ECOLOGICAL AESTHETICS

NATHANIEL STERN

**artful tactics
for humans,
nature, and
politics**

ECOLOGICAL AESTHETICS

INTERFACES . . . studies in visual culture

This series, sponsored by Dartmouth College Press, develops and promotes the study of visual culture from a variety of critical and methodological perspectives. Its impetus derives from the increasing importance of visual signs in everyday life, and from the rapid expansion of what are termed "new media." The broad cultural and social dynamics attendant to these developments present new challenges and opportunities across and within the disciplines. These have resulted in a trans-disciplinary fascination with all things visual, from "high" to "low," and from esoteric to popular. This series brings together approaches to visual culture—broadly conceived—that assess these dynamics critically and that break new ground in understanding their effects and implications.

For a complete list of books that are available in the series, visit www.upne.com

UPNE

NATHANIEL STERN

. . . ECOLOGICAL

AESTHETICS
artful tactics
for humans,
nature, and
politics

UPNE

COVER IMAGE: Mushrooms knit from plastic bags, an offshoot of the larger Yevgeniya Kaganovich project discussed in chapter 10. *Grow*, durational project finale, Lynden Sculpture Garden, 2016. Photo by Yevgeniya Kaganovich. Sculpture in background: *Axeltree*, 1967, by Alexander Liberman.

An article that summarizes several of the nascent ideas for this book, thought alongside some of Sean Slemon's work in "Concerned: thinking trees and *Goods for Me*," first appeared in *Critical Arts* as "Ecological aesthetics: thinking trees and *Goods for Me*" (Routledge, 2016); a short "Organic Intelligence" was in the ACSA 2018 Conference Proceedings; and a version of "*Other-frames*: Media, Mediating, and Immediate Ecologies" was first printed in *Immediations: Art. Media. Event* (Open Humanities Press, 2017).

CONTENTS

ECOLOGICAL AESTHETICS

1... ABOUT THIS BOOK
arguing, thinking, and telling stories

The question is not, What does this artwork *mean*?
It is, rather, What does this artwork *do*?
And in that case we must also ask, What does this *book* do?

This book argues . . . even though I often tell my graduate students that texts, as things, do *not* argue, that writers should rather assert *themselves* in their theses (Say it with me, "With this book, *I* argue . . ."). But this book *does* argue. The fact of matter is that it *all* argues. Matter perceives; matter moves; it feels and it thinks.

Matter perceives, in that it takes account of its surroundings and shifts trajectories of becoming: a tree grows around that tiresome river or toward the light of its fancy; an electron jumps and swerves from atom to molecule, and eventually finds its desired equilibrium; a cliff erodes against water and wind, perhaps eventually crashing into the sea; the sea then moves in and around, a torrent of interfering waves and currents, in its new and always ongoing composition. And matter *changes* as it moves as well. A molecule's proximity to another changes density; jumping electrons change the molecule; and so on. Matter feels outward and perceives and moves, responds and reacts, then feels and perceives and moves and changes once again.

Matter thinks and argues. Perhaps not in the way a human consciousness thinks or argues—and this debate is discussed in chapters 3 and 9—but any-thing, and certainly this book, can be said to be part of, as intellectual historian Nicole Ridgway calls it, an "event" of thought (2017: 227). Is thought exclusively human? Only inasmuch as my own thoughts are exclusively my own—and they are most certainly not. Other thoughts and ideas and arguments preceded what *I* think, and these changed me, my thoughts, my ideas. These other-thoughts were themselves not completely original, were birthed, transformed, and amplified by other-things, both human and nonhuman: artists and artworks, writers and writings, books and the internet and the various pages therein, the earth, the sky, that blue, this light, the fact that I lost my keys (or they lost me) the day I originally

typed this very sentence. (Side note: aforesaid keys do not agree that they belong to me, or even that we belong together; they are often co-conspiring with pockets, each other, gravity, and a plethora of other collaborators—of this, I am sure—so as to make me look bad to my colleagues and peers.) Each of these bodies is a force on thought, a force *of* thought, a "thought in the act" (Manning and Massumi 2014).

And so when I say that this book argues, or as I prefer it, that it *thinks*, it—like any of us—never does so alone. Thought, Ridgway via Foucault reminds us, is "not restricted to the experience of the thinking subject or to the manifestation of subjective thought in discourse" (2017: 214). This is a thinking-*with*, similar to philosopher Jean-Luc Nancy's "being-with," where "with" is not an addendum to thought or being, but its very precondition (2000). For Nancy, being is never isolated between individual *things*; it is always *in* the world, and in *relation*, or, better said, *of* the relation. Being is *always* being-with; and this book argues that thinking, too, is a relation. This book thinks-with me and everything I was and continue to be, with you and your continuity, with art and artworks, and time and space, and words and ink and paper and more. It was a force of many-things before I and my computer began typing, and will act as a force, however small, even beyond its own various physical instantiations. (That said, I'm sure your screen is affecting your eyes, or the weight of the book affecting your arms and hand, or my voice pulling you in, as you read or listen to this text at some point in the future from my original writing.) Thought is always moving and feeling, as well as thinking, across a multitude of actors and fields.

THOUGHTS both are, and generate, fields of force that open creative potentials in what might unfold. Thinking is, and facilitates, a practice of experimentation with the present, aimed toward new futures. And thoughts can begin from, be transformed, amplified, interfered with, dispersed, or diminished by, any-thing.

This book *thinks-with* art. Not Art with a capital *A*, as in its techniques, or ideas, or largest category. But art, lowercase *a*, as in individual pieces and series and events. The former, "Art," encompasses practices and objects that enable, facilitate, and *are* an adventure in and around thought. Art does not illustrate or philosophize, but helps to create an encounter and experience that has us think anew, and then continue practicing new thoughts. Art is one place from where thought may proceed. The latter, "art," connotes *specific* artworks; after all, it is not the category, but a *work* of art that *does* things, *thinks* and *provokes* thought. And in this book, art and writing, thought and intervention, activism and installation, are all always already practiced together, moving one another, setting each other on their way. This book (as art and writing, thought and intervention, activism and

installation) continues that moving-with and thinking-with and feeling-with, around a dozen or so artists and artworks —ranging from print to installation, bio art to community activism. It proposes and enacts "an action, a conduct, a practice" of experimentation outside the "safety of the category (be it medium, form, or self)" (Ridgway 2017: 224, 218). Each chapter narrativizes, with art, our experience and practice of complex systems and forces, an experience and practice of thought.

Thought is, perhaps, what resonates.

Thought is that moving back and forth between what philosopher Brian Massumi sometimes refers to as "stable spatial ordering and disruptive eventness" (2008: 31), between what *happens*, and how we understand it, between affection and reflection. "Intensity of experience and extension of it. Perception and action . . . Presentational immediacy and causal efficacy. Appearance and reality . . . Vision and narrative re-vision" (ibid.: 31).

Vision is never vision alone. Because of sense-based memories and cross-modal perception, I know what that cherry, slatted, wood table I see will smell and feel like, that there may be something sticky if I slide my hand along its underside; I know whether or not it would hold my weight were I to stand on it. Cross-modal perception is when sensation and memory carry perception to our other senses in just this way. Vision, like thought, is an action and practice, a *doing* that carries the potential for *doing more*. And narrative re-vision proposes yet *more*: *seeing* more, *doing* more, wandering and wondering, *thinking*. Thought is always of the relation, not only between polarities like affection and reflection (they are not dualities), but between every-thing, and the *moreness* things can and might produce, together. Thought (and art), amplifies how it is that we *are*, and more importantly asks how we *could be*.

Thought, thought in this way, is the project of this book. It uses, as its tactic, and facilitates, as a framework, a going back and forth between "vision and narrative re-vision." Defined more extensively in chapter 3, a tactic is an agile, material, and detail-oriented (tactile) approach to making change. It is opposed to a strategy, which takes a more institutional (structured) and less flexible approach, toward specific ends. And a framework is a more loosely defined structure (e.g., a classroom, vocabulary, or

To **NARRATIVIZE** is to make and tell stories about. The narratives proposed may or may not be "true," but are, more importantly, like art, an experience and practice into different kinds of engagement. Thinking can be inaugurated or revived, transformed or amplified, via art, stories, writing, individuals, groups . . . And in this book, narrativization, as tactic, attempts the experience that must be thought.

set of tactics) for experimentation and thought. The book's core contribution, then, is not a concept or thesis, per se, but a *model* of thinking-with, a *practice* of generous and generative thought, that can and should be practiced. The connective tissues between sections and thoughts are at some times explicated, at other times implied, and yet other times still stretching themselves out and about: forming and folding, being and becoming, learning and thinking with art and artists, and me and you, through its *style* of looking-, and showing-, and telling-with, as argument. Style is, after all, not only the manner in which we do things; it is the look and feel, the sensations that try to make sense, the aesthetics that make a case.

In this, *Ecological Aesthetics*, the book, is not a survey of a certain kind of art. It in fact purposely avoids explicitly defining what "gets to be" eco art, as such categorizations imply value or the lack thereof, whereas this book's goals are to *find* value in thinking-with.[1] Nor is this book a theoretical text that uses art only to support the ideas contained therein. And it is not attempting to be *the* definitive book on either ecology or aesthetics. Rather, it attempts to *do* what art and aesthetics can do, at their best.

In the 2015 "New Materialisms" issue of *Cultural Studies Review*, the journal's guest editors ask how we might "consider aesthetics beyond the assessment of cultural expressive patterns" and instead "as the initial impingement of the world's materialities from physical locales to mediatised textures upon us" (Tiainen, Kontturi, and Hongisto 2015: 14).[2] Art and aesthetics, I continue, invite us to *practice* new and different kinds of encounter, with varying modes of concern, or sympathy, or care, through our ongoing activities in and with and as a part of the worlds we inhabit. Art and aesthetics *intensify* the *with* of moving and thinking and feeling (Stern 2013). *Aesthetics*, both the term and its practice, conjure experiment and experience, internal and external. Aesthetics and art *perform* and *examine* togetherness, asking how we might do things differently, or better.

This book (and the art it thinks-with) is both an artistic and aesthetic project, in this manner. It reflexively thinks-*with*. *Ecological Aesthetics* offers—that is, it frames, presents, and suggests—a rhetorical practice that attempts to bind communities, local and global, through a commitment to pedagogy, and broader access to theories of art, through methods of storytelling that are always both personal and political, even though the art discussed may not always seem as such on first glance. It asks, What if we *thoughtfully* thought-with, in this way, all the time? As Amanda Boetzkes, who read an early draft of

PRACTICE is both noun and verb. It is to experience and play, to think critically and experiment, to strive for something better in whatever it is we are practicing.

the manuscript, notes, the "subject matter is precisely the deepening of awareness and appreciation of connectivities, relations, events, and the unfolding of reality at different registers and scales." Here its "impact lies in its consolidation of an art community, and putting weight on the significance of local interventions and aesthetic engagement." The sometimes little-known artists are meant to be exemplary for any and all communities, and the "style and organization [are] precisely where its contribution is most noticeable . . . like a gentle manifesto, moving between strong statement and rich description" (Boetzkes 2016). Like one of many predecessors, *Relational Aesthetics* (Bourriaud 1998), *Ecological Aesthetics* does not present "a theory of art . . . but a theory of form . . . a structure" (ibid.: 19), or framework. It re-cognizes (and asks us to re-cognize, that is, think again) conceptual-material formations around art, thought, and us, and explicates their implications. It creates narratives on, about, and by the various cross-sections of humans, nature, and politics, in and as works of art. "Look!" it screams, "This art has subtlety! And both it, and that, are relevant!"

Relational Aesthetics, coined by Nicolas Bourriaud in the 1990s, takes as its frame "human relations and their social context, rather than an independent and private space" (1998: 113). While much of this art still takes place in the gallery, it is in front of a piece, where people meet and chat about it, that the "work" happens. Prints, videos, and traditional objects may be analyzed through Relational Aesthetics, but the work is also often a proscenium for action, a staged event, and/or a call for participation. And Relational Antagonism follows a critique of Relational Aesthetics from Claire Bishop (2004), where she asserts that by introducing some forms of antagonism into art-based events and relationships, participants will more successfully be engaged with democratic processes than when simply confronted with a relationship toward no specific end. *Ecological Aesthetics*, then, takes the *being-with* of people, ideas, and things as its aesthetic framework. Thinking and moving and feeling, matter and concepts and time, humans and nature and politics, are all part of the same relational field: creating, transforming, and mobilizing themselves and the others, together. *Ecological.* And in this book, I present the tactic of *stylized narrativization* to have us encounter and concern ourselves with what *can* and *is* said-, shown-, experienced-, or practiced-*with* a work of art (and the world), *how* and *why*, and (most importantly) the *stakes* therein. *Aesthetics*.

AESTHETICS, as it is discussed in this book, is five things: what *can* be said, shown, experienced, or practiced; what *is* said, shown, experienced, or practiced; *how* it is said, shown, experienced, or practiced; *why* it is said, shown, experienced, or practiced; and, most importantly, the stakes therein. It is, overall, an orientation toward thought (and thus action).

This book thinks, and asks us to think, with the world.

People and peoples are always in process with the world around us; we are only a small part of intricate, complicated, and ongoing systems; *we* are always more than the boundaries of what we know, or feel, or make. *Ecological Aesthetics*—both the book and the aesthetic I believe is surfacing in contemporary art and art criticism, in philosophy and politics and elsewhere—makes such linkages felt (and thought). Here "ecological" is not limited to its everyday definitions around environmentalism or biological organisms, but encompasses thought-felt encounters with relations between all of matter and its ideas, which are "vibrant, vital, energetic, lively, quivering, vibratory, evanescent, and effluescent" (Bennett 2010: 112).

AFFECT is, most simply, unqualified emotion. My palms are sweaty; my heart is racing; I have butterflies in my stomach. Is this fear? Anger? Lust? All and none? The body knows, is, and does things, without "my" knowledge, desire, or comprehension. Affect is an embodied sensation and response that does not have a name (. . . yet). And here *affection* is a moving-thinking-feeling both before, during, and after conscious *reflection*, each influencing the other. Nonhuman affect is, similarly, matter's embodied sensation and response—its knowing, being, and doing. Like a human body—its liquids, solids, and gases, its chemicals, cells, and other forms—matter's various bodies also sense and make sense in and with the world.

In his thoughtful (pun intended) and provocative plea for a more radical openness and coexistence, Timothy Morton calls the realization of our interconnectedness "the ecological thought" (2010). I am asserting, rather, that all thoughts and thinkings are generated, dispersed, and interfered with, affected, affective, and affecting, *in and around* that interconnectedness. And the best of art intensifies the sometimes seemingly-at-odds connections we have—as individuals, peoples, stuff, things, propositions—and more importantly, it presents how we move and are moved, continuously changing those relations, and thus ourselves and the world around us. Such art can and should be experienced, practiced, and studied through the ecologies at play in and around and *as* their work, be they material, conceptual, environmental, personal, social, economic, and/or otherwise. At stake is nothing less than what might be learned from, or can occur with, any given system and its "outside(s)": its/their affects and effects, in and around.

As philosopher Jacques Rancière so often reminds us, aesthetics are not so different from politics. "Politics revolves around what is seen and what can be said about it, around who has the ability to see and the talent to speak, around the properties of spaces and the possibilities of time" (Rancière 2004: 8). In brief, it is the struggle for recognition from an unrecognized party in any established system, and the perceptions and activities that sustain or change that

order. And here we must open up our definition of politics from the narrow terrains of policy and the democratic process, institutions and civic society; we must instead move and think and feel around an everyday politics of matter, people, and things.

Political theorist Jane Bennett avers, in her 2010 book *Vibrant Matter: A Political Ecology of Things*, that it is a political act "when people distribute themselves into racially and economically segregated neighborhoods," regardless of their intent (perhaps they are just following a trend—though it affects finances, crime, and transportation); and it is likewise a political act with impact when "invasive species" such as zebra mussels move to Milwaukee, or worms migrate to a savanna-forest border, changing how we fish and/or moving the border itself (Bennett 2010: 98). Political acts are activities (ranging from seeing, showing, or moving, to making, breaking, or taking) that sustain, or change, systems of power. Politics and power are played out on all levels.

And aesthetics, Rancière says, "refers to . . . a mode of articulation between ways of doing and making, their corresponding forms of visibility, and possible ways of thinking about their relationships" (2004: 4). It is, perhaps from Rancière's perspective, the *style* of thinking-with (and its expression) that influences and sometimes enacts politics. And it, too, plays out on all levels. Here, I continue, aesthetics is not merely about art, or philosophy. It helps us sense and think, predict and act, is the orientation with which we might approach any- and every-thing.

Both aesthetics and politics, Rancière asserts, present forms of consensus and dissensus. The former is what is *accepted* "between sense and sense, between a fact and its interpretation, between speech and its account, between a factual status and an assignation of rights" (Corcoran 2015: 2). It is a supposition of identities and their power, what is regarded as *proper*. The latter, then, is a "demonstration of a certain *impropriety* which disrupts the identity," which no longer *consents* to the status quo (ibid.: 3). Steven Corcoran, who translated and introduced Rancière's *Dissensus: On Politics and Aesthetics*, explains that dissensus "is not simply a reordering of the relations of power between existing groups; dissensus is not an institutional overturning. It is an activity that cuts across [both] forms of cultural identity belonging[,] and hierarchies between discourses and genres, working to introduce new subjects and heterogeneous objects into the field of perception" (ibid.: 2). Dissensus is an activity—political, aesthetic, or otherwise—which intervenes in established and accepted hierarchies of power. Each of politics and aesthetics attempts to reorient

"general perceptual space" and disrupt "forms of belonging." They are *not* the same thing, but "politics has an inherently aesthetic dimension and aesthetics an inherently political one" (ibid.: 2). Politics always enfolds—and its speaking always requires—an aesthetic, and a narrative to go with it. It is played out over the image of society. And aesthetic choices are also often political ones; they have implications including and beyond those we think about and intend in their making. Politics and aesthetics need, transform, create, and mobilize each other.

This book is a part of, while also engendering, emphasizing, and calling for, a broad cross-section of materials and disciplines, artworks and artists, thinking and being, that engage with political and aesthetic compositions in just such a way. Perception and action, relation and reality, rules and exigencies, etiquette and transformation. Possibility and accountability, meaning, doing, and making. Art, and world, and us. Thought.

There will be a number of terms played with, fluidly thought and re-thought, problematized and reimagined, alongside artworks and thinkers, throughout this book. This is productive disruption, an/other tactic for thinking. And so it is occasionally, though not always, accented. Glossary-esque boxes appear (they really want to be apostils, or marginalia), within and alongside the core text. These terms, as well as others not highlighted in the same manner, continuously define and redefine how we might think-with words and movements, and thoughts and feelings. They annotate, critique, and illuminate, make strange and/or make sense of, the stories they are a part of. And the occasionally bolded phrases in each section highlight, disturb, and connect various thoughts on their way. They summarize and punctuate, making it possible to either enter deeply into reflective thought, or parse the entire book lightly for its overarching feel.

The ongoing definitions and accents/disruptions are also both tactics for narrativization; they're part of an ecological approach that both practices and models what this book recognizes and simultaneously calls for:

Stories.
Stories that think and change; stories that deconstruct and distill; stories that make and provoke new stories, new pasts, presents, and potentials—all *felt and thought*, both affectively and on reflection.

Artist and writer Erin Manning asserts that an "ecological approach is one which takes as object a *field* of mutual influence and co-adaptation between processes that are actively shaped through that interrelation, in a complex, coordinate evolution" (Manning 2013b; emphasis in original).

Said another way, by Steven Lam, "human and non-human agents are so deeply enmeshed it has become difficult to separate one from the network of political, economic, industrial institutions that exist today" (Lam et al. 2013: 145). Everything emerges from, and with, all things. And we must see and speak and act (politics), make and make visible (aesthetics), *think* them all, together. I do that with stories. Simple, but precious—and, perhaps, a bit too rare in current critical discourses. This book encourages you to tell stories with/ of matter and meaning, thinking and arguing, influencing and changing. They should be terminal and incipient, implicating and explicating. With the two former terms, remember that terminals (whether for buses and trains, or stories) are often beginnings, *and* middles, *and* ends. With the two latter terms, I'm referring to the Latin roots *implicare* and *explicare*: in-folding and un-folding, a topology of humans, nature, and politics.[3]

Humans, nature, and politics, too, are always already part of one another. The tree and river that feel and move and grow will affect the humans who want to build and *fold* and inhabit nearby, play a role in the politics that *unfold* for space, energy, and voting districts. Electrons—and what their desire for equilibrium can accomplish, en masse, when pushed a bit by fuel to enact machinery—run hospital equipment, enable me to chat with family overseas or look up reference texts online; they also start wars in the Middle East, cause horrible oil spills in the ocean, change policy, economics, votes, and more.[4] Electrons and electricity do not do this alone, but their actions, their thinkings and feelings, perceptions and responses, most certainly perform-"with."

I do not wish to take agency and responsibility for wrongdoing away from the purveyors of US congressional redistricting, the warmongers of the (first or second) Bush administration, or British Petroleum; but like Bennett, I do believe that an attunement to our surroundings, to the "agentic capacity" of the humans *and* nonhumans at play—the matter that matters (Barad 2003)—could make for "more ecological and more materially sustainable modes of production and consumption" (Bennett 2010: 33, ix). Says Bennett, "We are much better at admitting that humans infect nature than we are at admitting that nonhumanity infects culture, for the latter entails the blasphemous idea that nonhumans—trash, bacteria, stem

An **ECOLOGICAL APPROACH** takes account of, and speculates on, agents, processes, thoughts, and relations, together. We concern ourselves with how humans and nonhumans, matter and concepts, things and not-yet-things, politics, economics, and industry, past, present, and future, for example, are all actively shaped in, and as, their interrelations. We wander and wonder around "How?" and "Why?" and "Where to?" for each. It is both an ethical and aesthetic practice to think- and act-*with* in such a way.

cells, food, metal, technologies, weather—are actants more than objects" (2010: 115).

Bennett argues that "everything is, in a sense, alive" (2010: 117). Following her, some of the questions I and this book and many artworks together ask are, What if we paid attention not only to what such actants *do*, but also to what they *want*? What would it mean to *listen* to trash, bacteria, stem cells, books . . . to this tree or that electron, to the wind, the road, plastic bags, the art market, or our blood? What if we showed them a level of concern we normally only reserve for ourselves? Bennett calls for "a touch of anthropomorphism" that might find "a world filled not with ontologically distinct categories of beings (subjects and objects) but with variously composed materialities that form confederations" (2010: 99). Could an ecological and aesthetic approach such as this lead to an exponentially increased responsibility on our part, an ongoing and active encounter with the intimate interrelations between matter and potential, life and movement?

What would a book that attempts such an ecological approach look and feel like? How might it think and argue, *do* what matter and art and aesthetics and politics *do,* in its stories? Apparently, I believe (and hope) it might look something like what you are currently reading.

And how, then, might its readers (that is, *you*) be most engaged?

Please, write in the margins; add your own apostils. Take notes, scratch, fold, and tear. Sketch and play, argue and retell, make art and writing, curate and reflect, redefine and reimagine, approach and look for life, and *yes,* beauty, and thought. Take this book to the movies, or the beach, or out to dinner. Feed it, and feed off of it. It may change its mind, or yours. Look up the artists, their families, their Wikipedia and Facebook pages, Instagram, Snapchat, and Twitter feeds (or whatever the cool people are doing these days). Go see their work, or email them, or me. Think-with, and feel-with, and move-with. Don't think objectively or subjectively. Think contextually, in their, or your, or many other contexts, to find new meanings. What would this art, or politic, or person, do on Mars, or in Saudi Arabia? How would it change in a greenhouse, or after exposure to thousands of years of direct sunlight? What if it weighed nothing, or had the weight of the world locked in its core? Yes, I asked questions like this while writing. And you should, too. Could you do that, *differently*? *Should* you, in much the *same* way? What if; how might; why not; where to; who else?

Resituate, speculate, wonder, and propose.[5]

More than anything, I ask you to take on this book's project, by telling your own stories of art and writing, ecology and aesthetics, persons and peoples, nature and politics. Open yourself and your world to alternate narratives, possibilities, and potentials, swirling in and around us, on the virtual cusp, always just beginning to unfold. Continuously draw them out, as I, and this book, and art, begin to do. *Think of* and *with* it as an ongoing inauguration.

And though this book argues, arguing back with this book may or may not be the most productive way to engage. As Bertrand Russell is often quoted to have said about studying philosophy, "The right attitude is neither reverence nor contempt, but first a kind of hypothetical sympathy, until it is possible to know what it feels like to believe in [its] theories, and only then a revival of the critical attitude, which should resemble, as far as possible, the state of mind of a person abandoning opinions which [they have] hitherto held" (1972 [1945]: 39). Ask yourself, how is it that I (and this book) have come to understand this art (and life, and thought) as *doing* what it *does*? Could you take that on? Or, if you choose not to, could you still take on the aesthetic *style* of this book yourself? Its politics? What, then, would *you* resituate, speculate, wonder, and propose? How can *you* alter that experience? What *else* can you experience? Why do I believe this practice is of value? Can you practice this? What, you might ask, is worth practicing, and how might you experience or enact change once you practice this? What *else* might change?

This book (and the art narrativized within it) is both a political and aesthetic project precisely because it asks for Russell's "hypothetical sympathy" across looking and seeing, thinking and feeling, making and doing, humans and nature and politics. What does that electron believe? This tree think? That street path desire? What do *we* want, and why? For whom? This book asks this (and more), and asks *us* to ask this (and more), aesthetically, and as a political choice.

In my last book, *Interactive Art and Embodiment: The Implicit Body as Performance* (2013), I asserted that every body (human or otherwise) is three bodies: its always-moving material form; how it is understood in representation—as information or in language or images (by others and/or

The **VIRTUAL** is not yet, but still present as a force. It is the *potential* of what might become. And of course what *might be* impacts what *is*, just as much as what *is* impacts what *might be*—a very *present* force, despite its orientation toward the *future*.

itself); and its virtual form. By "virtual," I mean potential eventualities that are felt in the present. With my body, I am, and do things, in the physical world (material). I also see it and talk about it (representational). And if someone throws a ball at me, as that ball comes toward me, I have the potential to smack it out of the sky, or catch it, or do nothing (and let it hit me). All of those possibilities (and others) are present before they happen, and those possibilities of course impact what I do, now, *and* what *will* happen (virtual). Both human and nonhuman bodies—their materiality, representation, and virtuality—*all* interrelate and emerge, together. We are ongoing events. We are more than embodied; we are "an array of bodies," "nested . . . microbiomes" (Bennett 2010: 112–13) and foreign entities, always interacting and composing: in what we are and do, in what we perceive and interpret, in what we might become.

Following this, I argued, "Exterior and interior forces perpetually fold in on each other, all moving and thinking and feeling, constituting both us, and the materials, ideas, and habitats around us. We must therefore," I went on, "affect a doubled agency in how we take account of and engage with our surroundings, both human and non-human" (Stern 2013: 250). And now this book aims to put forward a broader approach to the making, engagement, and understanding of contemporary artworks and stories, texts and practices, that have us sense and *make* sense of our own and our surroundings' relentless transformation and agency. It thinks-with art and artists that have us rethink human and nonhuman relations as always mattering, always affecting, always political—together. And it asks us to bring those ecological aesthetics back to the everyday.

But this book's project is not, simply, a light metaphorics of symbiosis and infinite relationality, which damns everything as always political (also making *nothing* political). The artists discussed, like so many more, consciously use aesthetics to try and make, or have us think-with and strive for, changes in power, thinking, seeing, and knowing. Is an abstract digital image as political as a public "calling out" against austerity? The more important question is, What does each *do*, and how? And asking and answering that question, too, *does* things that might make change. This book attempts to synthesize much of the work already *happening* in various artistic, philosophical, cultural, media-orientated, and political domains, and then reach outward *with* the matter, materials, and voices therein— narrativizing their hopes and desires, arguments and thoughts. It does not make claims for "new" ways to "reconfigure the persistent dichotomies of nature/culture, body/thought, concrete/abstract etc." (Parikka 2010), but

in these troubling times it asks, What *can* we do—aesthetically and politically, locally, and within a given (or other) context?

In the last century and more, specific domains of ecological knowledge have helped to generate and grow many political theories and movements, for example, animal rights, environmentalism, and Occupy Wall Street. According to Erich Hörl in his brilliant collection edited with James Burton, *General Ecology: The New Ecological Paradigm* (2017), there is "hardly any area that cannot be considered the object of an ecology and thus open to ecological reformulation." These range in the thousands, he asserts, including "ecologies of sensation, perception, cognition, desire, attention, power, values, information, participation, media, the mind, relations, practices, behavior, belonging, the social, [and] the political," to name a fraction of those already called into action (ibid.: 1). And this book shows (and calls for) artists and their artworks, viewers and how we think and feel, move and act, and the ecological stories and aesthetic orientations between them, *doing* what such theories and movements *do*.

Art is an "actual" expression. It is with us in the room, gifting us local and intimate contexts for thinking and feeling. Stories are "virtually" expressed. They thoughtfully open connections, and they contain the *potential* for action (Massumi 2002: 252; Stern 2013: 4–5). Together they tell us the stakes (political stories or otherwise) and bring those stakes into the room—for experience (and practice); and back, and forth, and again —vision, and narrative re-vision. They inspire and birth change, as well as each other.

Which brings us to *Ecological Aesthetics: artful tactics for humans, nature, and politics*. Narrative is this book's core artful tactic, in that the tactic is itself artful, via the creative stories that unfold. And, of course, the works of art presented in this book, too, deploy their own (artful) tactics. These tactics are *for* humans, nature, and politics, in the generous sense of the word, like, I am *for* equal rights. And also in the generative sense of the word: humans, nature, and politics *use* these tactics *for* themselves and each other. And all of these categories (awkward yet necessary puns aside) interrelate, in and as continuous ecological aesthetics.

Every chapter of the book works on its own, is a complete story that thinks and asks us to think. And between each chapter are very short transitions . . . marked by ellipses (indicating a pause, omission, trailing thought, and/or invitation to think beyond those) . . . that both separate and connect how they function. Taken together, all the chapters make a broader argument—with varying artworks, languages, and tactics—for

thinking-with: thinking-with artists and artworks, thinking-with ecologies and aesthetics, thinking-beyond what (we think) we already know.

We begin in the commercial art realm: New York City and Art Basel Miami. Artists Jennifer Dalton and William Powhida, with the support of gallerist-curator Edward Winkleman, facilitated a series of events known as *#class* and *#rank*. Here the # sign, pronounced "hashtag," is a commonly used shorthand for searchable terms on social media like Twitter, Instagram, and so on. For *#class* and *#rank*, in a commercial art gallery and fair, respectively, artists, critics, academics, dealers, collectors, and other participants analyze the way art is produced and viewed, and identify and propose alternatives and/or reforms to the current market system. "Meet Market: *#class*, *#rank*, and art world ecologies" introduces Félix Guattari's *Three Ecologies*—psychic, environmental, and social ecologies, which parallel my humans, nature, and politics—and his ideas around how what he calls Integrated World Capitalism (IWC) corrupts and damages each of them, apart and together. The *#class* team questions where (non-monetary) value can lie within a system that *sells* work (e.g., contemporary art), which artists often paradoxically mean to be a gift—something to be thought-with and learned from, rather than profited off of. The team amplifies instead of attempting to reconcile this tension, poking fun at themselves and others (while also asking very hard questions) over a month in a Chelsea gallery, as well as several days at the most renowned commercial art fair in the world. They present a microcosm of IWC; they facilitate community dialog around utility and humanity across online and real-world spaces, problematizing what *is*, in order to open new possibilities for consumption and production.

We then travel to Durban, the third largest city in South Africa, where Mauritian-born artist and architect Doung Anwar Jahangeer's failed attempt at suicide resulted in a new life of walking and talking, teaching and learning, between his habitat and communities. Inspired by Michel de Certeau's "Walking in the City" (1984b), Jahangeer continues this book's argument in showing us the difference between tactics and strategies, and the importance of vulnerability in the everyday. He takes interested parties on long walks around eThekwini, and his politically charged but always generous artwork is literally an experience and practice of movement, a relation to others and their/our environments. In "Organic Intelligence: walking, living, and attuning systems," Jahangeer points out what he calls the "organic intelligence" of cities, society, nature: emerging ecologies.
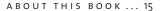
"Creative Juices: animal instinct, playful improvisation, and battling

blood" takes a detour out of the human-scaled domain and enters the world of biological art. Bio art most commonly sees the practice of working with live tissues, bacteria, and/or other living organisms, though some artists working in medicine, with life processes, or who intervene in the biotech or medical industries also consider themselves bio artists. Kathy High's *Blood Wars* pits participants' white blood cells against each other in a Petri dish, and literally puts a microscope on the relationships between playing and fighting at various scales. Her work has this book wonder about the supposedly very low stakes in "play," how that encourages experimentation and risk, and thus, suddenly, the stakes become high in what we might discover. High and her Australian collaborators continuously narrativize with the cells they work with, asking questions around consciousness and biological ecologies and all the "things" that contribute to each. They build stories that achieve a sympathy with the material agency in what blood *does*, as well as bringing to the fore the potentials of, and relations between, games and war, action and meaning. Ultimately, High exhibits play as, itself, a strong and immersive tactic for finding *new* tactics and possibilities, styles and approaches to our activities.

Next up: an interlude—broken down as "inter," meaning between, and "ludic," as in playful—called "Free, Open, and Wild: art and technology for social change." Furtherfield, cofounded by Londoners Ruth Catlow and Marc Garrett, have developed an entire system of art and events, websites and publications, gallery spaces and workshops, listservs and radio shows, and more, that empower individuals and communities to be activists and change their worlds, simultaneously amplifying the complexities of online and real-world relationships and highlighting what each have the potential to bring to bear. Theirs is a story of storytelling and story-making. Whereas the popular technology movement "accelerationism" of the 2010s speculates on, accelerates, and/or repurposes the elite usage and growth of technology and capitalism, and one or the other's social impact and/or collapse (depending on whether you are left or right of center), Furtherfield instead puts cutting-edge technology into the hands of nonexpert locals, to see how they play, the stories they tell, and the politics that unfold from those stories and plays. The results are both funny and quite serious.

Every artist interviewed for this book, and their projects discussed, takes on different tactics for humans, nature, and politics. Each section, too, produces various story forms that attempt to highlight that work. With Furtherfield, after some experimentation, I pushed my edits back into our original dialog, finally presenting an edited version of our initial interview.

My interviews are intended to showcase the relational and collaborative process in action as part of the book's project. This "inter-ludic" section is laid out slightly differently from the others, designed to further accent the dialogical spaces Furtherfield facilitates and inhabits. Overall, it communicates seriously playful, and playfully serious, tactics toward progressive political change.

"*Other-frames*: media, mediating, and immediate ecologies" stays in the digital domain, visiting new media's relation to the new materialisms, and tells some of their interwoven stories around time and scale, technology and agency, to put them in an aesthetically political, politically aesthetic, and ecologically relational context.[6] New media is a difficult term to pin down, given that "new" is a relative term, and "media," too, is continuously redefined. In this book, please accept that I am referring to work that uses or engages with digital processes and/or forms (along with my apologies for using the phrase; more on the term in Stern 2013). Malcolm Levy's prints and videos are reminiscent of glitch art, which purposefully makes use of errors in media storage and/or playback formats as part of its aesthetic, most often inviting an experience of media's materiality, and/or our relationships to its concepts and forms. This artist's works present what happens when we accent how contemporary electronic sensors move and think and feel and *break*—at least in terms of what we have come to want and expect from today's consumer-based, " post-internet" technologies. Post-internet does not mean "after" the internet, but rather after its incorporation into the everyday: art and aesthetics that address the World Wide Web's (and broader contemporary technology's) effects on culture, society, and dialog. It is often talked about alongside the "new aesthetic," which refers to the increasing use of machine and digital ("new" media) images and forms in our physical and aesthetic world. Glitch, drone videos, augmented reality, surveillance, and GPS-generated maps and views are all examples of the new "born digital" aesthetic. Levy and his materials, processes, and images *challenge* the standard narratives we tell each other about computers—what they are, and do, and afford—and gift us with new ones, and thus new possibilities. Here we engage with Richard Grusin's "Radical Mediation" and Jussi Parikka's *Anthrobscene* to speculate on, wonder about, and move around those human constraints we thrust upon our machines, with microcontrol. What are their unseen impacts and ethical implications? Levy's *other-frames* bring to the fore the materiality of digital information, and images, and tools, and the inherent politics of how we make and relate to them.

We then bring digital cultural practices into the community, more specifically the city where I wrote most of this book: Milwaukee, Wisconsin. The Overpass Light Brigade turns left-leaning Twitter sound bites into collaborative, physical messages that light up bridges for drivers and pedestrians to reflect on, or participate in. With "Activist Ecologies: singular pluralities, in letters and light," we see how the team brings together individuals, each holding one lit-up alphanumeric character, to display changing activist messages on highways and at rallies. Theirs is a community of practice, a ripple effect of connections always a part of, and making, bodies, texts, meanings, policies, *stories*. This section pieces together Jean-Luc Nancy's being-with of matter and people and things, and, as we approach the terminus of the book, simultaneously exhibits the ecological connections of many (and implicitly all) contemporary activist practices.

"*Sighing Waves*: love, rides, and climate" continues that thread, while showing how stylistically different, and subtle, contemporary activist work might be. It begins by asking, "What does political art look like? What does it feel like? What should it do and be?" And these questions are particularly relevant not only to the never-seen-before levels of economic disparity and social polarization we find ourselves in at the time of *Ecological Aesthetics*'s publication, but also to the media landscape of alternative facts and propaganda that artists and humanitarian scholars have no wish to replicate. Jessica Findley's *Aeolian Ride* and Wyatt Tinder's *Sighing Waves* both explore weather and wind as potent actants in community-building, relationship-tending, and how we decide to move and be moved. They ask for an openness to, a generosity with, and a generativity for, environmental and social justice, individually and together. Findley organizes public biking events that are literally shaped by both the wind and the group, and Tinder makes beautiful, generative video installations that have us encounter him, his partner, and ourselves—mediated through internet-collected data of crashing water and wailing winds. A graduating senior who worked with me at the University of Wisconsin–Milwaukee when I was finishing up the first draft of this book, Tinder asks, "How does the weather change our feelings? How do the winds shape our love? How do the tides take our breath away?" (2015). This section is collaboratively written with Tinder and is as experimental as the Furtherfield text. It moves between essay, artist statement, and interview, ultimately enabling, in fact pleading for, different "aesthetics" for *Ecological Aesthetics*.

"Concerned: thinking trees and *Goods for Me*" goes on to contrast aesthetic versus ethical approaches to life and decision-making. In Sean

Slemon's *Goods for Me* (2011) and other tree-based works, the artist pulls, breaks, or cuts down each of a tree's components—large and small leaves, various-sized branches, the trunk and roots—and compartmentalizes them into individual frames, like a cabinet of curiosities. These sculptural installations, which also house live bugs and ongoing decomposition, articulate nature and culture as continuously moving—and thus changing—together, and over varying timescales. Here we have an immediately felt experience—what Alfred North Whitehead calls "self-enjoyment" (1968: 150) and Eduardo Kohn calls an "aesthetic of the immediate" (2002: 70) —which also has us "concern" ourselves with the before and after, with the outside that both made for this occasion of experience, and where, with our help, it might be heading afterward (Whitehead 1968: 167). Overall, this section argues that style and aesthetics, wonder and beauty, can have us think-with, and thus aim toward, a better future.

And finally, with "*Grow*: plastic, mood-based, and communal ecologies," metalsmith Yevgeniya Kaganovich collects nonrecyclable plastic bags all across the city of Milwaukee, then holds workshops where participants turn this waste into yarn and fabric, and knit together bulbous plant-like structures with vines that continue to "grow" over years in various public spaces. Her small groups always have too much excess "garbage" to convert, but they make, and feel, a difference through community- and mood-changing efforts. I tell her story, along with John Dewey, Michel Foucault, Timothy O'Leary, and others, to speak of not only "Art as Experience," but art as *practice*. Here this book and I argue that we must always remember we are in the world of *doing things*, and when *doing*, it is a combined "ethico-aesthetic" orientation such as Kaganovich's that can make for more sympathetic, sustainable, and practical practices.

While I and three of the other artists/artist groups I write about are from Milwaukee, Wisconsin, *Ecological Aesthetics* is by no means a regional book or practice. Wisconsin has been an especially politically charged area in the US, in terms of government, art, academia, and more. I discuss Wisconsin, London, New York, South Africa, and other regions as exemplary models for art and activism, ethics and aesthetics, in ways that re-present and think beyond any specific political system.

The everyday notion of representation could mean "to depict," or "to present again" (re-present), but Jean-Luc Nancy asserts that the "*re-* of the word *representation* is not repetitive but intensive . . . mental or intellectual represen-

To **REPRESENT** is not merely to depict; it is to present *more*. "Re-" is an intensification, both of *the* present— and its outsides of before and after— and of that which we present, whether matter, concept, process, or relation.

tation is not foremost a copy of the thing," but an intensified presentation. It is "a presence that is presented" (Nancy 2007: 36). The *re-* in *represent* is, in other words, an amplification; to represent is to present *more* of what is. Thinking further still, re-presenting could refer to the potency in and of *the* present. Here we move-think-feel with our present, and all the things (actions, objects, entities, and time itself) that led to this moment and encounter, all the things (conceptual, material, temporal, and otherwise) that might unfold from now. The present, and all that it is, is always more, is always present in its own fullness, and present as the things past and things to come; it can and should always be felt, both ecologically and aesthetically. To re-present in this way is to present our present (and more) as a presence.

Art does this. Stories do this. Things do this. We do this. We perceive and think-with, represent and influence, concern ourselves and act. And so representation, whether fictional or "true," physical or virtual, is aesthetic in the "how" of its more-ness; ecological via its "with"; and tactical in what it *does*. The artworks re-presented in this book engage with media and community, relationships and efficacy, local and universal forms of materialization and dialog. They both communicate and take on what ethical responsibility might mean in this, an age where hypocrisy is completely unavoidable, and ever-expanding power is granted to an ever-shrinking few.

Every aesthetic orientation is an ethical one, and vice versa. This book is an experience and a practice, a call for experiences and practices, that takes account of aesthetics, ecologically (and ethically). Its final chapter, "Beyond This Book: now it's our turn," asks you to do precisely this. Tell stories. Yours, each other's, the world's; tell stories of the *things* that *matter*.

Ecological Aesthetics argues, productively.

NOTES

1 Here it is worth mentioning both Ted Toadvine's definition of ecological aesthetics in the *Handbook of Phenomenological Aesthetics* (2010), and Malcolm Miles's *Eco-Aesthetics: Art, Literature and Architecture in a Period of Climate Change* (2014). Toadvine asserts that the "emerging subdiscipline" of ecological aesthetics "concerns the aesthetic appreciation of the world in its entirety, including both the natural and built environments, and is consequently the broadest category of aesthetics" (2010: 85). He traces various philosophers (most prominently Arnold Berleant [1988], Allen Carlson, Stan Godlovitch, and Ronald Hepburn [1993]) who work in what they mostly call "environmental aesthetics," where they attempt to do away with distinctions between nature and culture and urge us to think between actual and possible, present and past (Toadvine 2010: 86–88). Miles stays almost entirely in the realm of green art, practices engaged in climate change, our impacts and its effects, saying art can "represent, critique and play imaginatively on the problem, and picture futures not prescribed by money" (2014: 3).

2 The new materialisms study and speculate on matter, as it is active, has agency, and is constantly changing — both itself, and the world around it. Matter is understood as affective, affected, and self-differentiating.

3 Here it is worth calling attention to Gottfried Leibniz's indivisible monad, which is individuated only through its relation to other monads, as well as to its own already-past and potent-future relations and existence (1989).

4 For a fascinating study of the 2003 New York City blackout and the agency of electrons therein, see Bennett 2010.

5 Speculative realism, alluded to here, has several branches, with the unifying factor being an attempt to overcome correlationism, the idea that it is impossible "to consider the realms of subjectivity and objectivity independently of one another" (Meillassoux 2009: 5). Speculative realism favors realism over idealism, and attempts to move away from anthropocentrism. Object-oriented philosophy (OOP, alternatively called object-oriented ontology), the best-known branch of speculative realism, thinks all things, physical or fictional, as objects: "earthworms, dust, armies, chalk, and stone" — and OOP's progenitor, Graham Harman, asks us to speculate on their "psychic reality" (2009: 213). He builds on the work of Bruno Latour and actor-network theory, where actors such as "apples, vaccines, subway trains, and radio towers . . . are autonomous forces to reckon with, unleashed in the world like leprechauns and wolves" (Harman 2009: 5). Harman offers a scathing critique (2011) of the "undermining" of

objects, seeing them as "mere images hovering before the human mind," or "overmining" of objects, "sterile abstractions imposed on a pre-individual flux or becoming" (2009: 5–6). OOP's "other," process-oriented ontology (POO— yes, it's "oops" and "poo") gives prevalence to "matter" rather than "things," saying that while *matter* is and does things, *objects* require *subjects* to recognize them, thus making OOP self-defeating. At the Nonhuman Turn conference in Milwaukee (2012), Erin Manning explained to me (I'm paraphrasing here) that a dog does not see a couch to sit on; it sees sit-ability, its active relation to a composition of matter. And while the couch's materials continuously move and think and feel, the composition is unaware of its couch-ness. In this way, she said, "objects" are inherently subjective and anthropocentric. In other words, POO-folk believe that object-oriented ontology confuses ontology (being) with epistemology (knowing) and semiotics (language). This book is less concerned with correlationism or the lines between being, knowing, and signs, and more concerned with speculation as an aesthetic tactic for storytelling, thought, and ethical practices.

6 Matthew Fuller's *Media Ecologies: Materialist Energies in Art and Technoculture* (2005) addresses some of these issues, in his writing about "objects" that have become "explicitly . . . informational" but, despite common belief, "without losing any of their fundamental materiality." Fuller wants us to "sense" the materiality of "media systems [and their] shared rhythms, codes, politics, capacities, predispositions, and drives." New media express and *are* an ecologically "massive and dynamic interrelation" of "processes and objects, beings and things, patterns and matter" (2).

7 As Manning and Massumi note, "In the neoliberal context, the emphasis on making art-work accountable has the consequence, whether explicitly intended or not, of formatting artistic activity for more directly economic forms of delivery to stakeholders. The neoliberal idea is never far that artistic activity is most productive, and socially defensible, when it feeds into industry tie-ins helping fuel the 'creative economy'" (2014: 85).

8 Also see Manning and Massumi's talk "For a Pragmatics of the Useless: Propositions for Thought" (2013).

9 See more on this controversy, and various hyperlinked narratives, in "New Museum Brouhaha Goes Supernova," on the Artnet News website (Editor 2009).

10 Timothy Morton's *Ecology without Nature: Rethinking Environmental Aesthetics* (2007) echoes Guattari's call for rethinking the implicit separation in the cultural image of nature, which is problematic regardless of the fact that this "nature" may be revered by environmentalists; and *The Ecological Thought* (Morton 2010) beautifully describes and depicts the massive interconnectedness of all things, in "ecological entanglements." Like me, Morton argues that art and aesthetics may open new possibilities in thinking- and being-with such entanglements.

WORKS CITED

#class. 2010a. "#Class Statement." www.hashtagclass.com. Accessed October 20, 2015.

#class. 2010b. "hashtagclass: Draft Mission Statement (or Some Such Thing)." *HASHTAGCLASS* (blog), January. http://hashtagclass.blogspot.com. Accessed October 20, 2015.

#class. 2010c. "hashtagclass: To Elaborate." *HASHTAGCLASS* (blog), January. http://hashtagclass.blogspot.com. Accessed October 20, 2015.

#class. 2010d. "hashtagclass: Here Come the Projects." *HASHTAGCLASS* (blog), January. http://hashtagclass.blogspot.com. Accessed October 20, 2015.

#class. 2010e. "hashtagclass: More Events!" *HASHTAGCLASS* (blog), February http://hashtagclass.blogspot.com. Accessed October 20, 2015.

#class. 2010f. "hashtagclass: Still More Events (and Updated Descriptions)." *HASHTAGCLASS* (blog), February. http://hashtagclass.blogspot.com. Accessed October 20, 2015.

Bakhtin, Mikhail. 1981. *The Dialogic Imagination: Four Essays*. Edited by Michael Holquist. Translated by Caryl Emerson and Michael Holquist. Austin: University of Texas Press.

Bakhtin, Mikhail. 1993. *Toward a Philosophy of the Act*. Edited by Vadim Liapunov and Michael Holquist. Translated by Vadim Liapunov. Austin: University of Texas Press,

Barad, Karen. 2003. "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter." *Signs: Journal of Women in Culture and Society* 8 (3): 801–30.

Bartlett, Man. 2009. "24h *#class* action." http://manbartlett.tumblr.com. Accessed August 10, 2017.

Bateson, Gregory. 1972. *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*. London: Intertext.

Bateson, Gregory. 1979. *Mind and Nature: A Necessary Unity*. New York: Dutton.

Bauwens, Michel. 2005. "The Political Economy of Peer Production." *CTheory* 1. https://journals.uvic.ca. Accessed May 30, 2017.

Benjamin, Walter. 2003. *Selected Writings*, vol. 4: *1938–1940*. Edited by Howard Eiland and Michael W. Jennings. Translated by Edmund Jephcott and others. Cambridge, MA: Belknap Press of Harvard University Press.

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

Berleant, Arnold. 1988. "Aesthetic Perception in Environmental Design." In

Environmental Aesthetics: Theory, Research, and Applications, edited by Jack L. Nasar, 84–97. Cambridge: Cambridge University Press.

Bishop, Claire. 2004. "Antagonism and Relational Aesthetics." *October* 110: 51–79.

Blood Wars. 2010a. "Prototype 05 Aug." *Blood Wars*. August 5. http://vampirestudygroup.com. Accessed December 10, 2015.

Blood Wars. 2010b. "Prototype 11 Aug." *Blood Wars*, August 11. http://vampirestudygroup.com. Accessed December 10, 2015.

Boetzkes, Amanda. 2016. Reader review for Dartmouth College Press. November 29, 2016.

Bolter, Jay David, and Richard Grusin. 2000. *Remediation: Understanding New Media*. Cambridge, MA: MIT Press.

Bookchin, Murray. 2007. *Social Ecology and Communalism*. Oakland, CA: AK Press.

Bourriaud, Nicolas. 1998. *Relational Aesthetics*. Dijon: Les Presses du reel Dijon.

Brentari, Carlo. 2015. *Jakob von Uexküll: The Discovery of the Umwelt between Biosemiotics and Theoretical Biology*. Brescia: Springer.

Brevväxling, Royal. 2012. "Overpass Light Brigade Mixes Social Media, 'Physical Commitment of Real People.'" *OnMilwaukee*, June 27. http://onmilwaukee.com. Accessed January 30, 2016.

Brown, Brené. 2010. "The Power of Vulnerability." *TED: Ideas Worth Spreading*. June. www.ted.com. Accessed May 30, 2017.

Brusky, Joe, Lane Hall, and Lisa Moline. 2015. Interview by Nathaniel Stern in Milwaukee, Wisconsin. December 15.

Carreira, Jeff. 2010. "A Philosophy of Pure Experience." September 9. https://philosophyisnotaluxury.com. Accessed October 8, 2017.

Catlow, Ruth, and Marc Garrett. 2012. "DIWO: Do It with Others—No Ecology without Social Ecology—Essay." February 11. http://ruthcatlow.net. Accessed October 10, 2015.

Catts, Oron. 2004. "The Art of the Semi-Living." In *Live: Art and Performance*, edited by Adrian Heathfield, 152–59. New York: Routledge.

Chisholm, Dianne. 2011. "The Art of ,Ecological Thinking: Literary Ecology." *Interdisciplinary Studies in Literature and Environment* 18 (3): 569–93.

Cohen, Tom, and Claire Colebrook. 2015. "Critical Climate Change." In *Art in the Anthropocene: Encounters among Aesthetics, Politics, Environments and Epistemologies*. Edited by Heather Davis and Etienne Turpin. London: Open Humanities Press.

Corcoran, Steven. 2015. "Editor's Introduction." In Jacques Rancière, *Dissensus: On Politics and Aesthetics*, translated and edited by Steven Corcoran, 1–24. London: Bloomsbury.

Cubitt, Sean. 2013. "Electric Light and Electricity." *Theory, Culture and Society* 30 (7–8): 309–23.

Dalton, Jennifer, and William Powhida. 2010a. "#Rank Statement." *hashtagclass. com*. www.hashtagclass.com. Accessed October 20, 2015.

Dalton, Jennifer, and William Powhida. 2010b. "#rank Miami Discussion at Winkleman Gallery." *hashtagclass.com*. www.hashtagclass.com. Accessed October 20, 2015.

Dalton, Jennifer, William Powhida, and Edward Winkleman. 2014. Interview by Nathaniel Stern in Brooklyn, New York. June 2.

Darwin, Charles. 1890. *The Formation of Vegetable Mould through the Action of Worms, with Observations on Their Habits*. New York: D. Appleton & Co.

Davis, Ben. 2006. "Ranciere, for Dummies." *Artnet*, August 17. www.artnet.com. Accessed April 15, 2015.

Davis, Heather, and Etienne Turpin. 2015. "Art and Death: Lives between the Fifth Assessment and the Sixth Extinction." In *Art in the Anthropocene: Encounters among Aesthetics, Politics, Environments and Epistemologies*. London: Open Humanities Press.

Debatty, Régine. 2007. "Interview with Jessica Findley." *we make money not art*, August 27. http://we-make-money-not-art.com. Accessed December 12, 2015.

de Certeau, Michel. 1984a. *The Practice of Everyday Life*. Berkeley: University of California Press.

de Certeau, Michel. 1984b. "Walking in the City." In *The Practice of Everyday Life*, 91–110. Berkeley: University of California Press.

Deleuze, Gilles, and Félix Guattari. 2014 (1991). *What Is Philosophy?* New York: Columbia University Press.

Devisch, Ignaas. 2000. "A Trembling Voice in the Desert: Jean-Luc Nancy's Re-thinking of the Space of the Political." *Cultural Values* 4 (2): 239–56.

Devisch, Ignaas. 2012. *Jean-Luc Nancy and the Question of Community*. New York: Bloomsbury Academic.

Dewey, John. 1980. *Art as Experience*. New York: Pengee.

Dewey, John. 1987. "Art as Experience." In *Art and Its Significance: An Anthology of Aesthetic Theory*, edited by Stephen David Ross, 204–20. Albany: SUNY Press.

Dewsbury, John David. 2012. "Affective Habit Ecologies: Material Dispositions and Immanent Inhabitations." *Performance Research* 17 (4): 74–82.

Diggins, Frank. 2003. "The True History of the Discovery of Penicillin by Alexander Fleming." *Biomedical Scientist*, March, 246–49.

Editor. 2009. "New Museum Brouhaha Goes Supernova." *Artnet News*, November 12. www.artnet.com. Accessed August 10, 2017.

Editors. 2015. "New Materialisms." *Cultural Studies Review* 21 (2). http://epress.lib .uts.edu.au.

Findley, Jessica. 2005. "Grow." *sonic ribbon*. www.sonicribbon.com. Accessed December 12, 2015.

Findley, Jessica. 2014. "Mytheotypes." *sonic ribbon*. www.sonicribbon.com. Accessed December 12, 2015.

Foucault, Michel. 1990a. *The History of Sexuality*, Vol. 1: *An Introduction*. Translated by Robert Hurley. New York: Vintage Books.

Foucault, Michel. 1990b. *The History of Sexualit4y*, Vol. 2: *The Use of Pleasure*. New York: Vintage Books.

Fuller, Matthew. 2005. *Media Ecologies: Materialist Energies in Art and Technoculture*. Cambridge, MA: MIT Press.

Furtherfield. 2010. "Media Art Ecologies." *Furtherfield*. http://furtherfield.org. Accessed October 10, 2015.

Furtherfield. 2015. "Rich Networking." *Furtherfield*. www.furtherfield.org. Accessed October 10, 2015.

Garrett, Marc. 2013. "Furtherfield and Contemporary Art Culture—Where We Are Now." *Furtherfield*. www.furtherfield.org. Accessed October 10, 2015.

Garvey, T. Gregory. 2000. "The Value of Opacity: A Bakhtinian Analysis of Habermas's Discourse Ethics." *Philosophy and Rhetoric* 33 (4): 370–90.

Gidal, Peter. 1978. *Structural Film Anthology*. London: British Film Institute.

Goodman, Andrew. 2013. "Walking with the World: Towards an Ecological Approach to Performative Art Practice." *Academia.edu.* www.academia.edu. Accessed March 10, 2016.

Grusin, Richard. 2010. *Premediation: Affect and Mediality after 9/11*. London: Palgrave Macmillan.

Grusin, Richard. 2015. "Radical Mediation." *Critical Inquiry* 42 (1): 124–48.

Guattari, Félix. 2002. "From Transference to the Aesthetic Paradigm." In *A Shock to Thought: Expression after Deleuze and Guattari*, edited by Brian Massumi, 240–45. London: Routledge.

Guattari, Félix, Gary Dgenosko, and Ian Pindar. 2000 (1989). *The Three Ecologies*. London: Transaction.

Haithman, Diane. 2009. "Culture Monster: Public Art Driven by Pedal Power." *LA Times*, September 2. http://latimes.com/.

Haraway, Donna. 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14 (3).

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

Harman, Graham. 2011. *The Quadruple Object*. Alresford: Zero Books.

Harminc, Dusan, and Matt Mullins. 2011. *Overpass Light Brigade* (Film). www.olbfilm.com/view.html. Accessed December 12, 2015.

Harvey, David. 1996. *Justice, Nature, and the Geography of Difference*. Cambridge, MA: Blackwell.

Hayles, N. Katherine. 2002. "Flesh and Metal: Reconfiguring the Mindbody in Virtual Environments." *Configurations* 10: 297–320.

Hayles, N. Katherine. 1999. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press.

Hayles, N. Katherine. 2017. *Unthought: The Power of the Cognitive Nonconscious*. Chicago: University of Chicago Press.

Hemer, Oscar. 2012. *Fiction and Truth in Transition: Writing the Present Past in South Africa and Argentina.* Münster, Germany: LIT Verlag.

Hepburn, Ronald. 1993. "Trivial and Serious in Aesthetic Appreciation of Nature." In *Landscape, Natural Beauty and the Arts*, edited by Salim Kemal and Ivan Gaskell. Cambridge: Cambridge University Press.

High, Kathy. 2010. "Projects: Blood Wars." http://kathyhigh.com/. Accessed December 10, 2015.

High, Kathy. 2015. Email communication. December 30, 2015.

Hörl, Erich, and James Burton, eds. 2017. *General Ecology: The New Ecological Paradigm.* New York: Bloomsbury.

Israel, Jonathon. 2002. *Radical Enlightenment: Philosophy and the Making of Modernity, 1650–1750*. Oxford: Oxford University Press.

Itkowitz, Colby. 2015. "We Helped Discover Seasonal Affective Disorder. Now Here's How to Beat It." *Washington Post*, October 29. www.washingtonpost.com/.

Jackson, Tim. 2009. *Prosperity without Growth: Economics for a Finite Planet.* New York: Earthscan.

Jahangeer, Doung Anwar. 2015. Interview by Nathaniel Stern via Skype in Milwaukee, Wisconsin, and Durban, South Africa. May 22.

James, William. 1912. "A World of Pure Experience." In *Essays in Radical Empiricism*, edited by Ralph Barton. New York: Longmans.

Janesick, James. 2001. *Scientific Charge-Coupled Devices*. Vol. 83. Bellingham, WA: SPIE Press.

Johnson, Steven. 2002. *Emergence: The Connected Lives of Ants, Brains, Cities and Software*. New York: Touchstone.

Kaganovich, Yevgeniya. 2014. Interview by Nathaniel Stern in Milwaukee, Wisconsin. March 5.

Kerr, Iain. 2017. Email communication. June 12, 2017.

Kester, Grant H. 2004 (2013). *Conversation Pieces: Community and Communication in Modern Art*. Berkeley: University of California Press.

Kohn, Eduardo. 2002. *Natural Engagements and Ecological Aesthetics among the Ávila Runa of Amazon Ecuador*. Madison: University of Wisconsin. http://zoologia.puce.edu.ec/

Kohn, Eduardo. 2013. *How Forests Think: Toward an Anthropology beyond the Human*. Berkeley: University of California Press.

Koopman, Colin. 2007. "Deleuze on Problematization." *requiem for certainty*, November 5. https://cwkoopman.wordpress.com/. Accessed April 30, 2017.

Kwastek, Katja. 2013. *Aesthetics of Interaction in Digital Art*. Cambridge, MA: MIT Press.

Lam, Steven, Gabi Ngcobo, Jack Persekian, Nato Thompson, Anne Sophie Witzke, and Liberate Tate. 2013. "Art, Ecology and Institutions: A Conversation with Artists and Curators." *Third Text* 27 (1): 141–50.

Leibniz, Gottfried Wilhelm. 1989. *The Monadology*. Dordrecht: Springer.

Levy, Malcolm. 2015. "*Other-frames* and the Moving Image." MA thesis. New York: The New School.

Locke, John. 2015 (1690). "An Essay Concerning Human Understanding." https://ebooks.adelaide.edu.au/. Accessed May 10, 2017.

Lyon, Pamela. 2015. "The Cognitive Cell: Bacterial Behavior Reconsidered." *Frontiers in Microbiology* 6. doi: 10.3389/fmicb.2015.00264.

Manning, Erin. 2009. *Relationscapes: Movement, Art, Philosophy*. Cambridge, MA: MIT Press.

Manning, Erin. 2013a. *Always More Than One: Individuation's Dance*. Durham, NC: Duke University Press.

Manning, Erin. 2013b. SenseLab listserv email. December 13, 2014.

Manning, Erin. 2014. "Weather Patterns: The Smell of Red." http://erinmovement.com/.

Manning, Erin. 2015. "Weather Patterns, or How Minor Gestures Entertain the Environment." In *Ubiquitous Computing, Complexity and Culture*, edited by Ulrik Ekman, Jay David Bolter, Lily Díaz, Morten Søndergaard, and Maria Engberg, 48–56. New York: Routledge.

Manning, Erin, and Brian Massumi. 2013. "For a Pragmatics of the Useless: Propositions for Thought." YouTube. http://youtu.be/. Accessed December 12, 2015.

Manning, Erin, and Brian Massumi. 2014. *Thought in the Act: Passages in the Ecology of Experience*. Minneapolis: University of Minnesota Press.

Martin, Reinhold. 2014. *Mediators: Aesthetics, Politics, and the City*. Minneapolis: University of Minnesota Press.

Massumi, Brian. 2002. *Parables for the Virtual: Movement, Affect, Sensation*. Durham, NC: Duke University Press.

Massumi, Brian. 2008. "The Thinking-Feeling of What Happens." In "How Is Research-Creation?," special issue, *Inflexions* 1 (1), May, www.inflexions.org.

Massumi, Brian. 2011. *Semblance and Event: Activist Philosophy and the Occurrent Arts*. Cambridge, MA: MIT Press.

Massumi, Brian. 2014. *What Animals Teach Us about Politics*. Durham, NC: Duke University Press.

Massumi, Brian. 2015. *Politics of Affect*. Cambridge: Polity.

Massumi, Brian. 2017. "Virtual Ecology and the Question of Value." In *General Ecology: The New Ecological Paradigm*, edited by Erich Hörl with James Burton. New York: Bloomsbury.

McKay, Sara Wilson. 2009. "The Space Between: Intersubjective Possibilities of Transparency and Vulnerability in Art Education." *Journal of Social Theory in Art Education* 28/29: 56–74.

Meillassoux, Quentin. 2009. *After Finitude: An Essay on the Necessity of Contingency*. London: Continuum International.

Miles, Malcolm. 2014. *Eco-aesthetics: Art, Literature and Architecture in a Period of Climate Change*. New York: Bloomsbury.

The Millefiore Effect. 2002. "Front." *Millefiore Presents*. www.millefiore.info/. Accessed March 8, 2012.

Moore, Kate-Lyn. 2012. "A Long City Walk to Exhilaration." *Cue*. http://cue.ru.ac .za. Accessed August 12, 2017.

Morton, Timothy. 2007. *Ecology without Nature: Rethinking Environmental Aesthetics*. Cambridge, MA: Harvard University Press.

Morton, Timothy. 2010. *The Ecological Thought*. Cambridge, MA: Harvard University Press.

Nancy, Jean-Luc. 1991. "Of Being-in-Common." In *Community at Loose Ends*, edited by Miami Theory Collective. Minneapolis: University of Minnesota Press.

Nancy, Jean-Luc. 1992. *Corpus*. Paris: Editionsié.

Nancy, Jean-Luc. 2000. *Being Singular Plural*. Stanford, CA: Stanford University Press.

Nancy, Jean-Luc. 2007. *The Ground of the Image*. New York: Fordham University Press.

Newfield, Jack. 2002. "The Full Rudy: The Man, the Mayor, the Myth." *The Nation*, May 30.

noise of rain. 2011. "OLB 'Make' Diary: DIY LED Signs to Light Up the Night." *Daily Kos*, November 18. www.dailykos.com/. Accessed December 12, 2015.

O'Leary, Timothy. 2005. "Foucault, Dewey, and the Experience of Literature." *New Literary History* 36 (4): 543–57.

Parikka, Jussi. 2010. "What Is New Materialism: Opening Words from the Event." *Machinology*, June 23. https://jussiparikka.net. Accessed December 12, 2016.

Parikka, Jussi. 2014. *The Anthrobscene*. Minneapolis: University of Minnesota Press.

Parks Department (New York City Department of Parks and Recreation). 2010. "New York City Department of Parks and Recreation." nycgovparks.org. www .nycgovparks.org/. Accessed April 1, 2015.

Peirce, Charles Sanders. 1932. *Collected Papers of Charles Sanders Peirce*, vol. 2: *Principles of Philosophy and Elements of Logic*, edited by Charles Hartshorne and Paul Weiss. Cambridge, MA: Belknap Press of Harvard University Press.

Perpich, Diane. 2005. "Corpus Meum: Disintegrating Bodies and the Ideal of Integrity." *Hypatia* 20 (3): 75–91.

Powhida, William. 2010a. "FEELING #RANK (PART 1)." *G-E-N-I-U-S*. http:// powhida.tumblr.com/. Accessed October 20, 2015.

Powhida, William. 2010b. "Feeling #rank (Part 3)." *G-E-N-I-U-S*. http:// williampowhida.com/. Accessed October 20, 2015.

Powhida, William. 2010c. "First Reflections." *hashtagclass.com*. www.hashtagclass .com. Accessed October 20, 2015.

Pradeep, Kumar. 2011. "CCD vs CMOS." *Classle*, May 7. www.classle.net. Accessed December 22, 2015.

Puar, Jasbir K. 2009. "Prognosis Time: Towards a Geopolitics of Affect, Debility and Capacity." *Women and Performance: A Journal of Feminist Theory* 19 (2): 161–72.

Rajchman, John. 2000. *The Deleuze Connections*. Cambridge, MA: MIT Press.

Raley, Rita. 2009. *Tactical Media*. Minneapolis: University of Minnesota Press.

Rancière, Jacques. 2004. *Politics of Aesthetics: The Distribution of the Sensible*. Translated by G. Rockhill. London: Continuum.

Rancière, Jacques. 2015. *Dissensus: On Politics and Aesthetics*. Translated and edited by Steven Corcoran. New York: Bloomsbury.

Ridgway, Nicole. 2017. "The Hermaphroditic Image: Modern Art, Thought, and Expérience in Michel Foucault." In *Understanding Foucault, Understanding Modernism*, edited by David Scott, 213–30. New York: Bloomsbury.

Russell, Bertrand. 1972 (1945). *A History of Western Philosophy*. New York: Simon & Schuster.

Ruyer, Raymond. 1948. *Le monde des valeurs*. Paris: Aubier.

Ruyer, Raymond. 1952. *La philosophie de la valeur*. Paris: Armand Collin.

SenseLab. 2015. "SenseLab: About." *SenseLab*. http://senselab.ca/. Accessed October 30, 2015.

Shannon, Claude Elwood. 2001. "A Mathematical Theory of Communication." *ACM SIGMOBILE Mobile Computing and Communications Review* 5 (1): 3–55.

SharedSpace. 2015. "Music Weather Politics." YouTube. https://youtu.be/. Accessed December 20, 2015.

Shaviro, Steven. 2010. "Self-Enjoyment and Concern: On Whitehead and Levinas." In *Beyond Metaphysics? Explorations in Alfred North Whitehead's Late Thought*, edited by Roland Faber, Clinton Combs, and Brian G. Henning, 249–57. New York: Rodopi.

Shaviro, Steven. 2015. "Consequences of Panpsychism." In *The Nonhuman Turn*, edited by Richard Grusin. Minneapolis: University of Minnesota Press.

Simons, Jon. 2000. "Modernist Misapprehensions of Foucault's Aesthetics." *Journal for Cultural Research* 4 (1): 40–57.

Slemon, Sean. 2014. Interview by Nathaniel Stern via Skype in Milwaukee, Wisconsin, and Brooklyn, New York. March 24.

Smithson, Robert, and Jack D. Flam, eds. 1996. *Robert Smithson: The Collected Writings*. Berkeley: University of California Press.

SPURSE. 2017a. *Eat Your Sidewalk Cookbook*. CreateSpace Independent Publishing Platform.

SPURSE. 2017b. "Who We Are." *Spurse.org*. www.spurse.org/. Accessed June 12, 2017.

Stern, Nathaniel. 2012. "The Overpass Light Brigade: Art + Electronics in the Wisconsin Uprising." *Furtherfield*. www.furtherfield.org/. Accessed January 30, 2016.

Stern, Nathaniel. 2013. *Interactive Art and Embodiment: The Implicit Body as Performance*. London: Gylphi Limited.

Stern, Nathaniel. 2016. "Ecological Aesthetics: Thinking Trees and Goods for Me." *Critical Arts* 30, no. 2: 143–57.

Stern, Nathaniel. 2017. "Other-frames: Media, Mediating, and Immediate Ecologies." In *Immediations: Art. Media. Event*, edited by Erin Manning, Anna Munster, and Bodil Marie Stavning Thomsen. London: Open Humanities.

Stoppani, Antonio. 2013. "First Period of the Anthropozoic Era." Translated by Valeria Federeighi. Edited by Etienne Turpin and Valeria Federeghi. In *Making the Geologic Now: Responses to the Material Conditions of Contemporary Life*, edited by Elizabeth Ellsworth and Jamie Kruse. New York: Punctum.

SymbioticA. 2015. *SymbioticA*. www.symbiotica.uwa.edu.au. Accessed December 10, 2015.

Tekinbas, Katie Salen, and Eric Zimmerman. 2004. *Rules of Play: Game Design Fundamentals*. Cambridge, MA: MIT Press.

Tiainen, Milla, Katve-Kaisa Kontturi, and Ilona Hongisto. 2015. "Framing, Following, Middling towards Methodologies of Relational Materialities." *Cultural Studies Review* 21 (2): 14–46.

Tinder, Wyatt. 2015. "Sighing Waves." www.wyatt-tinder.com. Accessed December 12, 2015.

Toadvine, Ted. 2010. "Ecological Aesthetics." In *Handbook of Phenomenological Aesthetics*, edited by Hans Rainer Sepp and Lester Embree, 85–91. New York: Springer.

Whitehead, Alfred North. 1968. *Modes of Thought*. New York: Free Press.

Worldwide Cycling Atlas. 2013. "Interview with Jessica Findley, Aeolian Ride's Founder."

Worldwide Cycling Atlas. www.worldwidecyclingatlas.com. Accessed December 1, 2015.

ABOUT THE AUTHOR

Nathaniel Stern is an Associate Professor of Art and Design in
Peck School of the Arts at the University of Wisconsin–Milwaukee,
and a Research Associate in the Visual Identities in Art and Design
Research Centre, University of Johannesburg. He is an internationally
exhibited and award-winning artist, and author of *Interactive Art
and Embodiment: the implicit body as performance* (Gylphi, 2013).
<http://nathanielstern.com>