Computational Aesthetics in The Practices of Art as Politics

Patricia Ticiento Clough
Queens College and The Graduate Center CUNY

> …the emergence of a new media is too violent and superstimulated a social experience for the central nervous system simply to endure." Marshal McLuhan (1994, 43).

The practices of art as politics are perhaps most challenged today by the interrelated expansion of digital technologies and the intensified commodification of human processes. In what follows I want to address this challenge by focusing on the recent turn to ontology by philosophers who are reevaluating the potentiality of objects. I want to propose that the ontological turn—whether it be elaborated in object-oriented ontologies or in process-oriented ontologies, is registering the trauma of the development of the capacities of digital technology and the ongoing commodification of human processes: that is, the trauma of realizing that potentiality is not, or not only, a matter of human consciousness, human cognition or human agency. The philosophical assumption that there is a primordial rapport between human and world, or that there is a correlation between knowing and being, has been unsettled with traumatic effects.

Philosophy, however, is not only registering the trauma, it also is responding to it by rethinking the potentiality of the object. There is ongoing debate as to whether potentiality is appropriated by objects through relations or processes between objects such that objects are reducible to the relations that constitute them or whether potentiality is immanent to objects and they therefore are irreducible to relations or other objects, including human subjects. On both sides of this debate, however objects no longer are to be understood as the objects of our commonsense; rather the debate is a philosophical speculation on a potentiality that is other than human: the potentiality of the object. It is not so surprising then that the ontological turn is accompanied by a return to aesthetics as a way to recognize the object's potentiality, its agency or its affective capacity without these being correlated exclusively to human cognition, consciousness or agency.

The return to aesthetics, however, is not a return to the sublime, where there is the

experience of the overwhelming disjuncture between imagination and understanding, along with a conscious recognition of this failure of human comprehension. Rather it is about objects having the capacity to affect and to be affected by each other such that through their affective interchange, objects can be "slightly or massively changed, caused to become different things" (Shaviro, 2010:10). It is the aesthetic of the beautiful where "what is regarded as beautiful is not experienced as a passive thing or as something that merely produces an effect in us but rather as inviting or requiring something from us, a response that may be owed to it…, as if the beautiful thing had an independent life of its own…" (Moran, 2012: 213). The return to aesthetics however is no mere return of the object to a naïve empiricism or scientistic positivism. Instead, the philosophers presently concerned with aesthetics are elaborating an *aesthetic causality*; they are delivering causality from those forms of causality that for some time have given humans a sense of control over life, over matter, over each other and have shaped the practices of art as politics .

The Ontological Turn, Art and Commodities

Surely the practices of art as politics are challenged by the interrelated expansion of the capacities of digital technology and the commodification of human processes as these undermine art's autonomy from the market and its singular claim to aesthetics. After all if art has distinguished itself as art, it often has been in terms of its relative freedom to simulate reality, to offer a supra-empirical sensibility and in that be able to give a critical perspective on human reality. However, there is a growing "lack of faith both in the intrinsic value of art as a de-alienating human endeavor (since art today is so intertwined with market systems globally) and in democratic political processes (in whose name so many injustices and barbarities are conducted)" (Bishop, 2012: 45). Not surprisingly art today claims its political and critical mission often in terms of participation that recognizes the alienating and divisive effects of capitalism. Claire Bishop reproduces the argument artists make: "given the market's near total saturation of our image repertoire —so the argument goes—artistic practice can no longer revolve around the construction of objects to be consumed by a passive bystander" (35).

Bishop goes further to propose that while these artists value their work for being opposed to individualism and the commodity object, they often do not recognize “that so many other aspects of this art practice dovetail even more perfectly with neoliberalism’s recent forms (network, mobility, project work, affect)” (39). While Bishop is pointing specifically to practitioners of participatory art, it is clear that the nature of the object in the current context of the capitalist mode of consumption is central to rethinking art as politics generally, as is the ubiquity of digital technology in neo-liberalism’s forms. If we were to evaluate Bishop’s conclusion that what is needed is a “reassertion of art’s inventive forms of negation that are valuable in their own right” (45), then we need first to rethink the object and commodification; we need to rethink neo-liberalism’s forms in terms of the developments of digital technology.

After all, commodities for sometime now have been something very different than discrete goods to be consumed and in their consumption produce surplus value. Christine Harold (2009) points to the way commodities now are designed as objects that can stir affect, promising a transformative experience in the object’s use rather than in the mere possession of it. Modeling a user’s future manipulation of it, the commodity is designed to sensually transmit what Bill Brown (2001) has called a ‘creative juice’ which will be transformative for its user, bringing a not-yet lived future into the present. The aura and the value of the commodity are in its transmission of affect, where affect, refers not to emotion but to a bodily capacity, a bodily readiness, a trigger to action, including the action of feeling an emotion. While emotions are commensurate with a subject, affect is an immeasureable, non-conscious, a-subjective capacity.

Nigel Thrift goes further arguing that the commodity now points to a process that is ‘intended’ to produce nothing but more process as its surplus value and specifically to orient surplus toward inventiveness; or what he describes as “commodifying the push of will with the aim of producing enhanced ‘invention power’” (2012: 142). For Thrift, this not only involves what is saleable but increasingly what can be appropriated for selling, or more likely renting, since now consumers often pay to use a commodity or rather participate in a process for a given amount of time. Commodification, as Thrift sees it, is

no longer alienating; rather "it requires buy-in, literally and metaphorically …" (143). The distinctions between consumption, production and distribution collapse into circulation through what Thrift calls "an expressive infrastructure" or what I have called "an affective background" (2009) to suggest that sociality is an ongoing effect of a market circulation of affect. In this sense affect is not only an immeasureable, a-subjective non-conscious capacity, it also is irreducible to a biological and physical immediacy in that affect is a technical artifact as well.

In other words, affect is a capacity that raises questions about calculation or measure linked as affect is to the digital that can make what is a-subjective, non–conscious, and immeasureable, felt or experience-able. Given this growing awareness of affect as a technical artifact, there also is a shift from conceiving the social only as an expressive infrastructure, or an affective background, to conceiving the social also as a "calculative ambience." Calculative ambience is Jordan Crandell's term for a sociality where "calculation, action and materiality intertwine" such that "gestures, objects and environments can 'speak,' however seductively or violently, in ways that are not always addressed to humans or known by them" (2013: 71). Crandell goes further suggesting that through "a mathematical seeing, patterns come into view that previously could not be seen by the naked eye, in ways that augment, or occlude, traditional observational expertise and human intuition" (75).

Following Crandell, Mark Hansen has begun to rethink the body in terms of a calculative ambience. In contrast to his earlier work, Hansen now proposes that we can no longer "take up embodiment as a site where diffuse data is processed to yield images or experiences…; rather, in the face of technical incursions that render the body directly 'readable' by machines, we must embrace a conception of the body as a society of microsensibilities themselves atomically susceptible to technical capture" (2013). Rethinking the body also involves rethinking thought and consciousness, since consciousness, as Hanson sees it, is after the fact of the presentation of data; there is no possible *subjectification* of what today we call big data or ubiquitous calculation (2013).[1]

[1] My thinking about big data draws on research with R. Josh Scannell, Benjamin Haber and Karen Gregory. See: "The Datalogical Turn" (forthcoming). We take the idea of The Datalogical

From a different perspective on data, bodies and thought, Luciana Parisi argues that the algorithmic capacity to synthetically design bodies and thoughts is not merely simulation of what exists but rather a data manipulation that shows what biology or matter have been doing at the atomic level all along (2013, 33-51). Whereas, for Hanson data is coming at consciousness from the outside, for Parisi data are and always have been working in biology and matter; nonetheless, both Parisi and Hansen are drawn to engage critically with algorithmic architectures that are parsing—collecting and distributing—big data. Both also are seeking insight in current philosophical discussions about ontology and aesthetics that I will further explore in the discussion following about the relationship of aesthetics, ontology and the calculative ambience of big data. Surely art, its objects and practices, are implicated in this discussion, as is a politics of commodification and the market.

Object-Oriented Ontology and Ubiquitous Calculation

I have argued elsewhere that object-oriented ontology, although differing from ontologies of becoming, can play a part in adjusting the latter to the fact that processes of becoming already are engaged fully in comodification and the market including the market in big data (2012). I first made this argument in relationship to nanotechnology and the nanodesign of artificial atoms or "programmable matter," in order to point out that nanotechnology and object-oriented ontology both are refocusing attention on the primary and secondary qualities of objects. In her writing on programmable matter, Parisi argues that in its being able to place "each atom… in a selected position to become an active or structural component of a living system that is being redesigned, nanotechnology is neutralizing the distinction between the physical composition of materials—atoms, photons, protons, electrons—and their properties, such as colour, shape, smoothness, brightness, and so on" (2012: 38). All qualities, primary and secondary, are changeable as programmable matter promises that: "material can change its substance instantaneously as in the design and debugging of software" (38). Programmable matter "promises an architecture of instantaneous realization of

Turn from R.Josh Scannell who is developing it in his work.

potentialities" (38).

Parisi's treatment of nanotechnology directed me to the philosophical distinction of the primary and secondary qualities of objects that are the focus of object-oriented ontologies, especially Graham Harman's work. Harman's particular brand of object-oriented ontology is both anti-correlationist and anti-relationist (2009). As such Harman posits that there is nothing outside the object that contributes to its realness; there are no other agents that make an object real, or that are not of the real object-itself. Perhaps with misleading terms, Harman argues that the real object is *withdrawn* not only from human consciousness, an anti-correlationist position, but objects also are withdrawn from all other objects and from each object's qualities, an anti-relationist position. The real object is distinct from the primary qualities needed for it to be what it is (in this sense a real object is something like an essence but not an eternal one); it also is distinct from the secondary qualities that make the object what it is for other objects including human subjects. Nonetheless, Harman argues that it is through qualities or in the translation of real objects through their qualities that relations between objects occur; it is also how change is made possible (135-148). In sum, change is immanent to real objects in that the object's qualities are the object's indeterminate internal complexity. All qualities of objects might be thought of as secondary and changeable in that they are transformed and transforming in the relations objects have with each other. Not only is the privilege of human consciousness displaced (or profoundly opened to interrogation), but the ontology of the object finally becomes accessible to criticism in the aftermath of the deconstruction of the epistemological subject.

Whatever else might be said about object-oriented ontology, the enduring reality ascribed to objects by Harman has seemed to me to offer a philosophical support for criticism when even primary qualities at all scales of matter are seen as a changeable, dynamic processes and when dynamic processes generally are subject to the value of market circulation, including the circulation of big data as commodity. Or to put it another way, a turn to object-oriented ontology might support embracing the displacement of the primacy of the phenomenology of human agency while philosophically granting

complexity to all entities. The experience of this displacement through digital technicity may well be our only way to recognize and engage the sensibility or the affect of all objects including our own sensibility or affect as a matter of art as politics.

More recently Parisi also has taken up Harman's object-oriented ontology and has found it relevant for approaching digital technology especially the algorithmic architectures that parse big data. For Parisi, algorithmic architectures can no longer be thought as exclusively aiming to predict or calculate probabilities for an optimal solution. Rather they are to be understood as real objects, spatiotemporal data structures, where calculation is "not equivalent to the linear succession of data sets" (2013: 9). Instead "each set of instructions is conditioned by what cannot be calculated: the incomputable algorithms that disclose the holes, gaps, irregularities, and anomalies within the formal order of sequences"(9). Algorithmic architectures, ontologically speaking, are actual objects, or spatiotemporalities, where indeterminacy is immanent to them. It is in these terms that Harman's object-oriented ontology is useful; it rejects both the imperative of connectionism, that is the philosophical assumption that all things are connected and it challenges systems theory or certain assumptions about how parts and wholes are related.

But, as already noted, Harman argues instead that all objects are indivisible and irreducible to other objects. Objects do not fuse into one another or into a whole; nor are they continuously changing in terms of a presumed relationality. However, for Harman, as Parisi notes, objects are "multi-mediatic," where the qualities of objects are media spaces or media objects; they are not just channels or the links of the relations between objects. (48, 49; Harman, 2005: 70, 91-92). Objects relate to each other through these media spaces that are the object's own indeterminate internal complexity. Another way to put it is that real withdrawing objects only relate "vicariously" or aesthetically; it is the qualities of objects that cause objects to relate and to change, what Harman refers to as "vicarious causality" (2009: 169-234, 2007). But in turning to what she calls a "computational aesthetics," Parisi offers both a critique of Harman and a qualified object-oriented ontology of algorithms (2013: 10).

Calculation, Indeterminacy and Aesthetics

Although Parisi draws on Harman to support her conception of algorithms as spatiotemporal objects rather than mere channels or links in the relations of objects, she also finds that his argument that objects relate and change only through their qualities to be mistaken. She insists that quantity must also be considered, since, from the perspective of algorithmic objects, the quantities involved are not merely a reduction of qualities, sensory or physical; nor are they immanent to qualities. They are quantities conditioned by their own indeterminacies since algorithmic objects are inseparable from incomputable data or incompressible information (52-53).

To further her discussion of quantities and objects, Parisi turns from Harman to Whitehead and describes algorithms as actual entities that are prehensive. Defining prehension in terms of incomputable probabilities, Parisi puts algorithms beyond probability and cybernetic control. Control no longer is intended as the calculation of the future by means of prediction, or the calculation of the unknown through pre-set probabilities; it is no longer only is a matter of preemption. Instead post-probabilistic uncertainties or incomputable data are operating in algorithmic architectures to allow for the arrival of novelty (137). Again drawing on Whitehead, Parisi proposes that the arrival of novelty is "not something that depends on the subjective impressions of interactive users, but rather involves the parametric prehension of data, a prehension that derives its own regions and spatiotemporal extension from already programmed sequences" (137).

In other words, the arrival of novelty in algorithmic architectures means that past data is brought into the present through the transformation of that data by the ingression of incomputable probabilities or what Whitehead called 'eternal objects.' The prehension of data from the past, as Parisi sees it, is not simply an inheritance but a computational transformation, where experience is infected with abstraction or where abstraction is a decisive factor in any actual occasion of experience (139). Here, the incomputable is always already valuable information since it allows for resetting parameters producing a change in relation to rules.

Calculative aesthetics both adds to the recent conceptualization of aesthetics offered by philosophers engaged in the ontological turn and adjusts aesthetics to ubiquitous calculation. What already has been claimed for the aesthetic in contemporary object-oriented philosophies is that "the aesthetic dimension is the causal dimension," as Timothy Morton puts it (2012: 206). Harman too argues that "aesthetics is first philosophy," and as such "causality is alluring" (2007, 221). Shaviro argues that aesthetics allows "feeling an object for its own sake," beyond those aspects of it that can be understood or used (2010: 7). He goes a long way with Harman in arguing that: "It is only aesthetically, beyond understanding and will, that I can appreciate the actus of the thing being what it is, in what Harman calls 'the sheer sincerity of existence'" (7). And what the thing is or why the object is alluring is in the object's differing from itself. It is in this sense that Morton argues: "causality happens because this dance of nonidentity is taking place on the ontological inside of an object" (2012a) from which the forces of repulsion or attraction radiate and are a "lure to feeling," as Whitehead puts it. But for Whitehead aesthetic causality is not only a matter of the qualities of object. For Whitehead, aesthetic causality refers to all entities in that they are sentient or experiential through and through. All entities or objects –not just humans--have purpose; as Whitehead sees it: they are drawn to novelty by a 'final causality.'

Whitehead's aesthetic causality draws on his distinction between "causal efficacy" and "presentational immediacy" and between "final causation" and "efficient causation" (1978). While presentational immediacy refers to the sense perception of things as presented, causal efficacy refers to the reality of the data of the past and the passing into the future, or cause and effect. For Whitehead, however, final causation is about purpose, or potentiality immanent to each actual entity or object, which, although not actualized, nonetheless is real. Final causality thereby adds to efficient causality the potentialities of eternal objects, or for Parisi, incomputable probabilities, ingressing into actuality as novelty. Furthermore, final causality is not teleological; and as Parisi sees it, this means that eternal objects are "immanent to and part and parcel of any actual entities," as the "forms of process and spatiotemporal structures of data" (2013: 63).

Turning the recent philosophical engagement with aesthetics toward an aesthetics of calculation, Parisi counters Harman's critique of Whitehead's eternal objects; she insists that their potentiality is neither transcendent nor outside the object as Harman proposes. Not only does she go on to argue that algorithmic architectures are spatiotemporal objects infected with incomputable data or quantities; she also proposes that the quantitative is immanent to every object or entity. It is this that echoes my speculation that stipulating indeterminacy as immanent to calculation gives a philosophical ground for criticism in these times of big data and ubiquitous calculation. It also points to what constitutes the generalized trauma of development in digital technology: calculation and incomputable data become the necessary horizon for criticism. All that has stood, and so much has, as qualitative supplement to quantitative measure no longer holds a privileged position. The trauma of the digital then is in the displacement of the supplement of meaning and language, subject and self-reflection from their privileged position in epistemology and ontology. It is in terms of this displacement that the practices of art as politics must be rethought.

Conclusion: Art as Politics

The reevaluation of aesthetics as causality is occurring just when affective capacities such as inventiveness are globally circulated in the capitalist production of wealth. Not only does "art not simulate commerce so much as commerce simulates art," as Thrift would put it (2012). All works of knowledge production (and so much work is just that) now must be works of art or art work. In other words aesthetics is becoming pervasive and art is losing one of its domains of expertise as well as anything like a clear definition. What isn't art if everything owes its force of being to aesthetics? Art will be part and parcel of everything just when everything, as I have been arguing, will be infected with incomputable data.

This implies much more than a simple move or the next move beyond participatory art; it may mean that there is no hope that "the value of art's inventive form of negation can be reasserted." At least it is not clear what might be a form of negation when potentiality is conceived as immanent to calculation and the calculation of incomputable data immanent

to all things. But it is precisely in stipulating the ontology of algorithmic architectures as objects that makes it possible to draw out the political effects of the digital engagement with the incomputable; it also makes the need to do so clear and pressing. In responding to this need, the practices of art as politics may find themselves time and time again, bundled with commodities and market values and that it only is from within these bundlings that criticism needs be fashioned. It is the abundance or excess of these bundlings in that they are infected with incomputable quantities that make it possible and necessary for art as politics to be a positive practice rather than a negative one.

Erin Manning recently has proposed that: “Art can teach us again how to see in the before of form where we might still glimpse the relational force of an eternal object coursing through the actual” (2013: 178). This, what Manning refers to as the art work’s “technicity,” “foregrounds how the bringing to emergence of the work of art must always occur against the grain of preexistent form” (179). Here Manning draws on Whitehead while drawing us back to the conception of art as making available to humans the experience of what is not easily experienced, what is not experience-able without technicity. But if today, the technicity of the work of art is digital’s engagement with the incomputable, with its productivtiy and its forms of expression, then this drive to make experience-able, as I have suggested, meets the drive of capitalism beyond systems theory, connectionism, probability and cybernetic control—all of which depend on algorithmic architectures that are giving traumatic memories of the before of form. It must be noted therefore that this move beyond and before is neither utopian nor liberatory; it nevertheless is indicative of a new sociality including its yet unrealized possibilities, a sociality that Randy Martin has described as befitting a derivative economy (2013).

Extrapolating from its common perception as a mere financial instrument that bundles investments against potential risks, Martin points to changes in sociality informed by the derivative that also are indicated by the algorithmic architectures of big data: both undermine the conceit of the system or the taken for granted reduction of parts to the whole. For Martin, “as opposed to the fixed relation between part and whole that informs the system metaphysic, the derivative acts as movement between these polarities that are

rendered unstable through its very contestation of accurate price and fundamental value…" (91). From the perspective of this sociality, the practices of art as politics are part of a bundling, the force of which is at least in part incomputable probabilities, all the possibilities between price and fundamental value that are unactualized but still real.

If we are to find hope in this, however, it is only with recognition that the movement between price and value is not a movement between structure and individual or part and system; it is not a move in which or about which art can clarify the political, can clarify something supposedly hidden, the in-depth subjugation of the individual or collectivity. Here art instead might follow critical theory in its turn to "postsymptomatic practices that do not aim at uncovering what is concealed" (Jane Elliott and Gillian Harkins 2013: 9). Instead practices are forms of play with objects, that is, with the mediatic spaces or the indeterminate, internal complexity of all objects or entities where incomputable probabilities are still real and present. The practices of art as politics are play that realizes other possibilities, all those other possibilities that are bundled with incomputable probabilities.

But to realize other possibilities, art as politics must necessarily engage in philosophy, mathematics, science, media and technology; art as politics must be profoundly interdisciplinary, and beyond the disciplinary, in speculating with the real in practice and performance. This will require drawing together those others who will assist in realizing unactualized but real possibilities. It will require all sorts of groupings and alliances in making interdisciplinarity more than what it has been. It will recognize that interdisciplinarity also be what Ian Bogost has described as a "carpentry" that "entails making things that explain how things make their world" (93). The practices of art as politics must lead the way, instructing us in how to play and with our play make the world anew.

References

Claire Bishop. 2012. “Participation and Spectacle: Where Are now?” in *Living As Form: Socially Engaged Art From 1991-2011*. Edited by Nato Thompson. Cambridge: MIT Press, 35-45.

Bill Brown. 2001. “Thing Theory,” *Critical Inquiry*, no.1: 599-618.

Ian Bogost. 2012. *Alien Phenomenology.* Minnesota: University of Minnesota Press.

Patricia Ticineto Clough. 2012 “The Digital, Labor and Measure Beyond Biopolitics,” in *The Internet as Playground and Factory*, edited by Trebor Scholz. New York: Routledge, 112-126.

Patricia Ticineto Clough, Karen Gregory, Benjamin Haber and Josh Scannell. Forthcoming. “The Datalogical Turn” in *Non-Representational Methodologies: Re-envisioning Research*. Ed. by Philip Vannini. New York: Routledge

Jordan Crandell. 2010. “The Geospatialization of Calculative Operations: Tracking, Sensing and Megacities,” *Theory Culture Society* 27(6): 68-90.

Mark Hansen. 2013. “Beyond Affect? Technical Sensibility and the Pharmacology of Media.” Presented at the *Critical Themes in Media Studies*, NYU. April

Graham Harman. 2005. *Guerrilla Metaphysics: Phenomenology and the Carpentry of Things*. Chicago and LaSalle: Open Court.

Graham Harman. 2007. “On Vicarious Causation,” *Collapse II* 11.26: 187-221.

Graham Harman. 2009. *Prince of Networks, Bruno Latour and Metaphysics.* Melbourne: re.press.

Christine Harold. 2009. “On Target: Aura, Affect, and the Rhetoric of “Design Democracy,” *Public Culture*, no. 21: 599-618.

Erin Manning. 2013. *Always More Than One Individuation’s Dance.* Durham: Duke University Press.

Randy Martin. 2013. “After Economy?: Social Logics of the Derivative,” *Social Text*, *31*(1 114), 83–106.

Richard Moran. 2012. “Kant, Proust, and the Appeal of Beauty.” *Critical Inquiry*, *38*(2):298-32.

Timothy Morton. 2012. “An Object-Oriented Defense of Poetry,” *New Literary History*, 43:205–224.

Timothy Morton. 2012a. “Object in the Mirror are Closer Than They Appear,”

Singularum, Sparrow and Bobby George, eds. Volume 1: Another Phenomenology: Exploring the Sensuous Earth.

Luciana Parisi. 2012. “Nanoarchetectures: the arrival of synthetic extensions and thoughts,” in *Digital Cultures and the Politics of Emotion: Feelings, Affect and Technological Change.* Edited by Adi Kuntsman. New York: Palgrave, 33-51.

Luciana Parisi. 2013. *Contagious architecture: computation, aesthetics, and space*. Cambridge, Mass.: The MIT Press.

Steven Shaviro. 2010. “The Universe of Things,” paper delivered at *Objected Oriented Ontology, A Symposium* Georgia Technological Institute. April 23.

Nigel Thrift. 2012. “The Insubstantial Pageant: Producing an Untoward Land,” *Cultural Geographies*, *19*(2), 141–168.

Alfred North Whitehead. 1978. *Process and Reality: An Essay in Cosmology*. New York: Free Presss.