Painting as a Thinking Machine

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Abstract

"Painting as a Thinking Machine" interprets a class of painting that goes under the name of abstract, concrete, formalist or non-objective painting—the class of painting whose *principle economy* is an economy of materiality—as a *thinking machine*. It does so in relation to machine theory, automatism and complex self organizing systems capable of modeling emergence. It makes a case for this class of painting as being capable, under the right conditions, of becoming a 'wet thinking machine,' and moreover, of the painter as a 'wet programmer.' The implication is that in providing a model of knowledge where thought is coextensive with matter, this class of painting provides a symbolic neutralization of the idealist habit in western thinking that places "the mind in a position of hierarchal superiority over and above nature" (Grosz 1994).

Introduction

The sense that the term 'machine' is used here is not of mechanical components geared to a specific utilitarian purpose. The term's use would be closer to the structure of virtual machines but for the immateriality or purely informational nature of such machines. The machine in painting is one whose 'economy' is material and, importantly, materialist: for this machine repudiates idealist perspectives that "matter itself is a denigrated and imperfect version of the Idea" (Grosz 1994). Similarly it works against Descartes' separation of the soul from nature, against the understanding of two separate substances, thinking substance and extended substance (*res cogitans* and *res extensa*) and towards a model of painting as thought substantiated in matter.

Different Machines

Provisionally, the machine in painting consists of a coupling of the laying bare of an artwork's "device" with the method a software engineer uses in their search for the rules of a computer program's construction: a method called reverse engineering. "Lay bare the device" refers to the foregrounding of a work's performative structure, it is discussed as a technique in relation to Russian non-objective painters Malevich and Rodchenko (Groys 1992). Its origin lies in the linguistic theory of Victor Shklovsky

known as Russian formalism which developed at the time of the Russian Revolution. Writing about narrative structure in the work of Lawrence Sterne, Shklovsky wrote:

> It was typical of him to lay bare the device. The aesthetic form is presented without any motivation whatsoever, simply as is (Shklovsky 1925).

Reverse engineering refers to the analysis of a computer program's binary machine code through the use of tools such as dissemblers or decompilers to display executable instructions in plain text. The painter of machines experiments in relation to a work's device by establishing in a painting, as Jean-François Lyotard has put it, the rules "for what will have been done" (Lyotard 1984). For the purposes of this paper, a painter is as an actor in a system called painting whose role is to be seen less as the 'maker of a painting' and as much as possible, as a painting's 'first viewer.' The painter finds the rules of the game in a particular painting *a posteriori,* incrementally, iteratively and in a loop. Importantly, the painter finds such rules *after the fact*, incorporating them into a *during the fact* of a painting's production—a production that this paper argues occurs largely within painting by painting.

This act of re-incorporation is reflexive. A painting's rules can be said to emerge from a painting and are then interred into its sediment layers as a painterly equivalent to a runtime. When Yves Alain Bois writes that the American painter Robert Ryman "paints that he paints that he paints," he has something of this order in mind. In "Chromatic Painting: Theorem written through painting" French painter and thinker Marc Devade provides a well drawn diagram of what I have in mind:

> The author-actor-spectator of this mise-en-scene [the graphic matrix of painting] is none other that its own structure elaborating itself, playing itself in a mechanical program of which we are the contingent readers. A program that is the sum of painting's formal elements (Devade 1969).

Thinking of a painting as the 'material fact' of the reversing of its own 'code' is of course an abstraction and what might be gained in clarity here also risks a loss through reduction. On its own, reverse engineering is too mechanistic to adequately describe the complexity of the machine this section outlines. Such mechanist reduction,

seen in Descartes for instance, in comments such as "I have described this earth and indeed the whole invisible universe as if it were a machine" (Descartes in Garber 2001) needs exposure to materialist and organicist perspectives.

A productive example is the materialism of C18 Julien de Offray La Mettrie, who offered a changed perspective of Decartes' mechanism. La Mettrie saw organic matter as having "active" and "formal" properties that included feeling and thought, Justin Leiber writes: "Materialism is often presented soberly [as an] austerely mechanical world, but La Mettrie eroticizes nature as a world of colour and joy, a blooming and bidding kaleidoscopic biosphere" (Leiber 1994). La Mettrie saw attempts to uncover the "nature of man" by philosophy had up until then made their cases *a priori...*by...taking flight...with the wings of the mind;" because of this, they had done so "in vain;" much better, claims La Mettrie, to work "*a posteriori* [to unravel] the soul as one pulls the guts out of a body" (La Mettrie 1748).

The wet messiness of such an unravelling would help reverse engineering in painting out a specific mechanist dryness that reverse engineering might engender. Yet in itself this is not entirely sufficient, because as Samuel Taylor Coleridge saw, there are inadequacies in the "stepwise analytical method" (Coleridge in Ritterbush 1968). Machines, he argued, might best be understood by taking them apart but the dissection of a living organism "[yields] members whose meaning [is] lost when...removed from the intact body."[1] Put differently, in the case of complex machines, when a 'component' of a complex living system is decontextualized a correlate loss of meaning can accrue.

To understand organization in living entities Coleridge proposed that "the mind must project something of itself into nature" (Coleridge in Ritterbush 1968). Yet, this is not satisfactory either, the machine in painting has less in common with a mind projected into painting than one interred there after and through the fact of its production. This is thinking that finds its articulation in an address to the painter-viewer ensemble as if the painting had become an object imbued with subjectivity and an ability to think.

A productive way to discuss this condition is as autopoiesis developed as a method in painting. The neologism autopoiesis refers to auto-production or self-making, poiesis derives from the Greek meaning both 'creation' and 'to make.' The word appeared in the nineteen seventies in the context of work by evolutionary biologists Humberto Maturana and Francisco Varela. Simplifying to the extreme, from Maturana and Varela's biological perspective, all living systems are machines engaged in the business of self-making, and as such they are autopoietic. All other machines, generally those that are not living, produce outcomes quite different from themselves; a tire factory doesn't produce tire factories, it produces tires, etc. Autopoiesis provides a diagram of 'thinking substance' at the same level as 'extended substance,' the autopoietical scenario has thought not

separate from matter but emerging from its complex relations. Techniques of autopoiesis are echoed in comments made by Polish artists Strzemiński and Kobro:

[Painting is something:] built in accordance with its own principles, [that] stands up beside other worldly organisms as a parallel entity, as a real being, for everything has its own laws of construction of its organism (Strzemiński and Kobro in Bois 1990).

The machine in painting is nearly the sum of these approaches. More readily, it can be discussed in terms of a convergence of mechanism with the implicit vitalism of organic form outlined here by Coleridge:

[Organic form] is innate [and] shapes itself from within...the fullness of its development is one and the same with the perfection of its outward form. Such is the life, such the form (Coleridge in Ritterbush 1968).

An example of convergence is found in the blurring of mechanist and vitalist distinctions that cellular automata can be said to enact. In the outcomes of these two-dimensional finite state diagramming machines which model "bottom up" organization and emergence through mechanist, and importantly, reflexive means and which fulfill the condition of autopoiesis, but which are not actually living. Katherine Hayles gives a useful description of the modus operandi of a generic cellular automata:

Each cellular automata...functions as a simple finite state machine, with its state determined solely by its initial condition (on or off), by rules telling it how to operate, and by the state of its neighbors at each moment [e.g.] 'on if two neighbors are on, otherwise off.' Each cell checks the state of its neighbors and updates its state in accordance with its rules at the same time that the neighboring cells also update their states (Hayles 1999).

The Machine and the Subject Position of the Painter

This model of a computational finite state reflexive machine, relates to a condition in painting that is either strictly non-computational or else one that is computational in highly complex and yet to be established ways. The last option suggests that painting can tell us something about machine thinking and this is the one this paper favors.

Strategies of automatization and specific understandings of painting as mechanical program—ones not tied expressly to a computational metaphor but which share in their sets of procedural logics—have been put to use to de-center and attenuate the subject position of the painter as content provider. Such strategy is discussed in "Toward a Theory/Practice of Painting in France" (Rodgers 1979), in *Rules of the Game: The Painter and his Constraints* (Huitorel 1999) and in "Chromatic Painting: Theorem written through painting" (Devade 1969). Such decentering has a political dimension because of the way it calls into

question the assumptions and ideology that underpin the primacy of the humanist subject, a question of manifest importance to painting.

Rodger's essay formulates a structuralist version of materialist philosophy in a pitched battle against idealism in general, and in particular, in relation to the question of the identity of the subject in painting. This idealism is of the kind that separates thought from sensuous human activity, theory from practice, thought from matter. Rodger's point is that thought in the work of these painters occurs at the level of matter, and *is* matter, thought is substantiated in, and extended through, painting's body by use of automatism and in conjunction with the synthesis of theory and practice as *praxis*.

Providing an interesting distinction between "American formalism" and the interests of the group of French painters he refers to, Rodgers claims that the French sought "to free the American painting it admired from a formalist interpretation" (Rodgers 1979). Formalist interpretation relates to a foundational attitude in Western thinking, namely the mind body opposition, and here more relevantly, the distinction between form and matter: a distinction where form is structured as a reasonable version its unruly pair matter. This interpretation refers also to the turn away from earlier surrealist and abstract expressionist interests in content production occurring outside the reach of consciousness through automatist methods. Methods that acknowledge the subject position of the painter while de-centering and attenuating that position, leading one to consider how an artwork can manifest the property of thought.

Re-evaluation of Pollock's work outside the frame of reference of American formalism is echoed elsewhere: the French painter Simon Hantai saw Pollock's drip technique as a "logical, lively, and pertinent" development of the automatism of Surrealist painting. Andre Masson regarded Pollock's technique as "an equivalent to automatic writing." Michel Parmentier interpreted Pollock's work as an "essential link in surrealism [though this was] something André Breton could not accept" (Huitorel 1999). Seen from the perspective Huitorel outlines in his *Rules of the Game: The Painter And His Constraints*, Pollock's drip technique is a painterly interpretation of the surrealist paper game the *le cadavre exquis* (the exquisite corpse) which defers authorial productivity into automatic pictorial relationships that emerge out of drawing.

Elsewhere, Alain Cueff writes that Pollock was significant to a group of artists whose "keyword" was deconstruction and whose explorations "sought to maintain close and privileged links with the philosophical thought of [that] moment" (Cueff 2000). Like deconstruction, the French painting provides recognition of its existence within an ideological structure of production and reception. It understands that there is no outside of this structure and it places emphasis on practice and theory in order to neutralize and compensate the effects of the dominant ideological structure. The class of painting I have in mind provides a symbolic neutralization of the idealist habit in western thinking that places "the mind in a position of hierarchal superiority over and above nature" (Grosz 1994) by providing a model of knowledge where thought is coextensive with matter.

Conclusion

The metaphysicians who suggest that matter might manifest the faculty of thinking have not dishonored reason (La Mettrie 1748).

A statement made by Lenin is central to "Painting as a Thinking Machine." Lenin says, quite simply, "matter thinks." In this context it is not so much the human subject that thinks as "his matter of subject" and the "whole function of idealism" is to convince the already established human subject that they are above so-called, "inorganized matter" (Lenin quoted in Rodgers 1979). In quite a different context, that of complexity, Stephen Wolfram's Theory of Computational Equivalence' has it that all systems "whose behaviour is not obviously simple" are at the same level of computational sophistication. So in the end, writes Wolfram, there is "no difference between the level of computational sophistication that is achieved by humans and by all sorts of other systems in nature and elsewhere" (Wolfram 2002). In these contexts, and, in the class of painting discussed here*,* it should now be possible to see how thinking substance and extended substance coalesce.

To take seriously the implication that "matter thinks" would be to accept the class of painting that goes under the name of abstract, formalist or non-objective painting—the class of painting whose *principle economy* is an economy of materiality—as a *thinking machine.* Here, one could fold over Marcel Duchamp's quip "*bê te comme un peintre'*(as stupid as a painter) to show how it reveals an idealist prejudice that thought is something abstract, ungrounded in matter, and consequently that matter is "inorganized." In light of this, Duchamp's recognition of the painter's supposed stupidity provides for recognition of his failure to see that a given painting's thinking might be interred in painting's matter as opposed to in the painter. Put differently, if Duchamp considers the painter stupid, committed to what he refers to as "olfactory masturbation" and "the smell of turpentine," he also fails to see that while techniques of automatization might work to make the painter stupid, in an action commensurate with this, they make a painting intelligent.

Specifically then, how does the question of subjectivity and thinking in painting shift from a question of that of a painter to one of a painting? Automatist techniques such as those developed by Max Ernst and Joan Miro of *frottage* (rubbing) and *grattage* (scraping), Pollock's drip technique, Simon Hantai's method of painting folded canvas, Robert Ryman's reflexive and organic/mechanic brush stroke can all be said to expand the space between painter and painting through mediation. In this new zone a different kind of thinking occurs:

…the conscious subject undergoes an eclipse during such a production, a new subjectivity is objectified (Durozi and Lecherbonnier in Huitorel 1999).

It is this new subjectivity objectified *as material* into painting's sediment layers that lets painting think. The class of painting in mind here should be seen as an engineering of sorts, the painter as a 'wet programer' working with painting givens, with colored mud in binder, running a software oriented variation of earlier automatist method—that is, with new methods derived from cellular automata—on the hardware of the painting support using other material bodies such as brushes and tape, all with their own procedural codes, their own systemics, and all with a job to do, to put thinking into the ground of painting.

Acknowledgements

Notes

For a discussion on how the work of C18 Mechanicians and the materialism of La Mettrie blurred distinctions between machines and living entities, and how the property of wetness was central to this, see Jessica Riskin, "Eighteenth Century Wetware."

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