More importantly, they redefine the role of AI as a collaborative partner in artistic expression, where human intuition and machine intelligence interact to produce new works. As AI continues to evolve, its integration into the creative process is expected to further blur the boundaries between technology and artistry. The synergy between human creativity and machine learning algorithms opens up unprecedented opportunities for aesthetic exploration, offering artists new ways to experiment with form, texture, and motion. This ongoing convergence of AI and art signifies not only a technical advancement but also a philosophical shift, challenging traditional notions of authorship, originality, and the very nature of artistic creation.

3 Methodology

Based on Klemens Brosch's archive, we produced a six-minute animated film *Brosch AI - Distorted Dreams* [10]. The animated short explores how AI tools and workflows that include style transfer can be used to stage and expand Brosch's creative period (see Figure 1). It examines how art, described as a "psychogram of self-destruction" [8], can be reinterpreted through AI while integrating current insights and expertise from art history. Additionally, it considers how AI can provide an expanded perspective on Brosch's dark yet romantic visual worlds and what insights this approach can offer for contemporary art historical analysis. Another central theme of this experiment is a creative and self-reflective approach to AI tools.

3.1 Klemens Brosch Archive

Klemens Brosch (1894–1926) was an Austrian artist, whose work is characterized by extraordinary precision and a dark, often surreal visual language. Born into a middle-class family in Linz, Brosch displayed an exceptional talent for drawing from an early age. Recognizing his abilities, he was encouraged to study at the Academy of Fine Arts in Vienna. There, he co-founded the artists' association MAERZ and quickly gained recognition for his precise and atmospheric drawings. His works, often depicting landscapes or fantastical visions, were distinguished by meticulous line work and a melancholic undertone. A profound turning point in his life was World War I. Drafted into the military, Brosch was soon discharged due to health issues. The war left an indelible mark on his art, as he documented its horrors in stark, evocative drawings. During this time, he also began using morphine, initially prescribed for

medical reasons. This addiction would become the defining struggle of his life and had a lasting impact on his artistic output. After the war, Brosch returned to the Academy, but his career took an increasingly tragic course. His addiction led to social isolation and mounting financial difficulties. Despite occasional successes, including significant exhibitions and recognition in art circles, he fell deeper into dependency. His later works grew darker, often dominated by apocalyptic visions and a morbid fascination with death. In 1926, at just 32 years old, Klemens Brosch took his own life. Though his work was long forgotten, it is now recognized as a significant contribution to Austrian art of the early 20th century. Elisabeth Nowak-Thaller published a comprehensive study on Klemens Brosch in 2016; other relevant publications include Kastner [4] and [15].

> Brosch's fantastic, meticulously detailed drawings—anticipating both New Objectivity and Surrealism—are timeless and existential. Early on, the artist dedicated himself radically to pressing issues such as the mass destruction of World War I or drug addiction, while also engaging with themes of landscape, transience, and death [8, 11].

Figure 2: Klemens Brosch – a selection of works from the final creative period: *Ride in a Gloomy Moonlit Night* **(1922),** *The Plague* **(1922),** *The Hermit at the Cross* **(1922).**

His images are both dark and romantic; Brosch employs strong contrasts, and extreme perspectives, and explores themes such as illness and death, as seen in works like *Ride in a Gloomy Moonlit Night* (1922), *The Plague* (1922) and *The Hermit at the Cross* (1922) (see Figure 2).

The OÖ Landes-Kultur GmbH[1] and the LENTOS Kunstmuseum[2] supported the project. The initial idea of working with the Alfred Kubin Archive had to be abandoned due to the estate's refusal to grant image rights. After further discussions, Klemens Brosch's works were chosen as an excellent alternative starting point. The association ANIMA PLUS serves as the producer, and the project got funding from the City of Linz, the State of Upper Austria, and the Federal Ministry for Arts, Culture, the Civil Service. The image and usage rights were clarified with the OÖ Landes-Kultur GmbH and LENTOS Kunstmuseum in December 2023. In January 2024, the graphic collection of the Landesmuseum Linz provided 250 digital reproductions of Klemens Brosch's works for the project.
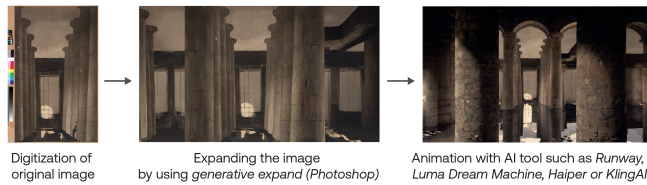
Moreover, the photographer Norbert Artner provided a Gigapixel of the artwork *Observatory* (1926) which allows further experiments with AI tools.

3.2 Expanding and animating an archive with AI tools

In this chapter, we demonstrate how the images from the archive were expanded and animated. The workflow builds upon the expertise of *LUCID* [9] by Celine Pham, enhancing it with AI video tools like *Runway, Luma Dream Machine, Haiper or KlingAI* [12]. The production workflow used for *Brosch AI - Distorted Dreams* is illustrated in Figure 3.
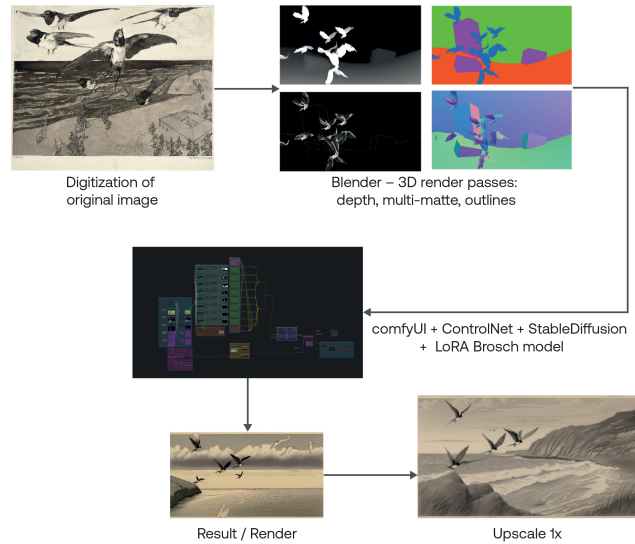

Figure 3: Insight into the used production workflow of *Brosch AI - Distorted Dreams* through the example *In the ruins* (1922).

3.2.1 Expanding. The pictures were edited in Photoshop. In particular, they got cropped at first, getting rid of all the unnecessary sides of the pictures. Then, the canvas size was extended to a ratio of 16:9. In some cases, certain motives were cut out with a mask to have an isolated picture with only that object. Finally, the AI-process starts. Working with the AI tool provided by Photoshop, usually no prompt was used, due to the fact that in that case, the AI will refer to the neighbored parts of the image to get a smooth transition. Hence, the final image was more determined by decision making rather than the input. The only way to steer the generation in a certain direction was to change the mask size and positioning. This limited the sphere of influence of the environment.

3.2.2 Animating. Throughout the process, three different pipelines were explored, but only one was actually used to create most of the content. One workflow included *ComfyUI* and projection mapping in Blender. After the 3D structuring, multiple render passes are generated, including outlines, depth maps, and multi-matte layers, which provide crucial data for subsequent AI-driven transformations. These rendered passes were then processed in *ComfyUI* and used as conditioning inputs in *Stable Diffusion*, guiding the image generation process similarly to how *ControlNet* refines AI outputs based on structured input data. This setup enabled an organized prompting approach: a main prompt defined the overall visual direction, while different elements within the scene were refined through sub-prompts corresponding to specific render layers. By leveraging these layers, the workflow allowed for precise control over individual components, ensuring context-aware and coherent visual enhancements. The graphic in Figure 4 offers a detailed visualization of this production workflow. However, none of its outcome was used in the final video.

Another experiment involved training a *LoRA* model to capture the visual style of Brosch's paintings. This model was then used

Figure 4: This workflow, based on the image *By the Seashore* (1913), involved using *ComfyUI* and *Blender* projection mapping to generate 3D render passes, which were then processed in *ComfyUI* to create text prompts for *Stable Diffusion,* enabling refined AI-driven enhancements. However, none of its results were used in the final video.

in the *ComfyUI* workflow for style transfer, applying the painterly characteristics to AI-generated videos and blending them with real footage.

The most fruitful workflow used online AI tools like *Runway, Luma Dream Machine, Haiper or KlingAI*. Almost every part of the final video was produced with these online tools. At first, the picture was analyzed, and the animation was determined. Then, the picture was put into every tool to see, which AI was grasping the motive the best, without any additional information. This step also led to an intuitive knowledge, which AI tool could work the best with certain images. After choosing one tool to continue working with, the different AI models of this tool, if available, were tested, the same way as before. In case with Runway, the models *Gen-3 Alpha Turbo, Gen-3 Alpha and Gen-2* were tested, including their key features like the motion brush. After this process, the best working model for one picture was found. Depending on what should happen in the animation, the pictures were used as a startframe and endframe or startframe and middleframe and endframe. This made it possible to run the generated animation with fixed start, middle or end images. For this operation, pictures were sometimes edited in layers to make for example appearances possible. Prompting plays a crucial role in AI-driven creative tools, influencing the quality and precision of generated content. Whether using platforms like *ComfyUI*, *Runway*, or *Haiper*, the way instructions are formulated significantly impacts the output. Each tool has its own syntax and "language" for interpreting prompts, meaning that an effective command in one application may not yield the same results in another. Additionally, factors such as image size, format, and video length further affect how prompts are processed and how the model interprets the input.

Understanding the specific requirements and nuances of each tool is therefore essential to achieving optimal results in AI-assisted media production [6].

The following features influence the generated animation: pictures, length, prompt, seed and additional settings like camera movements, motion brush and resolution. If a generated animation fulfills the requirements, it can either gets expanded by a few seconds or exported for the final steps. Some tools offer an enhancement – meaning upscaling the footage to a greater resolution – or a slow motion generator.

4 Discussion

The described AI tools streamline complex processes, improving efficiency and automation by reducing the time required for tasks such as image expansion, morphing, and animation. With the ability to upscale and refine images, AI can add detail to low-resolution artworks without manual intervention, ensuring high-resolution output. Furthermore, AI opens the door to experimentation and new perspectives, allowing for alternative artistic interpretations and offering fresh insights into historical artworks and visual storytelling.

In expanding and animating an artist's imagery using AI, several ethical and technical challenges arise. Ethical concerns include the risk of distorting the artist's original intent, potential copyright issues, and the broader implications of AI-generated modifications that may misrepresent historical works. Morphing problems and weak animation can further complicate the authenticity of the artistic vision, leading to unintended aesthetic shifts or the dilution of expressive depth. Additionally, experimental approaches often introduce unpredictability, requiring careful curation to balance creative expansion with respect for the source material and cultural heritage. Addressing these issues critically is essential to ensure that AI serves as a meaningful extension of artistic exploration rather than a tool for arbitrary alteration. This topic is discussed in many communities such as the *Digital Arts Community ACM SIGGRAPH* [14].

5 Conclusion

The result of the art project shows that AI can serve as a tool for expanding and animating historical artworks when guided by a carefully constructed workflow. By combining manual image editing with context-aware AI expansion and multiple animation pipelines, it was possible to generate results that remained visually coherent with Klemens Brosch's original style. The process demonstrated that while technical experimentation—such as 3D projection mapping or custom-trained models—offers valuable insights, the most effective outcomes were achieved through intuitive, prompt-driven workflows using accessible online tools. The success of the project hinged not on complex automation alone but on human decision-making, artistic sensitivity, and a deep understanding of each tool's limitations and strengths.

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