

The Post-natural Condition

Chapter 3

Art after Nature?

The night sky never looked as different as it does in *Black Shoals Stock Market Planetarium* (2001/4). For the mixed-media installation, London-based artists Lise Autogena and Joshua Portway projected an array of constellations onto the inner surface of a large dome hanging above beanbags where viewers could sit and gaze upward; however, the heavenly bodies correspond not to real suns or planets, but rather to publicly traded companies, as a computer program translates the real-time financial activity of the world's stock exchanges into glimmering stars. Included in the 2001 group exhibition "Art and Money Online" at Tate Britain, the piece connected to a Reuters market-data feed; in 2004, at the Nikolaj Kunsthal, Copenhagen Contemporary Art Centre, it was wired to the local stock market. The points of light flash brightly whenever their stocks are traded, gathering into constellations or dispersing according to market momentum, only to be preyed on by digital creatures. Designed by the artificial-life researcher Cefn Hoile, evolutionary algorithms—computations that allow the entities to selectively reproduce, mutate, and recombine over time—program these critters to feed on the energy of the artificial astral bodies. Nourished, they grow into complex beings, composite structures of luminescence, and regenerate in order to adapt and survive. The famine of a market downturn leads them to die out, overcome by the darkness.

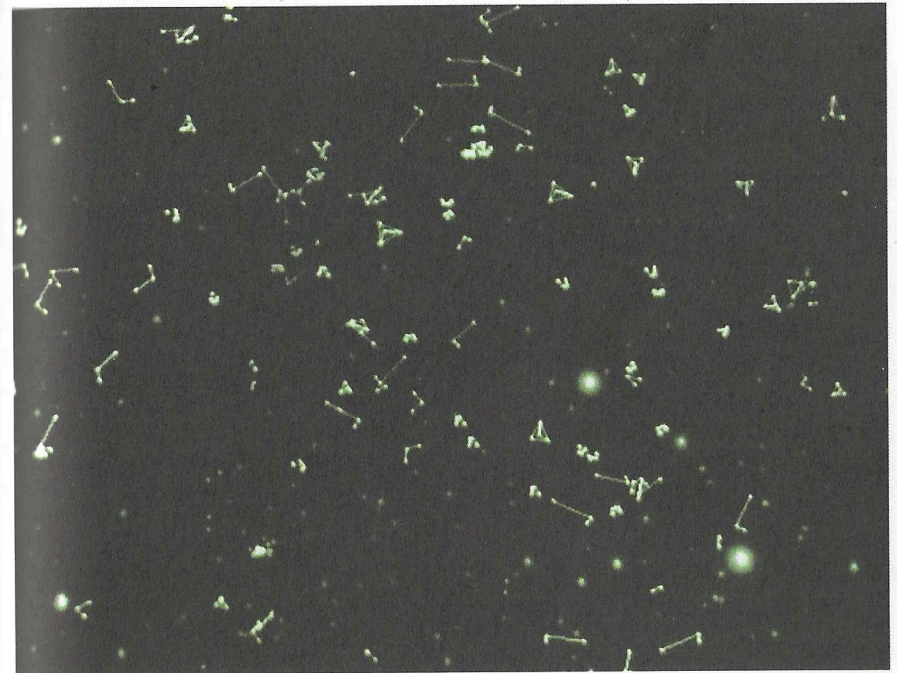
But this extraordinary ecosystem is also, pointedly, devoid of natural life. The title of Autogena and Portway's project puns on the Black-Scholes option-pricing formula, developed in 1973 by University of Chicago professors Fischer Black and Myron



Lise Autogena and Joshua Portway, *Black Shoals Stock Market Planetarium*, 2004

Scholes, which set the course for an unprecedented trading of financial derivatives. These market-based contracts contributed to an increasing abstraction in the world of finance, and the Black-Scholes formula lent scientific credibility and economic legitimacy (both later revealed to be erroneous) to the activities of the Chicago Board Options Exchange, also founded in 1973 as the first marketplace for trading listed options. In the mid-'90s, this exchange would also expand the trading of derivatives from stocks to natural events, such as futures that bet on the outcome of regional temperature fluctuations, rainfall intensity, drought conditions, and hurricanes. These mechanisms amounted to financial strategies for corporations to minimize risk to their operations and maximize economic returns, even though this trading is mostly done by speculators without concern for economic or ecological sustainability.¹ The title of the artwork thus casts a negative pall over such financial logic, evoking the automated groupthink of schools of fish as well as the unanticipated and ominous sandbars that sink ships.

¹ See Donald MacKenzie, *An Engine, Not a Camera: How Financial Models Shape Markets* (Cambridge, MA: MIT Press, 2006).



Lise Autogena and Joshua Portway, *Black Shoals Stock Market Planetarium*, 2001; detail

Indeed, *Black Shoals Stock Market Planetarium* reduces such complex mathematical-financial calculations to the level of the seductive visuals of a video game, whereby the ravenous animal programs simulate the speculative passions that have led to real-life fortunes and much suffering. It equally intimates the pseudoscience of astrology, which nonetheless might be closer to the heavens and earthly ecosystems than derivatives-based finance. Either way, the piece comments directly on our grim socioeconomic condition. Building on an idea of Portway's, Hoile stated, "The creatures' relationship with their artificial world of stars is a mirror of our relationship with the financial markets—they strive to survive, competing with each other in a world whose complexity they are too simple to fathom."² In other words, when viewers watch this cannibalistic drama unfold, they are peering at their own contemporary world: these creatures are nothing but a distilled expression of self-entrepreneurship—approximating what Michel Foucault, in his

² Cefn Hoile, "Black Shoals: Evolving Organisms in a World of Financial Data," *Black Shoals Stock Market Planetarium*, accessed October 29, 2015, <http://www.blackshoals.net/ALife.html>.

later writings on biopolitics, called “homo economicus,” the subject of neoliberalism, the dominant economic condition of our times.³ The piece is not just a means of visualizing data, it’s also an existential model that shows predatory life under advanced capitalism, within a zone where nothing else matters—not bodies, nature, social life, religion, or aesthetics. As Naomi Klein writes, “This, without a doubt, is neoliberalism’s single most damaging legacy: the realization of its bleak vision has isolated us enough from one another that it became possible to convince us that we are not just incapable of self-preservation but fundamentally *not worth saving*”—owing to the conviction that, at its basis, human nature is nothing but competitive greed, murderous envy, and survivalist selfishness.⁴ The fact that the creatures have repeatedly died out during successive exhibitions leads to the extreme proposal that the *Black Shoals* project be taken as a dark allegorical warning about our precarious existence as a species whose activities are putting its very viability at risk.⁵

Picturing a lifeworld merged with capital, Autogena and Portway’s starry sky presents the activity of the stock market via a technology that naturalizes perception, translating the processing of economic data into the visualization of the universe. Insofar as the piece is upfront about its technological apparatus, it also reveals the artificiality of that financial-perceptual system, exposing in turn the vulnerability of life exposed to a purely economic, and falsely naturalized, rationality. The work thus invokes and troubles the idea that “the market is in human nature,” a neoliberal proposition that Fredric Jameson has said “cannot be allowed to stand unchallenged,” arguing that to contest the ideology of the market as a biological fact is “the most crucial terrain of ideological struggle in our time.”⁶ Writing in

3 The term was first used in the 1880s by John Stuart Mill in relation to the self-interested subject. See also Michel Foucault, *The Birth of Biopolitics: Lectures at the Collège de France, 1978–1979*, trans. Graham Burchell (New York: Palgrave Macmillan, 2008), 226; David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2005); and Jason Read, “A Genealogy of Homo-Economicus: Neoliberalism and the Production of Subjectivity,” *Foucault Studies*, no. 6 (February 2009): 25–36. For further analysis of the political economy of Autogena and Portway’s piece, see Brian Holmes, “Is It Written in the Stars? Global Finance, Precarious Destinies,” *Continental Drift: The Other Side of Neoliberal Globalization* (blog), November 6, 2009, <https://brianholmes.wordpress.com/2009/11/06/is-it-written-in-the-stars/>.

4 Klein, *This Changes Everything*, 62. For a counterargument about the generosity of human nature, as seen in the selfless care for others in times of environmental crisis, see Rebecca Solnit, *A Paradise Built in Hell: The Extraordinary Communities That Arise in Disaster* (New York: Penguin, 2010).

5 It is hard not to relate this conclusion to the argument of conservation scientists that we are in the midst of a global “mass extinction event” as a result of human activity. See Kolbert, *The Sixth Extinction*.

6 Fredric Jameson, “Postmodernism and the Market” (1990), in *Postmodernism: or, The Cultural Logic of Late Capitalism* (Durham, NC: Duke University Press, 1991), 263.

1990, Jameson was mostly concerned about the naturalization of finance, but around the same time, the first glimmerings of the inverse of this neoliberal doctrine emerged: the financialization of nature, which threatens to have even greater consequences.

The process began when the Reagan administration, reeling from the recession of the ’70s, developed a science policy that put the biotech revolution in motion.⁷ As a consequence, over the following decades the “limits to growth” environmentalism of the ’70s became gradually marginalized and a new paradigm was inaugurated, in which life itself was mobilized to save free-market capitalism from the threat of regulatory system change, in the name of ecological sustainability. No longer seen as finite, nature was conceptualized as technologically reproducible, which led to the biogenetic capitalism of the ’80s and ’90s, when individual genes, cells, proteins, and bodies were first commodified for pharmaceutical, medical, military, and agricultural applications, from gene therapy to biological weapons. As part of this development, nature became prey to the financial markets: transformed into an object of venture capital speculation (“nature as an accumulation strategy,” as geographer Neil Smith called it), its value came to be defined economically based on the promise of profits as determined by derivatives in the stock market. Natural disasters, including the predicted effects of anthropogenic climate change, have also been commodified according to this logic, whereby *environmental* crisis becomes first and foremost an *economic* crisis, to be addressed via economic means (in other words, to battle deforestation, we must financialize trees; to save rhinos, we must create a market for their horns). Capitalist catastrophism, as sociologist Melinda Cooper explains, tends to view crisis as an integral part of an endless Schumpeterian process of breakdown, reproduction, and innovation. According to this logic, the life of species and habitats, defined by a continuous cycle of death and rebirth, extinction and regeneration, becomes a model for the new bio-economy, thereby providing the conceptual means to overcome the finite resources of the fossil-fuel system of the earlier Fordist model of capitalism.⁸ Such thinking underlies the 1997 Kyoto Protocol and related efforts to stem climate change via market mechanisms—including emissions trading, pollution permit systems, and carbon taxation. Driven by the interests of developed countries, these strategies turn catastrophe itself into a profitable opportunity, while each passing year sets a new record for CO₂ emissions and a still warmer world.

With environmental calamity forecast for our near future, it has become all the more urgent to

7 Such policy “respond[ed] point by point to the ecological and biospheric limits painstakingly detailed by the Club of Rome” in *Limits to Growth*. Melinda Cooper, “Life beyond the Limits,” in *Life as Surplus*, 18.

8 *Ibid.*, 15–50.

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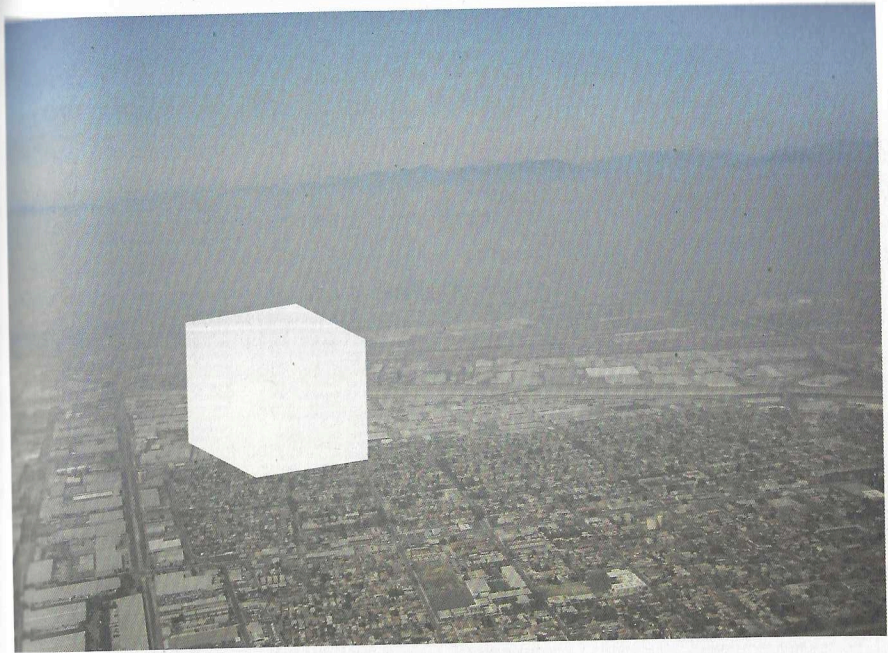
dismantle the logic that sees and treats nature as a financial object, viewing its breakdown as an economic opportunity—the most recent step in a long history of colonizing people and the environment.⁹ Artists and activists have not only addressed this task, dramatizing its cruel effects—including mass species extinction—in experimental media projects like *Autogena* and *Portway's*, they have also attempted to imagine and realize the definancialization of nature, whether through innovative legal constructions of the commons on a global as well as local scale, or through inventing and implementing collective experiments in sustainable living according to a postcapitalist ethos. As we move from the sky and heavens to the workings of the soil and earth—as in projects by Nils Norman and the Laboratory of Insurrectionary Imagination—we witness a new movement toward the materialization of utopias once thought to be ungraspable and beyond reach, or politically misguided and dangerously authoritarian. Now these proposals for creative—and importantly, self-critical—alternatives are more necessary than ever.

The Atmosphere as World Heritage Site

With *Public Smog* (2004–ongoing), Amy Balkin furthers the artistic exploration of the complex systems that link nature and finance.

The project details the Sisyphean attempts of the San Francisco–based artist to set up a clean-air “park” in the atmosphere, one whose location, dimensions, and duration are contingent on the contracts of the emission credits purchased by the artist.¹⁰ Balkin mimics the market-based approach to controlling carbon pollution (favored by the Kyoto Protocol), which provides economic incentives for reducing greenhouse gas emissions. According to this logic, a central authority (such as a state) sets a cap on the amount of pollution and sells emissions permits on the stock market that can be traded among companies, while intending to lower allowances over time. The real-world results, however, have been far from ideal. While the 2010 UN Convention on Biological Diversity supported “innovative financial mechanisms” to mitigate biodiversity loss, NGOs like Carbon Trade Watch—linked on Balkin’s website—point out how such economic instruments fail to address the drivers of environmental and social damage, and instead merely create markets for wealth accumulation without mitigating overall emissions.

⁹ On the long history of the expropriation and colonization of nature and the commons, see Peter Linebaugh, *Stop Thief! The Commons, Enclosures, and Resistance* (Oakland: PM Press, 2014).
¹⁰ *Public Smog* was shown at DOCUMENTA (13) in 2012 and more recently at Nottingham Contemporary in the 2015 exhibition “Rights of Nature.” For more on DOCUMENTA (13), see chapter 7.



Amy Balkin, *Public Smog* over Los Angeles, 2004

Balkin not only acquired carbon offsets for *Public Smog*, she also subverted, if on a small scale, the cap-and-trade system, by withholding and retiring those emissions credits from industrial use. The strategy helped her to create “clean-air parks” in the atmosphere. A twenty-one-minute slide show on the *Public Smog* website shows the financial and legal documents that created these parks, and excerpts from letters Balkin wrote to traders to acquire offsets and their sale contracts. Balkin opened the “Lower Park” in California’s South Coast Air Quality Management District for the month of June in 2004; the “Upper Park,” over the European Union, existed for a year beginning in the fall of 2006, then again over the United States from April to August 2010. Expanding the geographical possibilities of her project during a residency at the Centre Culturel Français Blaise-Cendrars in Douala, Balkin installed a series of thirty billboards across Cameroon’s capital to announce the inauguration of a clear-air park over Africa, which never came to pass, as the artist’s disillusionment with her strategy grew, owing to its proximity to the very logic she meant to contest.¹¹ Nonetheless, as a critique of the

¹¹ “I was feeling uncertain about continuing with market-based activities as an approach to open the park, and at the time didn’t find a pursuable strategy.” Amy Balkin, e-mail to the author, August 5, 2015.

Registration Number	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Buyer	Seller	Buyer	Buyer	Buyer	Buyer	Contract	RTG Expiring	Zone	Quantity (bbls)	Price (\$/bbl)	Trade Status	Trade Status Date	Date Received	
7104	101337 NATIONAL OFFSETS	700024	CANTOR FITZGERALD BROKERAGE L.P.	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	2 and all y	Coastal	2,500	5	-	Processing trade, Comp	7/14/04	6/21/04
7104	700024 CANTOR FITZGERALD BROKERAGE L.P.	101977	SIGNAL HILL PETROLEUM INC	NOK	2006 to 1	Coastal	2,500	3.00	Processing trade, Comp	7/27/04	6/21/04			
7104	42175 WEST NEWPORT OIL CO	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	2006 to 1	Coastal	2,500	3.00	Processing trade, Comp	7/27/04	6/21/04			
7105	42175 WEST NEWPORT OIL CO	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	2006 to 1	Coastal	1,015	5	-	Processing trade, Comp	6/24/04	6/21/04		
7105	700024 CANTOR FITZGERALD BROKERAGE L.P.	101977	SIGNAL HILL PETROLEUM INC	NOK	1 and all y	Coastal	1,015	5	-	Processing trade, Comp	7/27/04	6/21/04		
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7107	700024 CANTOR FITZGERALD BROKERAGE L.P.	101977	SIGNAL HILL PETROLEUM INC	NOK	3 and all y	Coastal	616	2.20	Processing trade, Comp	7/27/04	6/21/04			
7107	700024 CANTOR FITZGERALD BROKERAGE L.P.	101977	SIGNAL HILL PETROLEUM INC	NOK	2006 to 1	Coastal	229	2.38	Processing trade, Comp	7/14/04	6/21/04			
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7109	800189 SO CAL GAS CO (ES USE)	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	Dec-2004	Coastal	5,000	5	-	Processing trade, Comp	7/14/04	6/22/04		
7110	700024 CANTOR FITZGERALD BROKERAGE L.P.	129177	FUGERANTIS ASSOCIATES, A CAL LTD PNR	NOK	Dec-2004	Coastal	5,000	1.30	Processing trade, Comp	6/30/04	6/22/04			
7111	101337 NATIONAL OFFSETS	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	Dec-2004	Coastal	24,972	1.25	Processing trade, Comp	7/27/04	6/23/04			
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7113	14602 VERNON CITY LIGHT & POWER DEPT	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	Jun-2004	Coastal	8,000	5	-	Processing trade, Comp	6/24/04	6/10/04		
7113	14602 VERNON CITY LIGHT & POWER DEPT	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	Jun-2004	Coastal	8,000	5	-	Processing trade, Comp	6/24/04	6/10/04		
7114	700073 M&F, L.P.	49872	METAL CONTAINER CORP	NOK	Jun-2004	Coastal	10,000	0.85	Processing trade, Comp	7/27/04	6/23/04			
7115	700024 CANTOR FITZGERALD BROKERAGE L.P.	158680	NAVERUS, INC	NOK	Dec-2005	Coastal	2,608	3.00	Processing trade, Comp	7/14/04	6/18/04			
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7115	700024 CANTOR FITZGERALD BROKERAGE L.P.	158680	NAVERUS, INC	NOK	1 and all y	Coastal	47,087	8.44	Processing trade, Comp	7/14/04	6/18/04			
7115	700024 CANTOR FITZGERALD BROKERAGE L.P.	158680	NAVERUS, INC	NOK	Jun-2004	Coastal	229	3.00	Processing trade, Comp	7/14/04	6/18/04			
7115	700024 CANTOR FITZGERALD BROKERAGE L.P.	158680	NAVERUS, INC	NOK	Jun-2005	Coastal	616	3.00	Processing trade, Comp	7/14/04	6/18/04			
7115	700024 CANTOR FITZGERALD BROKERAGE L.P.	158680	NAVERUS, INC	NOK	Jun-2006	Coastal	616	3.00	Processing trade, Comp	7/14/04	6/18/04			
7115	700024 CANTOR FITZGERALD BROKERAGE L.P.	158680	NAVERUS, INC	NOK	2007 to 1	Coastal	616	3.00	Processing trade, Comp	7/14/04	6/18/04			
7115	700024 CANTOR FITZGERALD BROKERAGE L.P.	158680	NAVERUS, INC	NOK	2 and all y	Coastal	14,174	8.44	Processing trade, Comp	7/14/04	6/18/04			
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7116	158680 NAVERUS, INC	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	1 and all y	Coastal	47,087	8.44	Processing trade, Comp	7/21/04	6/18/04			
7116	158680 NAVERUS, INC	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	Jun-2004	Coastal	229	3.00	Processing trade, Comp	7/21/04	6/18/04			
7116	158680 NAVERUS, INC	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	Jun-2005	Coastal	616	3.00	Processing trade, Comp	7/21/04	6/18/04			
7116	158680 NAVERUS, INC	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	Jun-2006	Coastal	616	3.00	Processing trade, Comp	7/21/04	6/18/04			
7116	158680 NAVERUS, INC	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	2007 to 1	Coastal	616	3.00	Processing trade, Comp	7/21/04	6/18/04			
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7117	800020 CHEVRON PRODUCTS CO	700073	M&F, L.P.	NOK	Jun-2004	Coastal	80,000	0.86	Processing trade, Comp	6/30/04	6/11/04			
7118	800088 LUNDAV THAGARD OIL CO	700105	ENERGY INITIATIVE GROUP L.P.	NOK	Jun-2005	Coastal	10,000	1.13	Processing trade, Comp	7/14/04	6/20/04			
7119	43438 TRICO	43438 TRICO		NOK	Jun-2005	Coastal	10,000	1.13	Processing trade, Comp	7/14/04	6/20/04			
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7121	13717 FUGERANTIS ASSOCIATES, A CAL LTD PNR	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	Jun-2004	Coastal	18,315	0.80	Processing trade, Comp	7/27/04	6/20/04			
7122	800020 CHEVRON PRODUCTS CO	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	Jun-2004	Coastal	18,315	0.80	Processing trade, Comp	7/27/04	6/20/04			
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7124	700024 CANTOR FITZGERALD BROKERAGE L.P.	104212	ADRA ENERGY LLC	NOK	Jun-2004	Coastal	18,315	0.80	Processing trade, Comp	7/27/04	6/20/04			
7125	700098 NATSOURCE LLC	131023	BP WEST COAST PROD. LLC, CARSON REFIN	NOK	Jun-2004	Coastal	10,000	0.80	Processing trade, Comp	7/27/04	6/20/04			
7125	700098 NATSOURCE LLC	131023	BP WEST COAST PROD. LLC, CARSON REFIN	NOK	Dec-2005	Coastal	158,809	2.40	Processing trade, Comp	7/27/04	6/20/04			
7125	700098 NATSOURCE LLC	131023	BP WEST COAST PROD. LLC, CARSON REFIN	NOK	1 and all y	Coastal	158,809	2.40	Processing trade, Comp	7/27/04	6/20/04			
7125	700098 NATSOURCE LLC	131023	BP WEST COAST PROD. LLC, CARSON REFIN	NOK	Jun-2004	Coastal	15,000	0.59	Processing trade, Comp	7/14/04	6/20/04			
7126	800038 DOUGLAS PRODUCTS DIVISION	700098	NATSOURCE LLC	NOK	1 and all y	Coastal	9,196	8.44	Processing trade, Comp	7/14/04	6/20/04			
7127	700098 NATSOURCE LLC	700073	M&F, L.P.	NOK	Jun-2004	Coastal	24	4.26	Processing trade, Comp	7/14/04	6/20/04			
7128	700024 CANTOR FITZGERALD BROKERAGE L.P.	158680	NAVERUS, INC	NOK	Jun-2004	Coastal	3,000	0.45	Processing trade, Comp	7/21/04	7/04/04			
7129	101337	700116	AMY BALKIN	NOK	1 and all y	Coastal	3,000	0.45	Processing trade, Comp	7/21/04	7/04/04			
7130	800088 LUNDAV THAGARD OIL CO	700073	M&F, L.P.	NOK	Jun-2004	Coastal	24	4.26	Processing trade, Comp	7/21/04	7/04/04			
7131	700073 M&F, L.P.	116660	METAL CONTAINERS OF CALIFORNIA	NOK	Jun-2004	Coastal	3,000	0.45	Processing trade, Comp	7/21/04	7/04/04			
7132	87945 GREAT WESTERN MALTING CO, INC	700098	NATSOURCE LLC	NOK	2004 to 2	Coastal	3,500	0.85	Processing trade, Comp	7/21/04	7/04/04			
7132	87945 GREAT WESTERN MALTING CO, INC	700098	NATSOURCE LLC	NOK	2 and all y	Coastal	7,700	2.36	Processing trade, Comp	7/21/04	7/04/04			
7133	700098 NATSOURCE LLC	700105	ENERGY INITIATIVE GROUP L.P.	NOK	2004 to 2	Coastal	7,700	2.36	Processing trade, Comp	7/21/04	7/04/04			
7133	700098 NATSOURCE LLC	700105	ENERGY INITIATIVE GROUP L.P.	NOK	2 and all y	Coastal	7,700	2.36	Processing trade, Comp	7/21/04	7/04/04			
7134	700098 NATSOURCE LLC	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	2005 to 1	Coastal	3,000	2.36	Processing trade, Comp	7/21/04	7/04/04			
7134	700098 NATSOURCE LLC	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	2005 to 1	Coastal	3,000	2.36	Processing trade, Comp	7/21/04	7/04/04			
7135	700024 CANTOR FITZGERALD BROKERAGE L.P.	101337	NATIONAL OFFSETS	NOK	2005 to 1	Coastal	3,000	1.86	Processing trade, Comp	7/21/04	7/04/04			
7136	700105 ENERGY INITIATIVE GROUP L.P.	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	Dec-2004	Coastal	8,500	1.30	Processing trade, Comp	7/21/04	7/04/04			
7137	700105 ENERGY INITIATIVE GROUP L.P.	700024	CANTOR FITZGERALD BROKERAGE L.P.	NOK	Jun-2004	Coastal	8,500	1.30	Processing trade, Comp	7/21/04	7/04/04			
7137	700024 CANTOR FITZGERALD BROKERAGE L.P.	131732	NEWPORT P&L, LLC	NOK	Dec-2004	Coastal	8,500	1.30	Processing trade, Comp	7/21/04	7/04/04			

Amy Balkin, *Public Smog*, 2004; detail

financial instrumentalization of the environment and climate change, Balkin's project mirrors the approach of eco-activists such as Tim DeChristopher. At a Bureau of Land Management auction in 2008 to parcel out land to oil and gas companies next to national parks in southern Utah, the US activist, inspired by the disruptive tactics of the Yes Men, successfully bid \$1.8 million for 22,500 acres without the means or intention to pay for his purchase.¹² Managing to jam the auction's workings, he was fined and jailed for nearly two years for the disruption—even after the US Department of the Interior subsequently voided many of the sales, including most of those that involved DeChristopher, acknowledged that they lacked sufficient prior environmental and scientific review. Using the same logic of turning the system against itself, Balkin's work is no doubt less risky than DeChristopher's direct action as well as more conceptually mediated in casting a self-reflexive, critical regard toward its

12. See Bryan Farrell, "The Monkey-Wrench Prank: An Interview With Tim DeChristopher," *Mother Jones*, November 13, 2009, <http://www.motherjones.com/environment/2009/11/monkeywrench-prank-interview-tim-dechristopher>; and *Bidder 70*, the 2013 documentary on DeChristopher by Beth Gage and George Gage.

own processes and imagined effectiveness. Still, both share a certain humor expressive of the pleasure of anarchistic intervention, an artistic-activist monkey wrenching that also inspires further momentum in the rejection of nature's financialization.

Also included in *Public Smog* are transcribed snippets of conversations Balkin had with various NGO and governmental bureaucrats regarding the attempt to register the earth's atmosphere as a UNESCO World Heritage Site to protect it against further pollution. This aspect of the work allowed Balkin to raise questions about who is entitled to nominate and enforce such protections, and in turn about the (in)justice of the current system. Some of the responses—"Mhm, right. Right, right."—indicate the wall of unsympathetic bureaucracy Balkin ran into along the way. One responder, UNESCO legal consultant Francesco Francioni, explained that "the nomination could be possible only if all parties agreed [...] that the atmosphere is a part of the general environment of 'outstanding universal value' and that its conservation is essential to the conservation of the 'territorial' environment of every state"—as if those conclusions were debatable!¹³

Since only UNESCO States Parties—countries that have adhered to the World Heritage Convention—can nominate a world heritage site, Balkin invited them, as part of her project for DOCUMENTA (13), to lead a coalition process. She received thirteen responses out of the 186 letters sent, all declining the invitation. One expression of interest came from 'Ana Taufe'ulungaki, Minister of Education, Women's Affairs, and Culture of Tonga, an island nation in the Pacific Ocean, who had given a talk in 2011 titled "Safeguarding of Intangible Cultural Heritage,"¹⁴ even as she acknowledged that her small country, at risk from global warming's rising seas, was insufficiently equipped to begin or lead a coalition effort. To gather public support, Balkin invited visitors to urge their respective countries "to initiate an extraordinary nomination process to inscribe Earth's atmosphere on the UNESCO World Heritage List on an emergency basis," as her freely available postcards explained, to which visitors could add their names and then send on to government representatives of their "Nation." Using language reminiscent of UN bureaucracy and officialdom, these postcards explain the petition:

13. A precedent to Balkin's project, the March 1969 issue of the *Whole Earth Catalog*, edited by Stewart Brand, called for subscribers to write to President Nixon urging the establishment of the entire earth as a national park.

14. Dr. 'Ana Taufe'ulungaki, "Safeguarding of Intangible Cultural Heritage" (keynote address, workshop on safeguarding cultural heritage, Tonga National Cultural Center, Tofoa, March 29, 2011), <http://www.mic.gov.to/ministrydepartment/14-govt-ministries/moet/2318-dr-hon-ana-taufeulungaki-safeguarding-of-intangible-cultural-heritage>. Thanks to Balkin for pointing this out.

Recognizing the outstanding universal value of Earth's Atmosphere, and responding to the formidable threats and risks to its integrity from greenhouse gases, including a forecast global temperature rise of 3 to 6 degrees Celsius by 2100, Finding it in the common interest to protect the Atmosphere for present and future generations, and acknowledging that its preservation is the duty of the international community,

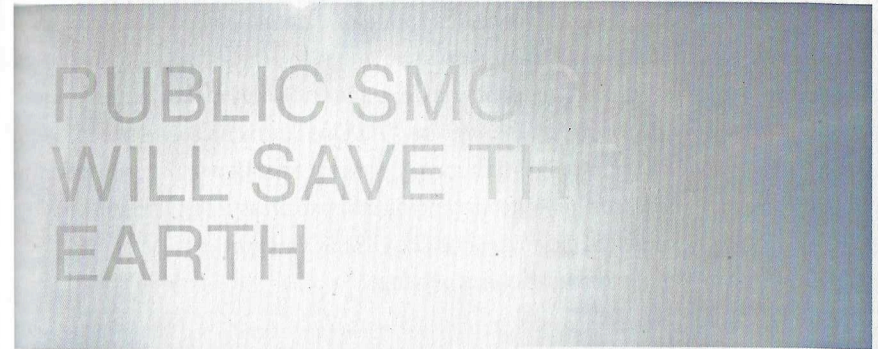
Further recognizing the impacts of climate change on sites of tangible and intangible natural and cultural heritage currently inscribed on the World Heritage List, The Nation should undertake and faithfully carry out a coalition-led effort for inscription of Earth's Atmosphere on the World Heritage List, consistent with the aims and goals of the World Heritage Convention.

In the case of Germany, fifty thousand signed postcards were collected and sent to the country's environmental minister in August 2012, with a further forty thousand going out in September (the month documenta ended); in November, Germany declined the request (as did all the other nations). Other hindrances to this goal of atmospheric protection, which might help explain the general lack of political will, are revealed by *Public Smog* and Balkin's ongoing work.¹⁵ One concerns the virtuality of the project—a park in the air can neither be seen nor exist in any stable state—which mirrors the invisibility and instability of atmospheric carbon dioxide and, indeed, climate change itself; fencing off one small section of the atmosphere for protection is clearly an impossible proposition. “Given the privileging of the landscape as a powerful symbolic image of nature since the Enlightenment,” media researcher Julie Doyle observes, “global warming and climate change have limited symbolic resonance, signifiable only when their impact has been seen on the landscape, thus effectively too late.”¹⁶ This very invisibility eases the denial of global warming, informing the lack of concern for the state of the earth's atmosphere, and facilitates its similarly abstract economic manipulation, opening onto its potential colonization by private interests.¹⁷ Those outcomes

¹⁵ For a 2015 “climate festival” in Melbourne, positioned against Australia's poor record of greenhouse gas reductions and protection of the Great Barrier Reef (nearly listed “in danger” recently by UNESCO), Balkin approached Australians to sponsor her initiative, once again to little effect. E-mail correspondence with author, August 5, 2015.

¹⁶ Julie Doyle, “Seeing the Climate? The Problematic Status of Visual Evidence in Climate Change Campaigning,” in *Eco-see: Image, Rhetoric, Nature*, ed. Sidney I. Dobrin and Sean Morey (Albany: SUNY Press, 2009), 286.

¹⁷ Balkin points out: “The atmosphere is a complex dynamic system, it's true, but there can be positive remediation. Two very different examples are the 1979 Convention on Long-range Transboundary Air Pollution, and the successful activism in 1999 by a coalition of residents and farm workers from Westley, California, who fought to have an enormous toxic smoke plume from a tire fire extinguished rather than



ENGLISH

DEUTSCH

FRANÇAIS

UPPER PARK

LOWER PARK

ECONOMICS

SCIENCE

WHY PUBLIC SMOG?

LONG TERM FORECAST

GREENHOUSE GASES

CO2 - Carbon Dioxide

Carbon Dioxide (CO2) is released when fossil fuels

PUBLIC SMOG

PUBLIC SMOG is a park in the atmosphere that fluctuates in location and scale. The park is constructed through financial, legal, or political activities that open it for public use.

Activities to create Public Smog have included purchasing and retiring emission offsets in regulated emissions markets, making them inaccessible to polluting industries.

When Public Smog is built through this process, it exists in the unfixed public airspace above the region where offsets are purchased and withheld from use. The park's size varies, reflecting the amount of emissions allowances purchased and the length of contract, compounded by seasonal fluctuations in air quality.

Other activities to create Public Smog impact the size, location, and duration of the



AIR POLLUTION CONTROL ZONES

South Coast Air Quality Management District

AIR POLLUTION MONITORING

State of the Air 2009 Scorecard
London Air Quality

Amy Balkin, screenshot of *Public Smog* website, 2015

are indicated in the piece's emphasis on the various bureaucratic challenges of protecting the atmosphere, and directly addressed in the research Balkin presents as part of the project's website, including its various links to critical literature on the offsets market. The website states: “Ultimately, as the logic of privatization points to the commodification of all common pool resources, a reduction model based on trade is contradictory to a socially just solution to global air pollution. We need another model. In the meantime we have *Public Smog*, a way for the global public to buy back the sky on the open market.”¹⁸ Balkin's work thus reproduces the financial practice of offsetting as a

allowed to burn out. And while fraught both in origins and at present, the World Heritage model strongly supports local and regional approaches for protection of varied types of ‘cultural landscapes’ of ‘outstanding universal value’ including ‘ongoing ecological and biological processes.’” Quoted in T. J. Demos, “The Law of the Land: An Interview with Amy Balkin,” *International New Media Gallery*, November 2013, <http://www.inmg.org/archive/balkin/catalogue/demos/#.VR1BWjuUcww>.

¹⁸ See publicsmog.org, which also references Tamra Gilbertson and Oscar Reyes, *Carbon Trading: How It Works and Why It Fails* (Uppsala: Dag Hammarskjöld Centre, 2009), <http://www.carbontradewatch.org/publications/carbon-trading-how-it-works-and-why-it-fails.html>.

response to climate change only to reveal its specious logic, an ironic gesture to expose the inherent failure of attempts to marketize pollution to ameliorate global warming (rather than reduce greenhouse gas emissions, cap and trade only makes banks and traders wealthier). Yet in declaring, on the website, “*Public Smog* is no substitute for direct action,” the artist also acknowledges that merely drawing attention to the problem is not enough; what is needed is further collective mobilization to pressure government institutions, and intergovernmental organizations like UNESCO, in order to bring about real solutions to the mounting threats of climate change.

Exceeding Two Degrees

Part of the growing tide of exhibitions dedicated to these issues, the 8th Sharjah Biennial (2007), titled “Still Life: Art, Ecology and the Politics of Change,” filtered its consideration of art and the environment through the United Arab Emirate’s stark contradiction of attempting to address ecological sustainability while relying on a fossil fuel economy and spectacular real estate development. Acknowledging the biennial’s significant carbon footprint alongside its broader concerns for ecology, the Danish artist Tue Greenfort produced *Exceeding 2 Degrees* (2007). The work involved a thermohygrograph (a chart recorder measuring temperature and humidity) placed on a table made of Malaysian wood that was fabricated in Japan and sold in Dubai. In this regard, Greenfort’s piece recalls Hans Haacke’s *Recording of Climate in Art Exhibition* (1969–70), which also used chart recorders and graphs to record the atmospheric conditions inside an art gallery. Art historian Luke Skrebowski writes that Haacke’s piece exemplified the artist’s “proto-institutional critique”—that is, “a condensed and elegant invocation of the museum’s function as the preserver of artworks’ capital value (both financial and symbolic),” done most directly by maintaining the works’ material existence.¹⁹ But Greenfort also goes beyond Haacke’s site-specificity by dramatizing the dispersed conditions of globalized commodity production, which formed one part of the work’s eco-institutional critique.²⁰ Another consisted of raising the temperature in the entire museum by two degrees Celsius—the interval then set as a plausible goal (seemingly unreachable now, even while not being ambitious enough) in the fight against global warming in the authoritative 2006 report *The Stern Review*, excerpts of which were also on view as part of the piece. Greenfort then used the

¹⁹ Skrebowski, “After Hans Haacke,” 121; also see Skrebowski, “All Systems Go,” 54–83.

²⁰ For more on Greenfort’s relation to ecology, see T. J. Demos, “Gas, Glass, and Polar Bears: Tue Greenfort and GASAG,” in *Tue Greenfort: GASAG Art Prize 2012*, ed. Berlinische Galerie (Bielefeld: Kerber Verlag, 2012), 20–27.



Tue Greenfort, *Exceeding 2 Degrees*, 2007

money saved on air-conditioning to preserve an area of Ecuadorian rain forest through a Danish environmental organization. This alternative version of offsetting, however, was hardly presented as a solution; rather, in an act of critical negation, the piece revealed the daunting complexity of the problem it addressed by entangling itself in its paradoxes. Although it rescued only a tiny piece of rain forest—around two square miles were purchased for around four hundred dollars, making this intervention at best a token gesture—Greenfort’s work demonstrated how the global economy joins regional ecologies via institutional connections. In addition, his project points to the inherent flaw in the logic of offsetting, which involves trading environmental damage in prosperous developed areas (in this case, Sharjah) for nature conservation in politically and economically disenfranchised areas (such as the Ecuadorian Amazon). Such thinking fails to take into account the impossibility of exchanging natural elements between discrete systems of biodiversity.

Like Balkin’s project on emission-credits trading, the piece taps into a now common (although still dubious) model to address climate change, a policy with roots in

the Kyoto Protocol, by mitigating atmospheric carbon.²¹ Titled “Reducing Emissions from Deforestation and Forest Degradation,” or UN-REDD, the scheme has been deployed worldwide in subnational, national, and international policies. The UN has explained that the goal is “to make forests more valuable standing than they would be cut down, by creating a financial value for the carbon stored in trees”—a formula for eco-economics, where nature is marketized and companies integrate the environmental impacts of production into their spreadsheets.²² The proposal of REDD is that developed countries (or corporations in those countries) pay developing ones carbon offsets for not cutting down their standing forests; in exchange, these agents can then continue their polluting activities elsewhere.

REDD (and its variations) has been met with major resistance from the very beginning, from environmental justice activists, Indigenous peoples’ organizations, and social movements in the Global South (including the Global Forest Coalition, Grassroots Global Justice Alliance, Indigenous Environmental Network, and La Via Campesina). They have all pointed out the program’s manifold problems: it allows biodiverse forests to be clear-cut and replaced by tree monocultures and genetically engineered varieties; it’s based on a false equivalence between volatile forest carbon (emitted via deforestation) and the carbon stored underground for tens of thousands of years; it treats forests as carbon sinks rather than integrated and biodiverse ecosystems; and it opens the door to carbon trading and speculation, which is at odds with forest conservation, local communities (who are forced into a market logic), and ecological sustainability. Moreover, REDD programs allow rich countries and companies to continue to pollute while presenting themselves as green. The provision to secure land in Africa and South America often ends up encouraging forest enclosures, privatization, and militarization, inviting fraud, corruption, and the forced displacement of Indigenous peoples.²³ For these

²¹ See Vivienne Holloway and Esteban Giandomenico, *The History of REDD Policy* (Adelaide: Carbon Planet, 2009), <http://www.forestcarbonportal.com/resource/history-redd-policy>.

²² On eco-economics, see the Natural Capital Project (a ten-year partnership founded in 2006 between the Nature Conservancy, WWF, University of Minnesota Institute on the Environment, and Stanford University), <http://www.naturalcapitalproject.org>; Lester R. Brown, *Eco-Economy: Building an Economy for the Earth* (New York: W. W. Norton, 2001); Jonathon Porritt, *Capitalism as if the World Matters* (London: Earthscan, 2005); and Nicholas Stern, *The Economics of Climate Change: The Stern Review* (Cambridge: Cambridge University Press, 2007).

²³ For further critical appraisals of REDD and carbon offsetting, see “No REDD! A Reader,” *No REDD: Papers, Volume 1*, accessed July 25, 2015, <http://noredd.makenoise.org>; “Why REDD Is Wrong,” *Global Justice Ecology Project*, November 25, 2010, <http://globaljusticeecology.org/why-redd-is-wrong-2/>; “Reaping Profits from Evictions, Land Grabs, Deforestation and Destruction of Biodiversity,” *Indigenous Environmental Network*, accessed July 25, 2015,

various reasons, Carbon Trade Watch contends that the scheme “could be the biggest land grab of all time with no enforceable safeguards at the national or subnational level that would guarantee protection of the rights of Indigenous Peoples and forest-dependent communities.”²⁴

The model of offsetting utilized in Greenfort’s *Exceeding 2 Degrees* offers the opportunity to consider these assorted problems. Its underlying theory of environment/monetary equivalence transforms nature into a commodity, introducing a generalization that abstractly exchanges a South American rain-forest allotment for the Sharjah atmosphere. Making this logic appear ridiculous by virtue of its miniscule proposal for the massive problem it evokes, Greenfort’s work echoes as well the thought of eco-critics such as Timothy Morton, who insists that we think of “ecology without nature,” arguing that the very idea of nature has become too ideologically compromised to warrant continued conceptual and aesthetic usage—as when anthropogenic warming is naturalized, as if it were not a man-made process intertwined with the fossil fuel economy. The post-natural condition doesn’t mean, of course, that there isn’t an ecosystem filled with diverse life-forms; rather, it warns against objectifying “nature” as separate and external, because living and nonliving things are all embedded within a “mesh” of social, political, and economic relations.²⁵ *Exceeding 2 Degrees*, like *Public Smog*, visualizes all three aspects of this network. By literalizing them within an all-too-pat scenario, risible in its simplicity (as if environments can be precisely measured and thereby financially valued), Greenfort reveals the logic of offsetting to be dependent upon exactly that conceptualization of nature as homogenous, commodifiable, and exchangeable.

<http://www.ienearth.org/REDD/index.html>; and “REDD: An Introduction,” *REDD Monitor*, last modified February 2011, <http://www.redd-monitor.org/redd-an-introduction>.

²⁴ “REDD+,” *Carbon Trade Watch*, accessed July 25, 2015, <http://www.carbontradewatch.org/issues/redd.html>. Also see the statement of opposition contained in the Kari-Oca II Declaration of 2012, authored by over five hundred representatives of Indigenous peoples from around the world: “We demand that the United Nations, governments and corporations abandon false solutions to climate change, like large hydroelectric dams, genetically modified organisms including GMO trees, plantations, agro-fuels, ‘clean’ coal, nuclear power, natural gas, hydraulic fracturing, nanotechnology, synthetic biology, bio-energy, biomass, biochar, geo-engineering, carbon markets, Clean Development Mechanism and REDD+ that endanger the future and life as we know it. Instead of helping to reduce global warming, they poison and destroy the environment and let the climate crisis spiral exponentially, which may render the planet almost uninhabitable. We cannot allow false solutions to destroy the Earth’s balance, assassinate the seasons, unleash severe weather havoc, privatize life and threaten the very survival of humanity. The Green Economy is a crime against humanity and the Earth.”

²⁵ See Morton, *Ecology without Nature*; and Timothy Morton, *The Ecological Thought* (Cambridge, MA: Harvard University Press, 2010).

Definancializing Nature

The projects by Balkin and Greenfort contrast with the essentialist idea of nature, both presented and complicated by pioneers of eco-art in the '70s, as a separate realm of purity in need of protection from industrial degradation, pollution, and economic exploitation. This earlier defense, however, frequently risked reifying nature—ironically paralleling the very objectifications of industry. But artists such as Joseph Beuys, Agnes Denes, Peter Fend, Hans Haacke, Helen Mayer Harrison and Newton Harrison, and Alan Sonfist nonetheless helped to focus on the representation of often ignored natural sites and industrially degrading practices and, like Balkin and Greenfort, addressed ecological issues by visualizing processes that are normally hidden. Sonfist's *Time Landscape New York City* (1965–ongoing) is a telling example: the artist returned a half block of Greenwich Village to its native precolonial condition, protected from surrounding invasive species, urbanization, and development—although since its founding, the land has been continually challenged by the encroachment of Manhattan's urban life.

Building on these pioneering experiments with art and nature, the models of Balkin and Greenfort nonetheless engage with a different breadth and conception of ecology. Rather than consisting of generally private or individual artistic gestures, they advance new modes of the commons, working with social movements and NGOs alike. Rather than being directed toward a specific place (like an open mine or enclosed lot), they concern the spaces of global geography, whose borders are crossed in networked systems of exchange, forming relational and post-natural areas (the earth's atmosphere, a “protected” section of the Ecuadorian rain forest, assemblages of inextricable nature-culture elements). Finally, instead of solely intervening in the ecological condition and context of a particular region, they address the terrain of the institutions of international law and finance that govern land and environment, further enmeshing nature within human systems. Balkin and Greenfort thereby reinvent earlier practices of eco-aesthetics—established in the work of Haacke, Smithson, Denes, Sonfist, and others—within the specifics of contemporary climate change and the legal and economic structures that address and regulate it, and forge connections with the international climate justice movement and environmental law on that basis.

In this manner, contemporary artists are increasingly responding to the recent calculations of green capitalism. Separating “nature” from human activities is no longer possible, since the environment, as we've seen, has become ever intertwined with economic speculation and legal regulations—which becomes all the more clear as the

industrial domination and biotechnological reinvention of nature grow and lead to environmental disasters caused by climate change, even as corporate and state powers attempt to keep the invisible drivers hidden.²⁶ These ecological breakdowns are in turn further exploited by industry and finance, as the market-state nexus prefers big-technology fixes like carbon sequestration and geo-engineering (large-scale projects that address the symptoms rather than the causes of climate change) in addition to carbon credit trading to reduce emissions, and international banks continue to provide the financial infrastructure, as indicated in the activist discourse forming around recent UN climate meetings.²⁷ Within this system, carbon trading serves to impose a system of property rights that, in an act of atmospheric and resource colonialism, “licenses enclosures of land, air, water and labor in the global South to serve the ‘carbon needs’ of the North,” as scholar and activist Larry Lohmann observes.²⁸ It helps to create a form of neoliberal climate change governmentality that, as corporate-policy critic Subhabrata Bobby Banerjee writes, “isolates the economic in such a way that institutions and policies focus more on the anti-competitive effects of climate change regulation rather than on the negative environmental and social effects of unbridled economic growth.”²⁹ Indeed, free trade is valued so highly as a global right these days that corporations (such as those in the mining and fossil fuel energy industries) now commonly bring lawsuits against governments for introducing “unfair subsidies” to green industries like solar or wind power, or for creating environmental regulations that reduce their corporate profits (which is bound to get even worse as international policies like TTIP, the Transatlantic Trade and Investment Partnership, are enacted).³⁰

Historian Dipesh Chakrabarty has argued that the present Anthropocene era challenges us to write the “species history of humans” directly alongside the

²⁶ For additional studies of this post-natural condition, see Scott and Swenson, *Critical Landscapes*.

²⁷ See Banerjee, “A Climate for Change,” 1763.

²⁸ Larry Lohmann, “The Endless Algebra of Climate Markets,” *Capitalism Nature Socialism* 22, no. 4 (December 2011): 101.

²⁹ Banerjee, “A Climate for Change,” 1765.

³⁰ See *ibid.*, 1774–75; and Lori M. Wallach, “The Corporation Invasion,” *Le Monde diplomatique*, December 2013, <http://mondediplo.com/2013/12/02tafta>. For instance, the Air Transport Association (the industry advocacy group for the major US airlines) took the European Union to court in 2009 for new regulations capping jetliner emissions and requiring airlines to pay for exceeding emission limits (in this case, the EU court ruled in favor of EU regulations). Under NAFTA, Canada and Mexico have each lost or settled five investor-state suits, with multimillion-dollar settlements going to foreign companies. In one example from 2012, the International Center for Settlement of Investment Disputes, a World Bank-affiliated institution in Washington that conducts arbitration, ordered Ecuador to pay \$1.77 billion to Occidental Petroleum for nullifying its contract with the corporation. See Manuel Pérez-Rocha, “When Corporations Sue Governments,” *New York Times*, December 3, 2014, <http://www.nytimes.com/2014/12/04/opinion/when-corporations-sue-governments.html>.

“global histories of capital.” We might add to this the challenge of disentangling the Anthropocene’s generic positing of human activities as the driver of geological change from what activist Vandana Shiva has termed “the corporate control of life” by biotechnology and intellectual property law. This historical condition of politico-ecological conflict represents a new stage in the “death of nature” (Shiva citing ecofeminist Carolyn Merchant), whereby genetically modified living organisms have come to be seen as “man-made” phenomena, stripped of their autonomous, self-organizing capacity, in an effort to guarantee the claims—and, of course, profitability—of corporate invention.³¹



Critical Art Ensemble, *Free Range Grain*, 2003–4

Critical Art Ensemble (CAE) has staged interventions in this realm with, for example, *Free Range Grain* (2003–4, in collaboration with Beatriz da Costa and Shyh-shiun Shyu). This mobile laboratory/performance piece traveled to various European art venues, where visitors were invited to bring in store-bought groceries for CAE members to test for genetically modified ingredients. The project exposes the tenuous anti-GM regulations in the European Union, which leave openings in the trade market for the import of processed foods, especially from the United States,

³¹ Chakrabarty, “The Climate of History,” 212; and Shiva, *The Corporate Control of Life*.

where corporations have spent millions blocking popular legislation that would enforce the labeling of GM products. While the piece represented “a means to visualize the material reality of theories of global trade,” as the artists explained, it also demonstrated how scientific detection techniques can be utilized by nonspecialists in radical ways that work against corporate obfuscation—dramatized by the casually dressed artists operating lab equipment to identify hidden ingredients in consumer products.³² Yet such cases also reveal complications of the post-natural condition: the activists who resist GMOs and commonly support small-scale organic agriculture maintain a steadfast belief in the natural and defend it as an area in need of protection against the onslaughts of the biotech industry. Just as some writers (like Morton) wish to put the term “nature” to rest theoretically, activists such as Shiva—and a whole host of environmental movements and Indigenous groups, as well as some governments, like Ecuador’s and Bolivia’s—take recourse to the “rights of nature,” which, invoking a politico-juridical strategy parallel to Balkin’s UNESCO initiative, they have defended in court, using “universal jurisdiction” to protect against the encroachments of corporate globalization.³³

If artists rarely approach such legal activism (Balkin aside), they do excel at unraveling some of the utopian and critical myths of separate holistic nature—as well as reasons why we might want to retain some element of the natural in the struggle against a biotech post-natural condition.³⁴ The works by CAE, Greenfort, Balkin, and Autogena and Portway visualize environmental, technological, and economic processes as a means to comprehend and critique: the artists each give shape or visibility, to varying degree and with varying emphasis, to the abstractions or unseen flows, networks, and conflicts on which both finance and global ecology depend. Yet these manifestations—an index of environments, institutions, economics, and subjectivities—are not simply mimetic, but point to transformations and deformations of the systems they engage. In this sense, the entire endeavor of ecologically minded art presses the age-old

³² See Beatriz da Costa and Shyh-shiun Shyu, “Free Range Grain,” *Critical Art Ensemble*, <http://www.critical-art.net/FRG.html>; and Steve Kurtz, Lucia Sommer, and Brian Holmes, eds., *Critical Art Ensemble: Disturbances* (London: Four Corners Books, 2012).

³³ Among the pertinent examples here are the Bolivian 2011 Law of the Rights of Mother Earth and the 2010 Ecuadorian lawsuit against BP following the Deepwater Horizon disaster. I address the rights-of-nature discourse at greater length in chapter 6. See also the 2015 exhibition I curated, “Rights of Nature: Art and Ecology in the Americas,” Nottingham Contemporary, <http://www.nottinghamcontemporary.org/art/rights-nature>.

³⁴ One additional leading example of artistic practice that does compellingly address rights-of-nature legality is Ursula Biemann and Paulo Tavares’s *Forest Law* (2014), which I address in “Rights of Nature: The Art and Politics of Earth Jurisprudence.”

modernist question of art and life—the union of which long glimmered in the dreams of the avant-garde—into literally new terrain that is not only social, but more specifically biopolitical and eco-financial. As is the case with our so-called post-natural condition, where nature can no longer be seen as discrete from human activity, art's autonomy is all the more untenable when faced with ecological catastrophe. Some artists are now demonstrating as such, by going far beyond institutional (and eco-institutional) critique and opting for an explicitly activist, interventionist practice, acknowledging that there is no Edenic existence to return to, yet also unwilling to surrender control of nature to corporate neoliberalism.

These artist-activists—perhaps there is no better term—often avoid the enclosure of art institutions, and certainly reject biogenetic capitalism's control of life, privileging instead local projects and communities as well as traditional and organic horticulture. In some cases of contemporary practice, the distinctions between art and activism are blurred in favor of self-sufficiency and an ethical eco-aesthetics. Bobby Banerjee writes: "In a critical political economy of climate change the 'exercise of power in the form of economy' is not the sole provenance of governments but emanates from a loosely woven web of interconnected actors and institutions whose interests sustain existing material inequalities and forms of political power. Thus, the key question for a more progressive and equitable climate regime is how can groups that are excluded from participation at the global level resist policies that undermine their sustainability?"³⁵ A number of figures dedicate themselves to inventing precisely this kind of resistance—practitioners such as Nils Norman, the Laboratory of Insurrectionary Imagination (Labofii), Bureau d'Études, Marjetica Potrč, Art Not Oil, Allora & Calzadilla, and the Yes Men, who have each focused on artistic-activist interventions that promote models of community-driven ecological sustainability. Pursuing these examples of the definancialization of nature, I'll consider projects by Norman and Labofii in the remaining pages of this chapter.

Models of Utopia

As we've seen in chapter 1, the artistic practice of Nils Norman contests prevailing economic conditions and redirects urbanism to ecological sustainability and activist creativity. *Geocruiser*, in operation from 2001 to 2004, was a refurbished bus that used biodiesel and solar power and contained a

As we've seen in chapter 1, the artistic practice of Nils Norman contests prevailing economic conditions and redirects urbanism to ecological sustainability and activist creativity.

³⁵ Banerjee, "A Climate for Change," 1782; citing Michel Foucault, "Governmentality" (1978), trans. Rosi Braidotti and Colin Gordon, in *The Foucault Effect: Studies in Governmentality*, ed. Graham Burchell, Colin Gordon, and Peter Miller (Chicago: University of Chicago Press, 1991), 92.



Nils Norman, *Edible Park*, 2010

community library and greenhouse; and *Ideal City, Research/Play Sector* (2005) was one of a series of utopian architectural proposals for urban public spaces, integrating child-directed playscapes, permaculture gardening, and anti-neoliberal activist training grounds.³⁶ Following suit, *Edible Park*, initiated in 2010 in The Hague, is a longer-term and more ambitious laboratory for community-based city planning, where sustainability equals an ecological and socioeconomic durability opposed to its conventional green-capitalist definition. The project was conceived, in part, as a response to a 2006 proposal by the Office for Metropolitan Architecture for a new creative hub in a former industrial area near the city center, including an amusement park and leisure district, beach, glass-and-steel skyscrapers, contemporary art museum, and Formula 1 racetrack—in other words, a high-impact, energy-intensive "spontaneous city" that has become a model of ready-made urbanism in global-city architecture. Plans were shelved,

³⁶ For analyses of other design projects by Norman, see T. J. Demos, "Designs for a New Economy: Nils Norman's *Public Workplace Playground Sculpture for Graz, 2009*," in *Utopia and Monument: On the Validity of Art between Privatisation and the Public Sphere*, ed. Sabine Breitwieser (Graz: Steirischer Herbst, 2011); and Norman's website, accessed May 31, 2016, <http://www.dismalgarden.com/projects>.