

Speculative Aesthetics and Object-Oriented Inquiry (OOI)

N. Katherine Hayles

Duke University

THROUGHOUT THE LONG AND varied tradition of aesthetics, one premise has always, implicitly or explicitly, remained unquestioned: that aesthetics has at its centre human perception. Indeed, this idea is embedded even in the etymology of the term, which derives from the Greek *aisthetikos*, meaning “esthetic, sensitive, sentient,” in turn derived from *aisthanomai*, meaning “I perceive, feel, sense.” To this premise, speculative realism issues a strong challenge. It endorses the idea that the centrality of the human should be displaced in favour of what Graham Harman calls an object-oriented philosophy,¹ an approach in which everything—humans, nonhuman biological creatures, inanimate objects, imaginary concepts—exists equally without privileging any viewpoint, especially the human, as the defining perspective for the others.²

¹ Harman’s ideas were taken up by Levi Bryant, among others, who named the field object-oriented ontology (OOO), which designation Harman has retrospectively used to describe his work. Hereafter the field will be referred to as OOO.

² Graham Harman, *Tool-Being: Heidegger and the Metaphysics of Objects* (New York: Open Court, 2002), 2, 16 et passim.

This position immediately poses problems for aesthetic theory. Virtually all aesthetic theories to date, whether they ground the aesthetic experience in objective qualities, as William Hogarth and Edmund Burke maintained, in cultural influences, as André Malraux argued, or as a “counter-environment” designed to break cultural preconceptions, as Marshall McLuhan suggested, rely on the centrality of human sense experience. Even Eli Siegel, the American philosopher who in 1941 founded the Aesthetic Realism movement that maintained reality itself is aesthetic, relied on human perception when he argued that art, self and the world are all interconnected and constitute an aesthetic oneness.³ What would it mean, then, to imagine an aesthetics in which the human is decentred and inanimate objects, incapable of sense perceptions as we understand them, are included in aesthetic experience?

One approach would be to define speculative aesthetics as the aesthetic techniques employed by speculative realism, for example, the wildly heterogeneous lists that populate the works of Bruno Latour and Graham Harman. In this case, however, speculative aesthetics could safely be relegated to a subset of rhetorical theory, and much of its explosive potential would be defused. A better approach would be to engage the ideas and arguments of speculative realism and extend them into the aesthetic regime. This is the strategy taken by Graham Harman in “Aesthetics as First Philosophy,” in which he notes commonalities between Levinas’s and his own approach.⁴ The essential move here is to identify aesthetics with “enjoyment” (Levinas’s term) or “allure” (Harman’s) so that the sensual qualities of objects in which other objects “bathe” is understood as an essentially aesthetic response. Thus aesthetics is generalised so that it applies not only to humans but to all objects, including inanimate ones.

³ Eli Siegel, *Self and World: An Explanation of Aesthetic Realism* (New York: Definition Press, 1981).

⁴ Graham Harman, “Aesthetics as First Philosophy: Levinas and the Non-Human,” *Naked Punch* (2007), 9, www.nakedpunch.com/articles/147 (accessed July 1, 2013).

Speculations V

A problem with this approach is that we have no idea of what this “enjoyment” might consist; for instance, in Harman’s example of the cotton and the flame, what is the nature of the aesthetic “allure” each experiences in the other? An aesthetics based on this approach would, except for humans, be devoid of content, beyond the abstract conception of an object’s “allure” for another. Moreover, this approach ties speculative aesthetics too tightly to speculative realism, constraining its expansive potential. My preferred approach, for which I argue here, is to put speculative aesthetics into conversation with speculative realism but without granting that speculative realist principles can contain all of the possibilities to which speculative aesthetics can rightfully lay claim. To flesh out this approach, I propose a concomitant methodology that I call object-oriented inquiry (OOI), which is indebted to OOO but also diverges from it in significant ways.

To develop this approach, I take as my tutor texts two works that partially overlap and partially diverge, namely Vilém Flusser’s *Vampyroteuthis Infernalis*, a treatise on the vampire squid, and Ian Bogost’s *Alien Phenomenology: What It’s Like to Be a Thing*.⁵ Whereas Bogost takes Harman’s version of speculative realism as his main inspiration, Flusser, writing his treatise in 1981, follows a method that could never draw assent from Harman or Bogost, because it involves projecting the human imagination into the nonhuman other and thus, far from trying to escape anthropomorphism, revels in it, although in a complex fashion that both reinforces and undermines it simultaneously. Bogost, for his part, tries faithfully to follow speculative realism’s precepts, but in the process develops a methodology that undermines at least part of its ideas. These deviations, however, are consistent with (and an important inspiration for) OOI.

First let us explore Flusser’s method. Here I must immediately interject a qualification. At the time Flusser was writ-

⁵ Vilém Flusser, *Vilém Flusser’s Brazilian Vampyroteuthis Infernalis*, trans. Rodrigo Maltex Novaes (Dresden: Atropos Press, 2011); Ian Bogost, *Alien Phenomenology, or What It’s Like to Be a Thing* (Minneapolis: University of Minnesota Press, 2012).

ing, very little was known about the vampire squid, a species that lives in the deep ocean at about 3,000 feet underwater. Since then, robotic submarines and ultra-sensitive cameras capable of recording images with almost no light have been developed, and biologists now can give a much more detailed account of the organism's anatomy and behaviours. It would be easy to dismiss Flusser because of the assumptions he makes that have subsequently been shown not to be the case. For example, in correspondence he carried on while writing this manuscript, he describes the organism achieving a diameter up to 20 meters.⁶ In fact, however, the species that biologists recognise as *Vampyroteuthis infernalis* is doing good to achieve a diameter of 20 *centimetres*—a hundred-fold difference in size that makes Flusser's description of the creature as “violent” and “ferocious” difficult to credit. I am at a loss to explain this discrepancy, short of suspecting that he somehow confused the giant squid (or its close cousin, the Humboldt squid), which can grow to that immense size, with its much more diminutive cousin. Moreover, many aspects of his descriptions of the vampire squid's behaviours are clearly over-determined by its name—the vampire squid from hell—and this lends his interpretations an exaggerated romanticism not justified by the creature's behaviours in themselves. Whatever mistakes Flusser made, however, are for my purposes more or less beside the point. What interests me here is his methodology and the claims that he makes for it. If the method has merit—and I believe it does—then it can make an important contribution, even if Flusser is mistaken about certain particulars.

Working from what he thinks he knows about *Vampyroteuthis*, Flusser constructs a binary relation with the human; *Vampyroteuthis* is the human inverted, as in a mirror. The purpose is two-fold: to understand *Vampyroteuthis* through the ways in which he encounters the world, and to use these discoveries to reveal the *Vampyroteuthis* hidden or repressed

⁶ Flusser, *Brazilian Vampyroteuthis Infernalis*, 137.

Speculations V

within human culture.⁷ Obviously, there is an agenda here that goes beyond reconstructing the worldview of the creature, and this may explain why Flusser wants him to be seen as one of the top predators in his aqueous environment, making him parallel to humans as top terrestrial predators. He is unapologetic about drawing these parallels, writing that he studies,

the zoology of cephalopods not because I am able to assume an objective point of view in relation to them but, on the contrary, in order to consider them as part of the vital tide that drags me along with it. I intend to understand them in order to orient myself in my world. Science is interesting precisely because it relates to me ... an entirely objective science would be uninteresting, inhuman ... the present essay demands that we give up the ideal of objectivity in favour of other intersubjective scientific methods.⁸

The vampire squid, like other molluscs, uses the foot to grasp and to suck in water. The brain is arranged circularly surrounding the foot, which is also the mouth. These facts lead Flusser to the following comparison:

When we erected our body, we freed our eyes for the horizon and our hands for grasping objects. When Cephalopods erected themselves, their perception, locomotion and attack organs were relocated toward the ground, surrounded the mouth, and came into direct contact with the brain that surrounds the mouth.⁹

He characterises these two postures towards the world as rational and passionate, respectively: “For man, knowing is a gesture that advances against the world, an active gesture,” while for *Vampyroteuthis*, “the world for him is an opposite pole that has to be sucked in passionately.”¹⁰ He is “sexually

⁷ I follow Flusser’s usage in referring to the organism as “he” rather than “it.”

⁸ Flusser, *Brazilian Vampyroteuthis Infernalis*, 38.

⁹ *Ibid.*, 39.

¹⁰ *Ibid.*, 74.

excited by the world,” making him “a passionate transcendent subject,” which Flusser identifies with “the Devil.”¹¹ In a move reminiscent of Lakoff and Johnson (whom he does not cite),¹² he argues that the creature’s psychology can be inferred from his biology: “When the mouth and anus find themselves in the same organ, the foot, and when the two find themselves near the brain, the mouth and anus are cerebralized and the brain is sexualized.”¹³

Some of Flusser’s most interesting conjectures concern Vampyroteuthian culture and art, and here we see the payoff for his projective method. Noting that “every attempt to limit mentality to the human species is doomed to failure,” he does not doubt that the creature has a rich inner life.¹⁴ Without verbal language, Vampyroteuthis communicates in part through the play of colours on his skin, made possible by the internal activation of chromatophores, which he uses to attract mates. Therefore “his language’s syntax ... is the logic of sex.”¹⁵ Living in a fluid medium, he is unable to construct durable stable objects, only fleeting ephemeral phenomena like the sepia ink cloud that he models into shapes as protection from predators. In his philosophy, consequently, “there cannot be for him an immutable form. He is not Platonic, he is organismic. It is not philosophical contemplation, but philosophical vertigo and its posture.”¹⁶ “From this point of view,” Flusser concludes, “the only material for information storage that is worthy of trust is the egg,” that is, genetic information storage. This is in sharp contrast to humans, who as Flusser rightly observes, construct their history by manipulating objects and imprinting them with information. While humans “trust the permanence of objects,” Vampyro-

¹¹ Flusser, *Brazilian Vampyroteuthis Infernalis*, 77.

¹² George Lakoff and Mark Johnson, *Metaphors We Live By*, 2nd ed. (Chicago: University of Chicago Press, 2003).

¹³ Flusser, *Brazilian Vampyroteuthis Infernalis*, 57.

¹⁴ *Ibid.*, 48.

¹⁵ *Ibid.*, 85.

¹⁶ *Ibid.*, 79.

Speculations V

teuthis “seeks his immortality in the other,” the seduction and camouflage that enables him to attract mates. “In sum,” Flusser concludes, “it effectively comes down to two different types of art.”¹⁷ The comparison suggests that OOO may harbour an unrecognised anthropomorphic bias at its centre, namely the fascination with objects that is, if not a uniquely human trait, nevertheless far more prominent in humans than in any other species.

The human struggle to “inform” objects, that is, to imprint them with information, has gone on for millennia and has strongly influenced every field of human endeavour. To Flusser, this struggle is essentially aesthetic:

Human art is not, as the well-meaning bourgeoisie would have us believe, the fabrication of ‘beautiful’ objects. Human art is the gesture through which man imprints his experience upon the object of his vocation in order to realize himself in it, to immortalize himself in it. Every object that is informed is therefore a ‘work of art,’ be it a mathematical equation, political institution, or symphony.¹⁸

For Vampyroteuthis, art is not the creation of objects but the seduction of the other: “That is why when he creates, Vampyroteuthis does not experience the resistance of the object but the resistance of the other.”¹⁹ Since the species sometimes attacks and eats its mate, it is necessary to seduce the other through “deliberate deception, artifice and lies.” “He seeks his immortality by means of violence exerted on the other. To him, science and politics are nothing but stratagems, nothing but traps.”²⁰

In Flusser’s view, the “communication revolution” (by which he means primarily television, but which is even truer of the Web)

¹⁷ Flusser, *Brazilian Vampyroteuthis Infernalis*, 106.

¹⁸ *Ibid.*, 108.

¹⁹ *Ibid.*, 109.

²⁰ *Ibid.*, 111.

N. Katherine Hayles – *Speculative Aesthetics*

consists of a diversion of the existential interest stagnating in objects back toward the other. Our communicational structures are being fundamentally transformed, in the sense of becoming constituted by ephemeral and transient media that allow the other to be informed without the need of objects. It is as if humanity, after a multi-millennial turn through the objective world, has now reencountered the vampyroteuthian path.²¹

Even as the two species come closer into alignment, however, the long struggle with objects has left a permanent mark on human culture and biology. We can never become like Vampyroteuthis, Flusser maintains, but we can recognise that he lurks in the depths of the human, even as the human is the repressed side of his culture and art.

Meditating on the evolution of communication technologies, Flusser suggests that the “informing” process has moved from objects to tools as they become more sophisticated. “The writer becomes toolmaker,” he remarks, a proposition that now seems prescient given contemporary works of electronic literature generated by algorithmic processes in which the writer creates the code (that is, makes the tool) and then the tool creates the textual output.²² A case in point is Mark Marino’s essay “Reading *exquisite_code*: Critical Code Studies of Literature,” in which he virtually ignores the “finished” novel and concentrates almost exclusively on the live coding sessions and algorithmic processes that created it.²³ In Flusser’s view, “this inflationary tide of devalued objects leads to a disinterest in objects ... Society’s interest is increasingly diverted from objects towards information, which however is inaccessible

²¹ Flusser, *Brazilian Vampyroteuthis Infernalis*, 114. For an excellent treatment of Flusser’s view of media in this text, see Melody Jue, “Reframing Photography through the Vampire Squid in Vilém Flusser’s *Vampyroteuthis Infernalis*,” unpublished ms.

²² *Ibid.*, 113.

²³ Mark Marino, “Reading *exquisite_code*: Critical Code Studies of Literature,” in *Comparative Textual Media: Transforming the Humanities in the Postprint Era*, ed. N. Katherine Hayles and Jessica Pressman (Minneapolis: University of Minnesota Press, 2013), 283-310.

Speculations V

to consumers. It is stored in the memory of apparatus and is transmitted, diluted, not only by gadgets, but also and above all else by the ephemeral channels of mass communication.”²⁴

Although Flusser (or anyone else) might have arrived at these insights without knowing anything about *Vampyroteuthis infernalis*, the path through the comparison has resulted in de-naturalising human presuppositions, enabling a critical stance towards assumptions about aesthetics, along with much else. In summary, the method here has been to extrapolate from a base of scientific evidence (Flusser says that “the present fable is more or less informed by biology”),²⁵ using human imaginative projections to understand the alien creature not only in biological terms but in terms of its own phenomenological experience of the world. Moreover, for Flusser, it is precisely because of the mirror relation between the human and the *Vampyroteuthis* that these projections can succeed. This implies a double gesture of using the biologist’s knowledge but also going beyond it into what can be known only because of the deeply shared relationship: thus “the present fable hopes to be able to exorcise *Vampyroteuthis*, and to make him emerge alive.”²⁶

On some points, Ian Bogost would agree with Flusser. For example, Flusser writes that “we must liberate ourselves above all from a model according to which existence is the meeting of a ‘transcendental’ subject (a mind) with objects; of a ‘self’ with a ‘world.’ According to this model, for example, knowledge would be the meeting between the one-who-knows with what-is-to-be known.”²⁷ This strongly resonates with Bogost’s pronouncement that “The philosophical subject must cease to be limited to humans and things that influence humans. Instead it must become *everything*, full stop.”²⁸ Yet Bogost would certainly be uneasy with Flusser’s “intersubjective

²⁴ Flusser, *Brazilian Vampyroteuthis Infernalis*, 114.

²⁵ *Ibid.*, 123.

²⁶ *Ibid.*, 124.

²⁷ *Ibid.*, 71.

²⁸ Bogost, *Alien Phenomenology*, 10, original emphasis.

scientific methods,” especially his determination to construct the Vampyrotheuthis as the romanticised mirror “other” to the human, because it still leaves intact the human as an essential reference point.

Bogost’s rejection of a human-centric position is evident in his comments on Thomas Nagel’s famous essay, “What Is It Like to be a Bat?”²⁹ He emphatically endorses the distinction Nagel draws between experiencing one’s species-hood from the inside and inferring it from scientific evidence about a creature’s sense perceptions and behaviours. Here we might think of a similar distinction that Pierre Bourdieu draws between a tribal people’s habitus, the structures that organise their way of being in the world, and the inferences that an anthropologist may draw from observing their behaviours.³⁰ For the people, the patterns that inform the layout of their villages, the architecture of their buildings, and their behaviours as they enact traditional ways of doing things, are not necessarily ever consciously considered; rather, they are absorbed unconsciously as the right and proper ways to live. Once abstracted into an anthropologist’s calendar, diagrams, and mythic structures, the habitus ceases to be a way of living and instead becomes an abstraction, a different kind of knowledge altogether. Similarly, what it is like to know about a bat is altogether different than what it is like to *be* a bat.

The question of what kinds of knowledge are accessible to us is central both to Bogost’s argument and Harman’s OOO. Following Harman, Bogost accepts that “all objects recede interminably into themselves,” which implies that putting things “at the center of a new metaphysics also requires us to admit that they do not exist just for us.”³¹ Determined to avoid an anthropomorphic perspective and granting that we can never know objects in themselves, Bogost is nevertheless powerfully drawn to say something about objects in them-

²⁹ Thomas Nagel, “What Is It Like to Be a Bat?” *The Philosophical Review* (1974), 83:4, 435-50.

³⁰ Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge: Cambridge University Press, 1977).

³¹ Bogost, *Alien Phenomenology*, 10.

Speculations V

selves. But how is this possible if objects always withdraw? Harman solves this problem by distinguishing between an object's sensual qualities (its "allure") and its essence; similarly, Bogost's solution is to emphasise that anything we can say about objects from an evidentiary basis is a "caricature," a representation "in which the one is drawn into the distorted impressions of the other."³² Quoting Harman, he identifies such a representation as a metaphor: "It's a move that solves Nagel's puzzle: we never understand the alien experience, we only ever reach for it metaphorically."³³ From here he goes on to develop "metaphorism" as his method of choice, deploying

metaphor itself as a way to grasp alien objects' perceptions of one another. Metaphorism offers a method for alien phenomenology that grasps at the way objects bask metaphorically in each others' 'notes' [Harman's name for the sensual attributes of an object] by means of metaphor itself, rather than describing the effects of such interactions on the objects. It offers a critical process for characterizing object perceptions.³⁴

Where I begin to depart from Bogost and Harman is on the issue of how objects manifest themselves. Whereas they emphasise an object's allure, the attraction it emanates for other objects, more important in my experience is the resistance objects offer to human manipulation and understanding. During my days as a scientist, my experiences included such resistances on an everyday basis, from using spectrum analysis to identify an element to determining the composition of chemicals in a solution. Andrew Pickering writes eloquently about the importance of resistance in *The Mangle of Practice*, where the "mangle" is the cyclic process of a human prodding and probing a nonhuman object to answer some question.³⁵ The object responds by resisting the human's inquiry, in a continuing

³² Bogost, *Alien Phenomenology*, 64.

³³ *Ibid.*, 66.

³⁴ *Ibid.*, 67. Whether this ploy satisfactorily resolves the issue is a moot question, as the following discussion makes clear.

³⁵ Andrew Pickering, *The Mangle of Practice: Time, Agency, and Science* (Chicago: University of Chicago Press, 1995).

dialectic in which the resistance forces the questions to be modified, and the modified questions uncover new forms of resistance. One could see this as the creative complement to Heidegger's present-to-hand versus ready-to-hand. Here it is not the moment the hammer breaks that brings it into our awareness, but rather the continually transforming and morphing resistance that leads to expanding and deepening knowledge. Resistance is crucial because, although objects cannot tell us what they are, they can tell us what they are not. Resistance enables us to distinguish a rock from a tree, a Higgs boson from a quark. The difference between resistance and acquiescence is that acquiescence is always metaphoric, whereas resistance is decisive: "Whatever I am, I'm not *that*," an object can respond to human probing. This distinction between positive and negative knowledge suggests that our knowledge of objects is always relative to other objects rather than to an object's essence in itself, although negative answers do allow for increasingly fine distinctions. That this process has no necessary end coincides with Harman's contention that an object's reserve can never be exhausted. At times, Harman seems to recognise the importance of an object's resistance, as in this passage from *The Quadruple Object*:

A real object has no closer link with its own real qualities than with the sensual qualities that one would never dream of ascribing to it ... a real object is real and has a definite character, but its essence is first produced from the outside through causal interactions.³⁶

"From the outside" here can be interpreted to mean precisely the kind of probing that is part of the mangle of practice.

Yet a significant difference emerges here as well, for Harman refuses to quantify the extent to which a real object withdraws, maintaining that it withdraws infinitely. According to him, then, there can never be an increase in knowledge; we can never know more or less about a given object. This seems to me contradicted by scientific, technical, and engineer-

³⁶ Graham Harman, *The Quadruple Object* (Winchester: Zero, 2011), 106.

Speculations V

ing knowledge, as well as by everyday experience. Moreover, Harman also resists what he calls “scientific naturalism,” maintaining that it seeks to “undermine” objects by reducing them to their elementary components, such as sub-atomic particles.³⁷ I think this fear is greatly exaggerated, as most scientists recognise there are emergent effects that appear at different levels of organisation. Effects not noticeable at the molecular level, for example, may appear at the cellular level; effects not noticeable at the cellular level may appear at the level of the organism, and so on. Few scientists believe that reductionist strategies can succeed in explaining everything.

Like Harman, Bogost also argues that “scientific naturalism,” which he matches up with social relativism, is deeply flawed. The case against social relativism is straightforward: it is rejected because it explains events “through the machinations of human society—particularly the complex, evolutionary forms of culture and language.”³⁸ With “scientific naturalism,” however, the case is far from clear, and indeed is seemingly contradicted in Bogost’s wonderful account of the Foveon-equipped Sigma DP digital image sensor, which draws deeply on scientific and engineering knowledge. Bogost is interested in the differences between how the human eye perceives in situations of low light intensity and how the digital image sensor perceives. In exploring these differences, he importantly opens the possibility that an object-oriented approach can be fleshed out through meticulous accounts of how nonhuman objects experience the world—or to put it in more general terms, the ways nonhuman objects have of being in the world.

As mentioned earlier, Bogost is careful to say that his account is a caricature rather than an accurate representation, which is forbidden by the idea that objects withdraw infinitely from one another.³⁹ The choice of terms, which he takes over from Harman, is significant: a caricature differs from a portrait or

³⁷ Harman, *The Quadruple Object*, 13-18.

³⁸ Bogost, *Alien Phenomenology*, 13.

³⁹ *Ibid.*, 13, 65-66.

N. Katherine Hayles – *Speculative Aesthetics*

photograph precisely because it exaggerates selected features, in this way making clear that the object is represented in a distorted fashion, and that embodied in this distortion is a certain perspective. As noted earlier, he also refers to such accounts as “metaphors.” To his credit, he recognises that anthropocentrism may be unavoidable:

we can find evidence for our speculations on perception ... even if we are only ever able to characterize the resulting experiences as metaphors bound to human correlates ... the answer to correlationism is not the rejection of any correlate but the acknowledgement of endless ones, all self-absorbed, observed by givenness rather than turpitude.⁴⁰

Expanding on this idea, I note that what is often called the “human perspective” is not singular but multiple, not only because of differences in language and cultures, but even more importantly, because the devices humans have invented to expand their sensory and perceptual ranges create a wide variety of different perspectives, from optical microscopes to particle accelerators, radiocarbon dating to seismic detectors. If we accept Bogost’s proposition that “the answer to correlationism is not the rejection of any correlate but the acknowledgement of endless ones,” then humans as a species have developed ways to access far more perspectives than any other species.

Notwithstanding his allegiance to OOO, Bogost shows that an object-oriented account can be developed from an evidentiary basis. Otherwise, what possibilities are there for the development of OOO, assuming that one is not a philosopher? One can imagine that philosophers will continue to argue about what constitutes OOO, modifying or contesting the framework, but for robust development and dissemination beyond the relatively narrow boundaries of speculative philosophy, there have to be ways to apply OOO that move beyond ontological questions to epistemological, social, cultural and political issues. It is precisely this task that OOI undertakes by building

⁴⁰ Bogost, *Alien Phenomenology*, 78.

Speculations V

bridges between evidentiary accounts of objects that emerge from the resistances and engagements they offer to human inquiry, and imaginative projections into what these imply for a given object's way of being in the world.

How might this methodology work? First, one needs a substantial body of knowledge, usually gained from scientific, technical, or engineering sources. Then one extrapolates into perceptions or world views, speculating about how that object encounters the world. Implicit in this procedure is an assumption that scientists, technicians and engineers take so deeply for granted that it is not an assumption so much as a presupposition. To exist in the world, every object that does so must have a certain internal coherence; otherwise, it could not endure for even a nanosecond. This is obvious in the case of biological organisms, winnowed through evolutionary dynamics. But it is also true of all real objects, from the tensile strength of their components to the stabilisations of the atomic orbits that hold them together. Because of this coherence, it is possible to develop accounts that have causal and predictive efficacy. This does not mean, however, that such accounts have exhausted (or can ever exhaust) all of an object's way of being in the world.

Indeed, part of my attraction to speculative realism is its insistence that objects resist us knowing them completely, withdrawing their essence in an infinite regress while still sending out their "alluring" sensual qualities. I made a not unrelated distinction when I wrote about the difference between physicality and materiality.⁴¹ Physicality in my understanding is similar to an object's essence; potentially infinite, it is unknowable in its totality. What we can know, however, are the physical qualities that present themselves to us, which I designated as materiality. What distinguishes my position from that of Harman and Bogost, however, is that for me objects do not passively present their qualities; rather, humans *attend* to certain qualities in specific contexts

⁴¹ N. Katherine Hayles, *My Mother Was a Computer: Digital Subjects and Literary Texts* (Chicago: University of Chicago Press, 2005), 103-04.

for motivated reasons. The same is true of a lion hunting a gazelle or an instrument perceiving the number encoded in an RFID (Radio Frequency Identification) tag.⁴² Qualities are never perceived in their totality but only within the frameworks and contexts that define the relation of one object to another. This is why I am sympathetic to Jane Bennett's argument in *Vibrant Matter: A Political Ecology of Things* that relationality has to be part of the picture, for it is through relations that one object senses the specific parts of another object's "allure" germane for the first object's purposes and contexts.⁴³

Does this mean that relations are confined to human perceptions, or even more narrowly to human consciousness? Definitely not! Steven Shaviro, in a 2011 conference paper entitled "Panpsychism and/or Eliminativism," argues that "if we accept that thought (or feeling or experience) need not be conscious, then we might well be led to abandon the demarcation between mind and matter altogether ... I propose that [panpsychism] gives us a good way to avoid the problematic baggage both of consciousness and of phenomenological intentionality."⁴⁴ He goes on to clarify that even if "everything is mindful, or has a mind ... this does not necessarily entail that everything is 'given' or 'manifested' to a mind."⁴⁵ Relations between objects need not and certainly do not imply that conscious thought is necessary for relationality. Conscious thought for humans represents only a small part of their processing of information from the environment, and for nonhuman objects such as the expert systems and RFID tags mentioned above, conscious thought does not operate at all.⁴⁶

⁴² For a discussion of how RFID tags work and their cultural implications, see my "RFID: Human Agency and Meaning in Information-Intensive Environments," *Theory, Culture and Society* (2009), 26:2-3, 1-24.

⁴³ Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010).

⁴⁴ Steven Shaviro, "Panpsychism and/or Eliminativism," *The Pinocchio Theory*, www.shaviro.com/Blog/p=1012 (accessed July 1, 2013).

⁴⁵ Shaviro, "Panpsychism and/or Eliminativism," 7.

⁴⁶ This argument is developed more fully in my book *How We Think: Digital Media and Contemporary Technogenesis* (Chicago: University of Chicago Press, 2012), 85-122.

Speculations V

Nevertheless, these objects enter into relations with other objects and have their own ways of parsing another object's qualities, encountering them (and sometimes acting upon them) within their own contexts and frameworks.

What speculative realism can learn from these accounts is an awareness that, despite an objects' withdrawal, it is possible to say a great deal about a real object's real qualities. What it can teach is that these accounts are always partial representations of an object's materiality rather than an accurate representation of the object in itself, and for entirely different reasons that a correlationist account would give. Over and above these lessons to and from speculative realism, there are other contributions that speculative aesthetics can make. Here Flusser is useful, for he is very clear on this issue: his "intersubjective scientific methods," although originating in a biological basis of fact, go far beyond them by using his human imagination to project what art, culture, and language analogues would be for the Vampyreuthis. If he sometimes blurs the line between metaphor (or analogy) and biological fact, and if he also has a strong bias toward constructing Vampyreuthis as the romanticised "other" to the human, he nevertheless achieves provocative interpretations that reveal by contrast assumptions that would otherwise remain opaque, such as our fascination with objects as durable substrates that can be "informed" by humans and thereby serve as a kind of immortality. By imaginatively projecting Vampyreuthis's art and culture, he enables us to see our own more clearly.

In *Vibrant Matter*, Bennett explicitly connects the human capacity to project imaginatively into other entities with aesthetics: she wants to use "arguments and other rhetorical means to induce in human bodies an aesthetic-affective openness to material vitality."⁴⁷ Not surprisingly, in her recent essay "Systems and Things: A Response to Graham Harman and Timothy Morton," she argues for a stronger role for relationality, pointing out that there may be "no need" to choose objects or their relations. "The project, then, would

⁴⁷ Bennett, *Vibrant Matter*, x.

be to make both objects and relations the periodic forms of theoretical attention.”⁴⁸

The issue of relationality is crucial, as the exchange in *The Speculative Turn* between Shaviro (“The Actual Volcano”) and Harman (“Response to Shaviro”) illustrates.⁴⁹ In this exchange, I find myself more persuaded by Shaviro than Harman. I am confused by Harman’s assertion in *The Quadruple Object* and elsewhere that relations between objects can themselves become objects, and that relations can also be encapsulated within objects. In this case, what exactly is the difference between a relation and an object, if everything can be converted to (or already is) an object? Moreover, although Harman distinguishes between different categories of relations in his development of the four-fold object, within these categories he tends to refer to “relations” as undifferentiated black boxes. His criticism of holistic philosophies clearly shows this tendency. In his “Response to Shaviro,” he sharply criticises Whitehead’s view that everything is relational by arguing that “if an object could be identified with its current relations, then there is no reason why anything would ever change,” as objects would then have their reserves exhausted by the infinite web of relations in which they are caught.⁵⁰ To have change, he asserts, new relations would have to emerge, but how would these relations develop if everything is already connected? To me, this makes no sense. According to Shaviro, Whitehead does assert that “every actual entity is present in every other actual entity,” but with the important qualification that this is so only “if we allow for degrees of relevance, and for negligible relevance.”⁵¹ For example, if we ask how a dust storm on Mars would affect the online issue in which this

⁴⁸ Jane Bennett, “Systems and Things: A Response to Graham Harman and Timothy Morton,” *New Literary History* (2012), 43, 225-33, especially 227.

⁴⁹ See Levi Bryant, Nick Srnicek, and Graham Harman, eds., *The Speculative Turn: Continental Materialism and Realism* (Melbourne: Re.press, 2011).

⁵⁰ Harman, “Response to Shaviro,” 295.

⁵¹ Shaviro, “The Actual Volcano,” 287.

Speculations V

essay appears, we would, according to Whitehead, conclude that it has “negligible relevance.”

My own view is that relations exist within systems, and the organisation of components within a system determines what relations it will have. Of course, the boundaries of systems are often fuzzy; they overlap and transform, not to mention that human perspectives determine what counts as a system boundary. Nevertheless, the dynamics of systems are clearly of different kinds. The effect of encapsulating relations within objects, as Harman does, is to mask the system’s dynamics and make it difficult to think about the dynamics at all. The black boxing of relations obliterates the specificity of how complex systems work. In chaotic, complex, and complex adaptive systems, multiple recursive feedback loops make such systems extraordinarily sensitive to small perturbations; something as small as the proverbial flapping of a butterfly’s wing can have cascading large-scale ripple effects. Change does not require, as Harman seems to think, the emergence of new kinds of relations; all it requires are systemic organisations that tend toward instability rather than stability. The more interconnected such a system is, the more liable it is to constant change, rather than an absence of change. A clear distinction between objects and relations would help to make complex dynamics visible and ensure that the reserves intrinsic to objects are strongly correlated to the kinds of relations in which they engage.

Putting relations back into the picture empowers the OOI methodology of imaginative projection into nonhuman others as a theoretical possibility for speculative aesthetics that is either forbidden (in Harman’s case) or under-theorised (in Bogost’s argument). This leads to a strong paradox: human imagination is the best way, and perhaps the only way, to move beyond anthropocentrism into a more nuanced understanding of the world as comprised of a multitude of world views, including those of other biological organisms, human-made artefacts, and inanimate objects. Bennett makes a similar point:

N. Katherine Hayles – *Speculative Aesthetics*

Maybe it's worth running the risks associated with anthropomorphizing (superstition, the divinization of nature, romanticism) because it, oddly enough, works against anthropocentrism: a chord is struck between a person and thinking, and I am no longer above or outside a nonhuman 'environment.'⁵²

Empowering the role that human imagination plays in allowing us to go beyond anthropocentrism poses another challenge to OOO. Even if this is heresy within the framework of speculative realism, one could argue that humans, among all the objects and species that exist on earth, can imaginatively project themselves into the worldviews of other objects along a greater spectrum of qualities than most other objects can do. We know that many other species are capable of constructing mental models of how others think and perceive. The evidence is especially strong in the case of other primates, but one could also include such computer programs as expert systems and inference engines, including those constructed to create narratives. Nevertheless, one could concede that humans exceed all these in the scope and variety of imaginative projections. Does this then mean that human specialness must be reinstated after all? Along with the speculative realists and fellow travellers such as Timothy Morton, I agree that humans need to be more humble about their abilities and more receptive toward the abilities of what Bennett calls “lively matter” to act in the world. The conundrum can be resolved by recognising that humans *need* this ability more than most objects because they are more inclined to think of themselves as special. In effect, the ability of humans to imaginatively project themselves into other objects' experience of the world is *necessary* to combat the anthropocentrism and narcissism for which the human species is notorious. Without it, we would be in worse straits than we are; it is the silver lining that enables us to overcome the biases of specialness and reach out to understand other objects by analogy, although never (as Nagel, Harman and

⁵² Bennett, *Vibrant Matter*, 120.

Speculations V

Bogost point out) in the terms that the objects themselves experience. Perhaps this is what Bogost means by his enigmatic pronouncement, italicised for emphasis: “*all things equally exist, yet they do not exist equally.*”⁵³

What does all this mean for speculative aesthetics? I started with the observation that human perception has always been central to aesthetics and noted the strong challenge that speculative realism poses to that assumption. I ended by arguing that the way to escape anthropocentrism is precisely through an imaginative projection into the worldviews of other objects and beings, based on evidence about their ways of being in the world, although with the important caveat that these are analogies and should not be mistaken for an object’s own experience.

If speculative realism is modified in these arguments, so is aesthetics. The traditional division in aesthetics between those who hold that aesthetics is grounded in the object’s own qualities, and those who locate it in human perception, is in a certain sense fused into a single approach which holds that the object’s own qualities are expressed through the evidentiary bases, and that these are apprehended by human imagination and perception to create analogue projections of an object’s world view. At the same time, aesthetics is separated from its traditional basis in beauty and re-located in the endeavour to recognise that every real object possesses—or even more strongly, *has a right to*—its own experience of the world, including biological, animate, and inanimate objects.

This approach, I conclude, has a strong claim to be called speculative aesthetics. Influenced by speculative realism, it does not slavishly follow its precepts but uses speculative realism’s best insights to re-define the aesthetic mission. What I have staged in this essay is a kind of Zen tennis match between speculative realism and speculative aesthetics, in which the two are positioned less as antagonists than as partners, each helping the other to perform at a higher level. Seen in this light, speculative aesthetics is not so much a derivative

⁵³ Bogost, *Alien Phenomenology*, 11.

N. Katherine Hayles – *Speculative Aesthetics*

from speculative realism as a complementary perspective based in the methodology of OOI, potentially suited to a post-human world in which other species, objects, and artificial intelligences compete and cooperate to fashion the dynamic environments in which we all live.