Katherine Groo

Maximizing Our Losses: Anna Ridler, *Fall of the House of Usher*, and the Ruins of AI

ABSTRACT
In 2017, artist Anna Ridler trained a generative adversarial network (GAN) on two hundred hand-painted ink-and-paper images. The images are based on still frames from James Sibley Watson and Melville Webber's 1928 film adaptation of Edgar Allan Poe's 1839 short story "The Fall of the House of Usher." This article examines how Ridler's project relentlessly refers us to other texts, images, and objects while ultimately withholding the causal connections that make its images possible. Although the argument focuses on Ridler's *Fall of the House of Usher* series, the claims extend to a broad range of images made with machine learning systems.

In 2017, artist Anna Ridler trained a generative adversarial network (GAN) on two hundred ink-and-paper images, hand-painted by Ridler herself. The images are based on still frames from James Sibley Watson and Melville Webber's 1928 film adaptation of Edgar Allan Poe's 1839 short story "The Fall of the House of Usher."[1] Ridler's project was first exhibited at Ars Electronica in two parts: *Fall of the House of Usher I*, a twelve-minute video, approximately the same length as the Watson and Webber film; and *Fall of the House of Usher II*, an exhibition of Ridler's handmade dataset, each image individually framed

1. Edgar Allan Poe, "The Fall of the House of Usher," in *Collected Works of Edgar Allan Poe*, *Volume II: Tales and Sketches*, *1831–1842*, ed. Thomas Ollive Mabbott (Belknap Press of Harvard University Press, 1978), 392–421.

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and put on display.[2] The project's complex chain of citations and media formations, stretching from nineteenth-century American gothic literature to twenty-first-century machine learning, pausing at crucial moments in twentieth-century photomechanical reproduction along the way, is further tangled by Ridler's own titling and description of the project. In Ridler's sequence, the GAN-generated film, *Fall of the House of Usher I*, precedes its own dataset, *Fall of the House of Usher II*.

The comparative structure of Ridler's *Fall of the House of Usher* (hereafter *House of Usher*) exhibition—its two distinct parts and Ridler's reorganization of their causal relationship—no doubt works against the disappearance of her dataset, foregrounding its materiality and the very specific conditions of its production. Ridler wants viewers to see the individual images that somehow both precede and follow machine learning and to compare her painstaking still frame copies to the ones produced by the GAN. In a 2023 issue of *American Literature* dedicated to the emergent field of critical AI, editors Rita Raley and Jennifer Rhee take Ridler as their starting point for the entire volume; they recognize in her work "a necessary and meaningful parallax view of the processes of image recognition and generation" that proliferate in contemporary artificial intelligence (AI).[3] Raley and Rhee draw on one of Ridler's better-known works, *Myriad* (*Tulips*) (2018), an exhibition of several thousand tulip photographs that constitute the dataset for another GAN-generated video, *Mosaic Virus* (2019). For Raley and Rhee, the work crucially elevates "the training data set to the status of a named individual artwork" and, in doing so, "gestures toward a prying open of the proverbial black box, emphasizing her direct, even authorial connection to the data."[4]

In this article, I am similarly interested in what Ridler's work "pries open," especially as her *House of Usher* series points back to a story about what happens when vaults get inexplicably unlocked and bodies come tumbling out. Ridler's work certainly refers us to the human labor often concealed or ignored in our datasets. However, it also and more fundamentally points at the epistemological instabilities of reference, visual knowledge, and photomechanical reproduction. Here, prying open the black box does not reveal a stable human origin but instead stages a crisis in reference and causation.

Raley and Rhee contribute to an expansive body of scholarship that aims to demystify AI and counter the hyperbole of tech companies by explaining precisely how these tools remain bound up with and dependent upon human

2. Anna Ridler, *Fall of the House of Usher I*, 2017, https://annaridler.com/fall-of-the-house-of-usher; and Anna Ridler, *Fall of the House of Usher II*, 2017, https://annaridler.com/fall-of-the-house-of-usher-ii.
3. Rita Raley and Jennifer Rhee, "Critical AI: A Field in Formation," *American Literature* 95, no. 2 (2023): 187, https://doi.org/10.1215/00029831-10575021.
4. Raley and Rhee, 186. On the black box mythology in AI research, see Taina Bucher, "Neither Black nor Box: Ways of Knowing Algorithms," in *Innovative Methods in Media and Communication Research*, ed. Sebastian Kubitschko and Anne Kaun (Palgrave Macmillan, 2016), 81–98; Jenna Burrell, "How the Machine 'Thinks': Understanding Opacity in Machine Learning Algorithms," *Big Data & Society* 3, no. 1 (2016): 1–12, https://doi.org/10.1177/2053951715622512; and Andreas Sudmann, "On the Media-Political Dimension of Artificial Intelligence: Deep Learning as a Black Box and OpenAI," *Digital Culture & Society* 4, no. 1 (2018): 181–200, https://doi.org/10.25969/mediarep/13531.

thought and culture. A growing field of engineers, academics, and artists interrogate, for example, the biases of machine learning; the expansive metaphor of "neural" anatomy; and the foundational idea that these technologies are intelligent, artificial, or learning anything at all.[5] For artist Memo Akten, machine learning exists in a kind of symbiotic relationship with humans wherein "we see things not as they are, but as we are."[6] Media theorist Matteo Pasquinelli similarly argues that "neural computation amplifies categories of human knowledge rather than supersedes them in autonomous forms."[7] His subsequent machine-learning manifesto, the Nooscope, co-designed with Vladan Joler, endeavors to diagram the constitutive components of machine learning, including a hierarchy of human inputs, from operators to ghost workers to human subjects under the control of the machine-learning operations.[8] In their recent overview of the field, sociologists of technology Jonathan Roberge and Michael Castelle take the cultural and discursive embeddedness of these technologies as their starting point.[9] In turn, they propose, drawing on the language of computer networking, an end-to-end understanding of AI—that is, a comprehensive analysis of the technology from the development of the model to the generation of its outputs, one that attends carefully to how social life interacts with these technologies and gets reshaped through its entanglements with them. Across this body of work, AI systems are not magic little boxes or brains without organs. They are not closed structures but open ones.

Still, at the risk of invoking a well-worn cliché, there are ghosts in these machines. Elsewhere, the ghosts of new media are placeholders for what we cannot touch or see, the seeming presence of virtual things, the chronological jumble that accumulates in the digital present, or what we simply do not (yet) understand. As Jeffrey Sconce has so well argued, the seeming liveliness of electronic media—from the telegraph to the computer—gives rise to a

5. On the mythologies of thinking machines, see Kate Crawford, *Atlas of AI* (Yale University Press, 2021); Matteo Pasquinelli, "Three Thousand Years of Algorithmic Rituals: The Emergence of AI from the Computation of Space," *e-flux* 101 (June 2019), accessed February 2, 2020, https://www.e-flux.com/journal/101/273221/three-thousand-years-of-algorithmic-rituals-the-emergence-of-ai-from-the-computation-of-space; Simone Natale and Andrea Ballatore, "Imagining the Thinking Machine: Technological Myths and the Rise of Artificial Intelligence," *Convergence: The International Journal of Research into New Media Technologies* 26, no. 1 (February 2020): 3–18, https://doi.org/10.1177/1354856517715164; and Madeleine Claire Elish and danah boyd, "Situating Methods in the Magic of Big Data and AI," *Communication Monographs* 85, no. 1 (2018): 57–80, https://doi.org/10.1080/03637751.2017.1375130. On the figure of the neural network, see Ranjodh Singh Dhaliwal, Théo Lepage-Richer, and Lucy Suchman, *Neural Networks* (University of Minnesota Press, 2024).
6. Akten makes this claim in the third chapter of his video essay titled *Deep Meditations* (2019), accessed June 21, 2020, https://vimeo.com/397777627.
7. Matteo Pasquinelli, "Machines That Morph Logic: Neural Networks and the Distorted Automation of Intelligence as Statistical Inference," *Glass-Bead* (2017), accessed January 5, 2018, https://www.glass-bead.org/article/machines-that-morph-logic/.
8. Vladan Joler and Matteo Pasquinelli, "The Nooscope Manifested," 2020, accessed February 10, 2021, https://fritz.ai/nooscope/.
9. Jonathan Roberge and Michael Castelle, eds., *The Cultural Life of Machine Learning: An Incursion into Critical AI Studies* (Palgrave Macmillan, 2021).

robust and persistent cultural fiction of media spirits.[10] Over and again, these technologies promise a presence that can never be physical, whose appearance arrives (ironically, each time) as a sign of the unknown. Wendy Hui Kyong Chun's concept of the "enduring ephemeral" likewise draws attention to the instabilities of the digital, its tendency to slip away, disappear, break down; the digital does not fulfill the dream of total history or perfect storage but rather endures as an assemblage of not-quite-living-or-dead things that incessantly degenerate and return.[11] More recently, Lisa Blackman takes the concept of "hauntology"—Jacques Derrida's portmanteau—as a way of understanding the afterlives of data and digital archives.[12] One might also note that, in post-mortem renderings of dead celebrities and applications like Deep Nostalgia (2021), we just keep using machine learning to raise the dead.

Here, however, I name and describe a different kind of return. These machines are haunted, not by an uncanny future of non-human thinking or the disjunctive presence of virtual things, but by the intrinsic strangeness and referential insecurities of photomechanical reproduction. Images generated by machine learning, and Ridler's *House of Usher* series in particular, re-present the visual past and, in so doing, re-stage a range of questions about causality, reference, and historicity that have adjoined analog photographic and film images for more than a century.

I thus pursue what these new visual practices are and what they mean; what forms of human knowledge they generate and reiterate; and how exactly they refer us to other words, images, and objects. I am also deeply interested in what these technologies *cannot disclose*, in the precise ways that they withhold the source(s) of their becoming and the causal connections that make their images possible. In my view, there is indeed a human-machine relationship at stake in these computational images, but it is not a comfort, a repetition of the same, or a set of social or physical connections that can be comprehensively mapped from end to end. As I will argue, these works do not return us to some technology or self we already know well; rather, they repeat, with significant differences, the physical and visual signs of previous centuries. In so doing, they likewise inherit the affective expressions and referential instabilities that define the analog arts. I focus on Anna Ridler's *House of Usher* series, though the claims extend to a much broader range of contemporary images made with machine learning systems. Ridler's work points us toward the nineteenth century (like so much AI thinking and making) and, of course, to Poe's short story. In turn, I trace a chain of relationships from twenty-first-century computational art to nineteenth-century literature. I am interested in this particular set of words and images—in

10. Jeffrey Sconce, *Haunted Media: Electronic Presence from Telegraphy to Television* (Duke University Press, 2000).
11. Wendy Hui Kyong Chun, "The Enduring Ephemeral, or the Future Is a Memory," *Critical Inquiry* 35, no. 1 (Autumn 2008): 148–171, https://doi.org/10.1086/595632.
12. Lisa Blackman, *Haunted Data: Affect, Transmedia, Weird Science* (Bloomsbury, 2019); see also Lisa Blackman, "Hauntology," in *Uncertain Archives: Critical Keywords for Big Data*, ed. Nanna Bonde Thylstrup, Daniela Agostinho, Annie Ring, Catherine D'Ignazio, and Kristin Veel (MIT Press, 2021), 279–288.

Ridler and Poe—bound together through reference and repetition, but I am also interested in what these words and images might have to teach us about the promises of indexical contact, causal reference, and visual knowledge in the twentieth and twenty-first centuries. In my view, Ridler's work reminds us of the referential instabilities that have been there all along.

In the next section, I briefly introduce machine learning and a few key terms before turning to the design of Anna Ridler's *House of Usher*. From there, I follow Ridler to Poe and his theories of historical ruination, reference, and counterfeiting. It is a winding and unstable path that Ridler (and Poe) suggests to us, a path that enacts the very referential instabilities that define photomechanical reproduction and analogical ways of knowing.

"BUT INTO MY MISERABLE BRAIN . . ."

First, a few words on language and naming. Artificial neural networks are a subset of machine learning, which is, in turn, part of the larger field of computational systems commonly called *artificial intelligence*. Machine learning can refer to many different computational approaches to solving problems or evaluating inputs. These systems are trained on datasets (often called the *training* dataset and *learning* process); the model then makes predictions on the basis of new or unseen data (what is commonly called the *test set*). Ever wary of the anthropomorphizing of machine learning, Joler and Pasquinelli remind us that these systems are not minds learning but models making guesses about what is most likely to follow based on what has come before.[13] From the perspective of many computer engineers and model designers, the aim of machine learning is to minimize loss, which, to put it simply, is a measurement of the model's failure. What the loss function is or means depends entirely on the design of the model and what it is meant to do: Does it correctly identify spam? Does it suggest music that we actually listen to? A supposedly successful commercial model disappears itself from the experience of users. Ideally, we do not notice the difference between its choices and our own, its language and human speech, or its images and photographic ones (to name just a few examples). By way of making one small preliminary distinction, artists who experiment with machine learning often do not share this goal of minimizing loss. In other words, the aim is not to disappear the differences (between input and output, original and copy) but to make them visible.

Many possible neural architectures exist, and a comprehensive account of them is not necessary here, but a few distinctions will put us in a position to understand Ridler's project and its intervention. Artificial neural networks can do what is called *supervised* and *unsupervised* learning. In supervised learning, each example in the dataset that the network is trained on has labels and one or more features. For example, one might train a spam detection model on a dataset in which the examples labeled "spam" are tied to a set of identifying features, such as a set of common words or characters in the email message, subject line, or sender address. In turn, the model would be able to categorize unlabeled pieces of data as spam or not spam based on

13. Joler and Pasquinelli, "Nooscope Manifested."

those learned features. In unsupervised learning, by contrast, the data has no target label and no correlated features. The network instead identifies dominant patterns within the dataset without our identifying them in advance. The system usually has no goal other than to "learn" or extract a hierarchical representation of the data (i.e., features in the data, clusters of patterns). Neural networks can also be *discriminative* or *generative* models. Discriminative models try to distinguish between, say, spam or not spam, pass or fail, cat or dog. They try to draw a line in the data space. By contrast, generative models try to model the data itself. They identify patterns in the dataset and then generate seemingly new data on the basis of these patterns.

As I have described, Ridler's *House of Usher* relies on a generative adversarial network (or GAN), a form of unsupervised machine learning.[14] GANs make use of both a discriminative and a generative model, locked in an adversarial training relationship. The generator receives random data (or input "noise") and generates output data samples on the basis of that noise. The discriminator receives data from both the generator's dataset and the original, or *ground truth*, dataset. The discriminator tries to correctly distinguish between the counterfeit samples fabricated by the generator and the authentic samples from the original dataset. As the models iteratively train over and over again, the generator gets better at making counterfeits and, ideally, the discriminator gets worse at detecting them. The model reaches a point of stability or *convergence* when the discriminator has a 50 percent chance of incorrectly distinguishing real from counterfeit samples (i.e., it discriminates as well as a coin toss). The output(s) of the networks are (usually) very good counterfeits of the original dataset.

This system of two networks ordinarily demands enormous computing power and large datasets, usually 50,000 to 100,000 training samples. For researchers and artists working with GANs, there are thousands of large, publicly available datasets. Perhaps most well-known (and notorious) is ImageNet, a database of over 14 million images founded in 2009.[15] But databases elsewhere abound, and GAN practitioners can also make use of open-source software applications to scrape their own datasets from platforms such as Instagram or Google Images.

The relationship between image inputs and outputs, between the dataset and what the network manages to make with them, is profoundly ambiguous. The dataset is materially there as input but disappeared from our final view; it is required for the network to function and determinative in what it generates, but the precise path from data input to image output are concealed by the layers of the network (even to those who are doing the training). For Holly Willis, this relationship opens onto an era in which the image is no longer a "stable representation" but rather "an unfolding and

14. Ian Goodfellow, Jean Pouget-Abadie, Mehdi Mirza, et al., "Generative Adversarial Networks," preprint, arXiv, June 10, 2014, https://doi.org/10.48550/arXiv.1406.2661.
15. See Kate Crawford and Trevor Paglen, "Excavating AI: The Politics of Images in Machine Learning Training Sets," AI Now Institute, New York University, September 19, 2019, accessed February 2, 2020, https://excavating.ai/; see also Crawford, *Atlas of AI*, 89–121.

ongoing process."[16] While I disagree about the antecedent stability of images, Willis is right that GANs challenge historical distinctions between still and moving images. For Kate Crawford, the image datasets mark an ontological shift, away from any understanding of the image as a singular or distinct site of analysis to its role as just one small, invisible piece in a data aggregate that feeds the enormous appetite of an extractive system.[17] Another way of adjusting our thinking about the image-database relationship is to consider the GAN's looping, circuitous structure. It requires data and creates data; draws upon image-human-computing infrastructure; and becomes infrastructure for other aesthetic, social, and computational systems.

Returning to Ridler, one finds in her body of work a sustained interrogation of the human-material infrastructures in machine learning, histories of taxonomy and classification, and the interstices between nature and artifice, the real world and its machine-generated double. Her catalog includes visual datasets of tulips, trees, shells, and seascapes. As a Google Art and Machine Intelligence Fellow, Ridler also trained a GAN on fragments of early and silent-era cinema to create an algorithmically generated film, *Let Me Dream Again* (2021), that could be mistaken for a long-lost scrap of celluloid.

For her *House of Usher* series, Ridler used Pix2Pix, an image-to-image GAN developed as a way to convert one kind of image into another (e.g., black-and-white to color, abstract to photorealist).[18] The Pix2Pix model departs from traditional GANs in a couple of ways. First, the generator is trained only on images from the original dataset. Second, the discriminator evaluates the image by assessing discrete patches of pixels, rather than by classifying the entire image. These adjustments produce a shorter training time and a more fine-grained calculation of loss. Moreover, the Pix2Pix model produces compelling results with much smaller datasets and less computing power than commercial models. In turn, Pix2Pix swiftly became a tool for machine learning amateurs and artists. As Ridler's work so well underscores, one can individually see, select, or make (by hand) each image in the Pix2Pix training set.

The 1928 Watson and Webber adaptation, upon which Ridler based her own ink-and-paper images, circulated widely in amateur film clubs in the 1920s and 1930s. *The Fall of the House of Usher* was celebrated as a crucial contribution to American experimental cinema.[19] Watson and Webber were amateur filmmakers from Rochester, New York, whose lives and careers also,

16. Holly Willis, "Images Big and Soft: The Digital Archive Rendered Cinematic," *Frames Cinema Journal* 19 (2022): 185–209, https://doi.org/10.15664/fcj.v19i0.2379.
17. Crawford, *Atlas of AI*, 93. See also Adrian MacKenzie and Anna Munster, "Platform Seeing: Image Ensembles and Their Invisualities," *Theory, Culture & Society* 36, no. 5 (2019): 3–22, https://doi.org/10.1177/0263276419847508; and Kate Eichhorn, *Content* (MIT Press, 2022).
18. Phillip Isola, Jun-Yan Zhu, Tinghui Zhou, and Alexei A. Efros, "Image-to-Image Translation with Conditional Adversarial Networks," preprint, arXiv, November 21, 2016, https://doi.org/10.48550/arXiv.1611.07004.
19. See Dwight Swanson, "Amateur Cinematics: Watson and Webber's *The Fall of the House of Usher*," *Screen* 61, no. 1 (Spring 2020): 138–146, https://doi.org/10.1093/screen/hjaa009.

coincidentally, intersected with science, technology, and the visual arts.[20] They frequented modernist literary and artistic circles, and their catalog includes other experimental and industrial films. The cinematography, editing, and mise-en-scène of their adaptation of Poe's short story suggests the influence of German expressionism and the French avant-garde.[21] The film plays with shadows and luminous reflections, sharp lines and angles, painted sets and animation. Images are distorted through layered exposures, superimpositions, and veils of mist and smoke. While the film captures something of Poe's short story, it is almost entirely non-narrative, and one would strain to glean the events of its precursor from the film alone.

In her writing about the *House of Usher* series, Ridler draws attention to the hidden labor that sustains machine learning, with datasets often compiled by researchers and supplemented by the work of anonymous digital micro-taskers. Ridler's exhibition of both her dataset and the GAN-generated copy makes visible—and scrutable—her own painstaking and meticulous labor. But she equally recognizes the accidents and imprecisions materially embedded in every machine learning process. She writes:

> As someone who is interested in the hidden and the forgotten, it makes me uncomfortable to use someone else's dataset without properly exploring it. By creating my own dataset, it forces me to examine each image and inverts the usual process for creating this type of dataset. The creation of these drawings required an immense amount of labor. . . . I deliberately chose to work with ink—because, in a way, the GAN-produced imagery is slightly painterly—but also because it is a material that has randomness already inherent in the medium. It is very difficult to control and the differences between pictures of the same scene are amplified. It is also unforgiving, goes everywhere and escapes.[22]

Ridler's play with contingency and control further informs how she designed her dataset vis-à-vis the original film and how she arranged the GAN images in her own moving-image variation, *House of Usher I*. Ridler limited her ink-and-paper copies to just the first four minutes of Watson and Webber's film. As a result, the GAN mimics the first moments of the film quite closely—one can see elements of the set design and the faces of the actors—but the GAN's contact with the dataset and, in turn, with the original film comes apart as *House of Usher I* extends to twelve minutes in length. An abstract palette of

20. For more on Watson and Webber, see Lisa Cartwright, "Science and the Film Avant-Garde," *Cinematograph* 4 (1991): 11–20; and Lucy Fischer, "The Films of James Sibley Watson, Jr., and Melville Webber: A Reconsideration," *Millennium Film Journal* 19 (1987): 40–49.
21. Jean Epstein's own feature-length adaptation of "The Fall of the House of Usher," *La chute de la maison Usher*, co-directed by Luis Buñuel and starring Abel and Marguerite Gance, premiered the same year.
22. Anna Ridler, "Fall of the House of Usher: Datasets and Decay," *Victoria and Albert Museum Blog*, September 17, 2018, accessed December 14, 2020, https://www.vam.ac.uk/blog/museum-life/guest-blog-post-fall-of-the-house-of-usher-datasets-and-decay.

lines, colors, shapes, and textures takes over. Furthermore, Ridler divides the frame of *House of Usher I* into three distinct parts. The image on the left side of the frame most closely resembles the original film image, with details disappearing in the middle and becoming most imprecise and unfamiliar on the right. Here, too, as in the exhibition space itself, Ridler invites viewers to function as *discriminators*, to compare copies of copies, to consider at once the origin of these images—their celluloid and paper sources in the world—and their computational degeneration. She allows viewers to see the imprecise efforts of the GAN, its iterative cycle of guessing, checking, and adjusting. Hers is not a crisp image-to-image transfer but a work of manifold and visible losses. Ridler has also made another dataset of hand-drawn copies of the GAN's dataset (i.e., copies of the copies of her drawings, which copy still images from the film adaptation of a short story).

In her exhibition materials, Ridler describes the GAN as a creative partner. It mimics her, but she also mimics and anticipates its painterly style. She exerts control but also cedes it to algorithmic interpretation (and the wayward qualities of ink). In the end, Ridler admits that she is not quite sure what the GAN is or how to understand its relationship to her creative practice. The GAN draws patterns out of her images that she never noticed in making them; it "sees" things that she never intended to include. She writes, "It is my work but also not my work—recognizably me but nothing I would have been able to do by myself. Watching it is a very odd sensation like catching a glimpse of yourself in a mirror before you realize it is you."[23]

At the center of Ridler's project is a set of questions deeply familiar to practitioners and researchers in machine learning, questions that she poses in the project's endless chain of copies, counterfeits, and uncanny mirrors: What is the relationship between the physical dataset and its GAN-generated copy? What *causes* or *creates* these images? How do they *refer* us to Ridler's images, or likewise to Watson and Webber's film? To Poe's story? What do such so-called neural images owe to human labor or mind? And how should we understand the boundary between the real and imagined, the world and its neural representation?

Though Ridler never cites Poe—and the story remains largely absent from Watson and Webber's film—"The Fall of the House of Usher" relentlessly stages questions of *causal reference* and *phenomenal experience* that never get resolved. In the nineteenth century, Poe's story aims at the limits of science, empiricism, and visual knowledge; in the twenty-first century, his story usefully haunts Ridler's work and reminds us of what our eyes can never know. In the next section, I briefly draw out these questions from Poe's story before considering what we can learn from a fallen-down house and its lingering ghosts.

"WHAT WAS IT?"

Edgar Allan Poe first published "The Fall of the House of Usher" in the pages of *Burton's Gentleman's Magazine* in the autumn of 1839. The story has

23. Ridler.

just three characters: an unnamed first-person narrator; their "boon companion" from long-ago boyhood, Roderick Usher; and Roderick's ailing twin sister, Madeline.[24] There is also the eponymous "House of Usher," a structure of sprawling and dilapidated stone with "vacant, eye-like windows," blanketed in moss and fungi, set against the waters of "a black and lurid tarn."[25] From the beginning, Poe's tale tells us of the many collapses—figural, then literal—to come. The first sentence marks the narrator's return on "a dull, dark, and soundless day . . . through a singularly dreary tract of country" to a place he once knew well.[26] There, he finds wrecks of stone and flesh, signs of decay already too far gone. Brother and sister are ghosts before their deaths, forms of cadaverous flesh and spider web–like hair that floats above their heads.

Like any good tale of supernatural woe and wonder, "House of Usher" teems with uncanny mirrors, doubles, and twins. The siblings look like each other, both look like the house, and every bit of cloth or furniture within seems as if it could metonymically stand in for the whole putrefying lot. The narrator and Roderick spend their days together reading books and poetry, including Poe's own poem, "The Haunted Palace," and each embedded text echoes and reiterates the one already underway. Early in their visit, the narrator pauses on a painting of an "immensely long and rectangular vault or tunnel" deep below the earth.[27] When Madeline mysteriously dies, the narrator helps Roderick entomb her body in "one of the numerous vaults" hidden within the house.[28] It is a space twice described and haunted by the painting already encountered: a long archway, a vault buried below the sleeping quarters, a place where no light can penetrate. They screw the coffin closed and seal the iron doors.

Crucially, the *I* at the center of the story is not an agent who acts upon the scene or effects changes in the life or house of their childhood friend. They are instead a deeply flawed perceiver, a blunt receptacle of collective "vaguenesses," who demonstrates the limits of human understanding, sensory experience, and language itself.[29] The narrator describes dark clouds and atmospheres, "shadowy fancies," "mystic vapors," and, in the final pages, "indefinite sounds" that could be scraping or screaming or maybe footsteps on the stairs.[30] The narrator insists that they cannot see well in this house of shadows, nor can they be certain of the source of their bodily sensations. They ask, "What was it that so unnerved me?" and answer, "a mystery insoluble."[31] It is, we are told, "impossible to account for such feelings," and one would "fail in any attempt" to put it all into words.[32]

24. Poe, "House of Usher," 392–422.
25. Poe, 397.
26. Poe, 397.
27. Poe, 406.
28. Poe, 409.
29. Poe, 405.
30. Poe, 397, 399, 412.
31. Poe, 397.
32. Poe, 405.

Vague feelings of doom give way to actual doom in the story's swift, final beats. Once buried and bolted down, Madeline reappears—"blood upon her white robes"—and throws herself upon the body of her brother, killing him.[33] The narrator flees the house and, turning back, perceives the light of the moon. It shines through the crack of a small fissure, now grown wide. The walls tumble down into the tarn, "long tumultuous shouting," tombs layer upon tombs, burying at last the Usher siblings in dark water and stone.[34]

The sprawling critical literature devoted to "The Fall of the House of Usher," its place in Poe's body of work, and its expression of American and European gothic literary conventions relentlessly returns to the symbolic architecture at the center of the story.[35] At turns, the house stands in for the decaying Usher siblings who inhabit it, the (possibly) shattered taboo of incestuous encounter, the structural absences and entangled mis/recognitions of traumatic experience, and the potentially unsettling liveliness of inanimate things (and Poe's own animistic views).[36] The story is also its own kind of house, a seemingly well-built counterpart to the one it represents. Responses to "The Fall of the House of Usher" emphasize the strength of the story's design—three tidy parts with a poetic interregnum—and the unity of its constitutive elements, wherein house, furniture, and inhabitants echo one another and communicate in unison.[37] In his reading of Poe's constructive principles, Scott Peeples notes the reflexive forms and grammatical tics of Poe's sentences: "What was it" appears twice in the first paragraph; a single sentence contains six *upon* phrases; *of*s and *and*s proliferate, making winding, vault-like corridors on the page. Poe's writing draws our attention to the processes of writing underway and to his exertion of authorial control. The story is expertly formed even when all the walls come down.[38]

Setting aside whatever the house is and means, and contra any claims about the stabilizing and constructive powers of Poe himself, the story's incessant wordplay and prepositional repetitions (*of*, *under*, *upon*) sow deep confusions about spatial and signifying relationships—that is, about where

33. Poe, 416.
34. Poe, 417.
35. On the meaning of the house, see Leo Spitzer, "A Reinterpretation of 'The Fall of the House of Usher,'" *Comparative Literature* 4, no. 4 (Autumn 1952): 351–363, https://doi.org/10.2307/1768751; Richard Wilbur, "The House of Poe," in *The Recognition of Edgar Allan Poe: Selected Criticism Since 1859*, ed. Eric W. Carlson (University of Michigan Press, 1966), 255–277; and Brian Norman, "Dead Woman Wailing: Edgar Allan Poe's 'The Fall of the House of Usher,'" in *Dead Women Talking: Figures of Injustice in American Literature* (Johns Hopkins University Press, 2013), 22–35.
36. For Poe's thinking on the powers of things, see his "Philosophy of Furniture," in Poe, *Collected Works*, 2:494–504. See also Branka Arsić, "Materialist Vitalism or Pathetic Fallacy: The Case of the House of Usher," *Representations* 140, no. 1 (2017): 121–136, https://doi.org/10.1525/rep.2017.140.1.121; and Tang Weisheng, "Edgar Allan Poe's Gothic Aesthetic of Things: Rereading 'The Fall of the House of Usher,'" *Style* 52, no. 3 (2018): 287–301, https://doi.org/10.1353/sty.2018.0035.
37. See George Edward Woodberry, *Edgar Allan Poe* (Boston, 1885), 120–121; and Thomas Woodson, introduction to *Twentieth-Century Interpretations of "The Fall of the House of Usher": A Collection of Critical Essays*, ed. Thomas Woodson (Prentice-Hall, 1969), 15.
38. Scott Peeples, "Poe's 'Constructiveness' and 'The Fall of the House of Usher,'" in *The Cambridge Companion to Edgar Allan Poe*, ed. Kevin J. Hayes (Cambridge University Press, 2002), 178–190.

things are and how they mean. "What was it" that made the narrator feel as they did? The question suggests at once past time and physical presence. What were the sources of the things they saw and heard? What caused, for example, the rays of light in an underground chamber or the "indefinite sounds" that arrive during the intermittent silences of a storm? And "what was it" that caused the House of Usher to collapse? Was it the structural fissures, the storm outside, or Madeline's cataclysmic resurrection? Perhaps, as the narrator speculates, the entire shattering episode is not even real.

Of course, there remains the matter (and flesh) of Madeline's dead body, swiftly buried in the walls of her very own house. Her corpse is *twice* bolted inside a coffin and sealed behind a massive metal door. She is there, somewhere. Surely, we can point to her body and the evidence of her death as some kind of source or explanation for the narrator's terrible feelings or the house's eventual collapse. But, in the end, we don't know where (or what) she is, and the dead just do not stay put. Madeline's crypt foreshadows Derrida's: "What is a crypt? No crypt presents itself. The grounds [*lieux*] are so disposed as to disguise and to hide: something, always a body in some way. But also to disguise the act of hiding and to hide the disguise: the crypt hides as it holds."[39]

In Ridler's *House of Usher*, Poe's text is both there and not there, named but disappeared. Uncited (beyond the title) and mediated through Watson and Webber's film, which is itself an imprecise adaptation of Poe, the story is yet another kind of body, entombed somewhere in this Poe-like machine, where water and stone become vapor. Like Madeline, Poe's story is embedded here, somewhere, but we cannot be sure of what it means as an origin or source, what it contributes or causes or creates in the end. Perhaps its imprecise and spectral presence accounts for the vague sensation that things are not quite right, that the neural network has a mind of its own, that maybe we are doomed by all these half-dead, human-like machines.

Ridler's project references Poe's story, but more importantly "The Fall of the House of Usher" is itself a work about the confusions of reference and the games that even the most material things can play. The mysteries that remain at the end of the story are mysteries that Ridler's work—and the whole of computational visual culture—often compel us to consider: What are the sources or causes of the images we see (or the sensations we experience)? What is our role as perceiver and our relationship to the material world? What access to it, or knowledge of it, do we ultimately have? Here, perhaps we are unsteadied and de-centered, like the unnamed narrator in Poe's story; perhaps our contact with the physical world collapses, along with the chains of cause and effect.

The challenges that "The Fall of the House of Usher" poses to clear lines of causal explanation and sense experience belong to a much wider epistemological critique—and counter cosmology—that Poe articulates across his fictional and critical writing.[40] From Poe's early sonnet "To Science,"

39. Jacques Derrida, "Fors," trans. Barbara Johnson, *Georgia Review* 31, no. 1 (Spring 1977): 67–68.

40. On Poe's critique of science, see Paul Gilmore, "Poe and the Sciences of the Brain," in *The Oxford Handbook of Edgar Allan Poe*, ed. J. Gerald Kennedy and Scott Peeples (Oxford University Press, 2019), 752–772; John Limon, "Poe's Methodology,"

published in 1931, to *Eureka*, his extended meditation on the "Material and Spiritual Universe" published just before his death, Poe rejects the available formations of scientific knowledge.[41] For Poe, so much of what we can know about the world escapes empiricist methods of observation, analysis, and classification. There are, in Poe's words, "gradations of matter of which man knows nothing."[42] These truths require processes of imagination, speculation, and dream. In *Eureka*, Poe proposes a metaphysics of particulate matter that cycles, spiral-like, from nothing to something and back again. On this view, all matter will eventually crumble and collapse, sinking into the nothingness of a black tarn. Against post-Enlightenment models of knowledge production as cumulative and infinitely expansive, Poe describes a limitless circuit of annihilation and renewal, the rhythmic destruction and re-creation of particulate matter that pulses, endlessly, like a transcendental heart, "a novel Universe swelling into existence, and then subsiding into nothingness, at every throb of the Heart Divine."[43]

These specters of Poe's writing reach out, making unexpected, accidental contact with machine learning, algorithmic images, and, of course, Ridler's own adaptation of his story. Poe's thinking about catastrophe inadvertently aims directly at the aging strands of nineteenth-century science that remain with us. These strands compel some to believe in the neutrality of data and machines, in the promise of escaping or overcoming the limits of our bodies, in the possibilities of a limitless future and infinite progress, and in the boundlessness of everything: ideas, money, labor, and energy.

Poe's conception of a restless and perpetually churning universe, a cosmic order that destroys and re-creates out of the particulate matter of the world, stands in its own uncanny relationship to the cyclical and processual orders of machine learning. As I have described, machine learning demands all manner of the world's particulate matter. It is a present always turned toward the past and a fundamentally retrograde enterprise. Many critics describe it as "conservative," with all of the political resonances that the term entails.[44] Others argue that it simply cannot recognize or generate anything

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in *The Place of Fiction in the Time of Science: A Disciplinary History of American Writing* (Cambridge University Press, 1990); and John Tresch, *The Reason for the Darkness of the Night: Edgar Allan Poe and the Forging of American Science* (Farrar, Straus and Giroux, 2021).

41. Edgar Allan Poe, *Eureka: A Prose Poem* (New York, 1848), 7. See also Edgar Allan Poe, "To Science," in *Collected Works of Edgar Allan Poe, Volume I: Poems*, ed. Thomas Ollive Mabbott (Belknap Press of Harvard University Press, 1969), 90–92.
42. Edgar Allan Poe, "Mesmeric Revelation," in *Collected Works of Edgar Allan Poe, Volume III: Tales and Sketches, 1843–1849*, ed. Thomas Ollive Mabbott (Belknap Press of Harvard University Press, 1978), 1033.
43. Poe, *Eureka*, 139.
44. See Cory Doctorow, "Our Neophobic, Conservative AI Overlords Want Everything to Stay the Same," *Los Angeles Review of Books*, January 1, 2020, accessed January 10, 2020, https://lareviewofbooks.org/blog/provocations/neophobic-conservative-ai-overlords-want-everything-stay/; and M. R. Sauter, "Instant Recall," *Real Life*, June 27, 2017, accessed January 5, 2018, https://reallifemag.com/instant-recall/. On the emerging view of the neo-fascist aesthetic of AI images, see Gareth Watkins, "AI: The New Aesthetics of Fascism," *New Socialist*, February 9, 2025, accessed February 15, 2025, https://newsocialist.org.uk/transmissions/ai-the-new-aesthetics-of-fascism/; Roland Meyer's interview in Moira Donegan and Adrian Daub, hosts, *In Bed with the Right*, podcast, season 5, episode 56, "AI Slop and the New Fascist Aesthetic with Roland Meyer," Clayman Institute for Gender Research

new.[45] In the industrial, everyday operations of machine learning—say, in the photorealistic portraits of people who do not exist and life-like voices of those who have never lived—one might struggle to detect how these technologies turn us toward the past. But still, the past leaks out, follows us around, creates small, strange moments of encounter. The new of machine learning is always old, its cutting edge always a catastrophe and a pile of ruins, assembled through large-scale algorithmic scrapings of the world's digital contents for pennies by anonymous workers and whatever water remains on this scorched earth.

But *House of Usher* emphatically points at the dataset, invites us to *see* something of the source material and its transformation by the network, to compare the original and its imperfect copy (or counterfeit). Ridler's project points at the dataset of her own images and to a set of cinematic stills (and to the specters of Poe's short story). The GAN-generated *House of Usher* comes remarkably close to the traces of her original ink-and-paper images and to the frames of the original film but misses those origins in ways that humans can easily perceive. The GAN copies work by resemblance: almost the same, but not quite. Ridler plays a role here too. She no doubt made selections from among the spectrum of images generated by the GAN. Some would have resembled the originals more than others. In their failure to re-create or replace their source materials, Ridler's GAN images mimic the material structures and affective surpluses of analog reproduction. These works express neither lossless preservation nor autonomous generation but the temporal in-betweens and partial presences of photomechanical materiality. Perhaps most striking, one might easily miss or mistake the technological origin of Ridler's computational images altogether. They mimic the celluloid ruins of the photo-film archive and the material losses that define analog historicity.

In describing the aesthetic of machine learning as "painterly," Ridler recalls early twenty-first-century arguments that relocated digital images on the side of animation and painting, separating them from the material and evidentiary expressions of photomechanical reproduction.[46] The digital or computational image touches nothing, makes no contact, and has no physicality, partial or otherwise. We return to an era of pure resemblance, iconicity, and empty historical promises. Writing on technical images in 1985, Vilém Flusser presciently puts the difference this way: The photographic image points toward us, at our histories and families, while contemporary

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at Stanford University, March 11, 2025, accessed March 20, 2025, https://gender.stanford.edu/inbed; and Eryk Salvaggio's series on AI "Slop Infrastructures," December 8, 2024, accessed April 15, 2025, https://mail.cyberneticforests.com/slop-infrastructures-1-2/.

45. In addition to Joler and Pasquinelli's Nooscope, see Roland Meyer, "The New Value of the Archive: AI Image Generation and the Visual Economy of 'Style,'" *IMAGE* 37, no. 1 (2023): 100–111, https://doi.org/10.25969/mediarep/22314; and Roland Meyer, "'Platform Realism': AI Image Synthesis and the Rise of Generic Visual Content," *Transbordeur*, no. 9 (2025), https://doi.org/10.4000/13dwq.

46. Lev Manovich makes this now-canonical argument in "What Is Digital Cinema?," in *The Digital Dialectic: New Essays on New Media*, ed. Peter Lunenfeld (MIT Press, 1999), 172–192.

"technical" images point away from us.[47] The photograph concerns us; it is fundamentally about us. Computational images, by contrast, are not. He writes, "Because technical images are projections, because they point one direction from the projector towards the horizon . . . they must be decoded not as representations of things out in the world but as signposts directed outward."[48] Put slightly differently, these images have no past, only future. They are not messages from another era or signs that need decoding. For Flusser, we should not ask "What do they mean?" but rather "How are they made?"

The images generated through the architectures and processes of machine learning demand precisely this kind of attention to technique. They are extraordinary spectacles of contemporary technology, and, as Flusser suggests, the relationship that matters most often seems to be that of their algorithmic and architectural becoming. Put plainly, we want to know how they were made.

Against Flusser's view of computational images, however, *House of Usher* is not a projection pointed toward a future horizon. It is not a meaningless sign—or one whose meaning depends only on its technical coming-into-being. Ridler's images *concern us.* The work points toward film (and photographic and literary) histories, and its meaning seems to bear precisely upon the historicity of images. The term *painterly* imperfectly describes how the material world and its photomechanical traces persist here. In Ridler's work, and indeed so many contemporary examples of AI visualization, the images and objects, hardware and infrastructure of other centuries come together and fall apart. The remnants of the past are present but distorted, collapsed, come undone. If there is a consistent style or aesthetic quality that binds AI art together, it is not quite painterly but *melancholy* (an affective residue of the photomechanical to which I will soon return). Indeed, if Ridler's work somehow reassures us with the seeming presence of a human agent—there are authors and artists in these machines—any reassurance of a simple, lively presence comes undone precisely because the work participates in the processes, at once deeply familiar and destabilizing, of reproduction. Ridler's images are dialectical ones, sites of breakdown, collapse, and existential confrontation.

Her project is a ruin.

PASSAGE WORK

In 2016, Blaise Aguera y Arcas published a short essay for the Artists + Machine Intelligence collective (AMI), a group founded and led by Aguera y Arcas and hosted by Google's Arts and Culture platform. The essay, "The Work of Art in the Age of Machine Intelligence," was a founding document for AMI, and it augured a wave of art-centric machine-learning developments at Google, including the creation of its hallucinatory DeepDream network, the founding of AMI's fellowship program, and the company's

47. Vilém Flusser, *Into the Universe of Technical Images*, trans. Nancy Ann Roth (University of Minnesota Press, 2011), 45–47.
48. Flusser, 49.

first major exhibition of AI art at the Gray Area Foundation for the Arts in San Francisco.[49] In his writing, Aguera y Arcas tries to allay anxieties about just what machine learning might mean for the future of artistic practice. The essay's title forecasts something of the genealogy that Aguera y Arcas endeavors to claim for what he calls "neural art" or "neural aesthetics."[50] He routes his argument through art history and several antecedent visual technologies, in particular the photographic image. In his view, the rise of neural art recalls the early era of photography—he refers to them as "neural daguerreotypes"—and all of the moral and cultural panic about what these new machines would mean for extant modes of art.[51] Like the photographic image, Aguera y Arcas argues, machine intelligence is merely a new tool or (echoing Ridler) creative partner. Art has always been tied to technology. In turn, he suggests, there have always been naysayers and luddites left behind, what he describes, via Walter Benjamin, as those holding on to "the philistine notion of 'art' in all its overweening obtuseness."[52]

Aguera y Arcas is right to bring contemporary neural networks into comparative relationship with photography, but he gets the substance of what they share wrong. Or, he misses what matters most. Across the canon of photo-ontological thought, these images (and our encounters with them) are not defined by an uncomplicated mimicry or bodily extension, but by distance, alienation, mourning, spectrality, and an unwieldy play of differences between the world and its visual double. This is perhaps nowhere more evident than in Benjamin's own reading of the daguerreotype, in which he speculates that one can see "tiny sparks of contingency," signs of the future deaths and tragedies to come, nesting "so eloquently" in the image.[53]

Lingering on Benjamin for just a moment more, his chain of citations comes quite close to Ridler's. Benjamin cites Poe at several points in his fragmentary and unfinished *Das Passagen-Werk* (*The Arcades Project*), though he is better known for thinking alongside Charles Baudelaire, a writer "fed on ruination and melancholy."[54] Benjamin cites Baudelaire's dream about ruins: "Fissures and cracks, dampness resulting from a reservoir situated near the sky. . . . I live forever in a building on the point of collapsing, a building undermined by a secret malady." It's a dream that could easily be yet another adaptation of Poe.[55]

More important, Benjamin's understanding of photographic reproduction cannot be extracted from his thinking about the concept of allegory, which extends from his earliest writing on the Baroque *Trauerspiel*,

49. Blaise Aguera y Arcas, "Art in the Age of Machine Intelligence," *Artists + Machine Intelligence*, February 23, 2016, accessed January 5, 2018, https://medium.com/artists-and-machine-intelligence/what-is-ami-ccd936394a83.
50. Aguera y Arcas.
51. Aguera y Arcas.
52. Aguera y Arcas here cites Walter Benjamin's "Little History of Photography," in *Walter Benjamin, Selected Writings, Volume 2, Part 2, 1931–1934*, trans. Edmund Jephcott and Kingsley Shorter, ed. Michael W. Jennings, Howard Eiland, and Gary Smith (Belknap Press of Harvard University Press, 1999), 508.
53. Benjamin, 510.
54. Walter Benjamin, *The Arcades Project*, trans. Howard Eiland and Kevin McLaughlin (Harvard University Press, 2002), 10.
55. Benjamin, 308–309.

or "mourning play," to his heaving material history of Paris and its glass-and-iron arcades.[56] Benjamin carves out a technical definition of allegory, separating it from what he calls "the symbol."[57] The symbol is a closed and unchanging structure, a sign that bears no substantive relationship to history or human life. The allegory, by contrast, is dynamic, dialectic, mobile, and fluid, an expression of the "flux of time itself."[58] Allegorical forms are unwieldy and multivalent, made out of scraps, and open to manifold interpretations. For Benjamin, one finds the physical manifestation of allegory in ruins. That is to say, the ruin interrupts our experience of the present as alive and breathing. It makes the past present and, in so doing, tears at the stability and coherence of the instant, the seeming continuity of time. In our encounters with ruins, we glean something of history—what has passed, what no longer remains—and what is yet to come for all of us, and all the more quickly since we are not made out of brick and stone. We will all eventually get tucked into a wall or buried underground or tossed to the wind. We will decay, become ruins, and then disappear.

Decades on from "The Fall of the House of Usher," structures tumble down as the universe of industrial production comes into being. For Benjamin, the tremendous pace and powers of collapse owe to the forces of industrial production, including and in particular the photographic image. The convolute in *Das Passagen-Werk* devoted to photography begins with an epigraph from Antoine Wiertz—"Sun, look out for yourself!"—that suggests something of how Benjamin understands photography's potential metaphysical intervention.[59] At several points, Benjamin notes that Louis Daguerre's diorama burns down the same year that he announces the invention of the daguerreotype, as if photography itself sets fire to the past.[60] Photography *ruins*. It tears the world apart and relentlessly, dialectically, reasserts the presence of the past, the ruins and deaths that had been there all along and those that we are all in the process of becoming.

Of course, a canonical constellation of views on photography understands the force of mechanical reproduction in a similar way. Siegfried Kracauer describes the photograph as "a jumble that consists partly of garbage" and a record that buries history "as if under a layer of snow."[61] For André Bazin, photographic images are limned by death and melancholy; they refer us to lost moments and lives, to facts and objects that might just be hallucinations.[62] In the first pages of *Camera Lucida*, Roland Barthes wonders whether photography itself might be a kind of hallucination: perhaps, he speculates, it does not even exist. Like Benjamin, Barthes describes the photograph as

56. Walter Benjamin, *Origin of the German Trauerspiel*, trans. Howard Eiland (Harvard University Press, 2019); and Benjamin, *Arcades Project*.
57. See Benjamin, *German Trauerspiel*, 165–188.
58. Benjamin, 173. Walter Benjamin quotes here a letter written by Joseph Görres, which is itself cited by Georg Creuzer.
59. Benjamin, *Arcades Project*, 671.
60. Benjamin, 405, 531, 849, 993n2.
61. Siegfried Kracauer, "Photography," trans. Thomas Y. Levin, *Critical Inquiry* 19, no. 3 (Spring 1993): 426.
62. André Bazin, "The Ontology of the Photographic Image," in *What Is Cinema? Volume I*, trans. Hugh Gray (University of California Press, 1967), 9–16.

a ruin—"the living image of a dead thing"—dialectically split between the materially present "this" of the photographic image and the irretrievable past of its referent.[63] Furthermore, Barthes defines the photograph as a bodily ruin, a whole, "glued together, limb by limb, like the condemned man and the corpse in certain tortures."[64] Here, Barthes echoes Benjamin's own reflections on the future anterior of the photographic and the allegorical.[65] The condemned man is already a corpse, the new thing already lost. Susan Sontag perhaps most directly addresses Benjamin's allegorical thought in her photographic writing.[66] She argues that photography makes ruins out of "reality itself" and is itself a ruin; it antiques reality and becomes antique.[67] And, more recently, Geoffrey Batchen's extraordinary meditation on the photographic negative, concealed and disavowed by the positive print, splits every image in two. The print is "never present in and of itself" but "always just one part of a chain to which it refers . . . the tip of an otherwise invisible iceberg of activity."[68] Moreover, Batchen insists that the hidden origins of every photographic image are "calculated acts of ruination": exposing negatives to light and touch in the darkroom, testing and experimenting, scribbling and scratching.[69]

Across this body of writing, and contra Aguera y Arcas, photography's evidentiary and reproductive functions are never merely instrumental, never limited to seeing or saving or making. Like any other ruin, its own materiality and seeming material relationship to the world coincide with a surplus of immaterial effects, with expressions of failure, loss, decay, and spectrality—in other words, of the "flux of time" itself.[70]

It is in this genealogy of ruination that one can see the tangled kinship between machine learning and photographic images. The neural network ruins and becomes ruin. It glues the leaves of present and past, physical things and melancholy feelings together. And, like photography, it is split in two: image and database, things seen and concealed. In a fittingly convoluted, mobius strip-like relationship, it is precisely (and ironically) in the failure of the network to minimize its losses and mimic its dataset that the technology comes closest to the ruinous, allegorical structures of the photographic image.

As for Ridler's *House of Usher*, it is a ruin of a ruin, a structure built out of the pieces of a fallen-down house, the visual detritus of the nineteenth and twentieth centuries, the remnants of a specific film and cinematic style, and her own contemporary ink-and-paper images. But there are neither

63. Roland Barthes, *Camera Lucida: Reflections on Photography*, trans. Richard Howard (Hill and Wang, 1981), 79.
64. Barthes, 5–6.
65. See Benjamin, "Little History," 507–530.
66. See Susan Sontag, "The Last Intellectual," *New York Review of Books*, October 12, 1978; and Susan Sontag, introduction to *One-Way Street*, by Walter Benjamin, trans. Edmund F. N. Jephcott and Kingsley Shorter (Verso, 1979), 1–25.
67. Susan Sontag, "Melancholy Objects," in *On Photography* (Farrar, Straus and Giroux, 1973), 80.
68. Geoffrey Batchen, *Negative/Positive: A History of Photography* (Routledge, 2021), 6.
69. Batchen, 37.
70. Benjamin, *German Trauerspiel*, 173.

photomechanical images in the dataset—no photographs or film stills—nor the kind of clear causal and physical relationships that define the historicity of ruins and photomechanical reproduction, things like light waves and emulsified paper, rain or wind on stone, mold spores in an archive. Like the body of Madeline buried somewhere in the house and the structure of Poe's story, the work withholds clear causal explanations. And like Poe's imperfect narrator, we become receivers of vague, unmoored feelings. "What was it" that made these images? What caused these ruinous, fallen-down visions? And is anything *real* buried here, beneath the surface?

TO CONCLUDE: COUNTERFEIT, CONTRE-FAIT, COUNTER-MADE

In the field of machine learning, the GAN is a trickster, an impostor, a maker of fakes that are somehow deeper than before. The two networks are engaged in a computational swindle, a machine-to-machine imitation game. The generator tries to fool the discriminator with counterfeit images. But if all goes well—if the system succeeds and does not collapse—the counterfeits win. The network does not re-produce the original or *real* dataset but instead generates a set of indistinguishable counterfeits that will fool our eyes with the probability of a coin toss. GANs open onto a world of treachery and deceit that, we are told, will only get more difficult to discern. For her part, Ridler finds this way of thinking about GANs puzzling and insists that her images are somehow new: "The use of the word 'counterfeit' is interesting, suggesting as it does a lack of truth. But the images that the GAN produced are not merely copies of what was in the training set, but rather entirely new images that have been created from the knowledge of what it has seen."[71]

One can understand the contemporary artist's impulse to protect against the claim of the counterfeit, a word that comes from the French *contrefait*, or counter-made. But the counterfeiter is also a supremely modern figure, one that precedes digital makers and machine learners by at least a century. The counterfeiter thrives among the energy and anonymity of expanding cities and makes use of new technologies of industrial and mechanical reproduction. The counterfeiter compels the imagination of both Poe and Baudelaire and extends a line of thought from the nineteenth century through the work of Benjamin to Derrida.[72] In his reading of Baudelaire's "Counterfeit Money," Derrida finds an exemplar of the counterfeit itself, an endless chain of possible authors and meanings, whereby one loses the ground from which to choose the "real" or "right" one. He writes, "Counterfeit money is never, *as such*, counterfeit money. As soon as it is what it is, recognized *as such*, it ceases to act as and to be worth counterfeit money. It only is by being able to be, perhaps, what it is."[73] In a familiar Derridean maneuver, the difference between

71. Ridler, "Datasets and Decay."
72. Poe's writing on counterfeits adjoins his obsessive interest in modern printing practices, puzzles, cryptograms, ciphers, and riddles. See Edgar Allan Poe, "Marginalia, Part VIII," *Graham's Magazine*, November 1846, 245–247. See also Heinz Tschachler, *The Monetary Imagination of Edgar Allan Poe: Banking, Currency and Politics in the Writings* (McFarland, 2013).
73. Jacques Derrida, *Given Time: I. Counterfeit Money*, trans. Peggy Kamuf (University of Chicago Press, 1992), 87.

opposing terms collapses, falls away. To the extent that a counterfeit succeeds *as counterfeit*, we cannot distinguish it from the real thing.

The stakes of the counterfeit are different for Benjamin, especially as they intervene in his understanding of the ruin. The risk of the ruin is precisely that it might not be real. For Benjamin, the "ruin lust" of the eighteenth century—the Romantics' desire for beautiful, ruinous objects—exemplifies the vacuity of the symbolic. The fake ruins that proliferate as commodities for bourgeois households and gardens mark the aestheticization and fetishization of history. Counterfeit ruins transform the past into sites of visual pleasure and historical spectacle. The follies that are made in the present vaguely remind us of old things, but they bear no material relationship to history. They are ways of forgetting history and remaining tied to a "wish-image" of the past or the beauty of a boundless, ongoing present. In the allegorical, by contrast, "ephemeral beauty completely falls away."[74]

But real ruins can also become aesthetic symbols, touristic spectacles, and petrified signs of our own desires. In the nineteenth century (and beyond), a mania for natural history makes fossils into fetishes. Their literal emptiness—marking the place where life once was and then decayed—gets replenished by consumer demand for attractive decor. Susan Buck-Morss reminds us that the origin of Benjamin's *Das Passagen-Werk* is not his life in Paris, but a trip to Italy.[75] There, Benjamin tours the ruins of Pompeii and finds the accelerated destruction of contemporary capitalism, where ruins are everywhere for sale, rituals of traditional life are performed as theater for hungry tourists, and new things are swiftly discarded. New ruins quickly accumulate upon the old.

For Benjamin (and so many others, as we have encountered here), neither photography nor film is intrinsically or necessarily dialectic, counter-symbolic, or real. The allegorical function is not in the image but defines a certain experience of it. Benjamin describes allegory as, at turns, an intention, an attitude, a disposition that one takes toward objects or images. The allegorical apprehension of the world is not a kind of empirical knowledge, but a fragile and transitory kind of truth (*Wahrheit*).[76] It comes and goes, takes us by surprise, and disappears. *What was it that made us feel this way?* Or, to put it slightly differently, the fragility of the experience, the sense that things are fleeting and falling apart, that the world cannot be known in its totality are the truth of any allegorical experience. Some images and objects make this experience more likely (e.g., the mourning play, street photography, and dilapidated arcades), as do the particular conditions of a capitalist economy (e.g., alienation, catastrophe, and the deracination and decontextualization of everything). But it is only ever a potential phenomenology and a fundamentally ambiguous one (*Zweideutigkeit*).

In Anna Ridler's *House of Usher*, there are no clear physical or causal connections between the world and its data, nor between the images in

74. Benjamin, *German Trauerspiel*, 194.
75. Susan Buck-Morss, *The Dialectics of Seeing: Walter Benjamin and the Arcades Project* (MIT Press, 1989), 26, 161.
76. See Bainard Cowan, "Walter Benjamin's Theory of Allegory," *New German Critique*, no. 22 (Winter 1981): 109–122.

the dataset and the images we see onscreen. In presenting the dataset alongside the GAN-generated copy, Ridler does not resolve the indexical question—"What was it?"—but stages it, leaves it open. As I have argued, the work also invites us to trace this question as it goes unanswered in writing and photomechanical reproduction.

Still, this work does not invite us to delight in the artifice of decaying things. It is not a *counterfeit* or *fake* ruin, if such terms imply their opposition: more *authentic* visual artifacts or *real* ruination. Rather, the work critically attunes us to a specific way of seeing and experiencing machine learning, to understanding its underbelly of found images and films and scraps of old writing. It is a kind of instruction, a pedagogy, in grasping the imprecise chain of relationships that constitute machine-made things even (and especially) when the networks minimize their losses, mimic photorealistic styles, or suggest nothing at all of their underlying dataset. Ridler's work *maximizes* its losses and, in turn, the feeling of loss that more often accompanies photomechanical images. It makes us see the constitutive visual matter that the adversarial network requires and the differences that accumulate with every iteration. In *House of Usher*, the fragments of a nineteenth-century story, an early twentieth-century film, and twenty-first-century lines-on-paper are at once present and nowhere to be found. One can catch connections between stillness and movement, images made by hand and by machine, the analog and the algorithmic. They flicker into and out of view, collide with one another, and disappear. The work generates familiar categories of feeling, about what once was—*what has been, the things we have seen*—in the world and in its images, precisely because it is built out of a world of images we once knew well. But also, and more importantly, it discloses the conditions of contemporary machine-making, the crush of all visual matter into photorealistic symbols and stylistic clichés. In other words, it generates an experience of history and the conditions of contemporary computational production. Like the photographic image, machine learning is a ruin *made*. It generates with our visual past and confesses our ruinous present.

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Katherine Groo is an associate professor of film and media studies at Lafayette College. She is the author of *Bad Film Histories: Ethnography and the Early Archive* (University of Minnesota Press, 2019).