



# Appropriating the Weather

## Olafur Eliasson and Climate Control

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**Abstract** This article focuses on works by the Danish artist Olafur Eliasson, who has recently produced a number of large-scale and immersive installations, such as *Ice Watch* (2014) and, most famously, *The Weather Project* (2003). His human-made environments situate the human subject and human experience at their center, inviting the spectator to experience atmospheres and environments anew. Relying on the disorienting and defamiliarizing effects of enlarged scale and colored fog, Eliasson tools his art to increase the spectators' awareness both of their environment and of their position as phenomenological subjects within it. The works' emphasis on an ecology of individual encounter and feeling situate the experiencing subject at their center, providing an analogue to the human centering that marks the era of the Anthropocene. While Bruno Latour has claimed that Eliasson's attempts at climate control are not consistent with a desire to control the elements, I argue instead that Eliasson's environments are fully orchestrated affairs that share the technologies and efforts of the twentieth and twenty-first centuries' militarization of climate control. Their phenomenological embrace, which has become a hallmark of much immersive art, relies on a stripe of self-centering that turns art into an occasion for feeling, foreclosing on critique. Eliasson's spectacles are containers for experience, refusing the possibility of a radical externality that is uncontrolled or the possibility of atmospheres that exist beyond their human witness.

**Keywords** weather, Anthropocene, participatory art, air, phenomenology, climate control

In November 2015, Danish artist Olafur Eliasson and geologist Minik Rosing transported twelve enormous blocks of cast-off ice from a fjord in Greenland to the streets of Paris for an installation called *Ice Watch*. Timing the installation to coincide with the UN Climate Change Conference, Eliasson arranged the twelve giant blocks (eighty tons total) like numbers on a doomsday clock to melt publicly in the Place du Panthéon (fig. 1).<sup>1</sup> Eliasson has moved ice before. The previous year he staged *Ice Watch* for the meeting of the UN Intergovernmental Panel on Climate Change, shipping one hundred

1. The installation was originally scheduled to open on November 29, 2015, the day before the conference, at the Place de la République, but it was moved following the Paris terror attacks.



Figure 1. Olafur Eliasson, *Ice Watch*, 2014. Twelve ice blocks. Place du Panthéon, Paris, 2015. Photo by Martin Argyroglo, © Olafur Eliasson

tons of ice from the Nuup Kangerlua fjord to City Hall Square in Copenhagen. For *Your waste of time* (Berlin 2006, New York 2013), he twice transported chunks of ice that had broken off Iceland's largest glacier, Vatnajökull, and displayed them for three months in a refrigerated gallery. As the artist has made explicit, the spectacle of artificial climate in *Your waste of time* and the reenactment of the drama of glacial melt in *Ice Watch* are intended to elicit a collective civic response to the increasingly acute crisis of global climate change. While it remains to be seen if encountering melting glacial ice in Paris ultimately will produce any kind of increase in action when it comes to negotiating the realities of global warming, I am concerned less with the political efficacy of these public installations than with the politics of Eliasson's particular phenomenological address to the spectator, which situates the individual spectator's participation and response at the center of the installation's meaning. *Ice Watch* manufactures the effects of climate change in order to make global warming visible in and to human time and experience, shifting the stakes of the installation from object to participant. Much of the poignancy of *Ice Watch*, which conflates human time and geologic time, depends on the recognition that the human and the natural are indeed intertwined and that geographies, temporalities, and time scales are vulnerable to alteration. Both the iceless future and the frozen past are brought to bear on the knowable, melting puddle of the present, where time is exhausted, polluted, dripping out, wasted. *Ice Watch* purportedly counts down to a time in the future when the glaciers will no longer be seen, and by its

very name it places the ice's visibility—that is, the precarity of the spectacle rather than the precarity of the ice per se—at the center of the problem of lost, or wasted, geologic time. The icebergs in Paris had not finished melting by the end of the conference's run on December 13 but were transported from the square in a big green dumpster to be brought to schools and cultural institutions, according to the show's press release.

While the most obvious criticism of *Ice Watch* might address the irony of harvesting, shipping, and refrigerating ice in order to promote awareness of the human impact on global warming, such tallying of carbon emissions sidesteps the broader and more vexed phenomenological implications of this frozen spectacle of climate change.<sup>2</sup> By moving icebergs, Eliasson creates a recursive fictive environment that funnels time and melting ice through the spectator's own experience and undermines notions of nativity and the natural environment. In other words, *Ice Watch* is less about the ice than about the spectator's watch. In the social media campaign for the installation (#icewatchparis on Instagram and Twitter), there are images of people hugging, licking, kissing, and listening to the ice; they press their ears to its surface, drink its meltwater, and dance around the ring. By name alone, the installation predicts that one day the glaciers will be lost to human sensation; one day a human encounter with such ice will be impossible. The threat to human visual and sensory experience is thus entangled with the politics and realities of glacial melt. On Twitter during the Paris installation, Eliasson captioned a nighttime photograph of the melting ice, "Night watch: the ice doesn't sleep. Keep watching over it." Reiterating this vigil for inevitable loss, on the final day of the installation he wrote, "Ice Watch has run out. Keep watching over the ice."<sup>3</sup> The imperative to watch asserts the central agency of the experiencing subject engaged in the act of looking. *Ice Watch* stages the desire for encounter and witness, immersing the experiencing subject at the center of its rhetoric of urgency. By transporting icebergs to a foreign environment, Eliasson creates the hermetic conditions for witnessing this spectacle of ice melt and stipulates proximity and experience (individual encounter) as a primary means of political and environmental engagement. Human oversight, however, is by no means a guarantee of presence (and certainly not of permanence). The glaciers will melt, whether or not we see them and whether or not we see ourselves seeing them in the *mise en abyme* of social media branding and self-awareness.

What is at stake in Eliasson's summons to witness in his immersive environments? His participatory art relies on a set of phenomenological premises that declare art's capacity to demystify and activate the viewer's awareness by way of embodied

2. The carbon footprint of "*Ice Watch*" was about thirty tons, according to the report prepared by Julie's Bicycle, *The Carbon Footprint of Ice Watch*, [olafureliasson.net.s3.amazonaws.com/subpages/icewatchparis/press/Ice\\_Watch\\_Carbon\\_Footprint.pdf](http://olafureliasson.net.s3.amazonaws.com/subpages/icewatchparis/press/Ice_Watch_Carbon_Footprint.pdf) (accessed August 28, 2016).

3. Studio Olafur Eliasson Twitter posts, December 4, 2015, [twitter.com/olafureliasson/status/672916989019582466](https://twitter.com/olafureliasson/status/672916989019582466); and December 13, 2015, [twitter.com/olafureliasson/status/676076382011727873](https://twitter.com/olafureliasson/status/676076382011727873). Similarly, in block letters following the Copenhagen installation, the corresponding *Ice Watch* website (now password protected) used to read, "Ice watch is over—keep watching over the ice."

sensory experience. Emphasizing what he sees as participatory art's potential for critique, Eliasson claims that his works challenge a model of passive contemplation of a work of art and engage, instead, with an active spectator who not only completes the work of art but gains an expanded or transformed sense of self and the world.<sup>4</sup> Eliasson frequently comments on the potential for immersive art to open new avenues of human interaction and agency, laying claim to the underlying ideological assumptions of participatory art that situate the phenomenological subject and sensory experience at the center of the work's meaning. In what follows, I question the ethics or limits of the phenomenological stripe of self-centering upon which the premise of Eliasson's participatory art relies.<sup>5</sup> Other accounts of installation art have considered how the sensory immediacy of these works produces an activated and *decentered* subject—one who can move through the work, disrupting the fixed structures of Renaissance perspective that positioned the viewer at the privileged and fixed center of the depicted world. By allowing for multiple points of view and sensory experiences, Claire Bishop explains, installation art denies “the viewer any one ideal place from which to survey the work,” undermining a static position of mastery and knowledge in favor of a decentered, moving subject.<sup>6</sup> In claiming that his art is a “self-portrait of the spectator” that is about each viewer's experiential response, Eliasson disperses the terms of mastery from a central, single-point perspective to the discrete perspectives of individuals, as each decentered subject becomes the center of the work. The promise of participation skews instead toward possession. Earlier well-known poststructural critiques of phenomenology warned that its positing of an ahistorical, universal subject sidelines sociocultural factors of race, gender, or sexuality, but here I offer a different kind of objection to Eliasson's embrace of the phenomenological subject and challenge the assumptions made about the necessary centrality of an experiencing subject in the first place. What does it mean to suggest that the artwork begins and ends with the subject? Eliasson's stated intentions of fostering collectivity and engagement aside, how might the emphasis on individual encounter that is limited to feeling and subjectivity actually foreclose upon a critical position of ecological awareness? His myriad atmospheric spectacles, for all their revelatory promise and stated intentionality, hew closely to self-centered and anthropocentric terms of possession and control, where human experience and sensation (or individual desire) eclipse the need for empathy or critique.

4. In the introduction to her edited collection on participatory art, Claire Bishop writes that the “desire to create an active subject, one who will be empowered by the experience of physical or symbolic participation,” is one of the primary motivations for encouraging participation in art since the 1960s. Bishop, introduction to *Participation*, 12. While it may indeed be the stated intention of the artist to produce a sense of engagement on the part of the viewer, Hal Foster has convincingly argued that much of the writing about participatory art and the museum relies on a straw-man construction of the passive viewer simply awaiting activation. Foster, *Bad New Days*.

5. The embrace of phenomenology is certainly not unique to Eliasson's practice but has been part of the discourse surrounding participatory art since the 1960s, inspired in part by the translation of Maurice Merleau-Ponty's *Phenomenology of Perception* into English in 1962.

6. Bishop, *Installation Art*, 13.

In the first half of the essay, I show how much of Eliasson's art deals with fabricated containers for experience that, through their use of color, enclose the spectator in sealed-off and manufactured weather environments—rooms, passageways, spheres, artificial fogs. These enclosures work both to contain and to center the subject at a remove from an inhuman or unsensed externality. As made evident in *The Weather Project* (2003), his most famous and most celebrated installation, Eliasson's participatory art makes the human a condition of the environment and forecloses on the possibility that there would be anything beyond the terms set by such anthropocentrism. Placing the enlarged human at their center, his contained atmospheres rationalize (thus justify) the human domination of the engineered environment simply by way of phenomenological encounter. The human-centered conditions of Eliasson's art imitate the conditions of the Anthropocene, which would have us understand all environments as human-made. His immersive art relies on the premise that if people become aware of their role in shaping climate, air, and color, they will inhabit spaces differently.<sup>7</sup> However, even if the work does generate the intended insight that climate change has rendered nature artificial, the human-centering that such an insight requires replicates and ultimately undoes the terms of its critique. By short-circuiting around human feeling, his works imitate the human-centering enacted by the Anthropocene, reproducing and reinforcing its anthropocentrism in the form of the always-centered phenomenological subject.

By taking the fact of human possession of the environment as a given from the start, Eliasson's installations share the anthropogenic terms of the twentieth and twenty-first centuries' militarized climatology and efforts to "own the weather."<sup>8</sup> Focusing on *The Weather Project*, the second part of the essay charts a series of connections between Eliasson's human-made weather, London's own history of fog, pollution, and yellowed skies, and military interest in fog dispersal and seeding. The relationship between Eliasson's weather environments and the contamination of the air is in part formal; like the deadly smogs that enveloped London in the nineteenth and twentieth centuries, his works tint the air with smoke and light, creating the yellow fog of industrial pollution and making it difficult to see. The disorienting effects of fog's obscuration, which figures in many of Eliasson's works, was tooled throughout the twentieth century to military ends, as the weather increasingly was understood as a medium to be controlled, and cloudy skies became weaponized. The anthropocentric and military conceit behind these attempts to manipulate environments and cloud atmospheres appropriates the weather for human domination (both of the skies and of other humans). To control the opacity of the air in the age of pollution, contamination, and

7. In an essay on Bruce Nauman's participatory art, Janet Kraynak points out that art-historical interpretations of audience participation have tended to emphasize "its positive attributes as well as its potential for critical transformation." Kraynak, "Dependent Participation," 24.

8. See House et al., "Weather as Force Multiplier."

aerial warfare shifts the stakes of visibility from the phenomenological subject to questions of who, ultimately, possesses the environment and controls the weather.

### Human in the Anthropocene

The drama of an installation like *Ice Watch* has less to do with the slow melt of the glaciers than with the way it stages the connection between human oversight and human-centeredness in the context of the Anthropocene. The millennia-old ice of *Ice Watch*, whose visible layers of compressed snow and air construct a frozen history of pollution dating to 1200 CE, preserves the visible geologic record of atmospheric change and of the natural force of the human. The ice captures bubbles of past air and provides a material account of thousands of years of atmospheric accretion.<sup>9</sup> By creating controlled environments that reveal the indelible mark of the human on geologic processes, Eliasson directs our attention to the notion that the atmosphere has been and continues to be fundamentally affected and transformed by human actions. Eliasson brings the melting ice to the fold of the human, and the impact of the installation depends on the hope that this displacement of geologic masses, which exaggerates human interference in glacial melt, will allow people to see the effects of climate change, which are otherwise invisible or unknowable. At the same time, however, Eliasson's positioning of the human subject and human experience at the center of his immersive works participates in the aggrandizement of the human and of human agency that brands the era of the Anthropocene. In other words, by inscribing the centrality of human experience and encounter, Eliasson's works deepen the stripe of anthropocentrism that runs through the concept of the Anthropocene.<sup>10</sup> His environments are appropriative (for how else to describe what he calls an ice "harvest," importing glacial melt from fjord to city square?), in which the weather, climate, and spectator are controlled by Eliasson, orchestrator and imitator of artifice and atmosphere.

Naming the epochal moment when humanity emerges as a geologic force that has altered and engineered the planet, the Anthropocene provides a geologic description of the calamitous effects of such human-centering.<sup>11</sup> In his frequently cited work, "The Climate of History: Four Theses," Dipesh Chakrabarty has argued that to "call human beings geological agents is to scale up our imagination of the human."<sup>12</sup> This scaling up involves a kind of estrangement, for, he writes, we "cannot ever experience ourselves as a geophysical force—though we now *know* that this is one of the modes of our collective existence."<sup>13</sup> The challenge, as Chakrabarty explains, is to imagine the individual

9. For an analysis of ice as archive, see Taylor, "Auras and Ice Cores," 75.

10. For an account of the "redundancy" of the human that accompanies the Anthropocene, see Ronda, "Anthropogenic Poetics," 102.

11. The term *Anthropocene* was used first by Eugene F. Stoermer in the 1980s and gained traction following an article he coauthored with Paul J. Crutzen in 2000. Crutzen and Stoermer, "'Anthropocene.'"

12. Chakrabarty, "Climate of History," 206.

13. Chakrabarty, "Postcolonial Studies and the Challenge of Climate Change," 12.

human thus, abstractly, in relation to geologic and historical time, in order to reconstitute our understanding of the distant future that casts far beyond any one person's experience or actions. Bruno Latour writes, similarly, "We are no longer taken as those puny humans overpowered by nature but, on the contrary, as a collective *giant* that, in terms of terawatts, has scaled up so much that it has become the main geological force shaping the Earth."<sup>14</sup> While Chakrabarty and Latour describe a collective human enormity that abstracts any one individual, the concept of the Anthropocene also extends an open invitation to aggrandize individual human experience by way of its sponsorship of human-centering. "The age of Man," as Eileen Crist has pointed out, places humans on a pedestal and does little to critique or challenge such world domination and appropriation.<sup>15</sup> This supersizing of the human lies at the heart of participatory work like Eliasson's installations, which reproduce the human-centric terms of the Anthropocene. Eliasson's enormous installations, which are themselves scaled to vast expanses—skylines, horizons, rivers, turbine halls—fall outside the typical purview of the museum gallery and encourage us to think in the monumental terms of gigantism. The art itself is huge—so big, in fact, that it asks us to enter into it, immersing the spectator.<sup>16</sup> This encounter with extra-largeness does not, however, correspond to a Romantic notion of the sublime that ultimately threatens the agency of the subject or spectator; instead, it threatens to draw each human into the scale of the gigantic and enlarge the individual's experience under the signature of the Anthropocene.<sup>17</sup>

My argument about Eliasson's anthropocentric art runs counter to Latour's endorsement of the urgent purchase of Eliasson's atmospheric installations. Latour claims that Eliasson's efforts at climate control are not "inspired by a mad ambition for total mastery of the elements, but by a reasonable wish to ascertain what sort of breathing space is most conducive to civilized life."<sup>18</sup> Drawing from the recent work by Peter Sloterdijk on atmosphere and containment, Latour considers Eliasson's works to be explorations "of the nature of atmospheres in which we are all collectively attempting to survive."<sup>19</sup> Latour provides a familiar account of ecological crisis, suggesting there is no external reality that we might designate as nature or beyond the human. Nature as exteriority is simply a modern myth. Following this line of thought, the space that remains for available experience is the domesticated sphere, or artificial container of

14. Latour, "Waiting for Gaia," 3.

15. Crist, "On the Poverty of Our Nomenclature," 132.

16. James Meyer writes that *The Weather Project* makes him feel small. Meyer, "No More Scale," 221. For another critique of the supersizing of art since minimalism, see Morris, "Size Matters."

17. On Eliasson's sidestep from sublimity, see Crary, "Your Color Memory."

18. Latour, "Atmosphère, Atmosphère," 30. Latour is here referring to Peter Sloterdijk's trilogy *Sphären*. Eliasson is friends with both Latour and Sloterdijk and has invoked both theorists in his writing and interviews. Sloterdijk used an image from *The Weather Project* for the cover of the English translation of his book, *Neither Sun nor Death*.

19. Latour, "Atmosphère, Atmosphère," 30.

existence that is a mediated environment, collapsing a distinction between nature and machine, or culture. Our only choice, according to Latour, is to control the climate for the sake of caring for it and so to embrace the age of Man. He understands Eliasson's artistic engagement with the Anthropocene as a comment on atmospheric uncertainty in the age of climate change. However, Eliasson's practice is to exercise control over his environments, co-opting the participants' breath and their breathing spaces by way of enclosure. In other words, Eliasson manages the air.

### Colored Bubbles

To control the air is to contain it, as Sloterdijk has argued. In *Bubbles: Microspherology*, the first volume in his *Spheres* trilogy, he likens the construction of enveloping interiors to floating spheres, beginning the book by describing a child who is blowing soap bubbles.<sup>20</sup> "There is," he writes, "a solidarity between the soap bubble and its blower that excludes the rest of the world." This dyad's solidarity turns on the breath: "Who first had the thought that the world is nothing but the soap bubble of an all-encompassing breath?"<sup>21</sup> The first "all-encompassing breath" in Sloterdijk's book is the exhalation of "the soap bubble artist," the child-creator of fictional spheres and fantastical worlds. Following the book's publication in English, Eliasson tweeted an image of a hand holding the book open to the first page. He captioned the photograph: "Spheres forever! Love Sloterdijk's universe of bubbles and foam."<sup>22</sup> The photograph included the initial illustration in the book: *Bubbles*, by G. H. Every, 1887, after Sir John Everett Millais (1829–96), which was used as the advertising image for Pears Soap. The painting is of a young boy who is holding a pipe and bowl and gazing up at a colored bubble floating overhead. On the subsequent page, Sloterdijk refers to the child at the beginning of his book and in the painting as a "little wizard," and his metaphor invites us to understand the primary action of blowing soap bubbles as a kind of wizardry and artifice, where the bubble blower orchestrates and manufactures the air.

In *Happiness* (2011), Eliasson created his own world of bubbles floating in a darkened space, visible only through a long horizontal opening in the gallery wall. The bubbles, illuminated by blue light, drifted through the enclosed space, their blue colors shimmering in the light as they fell, bounced, and burst. As expressions of enclosure and interiority, these bubbles contain the air, giving it visible form through color. In other words, color becomes a condition of enclosure in the visible environment. Color's containment creates the terms under which Eliasson reveals the act of perception, or rather, under which he turns subjective perception itself into an object of study. Eliasson's work charts the terms set forth by advances in color theory that began with Isaac

20. Sloterdijk, *Bubbles*, 18.

21. *Ibid.*, 20.

22. Studio Olafur Eliasson, Twitter post, April 30, 2015, 6:03 a.m., [twitter.com/olafureliasson/status/593762707544870912](https://twitter.com/olafureliasson/status/593762707544870912).



Newton in his early eighteenth-century theory of light and colors in *Optiks*, which decoupled color from the world of objects in favor of a theory of atmospheric differences in light. Color is air rather than object. Later, Goethe's *Theory of Colors* shifted Newton's central positioning of light to the human eye, to the perceiver of luminous experience. Color's atmosphere thus unfolds "within the human subject," and it is this shift that is made apparent in Eliasson's own embrace of color as an expression of subjectivity and interiority.<sup>23</sup> Color forms an atmospheric container that negates the possibility of externality and reinforces the centered perspective and experience of the human.

Eliasson's phenomenological approach undergirds this effort toward the radical defamiliarization of sensory experience occasioned by the interaction of spectator and immersive, colored spectacle. Works such as *Room for All Colours* (1999) and the follow-up, *360° Room for All Colours* (2002), which yoke the experience of seeing color to air and containment (fig. 2), articulate the stakes of colored enclosure in Eliasson's oeuvre. In both installations, Eliasson makes the air visible as color, turning the atmosphere itself into a medium. In *360° Room for All Colours*, the spectator enters into a cylindrical colored space illuminated by 456 red, green, and blue vertical fluorescent lights that gradually alternate behind a screen. The panorama replaces figuration with the airy abstraction of the color spectrum. The spectator is enveloped by color, which becomes the condition of seeing. Similarly, in his more recent work, *Your Rainbow Panorama 360°* (2011)—a permanent installation at the ARoS Museum in Aarhus, Denmark—Eliasson designed a panoramic passage, made of sections of colored glass, on the roof of the museum. The walkway makes a 150-meter loop, so that viewers can walk into and through the various color tones on the spectrum, coloring their worlds red, orange, yellow, green, blue, indigo, and violet as they move. Eliasson refers to the walkway as composed of a set of shifting "colour atmospheres" that filter the air and color space.<sup>24</sup>

Many of Eliasson's manufactured environments depend on what Walter Benjamin calls a child's understanding of color as a form of enclosure. In an essay written in 1916, "A Child's View of Color," Walter Benjamin turns to images of soap bubbles and rainbows when formulating his ideas for how a child sees color as structural, or essential, rather than applied. He writes, "Children make soap bubbles. . . . Children like the way colors shimmer in subtle, shifting nuances (as in soap bubbles)."<sup>25</sup> The rainbow colors of the soap bubble form its structural properties. Benjamin explains that "for the person who sees with a child's eyes," color "marks boundaries, is not a layer of something superimposed on matter, as it is for adults. . . . Where color provides the contours, objects are not reduced to things but are constituted by an order consisting of an infinite range of nuances."<sup>26</sup> Color, for a child, is applied to a surface but has the thickness or

23. Crary, "Techniques of the Observer," 7. For more on Newton's and Goethe's color theories, see Sepper, *Goethe contra Newton*.

24. Eliasson, quoted in Beccaria, *OE: Olafur Eliasson*, 103.

25. Benjamin, *Selected Writings*, 50.

26. *Ibid.*



*Figure 2.* Olafur Eliasson, *360° Room for All Colours*, 2002. Stainless steel, wood, fluorescent lights, color filter foil (red, green, blue), projection foil, control unit 320cm, ø 815cm. Museum of Modern Art, New York, 2008. Photo by Studio Olafur Eliasson. Courtesy of Jarla Partilager, private collection. © Olafur Eliasson

multiple dimensions of curvature (“contours”)—that is, the bubble itself or the bending arc of a rainbow. Color is entire and enveloping. Following Benjamin, the child’s images of the bubble and the rainbow—both important structures for Eliasson—provide dual metaphors for an immersive observation of color, producing an “interrelated totality of the world of the imagination” that is “full of light and shade, full of movement, arbitrary and always beautiful.”<sup>27</sup>

The use of color in Eliasson’s installations creates and contains entire constructed worlds that hinge on the fantastic and the artificial, suggesting that the bubble-world of childish wonder is thoroughly mediated. In other words, Eliasson’s colored spaces produce a dreamed-up technosphere of manufactured color that celebrates its richly hued artifice or distance from the natural world. Thus Jonathan Crary argues that because Eliasson “does not engage in any concealment or mystification of how specific effects are fabricated,” we might call his works “anti-phantasmagoric,” effectively setting them apart from the sense of wonder produced by childish delights like the soap bubble or rainbow.<sup>28</sup> However, the illusion does not disperse nor the bubble burst along with the knowledge of their production. Instead, Eliasson repurposes the child’s totalizing

27. *Ibid.*, 51.

28. Crary, “Olafur Eliasson,” n.p.

relationship to color to create carefully wrought atmospheres suffused with color—engineered climates that encircle the spectator and insist on their remove from an unconditioned externality. Eliasson’s atmospheric color spectacles place the spectator within enclosures that are rounded or curvilinear, spaces that, according to Crary, abandon the familiar planes and surfaces of the rectilinear room or the gallery.<sup>29</sup> Crary observes that in these pieces, Eliasson works with a panoramic design that breaks down epistemological assumptions about subject and object, audience and theater, and, without “an external field of visual objects,” casts into doubt the location of sensory experience or perception.<sup>30</sup> While coordinates may be obscured, as Crary suggests, it bears noting that the subject is nonetheless always at the experiential center of this immersive world. Eschewing the screen and surface in installations like *360° Room for all Colours*, Eliasson deals in blurred atmospheres of color that bend and expand along the endless and shifting horizon of spherical forms, which enclose the spectator. Eliasson invites the spectator to enter into the color spectrum as a radical means of mediated defamiliarization that insists on interiority.

### Your Weather Conditions

Eliasson’s conditioned worlds of engineered, colored climates ask that we understand the atmosphere itself as an engineered medium. To this end, Eliasson has produced a series of installations that decouple the weather from externality. In *Your strange certainty still kept* (1996), a thin curtain of water fell from a gutter that ran along the center of the gallery’s ceiling, creating a downpour at the center of the darkened room, which fell noisily into a shallow pan on the floor. The screen of water was lit by strobe lights, turning the falling rain into static drops. In *Double Sunset* (1999), Eliasson constructed a giant metal sun, thirty-eight meters in diameter, which hovered on the Utrecht horizon like a solar billboard alongside the actual setting sun. Most recently, at Versailles, *Fog Assembly* (2016) generates clouds of mist that encircle the spectator and control the atmosphere, while *Waterfall* (2016) produces a giant cascade, descending from a scaffold that stretches high into the sky, echoing an earlier installation in New York City.

Eliasson’s most famous work remains *The Weather Project*, in which he used smoke, light, and mirrors to fill the cavernous space of the Tate Modern’s Turbine Hall with fake sunshine and fog (fig. 3). *The Weather Project*’s artificial sun was constructed using a semicircular steel frame fitted with a projection screen, behind which shone two hundred monofrequency lamps. The enormous windows were blacked out with vinyl and paint, and the ceiling, which is thirty-five meters above the floor, was covered with hundreds of offset mirrors that completed the sun—half reflection, half projection—and doubled the hall’s dimensions. Only the colors black and yellow were visible. Throughout the day, an artificial mist drifted through the hall, turning the air into a blurry medium that refracted the light and obscured the vast industrial and rectilinear space of

29. Crary, “Your Color Memory,” 219.

30. *Ibid.*, 220.

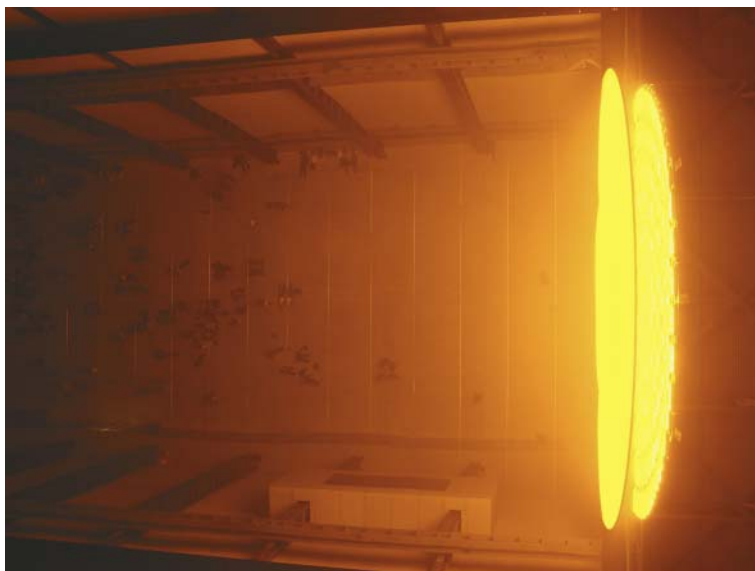


Figure 3. Olafur Eliasson, *The Weather Project*, 2003. Monofrequency lights, projection foil, haze machines, mirror foil, aluminum, scaffolding 26.7×22.3×155.44m. Tate Modern, London, 2003. Photo by Andrew Dunkley and Marcus Leith. Courtesy of the artist; neugerriemschneider, Berlin; and Tanya Bonakdar Gallery, New York. © Olafur Eliasson

the museum, further enclosing the spectator in colored fog. Like the sun, whose construction (indeed, its very constructedness) was made apparent to the viewer, the mechanical nozzles, pipes, and pumps of sixteen humidifiers, from which the mist emanated, were also visible. Viewers could walk beneath and past the sun (while looking at themselves in the mirrored ceiling) and see the lamps and wires that composed it (fig. 4). Climbing to the top of the gallery, they could look behind the sky and witness its fabrication.

Writing about *The Weather Project*, Hal Foster claims that Eliasson's imperative is to reveal "that nature is but a 'weather project' and that phenomenological experience is given as mediated."<sup>31</sup> The risk, following Foster's line of argument, is that Eliasson's engineered spaces of sensory experience "render the phenomenological faux," so that perception is "done for us."<sup>32</sup> Revealing the mechanics of manufacturing weather, Eliasson alerts viewers to the ways in which he filled the Turbine Hall with its fake atmosphere, staging a discord between outside and inside that dispenses with any notion of actual weather (the grey skies of a typical winter's day in London) in favor of the Turbine Hall's hazy tones. In bringing the dream of a sunny outdoors in, Eliasson cancels out the bleak urban winter by way of monofrequency bulbs and glycol, turning gray to yellow, unseen to seen. His giant half sun is an upside-down sunset—an impossible endlessly setting sun. The discord staged between inside and outside, yellow and grey, high contrast and mist, artificial and natural light speaks to Eliasson's central efforts in many of his installations to denaturalize the weather by controlling it.

Eliasson insists he is after total disclosure rather than trickery, refusing the possibility of immediacy or naturalism by revealing his own hand in his installations' artifice.

31. Foster, *Art-Architecture Complex*, 213.

32. *Ibid.*, 209.

Figure 4. Olafur Eliasson, *The Weather Project*, 2003. Monofrequency lights, projection foil, haze machines, mirror foil, aluminum, scaffolding 26.7×22.3×155.44m. Tate Modern, London, 2003. Photo by Olafur Eliasson. Courtesy of the artist; neugerriemschneider, Berlin; and Tanya Bonakdar Gallery, New York. © Olafur Eliasson



His goal, repeated frequently by both the artist and critics, is to guide the viewer toward recognizing and realizing mediation and mediated environments, drawing particular attention to the spaces of the museum as themselves places of constructed and controlled encounters between subject and object.<sup>33</sup> As he notes, “The benefit in disclosing the means with which I am working is that it enables the viewer to understand the experience itself as a construction and so, to a higher extent, allow them to question and evaluate the impact this experience has on them.”<sup>34</sup> Turning the viewers’ attention to the materials of *The Weather Project*, Eliasson aimed to draw the spectators into a recursive phenomenological field that implicates them in their own acts of looking. As noted in the reviews of the installation, many of the more than 2 million people who came to the exhibition during its six-month run lay down on the floor of the museum, turning their eyes upward to gaze at their own reflected image. They became part of the spectacle, enclosed by and continuous with the yellowed space of the Turbine Hall. Eliasson’s immersive weather experiment turned spectators and their experience into the work of art itself, implicating the viewer in the phenomenological process of “seeing yourself seeing,” as he puts it.<sup>35</sup> His emphasis on defamiliarization and demystification—on revealing for the spectator something that was previously unseen,

33. Eliasson, “Museums Are Radical.”

34. Tate Modern, “About the Installation: Understanding the Project,” [www.tate.org.uk/whats-on/exhibition/unilever-series-olafur-eliasson-weather-project/understanding-project](http://www.tate.org.uk/whats-on/exhibition/unilever-series-olafur-eliasson-weather-project/understanding-project) (accessed August 28, 2016).

35. Eliasson says he borrowed the phrase from California Light and Space artist Robert Irwin’s formulation, “perceiving yourself perceiving”; see Eliasson, “Take Your Time,” 55. The link between Eliasson’s work and Light and Space artists like Irwin and James Turrell has been well established. See, for instance, Lee, “Your Light and Space.”

unknown, unthought by way of revelation—turns on the interpenetration and mutual implication of subject and surrounding.

Eliasson himself said of the piece that the “mirror, not the sun, is what people are really staring at: so the work is not so much the general spectacle of a fake sun, but a person’s individual encounter with his own reflection.”<sup>36</sup> The spectator thus shuttles back and forth between the recognition of artifice and the narcotic effects of narcissism—experiencing the weird delight of finding yourself reflected in the artwork itself. Put slightly differently, the beginning and end of the spectacle is you: it is the desire to see yourself in misty sepia, in this enclosed space, under the spectacle of a fake sun that conditions you, and those around you, to lie down. As Guy Debord writes, “The spectacle is essentially tautological, for the simple reason that its means and ends are identical. It is the sun that never sets on the empire of modern passivity. It covers the entire globe, basking in the perpetual warmth of its own glory.”<sup>37</sup> Debord’s metaphor of the spectacular sun is almost too apt here, for it describes how *The Weather Project* becomes, ultimately, an experiment in climate and crowd control under the banner of phenomenology. And the experiment worked: how else to explain why so many people lay down on their backs, were rendered passive by the hazy spectacle of a perpetually setting sun that offered no warmth?

Even as Eliasson invites the spectator to acknowledge the artifice of his in vitro presentation—we can see the half-domed sun constructed of light bulbs and wires, the humidifiers pumping mist into the air, the seams of the mirrors on the ceiling, the blacked-out windows—we still cannot see beyond our reflection. Nor does he want us to: his works’ anthropogenic address, which depends on a phenomenological stripe of embodied spectatorship, mirrors their anthropocentrism. Installations like *Your Rainbow Panorama*, *Your Color Memory*, *Your Atmospheric Color Atlas* use second-person forms of address that position the viewer not just as an active participant in the art but as possessor (more than one hundred of his works’ titles begin with the possessive pronoun). Ownership is guaranteed phenomenologically by the mere experience of being there.<sup>38</sup> Eliasson thus turns ecological encounter into a form of domination. His ecological commitment to the Anthropocene continuously reinscribes human determination and domination through its enclosed, anthropocentric framework, which puts the experiencing subject (with its shifting coordinates and relativism) front and center. Thinking about Eliasson’s repeated use of second-person pronouns in the titles of his installations, I might thus rephrase my objection as a question: why must the weather belong to anyone?

36. Quoted in Kimmelman, “Sun Sets at the Tate Modern.”

37. Debord, *Society of the Spectacle*, 15. For more on Eliasson’s engagement with Debord, see Banai, “Sensorial Techniques of the Self.”

38. Similarly, Amanda Boetzkes argues that Eliasson’s works “refer to the individuality of the spectator’s perceptual experience through an emphasis on the word ‘your.’” The titles insist that “sensual experience is confined to the limits of individual perception,” conceding thus “to the solipsism of the embodied condition.” Boetzkes, “Phenomenology and Interpretation beyond the Flesh,” 703.

Eliasson has said that he is less interested in the weather per se than in how “people engage sensually with the qualities of weather—rain, mist, ice, snow, humidity.”<sup>39</sup> Like other natural elements in Eliasson’s work, the weather constitutes a broader mediated and closed environment that is necessarily anthropocentric and anthropogenic. When discussing *The Weather Project*, Eliasson used the example of a manufactured rainbow (and not the sun) as the primary example of his interest in mediation and human encounter:

Let’s say I make a certain work (which I call a “machine”) that creates a certain phenomenon. Say it’s a rainbow making machine. I’m not really interested in the rainbow itself. What I am interested in is when there’s nobody in the space looking at the rainbow. The rainbow is made up of light and from the angle of light to the eye, and if there’s no eye there’s . . . well, it’s a good question as to whether it’s there or not. I’ve repeatedly worked within this field. I’m looking at how we create our surroundings by engaging with them: we being a result of our environment and the environment being a result of our taking part in it.<sup>40</sup>

Eliasson’s choice of a rainbow-making machine speaks to his interest in the ways different people experience a uniquely realized phenomenon rather than the phenomenon itself. Each experience of a rainbow is individual, depending on singular perspective, light waves, and water droplets. The rainbow that I see is not the same rainbow that someone else sees, and it is this difference that Eliasson exploits and attempts to preserve, placing differentiated subjective experience—that is, the self-conscious and self-centered experience of seeing—at the crux of his installations. The example of a rainbow machine draws from his own work: in *Beauty* (1993), for instance, a rainbow appears on a curtain of water that is illuminated by a spotlight. Seeing the rainbow depends on the position of the spectator, since the rainbow—a purely optical event—is visible only at a particular angle, conditioning a shifting reality and underscoring the subjectivity of color perception. While he indicates that he is interested in what happens when there is “nobody in the space looking at the rainbow,” Eliasson expresses ambivalence about the very possibility of an unperceived rainbow or an epistemology that is not centered in the experiencing subject. Insisting on the creative agency of the human as spectator, he is leery of a kind of beauty or phenomenon that might exist in a reality beyond human perception, beyond a human-centeredness. If “there’s no eye,” for Eliasson, there is only the unanswered emptiness of an ellipsis. Eschewing equally the possibility of an unobserved rainbow and the possibility of a de-centered phenomenological subject, Eliasson exploits, instead, the human displacement of and impingement on the natural world by way of what he calls “phenomena-producers”—rainbow-making machines, transported glaciers, dislocated waterfalls, artificial mists, and, in

39. Quoted in Kimmelman, “Sun Sets at the Tate Modern.”

40. Eliasson, “Behind the Scenes,” 72.

the case of *The Weather Project*, a fake sun.<sup>41</sup> Each phenomenon-producer is a medium that offers the spectator a reflexive model for self-awareness, repeating the terms of the Anthropocene.

### Controlling the Weather

When Eliasson was preparing *The Weather Project*, he and the exhibition's curator, Susan May, circulated a questionnaire—the Tate Weather Monitoring Group Survey—among the staff of the Tate. The survey's populist assumption that the English necessarily have something to say about the weather is underpinned by Samuel Johnson's famous remark: "It is commonly observed, that when two Englishmen meet, their first talk is of the weather; they are in haste to tell each other, what each must already know, that it is hot or cold, bright or cloudy, windy or calm." In anticipation of the show's opening, a press release reported the news of research being conducted in the Turbine Hall, imagined as weather station with its own meteorological conditions. The data gathered were used not for research, however, but for the marketing campaign for the exhibition, creating a closed circuit for the project. Eliasson's twenty-one-question survey began with the following, "On an average day, how often would you discuss the weather?" with the possible answers of "five times a day or more," "three times a day," "once a day," or "never." Some questions were evaluative: "How would you interpret the following weather description: London, 12 pm, 5°C, light winds, few high clouds, sunny." And the possible answers of "very good," "good," "fair," "bad," "very bad." Other questions were relational: "In which season do you kiss your partner the most?" and "In which season do you kiss someone other than your partner the most?" Still others were about preference: "Which do you prefer—paintings with clouds or paintings with blue skies?" The one that interests me here is the penultimate question: "If you could, would you like to control the weather?" to which 45 percent of participants responded "Yes" and 55 percent "No."<sup>42</sup> This ambiguous split is statistically insignificant, as we have no real information about how the survey was conducted or how many participants there were. However, that this question was part of the survey at all is a reminder that the anthropogenic dream of controlling the weather is, in fact, at the heart of Eliasson's installation.

The drive to control the weather's vicissitudes—to mediate and contain the atmosphere, as Eliasson does—has a particular recent history of its own that yokes such acts of geoengineering to pollution, warfare, and the politics of climate.<sup>43</sup> So complete was Eliasson's mediation or control of light and air in the exhibition that one of the gallery attendants, as the installation was being mounted, compared himself to an air raid warden during the Blitz, "looking for chinks of light."<sup>44</sup> The light from the fake sun is

41. Quoted in May, "Meteorologica," 19.

42. "Tate Weather Monitoring Group Survey," 63–64.

43. For a comprehensive account of the history of controlling the weather, see Fleming, *Fixing the Sky*.

44. Hardwicke, "Secret Diary of an Art Gallery Attendant."



designed explicitly to remain indoors, to be invisible from the outside in order to defend against aerial attack and to guard against overexposure and the perils of externality. There is something unsettling, then, about *The Weather Project*, which comes from its very sunniness, its dreamy, hallucinogenic qualities, which gloss that it shares military technologies and ideologies of weather manufacturing. The myriad accounts of *The Weather Project* have overlooked its shared territory with the modern militarized politics of atmosphere, preferring to acknowledge the beams of the sun rather than the foggy contaminants in the air and its manufacture. As reported in the *Guardian* newspaper, however, the glycol fog Eliasson pumped into the enclosed space of the Turbine Hall was said to have had hallucinogenic effects on the staff.<sup>45</sup> Allegations that the fog was poisonous were quickly dispensed with by the Tate's public relations team, but the yellow haze of the installation along with images of the recumbent bodies of spectators lying en masse on the floor turn the exhibition's endless sunset into a series of apocalyptic hallucinations that summon the history of poison gas and polluted air in the twentieth century. In *Terror from the Air*, Sloterdijk brings together trench warfare, the battlefield, fumigation, and the gas chamber, arguing that modernity is branded as a "process of atmosphere-explication" for the sake of war. He traces this "atmoterrorism" to the German use of chlorine gas on the battlefield at Ypres in 1915, which filled the air with a yellow-tinted cloud driven by the wind.<sup>46</sup> Gas warfare attempts to control the enemy's air—to poison the atmosphere and make it visible; it turns the element we take most for granted, the air itself, into a site of contamination and a medium of fear. Sloterdijk charts a path from the poisoned air of Ypres to the increased use of fumigation and pesticides in the 1920s, to the US introduction of gas as a means of "humane" execution in 1924, and to the gas chambers of mass extermination in Nazi concentration camps. Poison air, he explains, is the currency of modern warfare and industrialization, which attacks the givens of existence.

Unlike fog created by dry ice, which is weighted by carbon dioxide and hangs close to the ground, glycol fog is light and tends to hover in the air for prolonged periods of time, forming clouds. The experience of disorientation felt by the Tate's staff was less likely the consequence of glycol poisoning than simply of not being able to see clearly in the obscurity. *The Weather Project* reminds us that London (and England more generally) has long been associated with brown and yellow fog, resulting from weather events, industrial pollution, and war.<sup>47</sup> Eliasson's sepia mist summons Charles Dickens's famous descriptions of nineteenth-century London in *Bleak House* (1852–53), whose first paragraph augurs "the death of the sun" and the second declares repeatedly that there is "fog everywhere." In the novel's London, "the streets were so full of dense

45. Gibbons, "Mellow Yellow Haze Gives Tate Staff Touch of the Sun."

46. Sloterdijk, *Terror from the Air*, 47.

47. For a history of London fog and further literary examples, see Brimblecombe, *Big Smoke*, and Corton, *London Fog*. For a rich account of literary atmosphere in the eighteenth century, see Lewis, *Air's Appearance*.

brown smoke that scarcely anything was to be seen.”<sup>48</sup> So too the fogs in Arthur Conan Doyle’s Sherlock Holmes adventures are brown, the tones of which are echoed again in Oscar Wilde’s “Impression du Matin” (1881), where “the yellow fog came creeping down / The bridges, till the houses’ walls / Seemed changed to shadows.” T. S. Eliot’s “The Love Song of J. Alfred Prufrock” (1917) describes a “yellow fog that rubs its back upon the window-panes,” its “yellow smoke that slides along the street” repeated later as the “brown fog of a winter dawn” in *The Waste Land* (1922).<sup>49</sup> To these sulfuric yellows and browns, we might add John Ruskin’s black “loathsome mass of sultry and foul fog,” the subject of his lecture *The Storm-Cloud of the Nineteenth Century* (1884), which left “the hills invisible,” as the “fearfully dark mist” erased the sky of even a “glimpse of blue.”<sup>50</sup> Ruskin’s concern in his study of storm clouds has to do with their “peculiar darkness,” the way in which they “blanch the sun,” leaching its color and leaving “a sulfurous chimney pot vomit of blackguardly cloud.” This “dry black veil” of “fog and artificial gloom” that obscures sight is, for Ruskin, the result of human-made pollution and war. He cites his own diary entry from February 20, 1872, which discusses a phenomenon he calls a “plague wind” that “looks partly as if it were made of poisonous smoke.”<sup>51</sup> Speaking to the Victorian fears of solar annihilation, the “wind of darkness” obscured the sun, temporarily blinding the author and blocking out the world.

London’s history of yellow, polluted air is connected as well to the Bankside Power Station, which generated electricity from 1952 to 1981 and is now the home of the Tate Modern, which housed *The Weather Project*. Originally conceived as a coal-fired power station, Bankside ultimately was redesigned to run on oil, following the coal shortage of 1947 and an especially cold and snowy winter. When the station was constructed, the public concern was that the building’s emissions would damage the dome of St. Paul’s Cathedral, on the other side of the river. Subsequently, the designs for the “cathedral of power” were adjusted to include a lowered, central tower and a gas-washing plant at roof level. In contrast to Victorian smokestacks and coal-burning power stations, the new Bankside building was designed to emit only “a smokeless shimmer of vapour.”<sup>52</sup> Conjuring the building’s implication in the city’s visibly polluted past, *The Weather Project*’s yellow mist bears the atmospheric traces of a “London particular,” recalling London’s most famous and deadly recent fog, the Great Smog of December 1952.<sup>53</sup> Also known as the “Big Smoke,” the fog lasted more than a week and resulted in

48. Dickens, *Bleak House*, 13, 42.

49. Wilde, “Impression du Matin,” 745; Eliot, *Collected Poems*, 13–14, 65.

50. Ruskin, *Works of John Ruskin*, 36–37.

51. *Ibid.*, 33.

52. Quoted in Moore and Ryan, *Building Tate Modern*, 182.

53. For a discussion of the phrase “London particular,” see Corton, *London Fog*, 23. Eliasson used mist in an earlier piece, fittingly called *Yellow Fog* (1998), which was first shown in New York at the Jewish Museum in and is now on permanent display in Vienna. At dusk each day, for forty seconds in three-minute intervals, thirty-two fluorescent tubes emit a specific yellow light and illuminate the Verbund building. Fog rises up the facade at

the deaths of at least four thousand people in December alone and thousands more as a result of the pollution.<sup>54</sup> This toxic “particular” was itself the result of stilled, trapped air: the smog was made up of soot and sulfur dioxide—the byproducts of burning coal—that became stuck by the downward pressure of a cold front, enveloping London and spreading to much of the United Kingdom. The pea-soup fog was yellow, a color enhanced by the light from gas lamps and show windows, and its residue was black, leaving traces of particulates on clothes, skin, any exposed surface.<sup>55</sup> The fog reduced visibility to only a few meters: people could not see their hands or feet; theaters and cinemas were shut because they could not see the screen. All they could see was the yellow air. As one Londoner put it: “I’ll never forget it because the smog was so thick you really felt like you were walking into a war,” aligning the fog of industrial pollution with the smoke and fog manufactured and dispersed by the military.<sup>56</sup>

During World War II, the British military developed FIDO (Fog Investigation and Dispersal Operation) to deal with the problem of fog, which consistently prevented fighter planes returning from Germany from landing in Britain.<sup>57</sup> In *Fixing the Sky*, James Roger Fleming describes how FIDO consisted of “a system of tanks, pipes, and burners surrounding British airfields and designed to deliver petroleum that, when ignited, raised the ambient temperature by several degrees—enough to disperse the fog and light the way for aircraft operations.”<sup>58</sup> Aircraft would land on a strip delineated by walls of flames, fueled by thousands of gallons of petrol (the system burned up to six thousand gallons of fuel per aircraft).<sup>59</sup> The problem that FIDO attempted to address was that of controlling the air by force in order to raise and ultimately eliminate the fog’s opacity—and to this end it was a success, allowing for the Allies to carry out air strikes that would otherwise have remained grounded. Once a matter of public health, fog dispersal became part of a broadly understood military effort to lay claim to the skies and dictate visibility through strategies of fog abatement and its manufacture.

Fleming and Sloterdijk both chart a history of the increasingly intense relationship between military interests in weather and technologies of climate control, amplified by the development of cloud-seeding techniques in 1947 and the use of silver iodide to make rain. In July 1972, Seymour Hersh published an article in the *New York Times*, “Weather as a Weapon of War,” that revealed how the Air Force corralled the rain as a military technology in North Vietnam over the Ho Chi Minh Trail, seeding the clouds

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regular intervals, from the street level to the roof. Here, too, the illuminated fog is itself a smoke screen, obscuring the building and altering spatial relations.

54. The number of fatalities attributable to the Great Smog of 1952 now is thought to be twelve thousand. The gravity of this particular pea souper occasioned the Clean Air Act of 1956, which restricted the burning of domestic fuels in cities, introducing smokeless zones.

55. Brimblecombe, *Big Smoke*, 125.

56. Quoted in Corton, *London Fog*, 280.

57. Fleming, *Fixing the Sky*, 128.

58. *Ibid.*, 129.

59. *Ibid.*, 132.

with silver iodide and lead iodide to extend the monsoon season and block access for supply lines.<sup>60</sup> Subsequently, in 1978, the Convention of the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD) banned large-scale environmental modification for military purposes. Paying little heed to ENMOD, in 1996, the US Air Force 2025 committee received a report titled “Weather as Force Multiplier: Owning the Weather in 2025.”<sup>61</sup> Inheriting the terms of the Cold War, the very title of the report suggests that weather modification is of a piece with military conquest and dominance—a way of multiplying extant force through the containment and control of an otherwise unstable system. The report issues from the prediction of Irving Langmuir, who along with Bernard Vonnegut discovered cloud-seeding, when he suggested, “Rainmaking or weather control can be as powerful a war weapon as the atom bomb.”<sup>62</sup> To own the weather, then, is to control its vicissitudes and purpose the skies to military, agricultural, and economic gain.

While the report covers a range of strategies for “owning the weather” within the subsequent thirty years, I am interested particularly in how fog and obscurity are militarized. The authors claim that “weather-modification clearly has potential for military use at the operational level to reduce the elements of fog and friction for friendly operations and to significantly increase them for the enemy.”<sup>63</sup> The report reveals that the military’s efforts to appropriate the air build on a series of experiments in twentieth-century cloud and fog manufacture, tooling opacity for military ends. While smoke screens have been used for centuries in war, in the First and Second World Wars, smoke and fog emerged as critical technologies to protect troops and defenses against attacks on the ground and from the air. In *Aëroplanes and Dirigibles of War*, Frederick Talbot describes the contemporary use of a “smoke screen” in World War I by German aviators who would throw “smoke balls” overboard when in danger of being overtaken: “The aëroplane becomes enveloped in a cloud of thick impenetrable smoke,” allowing the fighter to dash “out of the cloud in such a way as to put the screen between himself and his pursuer.”<sup>64</sup> According to General William Balck, the British were the first to use smoke materials on the ground in World War I “for the purpose of protecting the flanks of advancing infantry; to obscure the view of an observation station or machine gun; for deception, to divert the attention from important points; to simulate a gas attack; to screen troop assemblies in the open, movements along roads, and the flash of guns; and finally for the purpose of hiding troop concentrations and movements, batteries, and the flash of guns from the view of airplane observers.”<sup>65</sup> Weaponizing obscurity by way of imitation—smoke screens and manufactured fog—modern warfare brings

60. Hersh, “Weather as a Weapon of War.”

61. House et al., “Weather as Force Multiplier”; Sloterdijk also discusses this report in *Terror from the Air*, 64.

62. Quoted in Fleming, *Fixing the Sky*, 171.

63. House et al., “Weather as Force Multiplier,” 4.

64. Talbot, *Aëroplanes and Dirigibles of War*, 172.

65. Balck, *Development of Tactics—World War I*, 147.

together meteorology and geoengineering under the guise of controlling both the air and visibility.

By creating his own enclosures of mist and color, Eliasson taps into a polluted military history of thickening the atmosphere that pivots on poison gas, smoke, and cloud—air amassed by color and contamination—and exchanges transparency for opacity, externality for containment. His constructed environments are destabilizing not only for the way in which they invite blindness but also for their enforcing of conditions of fog or opacity as formal signatures of the Anthropocene that subject the viewer to environmental manipulation. To mention a few other examples, in *Your Atmospheric Color Atlas* (2009), Eliasson filled a room with dense fog lit by red, green, and blue lights (originally, he wanted to fill the entire building). In *Din Blinde Passager: Your Blind Passenger* (2010), he pumped fog into a long plywood corridor, illuminated once again by yellow lights. The air was so thick, spectators could barely see what was in front of them. So too with Yansoung Ma in *Feelings Are Facts* (2010), artificial fog and a sloping floor were constructed to disorient viewers and plunge them into obscurity. His installations limit what the viewer can see, restricting the terms of interiority to the blacked-out windows of the Turbine Hall or the plywood walls of a slanted room filled with mist. Eliasson uses fog as a technology of disorientation and impermanence. His intent is to destabilize perception, to make viewers lose their bearings in the unfamiliar, to render them vulnerable to sensation or feeling. The fog is a signifier of extreme interiority that blocks out the world but never the subject's senses. It siphons the individual from a collective, reducing the world to the limits of an experiencing body moving along a corridor, from one point to another, but getting nowhere beyond itself.

### Conclusion, or Selfies in the Anthropocene

Jill Bennett has argued that immersive installations like Eliasson's foggy works provide "intimate studies of respiration and of an atmosphere that is sensed, not viewed."<sup>66</sup> Sideline vision, she understands the corporeal presence of the spectator as part of Eliasson's experimental method that purposes immersive disorientation to capture feelings, which she posits as "the baseline for a critical ecology."<sup>67</sup> To be in the world, then, is to grope your way through the fog. This aestheticized epistemology of doubt is neither as neutral nor as ahistorical as Bennett would have it, however. As we have seen, military applications of orientation and disorientation, with attendant efforts in the twentieth century to control and use fog, mist, smoke, and polluted air, render subjects vulnerable within engineered climates, turning conditions of opacity against the experiencing body. The "fog of war" describes both atmospheric conditions and military uncertainty. It would be far-fetched to suggest that Eliasson clouds and colors the air to

66. Bennett, "Atmospheric Affects," 116.

67. Ibid.

gain tactical advantage over the spectator. Instead, my comparison between his works and a war zone serves as a reminder of the entrenched politics of atmospheric manipulation, which press beyond the phenomenological realm of feeling to the military and industrial stakes of domination of the atmosphere and vulnerable populations. The childish dream of the soap bubble blower I mentioned at the beginning of the essay distorts into the US Air Force's nightmare predictions of atmospheric control as "force multiplier," further scaling up the agency and power of (some) humans and the potential for destruction.

In many ways, the arguments I have presented in this essay rely on my unpacking the meaning of a series of received or accepted tautologies: Eliasson's participatory art relies on the participant; the phenomenological subject subjects the world to human feeling; the age of Man is about a world dominated by humans. In so doing, I have mapped how these redundancies collapse around the privileged notion of subjectivity that is embedded within phenomenology and the ethos of much environmental art. For Eliasson, there is no escaping the subject and no desire to, either. His art for feeling's sake, which relies on the reflexive adage of "seeing yourself seeing," is about orchestrating human response within environments and manufacturing circumstances for sensation. The artwork is contingent upon the spectator, relying thus on geographies of nearness and presence that negate the critical position of imagining worlds that persist even in our absence. The desire for sensation runs the risk of simply reproducing itself within the phenomenological subject. The self-centered participant subjects the environment to feeling as fact—and in so doing, engages in a possessive ecology, imposing feeling upon the foggy world.

Even though Latour and others praise Eliasson's work for the ways in which it stages an intermingling of subject and environment, his weather spectacles always return us to the centrality of the human, relying as they do on the subjectivization of knowledge and the aggrandizement of individual human experience and control. Eliasson's cultivation of the privileged human subject in his works corresponds to the largeness of the human in the Anthropocene and situates human centrality and subjectivity as an instrumental means toward knowledge. The Anthropocene is the geologic era of self-evident and mythologized subjectivity: the words *Anthropocene* and *selfie* simultaneously entered the *Oxford English Dictionary* in 2014. Rather than constantly seek ourselves, however, we might instead do otherwise and conceive of environments apart from human-centering and dominance, resisting an ecological, spectatorial, and militaristic appropriation of climate that is both anthropocentric and anthropogenic. Can we cultivate empathy for spaces that do not belong to us, that we cannot feel? This is not to naively reassert the existence of nature in opposition to the human but to posit the possibility of a critical externality by displacing the self and decoupling existence from sensory modes of possession. Perhaps we ought not to be at the center of the world, after all.

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### References

- Balck, Wilhelm. *Development of Tactics—World War I*. Translated by Harry Bell. Fort Leavenworth, KS: General Service Schools Press, 1922.
- Banai, Noit. "Sensorial Techniques of the Self: From the *Jouissance* of May '68 to the Economy of Delay." In *The Long 1968, Revisions and New Perspectives*, edited by Daniel J. Sherman, Ruud van Dijk, Jasmine Alinder, and A. Aneesh, 293–323. Bloomington: Indiana University Press, 2013.
- Beccaria, Marcella. *OE: Olafur Eliasson*. London: Tate, 2013.
- Benjamin, Walter. *Selected Writings*, vol. 1, 1913–1926. Cambridge, MA: Belknap Press of Harvard University Press, 1996.
- Bennett, Jill. "Atmospheric Affects." In *Carnal Aesthetics: Transgressive Imagery and Feminist Politics*, edited by Bettina Papenberg and Marta Zarzycka, 102–20. London: Tauris, 2013.
- Bishop, Claire. *Installation Art: A Critical History*. New York: Routledge, 2005.
- Bishop, Claire, ed. *Participation*. Cambridge, MA: MIT Press, 2006.
- Boetzkes, Amanda. "Phenomenology and Interpretation beyond the Flesh." *Art History* 32, no. 4 (2009): 690–711.
- Brimblecombe, Peter. *The Big Smoke: A History of Air Pollution in London since Medieval Times*. London: Methuen, 1987.
- Chakrabarty, Dipesh. "The Climate of History: Four Theses." *Critical Inquiry* 35, no. 2 (2009): 192–222.
- . "Postcolonial Studies and the Challenge of Climate Change." *New Literary History* 43, no. 1 (2012): 1–18.
- Corton, Christine L. *London Fog: The Biography*. Cambridge, MA: Harvard University Press, 2015.
- Crary, Jonathan. "Olafur Eliasson: Visionary Events." In *Olafur Eliasson*, edited by Kunsthalle Basel, n.p. Basel: Schwabe, 1997.
- . "Techniques of the Observer." *October* 45 (1998): 3–35.
- . "Your Color Memory: Illuminations of the Unforeseen." In *Olafur Eliasson: Minding the World*, edited by Caroline Eggel, Studio Olafur Eliasson, and Gitte Ørskou, 219–25. Aarhus: ARoS Aarhus Kunstmuseum, 2004.
- Crist, Eileen. "On the Poverty of Our Nomenclature." *Environmental Humanities* 3 (2013): 129–47.
- Crutzen, Paul J., and Eugene F. Stoermer. "The 'Anthropocene.'" *International Geosphere–Biosphere Programme (IGBP) Newsletter*, 41 (2000): 17–18.
- Debord, Guy. *Society of the Spectacle*. New York: Zone, 1995.
- Dickens, Charles. *Bleak House*. New York: Penguin, 1996.
- Eliasson, Olafur. "Behind the Scenes: A Roundtable Discussion." In *Olafur Eliasson: The Weather Project*, edited by Susan May, 65–95. London: Tate, 2003.
- Eliasson, Olafur. "Museums Are Radical." In *Olafur Eliasson: The Weather Project*, edited by Susan May, 129–38. London: Tate, 2003.
- . "Take Your Time: A Conversation." In *Take Your Time: Olafur Eliasson*, edited by Madeleine Grynsztejn, 51–61. San Francisco: San Francisco Museum of Art, 2007.
- Eliot, T. S. *Collected Poems, 1909–1962*. London: Faber and Faber, 1963.

- Fleming, James Roger. *Fixing the Sky: The Checkered History of Weather and Climate Control*. New York: Columbia University Press, 2010.
- Foster, Hal. *The Art-Architecture Complex*. London: Verso, 2011.
- . *Bad New Days: Art, Criticism, Emergency*. New York: Verso, 2015.
- Gibbons, Fiachra. "Mellow Yellow Haze Gives Tate Staff Touch of the Sun." *Guardian*, October 24, 2003.
- Hardwicke, Adrian. "Secret Diary of an Art Gallery Attendant." *Guardian*, March 18, 2004.
- Hersh, Seymour. "Weather as a Weapon of War." *New York Times*, July 9, 1972.
- House, Tamzy J., James B. Near, William B. Shields, Ronald J. Celentano, David M. Husband, Ann E. Mercer, and James E. Pugh. "Weather as a Force Multiplier: Owning the Weather in 2025, a Research Paper Presented to Air Force 2025" (1996), [csat.au.af.mil/2025/volume3/vol3ch15.PDF](https://csat.au.af.mil/2025/volume3/vol3ch15.PDF).
- Kimmelman, Michael. "The Sun Sets at the Tate Modern." *New York Times*, March 21, 2004.
- Kraynak, Janet. "Dependent Participation: Bruce Nauman's Environments." *Grey Room* 10 (2003): 22–45.
- Latour, Bruno. "Atmosphère, Atmosphère." In *Olafur Eliasson: The Weather Project*, edited by Susan May, 29–41. London: Tate, 2003.
- . "Waiting for Gaia: Composing the Common World through Arts and Politics." Lecture at the French Institute, London, November 2011. [www.bruno-latour.fr/sites/default/files/124-GAIA-LONDON-SPEAP\\_o.pdf](http://www.bruno-latour.fr/sites/default/files/124-GAIA-LONDON-SPEAP_o.pdf).
- Lee, Pamela M. "Your Light and Space." In *Take Your Time: Olafur Eliasson*, edited by Madeleine Grynsztejn, 33–49. San Francisco: San Francisco Museum of Art, 2007.
- Lewis, Jayne. *Air's Appearance: Literary Atmosphere in British Fiction 1660–1794*. Chicago: University of Chicago Press, 2012.
- May, Susan. "Meteorologica." In *Olafur Eliasson: The Weather Project*, edited by Susan May, 15–28. London: Tate, 2003.
- Merleau-Ponty, Maurice. *Phenomenology of Perception*. New York: Routledge, 2013.
- Meyer, James. "No More Scale: The Experience of Size in Contemporary Sculpture." *Artforum* 42, no. 10 (2004): 220–29.
- Moore, Rowan, and Raymund Ryan. *Building Tate Modern*. London: Tate, 2000.
- Morris, Robert. "Size Matters." *Critical Inquiry* 26, no. 3 (2000): 474–87.
- Ronda, Margaret. "Anthropogenic Poetics." *minnesota review*, no. 83 (2014): 102–11.
- Ruskin, John. *The Works of John Ruskin*, vol. 34. London: Allen, 1908.
- Sepper, Dennis L. *Goethe contra Newton: Polemics and the Project for a New Science of Color*. Cambridge: Cambridge University Press, 1988.
- Sloterdijk, Peter. *Bubbles: Microspherology*. Translated by Wieland Hoban. Cambridge, MA: MIT Press, 2011.
- . *Terror from the Air*. Translated by Amy Patton and Steve Corcoran. Los Angeles: Semiotext(e), 2009.
- Talbot, Frederick. *Aëroplanes and Dirigibles of War*. Philadelphia: Lippincott, 1915.
- "Tate Weather Monitoring Group Survey." In *Olafur Eliasson: The Weather Project*, edited by Susan May, 57–64. London: Tate, 2003.
- Taylor, Jesse Oak. "Auras and Ice Cores: Atmospheric Archives and the Anthropocene." *minnesota review*, no. 83 (2014): 73–82.
- Wilde, Oscar. "Impression du Matin." In *The Complete Works of Oscar Wilde: Stories, Plays, Poems and Essays*, 745. New York: Harper and Row, 1989.