22

ATMOSPHERES AND THE ANTHROPOGENIC IMAGE-BIND

Caroline A. Jones

> "We are not inhabitants of the Earth; we inhabit the atmosphere."
> —Emanuele Coccia, "In Open Air: Ontology
> of the Atmosphere," *The Life of Plants, 2018*

Atmospheres

Energy regimes drive modern art and its history, although none of us were educated to perceive that epistemic surround. Recently, contemporary artists and scholars have begun to argue that forcings in the atmosphere can be met by forcings in aesthetic theory and activist imagination (this volume attests to that optimism).[1] Not "seeing" air (or its precipitates on the surface of water and land), we must produce other forms of sensory cognition and radical mediation that tear open the seams of the anthropogenic image-bind.

The Euro-American historical awareness of "atmospheres" must begin my account. Those who needed such a word were fortified by taxonomic, Linnaean understandings of the weather as an *animation* of passive matter into *characteristic and knowable forms*. The seventeenth-century coinage combined the Greek *atmos* + the Latinate *sphere* (yielding the polyglot concept of "vapor orb"), understood to be no longer just a lucent layer of inert air, but a suffusing "sea" of volatile gases, governed by rules and classifications rather than the whims of the gods. In this Western modernity, "atmosphere" was *ontologically distinct from human agency*. Science filtered human smudge and smoke from accounts of "Nature's" lambent sphere of operations.

Writing of "the metaphysical snobbery that defines our culture," philosopher Emanuele Coccia fuels the critique I offer in this essay, finding in atmosphere a radical critique of our heretofore anthropocentric bias:[2]

> When there is life, the container is located in the contained (and is thus contained by it); and vice versa. The paradigm of this mutual overlap is what the ancients called "breath" (*pneuma*). To blow, to breathe—means in fact to have this experience: what contains us, the air, becomes contained in us; and, conversely, what was contained in us becomes what contains us.[3]

How to vaporize our mental patterns into this interdependent awareness? Atmospheres demand artists (and critics) to be held to a higher standard than modernism, and even "eco-art," has

henceforth provided. Our current atmospheres, produced by life but now entangled with capitalist extraction and combustion, require a different relation to breath and image. Until we can understand what every human-made image necessarily *filters* from pneumatic existence*,* we will remain trapped in the logic of anthropogenic naming, claiming, making, and envisioning.

The assertion of an anthropogenic image-bind begins with a tautology: in modernity at least, it is the ever-more-finely sensing human to whom the human-made image is addressed, and whose sensitivities it aims to enlarge and expand. Atmospheric representations in nineteenth-century modernism showed scenes of "anecdotal" interest: the carboniferous fog, the "London particular," the reality of smokestacks and steam. But it was the individual, sensitive to formal arrangements (still dominated by vision and two dimensions) that gave modern artistic protocols purpose.[4] Honest about their human source, modernist painters celebrated the roar of conflagration in their depictions of anthropogenic atmospheres—but only to summon the delectation of "nocturnes" and visual harmonies.[5] Yes, we would later don our Marxian thinking caps and find criticality and brutal realism in canvases of steam and speed—but secretly we too enjoyed how roaring furnaces, grinding iron horses, crackling coal fires, pumping steam, and sheer power could be tamed with a squinting eye and formal analysis. In sum: modernist aesthetics of anthropogenic atmospheres propelled a sensitive subject then canonized in art history. In the process, we cloaked—as aesthetic—our insanely extractive relations to earth.

New media do not necessarily break these anthropogenic affordances. But critically reflective artists occasionally do. This essay hopes to trace contemporary attempts to confront the anthropogenic image bind, while being honest about the impact and potential of these attempts. Art increasingly confronts non-art images that shake us from our aesthetic distractions. Machinic, or more-than-human, these are the promising aesthetic operations that might suddenly *make sense* of the anthropogenic.

Contesting the Image-Bind 1: Earth Practices

Land Art erupted in the 1970s following the ultimate anthropogenic image—tamed by the nickname "blue marble".[6] Atmospheres were uniquely apparent in that first, stitched-together satellite image (from ATS-3, November 10, 1967): eddies of clouds raked by winds with a breathy, blue-violet thickness at the edge of the round orb. Here, where dominating nitrogen mixed with 20% oxygen ruled a watery mesosphere, we could suddenly see both how touchingly fragile and tantalizingly material the planet was. It could either foster thinking about raw material for carving with earth-movers on an unprecedented scale (cue Michael Heizer, Smithson, De Maria), or it could summon the tender hymns of Hippie mythologies (Joni Mitchell's "Clouds," 1969, Judy Collins's collaborations with whales in 1970). Hungarian immigrant-turned-New Yorker Agnes Denes was somewhere in between. Her *Wheatfield—A Confrontation* emerged in 1982, within landscape, as a public work of art.[7] *Wheatfield* was explicit in its efforts to address the environment and our customary relations to "land." Built on *fill* pushed into the Hudson from material excavated for the World Trade Center towers, this ephemeral work of agro-environmental public art asserted a "Confrontation" with its intensely urban setting, a subtitle promoted when documentation was first published in the 1990s.[8]

Breathing the unexpected sweetness of the wheat stalks drying in the hot summer sun, perhaps caressing their ripening husks sheathing the berries within, visitors could have experienced *Wheatfield* as a kind of full-body riposte to the humid atmospheres of moistened humus in Walter De Maria's entirely sterile 1977 *Earth Room*, opened to the public just two years before. The air around the two works would have said it all: dynamic and changeable as the weather (fields), or static and permanently potential (earth) (Figure 22.1).

Figure 22.1 Left: Walter De Maria, *New York Earth Room*, 1977 (© Estate of Walter De Maria, photo: John Clett/ Dia Foundation); right: Agnes Denes, *Wheatfield—A Confrontation: Battery Park Landfill, Downtown Manhattan—With Statue of Liberty Across the Hudson*, NY, 1982
Source: © Agnes Denes, Courtesy Leslie Tonkonow Artworks + Projects, New York

But the art historical canonization of both Denes and De Maria's earthworks relied on flat, circulating, now digitized images. You cannot smell either De Maria's dirt or Denes's wheat in the page you have before you. Exemplary of this documentation is the one in which Denes's fragrant field dramatically confronts a tiny, distant, and metallic Statue of Liberty in a vaguely clouded sky.

Whatever atmospheres were available on the ground, the imaginary in Denes's canonized picture is yoked to a traditional agricultural narrative of sky as medium for sun and rain, air as vector for solar energy, land as midwife to wheat. The wheat's activity as terraforming agent was the point, not the "vapor orb" it both required and to which it contributed. Explicitly questioning the rapacity of humanity's "mismanagement [of] food, energy, commerce, world trade, economics," and the environment more generally, Denes conceived *Wheatfield* as "obstructing the machinery by going against the system."[9] But in one sense she merely substituted the agricultural system for the "parasitic" capitalist one of trade, finance, and commodity exchange. ("Wheat futures" were traded even as *Wheatfields* instantiated the ever-recurring persistence of the anthropogenic image-bind, romancing the species' post-Edenic mindset.)

By contrast, De Maria's never-fecund-always-potential *Earth Room* (which I adored back in the late 1970s) now seems grimly Heideggerian in its warehousing of relocated dirt as a pristine "standing reserve" available to agrilogistics.[10] On the other hand, what if we refuse the blandishments of gardening? De Maria's *Earth Room* turns out to offer something *surprisingly atmospheric.* Because we cannot enter the urban installation*,* what we experience is a redolent space of air that we begin to encounter on the landing even before broaching the vestibule of *Earth Room.* This air, perfumed no doubt by those entities between plants and animals (the fungi actinomycetes), gives us the glorious scent of *petrichor*—that atmosphere of earthiness available to humans largely as smell or taste, borne only in vaporous air.[11] De Maria's circumventing of the image-bind by getting past the human compulsion to *look* is paralleled by Denes's drawings that posit non-human ways of seeing and being. Both critiques of the anthropogenic image-gaze are important aspects of *aisthesis* that we may want to revive.[12]

Contesting the Image-Bind 2: Machinic Visions

Pace Denes, probing the other-than-human has usually led us right past vegetal earth practices to the machinic phylum, as in Trevor Paglen's exploration of the "operational image" first theorized in the 1990s by Harun Farocki.[13] Even the videos made by Rachel Mayeri that claim to

be *Primate Cinema*: *Movies for Monkeys* relate more readily to machine vision in the way they code edges and contrast as the primary point of seeing; Mayeri thus appeals to pongid vision by aping machinic recognition algorithms. This is not surprising; the model organism for machine vision is human, and humans' visual perception circuits are modeled on the macaque monkey. Edges and orientations were "priors" found to be "hard-wired" in macaque visual cortices.[14] Mayeri's amusing videos (c. 2011) might seem to be directed at our simian kin (and in some cases played for them at various zoos), but when we humans see her programmed abstractions (such as the pink concentric circles—"flying anuses"—moving around on a white field), they reveal themselves to be machinic segmentations of animal locomotion in the long tradition of such work, from that by Etienne-Jules Marey and Eadweard Muybridge to Harold "Doc" Edgerton. These abstractions originate in machine modes of registering and segmenting electro-magnetic energy, draining liveliness out to fix successive instants as informational bits. Ultimately, Mayeri enjoys the ironic question of how any such "inert video" such as hers could possibly reach the scent-bonded, social, "kinesthetic, interactive, and sensual" monkeys.[15]

If machine vision is invariably bound up in our attempt to think the more-than-human, then the scentless atmosphere invoked here would be the discourse of "The Cloud," in which algorithms compress digital images and recode them for expansion on varieties of screens via multiple platforms. (The cloud metaphor is a perfect example of atmospheric thinking that is nonetheless a fully functioning aestheticization of an energy regime.) Staying within the boundaries of the human sensorium but exploring such technologically enhanced edges, Berlin-based artist Dierk Schmidt pursues a critical practice that studies the oil-painted tableau as a hoary Western art-historical format he contests and complicates with contemporary search engines brought elliptically into his installations, materializing the Cloud in fossil oil paints.[16] Bridging the twentieth and twenty-first centuries while returning us to some of the eighteenth- and nineteenth-century problems that opened this essay, Schmidt has long reflected on his own contemporary struggle to visualize the "history image." This desired revelatory image confronts the invisibilities embedded in our image world: "Is an image possible where no previous media images are existing?"[17] The search for the adequate "history image" embraces its anthropogenic logic, but pushes the artist precisely to explore "the difference between an *operative* and an *idealistic* aesthetic" (with Schmidt's notion of the "operative" intriguingly different than Farocki's).[18] Producing tableaux for human emotional comprehension, he wants to confront nearly incomprehensible loss, drawing out the logic of machinic dispersion and transformation precisely at points of maximum invisibility in the world of representations that humans build every day.

Schmidt allows me to address the anthropogenic image as a regime we are immersed in (like atmospheres). When such words as "visible" and "invisible" are not adjectives, but nouns, we can trace their derivation from the French: "*la visibilité.*" Usually meant to characterize a diffuse condition of apprehensibility by human sight, the concept was turned by philosophers Michel Foucault and Gilles Deleuze into a structuring *dispositif* or apparatus. The apparatus of visibility was both a symbolic and a material infrastructure, comprising hardware, channeling, framing, and enabling technologies—thereby requiring a definite article. Deleuze and Foucault worked to clarify the active operations by which humans in modernity became *selves* and *subjects*—through speech acts, written statements, and hearing, in parallel to images and sight. (It is in full knowledge of such philosophies that Schmidt describes his operation as "using the historically charged dispositive of painting"...)[19] The privileged example of the interlocking system of the seeable & sayable is offered in Foucault's compelling analysis of incarceration, *Surveiller et punir* (1975). Parallel to explicit enunciations and texts (such as laws "on the books" that turn persons into prisoners), the carceral visibility forms a system that makes the prisoner surveillable (literally, *sur + veiller*, capable of being "watched over"); these positionalities and architectures are then

internalized by the prisoner, who self-surveys. The visibility is not just that–which–is–displayed, but the system of distribution of illumination itself. It is not just the seen, but the constructed subject position of the one who sees and the one who is surveilled. Importantly, the system of making-visible and allowing-to-see can simultaneously produce *sectors of occlusion*, shadows, blockages, and invisibilities. Interrogating the shadows to a given visibility allows us to pursue Foucault and Deleuze's larger project, to think the unthought. Because for every visibility there is a corresponding invisibility, just as for every speech act there is a system of silences, breaks, punctuating pauses and caesuras that allow meaning to be made. [20]

This gets to the heart of the anthropogenic image-bind. What we make for seeing *forms* us in very characteristic ways. I suggested at the outset of this essay that modernist paintings, in particular, constructed an individualist psychology of the sensing aesthete for whom atmospheres offered sublimely stimulating phenomena.[21] On the other hand, since all external images are made for and by humans, they can also drift toward formula and cliché. Take the journalistic documentation of any recent oil disaster: the oil-soaked shorebird, the satellite picture of iridescent slicks far below on the ocean's surface, the dirtied human volunteer. These form an image repertoire that plays out from a familiar script.[22] The more generalized anthropogenic images of the Anthropocene include the polar bear isolated on a broken ice-floe or the steaming smokestacks behind rush hour traffic. Only recently, lawsuits have added to these the drone footage of endless pig-shit lagoons surrounding animal agriculture's industrial "confinement" facilities.[23] Schmidt's paintings contest all of these images of desperate failure by entering the Cloud and materializing both the fossil fuels that drive it, and the social and critical potential it enables.

Take the series titled *Image Leaks: On the Image Politics of Resources* (2011). (Figure 22.2, in an installation view from the Frankfurter Kunstverein). Schmidt's *Image Leaks* responded to the 2010 Deepwater Horizon oil "spill"—more accurately, a methane explosion that blew out a control valve, allowing the ocean floor wellhead to spew oil and methane, no longer in tubes tethered to the industrial offshore oil rig owned by the Transocean corporation and leased to British Petroleum for prospecting in the Gulf of Mexico. Over the 3½ months of the leak's duration, the out-of-control BP gusher emitted close to 5 million gallons of crude oil, unmeasured methane, and uncounted metric tons of "BTEX" gases (benzene, toluene, ethylbenzene, and xylene, gases that waft from any source of crude oil) until it was capped in July 2010. The images of the ongoing event were deeply anthropogenic *and* machinic: made by robots and satellites designed by humans to allow humans and their machines to see well beyond our native capacities, they operated at several scales (ocean floor, ocean surface, and shoreline) mediated by satellite hookups allowing digital streaming of the pixels obtained. At no point in the crisis did
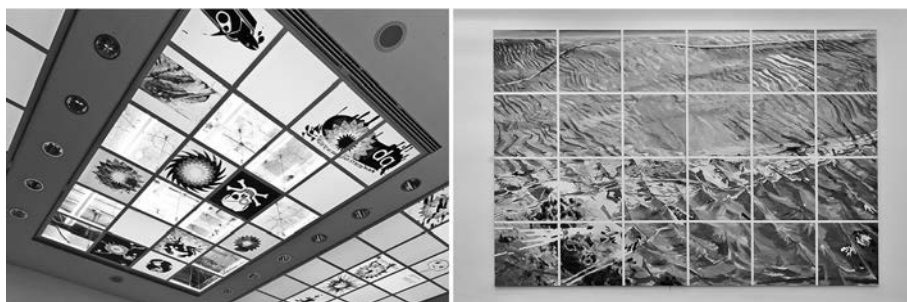

Figure 22.2 Dierk Schmidt, Image Leaks. Left: installation view (detail), Frankfurter Kunstverein, 2011; right: Seascape, 2011
Source: Photos by N. Miguletz, ©VG Bild-Kunst, Bonn 2020, Courtesy the artist and KOW

we see images that might be imagined to be the perspectives of creatures of the ocean and its complex non-human ecosystem—planktonic or bacterial dwellers in the water column, for example. The Deepwater crisis dramatized the inadequacy of the image *qua* image to capture the extent of our anthropogenic effects on more-than-human life.

The anthropogenic (like the photogenic or the telegenic) constitutes a now smoothed aesthetic. Framed by horror or sadness, in the context of the Anthropocene it can give us the rush of the sublime—before fading back into oblivion. Schmidt's work urgently engages with this human circuitry of desire, frustration, *erhebung*, and boredom. The artist addressed how "idealistic" images (the volunteer helping the oil-covered shore bird) were actively produced by BP, which tripled its advertising budget during the disaster.[24] He set out explicitly to produce counter-images by mining the Cloud for the thousands of pretend logos critical of BP that had been produced for a Greenpeace campaign on Flickr (called "Behind the Logo," it is ongoing and totaled 1,926 postings, getting 1,049,596 views as of June 2018).[25] Schmidt curated these crowd-sourced critical versions of the BP logo (which the corporation had cynically redesigned in 2000 to echo the Green Party sunflower). He then artisanally painted them—in oil, of course—on the gridded glass ceiling of the art museum. Glowing from behind, these hacked, distributed, and now lovingly reproduced counter-logos served to surface the artificial atmosphere of the white cube, even as they converted viewing subjects to critical historians of extraction's contested visibility. Per curator Holger Kube Ventura, while visitors reclined on deck chairs looking up (arranged as if on the deck of a ship, perhaps the *Titanic*), they could observe how

> the grid of the ceiling appears as a *verre églomisé* picture of economics. On the back part of the ceiling is the development of the BP stock price over the course of the oil leak; this chart acts like a prognosis in response to the circulating images and consistently proves itself sensitive to the company's visual capital and the endangerment or annihilation thereof.[26]

To complete the installation, Schmidt recapitulated the modernist grid of the ceiling on the surface of an impasto-laden "marine painting," also by his hand (*Seascape*)—a deceptively Romantic image in the tradition of Turner, but one that connects the history of oil *painting* to the history of oil *extraction*:

> In the tradition of the genres of painting, I was interested to add a so-called "sea piece" into the situation. But in that case it was a very dirty one. To paint again with *bitumen…* the tar which is catching every light. Of course it's dirty, dripping and smelling, but wonderfully shiny, like a rainbow.[27]

The anthropogenic image bind is performed in a loop of fossil-fuel materials depicting fossil-fuel materials—fouling the ocean surface and gleaming on the canvas. Schmidt ties these regimes of modernism to the chemical industry itself in expanding circles, "this point again of visibility starting from the sea and enlarging and enlarging." (Note how the pictorial atmosphere thrives on the immersive eradication of depicted "atmospheres" in excising the horizon that separates earth, sea, and sky.) Thus, the "rainbow" slick of oil is transposed from an atmospheric effect to an ocean surface to an aesthetic that addresses that dependent circuitry.

Contesting the Image-Bind 3: Giving Standing

Also engaging "slick images*,*" Susan Schuppli offers a new media take on the anthropogenic as a kind of collaboration with human-made substances that then "image themselves" as material witnesses in an ongoing forensic documentation of climate change. Schuppli's various artifacts, videos, texts, and lecture/essays produce an incisive take on the atmospheric interface between

volatilized petrochemicals and water—pursuing the dynamic lensing of light that "nature itself" has produced via unstable molecules of air, oil, and water. For Schuppli, "Matter can bear witness to events as a registration system," both internally in its molecular structure and externally as transformations in the (humanly) visible spectrum. Ocean + oil + atmosphere combine to form a kind of *cameraless film,* never capable of being firmly "developed" into a fixed anthropogenic image.

The conceit is both trivially disproven (there is, after all, a video, a sculpture, and other things made for humans as artworks in a gallery) and yet profound in its epistemic demands. "Anthropogenic matter," in Schuppli's account, is "relentlessly" making images of itself, tracing its interactions with other kinds of lively matter. Anthropogenic images emerge as bizarre patterns in tree rings, register as "photochemical smog," pictured in gestural sprinklings of black snow in the Arctic that then differentially melt the icy substrate. These are admittedly "image-matter hybrids;" in her poetic rendering, "They constitute the means by which the Earth sees."[28] And so, in her video installation *Nature Represents Itself* (2018), the minute differentials between a molecule-thin film of oil and the water molecule it sheaths create, in a very real sense, a photosensitive *emulsion* (Figure 22.3). The fact that we humans can document this emulsion in its shimmering iridescence does not remove it from forensic status as a registration of its own physical properties, reflecting into atmosphere as differentiated wavelengths of light. As Schuppli puts it in her text *Slick Images* (2015):

> The image-making capacity of the oil film isn't simply a question of its ability to mirror or project some kind of image-like event back at us—abstracted and lurid patterns of reflected light—but is a cinematic feature of its very ontology, its molecular structure and behavior.[29]

Importantly, her thinking on the photoactive capacities of anthropogenic matter led Schuppli to a rather different place three years later. By positioning "Nature" at the site of witnessing these interactions forced upon them (my use of the collective yet personable and nongendered pronoun is intentional), Schuppli gave her video the title *Nature Represents Itself* a double meaning. "Representation" here conveys juridical *standing.*

Standing is the legal capacity to appear as a person in a court of law, in upright rectitude.[30] Long the subject of Enlightenment consideration about who may enjoy "natural rights," standing was denied historically to slaves, women, migrants, animals—yet once conveyed, standing permitted ventriloquizing by lawyers who were constrained to speak, even for fictive persons (corporations, for example) who were otherwise mute. Schuppli knows how Nature, in their

Figure 22.3 Susan Schuppli, *Nature Represents Itself*, 2018 (video contribution to the exhibition *74 million million million tons*, Sculpture Center, New York, 2018
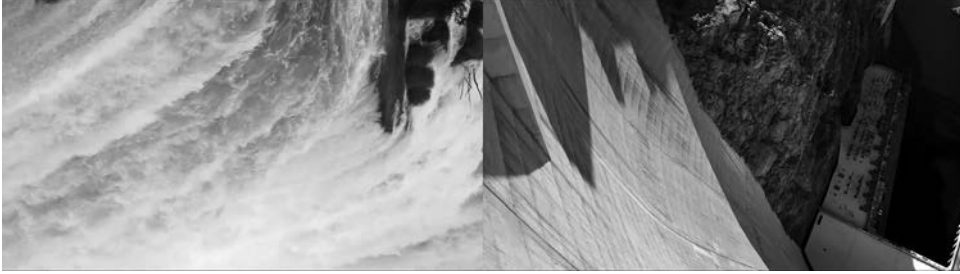
Source: Photo by Kyle Knodell

Figure 22.4 Screen View of Carolina Caycedo, *To Stop Being a Threat and To Become a Promise / Dejar de ser amenaza para convertirse en promesa*, 2017

Source: 2 channel HD Video, color and sound, 8:03 mins. Cinematography and Edition / Fotografia y Edíctión: Carolina Caycedo, Sound: Daniel Correa

nonverbal personification as *Pachamama* (Indigenous name among many South American tribes, designating planet-mother), has recently been given standing under the Ecuadorian constitution. "Representation" works with Schuppli's concept of *material witness* to make elliptical reference to the legal transformation of anthropogenic victims into "speakers" for reciprocity and respect for their more-than-human lives.

Members of the activist groups *Acción Ecologica* in Ecuador, international Oilwatch (specifically represented by members from Nigeria and Ecuador), the Mexican group *Desarrollo Alternativo*, the Ecuadorean Indigenous groups *Ecuarunari* and *C-CONDEM* (*Corporación Coordinadora Nacional para la Defensa del Ecosistema Manglar*), all banded together with the prominent Indian national, postcolonial critic, and controversial scientist-activist, Vandana Shiva, to speak for the ultimate subaltern—Nature "herself"—whose aggregative life force I am choosing to designate "them" when it is legally arranged in confrontation with the human. The human aggregate of activists, scientists, and legal experts referenced above crafted an appeal to the Ecuadorian Constitutional Court, because the BP Deepwater Horizon disaster disrupted the entire planetary ecosystem. These humans argued that not only did the ocean and its accompanying atmosphere have *standing* in the face of such an assault, but also that these entities could sue for the right to reparations.[31] Paulo Tavares sees the activist-scientific group behind the Ecuadorean suit as "appropriating the classic tools of environmental advocacy to expose its own limitations, [making] visible how the existing legal order inevitably legitimizes the ecological violence it should help to restrain."[32] In other words, rather than demanding that government *regulate* extraction or *limit* pollution as if these things were inevitable, Shiva et al. contested the very structure of those capitalist anthropogenic operations. The plaintiffs attempted to foreground a new legal order altogether, in which "the international system of rights" would be forced to recognize "the rights of nature" as such, extending "the precautionary principle and compensation for impacts on nature" to the interdependent life forces of *Pachamama*.[33]

In her work as a social scientist pursuing resolutely decolonial perspectives, Macarena Gómez-Barris echoes such demands, celebrating the rise of Indigenous perspectives and affiliated social-practice art forms as offering important transformations in our relation to "extractive zones."[34] Writing about the experience of life inside a river, Gómez-Barris conjures the "fisheye episteme" articulated in the hydrophilic artworks of Carolina Caycedo (as in the series "Be Dammed," ongoing, an exemplar of which is in Figure 22.4).

These are promising trends, as the anthropogenic image-bind is pried open at its seams, allowing alternative thought-forms and life-forms to begin the philosophical work of *symbiontics*.[35]

Conclusion: Binding to the More-Than-Human

The now ubiquitous media of video and performance can be used for these more-than-human transductions of energies, pushing at the edges of our evolved viewing capacities and insisting on discourses as fiercely theorized as they are deeply researched. In confronting human-driven climate change, artistic agents must contend with twin conundra: a past history and valued aesthetic of paintings that aestheticize the very extractions and combustions undergirding their modernity, and a future cultural evolution alongside more-than-humans driven by art that must inevitably appeal to a human destination. This is the anthropogenic image-bind.

But we are stubborn in our optimism, particularly in light of these not-just-verbal-or-visual artworks engaging more-than-human concerns. For Amitav Ghosh (as for us), even in derangement the *image* holds promise, perhaps even offering a privileged role for its own dismantling: "Would it follow… that to think about the Anthropocene will be to think in images, that it will require a departure from our accustomed logocentricism?"[36] Images alone, of course, won't do the job—nothing can be left to its old ideological devices. The departure from logocentrism must also be a launching point, into a new sensory *aesthesis* that might deploy the anthropogenic image in as yet unknown atmospheres and immersions, scents and subsonic murmurs that give standing to our more-than-human co-dependencies, in which a "them" of Nature becomes the symbiotic "us" of life.

Notes

1 See Nicholas Mirzoeff's recent thinking on "(An)Aesthetics" of the Anthropocene, in his "Visualizing the Anthropocene," *Public Culture* 26(2) (Spring 2014): 213–232.

2 Emanuele Coccia, *The Life of Plants. A Metaphysics of Mixture* (first published in French as *La vie des plantes: Une métaphysique du mélange.* Paris: Payot & Rivages, 2017; English edition Cambridge UK and Medford MA: Polity Press, 2018), 3.

3 Ibid., 10–11.

4 Whistler: "By using the word "nocturne" I wished to indicate an artistic interest alone, divesting the picture of any outside anecdotal interest which might have been otherwise attached to it. A nocturne is an arrangement of line, form and colour first." As quoted in Richard Dorment and Margaret MacDonald, *James McNeil Whistler* (New York: Harry N Abrams 1995), 122.

5 Mirzoeff (2014) discusses some of these, but in place of his argument that they are (An)Aesthetic, I argue that the *progressive* smell of carbon-combustion was baked into modernist aesthetics, through and through, as we were trained to rise above it and become the transcendental subjects of art.

6 Denis Cosgrove, *Apollo's Eye: A Cartographic Genealogy of the Earth in the Western Imagination* (Baltimore: Johns Hopkins University Press, 2001).

7 See also Jones, "*Wheatfield* and the Anthropogenic Image-Bind," in *Agnes Denes: Absolutes and Intermediates* (New York: The Shed, 2020).

8 Public Art Fund, New York (who commissioned the project) used a different title for this second work in their series "The Urban Environmental Site Program," viz., "Wheatfields for Manhattan," www.publicartfund.org/view/exhibitions/5706_wheatfields_for_manhattan (accessed August 2019). The work is also found simply as *Wheatfields*, and there are scattered references to it as *Victory Garden;* Denes would now like it to be known uniformly as *Wheatfield: A Confrontation.*

9 *Agnes Denes: Wheatfields for Manhattan*, 1982, Public Art Fund, accessed December 14, 2018, www.publicartfund.org/view/exhibitions/5706_wheatfields_for_manhattan.

10 For "agrilogistics," see Timothy Morton, *Dark Ecology: For a Logic of Future Coexistence* (New York: Columbia University Press, 2016). For "standing reserve" see Martin Heidegger, [1954] *The Question Concerning Technology,* translated by William Lovitt (1977).

11 Fungal *actinomycetes* form thread-like filaments in moist humus and spores when dry; the latter are aerosolized by raindrops hitting the ground and become atmospheric, where we smell them, a scent recently named *petrichor.* It remains paradoxical how we can smell actinomycetes in *Earth Room,* meticulously groomed as it is by attendants pulling out the tell-tale hairs of fungus. But I well remember that smell, which is now impossible to dislodge from my experience of *Earth Room.*

12 Denes's meditations on non-human perceptual and functional modes would include the drawings *Probability Pyramid as Seen Through the Eyes of a Scallop* (1998–2001) or *Arthropoid* (1974). For "aisthesis" in its variant spelling see Jacques Rancière, *Aisthesis: Scenes from the Aesthetic Regime of Art* (New York: Verso, 2011).

13 Trevor Paglan, "Operational Images," *e-flux journal*, #59 (November 2014).

14 The paradigm in question dates to Nobel-prize winning research in the 1960s by David Hubel, in which areas of the macaque visual cortex are revealed as "edge processors" or "angle processors." This locational paradigm and its edge/orientation functionality are directly linked to the machine vision algorithms in use today.

15 Rachel Mayeri on *Primate Cinema*, http://rachelmayeri.com/blog/2011/01/06/saimiri–cinema/ . Other examples include programming for chimpanzees, and baboons – with varying results. Accessed August 2019.

16 My research on Schmidt's work is published in fuller form in Lars Bang Larsen et al., *Dierk Schmidt: Guilt and Debts* (Madrid ES: Museo Nacional Centro de Arte, Reina Sofia, 2018), 188–207. Downloadable at www.museoreinasofia.es/en/publicaciones/dierk-schmidt

17 Dierk Schmidt, "History Image vs. History Painting. Painting by Dierk Schmidt", in: *Painting. The Implicit Horizon*, eds Avigail Moss and Kerstin Stakemeier (Maastricht: Jan van Eyck Academy, 2012), 46.

18 Schmidt, "History Image" (2012), 5; referencing Peter Weiss, *Aesthetics of Resistance,* a novel in 3 volumes (1975–1981). This is an important German source for the "operative image" that predates the concept used by Harun Farocki and discussed by Paglen.

19 Schmidt, "History Image" (2012), 1.

20 For visibility see Jones, *Eyesight Alone* (Chicago: The University of Chicago Press, 2005) and Gilles Deleuze, *Foucault*, trans. Séan Hand (Minneapolis: University of Minnesota Press, 1988), 47 (et. passim).

21 Mirzoeff (2014) suggests these are counter-aesthetic images; I argue for the precise opposite: these are the proper "sense" (aesthetic) relation to capitalist extraction.

22 Jones and Galison, "Unknown Quantities," *Artforum* (November 2010).

23 See the forthcoming *Invisibilities* by Galison and Jones, which examines image regimes in three registers: air, water, ground.

24 See Holger Kube Ventura, "On Image Leaks," in Schmidt, *Image Leaks—Zur Bildpolitik der Ressource* (Frankfurt am Main, Frankfurter Kunstverein, 2011), n.p.

25 www.flickr.com/photos/greenpeaceuk/sets/72157623796911855/

26 Holger Kube Ventura (2011), n.p.

27 Dierk Schmidt, interview with the author, March 28, 2018.

28 Quotations transcribed by the author from Susan Schuppli, videotaped lecture, "Dark Matters— Bearing Material Witness to Climate Change," given November 28, 2015 at the Aurora cinema, Murmansk, Russia. Online at www.youtube.com/watch?v=ZKEM1dOBeTI. Accessed June 2018. See also Schuppli, "Material Witness," website text linked to a volume by that name, listed as forthcoming with MIT Press in 2020; http://susanschuppli.com/research/materialwitness/. Accessed August 2019.

29 Susan Schuppli, "Slick Images: Photogenic Politics of Oil," in Mihnea Mircan and Vincent W.J. van Gerven Oei, eds., *Allegory of the Cave Painting* (Milan: Mousse, 2015), 435.

30 Cf. Adriana Cavarero, *Inclination: A Critique of Rectitude* (Stanford: Stanford University Press, 2016).

31 Vandana Shiva et al., submitted to the Honourable Secretary General, Constitutional Court of Ecuador, Quito, Ecuador, November 26, 2010.

32 Paulo Tavares, "Nonhuman Rights," in Anselm Franke, Eyal Weizman, and Forensic Architecture Project, eds., *Forensis: The Architecture of Public Truth* (Berlin DE: Haus der Kulturen der Welt, 2014), 557.

33 Shiva et al. (2010).

34 Macarena Gómez-Barris, *The Extractive Zone: Social Ecologies and Decolonial Perspectives* (Duke University Press, 2017).

35 I polemicize for *symbiontics* (my neologism)—for symbiosis as that-which-is. The polemic is driven by the work of theoretical biologist Lynn Margulis, who viewed "symbiosis" simply as adjacency and physical contact between different species—viewing relations of "cooperation" rather than "competi-tion" as prevailing on earth.

36 Amitav Ghosh, *The Great Derangement* (Chicago and London: Chicago University Press, 2016), 83.