Introduction

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Realism and materialism have become important watchwords in intellectual and cultural discourse today. Despite their differences, these philosophical stances propose that thought can think outside itself, that reality can be known without its being shaped by and for human comprehension. This position sharply contrasts with the philosophical and cultural view dominant over the last half century, a view that affirms the indispensability of interpretation, discourse, textuality, signification, ideology, and power. Diverse as they are, the theoretical programs that constitute this latter orthodoxy (notably phenomenology, hermeneutics, post-structuralism, deconstruction, and psychoanalysis) maintain that our apprehension of the natural and social worlds is either constituted or mediated by a discursive field or a cognitive subject, and that nothing—or nothing meaningful—exists outside of discourse or its socially-organized construction. In short, this orthodoxy has been staunchly anti-realist. Today's realism and materialism explicitly challenge many of these now prevalent assumptions of cultural practice and theoretical inquiry.

Realism Materialism Art (RMA) presents a snapshot of the emerging and rapidly changing set of ideas, practices, and challenges proposed by contemporary realisms and materialisms, reflecting their nascent reworking of art, philosophy, culture, theory, and science, among other fields. Further, RMA strives to expand the horizons and terms of engagement with realism and materialism beyond the primarily philosophical context in which their recent developments have taken place, often under the title "Speculative Realism" (SR). While it is SR that has most stridently challenged critical orthodoxies (even if, as discussed later in this introduction, the positions convened under the SR banner are often discordant and form no unified movement), RMA purposefully looks to extend the purview of realist and materialist thought by presenting recent developments in a number of distinct and heterogeneous practices and disciplines.

Cutting across diverse thematic interests and modes of investigation, the contributions to *RMA* demonstrate the breadth and challenge of realist and materialist approaches to received disciplinary categories and forms of practice. This pluridisciplinarity is typical of the third term in our title: art. *RMA* affirms, as art now does, that there is no privileged area, thematic, or discipline in the investigation or reach of realism and materialism: not philosophy, not science, not even art itself. Art is then not just a field transfigured by realism and materialism; it is also a method for convening *and* extending what they are taken to be and do when extended beyond philosophical argument.

A short history of some of art's intersections with recent realisms and materialists is presented below. However, for all the gathering interest in the possibilities opened up by the relationships between realism, materialism, and art, there is to date a dearth of reflection and argument on their reciprocal salience. *RMA* looks to provide a corrective to this situation. Featuring new contributions from a number of established figures in contemporary variants of realist and materialist theory, these ideas are situated in relation to the inventive work of established and emerging practitioners and researchers in art as well as from other areas of active inquiry on the consequences and effects of realism and materialism. Because many of these contributions assume familiarity with the key claims of the resurgent realisms and materialisms, rehearsing their core arguments and motivations here may help provide orientation through them.

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In various ways, the currently dominant modes of contemporary critical theory perhaps most strikingly post-structuralism, deconstruction, and psychoanalysis insist on the absence, infinite deferral, or fiction of what Jacques Derrida called the "transcendental signified," that is, a fundamental reality that could arrest or ground the proliferation of discourse, signification, and interpretation. Jacques Lacan, for example, maintained that "there is no such thing as a prediscursive reality" because "every reality is founded by a discourse"—or, even more strongly, that "it is the world of words that creates the world of things." In a similar vein, Michel Foucault argued that "there is nothing absolutely primary to interpret, for after all everything is already interpretation. [...] There is never, if you like, an *interpretandum* which is not already interpretans." Derrida's notorious claim "there is nothing outside of the text" offers another expression of this idea, as does Roland Barthes's remark that, apropos the domain of discourse, "there is nothing beneath." As Slavoj Žižek, the most prominent current heir to this tradition, concludes: "The pre-synthetic Real is, stricto sensu, impossible: a level that must be retroactively presupposed, but can never actually be encountered."¹

These positions are all variants of what, in his influential book *After Finitude*, Quentin Meillassoux calls "correlationism." "By 'correlation'," Meillassoux writes,

See Jacques Lacan, The Seminar of Jacques Lacan, Book I: Freud's Papers on Technique, 1953–1954, ed. Jacques-Alain Miller, trans. John Forrester (New York: W. W. Norton, 1988), 66; Lacan, The Seminar of Jacques Lacan: On Feminine Sexuality: The Limits of Love and Knowledge (Book XX), ed. Jacques-Alain Miller, trans. Bruce Fink (New York: W. W. Norton, 1998), 32; Lacan, "The Function and Field of Speech and Language in Psychoanalysis," in Écrits, trans. Bruce Fink (New York: W. W. Norton, 2006), 229; Michel Foucault, "Nietzsche, Freud, Marx," in Aesthetics, Method, and Epistemology: Essential Works of Foucault, 1954–1984, vol. 2, ed. James Faubion (New York: New Press, 1998), 275; Jacques Derrida, Of Grammatology, trans. Gayatri Chakravorty Spivak (Baltimore: Johns Hopkins University Press, 1976), 158; Roland Barthes, "The Death of the Author," in Image, Music, Text, ed. and trans. Stephen Heath (London: Fontana, 1977), 147; and Slavoj Žižek, The Ticklish Subject (London: Verso, 1999), 33.

we mean the idea according to which we only ever have access to the correlation between thinking and being, and never to either term considered apart from the other. [...] Correlationism consists in disqualifying the claim that it is possible to consider the realms of subjectivity and objectivity independently of one another. Not only does it become necessary to insist that we never grasp an object "in itself," in isolation from its relation to the subject, but it also becomes necessary to maintain that we can never grasp a subject that would not always already be related to an object.²

For the correlationist the world is only ever the world *for thought* or the experience of a subject. The existence of things in themselves, independent of their relationship to the thinking or experiencing subject, is either bracketed as inaccessible or dismissed as a fiction.

With the term "correlationism" Meillassoux not only reveals an important commonality among the otherwise disparate theoretical and philosophical programs of the twentieth century already mentioned (as well as hermeneutics, Wittgensteinian philosophy, pragmatism, analytic anti-realism, existentialism, etc.); he also reveals this idea's deep roots in the history of philosophy. According to Meillassoux, correlationism is "the central notion of modern philosophy since Kant." Indeed, Immanuel Kant's "Copernican Revolution" consisted in arguing that, contrary to the ordinary view that thought conforms to the objects it apprehends, objects conform to our thought. For Kant, the apprehension of reality is always mediated by a set of cognitive structures shared by all human beings. Hence, what we call "the world" is always the world *for-us*. The "object of thought" is only ever the object *for-thought* and not the object as it exists *in-itself*. Kant insists that things-in-themselves must exist in order to provide the content for thought. Yet he also insists that such things-in-themselves can only be posits of thought or faith, not items of knowledge.⁵

Kant's successors insisted that the notion of an unknowable thing-in-itself is contradictory and superfluous. On the one hand, Kant claimed that the thing-in-itself is unknowable, beyond the limit of human knowledge; yet, on the other hand, he nonetheless seemed to know enough about it to posit its existence and thus to transcend the limit he had declared impassable. Responding to this contradiction, G. W. F. Hegel, Kant's most prominent successor, sought to show that there is no genuine division between the world-as-it-appears-to-us and the

- 2 Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency*, trans. Ray Brassier (London: Continuum, 2009), 5.
- 3 Ibid. In A Thing of This World: A History of Continental Anti-Realism (Evanston: Northwestern University Press, 2007), Lee Braver gives a detailed account of this prevalence of "correlationism" (which Braver calls by the more standard philosophical term "anti-realism") from Kant, Hegel, and Nietzsche through Heidegger, Foucault, and Derrida.
- 4 Immanuel Kant, *Critique of Pure Reason*, ed. and trans. Paul Guyer and Allen W. Wood (Cambridge: Cambridge University Press, 1998), Bxvi–Bxviii, 110–11.
- 5 Ibid., Bxxvi and Bxxx, 115, 117.

world-as-it-is-in-itself, no division between subject and object, mind and world. Instead, the world or reality is mind-like, imbued with mind or spirit.⁶ Thus Hegel "absolutized the correlation," as Meillassoux puts it, asserting that the absolute (what truly and fundamentally is) does not reside in some thing-in-itself existing beyond the bounds of our thought but is the very correlation between thinking and being.⁷

These two philosophical moves—the skeptical Kantian move according to which the real is fundamentally inaccessible, and the idealist Hegelian move according to which the real is fundamentally mental or spiritual—are maintained in more recent European philosophy and critical theory that otherwise seeks to move beyond the Kantian configuration. Where Kant took the categories of thought to be universal and necessary, a fundamental feature of all human cognition, postwar European thought often relativized and historicized this position, maintaining that there exist multiple and irreducible ways of apprehending the world that are relative to historical periods, cultures, or subject positions. And where Kant cast his theory in terms of structures of cognition, postwar thought externalized this view, casting it in terms of discourse, discursive regimes, or ideology, taken to be linguistic and extra-linguistic structures and practices that determine the limits of understanding and behavior. Despite these significant and telling departures from Kant, postwar thought nonetheless reproduced the *structure* of his position, maintaining that the real is accessible only as mediated by discourse or—the more Hegelian position—constituted by it.

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Within this intellectual context, realism—the view that the world is fundamentally independent of the human mind and discourse *and* that it can be known in its independence—was dismissed as naive or futile. However, the past decade has witnessed the resurgence of realism and materialism among philosophers trained in European and Anglo-American correlationist or anti-realist thought.

The recent affirmation of realism was enabled by a new interest in two veteran French philosophers who at the turn of the millennium were scarcely known in the Anglophone world: Alain Badiou and François Laruelle, both born in 1937. Though Badiou maintains a Lacanian conception of the Real as the unthought or impossible of any given situation, what sets him apart from other philosophers of his generation is that he dismisses the politics of difference, asserts the primacy of mathematics, and offers a theory of universal truth. This opened the door for other internal challenges to post-structuralist orthodoxy. Laruelle's philosophy of radical immanence is more directly a realism. For him, the Real (or "the One") is all

- 6 G. W. F. Hegel, *Phenomenology of Spirit*, trans. A. V. Miller (Oxford: Oxford University Press, 1977).
- 7 Meillassoux, After Finitude, 37, 51ff.
- 8 A caution: Kant is, in some sense, a realist insofar as he holds that things-in-themselves or noumena exist independently of the human mind. However, he brackets the thing-in-itself as unknowable, maintaining that knowledge and experience deal exclusively with phenomena, that is, things as they appear *to us*. In the sense presented in the main text here, realism is the view that mind-independence of the world is not just a mental posit but also something describable by philosophy, science, and other disciplines.

that exists; there is only one plane of existence, a plane that nothing transcends. It is what we are and that in which we are always already immersed. The attempts by philosophy and conceptual thought to *get to* the real, to capture and represent it, always necessarily fail because they are *always already a part of the Real* and thus cannot project themselves outside of the Real in order to capture its totality. As Laruelle puts it in an exchange with Derrida that clearly confounds and exasperates the latter: "We start from the One, we don't arrive at it. [...] You have to start from the real, otherwise you'll never get to it. Who *wants* the real? Philosophy. And because it wants the real, it never gets it." Philosophy merely produces a "transcendental hallucination" of the Real construed in its own image. By contrast, Laruelle's own practice of "non-philosophy" or "non-standard philosophy" does not attempt to represent the real but to think alongside or according to the Real, the latter being the cause of thought and that to which thought belongs as a material part.

One of the very few prominent philosophers to endorse Laruelle's project was Gilles Deleuze, an important predecessor for several strands of recent realism and materialism. From the 1960s into the 1990s, Deleuze was strongly associated with post-structuralism; yet, unlike many of his contemporaries, Deleuze always considered himself a "pure metaphysician," drawing from contemporary science and mathematics to inform his philosophy and disparaging the "linguistic turn" characteristic of post-structuralism. For Deleuze, language is but one example of a broader notion of "expression," itself a feature of all natural entities."

Deleuze's collaborative writings with Félix Guattari were a primary source for Nick Land's realist characterization of capitalism as constitutively lying beyond human interests. Land's writings from the 1990s propose that humans—as organisms, minds, bodies, and societies (especially the state form)—constrain the expansive and proliferating energies of matter, machine systems, and codes. Land affirms that these limits on material "expression," as well as those of historical forms of natural and social organization—including capitalism itself—are to be abolished by technological and capitalist advances into non-human conditions, a machinic "deterritorialization"

- 9 Jacques Derrida and François Laruelle, "Controversy over the Possibility of a Science of Philosophy," trans. Ray Brassier and Robin Mackay, in *The Non-Philosophy Project: Essays by François Laruelle*, ed. Gabriel Alkon and Boris Gujevic (New York: Telos Press, 2012), 90–91. See also François Laruelle, *Philosophies of Difference: A Critical Introduction to Non-Philosophy*, trans. Rocco Gangle (London: Continuum, 2010), 152ff.
- 10 François Laruelle, "A Summary of Non-Philosophy," trans. Ray Brassier, in The Non-Philosophy Project, 26.
- For Deleuze's remarks on Laruelle, see Gilles Deleuze and Félix Guattari, *What is Philosophy?*, trans. Graham Burchell (New York: Columbia University Press, 1994), 220n5. Deleuze's self-description as a metaphysician can be found in Gilles Deleuze, "Responses to a Series of Questions," *Collapse* 3 (2007): 42; and in *Negotiations: 1972–1990*, trans. Martin Joughin (New York: Columbia University Press, 1995), 88–89.
- 12 Gilles Deleuze and Félix Guattari, Anti-Oedipus: Capitalism and Schizophrenia, trans. Robert Hurley, Mark Seem, and Helen R. Lane (Minneapolis: University of Minnesota Press, 1983); A Thousand Plateaus: Capitalism and Schizophrenia 2, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987). Land's writings are gathered in Fanged Noumena: Collected Writings 1987–2007, ed. Ray Brassier and Robin Mackay (Falmouth, UK: Urbanomic, 2011).

accelerated by the increasing ubiquity of cybernetic systems, and in particular the thennascent emergence of the web as cyberspace. With Sadie Plant, Land set up in 1995
the short-lived but influential Cybernetic Culture Research Unit (CCRU), associated
with the Department of Philosophy at the University of Warwick, where Land was
based. CCRU quickly became a hub for cultural practitioners and cyber-theorists in
the UK speculating on the transformations (about to be) wrought by the web, as well
as a generation of philosophers interested in anti- or post-humanist materialism and
capitalism, several of whom have contributed to the resurgence of realism and materialism in other terms in the latter half of the 2000s.¹³

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For all of these precedents, the realist turn was however most fully catalyzed by the publication in 2006 (and translation in 2009) of Meillassoux's *After Finitude*. In April 2007, Meillassoux, Graham Harman, Ray Brassier, and Iain Hamilton Grant convened at Goldsmiths, London, for a conference titled "Speculative Realism," a term that has stuck as the name of a new philosophical movement. The four philosophers were united by their critique of correlationism and its attendant anthropocentrism, their disinterest in the "linguistic turn" characteristic of so much twentieth-century philosophy and cultural theory, and their commitment to a robust realism. Yet these commonalities obscure significant differences that have only become more pronounced since the Goldsmiths conference.

Harman accepts Kant's claim that we have no access to things-in-themselves but extends this beyond the human-world relationship to all entities and all relationships. For Harman, *all* things distort, caricature, or inadequately translate the other things they encounter, leaving the things-in-themselves (what Harman calls the "real objects") to "withdraw" from any access. "When fire burns cotton," for example,

it makes contact only with the flammability of this material. Presumably fire does not interact at all with the cotton's odor or color, which are relevant only to creatures equipped with organs of sense. [...] The being of fire withdraws from the flames, even if it is consumed and destroyed. Cotton-being is concealed not only from phenomenologists and textile workers but from all entities that come into contact with it. In other words, the withdrawal of objects is not some cognitive trauma that afflicts only humans and a few smart animals, but expresses the permanent inadequacy of any relation at all.¹⁵

- 13 Simon Reynolds gives a detailed account of CCRU at energyflashbysimonreynolds.blogspot. com/2009/II/renegade-academia-cybernetic-culture.html. CCRU's own idiomatic account can be found at www.ccru.net/identity.htm.
- 14 The proceedings of the event were later published as "Speculative Realism" in *Collapse* 3 (November 2007): 307–449. A detailed account of the genesis of the Goldsmiths workshop and Speculative Realism more generally can be found in Graham Harman, *Quentin Meillassoux: Philosophy in the Making* (Edinburgh: Edinburgh University Press, 2011), 77–80.
- 15 Graham Harman, The Quadruple Object (Alresford: Zero Books, 2011), 44.

Extending the phenomenological insights of Edmund Husserl and Martin Heidegger, Harman argues that the world is fundamentally composed of "objects": substantial, unified, and autonomous entities that are not simply collections of features, attributes, traits, pieces, or relations. Objects need not be physical (Harry Potter is as much an object as Hugo Chavez), natural (a plastic cup is as much an object as a maple tree), simple (armies and corporations are as much objects as individual human bodies), or indestructible. But every object has two faces: a "sensual" face that can be encountered by other objects and a "real" face that withdraws from all relations.

Meillassoux and Brassier oppose Harman's skeptical realism, arguing that the real is indeed accessible but through reason, science, and mathematics. Empirical science produces statements about the nature of the world as it was prior to the existence of human thought, human being, and even life itself—for example, that the Earth formed 4.56 billion years ago. Such "ancestral" statements, Meillassoux argues, pose a dilemma for the correlationist, who must either accept that they describe the world prior to and independent of the human-world correlation, and must then give up correlationism, or make the scientifically dubious and, Meillassoux shows, philosophically inconsistent claim that such statements are merely retroactive fictions generated by present consciousness about a past that is itself a construct of the correlation.¹⁶

Meillassoux argues that while the correlationist "solution" is wrong, correlationism cannot be simply dismissed since it is nonetheless rationally consistent. Through a subtle and complex immanent critique, he shows that the most consistent form of correlationism (the version held, for example, by structuralist and post-structuralist philosophers) is *necessarily* committed to the idea that any correlation is contingent and thus that this contingency is not internal to the correlation but external to it, absolute, a feature of the world itself.¹⁷ Pushing this idea to its logical conclusion, Meillassoux argues that the world in itself is radically contingent, marked by arbitrary and unpredictable change, a "hyper-Chaos" wherein "there is no reason for anything to be or to remain the way it is; everything must, without reason, be able not to be and/or be able to be other than it is."¹⁸

Brassier in turn draws on philosophical and scientific thought in a more naturalistic vein to exacerbate the disenchantment of the world characteristic of Enlightenment rationality. Brassier sees contemporary neuroscience, for example, as continuing the trajectory of Copernicus, Darwin, and Hutton, whose scientific discoveries undermined human narcissism, revealing the Earth to be one planet among many orbiting around an insignificant star, showing *Homo sapiens* to be kin to all

- 16 Meillassoux, "Ancestrality," in *After Finitude*, 1–27. As the arch-correlationist philosopher Nelson Goodman put it in an earlier debate, we make something older than we are, the stars, for example, "by making a space and time that contains those stars." ("On Starmaking," originally published in *Synthese* 45 no. 2 (October 1980): 213; reprinted in *Starmaking: Realism, Anti-Realism, and Irrealism*, ed. Peter J. McCormick [Cambridge, MA: MIT Press, 1996], 145).
- 17 Meillassoux, After Finitude, 50-60.
- 18 Ibid., 6o.

other living beings in a biological world devoid of hierarchy, and demonstrating that human beings occupy a mere millisecond of deep time. ¹⁹ Yet, perhaps paradoxically, these blows to human narcissism are, for Brassier, testaments to the power of reason:

The disenchantment of the world understood as a consequence of the process whereby the Enlightenment shattered the "great chain of being" and defaced the "book of the world" is a necessary consequence of the coruscating potency of reason and hence an invigorating vector of intellectual discovery, rather than a calamitous diminishment. [...] [It] deserves to be celebrated as an achievement of intellectual maturity, not bewailed as a diminishing impoverishment.²⁰

Modern scientific thought sweeps away our folk-psychological and correlationist philosophical notions, revealing to us the world as it exists in itself beyond the human. "Nihilism," Brassier writes, is

the unavoidable corollary of the realist conviction that there is a mind-independent reality, which, despite the presumptions of human narcissism, is indifferent to our existence and oblivious to the "values" and "meanings" which we would drape over it in order to make it more hospitable.²¹

Echoing Meillassoux but distinct from him in the appeal to naturalism, Brassier contends that science, thought, and reason have the power to transport us beyond the correlation, to a world devoid of human being and life itself. As he elegantly puts it: "Thinking has interests that do not coincide with those of living; indeed, they can and have been pitted against the latter."²²

In an effort to elaborate how thought can think outside itself, how reason can think nature as a whole, Brassier has more recently turned toward idealist philosophers such as Plato, Kant, and Hegel, whose thought he sees as affirming "the autonomy of the conceptual," the irreducibility of reason to the natural and material processes that incarnate it.²³ A kindred position is articulated by Iain Hamilton Grant, whose work develops themes in F. W. J. Schelling's philosophy of nature. Whereas, traditionally,

- 19 Brassier approvingly draws on the materialist accounts of consciousness given by Thomas Metzinger as well as Paul and Patricia Churchland. See Ray Brassier, Nihil Unbound: Enlightenment and Extinction (Basingstoke: Palgrave Macmillan, 2007). Darwin's rejection of hierarchy and progress in the history of life is documented by Stephen Jay Gould in Full House: The Spread of Excellence from Plato to Darwin (New York: Harmony Books, 1996), which also discusses various scientific blows to human narcissism.
- 20 Brassier, Nihil Unbound, xi.
- 21 Ibid.
- 22 Ibid.
- 23 Ray Brassier, "The View From Nowhere," in *Identities: Journal for Politics, Gender, and Culture*, 8, no. 2 (Summer 2011). See also Brassier, "Prometheanism and Its Critics," in #Accelerate#: The Accelerationist Reader, ed. Armen Avanessian and Robin Mackay (Falmouth, UK: Urbanomic, 2014), 467–487.

idealism has been opposed to realism and materialism, both Grant and Brassier aim to show that these positions can be drawn together to forge a "materialist idealism" or "idealist materialism." Grant points out that idealism is not anti-realist but, precisely, a realism with regard to the existence of ideas. Exploring philosophies of nature from Schelling through Deleuze, Grant aims to show not only that idealism is compatible with naturalism but also that the former has to be pursued through the latter. Schelling, for example, offers a natural history of mind that in Grant's reading reveals how "mind is a product of nature." ²⁵

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Despite the attention given to the philosophers and ideas identified with SR, other variants of realist and materialist inquiry have also developed in recent years. Feminism, notably, has traditionally allied itself with materialism insofar as it has attended to the concrete material circumstances of women's bodies, lives, and—sometimes in conjunction with Marxism—conditions of labor. Yet, feminists have also tended to be suspicious of claims to scientific and metaphysical truth, out of concern that such supposedly neutral claims are in actuality informed by an unexamined masculinist bias. The feminist theorists that have played the most prominent role in art discourse—Luce Irigaray, Julia Kristeva, Judith Butler, and Donna Haraway, for example—insist on the social and symbolic construction not only of gender but of knowledge and truth, maintaining that epistemological and ontological claims are always embodied and gendered, never neutral. Moreover, the lack of concern with gender and feminism on the part of many new materialist and realist philosophers has made feminists wary of their claims and positions.

A number of feminists have however taken up materialist and realist arguments and strategies. Elizabeth Grosz and Rosi Braidotti draw on Deleuze to link feminism with a materialist philosophy of nature that provokes a rethinking of political agency and liberation. Likewise, many feminist theorists have turned from questions of language and representation toward the capacity of material bodies to affect and be affected by one another. This concern unsettles the divide between human beings and nonhuman animals, interest in which has become prevalent in feminist theory and artistic practice alike. Materialist and realist feminists have also taken up Haraway's

- 24 See Jeremy Dunham, Iain Hamilton Grant, and Sean Watson, *Idealism: The History of a Philosophy* (Montreal: McGill-Queens University Press, 2011), 1–9.
- 25 Dunham et al., Idealism, 132. See also Iain Hamilton Grant, Philosophies of Nature After Schelling (London: Continuum, 2006).
- 26 See Elizabeth Grosz, Volatile Bodies: Toward a Corporeal Feminism (Bloomington: Indiana University Press, 1994), and Becoming Undone: Darwinian Reflections on Life, Politics, and Art (Durham, NC: Duke University Press, 2011). See also Rosi Braidotti, Metamorphoses: Towards a Materialist Theory of Becoming (Oxford: Polity Press, 2002) and The Posthuman (Oxford: Polity Press, 2013).
- 27 Melissa Gregg and Gregory J. Seigworth, eds., The Affect Theory Reader (Durham, NC: Duke University Press, 2010); Sara Ahmed, The Cultural Politics of Emotion (Edinburgh: Edinburgh University Press, 2004). Diana Coole and Samantha Frost, eds., New Materialisms: Ontology, Agency, and Politics (Durham, NC: Duke University Press, 2010) focuses on feminist-inflected materialist accounts of political theory.

initiative to establish a countermodel to both norms of scientific investigation and feminist suspicions about technology and science, drawing on the realism of science to extend post-structuralist feminism beyond the constraints imposed by its emphasis on discursive and social construction and, as with Grosz and Braidotti, to rethink embodiment on a realist and/or materialist footing.²⁸ One striking strand in this research is the revisioning of psychoanalysis—which played a key role in the feminism of the 1970s through the 1990s—by developments in neuroscience. Elizabeth A. Wilson recasts feminist concerns about the psychobiological reductionism of gender and sexuality—captured by the slogan "Biology Is Not Destiny"—in light of discoveries in connectionist neurobiology concerning the transformative effects of lived experiences on the material organization of the human cortical-nerve system.²⁹ Catherine Malabou also allies the experiential transformation of neural structures and their chemistry with a commitment to feminism through the concept of "plasticity" drawn from Hegel's dialectical philosophy of mind (via Derrida). Like Grant, Malabou attempts to ground thought in a natural history of the mind that would explain the "transition from a purely biological entity to a mental entity." 30 On this basis Malabou presents a critique of the symbolic and narrative concerns of psychoanalysis, which, she notes, cannot adequately respond to neurodegenerative disorders such as Parkinson's and Alzheimer's. "Today," she concludes, "we must acknowledge that the power of the linguistic-graphic scheme is diminishing and that it has entered a twilight for some time already. It now seems that plasticity is slowly but surely establishing itself as the paradigmatic figure of organization in general."31

Though he does not endorse the term "plasticity" in particular, Manuel DeLanda no less advocates for science and artificial cognitive systems as advancing a contemporary philosophy of nature of the sort developed by Deleuze, whom he reads as a staunch realist. Informed by dynamical systems theory, differential geometry,

- 28 See Stacy Alaimo, Michael Hames-Garcia, and Susan Hekman, eds., Material Feminisms (Bloomington: Indiana University Press, 2008); Stacy Alaimo, Bodily Natures: Science, Environment, and the Material Self (Bloomington: Indiana University Press, 2010); Karen Barad, Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning (Durham, NC: Duke University Press, 2007) and "Posthuman Performativity: Toward an Understanding of How Matter Comes to Matter," in Signs: Journal of Women in Culture and Society 28, no. 3 (Spring 2003); and Myra Hird, The Origins of Sociable Life: Evolution After Science Studies (Basingstoke: Palgrave Macmillan, 2009). In The Material of Knowledge: Feminist Disclosures (Bloomington: Indiana University Press, 2010), Susan Hekman presents a feminist realism which, while not directly focusing on science as the point of convergence, also proposes that the mutually constituting effects of matter and discourse breach the constraints of orthodox post-structuralism.
- 29 Elizabeth A. Wilson, Psychosomatic: Feminism and the Neurological Body (Durham: Duke University Press, 2004) and Neural Geographies: Feminism and the Microstructure of Cognition (London: Routledge, 1998).
- 30 Catherine Malabou, *What Should We Do with Our Brain?*, trans. Sebastian Rand (New York: Fordham University Press, 2008), 81–82.
- 31 Catherine Malabou, Plasticity at the Dusk of Writing: Dialectic, Destruction, Deconstruction, trans. Carolyn Shread (New York: Columbia University Press, 2010), 59. For Malabou's neuroscientific critique of psychoanalysis, see The New Wounded: From Neurosis to Brain Damage, trans. Steven Miller (New York: Fordham University Press, 2012) and, with Adrian Johnston, Self and Emotional Intelligence: Philosophy, Psychoanalysis, and Neuroscience (New York: Columbia University Press, 2013).

group theory, and evolutionary biology, DeLanda vindicates Deleuze's rejection of the "hylomorphic model," in which entities arise through the imposition of form on inert matter, in favor of a conception of nature as intrinsically self-organizing. Eschewing any notion of fixed essences (natural kinds, species, archetypes), entities emerge at all scales and levels of complexity as historical contingencies manifesting various capacities and tendencies (which Deleuze calls "affects" and "singularities") inherent in matter itself.³²

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The clarification of important and serious divergences in the respective terminologies and ambitions of the core arguments of current realisms and materialisms throws light on the broader issues at stake in them. In general terms, and by way of summarizing the above positions, *materialists* (who hold that all that exists is matter, material forces, and physical processes) tend to be *realists* (who hold that reality is fully mind-independent), but the reverse need not hold (since what is real need not be materially manifest, symbolic meaning being a leading example).

Harman rejects materialism, seeing it as "the chief enemy" of his object-oriented realism insofar as materialism views objects as either reducible to smaller components and forces or mere bundles of qualities.³³ Laruelle's realism rejects materialism "in the name of matter," arguing that materialism remains a philosophical theory of matter that conceives matter in its own philosophical self-image rather than encountering it in its own right.³⁴ On the other, more "materialist," hand, Meillassoux eschews the term "Speculative Realism" in favor of "speculative materialism" in order to distance himself from "naive realism" and ordinary conceptions of "reality."35 Brassier is also committed to the materialist naturalism of the sciences rather than a broadly conceived realism, just as materialist feminism is committed to reviewing embodiment on the basis of its scientific accounts. Furthermore, while the term "idealism" (the view that reality is fundamentally mental or mind-like) generally remains a slur within realist and materialist contexts, describing a position kindred to the correlationism they oppose, Grant and Brassier each affirm a kind of idealism as integral to their respective realist undertakings; DeLanda, in contrast, is a materialist who rejects all idealism, instead endorsing a scientific realism that affirms the ability of science to describe a mind-independent world.

- 32 Manuel DeLanda, *Intensive Science & Virtual Philosophy* (London: Continuum, 2005) and *Deleuze: History and Science* (New York: Atropos Press, 2010).
- 33 Graham Harman, "Realism without Materialism," SubStance 40, no. 2 (2011): 60; "I Am Also of the Opinion that Materialism Must Be Destroyed," Society and Space 28, no. 5 (2010): 772–90; and The Quadruple Object, 13–16.
- 34 François Laruelle, "The Decline of Materialism in the Name of Matter," trans. Ray Brassier, The Non-Philosophy Project, 159–69; and Ray Brassier, "Alien Theory: The Decline of Materialism in the Name of Matter" (Ph.D. diss., University of Warwick, 2001), available at www.cinestatic.com/trans-mat/brassier/alientheory.pdf.
- 35 Quentin Meillassoux, "Time without Becoming," trans. Robin Mackay, Spike 35 (Spring 2013).

Π

For the last generation and a half, critical art practices and theories have taken up post-structuralist, psychoanalytic, and Marxist challenges to conventions of originality, authorship, and identity. In this paradigm, art is construed as always caught up in webs of discourse and interpretation without origin, end, or ground. Epistemologically, in both its theoretical and practical dimensions, contemporary art has tended to reject naive conceptions of representation and signification that construe images and signs as picturing or designating a pre-given world. Ontologically, it rejects essentialism, that is, the construal of the world as manifesting fixed conceptual or material essences to which images and signs would refer. In contrast to the fixity and inflexibility of essentialism, contemporary art aims to account for and foster the contingency of meaning, the multiplicity of interpretation, and the possibility of change: signs are tracked, interpretation encouraged, representations mobilized through associative networks that give them meaning—networks that are always in flux, thus ensuring that meaning is never fixed or stable. In sum, contemporary art practice, criticism, and theory maintain that experience is always necessarily mediated by the symbolic field.

These approaches have been culturally effective; but the freedom they offer comes at the cost of an epistemological and ontological insularity. Nature and/or matter are taken to be merely a social construction; science is but a historical and cultural discourse having no priority over other discourses; and truth is always only a problematic concept, at best the measure of a claim's coherence relative to other accepted claims or simply a term applied to claims that are currently uncontested. It is precisely these assumptions and conventions that are directly and explicitly challenged by the resurgent interest in realism and materialism. What is not at all apparent at this point is what traction that challenge will have on contemporary art, nor what of its current artistic, institutional, and critical orthodoxies will be effectively transformed. While Meillassoux and Brassier have collaborated with sound and noise artists, and Harman has asserted the centrality of aesthetics to philosophy, these philosophies have in general had very little to say about art and cultural practices.³⁶

Meillassoux's conception of hyper-chaos inspired Florian Hecker's CD Speculative Solution (Editions Mego, 2011), to which Meillassoux contributed an essay (reprinted in this volume). This collaboration was further developed in "Urbanomic Document #1," a discussion between Meillassoux, Hecker, and Robin Mackay, available at www.urbanomic.com/Documents/Documents-1.pdf. Ray Brassier has recorded with noise musicians and improvisers such as Mattin, Jean-Luc Guionnet, and Seijiro Murayama. He also wrote the essay "Genre Is Obsolete," in Noise and Capitalism, ed. Mattin and Anthony Iles (Donostia-S. Sebastiá, Spain: Arteleku Audiolab, 2009), 61–71. Available at blogs. arteleku.net/audiolab/noise_capitalism.pdf; and contributed to two other essays on noise: "Metal Machine Theory" (with Mattin), Revue & Corrigée 86 (December 2010), available at www.mattin.org/METAL_MACHINE_THEORY.html; and "Idioms and Idiots" (with Mattin, Guionnet, and Seijiro), Revue & Corrigée 93 (September 2012), available at www.mattin.org/recordings/IDIOMS_AND_IDIOTS.html). Harman's remarks on aesthetics appear in "Vicarious Causation," Collapse 2 (March 2007): 205; and "Aesthetics as First Philosophy: Levinas and the Non-Human," Naked Punch o9 (Summer-Fall 2007): 21–30, available at www.nakedpunch.com/articles/147. Harman and Brassier each elaborate on their respective earlier remarks in the interviews included in this volume.

Their ideas have, however, attracted a great deal of attention from artists and curators. One of the first presentations by a public institution of SR in relation to contemporary art was "The Real Thing" at Tate Britain in 2010, an exhibition and panel discussion curated by philosopher and publisher Robin Mackay. Its premise was to explore a human-indifferent universe, including works that dealt with themes of death, depopulation, and linguistic disorientation.³⁷ The project was part of Mackay's independent venture Urbanomic, a publishing house and arts organization that has played a decisive role in advancing realist and materialist contentions within and outside of philosophy, particularly through the journal *Collapse: Philosophical Research and Development*, which published the proceedings of the Goldsmiths conference.³⁸ In collaboration with Sequence Press, a publisher housed in Miguel Abreu Gallery in New York, Mackay has also played a leading role in presenting these ideas and practices to the Anglophone world through his translation and publication of key texts by Laruelle and Meillassoux, as well as Reza Negarastani's writing on art.

Though Mackay and others have championed the more staunchly rationalist versions of speculative thought associated with Brassier and Meillassoux, the emphasis in contemporary art has in general been on object-oriented philosophy as initiated by Harman and developed by writers such as Levi Bryant and Timothy Morton, whose frequent talks in art institutions have popularized their ideas among nonspecialist audiences.³⁹ A chief attraction of object-oriented philosophy for the art field is that it reconsiders the art-friendly term "object." Moreover, many of the curatorial and artistic responses to Object-Oriented Ontology (OOO) have focused on its ontological "flattening" of the traditional hierarchy of humans over nonhumans and decentering of the human subject, proposing that all entities distort relata in equal measure. Such claims accord well with modern and contemporary art's long-standing interest in the limitations of human perceptual and linguistic

- 37 "The Real Thing" was part of Tate Britain's monthly Late at Tate series, so the exhibition was a temporary intervention into the museum's collection. No catalogue was published, but an overview of the program is available at www.urbanomic.com/event-ufi2-details.php. Brian Dillon's review of the evening appears in "The Real Thing," *The Wire* 321 (November 2010): 74. Other projects that have taken the extinction of humanity or the "deep time" of cosmic archeology as their organizing claims are "Cosmophobia" (2012), curated by Tom Trevatt, Berlin, and "Suicide Narcissus" (2013), curated by Hamza Walker, Chicago.
- 38 For an early review of the journal, see Jon Roffe, "Review Article: Robin Mackay (Ed.), Collapse: Philosophical Research and Development," in *Parrhesia* 4 (2008), 79–80. Available at www.parrhesiajournal.org/parrhesiao4/parrhesiao4_roffe.pdf.
- 39 Early conferences dedicated to the topic of Speculative Realism within the art field, which have almost exclusively focused on object-oriented philosophy, include: "Object-Oriented Thinking" at the Royal Academy in London, July 2011; "OOO III: The Third Object-Oriented Ontology Symposium," Vera List Center for Art and Politics, New York, September 2011; "Ungrounding the Object" at Treignac Projet, Le Centre international d'art et du paysage de l'île de Vassivière, in Limousin, September 2012. "War Against the Sun," the second conference organized by the Treignac Projet, which took place in London in March 2013, hewed closer to a materialist set of concerns. Robert Jackson's article "The Anxiousness of Objects and Artworks: Michael Fried, Object Oriented Ontology and Aesthetic Absorption," in *Speculations* 2 (May 2011) investigates the congruence of OOO with a modernist program in visual art. Available at www.speculations.squarespace.com/speculations-2.

conditions of understanding, as they have also (sometimes contradictorily) advocated for a relative independence and internal logic for the artwork in its material and formal dimensions.

To date the most prominent project inspired by object-oriented thinking is the latest iteration of the leading exhibition platform in transnational contemporary art, Documenta 13 in Kassel in 2012. Curator Carolyn Christov-Bakargiev likened the show to an organism whose program offered a "holistic and non-logocentric vision," whose associative structure insisted upon "a more balanced relationship with all the non-human makers with whom we share the planet and our bodies." ⁴⁰ Many projects drew on ecological themes and the political agency of objects, with texts by Harman, Haraway, Braidotti, and Karen Barad included in the exhibition catalogue. Although many of its installations addressed scientific knowledge claims, the education arm of Documenta 13, called "Maybe," hoped to "[indicate] the impossibility of reducing art—and any other complex form of knowledge—to a single explanation, question, subject matter, or paradigm," showing how "art and artistic research often avoid any form of stable meaning." ⁴¹

These familiar post-structuralist truisms about the indeterminacy and contingency of meaning have little to do with the way empirical science is taken up by naturalists such as Brassier or materialists like DeLanda. For them, scientific knowledge eliminates unknowns and offers a corrective to philosophical relativisms. In this latter vein, "In the Holocene," an exhibition organized by curator João Ribas at MIT List Visual Art Center in 2012, presented art as a form of experimental inquiry working in parallel to natural science.⁴² The show included artworks dealing with questions of entropy, consciousness, perception, and deep time, proposing that, while different from the work of scientists, these artistic outcomes engaged similar questions and could thus expand upon science's speculative potential rather than merely respond to its insights. Whether the normative and natural constraints that accompany scientific hypothesis and reasoning have a corollary in the art field—and if so, what these constraints might be—is a question that the exhibition left unaddressed.

Another palpable influence on contemporary art at large and the Documenta 13 project in particular is the sociologist Bruno Latour, and especially his cross-disciplinary curatorial projects, among them "Iconoclash" (2002) and "Making Things Public" (2005), both organized with Peter Weibel at ZKM, Karlsruhe. In keeping with Latour's deconstruction of the modern boundaries between culture and nature, these exhibitions subverted the primacy of art objects, generating an assemblage of scientific and cultural artifacts that create a mutually

- 40 Carolyn Christov-Bakargiev, "The Dance Was Very Frenetic, Lively, Rattling, Clanging, Rolling, Contorted, and Lasted for a Long Time," dOCUMENTA (13) The Book of Books, Catalog 1/3 (Ostfildern: Hatje Cantz, 2012), 34.
- 41 "The Maybe Education and Public Programs of dOCUMENTA (13)," available at www.d13.documenta.de/#/programs/.
- 42 "In the Holocene," MIT List Visual Arts Center, 2014. Published in conjunction with the 2012 exhibition of the same name; see also listart.mit.edu/node/937#.UuFXE_Yo62x.

translating and networked exhibition environment. Before the introduction of SR, Latour's actor-network theory, along with related "thing" theorists such as anthropologist Arjun Appadurai and visual studies proponent Bill Brown, found an early audience in art circles, insofar as each spoke of objects in quasi-anthropological terms, giving them social lives, desires, and agency.⁴³ In this vein, and even though they draw on the precepts of postmodernist cultural theory, a number of recent projects paralleling the emergence of SR have focused on the agency of objects. Drawing heavily on Latour's book We Have Never Been Modern, Anselm Franke's "Animism" (2010–2012) drew parallels between an animistic worldview comprised of enchanted objects and Latour's notion of objects as "actants," difference-making agents with significant effects on human sociality.⁴⁴ In a similar vein, "Ghosts in the Machine" (2012), curated by Massimiliano Gioni and Gary Carrion-Murayari at the New Museum in New York, explored technology's anthropomorphic dimension; and Mark Leckey's UK touring exhibition "The Universal Addressability of Dumb Things" (2013) examined how digital interfaces are changing the way that humans perceive objects, enlivening them and making them seem progressively more human.⁴⁵ These projects have been associated with OOO, each attributing a kind of agency to objects, even reinscribing quasi-human characteristics onto nonhuman things, and also in some cases delimiting the expanded notion of "object" proposed by OOO to material things.⁴⁶ As such, however, they have unwittingly and ironically reversed OOO, extending correlationism to specifically material and otherwise inert objects.

More generally, realist and materialist ideas have generated new emphases, thematics, and claims for both artworks and exhibitions. Some terms associated with these new subjects include (but are not limited to): ancestrality, techno-animism, dark ecology, cosmology, de-anthropocentrism, animality, hyperstition, and affect. And while curators and artists seem to be asking new and important questions about the relationship between subjects and objects (in their limited or expanded sense), or focusing their attention on the aesthetics of non-humans, there has been

- 43 Both Brown and Appadurai edited acclaimed publications on "things" as objects of critical inquiry. See Bill Brown, "Thing Theory," *Critical Inquiry* 28, no. 1 (Autumn 2001): 1–22; Arjun Appadurai, "Introduction: Commodities and the Politics of Value," in *The Social Life of Things: Commodities in Cultural Perspective* (Cambridge: Cambridge University Press, 1986).
- 44 "Animism" had several distinct iterations: at Extra City and MuHKA, Antwerp (2010); Kunsthalle Bern and Generali Foundation, Vienna (2011); Haus der Kulturen der Welt, Berlin (2012); and e-flux, New York (2012).
- 45 Materials related to Mark Leckey's exhibition appear in *The Universal Addressabilty of Dumb Things* (London: Hayward Publishing, 2013) and on the website www.southbankcentre.co.uk/find /hayward-gallery-and-visual-arts/hayward-touring/future/the-universal-addressability-of-dumb-things. The New Museum exhibition "Ghost in the Machine" was accompanied by the catalogue *Ghost in the Machine*, ed. Massimiliano Gioni and Gary Carrion-Murayari (New York: Skira Rizzoli, 2012) and the website www.newmuseum.org/exhibitions/view/ghosts-in-the-machine.
- 46 See also "Speculations on Anonymous Materials" (2013), curated by Susanne Pfeffer in Kassel, which considered a number of post-Internet practices in light of the processual nature of image creation and visual reflexivity across networks.

far less attention given to the dilemma implicit in the term *art* itself, whose post-Duchampian legacy has focused on the way that signification shifts within linguistic and cultural framing.

That is, if realism and materialism are to follow through on their claims to radically reorganize modern epistemological and ontological categories (including epistemology and ontology themselves), whether it be toward the emphatic rationalism of naturalist idealists or toward a materialist position seeking an origin for aesthetics in inhuman forces, we should anticipate not only new themes for art practices, exhibitions, and cultural production, but also starkly different ways of making, perceiving, thinking, and distributing them. What is left relatively unexamined—and presents a much greater problem for current orthodoxies of cultural and artistic production—is the systemic and methodological challenge that a thoroughgoing realism and/or materialism presents to the way that exhibitions or artworks claim to produce meaning in their prevailing paradigms. At this point in time it remains to be seen how artists, curators, and other cultural producers will take up realist or materialist demands in distinction to the concerns and claims mentioned above. Questions here include: Will developments in science lead to new norms or standards for artistic judgment? Can art be anything more than a mere metaphor or analogue for science? Can art redress issues of spectatorship in a world indifferent to the human? And how are authorship and representation to change when one acknowledges the material origins of human thought and the material forces at work within an artist's process?

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There is then no uniform or particularly consistent account for the current conditions, ambitions, and frameworks of realism, materialism, and art: the fracture lines between Object-Oriented Ontology, rationalistic naturalism, and materialism lead to distinct questions with disjunctive implications. *RMA* reflects this incongruity as well as the still unresolved set of relations these methods have to one another, looking not to settle these arguments but, on the contrary, to advance the contesting and unsettling of these proto-doctrines in both their theoretical and cultural-practical development.

RMA aims, first, to catch key moments in the current discussion of realism and materialism, predominantly in relation to art but also in relation to other fields; second, to expand the terms of engagement of realism, materialism, and art; and, third, to affirm the contention that no thematic or discipline has a privilege in realist or materialist investigations. On this basis RMA seeks to contribute to the reconstruction of the disciplines in which it would be conventionally located: philosophy and art. Rather than the frequent direct (mis)identification of art with theoretically led realist-materialist contentions on the basis of their mutual incomprehension, RMA elaborates and extends both sides by substantializing their intersection.

This ambition is not only a thematic concern for RMA but also one of structural organization: the essays and images in the book are proximate to one another as in a snapshot or collage, in order to generate new intersections, convergences, divergences, and switching points among them. With this "snapshot method," RMA does not look to provide a coherent panoramic vision that would underwrite a new philosophy of art, nor to propose an art that confirms an established philosophical stance, nor even to suggest that art escapes philosophical determination. Instead, its contribution is a common and mutual one for both art and the salient philosophies of realism and materialism, emphasizing the incongruent if not conflicting status of their currently emerging practices and ideas. To that end—and in addition to the various connections that may be drawn between any subset of the essays, images, or themes in RMA—the essays and images have been distributed into six significant categories relating to the history and practice of art, art history, and art theory: matter, object, concept, representation, scale, and speculation. These familiar categories act as identification markers for the reader across the otherwise diverse contributions, and they have a further twofold aim: on the one hand, in their stipulated proximity to one another in any one category, the contributions put pressure on current philosophical, scientific, artistic, and theoretical research mobilizing these major terms;⁴⁷ on the other hand, these familiar if not canonical categories are themselves challenged and reworked by the diverse contributions gathered under them, thus reshaping the conventional sense of the categories themselves. The major categories also serve a useful didactic purpose: each is sequenced so as to initiate the reader into key issues in current debates by offering entry points. These are followed by contributions that require greater background knowledge of the issues at stake or terms of debate. While the order of the categories charts a broadly idealist or pseudo-evolutionary trajectory, proceeding from a material base to the expansion of thought beyond itself, this is only a dramatic conceit, set up precisely in order to formulate and stage their contestation by the individual contributions as by the global ambitions of realism and materialism in their current iterations.

⁴⁷ Matthew Ritchie's diagrams on the inside covers of this volume present counter-orderings for the essays in *RMA*, both within the primary categories we propose and within an entirely different set of categories. Each organization puts a different pressure on the thematic terms.