3. Larval Memories

Spectralizing the Past through AI Photography

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Before the advent of AI photography, the connection between memory and photography was rather obvious—we took photos to preserve our memories. In this approach, the photograph is an *aide-mémoire*, and photography is a *mnemotechnique*. However, what these basic assumptions fail to explain is the evolving nature of photography and the elusive essence of memory—the fact that both photography and memory are inherently dynamic processes.[1] To foreground this fluid disposition, recent debates on prosthetic memory, postmemory, and trauma have shown how photography plays a vital role in the disembodied, transgenerational, and retroactive operations of memory work.[2] These debates have laid bare that neither photography nor memory is ever fully realized; rather, they are constantly shaping their realities. In the age of new media technologies, when having a memory has become almost tantamount to having a photograph of it, the very existence of memory is dependent on its constant actualization through photographs. When photography was associated with fixity and immobility, it was implausible to embody the continuity of memory work photographically. Today, though, we can manifest memory's dynamic features through AI.

Thanks to the virtualization of photography enabled by AI, we can now actualize a memory that has never existed factually. Previously, it was the indexi-

1 Ali Shobeiri, "Photography and Memory," in *The Palgrave Encyclopedia of Memory Studies*, ed. L. M. Bietti and M. Pogacar (London: Palgrave Macmillan, 2023), 1–10.

2 On prosthetic memory and photography, see Alison Landsberg, *Prosthetic Memory: The Transformation of American Remembrance in the Age of Mass Culture* (New York: Columbia University, 2004). On postmemory and photography, see Marianne Hirsch, *The Generation of Postmemory Writing and Visual Culture after the Holocaust* (New York: Columbia University, 2012). On trauma and photography, see Ulrich Baer, *Spectral Evidence: Photography of Trauma* (Cambridge, MA: MIT Press, 2005).

cality of photography that authorized the reality of recollection; today, AI photography is erasing the boundary between the present and (memories of) the past. By feeding AI software with existing photographs, one can materialize a memory that is simultaneously authentic and inauthentic, and thus both legitimate and illegitimate in its embodiment of the past. This paradigm shift challenges not only our conception of recollection but also our very perception of photographic representation. It raises the question whether AI-generated photographs can present us with possible memories of the past. If so, what is the ontological status of an AI-generated memory whose nature is synthetic? Simply put, can we assign any mnemonic value to memories actualized through AI photography? To answer these questions, I will draw on the conjunction of memory and photography in the AI-generated photos of visual artist Alexey Yurenev.

Seeking to visualize the memories of the Second World War, Yurenev used machine learning to photographically materialize what one may have experienced during the conflict. His AI photographs were produced with generative adversarial networks (GANs) and existing photos from the war. Although they envision a synthetic memory that is not real, they interrogate the reality of memory. By situating the photographs of Yurenev at the intersection of memory, virtuality, and spectrality, I will explore the formation of a photographically induced memory that can only exist algorithmically. First, I will examine the link between photography and memory to show how the spread of machine learning is reshaping it. Then, by drawing on the works of Gilles Deleuze and Henri Bergson, I will discuss how the construction of memories follows the logic of continuous actualization. Next, I will investigate virtuality through the discourse of spectrality developed by Jacques Derrida, thereby explaining why Yurenev's photos appear ghostly and phantasmal to the viewer. Finally, having discussed the virtuality of memory and the spectrality of photography, I will propose the term *larval memory* as a conceptual framework for the ontological status of the synthetic memories conjured up by GANs.

AI Photography and Recollection

Since its very conception, photography has been a means of exposing the latent operations of memory work. We do not simply recall past events through photographs; we justify and verify them. Seeing photography as a mnemonic device goes back to the early days of the medium, when physician Olivier Wen-

dell Holmes referred to the photograph as a "mirror with a memory."[3] This comparison entangled memory and photography and implied that memory was a material property of photographs. This explains why early photographers saw photos not only as containers of memories but also as their content. At the time, the coalescence of photography and memory was a discovery, but this is no longer the case. In the digital age, in addition to functioning as visual testimonies of our memories, photographs essentially authorize the existence of the past, both individually and collectively. The digitization of photos already challenged the photographic narrativization of the past. Now, the development of AI photography has caused an epistemological rupture in the act of remembering. However, we should bear in mind that recollection has never been direct and instantaneous. Therefore, the task of remembrance through AI photography can be considered an enlargement of the fundamental divide between the immediacy of experience and the mediacy of representation.

Around a century ago, Sigmund Freud foregrounded this divide with the metaphor of the camera as the place where unconscious thoughts and emotions are stored in a dormant state. Freud used several photographic terms to explain the inner mechanisms of the unconscious. He distinguished between two types of memory, namely natural and artificial. The former consisted of the unassisted human ability to recall the past, as one does when recalling a memory. The latter referred to the incorporation of various devices used in memory formation and registration. For Freud, all kinds of "auxiliary apparatuses" invented by humans to enhance and retain their memories were essentially "built on the same model as the sense organs themselves."[4] Whether it was a camera or a more advanced machine, he considered all sorts of mnemonic tools as extensions of natural memory. By distinguishing between natural and artificial memory, Freud revealed that human memory was becoming increasingly reliant on devices and technologies. In his words,

> With every tool, man is perfecting his own organs, whether motor or sensory, or he is removing the limits to their functioning. … By means of spectacles, he corrects defects in the lens of his own eye; by means of the telescope, he sees into the far distance; and by means of the microscope, he

3 Oliver Wendell Holmes, "The Stereoscope and the Stereograph," *The Atlantic Monthly*, vol. 3, no. 2 (1859), 738–748.

4 Sigmund Freud, "The Mystic Writing-Pad," in *On Metapsychology: The Theory of Psychoanalysis*, ed. S. Freud (Harmondsworth: Penguin, 1925), 430.

> overcomes the limits of visibility set by the structure of his retina. In the photographic camera, he has created an instrument that retains fleeting visual impressions, just as a gramophone disc retains equally fleeting auditory ones; both are, at the bottom, materializations of the power of recollection he possessed, his memory.[5]

By drawing a parallel between human (natural) memory and machine (artificial) memory, Freud was not only declaring their dependence but also predicting their inevitable entanglement. In other words, he was anticipating an era in which the artificiality of technologically enhanced memories would become indistinguishable from the (alleged) naturality of corporeally induced ones. Our time is that era—an age when the photographic registration of lived experiences has become almost synonymous with the inscription of memories.

Around a century ago, a photograph could function as a "memento from a life being lived."[6] Today, due to its instantaneous dissemination on the web, it has become a ubiquitous source of information about live events. Instead of capturing irreversible past experiences as mementos, photographs have become what the media theorist José van Dijck calls "momentos" of the ongoing present.[7] This is how photographs can now divulge the innate operationality and ephemerality of memories—by conflating the past and the present in their constant circulation in cyberspace. Still, we should bear in mind that "memories are made as much as they are recalled from photographs; our recollection never remains the same, even if the photograph appears to represent a fixed image of the past."[8] So, instead of seeing digitization and algorithmization as means of the dematerialization and disembodiment of memories, one can argue that *all* memories induced by photographs are inherently mediated memories, or as Freud would have said, all photographically impelled memories are artificial memories. From this perspective, the interpolation of AI into the photographic narration of memories is not necessarily a falsification or fabrication of the past; rather, it is an unprecedented photographic mediation that

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5 Sigmund Freud, "Civilization and its Discontents," in *Civilization, Society, and Religion*, ed. S. Freud (Harmondsworth: Penguin, 1930), 279.

6 John Berger, *Understanding a Photograph* (London: Penguin Books, 2013), 53.

7 José van Dijck, *Mediated Memories in the Digital Age* (Stanford: Stanford University Press, 2007), 115.

8 José van Dijck, "Digital Photography: Communication, Identity, Memory," *Visual Communication*, vol.7, no.1 (2008), 8.

requires new modes of contemplation and theorization. Among many examples, GANs are one of the prevalent forms of this mediation.

Deep learning aspires to simulate the intricacy of human decision-making by using multilayered neural networks.[9] In this field, GANs are used to create new data from existing ones. Generally speaking, all GANs have two models that oppose each other, namely the generative model and the discriminative model. The former is used to generate new data from existing datasets, while the latter is employed to compare the new data with the original ones.[10] The term "GAN" was first coined in an article published in 2014, in which the authors exemplified the process as follows: "The generative model can be thought of as analogous to a team of counterfeiters, trying to produce fake currency and use it without detection, while the discriminative model is analogous to the police, trying to detect the counterfeit currency."[11] Typically, GANs continue the exchange of data between the generative model and the discriminative model until the new data (the fake currency) is indistinguishable from the primary data (the original currency). The most common use of GANs has been in image processing and computer vision, where it has been employed for photo blending, photo de-aging, resolution enhancement, and photo augmentation.[12] GAN models entered the mainstream after a website called This Person Does Not Exist started generating realistic portraits of nonexistent people in 2019.[13] Even though the website has not disclosed its datasets and blending procedures, we know that GAN image processing is generally carried out in three ways. The first one is supervised learning, in which the AI program uses well-labeled datasets to create an intended outcome. The second one is unsupervised learning, in which the AI looks for patterns in the dataset without human interference. The third way is semisupervised learning, in which a small quantity of labeled data and a great quantity of unlabeled data are used together. The AI-generated photographs of Alexey Yurenev belong to the third category; they are the products of numerous exchanges between a few labeled datasets and a great number of unlabeled datasets.

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9 Shai Shalev-Shwartz and Shai Ben-David, *Understanding Machine Learning: From Theory to Algorithms* (New York: Cambridge University Press, 2014).

10 S. Kumari and K. Aggrawal, "Scope of Generative Adversarial Networks (GANs) in Image Processing: A Review," *International Journal of Health Sciences*, vol. 6 (2022), 724.

11 Jan J. Goodfellow, et al. "Generative Adversarial Nets," *Advances in Neural Information Processing Systems*, vol. 27 (2014), 1.

12 S. Kumari, "Scope of Generative Adversarial Networks," 725.

13 See https://this-person-does-not-exist.com/en [Accessed 23 February 2024].

3.1 Alexy Yurenev, War Actor, part of the Silent Hero series, 2023.

Courtesy of the artist.

Aspiring to understand what his grandfather could remember from the Second World War, in 2019 Yurenev began to explore the possibility of using GAN models as mnemonic devices. Unable to experience what his grandfather had, he began a photographic collaboration with GANs, which led to a series of photographs that were not taken but synthesized and amalgamated. Though he could not recall the atrocious memories of the conflict, perhaps AI could perform the act of recollection for him. By using StyleGan, a GAN model developed by NVIDIA in 2018, Yurenev gathered a dataset of approximately 35,000 existing photographs from the war. This dataset included, but was not limited to, photos of destroyed cities, dead bodies, abandoned landscapes, and war weaponry. To organize this substantial amount of data, he defined the following three themes: portraits, battles, and landscapes. Then, he instructed the GAN to process each theme through a "forger" (i.e., the generative model) and a "critic" (i.e., the discriminative model) for numerous cycles of learning. In each cycle, the forger generated new photos based on the dataset, and the critic validated them according to the original data—a continuous process of fabri-

cation, differentiation, and verification. In each learning cycle (also known as an "epoch" in StyleGan), the AI model became smarter. Eventually, it started generating low-resolution images that transmitted the horror of the war in peculiar ways even though they did not actually represent it. Being curious to see the algorithmic transformation of his dataset, Yurenev allowed the GAN model to go through more than 5,000 consecutive epochs to generate new photographs.[14] This resulted in a series of synthetic portraits of unrecognizable, defaced, and eerie figures that he called *War Actors* (Figs. 3.1, 3.2, and 3.3).

3.2 Alexy Yurenev, War Actor, part of the Silent Hero series, 2023.

Courtesy of the artist.

Although these AI-generated portraits are based on existing photographs, they no longer correspond to the original dataset, having been excessively processed by the generative and the discriminative models. Thus transformed, these unnerving portraits convey memories of the war that are not factual;

14 See https://www.yurenev.com/ (accessed February 23, 2024).

however, these memories are emerging as we look at them—they are being actualized. In other words, they show how photography can materialize *a memory that is on the verge of constant actualization without reaching a final realization*. This does not mean that these AI-generated portraits are illegitimate memories of the past. Drawing on Henri Bergson's work, we may see them as photographic proof that the totality of the past can exist only in a virtual form, which is always waiting to be actualized.

3.3 Alexy Yurenev, War Actor, part of the Silent Hero series, 2023.

Courtesy of the artist.

The Virtuality of Memory

> "Differentiation is always the actualization of a virtuality that persists across its actual divergent lines."
> (Gilles Deleuze, *Bergsonism*)

In his seminal work on the world of matter and the realm of memory, Bergson made a crucial distinction between two kinds of memory work: spontaneous recollection and learned recollection. When remembering the past, the former leaves nothing behind and captures all temporal and spatial details; hence, it is "perfect from the outset." In contrast, the latter only summons disjointed, alienated, and "impersonal" particulars.[15] To clarify these two types of recollection and their associated memories, Bergson asks: What does one remember of a lesson that has included many readings? Do we recall the entire lesson or each separate reading as a constituting part of the whole? He suggests that we recall these two types of memories sequentially—first, the memory of the entire lesson; then, the memories of each reading. While the memory of each reading comes to us as a distinct and transparent representation, the memory of the entire lesson appears as a general and opaque consciousness of the past. According to Bergson, the memory of each reading enters our mind in the form of a "memory-image": "It neglects no detail; it leaves to each fact, to each gesture, its place and date." The memory of the entire lesson, however, constitutes what he calls "a whole past."[16] Unlike the former, which is always concerned with the *exactitudes* of the past, the latter is concerned with *performing* the entirety of the past. As he puts it,

> This consciousness of a whole past of efforts stored up in the present is indeed also a memory, but a memory profoundly different from the first, always bent upon action, seated in the present, and looking only to the future. It has retained from the past only the intelligently coordinated movements which represent the accumulated efforts of the past; and it recovers those past efforts, not in the memory-images which recall them, but in the

15 Henri Bergson, *Matter and Memory*, trans. Nancy Margaret Paul and W. Scott Palmer (Mineola, NY: Dover Publications, 2004), 95.

16 Ibid., 92.

> definite order and systematic character with which the actual movements take place. In truth, it no longer *represents* our past to us, it *acts* it.[17]

For Bergson, this general sense of "a whole past," which cannot represent the past but can perform its contours, is the original means of remembering because, without it, we would not be able to coordinate our memories. To be clear, the whole past is a general sphere in which specific parts of the past can unfold; it is an overall sense of previous time through which explicit memory-images are formed in the present. That is why the whole past cannot be the particular past of one person; it is the general past of an entire people, bereft of any individuality and specificity. It is precisely this opacity and this generality of the whole past that operate as the existential axes of impersonal memories—recollections that belong to no person in particular but to all depersonalized individuals. Going back to Yurenev's photographs, these AI-generated photos do not intend to embody how a specific war actor looked during the conflict—that is, they do not pretend to show the memory-images of the past. Instead, in their sheer generality and totality when approaching the past, they establish a collective representation of war actors during WWII. This means that they do not embody a particular past through the exactitude of spontaneous recollection; they perform the whole past through the generality of learned recollection. In doing so, they act as *impersonal anamneses of war actors as such*—recollections that are as hazy as they are broad in scope. For Bergson, it is precisely this generality of the whole past that inserts a virtual element into the fabric of remembering. As we try to recall a period of our history, he writes,

> we become conscious of an act *sui generis* by which we detach ourselves from the present in order to replace ourselves, first in the past in general, then in a certain region of the past—a work of adjustment, something like the focusing of a camera. But our recollection still remains virtual; we simply prepare ourselves to receive it by adopting the appropriate attitude. Little by little it comes into view like a condensing cloud; from *the virtual* state, it passes into *the actual*.[18]

Bergson suggests that our recollection involves a process that is similar to how we adjust a camera's lens to focus on an object. First, we must situate ourselves

17 Ibid., 93 (original emphasis).

18 Ibid., 171 (emphasis added).

in "the past in general" (or in "the whole past"), then, we must search for specific memories in "a certain region of the past." Through this mnemonic maneuvering and calibration, a memory transitions from the virtual state to the actual state like "a condensing cloud." Building on this idea in *Bergsonism*, the philosopher Gilles Deleuze warns that we must avoid interpreting Bergson's argument merely in a psychological way. When we place ourselves in the past in general, wherein memories exist in a purely virtual form, we enter an entirely different ontological state—we leap "into the being in itself of the past. It is a case of leaving psychology altogether."[19] For this reason, Deleuze suggests that the key to understanding the Bergsonian theory of recollection lies in the ontological transformation of the virtual into the actual. According to him, unlike the realization of the possible, which requires "resemblance" and "limitation," the Bergsonian notion of memory is concerned with the actualization of the virtual, which operates through "difference" and "divergence." He explains this point as follows:

> While the real is in the image and likeness of the possible that it realizes, the actual, on the other hand, does not resemble the virtuality that it embodies. It is difference that is primary in the process of actualization—the difference between the virtual form which we begin and the actuals at which we arrive. … In short, the characteristic of virtuality is to exist in such a way that is actualized by being differentiated and is forced to differentiate itself, to create its lines of differentiation in order to be actualized."[20]

Following Bergson, Deleuze suggests that our recollections are not realized from a possible past but are actualized from the general past, wherein memories reside in a purely virtual form. Moreover, for a memory to be actualized, it does not have to follow the logic of resemblance and limitation; that is, it does not have to imitate, nor does it have to be restricted by, what it refers to. Instead, when one leaps into the general past through recollection, one actualizes a memory through a constant differentiation—according to the degree to which each region of the past differs from the other. While the actualization of the virtual is a philosophical endeavor in Bergson and Deleuze, it is a photographic experiment in the AI-generated photos of Yurenev.

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19 Deleuze, *Bergsonism*, 56.

20 Ibid., 97 (emphasis added).

Produced entirely through the differential mechanism of the generative and discriminative models, Yurenev's photographs are *not* the realizations of the past. They do not pretend to bring into existence a past that could have existed—a possibility. Instead, having been produced by the continuous differentiation of the "forger" and the "critic," they signify the actualization of the whole past—a virtuality. Rather than realizing the memories of the war through resemblance and limitation, they actualize them through difference (from the generative model) and divergence (from the discriminative model). Accordingly, they no longer resemble the generative model, nor are they limited by the discriminative model; instead, they merely exist as an index of difference between the two. In other words, having gone through 5,000 epochs of constant differentiation, these AI-generated photos show how memories can pass from the virtual state (the general past) to the actual state (the algorithmic present). As Deleuze would have said, the difference here is between the virtual (memory) from which we begin and the actual (recollection) at which we arrive. It is this ontological leap from the virtual past to the actual present that confers a ghostly veneer to these photographs—a creepy atmosphere that subtly suffuses them.

The Spectrality of Photography

> "This spectral, someone other looks at us, we feel ourselves being looked at by it, outside any synchrony."
> (Jacques Derrida, *Specters of Marx)*

Having actualized the general past photographically, the *War Actor* portraits appear ghostly and phantasmal to the viewer, as if they were stuck between the past and the present. Incapable of crystalizing the specific memories of an individual, they appear to be anonymous apparitions of the past that have been algorithmically conjured up by the generative and discriminative models. Although this algorithmic thaumaturgy seems to be a novel photographic means, the practice of summoning ghostly figures in photography is nothing new; it goes back to the late nineteenth century, when so-called spirit photographers tried to capture ghosts and other spiritual entities in photographs. By juxtaposing the portraits of deceased family members with their grievers, spirit photographers sought to prove the existence of ghosts and specters.

At the time, the invention of the telegraph aimed to eliminate temporal and spatial distances. On their part, spirit photographers aspired to explore the archaic dream of disincarnation, claiming that the human soul could exist independently of the flesh. Regardless of whether the images in question were "spiritual revelation[s] or trickster's hoax[es]," spirit photographers managed to create a "spooky effect" that blurred the ontological boundaries between empiricism and spiritualism.[21] By superimposing two or more images photographed at separate times, they created paranormal portraits that showcased the "encounter of two ontologically separate worlds"—the world of the living and the world of the dead.[22] Despite the disappearance of spirit photography in the twentieth century, our fixation with photographic ghosts has proved to be an enduring phenomenon. As the media theorist Tom Gunning notes, our obsession with summoning ghosts through photography comes down to two fundamental fantasies.

> *First*, [the ghostly] envisions a phantasmatic body, fundamentally different from ordinary bodily experience, whose appearance seems to make us doubt or rethink the nature of our senses, our grasp on reality. … *Second*, the ghostly represents a fundamental untimeliness, a return of the past not in the form of memory or history but in a contradictory experience of presence.[23]

In the nineteenth century, fulfilling these fantasies required the superimposition of photographs. Today, this can be achieved through the differential operations of GAN models. Having been produced by the algorithmic amalgamation of thousands of portraits, Yurenev's *War Actor* portraits are intrinsically and ineluctably discorporate; their bodily existence is fragmentary, displaced, and synthetic. For example, in Figure 3.1, we may be looking at the forehead of one soldier, the nose and ears of another person, and the neck and cheek of

21 In his compendious study of spirit photography, Louis Kaplan combines photography theories, the history of science, American cultural history, and religious revivalism to shed light on the so-called spooky theory of photography from the middle of the nineteenth century to the present. See Louis Kaplan, *The Strange Case of William Mumler: Spirit Photographer* (Minneapolis, MN: University of Minnesota Press, 2008), 212.

22 Tom Gunning, "To Scan a Ghost: The Ontology of Mediated Vision," in *The Spectralities Reader: Ghosts and Haunting in Contemporary Cultural Theory*, ed. María del Pilar Blanco and Esther Peeren (New York/London: Bloomsbury, 2013), 213.

23 Gunning, "To Scan a Ghost," 232.

yet another. First, it is this bodily mixing that creates the phantasmal feeling in these portraits—the fact that we cannot be sure about the corporeal unity of what we are looking at. In their somatic blending, they emerge as ethereal bodies corporealized through AI. This means that instead of concretizing definite memories of the past, these ghostly figures encapsulate the entirety of the past into one haunting body. That is how they complicate the ontologies of presence and absence—by simultaneously congealing the former and consolidating the latter.

To study this phenomenon, Jacques Derrida coined the term "hauntology" (a portmanteau of "ontology" and "haunting"), which replaces the priority of being and presence with the figure of the ghost as an entity that is neither present nor absent. According to Derrida, from a hauntological perspective, "a specter is both invisible and visible, both phenomenal and nonphenomenal: a trace that marks the present with its absence in advance."[24] Based on this argument, being haunted by a specter equates to feeling the presence of an absence and embracing the visible in the invisible, thereby recognizing the contradictory existence of the ghostly body—the materialization of an immaterial being. To make hauntology tangible in *Specters of Marx*, where he introduces the logic of spectrality and haunting, Derrida asks: What is the function of a helmet's visor in the armor of a soldier? His answer: "The power to see without being seen."[25] For Derrida, this one-sided sight makes us feel as if we are being watched without being able to see who is watching us. This is the cornerstone of the spectral. Elsewhere, he refers to this phenomenon as "the visor effect," which he uses to flesh out the basis of hauntology.

> The "visor effect": the ghost looks at or watches us; the ghost concerns us. The specter is not simply someone we see coming back; it is someone by whom we feel watched, observed, surveyed, as if by the law. We are "before the law" without any possible symmetry, without reciprocity, insofar as the other is watching only us, concerns only us—we who are observing it. … The fact that there is a visor symbolizes the situation in which I can't see who is looking at me; I can't meet the gaze of the other, whereas I am in his sight.

24 Jacques Derrida and Bernard Stiegler, "Spectrographies," in *The Spectralities Reader: Ghosts and Haunting in Contemporary Cultural Theory*, eds. Esther Peeren and María del Pilar Blanco (New York: Bloomsbury, 2013), 39.

25 Jacques Derrida, *Specter of Marx: The State of the Debt, the Work of Mourning and the New International* (New York/London: Routledge, 1994), 8.

> The specter is not simply this visible invisible that I can see; it is someone who watches or concerns me without any possible reciprocity.[26]

While corporeal disfiguration is the initial reason for the ghostly appearances of the *War Actor* portraits, it is their impenetrable eyes that confer a second layer of spectrality to them. Having been vacuumed from (Fig. 3.1), laminated onto (Fig. 3.2), or plunged into (Fig. 3.3) their faces, the eyes of the war actors appear simultaneously present and absent. That is why, when looking at these portraits, we feel ourselves being watched, observed, and surveyed by a *unilateral gaze*—a ghostly gaze of which we are the recipients but to which we cannot respond. Being exposed to the actors' obscured and obscuring gazes, we arrive at the paradoxical logic of spectrality: the invisible visible that lingers before our eyes, phenomenally present, yet perpetually absent. In addition to their deformed expressions, it is this ontological simultaneity of absence and presence, caused by their distorted and disturbing eyes, that imparts a spectral atmosphere to these portraits. Put differently, each of these portraits reveals the logic of spectrality through the concurrent *generation* and *degeneration* of the eyes—through the creation of a gaze that has "the power to see without being seen"—a visor effect par excellence. Consequently, we feel haunted by what we cannot see, though we are certain of its presence, were it not that it is the presence of an absence—the specter of the whole past.

Larval Memories

> "Spectrality is a form of life."
> (Giorgio Agamben, "On the Uses and Disadvantages of Living among Specters")

Having discussed the virtuality of memory and the spectrality of photography, I would finally like to foreground a specific kind of spectrality that corresponds to the AI-generated photos discussed in this chapter both ontologically and mnemonically. In a short article entitled "On the Uses and Disadvantages of Living among Specters," the philosopher Giorgio Agamben contends that

26 Derrida and Stiegler, "Spectrographies," 40–41 (emphasis added).

spectrality needs to be understood as a form of life—"a posthumous or complementary life that begins only when everything is finished."[27] From this point of view, becoming a ghost means continuing a life that has come to an end corporeally through a spectral metamorphization. However, Agamben argues that not all spectral renewals (or forms of life) are meant to fulfill the same function, namely the continuation of a concluded life. While some specters have nothing to do with their previous lives, others do not accept the fact that their former existence has come to an end. Having lived through unsettling circumstances, some ghosts resist being announced dead in the first place. Agamben distinguishes between these two types of specters in the following passage:

> There is also another type of spectrality that we may call larval, which is born from not accepting its own condition, from forgetting it so as to pretend at all costs that it still has bodily weight and flesh. Such larval specters do not live alone but rather obstinately look for the people who generated them through their bad conscience. They live in them as nightmares, incubi or succubi, internally moving their lifeless members with strings made of lies. While the first type of spectrality is perfect, since it no longer has anything to add to what it has said or done, the larval specters must pretend to have a future in order to clear a space for some torment from their own past.[28]

The spectral feeling engendered in the viewer by the *War Actor* portraits through their bodily amalgam and/or ocular expunction is essentially larval. Having been created from thousands of images of real soldiers, people whose lives came unexpectedly to an end due to the brutalities of WWII, these AI-generated portraits do not seem to accept their condition. In other words, like larvae awaiting metamorphosis into their next forms of life, these spectral figures await transmutation into their previous existence so as to demand retribution for the torments they have suffered. Like larvae whose condition is defined by in-betweenness, these ghostly portraits appear stuck in the liminal state between a life that has not ended and a life that has not yet begun. Unwilling to accept their death and unable to come back to life, these phantasmal figures are thrown into an algorithmic limbo—an ontological purgatory made of the

27 Giorgio Agamben, "On the Uses and Disadvantages of Living among Specters," in *The Spectralities Reader: Ghosts and Haunting in Contemporary Cultural Theory*, eds. María del Pilar Blanco and Esther Peeren (London/New York: Bloomsbury, 2013), 475.

28 Ibid.

perpetual differentiation implemented by the generative and discriminative models. It is this specific kind of photographically instigated and algorithmically sustained memory that I call *larval memory*—a memory that is as much virtual as it is spectral in its form of appearance and existence.

Larval memories are neither on the surface as factual remembrances nor sunken as possible recollections. They exist in a state of cryptobiosis; that is, a transitional state during which one is neither alive nor dead but suspended between the two. Coagulated by the generative and discriminative models, larval memories endure a purgatorial condition in which a memory is neither inhumed nor exhumed, neither sepulchered in the past nor resurrected in the present. Therefore, when we look at these photographs, we do not recall memories that are finished, as if they were fully realized in the past, but ones that are being actualized between the virtual past and the algorithmic present. To put it concisely, *larval memories are virtual memories of the general past undergoing actualization in a particular present, resulting in opaque, fragmented, discorporate, and spectral recollections*. It is precisely because they fail to realize lucid memories of the past that larval memories manage to actualize its atrocities. Let loose among us like incubi and succubi, larval memories spectralize the past without the possibility of reciprocity.

Conclusion

By situating Yurenev's *War Actor* photo series at the intersection of memory, virtuality, and spectrality, I have discussed how AI photography can induce a spectral memory that is being constantly actualized without ever being fully realized. I have drawn on the virtuality of memory through Bergson and discussed the spectrality of photography through Derrida. In doing so, I have shown how the disjointed bodies and distorted eyes of the AI-generated portraits induce a spectral feeling in the viewer—a haunting sense of the whole past summoned through the perpetual differentiation executed by the GAN's generative and discriminative models. Therefore, I have argued that if AI manages to conjure up memories of the Second World War, those memories are innately spectral and larval; they exist in a liminal state between life and death as well as presence and absence. Larval memories are photographically induced and algorithmically infused recollections that are suspended in a cryptobiotic state between facticity and fabrication, authenticity and artificiality, and remembering and forgetting.