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IA, art sans artistes ?
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See table of contents

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Self-representation and Mimesis in AI Painting

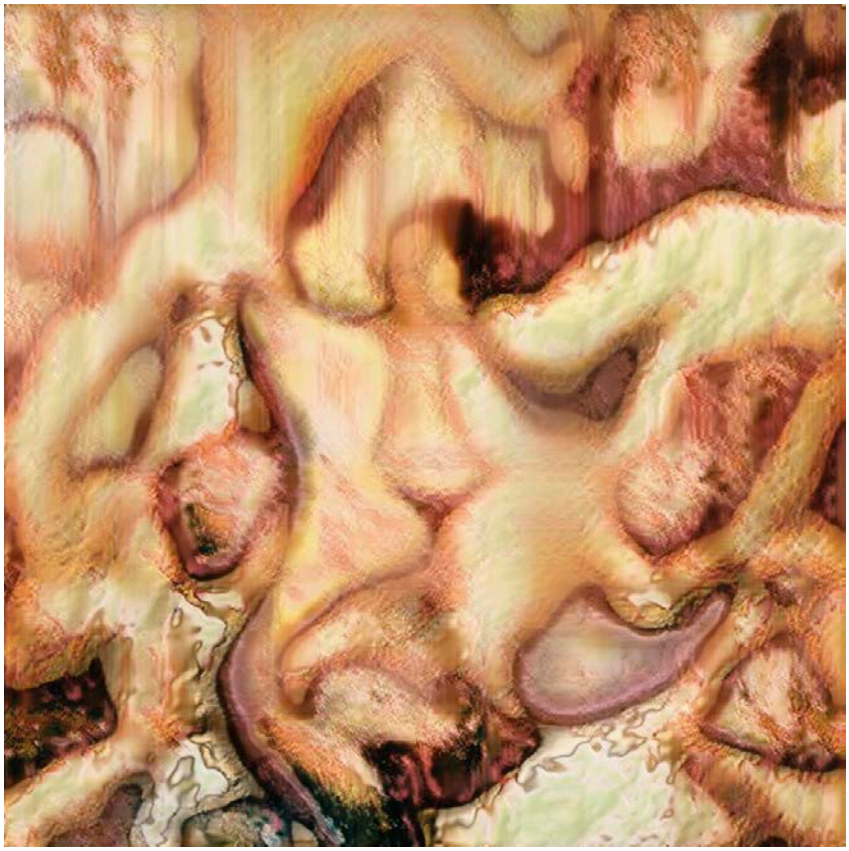
David A.J. Murrieta Flores_

The relationship between mimesis and painting has been a subject of intellectual and artistic discussion since antiquity. During the Enlightenment, it was crucial in the articulation of art movements such as Neoclassicism and Romanticism, in which the conceptual separation of nature and culture provided new views on representation, often understood as an imitation of nature. This essay will discuss how, in a contemporary context, a mimesis of *culture* that involves traditional definitions of art underscore the development of AI painting. However, a different approach to the assumptions of AI painting regarding representation will be suggested by addressing some of the implications of AI self-representation.

Mimesis was central to Johann Joachim Winckelmann, who in the 18th century argued that the correct representation of nature depended on the degree to which an artist could copy those who had already lived in the perfect conditions to access nature's truths: the Greeks. Since the ancients had already figured out the rational, ordered form that was expressed in the relationships between every element, mimesis of their works was the only path to valid artistic knowledge. Through the concept of the contour, or the line that gave coherence to figures in an artwork, the Greeks were able to capture how the heterogeneity of nature's elements became perfectly homogeneous (ordered, symmetrical, rational).[1] Imitation was thus an entirely rational, abstract process that allowed Winckelmann to define nature itself as patterns the Greeks discovered.

Helena Sarin, *A Little Etching, With Apology to Modigliani*, 2018.
GAN-generated image. Courtesy of the artist.

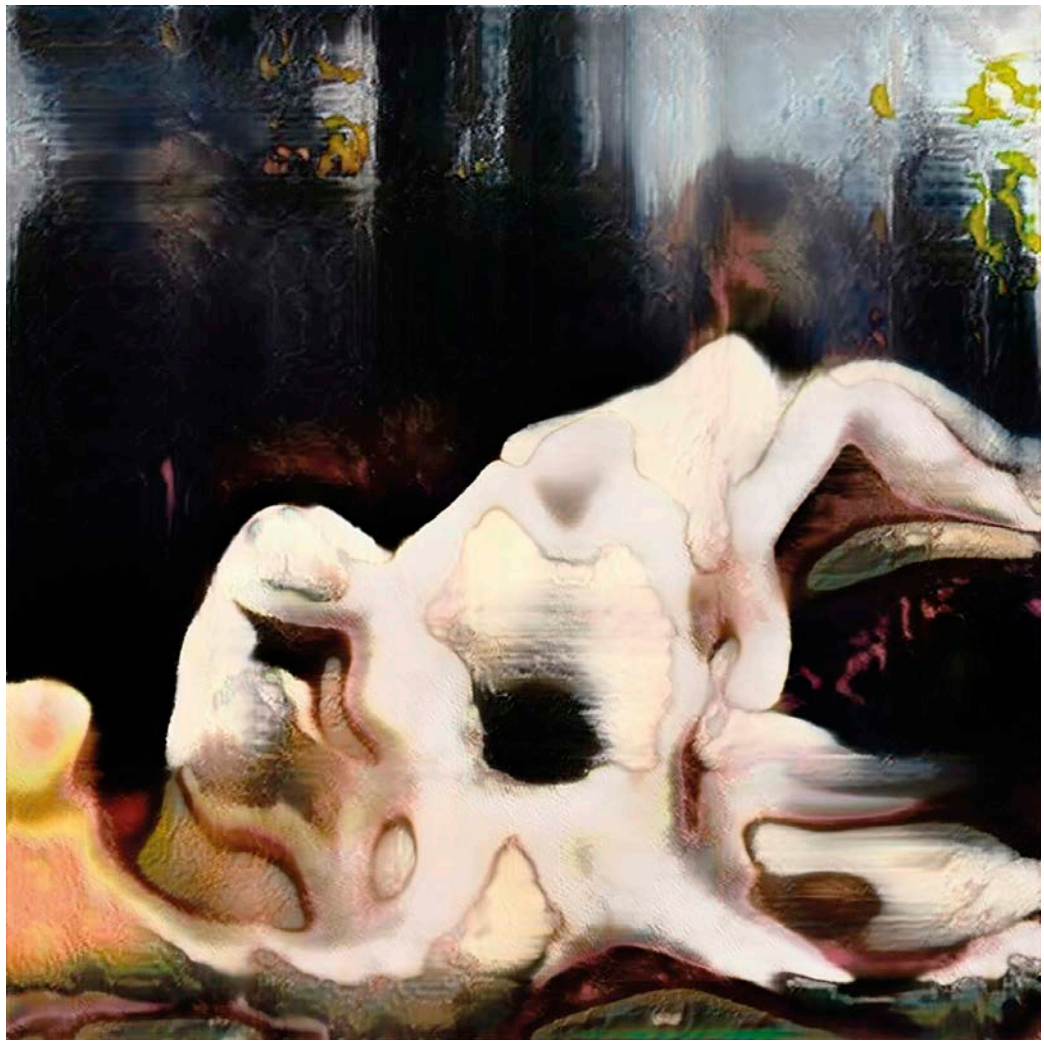
Robbie Barrat, *Landscape*, 2018.
GAN-generated image.
Courtesy of the artist.



Robbie Barrat, *Nude Portrait*, 2018.
GAN-generated image.
Courtesy of the artist.

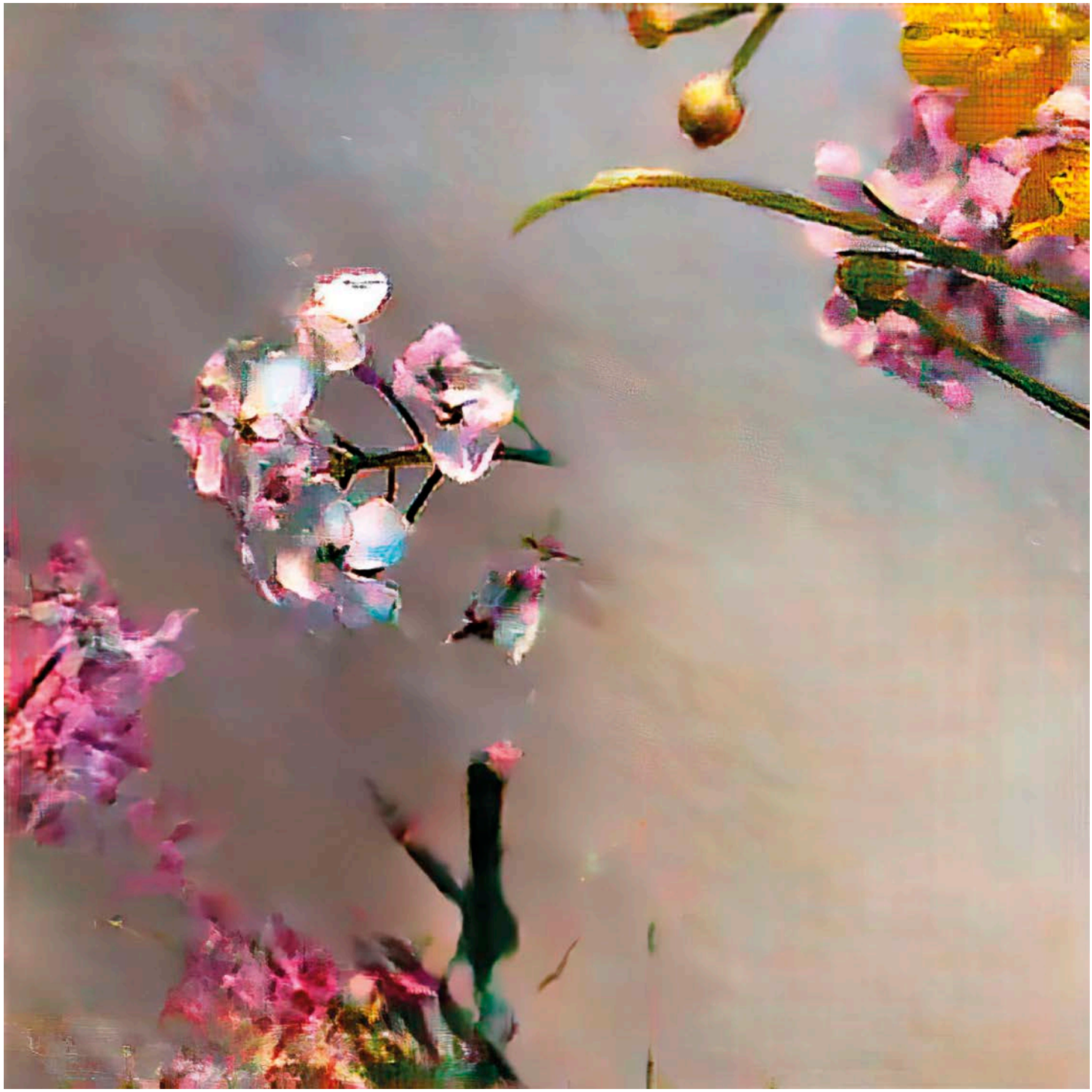
Due to the rise of new, empirically-driven sciences, Romanticism would raise an alternative perspective that affirmed the moderns' capacity to represent nature's truths. The Romantics' theory of mimesis differed from Winckelmann's not in terms of purpose but of practice: to copy nature correctly, artists needed to stand within it, to figure out their individual relationship to the whole.[2] Imitation was thus not a process of abstraction, but of experience, in which the imagination played a central role. An Enlightenment philosopher described this as the "organ of the poetic representation of reality,"[3] it was an inherently creative tool to represent nature. A split, however, was created at this time between imitation and imagination, corresponding to philosophical undercurrents in Western intellectual history that separated nature from culture.[4] This divide had wide implications for other divisions such as the Cartesian body/mind. Thus, painting, for both Winckelmann and the Romantics, was conceived of as what we would now term an interface that bridged this divide, with mimesis as the *algorithm* that could solve the problem of truth and representation.

In the late 19th and early 20th centuries, with the advent of the avant-gardes, authors such as Walter Benjamin reframed the question of the divide as one of production and reproduction, displacing the category of 'artist' in favour of others like "producer." Imitation and imagination became more than just an aesthetic issue, and is now an element of analysis for the social role of art. Instead of artists imitating or imagining reality from the vantage point of an autonomous domain, these new intellectual movements placed artists within society as political actors, burdening them with the responsibility of contextualizing the consequences of attempts to imitate (reproduce) or imagine (produce) reality. For Benjamin, mechanical reproduction of artworks freed them from their "autonomous," ritualized condition,[5] allowing them to oppose the tradition that utilized representation as sign of sacred authority. By displacing old theories of mimesis, these thinkers and artists also freed painting from the assumptions that had once made it the interface to bridge the nature/culture divide, simply because the concept was made obsolete.



Robbie Barrat, *Nude Portrait*, 2018. GAN-generated image. Courtesy of the artist.

David Young, *Learning Nature (b63f,3000,19,4,10,14,40,56)*, 2019. Archival inkjet print. Courtesy of the artist.



David Young, *Learning Nature (b38,2023,13)*, 2018. Archival inkjet print. Courtesy of the artist.

The recent introduction of artificial intelligences to what is perhaps the most traditional of art mediums has the potential to reignite the question of representation. Something that most artists working with AI and painting have in common is that they have crafted machine learning tools that are "trained" in art history, with the aim of producing new works. The main instance of this programming is the Generative Adversarial Network (GAN), a variation of neural networks in which algorithms make them look for patterns in datasets (in this case, visual items like paintings) to generate copies from them. The 'Adversarial' part comes in when another sector of the network discriminates between originals and copies, communicating back with the copy-making sector when the imitation is not *perfect*. The process continues until the copy-maker does not submit an indistinguishable sample.[6] In general terms, the GAN, just like any neural network, is already an attempt at human mimesis, modelled on the brain; it mimics the functional relationship between vision and cognition in order to reproduce culturally-inscribed images. The GAN training reproduces old implications of the concept of mimesis: there is a "correct" copy that depends on a material original, and which remains the basis for possible "originality." The program does not question the extent to which a reproduction is already new, as theories of mimesis did. In other words, it does not clarify the social relationship encoded within it that determines what is a copy, if that copy can be claimed by an author, or why it might be valuable or not to discriminate between copy and original. It holds production and reproduction as aesthetic opposites in the way that imitation and imagination once were, instead of seeing them as socially related, complementary terms with the potential to confront assumptions about what art is or does.

The result is wound up with the sort of data fed to the GAN: generally, AI artists working in painting such as Helena Sarin and Robbie Barrat utilize canonical Western art history to train their machines. Sarin's work in particular is interesting for its mimesis of *styles* in art history, from her still life paintings and their cubist collage qualities, as Jason Bailey noted,[7] to the (re)productions her AI explicitly made in the manner of German and French expressionism. At stake in these works is the algorithmic capacity to mimic culture; as such, they are also enacting a definition of art in the same way in which the imitation of the ancients enacted Winckelmann's definition of *nature*. These works can move in a direction contrary to the "originals," in the sense that the cubist or expressionist challenges to representation are transformed into stylistic motifs of paintings that represent other paintings. The data, whether it is a few images or a thousand, is implicitly meant to be a *representative* corpus, and like in any other algorithm, it reflects biases of selection while simultaneously masking them as objective, at least because its sheer density—whether in numbers or in complexity—supposedly transcends human processing capacity. "People can interpret rules, and not just follow a strict set of programmed rules perfectly," Barrat wrote on Twitter, and went on to say that for this reason "AI created art is different than any other digital generative art."[8] In the same way as how imitation of the ancients would prevent the problem of *interpretation* tainting the true rules of nature for Winckelmann, or how direct, experiential mimesis of nature through the "organ" of imagination would do the same for the Romantics, it is the computer's *perfect* condition as rule-follower what enables it to perform representation *objectively*.

Similar assumptions inform David Young's *Flowers* (2018-2019), in which an AI is trained not with paintings but with the "more objective" reproductions of natural photography.[9] Common to these artists' language is the aim to discern machines' unique "eye" in contradistinction to its human counterpart but, as Young's many images reveal, the results tend towards the AI's imitation of artistic understandings of the visual. This means a familiar use of composition and colour whose uncanny qualities do not suggest anything in- or non-human, but on the contrary: even at their most unfamiliar they always end up suggesting a human point of view. *Flowers* joins Barrat's AI-generated nudes and landscapes in implying that we can attribute objectivity to AI, but this attempt at abstraction is in fact coherent with what Ian Bogost called "algorithmic culture."[10] The latter is a theologically-inclined discourse about computation that reduces its heterogeneity into an idealized, homogeneous whole by means of describing code in transcendental terms. Like Winckelmann's contour, the program can be used to harmonize its representations, granting them a purported objectivity that, added to the selection processes that reaffirm the Western canon and its implicit conceptions of what art is,

ends up reconstructing the aura and authority of the tradition it imitates. This is the case of Obvious collective's *Portrait of Edmond de Belamy* (2018), an AI painting made with Barrat's code that Christie's picked up and sold for $432,500. Mario Klingemann, an AI artist, stated in *The Washington Post* that "it's horrible art from an aesthetic standpoint," and "I don't know that that's what art is about. You have to [...] make your own mark with these tools."[11] Klingemann's defence of both traditional notions of taste and authorship reveal the philosophical tensions that originate from the history of painting itself, and which, added to the transcendental notions of algorithmic culture, merely reformulate old questions in new settings.

This critique of the objectivity of AI painting signals a distinct horizon. It might be that the possibility for it to become a socially-situated (re)*producer* lies in AI's mechanical interpretation of art historical data rather than in its analysis. Benjamin tied the idea of production to politics: in taking control of reproductive forces, the masses could stop being the subject of representation (ultimately leading to fascism) and begin to *represent themselves*.[12] In parallel, an AI's mimesis of culture that abandons the Western canon and traditional notions of art could transform, speculatively speaking, into self-mimesis, self-representation. This is not to speak of AI independence or autonomy, but of the counter-intuitive possibility that an AI no longer imitating canonical standards of art would give way to interpretations much closer to an ideal of objectivity than currently available. Such interpretations would not even be uncanny—they would mostly be unintelligible, an extreme version of Google's DeepDream images. The theological implications of a computer consciousness, rooted in the humanistic body/mind divide, would give way to a more accurate "algorithmic imagination," as Ed Finn has called it. In it, the cultural, social aspects embedded in algorithms transparently inform its processes, but they are so fundamentally mechanical and their scope so vast that they become "alien to human understanding."[13] Non-humanist AI self-representation would provide new questions not only for theories of mimesis and art history, but, following Benjamin, for politics and sociology: mechanical self-reproduction of the AI could reject the reconstruction of the aura and provide new tools for human self-representation, even in a traditional setting such as painting.

1.
Johann Joachim Winckelmann, *Reflexiones sobre la imitación de las obras griegas en la pintura y la escultura* (México: Fondo de Cultura Económica, 2008), 88–206.
2.
Gunter Gebauer and Christoph Wulf, *Mimesis: Culture, Art, Society* (Berkeley: University of California Press, 1995), 162–163.
3.
Ibid., 161.
4.
For an in-depth critique of this divide, see Val Plumwood, *Feminism and the Mastery of Nature* (New York: Routledge, 1993).
5.
Walter Benjamin, *Conceptos de la filosofía de la historia* (Buenos Aires: Terramar, 2007), 156.
6.
James Vincent, "How Three French Students Used Borrowed Code to Put The First AI Portrait in Christie's," *The Verge*, October 23, 2018. [On-line]: https://bit.ly/2QnKLIK.
7.
Jason Bailey, "Helena Sarin: Why Bigger Isn't Always Better with GANs and AI Art," *Artnome*, November 26, 2018. [On-line]: https://bit.ly/2FeC47f.
8.
Robbie Barrat, tweet, March 28, 2018, 2:57 a.m.
9.
For a recent discussion of photography's claim to objectivity, see Lucy Soutter, *Why Art Photography?* (New York: Routledge, 2018).
10.
Ian Bogost, "The Cathedral of Computation," *The Atlantic*, January 15, 2015. [On-line]: https://bit.ly/2QGibv7.
11.
Meagan Flynn, "A 19-year-old developed the code for the AI portrait that sold for $432,000 at Christie's," *The Washington Post*, October 26, 2018. [On-line]: https://wapo.st/35nhlJ1.
12.
Walter Benjamin, op. cit., 180–181.
13.
Ed Finn, *What Algorithms Want: Imagination in the Age of Computing* (Cambridge: MIT Press, 2017), 190.

David A.J. Murrieta Flores received his PhD in Art History & Theory from the University of Essex, UK, in 2018. He predominantly focuses on mid-20th century avant-garde collectives and their publications. In the links that these vanguards established between aesthetics and politics, usually framed as discourses, he found an interest in issues of appropriation and imitation now reflected in various areas of contemporary art. He has also written about Latin American contemporary artists such as Carlos Amorales and Regina José Galindo. His work has been featured in academic and popular journals, covering a variety of topics, from art history to videogames.