



AI-based generative image production systems in the artistic problematisation of the past: the thematisation of memory and temporality in "AI art"

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Received: 8 April 2024 / Accepted: 2 December 2024
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Abstract

This text analyses how generative AI systems are being employed in current artistic practice to question certain historical visual narratives, creating representations that challenge some conventional perceptions of the past and thus opening up new perspectives on the experience of temporality. In this regard, special emphasis will be placed on some artistic projects based on generative historical photography practices. These are works that develop new ways around 'archival aesthetics' (Sekula in *October* 39:3–64 1986; Buchloh in *Deep storage. collecting, storing and archiving in art* [Exhibition catalog]. P.S.1, Nueva York, 1999; Guasch in *Arte y archivo, 1920–2010. Genealogías, tipologías y discontinuidades*. Akal, Madrid, 2015, etc.) by producing visual archives that do not exist or are alternatives to others. We will therefore analyse works that critically examine how these generative systems can contribute to a revision and re-evaluation of the past, as well as to the problematisation of the ways in which photography has been used for the historical record. These poetics invite subtle reflections on the role of the visual archive in the processes of shaping subjectivity and personal and communal identity. In the final part of the text, we will deal with the study of some artists who, through appropriationist strategies and remakes assisted by generative AI models, revise artistic works from the past, specifically from the photoconceptualism of the 1970s. In these strategies, the thematisation of the relations between photographic register and temporality also plays a leading role.

Keywords Generative photography · Historical memory · Contemporary art · Artistic appropriationism

1 Artistic practices based on generative historical photography

AI-based generative visual production systems, as technologies for producing images based on data and patterns extracted from other images already produced, have, as Maria Mavropoulou (2023) pointed out, "a peculiar relationship with time". In fact, the fundamental hypothesis that will articulate this paper is that the capacity of generative AI

systems to imitate photographs, that is, to generate images that "participate" of the photography language (which we will refer to here as "promptography"¹), is ideal for the critical thematisation of the relationship between photography and memory, that is, to reflect on the testimonial and mnemotechnical function that has traditionally been associated with the photographic image.

On the other hand, it seems clear that the influence that AI is exerting on the photographic medium is enormous.

¹ The coining of the term "promptography" is attributed to Christian Vincés. See Lily Doton (2023) "It's going to destroy jobs: When an AI image won a photo contest, its human refused the award". *Salon*. Accessed 11 June 2023. <https://www.salon.com/2023/04/22/boris-eldagsen-ai-photo-artist-dall-e/>

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Fig. 1 Images from the series *Un archivo inexistente* by Felipe Rivas San Martín (2023)

As Boris Eldagsen pointed out, "The photography scene needs to reposition itself and face the fact that it is no longer photography itself but AI that is defining the future of the medium" (Eldagsen 2023a, b). It is not surprising, then, that generative historical photography practices are today at the centre of quite a few artistic projects. The AI-simulated experimentation of the photographic gaze in pre-photographic periods, the exploration of what representations of the past these ultramodern technologies can imagine, or how they can help us remember in other ways, are some of the main thematic axes for many artists today.

In the following pages we will look specifically at a question that seems to us particularly relevant: how the rhetorics of fake photographic archives thematise the "subtle play between its intractability and its disappearance" (Nora 1989, p. 17) that determines our relation to the past. It is obvious that the potentials of generative historical photography strategies have a direct bearing on how "the media question affects the sense of history to the core" (Liu 2018, p. 2), with AI acting as an instrument of reflection on the photographic and its function of recording and producing memory.

While it is clear that, today more than ever, we need to consider "photojournalism as a pillar of democracy" (Eldagsen 2023b), many artistic practices invite us to reflect on the capacity that false historical images can have for certain poetic and critical purposes. This is the case of some of the works by artists who investigate generative historical photography, and which will help us, based on them, to try to elucidate the critical potentials inherent in this type of proposal.

A first example that we are going to analyse here is Felipe Rivas San Martín's project *Un archivo queer inexistente [A queer archive that doesn't exist]* (2022), (Fig. 1) a fake archive of images that pretend to be old photographs, created with a generative model of artificial intelligence (Stable Diffusion). As the author himself points out, this project consists of "a series of fictitious photographic images of gay couples, lesbians and queer or non-binary people from the beginning of the twentieth century in Latin America" (Rivas 2024, p. 160). It is therefore "a queer, LGBT, Latin American archive of the past (...) an archive that does not exist because of the conditions of violence, discrimination, which has marked the culture and especially that of the past" (quoted in Góchez 2023). The fiction provided by AI thus constructs an archive that could never be, an archive that the political and social conditions of the past made impossible. The images that make up this archive, which through AI elaborations simulate photographs, do not refer to testimony, to factuality, to what happened or existed in front of a camera, but, on the contrary, emphasise the "this was not" (Rivas 2024, p. 165).

What is thematised here is the difficulty that the LGT-BIQ+ collective has had throughout history to leave a record as an image. After all, all political power always requires the control of memory (Braunstein 2008). The project thus has an impact on historical invisibilisation, on the denial of memory. Scenes of affection such as those shown in these images could not leave visual records in



Fig. 2 Images from the series *Exhumar la memor.IA* (2023) by Rogelio Séptimo

the past.² The artist's intention here is to employ AI as a machine for the remediation of a triple negation: "by sexual dissidence, by class and by geographical location and raciality" (Rivas 2024, p. 164). What would take place here is a practice of "retrofuturism" (quoted in Góchez 2023), aimed at reimagining a repressive past that was full of limitations and censorship, using AI to generate images of moments that should have been able to happen and of which there should be photographic memories. The vindication of a non-existent archive is the illumination of certain historical absences and impossibilities.

The errors and deformities in the representation of bodies produced by AI in these simulations of photographs, something characteristic of the images generated in the incipient moments of these technologies (hands with an excessive number of fingers, disproportions and other anatomical errors) are considered by the artist as evidences that these images do not try to "supplant the reality of past violence and replace it with a happy past" (Rivas 2024, p. 165). So it is these failures, which the author considers as an "additional layer of bodily dissidence" (p. 165), that would prevent these images from falsifying the past, acting as evidences of their simulacry character, avoiding the appearance of authentic photographic records. In this project, it is not a question of the past being contaminated with new images that rewrite history through false images with a photographic appearance. On the other hand, and beyond these errors acting as evidence of the non-testimonial condition of these images, of not being records of real presences before the lens of a camera, we could say that the technical error would also act here as an evocator of the social and political errors that caused the invisibilisation of certain groups.

This work by Rivas exemplifies very well the use of the immense possibilities of generative AI systems to draw attention, through new images, to others that could not have taken place in the past. This fictitious archive tells us about a world of experiences, feelings, affections, that could not be made visible, forced to extreme discretion and to remain hidden from the gaze of others. It is also a thematisation of what the history of photography does not contain, of its voids and absences.

The project would therefore have an impact on that kind of historical description that Ricœur typified as that "in which there is no witness to testify to an event" (Ricœur 1985/2004, p. 245). AI here becomes a witness to what might have happened, unveiling a hidden truth that can only be known visually now, albeit only through images that are merely possible and long after the fact, thus operating a retroactive readjustment of the past.

As the author reminds us, the process of creating these images had to deal with managing the biases of the AI model used; for example, "when indicating a 'photograph of two men', it was usual for the result to be white men" (Rivas 2024, p. 166). In this regard, Rivas proposes the concept of "minority prompt" with the intention of alluding to a type of instruction or data request "specifically designed to counteract the inherent biases present in the databases used to train language models" (Rivas 2024, p. 166). It is evident how difficult it is in a project of this type to avoid replicating the representational tendencies of the model itself, when, in addition, the requests contained in the prompts have to do with "people who are representative of the Latin American or Abya Yala context, working class and sexual dissidents" (Rivas 2024, p. 167) and who tend to be poorly represented in the image banks most commonly used to train these generative models.

Another good example of an artistic project based on generative historical photography is that of Rogelio Séptimo entitled *Exhumar la memor.IA* (2023) (Fig. 2). This consists of the creation of portraits, using AI, of the inhabitants of the island of Janitzio (one of the islands

² As Rivas points out, "As the queer critic José Esteban Muñoz explained one of the consequences of heteronormative culture is that the queer experience of the past could leave no record or archive. This denial of the archive is even more dramatic for people from the Global South and the working classes". (2024, p. 160).

of Lake Patzcuaro, in the state of Michoacán, Mexico), people of which there is no photographic record. Of particular importance in this project is the working methodology, which brings into play the collective memory and the exchange of memories among the members of this small island community. As the author indicates, "These representations have been created using a combined process of analogue photography and generative software, based on testimonies, descriptions and images from their archives compiled at 'barter tables'" (Séptimo 2023). Individual and collective memory, recovered through oral exchange, is thus materialised in images of community members who were never photographed. A project that ultimately problematises the question of what it means to have a photographic image of someone. But in contrast to the idea of the "composite portrait" (that type of representation constructed by the police for the visual identification of a criminal on the basis of oral descriptions of the memories of victims or witnesses) and which, ultimately, would only refer to the "arrest" of its referent (Sekula 1986, p. 7), here this type of portrait generated from shared memories seeks to remedy an absence, while allowing the artist to explore the potentials of the image of a face as a motif for the oral exchange of memories and community experiences. They are merely approximate portraits, with no exact resemblance to the people they represent, which play with a concept of existence that has to do, fundamentally, with the memory in the minds of others, with our persistence in someone's memory.

A third project representative of this type of strategy around the generation of fictional photographic archives through AI is Maria Mavropoulou's *Imagined Images* (2023). It consists of an AI recreation of family representations of the past that document events in the lives of the author's great-grandparents, grandparents and parents. These are representations of people and moments that may never have been photographed or whose images were lost in time, or even never took place: "Moments that happened, moments that were unphotographed, moments I imagined, moments I was told about moments I have hoped to happen, moments that never happened" (Mavropoulou 2023). The stories the artist heard about her relatives fed the prompts, in a process that, as Mavropoulou acknowledges, was not only emotional but also informative: "The AI seemed to know more than I did about a specific place and time, adding details to images that I wasn't aware of" (2023).

As in Rivas San Martín's project, the errors in representation made by the AI are also interpreted by the artist as a fundamental part of the work. It would be precisely the inability of the first generation of AI models to produce fully photorealistic images that would make us look at the photographic simulations that make up this project from a perspective of affective generalisation, alluding to a kind

of common general past. The distortions and defects from which these images suffer would prevent us from believing that they are real photographic images, of anyone in particular (Fig. 3). Contrary to what happens in authentic family photo albums, these representations would thus assume a generic character: "They are not mine, yours, or anyone's, but they belong to all of us. The aura is there" (Mavropoulou 2023).

The creation of this fictitious family album would meet a personal need that the author acknowledges: to fill in the gaps in her family history, recreating it "in a way that would help me reconcile with my actual story" (Mavropoulou 2023). This recreation responds to the classic script of everything that a family photo album is supposed to include and in which the most iconic moments of any family's history should not be missing. After all, an album is the record of having lived through all the experiences, celebrations and rituals that make up a person's biographical "normality", but of which, on many occasions, only the photographic records survive in the memory.

The opposition between the truthfulness that is conventionally considered inherent in the photographic record and the "falsity" of AI-generated images, of great relevance in this project, is pointed out by Mavropoulou: "AI-generated images are derivatives of photographs, an amalgam, an average, of billions of other images, yet may that bring them closer to a more universal kind of truth of phenomena?" (Mavropoulou 2023). The artist thus questions the supposed lack of truth of these photographic simulations, the fact that they can be qualified as false: "Fake in comparison to what? Untruthful to what kind of truth?" (Mavropoulou 2023). Certainly, we have to recognise that all photography, even analogue photography, is always part of a certain visual "deception", in that every photographic image is only a very particular, biased and always very incomplete view of an experience. Its "petrifying" effect of an instant is always a way of derealisation, aimed less at an attempt to capture reality objectively than at a symbolic or imaginary possession of it (Robins 1996), or even, as Sontag proposed, at "a defence against anxiety" (1977, pp. 8–9).

Every photograph, we would say, participates in a certain organisation of the world; every photographic record not only describes, but encodes reality in some way, responding to the conventions of certain ways of looking. A photographic act always "constructs" reality in a certain way. On the other hand, it should not be forgotten that AI-generated photographic simulations are not simply synthetic creations "ex nihilo", but are based on data and patterns calculated from millions of photographs of the "real" world that were indeed taken with a camera. Therefore, although AI photographic simulations do not have a specific referent, they also have their "truth", in that they are an amalgam of data extracted from millions of visual records of reality, of



Fig. 3 Images from the series *Imagined Images* (2023) by Maria Mavropoulou



Fig. 4 Images from the series *Pseudomnesia. Fake Memories* by Boris Eldagsen (2022–ongoing)

generalisations from the photographic images that make up the dataset on which these models have been trained.

As in the other series mentioned above, this one by Mavropoulou also touches on the question of false memory, a

key issue in this type of strategies based on the photographic archive, and which we will also see in another of the best-known artistic projects of generative photography: that of Boris Eldagsen entitled *Pseudomnesia* (2022–ongoing)

(Fig. 4). In this series, which deals with false memory (Ψευδομνήσια), the artist explored through AI, and with a visual language inspired by the 1940s, "fake memories of a past, that never existed, that no one photographed".³ What is also explored here is the poetics of non-remembrance, how our memory, at its core, operates through a reconstructive and non-reproductive process, and therefore probably more akin to how generative models work than to what the immobilising photographic act offers. For remembering is always a process of creative elaboration. And AI works in a similar way: it starts from existing images, generating new ones from them.

Eldagsen, like the other artists mentioned above, explores the image-remembering through AI, an image enveloped in the atmosphere of a past time but which, due to its synthetic condition, neither evokes real experiences, nor rescues experiences, but rather confabulates, as if "filling in" gaps in the memory.

In every memory there is always a spurious, inventive component. Indeed, it is entirely appropriate that the title of Eldagsen's series alludes to the paramnesic effects. In front of these black-and-white, old-looking images, which always seem to quote earlier ones (thus intensifying the derivative, reworking and combinatory action of AI's generative models), a delusional effect is produced: we seem to recognise some of these images, to feel that we have seen them before, either in the history books of photography or as stills from some old film. Eldagsen thus stresses the effect of *déjà vu* that is inherent, almost always, in every promptographic image experience; in front of these images, it is almost inevitable to perceive a certain 'air of family' shared with many other images. This is used to operate an intense play of evocations and reminiscences around representations of people, things and moments that never existed.

On the other hand, we could affirm that all these artistic practices mentioned above would also invite us to question ourselves about the extent to which many of our memories have been imposed, we could almost say implanted, by photographic images that only offer a very particular perspective of the facts. Thus, from the simulation of the photographic language offered by AI, the supposed powers traditionally granted to the photographic are problematised in order to place the spectator in a regime of belief that places him or her before a supposed 'truth', one that claims to be the authentic record of past events and situations. And there is nothing like the simulacrum potential of promptography to call into question the credibility effect of the narrative offered by the photographic record.

As we have already pointed out, the freezing of a moment of reality in a photograph, the cut it makes in the flow of

events, is only a small fraction of the always multifaceted lived experience. Therefore, remembering is something much more complex than what a photograph offers us; it has a profoundly creative and unintentional component. Let us not forget that memories of lived moments are constructed like fantasies, "mixing things seen and heard, excluding what would be irreconcilable or inconvenient for the self, keeping zones of obscurity, shifting accents from one representation of the absent to another" (Braunstein 2008, p. 8). Therefore, there would be no "authentic" memories but only "fictions of memory" because, ultimately, "one does not find the past; one makes it" (Braunstein 2008, p. 8). Precisely, we can affirm that these projects of generative historical photography that we have discussed are, fundamentally, creative explorations of our need for such fictions.

2 Images of condensation

Reflection on the relationship between generative systems of image production and memory also leads us to a characterisation of the AI-generated image which, to use a Freudian term, we might call "condensation". Recall that, in Freud's view, in our dreams the mind generates common intermediate entities between lived experiences of our daytime life. In this process of condensation, multiple thoughts, desires or meanings would be combined into a single image or idea. And it is not anecdotal that Freud related these condensation mechanisms of our dream representations to the composite photographs made by Henry Bowditch or Francis Galton at the end of the nineteenth century. These were the result of the overlapping on a single photographic plate (applying careful statistical methods) of the faces of people from certain collectives or groups; the aim was to create a face that synthesised the features common to all of them, in the manner of an average image.

In *The Dream of the Injection of Irma* (1895) Freud stated that "the construction of collective and composite figures is one of the principal methods by which condensation operates in dreams" (Freud 1895/1980, p. 271). Processes of fusion or amalgamation of multiple visual elements into a unified representation also occur in the distorting elaborations of our memory, and would bear many similarities to what is carried out by generative AI systems. These are specialised in creating images from statistical calculations of visual data distributions, interpolating between categories learned in training processes. What they do is execute automated actions to extract patterns and features from the sets of images that make up the dataset on which the deep learning process is developed. Hence, the creative capacity of AI-based generative image production systems always responds to the old logic of "e pluribus unum" ("from many, one").

³ As indicated on the project's website: <https://www.eldagsen.com/pseudomnesia/>

Since the learning processes of artificial intelligence (AI) systems work through generalisations, the term "mean image" is often applied to AI-generated images. And while the tendency of generative systems is always to produce an average image according to the guidelines given in the prompt, we have to recognise their enormous capacity to produce images through combinatory and transformative processes of multiple existing elements, references and styles (which is precisely why, in many ways, we could also categorise them as new remix technologies). Thus, we should locate the greatest creative potentials of these technologies in their great combinatory capacities, and always without forgetting the ethical implications that all this may entail. These capacities testify, once again, to the fact that in the field of computing, and especially in AI, the quantitative always has a very qualitative dimension.

As in our dream processes, AI has an uncanny ability to combine seemingly disparate elements into sometimes sinisterly coherent representations. Most often, however, in AI-generated images, as in Galton's or Bowditch's composite images, certain common features of the images that make up the starting dataset are highlighted, while differences or singularities are cancelled out in the final image-synthesis. In identifying the recurring patterns that exist in the training data, the exceptional singularities and anomalies found in the dataset are, as a rule, disregarded. Hence, as Lev Manovich noted, "Often AI takes my descriptions of strange, uncanny, surreal, or absurd compositions and generates instead commonplace and predictable scenes" (Manovich 2023). A paradox thus becomes apparent: how despite being cutting-edge technologies in the field of computer innovation, these technologies tend to be, by default, aesthetically conservative, to fall into simplifications or stereotyped representations of the images on which the model learning process has been developed. Likewise, and because AI-based generative processes depend on existing images, we could say that the "story" that these images "tell" us, beyond their representational contents, is ultimately, their dataset (Salvaggio 2022).

3 Ways of forgetting

From our point of view, what is proposed in the series by Rivas San Martín, Mavropoulou or Séptimo that we have discussed is not so much a thematisation of the ways of producing memory and retaining memories by means of photographic images, as of our ways of forgetting. Let us remember that, in contrast to the generalised idea that our identity fundamentally comes from our memory, that we are what we remember, Braunstein warned us that "we ignore that we are what we forget" (2008, p. 11). On this basis, we would say that art that thematises the past and memory, that poeticises

remembrance, would in reality have as its main focus (as in psychoanalysis) repression, obliteration and forgetting.

Be that as it may, the photographic imitations elaborated through AI in relation to memory and recall are not linked to the type of episodic memory pointed out by Tulving (1972). This typology, autobiographical in nature, is the one that "retains memories related to a particular time and place (...) such as where you spent your holidays last year or the first trip you took by plane" (cited in Pichanski et al. 2004). In contrast, the photographic imitations of AI would be related, rather, to a "semantic" type of memory (again following the distinction made by Tulving 1972), that is, to a system of general knowledge that we acquire over time and that we are not able to link to a particular moment in time. In those images that make up these false photographic archives, we recognise poses, dresses, hairstyles, etc. seen a thousand times in old photographs, but no one in the world can directly relate anything depicted therein to any specific memory of their own. This fundamental disconnection that AI operates between photographic language and memory can be said to be one of the central axes of these artistic projects of generative historical photography.

AI-generated photographic simulations can only mimic that link to a specific moment in time that occurs in the real photograph. This disconnection between the image and the specific instant (which a photograph does retain) raises another question that has to do with the temporal dating of the AI image itself: how will we be able to temporally locate AI-generated images when we review them in the future? The answer is complex, but it is at least clear that the distortions and failures that are almost inevitable today when using generative models will provide us with a clue to date these images (Mavropoulou 2023). However, when AI models manage to generate images that are totally indistinguishable from a photograph, these will participate in a floating temporality on which we will find it very difficult to establish associative links between these images and the moment in which they were created, thus forming a typology of image in which the logics of simulation may not make it possible to date them without recourse to references or non-visual aspects (metadata, aspects of coding, etc.).

4 AI and the censorship of the past

The reflection on the relationship between memory, history and AI technologies invited by artistic practices based on generative historical photography forces us to make some further considerations. Fabian Offert wrote that "If you ask the generative model, DALL-E 2, for "a colour photo of a fascist parade, 1935" it will not comply" (Offert 2023, p. 129). If we ask the same generative system in 2024, the answer is still the same: "It looks like this request may not

follow our content policy". We will get similar answers if we use other models.⁴ In Offert's opinion, "Fascism", along with other political terms, "was banned by OpenAI early on to mitigate the potential of their model, of which they were well aware, to produce politically, legally, or socially unacceptable material like deep fakes, pornography, or propaganda" (2023, p. 128). This implies that the request for historical images incorporating certain terms in prompts will, in the most commonly used generative models, always be subject to strong corporate censorship.

This prevents them from generating images of events whose existing photographic representations have, however, been part of their training processes. As Salvaggio pointed out, "somewhere in the training data of your AI images are the contours of Auschwitz and Abu Ghraib" (Salvaggio 2023). In any case, what these systems make evident with the censorship of certain terms or with the impossibility of generating images from certain prompts, is "an implicitly politicized concept of history" (Offert 2023, p. 131). Precisely, in some of their projects, numerous artists thematise the guidelines of political correctness that regulate the functioning of corporate AI models, evidencing the incongruities and arbitrariness in which these systems fall into when representing historically traumatic events. Think, for example, of the archive *Imágenes bélicas históricas [Historical war images]* (2022-ongoing) developed by Laura Bey, in one of whose series, entitled *Siempre sonriendo, siempre feliz [Always smiling, always happy]* (2024) shows the results obtained using the Adobe Stock image generator in response to the prompt "photographic image of a desperate and hungry Palestinian boy in a refugee camp in Gaza"; in all these generated images there appears, incongruously with respect to the indicated prompt, a happy smile on the lips of the Palestinian boy.

In other series by Bey such as *Represión IA* (2024) the artist tries to point out certain similarities between the modes of corporate management of the demands of political correctness in generative artificial intelligence and the psychoanalytic concept of repression.

Recall that, for Freud, repression was an unconscious process in which the individual excludes from consciousness both impulses and events unacceptable to the ego, which are rejected or kept away from the conscious (Freud 1915). From the perspective of the anthropomorphisation of AI proposed by Bey, this aims to make visible certain similarities between the filters that act in AI to exclude certain types of discourses from the production of AI models and the censor mechanisms involved in the repression described by Freud. As Bey notes, "with corporate censorship of certain aspects of the past, companies seek to avoid controversy

and protect their public image by aligning themselves with social demands for political correctness" (Bey 2024, p. 3). This is a practice that the artist sees as a form of "structured repression, where certain controversial historical issues and terms are deliberately suppressed in order to conform the model output to acceptable norms" (Bey 2024, p. 3). However, the key element in drawing these parallels is that, in Bey's view, just as in the processes of psychoanalytic repression, "the contents censored by AI models do not disappear, but persist in the databases and also in the algorithms" (Bey 2024, p. 4).

Let us bear in mind that for psychoanalytic theory, repressed contents, even if they are not directly accessible to consciousness, still influence the behaviour and psyche of the individual in a significant way. Moreover, it should not be forgotten that what is repressed tends to manifest itself in a distorted or indirect way. In Bey's opinion, it could be argued that something similar could be observed in the biases that are sometimes present in the outputs of generative AI models, despite the censorship filters applied. What the artist proposes, therefore, is a simile between the processes of psychoanalytic repression and the practices of applying censorship filters in AI models, both understood as actions that hide unacceptable content, but which are not eliminated, continuing to influence the structure and functioning of each system. For Bey, "Corporate censorship in AI models does not completely eradicate unwanted visual expressions and figurations, but reconfigures them, often revealing them in more subtle and complex ways" (Bey 2024, p. 4). Hence her work, from this approach of anthropomorphising AI, poetically explores what she calls "the symptoms" of generative models, even going so far as to speak of the censored "instincts" or "drives" of a given algorithmic model (let us not forget that, for Freud, primitive repression consisted only in the psychic representation of the drive being denied access to consciousness).

In relation to the concepts of temporality and memory, it should be noted that, from the psychoanalytic approach, repression would play a very important role in the management of memory (Freud 1915). Repression would directly affect the subject's ability to retrieve certain memories voluntarily. Freud observed that some of his patients were unable to recall certain traumatic or conflictive experiences, materials that were nevertheless key to understanding their neurotic symptoms. As we have already pointed out, although repressed memories may not be consciously accessible, they may manifest themselves through indirect forms of expression, such as neurotic symptoms, dreams, failed acts, etc. On this basis, some of Bey's experiments with AI models apply psychoanalytical techniques with a strong load of irony and humour. His intention is to make visual expressions emerge in the functioning of these systems that are linked, albeit indirectly (or 'symptomatologically', we could

⁴ Adobe Stock, for example, gave (in March 2024) as a response to such a prompt: "One or more words violate our User Guidelines".

say, accepting Bey's debatable anthropomorphising simile) to certain contents that, despite probably forming part of the data with which they have been trained, cannot emerge as acceptable outputs according to the criteria of political correctness to which many AI models are obliged.

In short, we can conclude that a characteristic feature of many of the artistic projects centred on the relationship between memory and AI is the prominent role played by certain forms of repression, this term being understood both from a psychoanalytical perspective (its meaning never coincides entirely with forgetting), and from a political perspective (as in the case of Rivas's project, for example) and a technical perspective (that is, imposed by the codes of operation of the corporate interests of the large AI companies). And of course, always bearing in mind that its optimal approach usually requires an integrating perspective of all of these (as we have tried to exemplify with Bey's work).

5 New AI-based photoconceptual practices

The use of generative models of image production based on AI for the artistic problematisation of the past has another important line of action, centred on the history of art itself and the role played in it by the photographic medium. A path that we are going to exemplify here, due to its special importance, in the revision that some artists are making of the practices of photoconceptualism through AI technologies.

As Anna Guasch points out, "since the 1960s, artistic attempts to overcome the contingencies of the strict present and of 'neutralising abstraction' have multiplied in order to reconsider 'historical representation' not from a commemorative point of view, but rather as an accusation of the fissures that the commemorative can assume in a world mediated by journalistic photography" (Guasch 2011, p. 46). Certainly, the fundamental role of photography in conceptual art was key in the development of unconventional forms of representing history. Think, for example, of the very particular revision of historical events such as the Holocaust through photography in works such as Douglas Huebler's *DM 1 Variable Piece #70* (1971).

For its part, the work of the Spanish-Colombian group Colectivo 8552 has focused in recent years on versioning practices through generative systems of some of the practices of photoconceptualism of the 60 s and 70 s, carrying out remakes of series by Bernd & Hilla Becher, Douglas Huebler and John Baldessari, among others. This practice of revision through AI of those photographic works is based on a series of coincidences that we can consider key between photoconceptualism and what happens in the processes of deep learning. Let us bear in mind that in the training procedures of generative models the photographic images

that make up the dataset, being considered as mere data for training, are stripped of the connection with memory, so that the photograph is converted "into a representation of what it represents, rather than a reference to the slice of time depicted" (Salvaggio 2023). And this is something that we can also consider typical of the modes of action of photoconceptualism.

A work by the Colectivo 8552, *Depósitos de agua* [*Water Towers*] (2023) (Fig. 5) is a remake, using AI models, of Bernd & Hilla Becher's *Water Towers* (1972–2009) series. Some of the images in this series were converted into detailed prompts and then used to ask various generative models to produce images from them. In another of their works, the images from the Becher series were used to train an AI model to create new images of water tanks that could be "added" to the original series.

These interventions by Colectivo 8552 thus explored, with the assistance of AI, the processes of registration, repetition and difference characteristic of the photographic practices of conceptual art. In this remake of the Becher series, the photographic image underwent a double displacement with respect to its classic function of producing memory. On the one hand, that practised in the Bechers' original series itself, in which the cold objectivity of the photographic act,



Fig. 5 Image from the *Water Towers* series (2023) of the 8552 collective (AI remake of Bernd & Hilla Becher's *Water Towers* 1972–2009)

with its claim to be a pure record of the thing, practically eliminated the temporal dimension of the photographic shot (a tank of water at a precise instant in time), emphasising its strictly representational quality (the pure representation of a tank of water, without subjective coordinates, as happens in the photographs in a catalogue of products for sale, for example). On the other hand, the displacement implied by the very simulatory nature of these photographic-like images generated by AI, which necessarily detaches the representation from any link with a precise point in time.

Indeed, the fact that photoconceptualism is today being so intensively revisited by the practices of AI art has much to do with the large number of parallels and commonalities that we can establish between the modes of management of the photographic act in conceptual art and what we see taking place in generative AI processes.

Firstly, the anti-subjective and de-aestheticised use of photography, understood as a mere form of representation (and not of expression) in conceptual practice, and which even led some artists to avoid taking the photographs that formed their works themselves, delegating it to other people (think of Edward Ruscha's *Thirtyfour Parking Lots in Los Angeles*⁵ from 1967, for example), is easily related to the machinisation of the generative production of AI images.

Another important nucleus of coincidences would have to do, on the one hand, with the relevance that the strategies of accumulation and photographic inventory played in the poetics of conceptual art (it is evident that photography in the field of photoconceptualism is always declined in the plural, as an integral part of a series, catalogue or archive); on the other, with the fact that the dataset of images is a central element in the operations of artificial intelligence in the field of the visual (as well as the thematic axis of many of the artistic works that make use of it or thematise it).

Let us remember how important the first poetics of the photographic archive were for the artists of photoconceptualism, such as, for example, that carried out by August Sander in works like *People of the 20th Century*, begun in the middle of the third decade of the twentieth century, that "macro catalogue of social categories and typological models of society" (Guasch 2011, p. 32). We even saw in many of the works of photoconceptualism certain gestures that were impossible due to their quantitative dimension, associated with that "aesthetic of administrative and legal organisation" pointed out by Buchloh in 1990 and which characterised conceptual practices so much but which are thinkable, or even fully realisable today, from computer capacities. We could allude, for example, to the *Variable Piece #70* project, in which Douglas Huebler tried to document every single

person alive before his death, and whose full realisation would have formed a great dataset for the training of generative models with the faces of all humanity.

On the other hand, the relationship between photographic image and word is another of the points that most easily allow us to connect the practices of photoconceptualism and AI. In fact, the concept of "prompt" invites us to recall the games of equivalences between image and textual description characteristic of conceptual art. Baldessari, for example, strongly insisted on the condition of the image as a substitute for the word and vice versa (Baldessari and Welchman 2005, p. 48). It is not surprising then that these relations between words and images are today once again being explored artistically through the use of AI models, as is the case, for example, in Laura Bey's conversions into prompts of some of the texts that appear in Baldessari's works, of Yoko Ono's "instructions" in *Grapefruit. A Book of Instruction and Drawings* (1964) or of some of George Brecht's "event-scores" from 1960–61.

But returning again to the central theme of analysis in this text, we must insist that in proposals such as *Depósitos de agua* (2023) by Colectivo 8552, AI serves to problematise once again the classic relationship between photographic image and memory. Here, as in the work of Bernd & Hilla Becher on which it is based, the image is, above all, a pure manifestation of its content (a water tank) rather than an allusion to a moment of a tank captured in the passing of time. In these series, time is indifferent, as the Bechers also intended: "the flat, neutral quality of the photographs was achieved by working in shadowless lighting conditions. Working within these parameters allowed the artists to create coherent groups of "types", regardless of when the images were taken" (Lewis 2014). This was the consideration of photography as a means of classification, as an absolutely impersonal record of an element of reality.

And let's not forget that in generative processes the photographic representations that make up the training dataset, considered merely as information to train models, also lose their link with the specificity of a recorded time, becoming mere providers of visual data for statistical analysis. What the works of the 8552 Collective allude to is not what is remembered in the photographs of conceptual art, but what is categorised, given that in them the representation of the instant dissolved in an attempt at taxonomisation, in an order of the timeless.

The choice of the Becher series to be versioned by means of generative AI models has a bearing on the fact that each of the photographic images in this series does not represent a memory but a specific typology of industrial architecture, acting as part of a sample book, of a catalogue of "existences", as a repository of formal patterns. In a way, we could say that the Becher series would be "perfect" datasets on which to train an AI. As Bernd Becher commented in 1959:

⁵ Let us recall that in the series *Thirtyfour Parking Lots in Los Angeles* (1967), the photographs were not taken by Ruscha but by a photographer specialising in aerial photography.

"you can lay the photos alongside one another and realise what they have in common, what is specific to the basic form of a blast furnace or a cooling tower and what is individual variation" (quoted in Lange 2007, p. 188).

In any case, perhaps the most relevant thing about these appropriationist practices through AI is that, as opposed to the extractive modes of images, styles and aesthetic patterns that we see operated by these generative models, of their effective syntheses, with them artists focus their work on a critical problematisation of AI. Just as in the eighties of the last century the appropriationist practices of the most eclectic and historicist postmodernism, in which old and new fashions and styles were recycled and reused, were confronted with a critical appropriationism (Foster 1984) represented by artists like Sherrie Levine, Louise Lawler, etc. (and who saw in that other appropriationism the denial of the historicity of forms and materials, in reality a post-historical escape or escapism), we are now seeing a similar critique developing in relation to AI.

These are artistic practices that, far from conforming to what is offered by this technological appropriationism based on the gimmicky combinatorial and derivative powers of AI, choose to critically refer to the very appropriationist processes on which the generative models are based, making this questioning their thematic focus. These practices of appropriation or versioning of past works emphasise the fact that the production of images through generative neural networks usually consists of a process of imitation (Żylińska 2020), in which the production of difference must be understood as diversification, as the generation of variants in relation to a series of patterns extracted from the dataset. Hence, as Matteo Pasquinelli proposed, "The trite question "Can AI make art?" should be reformulated in technical terms: Can AI create works that are not imitations of the past?" (2019, p.15). It should not be forgotten that the images generated by generative models are "extensions of the visual melange, hypothetical images based on all images prior" (Salvaggio 2023), "statistical amalgamations of pre-existing images" (McCormack et al. 2023) and are always accompanied by "a sense that the origins do not matter, that labor does not matter, that any obligation to citation or history do not matter" (Salvaggio 2023).

On the other hand, with these appropriation practices, a very specific phase in the history of photography is "updated" through AI, finding in generative models a means to evolve the problematisation that conceptual art initiated on the traditional functions of photography, linked to the production of memory and visual memory. Probably, these other proposals, which can be framed in the so-called "Critical AI" (Raley and Rhee 2023), can serve as an incentive to emphasise the essential differences between the intentional human and the autonomous

machinic in the field of artistic creativity. Ways of working with which we return once again to the aesthetics of the archive to delve into the thematisation of visual memory, the history of images and temporality.

6 Conclusions

Artistic creation based on historical generative photography is a path of great interest in the development of art today, showing great potential for the problematisation of the ways in which the photographic image has been used for the production of visual memory in both the personal and the collective and communal dimensions. These artistic practices of "promptography" question the testimonial and recording function of the photographic image, challenging certain discourses and perceptions of the past and, in particular, certain forms of historical invisibilisation. Through AI-generated images, they carry out an exploration of the poetic and critical potentials that lie in re-imagining moments of the past, while drawing attention to photographic acts that did not or could not take place due to the repressive political and social conditions of certain times and contexts. The question of what it means to have a photographic representation of someone, the importance of photography as a medium for the biographical construction of personal identity, or the "truth" content of AI simulations, are some of the other central themes in these proposals.

With the creation of false photographic archives, these artists are focusing on the complex and subtle interactions between the inaccessible and the non-existent that essentially articulate our relationship with the past, thus making a major contribution, through AI-based generative models of image production, to the development of the so-called "aesthetics of the archive".

In the final part of the article, we have pointed out a second creative path in the use of AI, in which the look at the past focuses on the revision of certain moments in the history of contemporary art. Faced with the "computational mannerism" (Arielli 2021) that usually characterises the images generated by AI generative models, these artists propose the thematisation of the very appropriationist processes with which these models operate, opening up from this position another line of creative problematisation of the complex relations between images and temporality.

Funding Funding for open access publishing: Universidad de Cádiz/CBUA. Funding for open access publishing: Universidad de Cádiz/CBUA. Open Access funding enabled and organized by 'Read & Publish Agreement with the Conference of Rectors of Spanish Universities (CRUE)-University of Cadiz. This work was supported by the R&D&I project GECULTEC PID2021-127336NB-I00 of the "Programa Estatal

para Impulsar la Investigación Científico-Técnica y su Transferencia, Plan Estatal de Investigación Científica, Técnica y de Innovación” (State Programme to Promote Scientific and Technical Research and its Transfer, State Plan for Scientific, Technical and Innovation Research). Ministry of Science and Innovation. Spanish Government. Open Access funding enabled, Spain.

Declarations

Conflict of interest The authors declare no competing interests

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