

## **The *Pollution Pods* Experience** by Cynthia Haveson Veloric, PhD

Despite the negative connotation of the title, the dramatic and futuristic aesthetics of Michael Pinsky's *Pollution Pods* stimulate curiosity and excitement about what lies within. Visitors are enticed to enter five linked transparent geodesic domes, each of which represents a city. The cities themselves are invisible, but visitors inhabit them through their senses. The first one evokes the pine-scented atmosphere of the island of Tautra, near the city of Trondheim, Norway. This pod serves as a "baseline" of fresh air quality against which others are compared. As visitors move through progressively polluted spaces, their senses join with varied emotions. London smells primarily of diesel fumes (nitrogen dioxide) with slight fog; São Paulo, of vinegar due to ethanol-based fuel; New Delhi of diesel, large particulates from the unsealed roads, and smoke from burning plastic and crop burning. Beijing's scent has been described as that of sulfur, and coal and wood from domestic heating. Except for the Norway pod, the odors triggered watery eyes, headaches, and claustrophobia, and feelings of lightheadedness, toxicity and sickness associated with airborne environmental risk.<sup>1</sup> (figs. 3.1, 3.2)

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<sup>1</sup> Accounts of visitor experiences are easily found on the Internet. Around 40 videos show visitors inside the Pods. An example is BBC's "London Live Pollution Pods," April 27, 2018, <https://www.youtube.com/watch?v=B1Yus0VPET4>. Pinsky's website includes links to hundreds of journalistic pieces which include visitor quotes about their sensory experiences. See <http://www.michaelpinsky.com/reviews/>. Another large selection of reviews and press can be found at the Cape Farewell website, <https://capefarewell.com/pollution-pods/reviews.html>. Pages of a visitor comment book from the Portland, Dorset, UK venue were made available to the author. All works illustrated are by Michael Pinsky unless otherwise noted.



Figure 3.1. Michael Pinsky, *Pollution Pods*, first iteration, Tautra, Norway, 2017, spruce timber, plastic membrane, metal



Figure 3.2. *Pollution Pods*, Somerset House, London, 2018

*Pollution Pods* is an aesthetic vehicle which conveys scientific data in a non-rational way. By recreating the distinct air quality of several cities, it provides a unique phenomenological experience; that is, the visitor becomes hyperaware of himself or herself in this atmosphere, in this moment in time. As the body adjusts, or tries to adjust to different atmospheres in each pod, it sends messages about safety or danger to the

brain.<sup>2</sup> That is, the atmosphere has a strong impact on the visitor's ability to understand the data about the air quality, which is shown in a small computer display in each pod.

Crossover studies in social science, neuroscience, and science communication have shown that macro issues like climate change only gain significance to the general public when there is enough “sensorial thinking,” or local, sensitizing, embodied experiences in individuals.<sup>3</sup> *Pollution Pods* is a paradigm of sensorial aesthetic experience that makes air pollution personal and comprehensible. Feelings in turn lead to emotions, which also play an important role in personalizing abstract issues. Damasio's “somatic marker theory” has relevance here. Somatic markers are feelings in the body that are associated with emotions. These emotions are neurologically connected to the prefrontal cortex of the brain, the center responsible for guiding behavior, particularly decision-making.<sup>4</sup> So *Pollution Pods* stimulates a variety of physical reactions which, via the emotions, can lead to cognitive changes.

The atmosphere in *Pollution Pods* creates a strong affect—the emotional, physical, and sensual conditions created within each pod. Affect is said to bridge the divide between feeling and cognition, so it is an essential tool in non-didactic art.<sup>5</sup>

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<sup>2</sup> The science behind this is explained in a video showing the artist, Greta Thunberg, and Dr. Maria Neira of the World Health Organization inside the Pods. “Greta Thunberg Experiences ‘Pollution Pods’ at UN Youth Climate Summit,” can be found at Now This News, <https://nowthisnews.com/videos/news/greta-thunberg-experiences-pollution-pods-at-un-youth-climate-summit>

<sup>3</sup> For a summary of these studies see D. Galafassi et al., “Restoring our senses, restoring the Earth. Fostering imaginative capacities through the arts for envisioning climate transformations,” *Elementa: Science of the Anthropocene*, 6:69 (Nov. 21, 2018), 2–3. DOI: <https://doi.org/10.1525/elementa.330>. Other studies suggest alternate strategies to the sensorial in communicating the salience of climate change. See Ulrike Hahn & Pauwke Berkers, “Visualizing climate change: an exploratory study of the effectiveness of artistic information visualizations,” *World Art* (June 4, 2020), DOI: [10.1080/21500894.2020.1769718](https://doi.org/10.1080/21500894.2020.1769718)

<sup>4</sup> Antonio Damasio, *Descartes' Error: Emotion, Reason and the Human Brain* (New York: Penguin, 2005).

<sup>5</sup> Brian Massumi proposes affectivity as crucial to an understanding of the absolute inseparability of thought and feeling and, argues for the lack of distinction between synesthetic and cognitive states.

Additionally, affect is not necessarily conscious, but conscious experience may issue from it.<sup>6</sup> In *Pollution Pods*, this conscious experience comes slowly through the “back door” rather than through a grand entrance, by the clever sequencing of rooms (that is, as the mind adjusts differently to the conditions in each pod). Consciousness also emerges through the ambiguity arising from the discrepancy between perceived appearances and what lies within. Pinsky interrupts our expectations of a futuristic, pollutant-free journey by manipulating our senses, and thus, our brains. Zeki’s theories of ambiguity and the brain<sup>7</sup> posit that when there are high levels of ambiguity in certain works of art, the viewer must engage longer to make sense of it. *Pollution Pods* initially appears enticing, then turns into an experience of the terrible sublime. According to Zeki, “the relationship of ambiguity to consciousness is critical.”<sup>8</sup>

Pinsky aims to reduce visitors’ sense of psychological distance from climate change by constructing a visually memorable space that lures people in, then confronts them in surprising ways. The idea of moving through intriguing spaces is replaced by a feeling of entrapment in odorous cells. (fig. 3.3) What began as a seemingly benign adventure turns into a philosophical and ethical one. The installation forces a critical engagement with air pollution and poses some of the following questions: What is causing the pollution in each city that gives it a distinctive odor? What populations are regularly exposed to the real toxic particulates that visitors are voluntarily sampling?

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See Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Durham, NC: Duke University Press, 2002) as paraphrased in Erika Doss, “Affect.” *American Art* 23, no. 1 (Spring 2009): 9.

<sup>6</sup> Steven Shaviro, “Affect vs. Emotion,” *The Cine-Files*, issue 10 (Spring 2016).

<sup>7</sup> Semir Zeki, *Inner vision: an exploration of art and the brain* (Oxford: Oxford University Press, 2003). “Art and the Brain,” *Daedalus* 127, no. 2, “The Brain” (Spring, 1998): 71-103. “The Neurology of Ambiguity,” *Consciousness and Cognition* 13 (2004): 173-196.

<sup>8</sup> Zeki, “The Neurology of Ambiguity,” 174.

How does that affect their health and sanity? What can I do to ameliorate air pollution?

What are the larger economic, social, and political forces that contribute to the problem?



Figure 3.3. *Pollution Pods*, Melbourne installation, August 2019

### **The Nuts and Bolts of *Pollution Pods***

The *Pollution Pods* were commissioned for a research project called Climart, launched in 2014 at the Norwegian University of Science and Technology (NTNU). Scientists, psychologists, and artists studied and assessed how audiences were affected by climate-related artwork.<sup>9</sup> To that end, they have launched climate art installations throughout Europe, including at ArtCOP21, which ran simultaneous to the 2015 United Nations Climate Change Conference (COP21) in Paris. Pinsky's design

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<sup>9</sup> The Climart project (2014-2018) was led and housed at the Institute of Psychology at NTNU, Trondheim, Norway. As of 2017, they had analyzed thirty-seven installations. The team included Christian A. Klöckner, environmental psychologist, NTNU (project leader); David Buckland, Director, Cape Farewell; Sam Jury, artist (co-coordinator); Laura Sommer, environmental psychologist, NTNU; Paul Stern, environmental psychologist, National Research Council; Janet Swim, environmental psychologist, Penn State University; Martina Zienert & Joachim Borner, environmental communicators, Kolleg für Management und Gestaltung nachhaltiger Entwicklung; Peter Huybers, climate scientist, Harvard University; and Edgar Hertwich, environmental scientist, Yale University.

took into consideration the results of Climart's survey in Paris as well as other earlier installations.<sup>10</sup>

*Pollution Pods* didn't start with an image. Rather it evolved out of conversations about air pollution. Pinsky's sketchbook was filled with words and concepts prior to architectural drawings. (fig. 3.4)

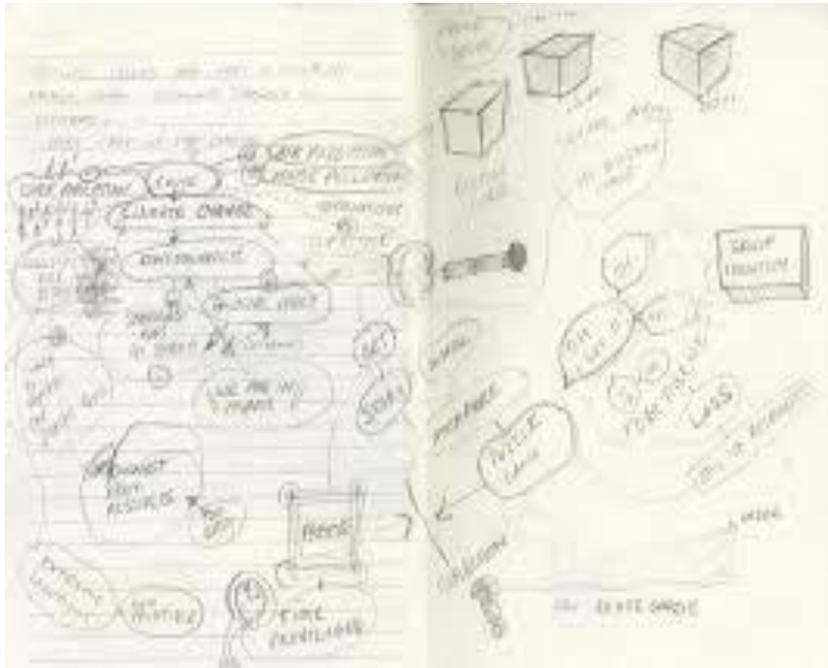


Figure 3.4. Michael Pinsky sketchbook, Courtesy of the Artist

He disclosed, “You have your political agendas that you want to push. Then on the other hand you ask how is this going to manifest physically. The visual part came later in the process ... We’re talking about climate change and the causes and the

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<sup>10</sup> See L. K. Sommer and C. A. Klöckner, “Does Activist Art Have the Capacity to Raise Awareness in Audiences? A Study on Climate Change Art at the ArtCOP21 Event in Paris,” *Psychology of Aesthetics, Creativity, and the Arts* (July 1, 2019).

consequences and how we can deal with it. Then we moved on to ‘how do we get people to engage with this?’”<sup>11</sup>

The first iteration of the geodesic *Pods* was built in Norway with the help of local craftspeople, using local spruce recovered from the roadside. The spruce rods are snapped into hexagonal joints to form the triangular frame. The plastic membrane is attached to the frame with metal hooks. With enough man- and woman-power, the structure is easy to assemble and disassemble, and the materials have lasted through at least fifteen exhibitions.<sup>12</sup> (fig. 3.5)



Figure 3.5. Michael Pinsky inside *Pollution Pods* at Somerset House, London

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<sup>11</sup> Michael Pinsky interviewed by the author via Skype, November 2019.

<sup>12</sup> Pinsky, email to author, April 1, 2021.

Short corridors keep each dome's unique environment separate. Each pod contains the name of the city and a screen showing its air quality data. Continuous movement through the individuated spaces is integral to the *Pollution Pods* experience, so that contrasts in atmosphere are acutely felt. (fig. 3.6)



Figure 3.6. Interior, *Pollution Pods*, TED 2019 conference in Vancouver

Unlike many museum exhibitions or installations where the visitor moves through opaque-walled galleries in a prescribed direction, *Pods'* transparent walls invite awareness and anticipation of the other parts of the exhibition. With the domes connected in a ring formation, the visitor moves through each of five pods and ends up back at the first. (fig. 3.7)



Figure 3.7. *Pollution Pods*, TED conference, Vancouver convention center, April 2019

This configuration symbolically reinforces the idea of all corners of the globe being connected, just as air pollution knows no boundaries. The plastic-walled divisions of each Pod are only temporary; in the real world all such divisions are illusory. The relatively clean air of Tautra, Norway will eventually merge with the dense particulate air of New Delhi.

Pinsky had wanted to transport the actual air from each city but was advised that health and safety issues were at stake. With the help of chemists and odor specialists, he devised chemical mixtures which emulated the presence of ozone, particulate matter, nitrogen dioxide, sulphur dioxide and carbon monoxide.<sup>13</sup> Some of the smells occurred naturally, while others were completely man-made. The experiences were

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<sup>13</sup> Scents for the Norway iteration were created by Jorg Hempenius and the Norwegian Institute for Air Research. Later iterations involved collaborations with International Flavors and Fragrances for scent, filters from Airlabs, and air quality index equipment from Plume Labs.

intensified by heating and/or cooling the different domes according to the target temperature with air-conditioning systems (London & Beijing were cooled, New Delhi and Sao Paolo were heated). Humidity was added with air humidifiers (London, New Delhi) and the illusion of particulate matter in the air was added by fog machines in the New Delhi dome. Smells designed by a perfume maker were atomized through professional automatic perfume dispensers (key smells involved diesel fumes for London, burned grass, plants and plastic for New Delhi, burnt coal for Beijing, and burned ethanol for Sao Paolo). Air in the Norway dome was purified through air cleaning technology provided by Airlabs. Traces of ozone were added to the Sao Paolo dome.<sup>14</sup> Climart project leader Christian Klöckner explains:

We don't want the air in the domes to expose the public to danger, so we'll remove the most dangerous substances and replace them with harmless ingredients and fragrances that resemble the real city air. The Norwegian Institute for Air Research (NILU) is contributing its expertise to create the right air mixtures for each dome, so that the smell and feel of breathing in the air is realistic.<sup>15</sup>

Ironically, anthropogenic means were used to create artificial smells of human-induced pollution in an exhibition which critiques such outcomes.<sup>16</sup>

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<sup>14</sup> Christian Klöckner to the author, email, April 6, 2021.

<sup>15</sup> [Vibeke Ann Pettersen](https://norwegianscitechnews.com/2017/06/stinky-city-air-climate-art/), "Stinky City Air as Climate Art," *Norwegian SciTech News*, June 2, 2017, <https://norwegianscitechnews.com/2017/06/stinky-city-air-climate-art/>.

<sup>16</sup> This irony, along with the use of toxic art supplies, non-eco-friendly packaging materials, fossil fueled modes of transportation, and mined/industrially processed products, in other words anything that contributes to CO2 emissions, are ongoing ethical problems in ecoart. Most artists defend their practices by claiming their educational/humanities/philosophical benefits outweigh their carbon footprint. Many are

## London as Locus of Climate Discourse and Pinsky's Formative Work

Pinsky (b. Scotland, 1967), who holds a PhD from the Royal College of Art and is a self-avowed environmental activist,<sup>17</sup> successfully merges art and activism in the public sphere, with work that has fascinated and impacted thousands of people. Pinsky lives in London, a city historically associated with air pollution since the advent of the Industrial Revolution. From 2016 to 2020, London's nitrogen dioxide, coarse and fine particulate matter all exceeded the World Health Organization recommendations.<sup>18</sup> Most of its pollution is caused by vehicular traffic, and domestic and commercial heating systems. However, with the election of a new mayor in 2016, London has seen numerous initiatives to reduce carbon emissions, including changes in transportation policy, climate strikes, bicycle lanes, low-emission zones, fines for highly polluting vehicles, and car-free Sundays, that have resulted in a dramatic reduction of polluted air.<sup>19</sup> Galleries, museums, and other nonprofit organizations offer art and programming

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beginning to reduce their carbon footprint by refusing to fly, using recycled or discarded materials, and purchasing carbon offsets. The author has been in conversation with several artists about this issue, including Pinsky himself, Justin Brice Guariglia, Jenny Kendler, and Diane Burko. For an early public wakeup call on this problem see Lucy Siegle, "Ethical living: can art be environmentally friendly?" *The Guardian*, April 14, 2012, <https://www.theguardian.com/environment/2012/apr/15/lucy-siegle-ethical-art-paint>.

<sup>17</sup> Pinsky interview, 2019.

<sup>18</sup> "Air pollution monitoring data in London: 2016 to 2020," Greater London Authority, February 2020, [https://www.london.gov.uk/sites/default/files/air\\_pollution\\_monitoring\\_data\\_in\\_london\\_2016\\_to\\_2020\\_feb\\_2020.pdf](https://www.london.gov.uk/sites/default/files/air_pollution_monitoring_data_in_london_2016_to_2020_feb_2020.pdf). The 2020 World Air Quality report by Switzerland-based air quality technology company IQAir showed that air quality improved in 84% of all monitored countries, due to Covid-19-related lockdowns and a drop in fossil fuel consumption in 2020. London air quality improved by 16%. <https://www.forbes.com/sites/dishashetty/2021/03/16/22-out-of-top-30-worlds-most-polluted-cities-in-india/?sh=7cc28e5475ad>.

<sup>19</sup> Damian Carrington, "Dramatic' plunge in London air pollution since 2016, report finds," *The Guardian*, Oct. 3, 2020, <https://www.theguardian.com/environment/2020/oct/03/dramatic-plunge-in-london-air-pollution-since-2016-report-finds>.

which foreground fossil fuel practices and their link to climate change.<sup>20</sup> Protesters like Liberate Tate, Extinction Rebellion, and BP or not BP, expose some of the worst climate offenders who often mask their complicity in climate change through the arena of art philanthropy.<sup>21</sup> Pinsky's practice aligns with these initiatives. His numerous public art projects are based on an ethical stance that critiques human exploitation of energy sources, dependency on cars, over-consumption of mass-produced goods, and global industrial practices which burn fossil fuels that foul our air and water.

Despite the fact that Pinsky has been awarded several public commissions over the last decade, and that his installation *Pollution Pods* (2017-20) has brought him international visibility and acclaim, he has received limited scholarly attention.<sup>22</sup> This study aims to redress this gap by demonstrating how Pinsky's public art installations deliver an immediate and visceral re-orientation of attitudes toward energy consumption, air pollution, and rising sea levels. By juxtaposing the familiar with the strange, the aesthetically appealing with ugliness, and the consumer object with nature, Pinsky interrupts the fields of normal experience to prompt attention to the causes and effects of climate change. He further disorients the viewer by creating welcoming immersive spaces that turn out to be physically or psychologically uncomfortable. He

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<sup>20</sup> The Tate Modern, the Serpentine Galleries, the Being Human Festival, Wellcome Collection, and the British Museum have been exemplary in these endeavors.

<sup>21</sup> Damien Gayle, "Climate activists bring Trojan horse to British Museum in BP protest," *The Guardian*, Feb.7, 2020, <https://www.theguardian.com/culture/2020/feb/07/climate-activists-bring-trojan-horse-to-british-museum>. Claire Selvin, "British Museum Workers and Former Trustee Issue Statement in Support of BP or Not BP Protest," *ARTnews*, Feb.10, 2020, <https://www.artnews.com/art-news/news/british-museum-bp-or-not-bp-trojan-horse-1202677412/>.

<sup>22</sup> *Pods* has received hundreds of reviews, and Pinsky has been interviewed by many journalists. For a fairly comprehensive selection of articles see Pinsky's website, <http://www.michaelpinsky.com/> and the Climart website, <https://www.climart.info/>. Pinsky's recent work has been studied and written about by environmental psychologists and climate scientists, but as of January 2021, only one art scholar. See David Cross, "The Partition of the World." (Michael Pinsky Pollution Pods) *The Earth Issue*, 004 (October 2020): 49-54. See bibliography for one monograph and a few gallery publications prior to 2008.

states about his projects, “An artwork that is visually memorable, seductive, surprising and shocking can etch itself in people’s minds in a way the written word cannot. The visual manifestation of the work can function as a shortcut to the themes it is trying to embrace.”<sup>23</sup> Pinsky’s art is an experiential supplement to scientific discourse and journalism. Though intended to disrupt, the work exhibits formal aesthetic qualities such as color harmony, rhythm, defined shapes, and balanced compositions. Though many of his installations and exhibits cannot be called architecture per se, they utilize architectural components and motifs such as monoliths, symmetry, mathematically ordered spaces, geometric forms, repetition, and focused lighting. While the messages inherent in the work are often dystopian, the methods for their delivery come in aesthetically pleasing packages.

Prior to *Pollution Pods*’ sensory focus, Pinsky deployed visual and cerebral strategies to create an aesthetics that intervened in daily experience. They include shock through displacement or rearrangement, ambiguity of form vs. message, and drama through displays of imagined catastrophes. These tactics provide the sort of rupture that Yusoff urges to combat complacency and redistribute our sensibilities towards our consumer culture and its relationship to climate breakdown. Two paradigms of visual and mental rupture are *L’eau Qui Dort* (2015) and *Come Hell or High Water* (2006). In both of these installations, the river serves as backdrop to cars and other mass-produced items that have been jettisoned. They are emblematic of the West’s throwaway culture.

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<sup>23</sup> Michael Pinsky and Laura Sommer, “Pollution Pods: can art change people’s perception of climate change and air pollution?”, *Field Actions Science Reports* Special Issue 21 (Feb. 24, 2020), 94.

*L'eau Qui Dort* (figs. 3.8, 3.9) highlights the wasteful practices of consumer culture by dredging up objects that have sunk in the Ourcq canal in Paris.<sup>24</sup> Some, like the mud and algae-caked bicycle, (fig. 3.9) have begun to merge with the canal's ecosystem. Pinsky aestheticizes the detritus in several ways—by framing each object as a piece of sculpture, by arranging them as if on exhibit in a gallery, and lighting the whole in decorative colored spotlights. The light illuminates the secrets of our ecological footprints and casts a halo of shame on each discarded item. An eerie soundscape composed of hitting the objects with “instruments” magnifies the dystopian scene.



Figure 3.8. *L'eau qui dort*, Ourcq Canal, Paris, 2015

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<sup>24</sup> *L'eau Qui Dort* was commissioned by COAL for La Villette during COP21 in Paris.



Figure 3.9. *L'eau qui dort*, Ourcq Canal, Paris, 2015

*Come Hell or High Water*, (figs. 3.10, 3.11) a line of colorful cars partly submerged in the River Tyne at Newcastle, England, bears an ironic message on the perils of industrialized transportation. Once viewed as the modern and speedy alternative to the river boats, fossil-fueled cars are gradually being replaced by their electric counterparts. Further, the roads they travel may literally disappear due to rising sea levels, which have the potential to decimate much of England's eastern coastline and cause inland rivers to flood.<sup>25</sup> Their demise is imagined as a death march or funeral procession on the water. While shock and drama cause a cognitive reckoning with capitalism's planned obsolescence of goods, it is somewhat mitigated by the appealing

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<sup>25</sup> David Shukman, "Coastal floods warning in UK as sea levels rise," BBC News, Feb. 14, 2020, <https://www.bbc.com/news/science-environment-51283716>. Anne De La Vega-Leinert and Robert J. Nicholls, "Potential Implications of Sea-Level Rise for Great Britain," *Journal of Coastal Research* 24, no. 2 (2008): 342-57. Accessed April 7, 2021. <http://www.jstor.org/stable/30137840>.

arrangement of colorful geometric forms. Though an activist, Pinsky never loses sight of aesthetics.



Figure 3-10. *Come Hell or High Water*, Newcastle, England, 2006

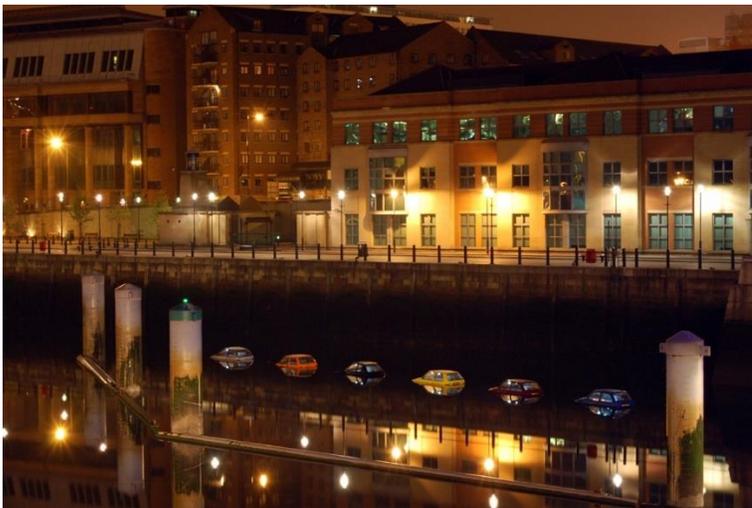


Figure 3.11. *Come Hell or High Water*, Newcastle, England, 2006

The previous installations invite prolonged looking because they are ambiguous and open to several interpretations. Neurological studies have shown that the brain needs time to decode complex visual messages because micro-consciousnesses within it work at different speeds. For example, we see color before we see motion or site or

context.<sup>26</sup> Pinsky utilizes color as a catalyst to draw and hold the viewer's attention while they puzzle out all the possible implications of the scene. One might first be attracted to the novelty of these dramatic and colorful arrangements, then ask why the objects are underwater, then think about how they are made and consumed, and finally how they add to world pollution.

Color and light installations can challenge our confidence about seeing and knowing the world, especially when used in unusual contexts.<sup>27</sup> Pinsky's *Plunge* (2012) uses low energy blue LED lights to encircle three iconic London monuments. (figs. 3.12, 3.13, 3.14)



Figure 3.12. *Plunge*, one of three locations in London, 2012

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<sup>26</sup> Zeki, *Inner Vision*, "Art and the Brain," and "The Neurology of Ambiguity."

<sup>27</sup> Cynthia A. Freeland, "A New Question about Color," *Journal of Aesthetics & Art Criticism* 75 (3) (2017): 231–48.



Figures 3.13 and 3.14. *Plunge*, two of three locations in London, 2012

At night, the monoliths become sites of beauty and stop people in their tracks. But when the subject matter becomes known, it turns into an experience of the terrible sublime. The blue lines actually indicate the projected height of sea level in London one thousand years on. That date is far in the future but the lines stand as a marker of catastrophe. Yet, the markers are high enough to give people hope that there is enough time to halt climate change. *Plunge* uses a visual device to communicate a threat that is presently invisible. Its title is ironic. One normally thinks of energetically plunging into refreshing water but here, humankind and its monuments would not willingly be plunged into the watery abyss.

*Plunge* is open to another layer of interpretation connected with our human induced environmental crisis. Pinsky chose monuments to military leaders and urban development<sup>28</sup> erected in the age of British imperialism and industrial advancement. The exploitation of natural resources under that regime, and its contribution to anthropogenic climate change, are mostly ignored by passersby. These monuments will

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<sup>28</sup> The Duke of York column sits on Regent Street (erected 1832-34); the Lord Nelson column at Trafalgar Square (erected 1840-43); and the Seven Dials monolith/sundial on Monument Green, in Weybridge (1694-1773, replica 1989).

be submerged under water, doomed by the present culture's patterns of consumption and overseas exploitation. By making people look at the monuments afresh through color and light, Pinsky is enabling new conversations and cultural critique.

One additional color and light installation by Pinsky required human participation, giving it a salience beyond superficial appeal. (figs 3.15, 3.16)



Figures 3.15 and 3.16. *Monometer*, Kortrijk, Belgium, 2009

In *Monometer* (2009), colored light is projected onto Belgium's four highest wind turbines, at the site of an all-night arts festival in Kortrijk. The colored rings served as energy meters, rising and falling as the hours passed. The rings marked energy and

water consumption, and the production of noise and waste. The art is a reflection of everything around it. The active aspect of the installation, its openness to the surrounding environment, the mutual dependence of humans and the turbines to make it effective, and its transcendence of rigid art categories and their forms, link it to Morton's conception of ecological art—"Ecological art, and the ecological-ness of all art, isn't just about something (trees, mountains, animals, pollution, and so forth). Ecological art is something, or maybe it does something."<sup>29</sup> Indeed, *Monometer* revealed the ecological footprint of a specific event, while appealing to the senses. Art became part of the life of the festival as guests watched their own energy output. The abstract idea of energy consumption became visible and tangible.

All of these installations relate to *Pollution Pods* as reflections of Pinsky's political will to change energy policies, his activism around climate change, and his use of manipulated aesthetics to cognitive ends. The city and its architectural framework provide the impetus and literal backdrop for these earlier works, whereas *Pollution Pods* is the architecture itself. All Pinsky's works provide a rupture, or a change of expectations about environments through their ambiguity, drama, and catastrophic scenarios. At the same time, they display a pleasing arrangement of ordered spaces, stimulating color contrasts, and spotlight effects. *Pollution Pods* is his first work about climate change that literally immerses the visitor in an enclosed space which captures a foreign atmosphere. Whereas the other installations aim to deliver a cognitive understanding of the issues, *Pollution Pods* aims to impart environmental consciousness through the body and emotions.

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<sup>29</sup> Timothy Morton, *The Ecological Thought* (Cambridge, MA: Harvard University Press, 2010), 11.

## Historical Precedents of Encapsulated Atmosphere

One palpable way to get the public to engage with climate change issues is to physically immerse them in it. By enclosing five disparate microclimates, *Pollution Pods* changes our perceptions of what nature (air, atmosphere) is, including its transcorporeal properties, and what our bodies are willing to tolerate. As architecture scholar Daniel Barber suggests, “The making of environments is integral to the production of architectural space. From its construction of microclimates to its contribution to planetary ecologies, architecture not only shapes specific habitats, but also our relation to what is commonly perceived as nature.”<sup>30</sup>

The idea of shaping specific habitats by importing or producing specific atmospheres for different ends, has a variety of precedents in Western culture. The steel and glass Palm House at the Royal Botanic Gardens at Kew (1844-48) (figs. 3.17, 3.18) was a successful architectural and engineering endeavor which aimed to preserve, display and study tropical trees and flora in a hothouse environment. In mid-nineteenth century England, the vogue for studying natural history resulted in numerous societies which promoted scientific and empirical investigations of nature. Exploration and specimen-gathering led to publications and new private and public collections. This stimulated a trend for suburban gardens and greenhouses, where rare varieties of trees, flowers, fruits, and shrubs were the pride of amateur horticulturalists.<sup>31</sup> The transplantation of tropical trees and flora signaled the anthropocentric mentality that

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<sup>30</sup> Daniel A. Barber, et al., “Architecture, Environment, History: Questions and Consequences,” *Architectural Theory Review* 22, no. 2 (2018), p. 262, <https://doi.org/10.1080/13264826.2018.1482725>

<sup>31</sup> Ann Bermingham, *Landscape and Ideology: The English Rustic Tradition, 1740-1860* (Berkeley: University of California Press, 1986), 171.

viewed the uprooting of such for human enjoyment and learning as ethically acceptable. Palm House functioned as a material expression of this attitude as well as a monument to industrial innovation and scientific progressivism. On a purely sensorial level, it served as a welcome environmental antidote to the soot, filth, and noise of industrial London. It survives today as a haven for endangered species.



Figure 3.17. Palm House, Royal Gardens at Kew, 1844-48



Figure 3.18. Palm House, interior

Another iconic example of architecture embodying technology, progressivism, and optimism, created some ninety years later, is the geodesic dome of visionary architect Buckminster Fuller (1895-1983). The dome is just one example of Fuller's many multidisciplinary pursuits and creations dedicated to environmental sustainability. He envisioned our planet as "spaceship Earth," a self-sustaining, closed-loop system that functioned through the marriage of nature and technology. Such an ecosystem would rely on wind power and tides, an equal distribution of global natural resources, and more energy-efficient building materials and fuels. Fuller's environmentally conscious thinking, inventions, and designs of the early twentieth century had an impact on the American-counterculture Green movement of the 1960s–70s, including the *Whole Earth* catalogue, the notion of systems ecology, environmental activism, the rise of holism, renewable energy research, and global thinking.<sup>32</sup>

Fuller executed, patented, and popularized the first geodesic domes in the United States in the late 1940s–early 1950s. (figs. 3.19, 3.20) Based on "synergetic geometry," his term for his lifelong exploration of nature's principles of design, the geodesic dome was the result of his revolutionary discoveries about balancing compression and tension forces in building.<sup>33</sup> These durable, relatively lightweight energy-efficient shelters were originally crafted from aluminum and fiberglass panels. Later iterations used glass, plastics, and high-tech materials. The lack of interior walls or supporting columns allowed for unobstructed energy flow. Fuller's adage of "doing more with less" was expressed in the simple exterior shell of metal frames and clear skins. The domes have

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<sup>32</sup> See Peder Anker, *From Bauhaus to Ecohouse: A History of Ecological Design* (Baton Rouge: Louisiana State University Press, 2010) and Andrew Kirk, *Counterculture Green: The Whole Earth Catalog and American Environmentalism* (Lawrence: The University of Kansas Press, 2007).

<sup>33</sup> See the Buckminster Fuller Institute website, <https://www.bfi.org/about-fuller/biography>

since been used in crisis scenarios, military projects, and as biospheres. Pinsky stated, “By directly quoting [Buckminster] Fuller’s iconic structure as its primary visual statement and spatial metaphor, *Pollution Pods* would conjoin art and technology, while questioning division and containment as a prime technique of Modernity.”<sup>34</sup> Fuller’s utopianism, as articulated through the geodesic dome, resonates with Pinsky’s Green agenda as well as his preference for architectural minimalism. Since 2000, Pinsky has worked with city planners in London, and is currently engaged with the King’s Cross development. One of his goals has been the redesign of cities to make them more energy-efficient. By making work spaces, services, and shops accessible by foot, he aims to eliminate the need for cars. He is “interested in public realms that encourage people to get together, [where they] don’t have to spend money in that space, not all franchised and sold out. Generous towards its citizens.”<sup>35</sup>



Figure 3.19. Buckminster Fuller, original model of Geodesic Dome House, 1952, unlocated. Photo: Keystone/Hulton Archive/Getty Images

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<sup>34</sup> Pinsky and Sommer, *Pollution Pods*, 94.

<sup>35</sup> Pinsky, interview, 2019.



Figure 3.20. Buckminster Fuller, The Montreal Biosphere, formerly US Pavilion at the 1967 World Fair, Montreal, Canada

Fuller's prototype of a sustainable human habitat was the inspiration for many scientific and futuristic designs, including Biosphere 2 in the Arizona desert. (fig. 3.21) Built in 1987, the year before NASA scientist James Hansen testified before Congress on the dangers of climate change, Biosphere 2 was an attempt to salvage civilization through a merging of technology and ecology.<sup>36</sup> Within architecture inspired by Fuller and by Mayan, Babylonian, and Islamic forms, scientists replicated miniature ecosystems including a rainforest, a savannah, a desert, fresh and saltwater wetlands, and a coral reef in an ocean. Beneath the impressive exterior was a sealed world where scientists conducted sustainability experiments on humans, plants and animals. Unfortunately, the experiment was cancelled after two years when growing environmental risk outweighed the benefits. The oxygen in the air was usurped by carbon dioxide. The water became undrinkable. Crop growth was stunted. Animals

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<sup>36</sup> Carl Zimmer, "The Lost History of One of the World's Strangest Science Experiments," *New York Times*, March 29, 2019, <https://www.nytimes.com/2019/03/29/sunday-review/biosphere-2-climate-change.html>

began to die. In all, the compromised atmosphere proved unsafe.<sup>37</sup> Now owned by the University of Arizona, Biosphere 2 continues as a site of research.



Figure 3.21. Biosphere 2, Oracle, Arizona, 1987-1991

Palm House and Biosphere 2 share some of *Pollution Pods*' architectural characteristics, and they also sequester displaced environments. But they are *Pods*' conceptual opposites. The earlier structures contain healthy, sustainable green specimens and ecosystems from around the world (though the means of their production speaks of colonization). They are scientific microcosms intended for prolonged study and pleasure. They stimulate the senses in a pleasurable way, communicating a sense of sanctuary (that is, until Biosphere failed). On the contrary, *Pods* first appears as pleasurable and safe, and then begins to communicate threat through the senses. Their unhealthy environments are not sustainable for humans or

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<sup>37</sup> Zimmer, *The Lost History*, 2019. For a personal account of what transpired inside Biosphere by one of the biospherians see Mark Nelson, "Biosphere 2: What Really Happened," *Dartmouth Alumni Magazine* (May–June 2018), <https://dartmouthalumnimagazine.com/articles/biosphere-2-what-really-happened>

nonhumans. They are meant to be ephemeral warnings of real and present danger in the biosphere at large.

*Pollution Pods* is a simple iteration of Fuller's dome that evokes futuristic technology and clean spaces, but with layers of irony that result in quite different ends. One could argue that *Pollution Pods* brings to light the long-term environmental and economic failures of the industrial technology that enabled the construction of the first geodesic domes. They provide no shade, so they heat up drastically. Single-glazed panes of glass and plastic sheeting do not insure against temperature extremes, nor do they meet today's building codes. As a fully sealed system, the dome must rely on mechanical heating and cooling, which is generated by fossil fuels. The sourcing, transportation, and industrial production of the dome components cause disruption to the earth and add carbon emissions to the air (although this is partially mitigated by Pinsky's use of reclaimed timber). Material, labor, and construction costs today are more than eleven times higher than they were in 1950, after accounting for inflation.<sup>38</sup> Cost, access, and strict zoning requirements make permanent geodesic domes out of reach for the common person. In all, the relationship of the dome today to human need and comfort, and its relationship to nature is a tenuous one.

Another utopian vision of an architecture which could provide a healthy, eco-friendly lifestyle with minimal means was the *Clean Air Pod* (1970), by the art practice known as Ant Farm. (fig. 3.22)

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<sup>38</sup> Ed Zarenski, <https://edzarenski.com/2016/10/24/construction-inflation-index-tables-e08-19/> and *Engineering News Report* [https://www.enr.com/economics/historical\\_indices/construction\\_cost\\_annual\\_average](https://www.enr.com/economics/historical_indices/construction_cost_annual_average)



Figure 3.22. *Clean Air Pod*, Ant Farm, 1970, UC Berkeley

Ant Farm, established in 1968 by Chip Lord, Doug Michels, and Curtis Schreier, was born out of the San Francisco counterculture movement which promoted and accepted alternative lifestyles. New digital tools, technology, and a spirit of openness enabled a “communal ethos that supported a web of affinities linking counterculture architects, planners, ecological activists, and educational reformers.”<sup>39</sup> Ant Farm’s experimental art and actions critiqued norms of consumerism, government policies, corporate influence, growing levels of air pollution, and the pervasiveness of mass media. One of their attempts to bring environmental awareness to the public was a staging of an “air emergency” on the UC Berkeley campus on the first Earth Day in 1970. They used loudspeakers to direct passersby into the *Clean Air Pod*, an inflatable, transparent “room” in the shape of a giant pillow. Once inside, visitors would be

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<sup>39</sup> Eli Alpern, “Ant Farm 1968-1978 Historical Essay,” *Found San Francisco*, [https://www.foundsf.org/index.php?title=Ant\\_Farm](https://www.foundsf.org/index.php?title=Ant_Farm), accessed April 2, 2021, quoting from Constance Lewallen and Steve Seid, *Ant Farm 1968-1978* (Oakland: University of California Press, 2004).

protected from unhealthy air and realize the pods' potential as a habitat. To intensify the drama of the situation, members of the group wore gas masks and lab coats. By 1970, the gas mask was an iconic symbol of poisonous air and environmental risk. Like the inflatable, it offered a quick-fix solution to what was perceived as an immediate, local problem.<sup>40</sup> Like previous utopian concepts, there were inherent problems. The plastic skin of the inflatable and the gas-powered fans weren't eco-friendly or sustainable.

*Clean Air Pod* anticipated *Pollution Pods* in its commentary on poor air quality, using street theater to simulate an environmental crisis, and its ephemerality. But Pinsky inverts the proposition by substituting dirty air instead of clean, creating a dystopia rather than a haven. By compelling the visitor to travel through the bubbles of several polluted countries, he establishes air pollution as a global problem rather than a local one. Whereas the Berkeley Earth Day performance was a one-time event that purported to offer an easy fix to individuals in "imminent danger," *Pollution Pods* manifests the omnipresence of air pollution which requires orchestrated, sustained, long-term solutions toward its elimination. As it moves from location to location, it subjects visitors, if only for a few minutes, to the uncomfortable and unhealthy realities of life in certain polluted cities. This forces a recognition that environmental injustices are borne mostly by the Global South.

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<sup>40</sup> For an historical account and deeper analysis of the iconic images of the environmental movement in America see Finis Dunaway, *Seeing Green: The Use and Abuse of American Environmental Images* (Chicago: University of Chicago, 2015).

## Hyperobjects, Atmosphere, and Actants

Any art concerned with air pollution, sea level rise, energy consumption, and post-consumer trash can be linked with the concept of the *hyperobject* as defined by Morton (as discussed in Chapters 1 and 2). Hyperobjects are so enormous that we cannot apprehend their total dimensions, though we can experience some of their local tangible manifestations. Some features of hyperobjects may be visible, others not. Air pollution is a hyperobject which in some manifestations can be visible, like a thick layer of smog over cities. (figs 3.23, 3.24)



Figures 3.23 and 3.24. Top: Cairo, Bottom: Los Angeles

Other aspects are invisible, like the nearly 420 parts per million of carbon dioxide in the air which traps heat from the sun, raising global temperatures.<sup>41</sup> Air pollution has different chemical components in different regions. These regional variations and their corresponding health implications are not necessarily known in many parts of the world. Given its connection to climate change, this lack of knowledge, and the inability to see air pollution, are some of the factors that stifle cultural change and progressive climate policy.<sup>42</sup>

*Pollution Pods* effectively communicates the diffuse/dispersed nature of the hyperobject through a contained form that confronts us viscerally. In the *Pods* there is no escape from the air or its implications. Atmosphere functions here as a hyperobject; or we could say conversely that the hyperobject appears as atmosphere. It takes the form of misty, clammy, foul air in isolated pods. (fig. 3.25)



Figure 3.25. Interior of *Pollution Pods*, Melbourne installation, August 2019

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<sup>41</sup> “Carbon dioxide peaks near 420 parts per million at Mauna Loa observatory,” NOAA Research News, June 7, 2021, <https://research.noaa.gov/article/ArtMID/587/ArticleID/2764/Coronavirus-response-barely-slows-rising-carbon-dioxide>

<sup>42</sup> Artist Amy Balkin’s international project, *Public Smog* (2004–) gave visibility and conceptual weight to the idea of temporarily achieving clean air through the local purchase and withholding of carbon offsets. She also attempted to add the earth’s atmosphere to UNESCO’s World Heritage List. See <http://tomorrowmorning.net/publicsmog>.

Hyperobjects such as air pollution traverse distances, but how are those distances measured and accessed? They are usually defined by maps, or political and geographical borders. In philosopher Bruno Latour's actor-network theory of far/close, we can get rid of the "tyranny of distance" imposed by geographers and cartographers, by bringing distant elements close to us. "The notion of network helps us to lift the tyranny of geographers in defining space and offers us a notion which is neither social nor 'real' space, but associations."<sup>43</sup> The associative quality of atmospheric air, which moves across borders and time, is a key feature of *Pollution Pods*. Pinsky abolishes the tyranny of distance, or the notion of a segmented world, by importing the air of different cities to one site in order to meld embodied experiences with macro environmental issues.

Air becomes the signature component of the installation as it moves around the visitor's space, creating interactive energy and discourse. Air is the *actant*, a term used by Latour and Jane Bennett to define nonhuman entities that have agency towards other entities. For Latour "anything that does modify a state of affairs by making a difference is an actor—or, if it has no figuration, yet, an actant."<sup>44</sup> According to Bennett, actants can do something, make a difference, or produce effects.<sup>45</sup> The actant in the pods stimulates our senses of smell, taste, and thermoception and produces a synesthetic environment. The actant also stimulates our somatic markers, or feelings in

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<sup>43</sup> Latour, "On Actor Network Theory: A few clarifications ½," Centre for Social Theory and Technology (CSTT), Keele University, UK  
<https://www.nettime.org/Lists-Archives/nettime-l-9801/msg00019.html>

<sup>44</sup> Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford: Oxford University Press, 2005): 71.

<sup>45</sup> Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham, NC: Duke University Press, 2010), viii.

the body associated with emotions. The synesthesia in *Pollution Pods* creates a powerful dialogue with the body that helps make meaning.

### **The Sensorium as Knowledge**

A twenty-first century trend towards accepting the sensorium as knowledge, or put another way, privileging the senses of touch, taste, smell, and vision in acquiring knowledge, has found validation across the social sciences and humanities. A mixed body of work on perception and the senses by anthropologist Sarah Pink,<sup>46</sup> film and aesthetics scholar Luis Rocha Antunes,<sup>47</sup> and architect Anastasia Karandinou<sup>48</sup> adds credence to Pinsky's tactic of involving the whole body in space as a way of personally grasping external phenomena.

The senses can be acutely stimulated by atmosphere. Often, atmosphere is intangible, ephemeral, and hard to articulate, yet it exists in every space we inhabit.

Karandinou asserts:

Atmosphere can be described as what always remains a background to living, and when faced in a straight way disappears. Non-visual sensations, like sound, smell, textures, temperature, are also elusive invisible elements of space, difficult to represent, since representation is so often based upon the visual.<sup>49</sup>

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<sup>46</sup> Sarah Pink, *Doing Sensory Ethnography* (London: Sage Publications, 2009).

<sup>47</sup> Luis Rocha Antunes, *The Multisensory Film Experience: A Cognitive Model of Experiential Film Aesthetics* (Bristol, UK: Intellect Books, 2016).

<sup>48</sup> Anastasia Karandinou, *No Matter: Theories and Practices of the Ephemeral in Architecture*, Ashgate Studies in Architecture (Burlington: Routledge, 2013).

<sup>49</sup> Karandinou, *No Matter*, 1.

Pinsky, whose training includes architectural theory and practice, has purposely foregrounded atmosphere in his “architecture” through the invisible sensorium. By recreating the distinct air quality of several cities, *Pollution Pods* provides a unique phenomenological experience; the visitor becomes hyper-self-aware in this atmosphere in this moment in time. Space and place can feel safe, secure, pleasurable and pleasant or uncomfortable, risky, threatening or dangerous through a complex combination of elements.<sup>50</sup> The atmosphere has a strong impact on the visitor’s ability to understand what pollution does to the body, and by extension, to whole communities of at-risk people. This visceral agent may prove more effective to certain people than the reading of charts, diagrams, and statistics, though Pinsky has included a small display of scientific data in each pod.

Once the senses are activated, they provide additional forms of knowledge about places, events, people, even hyperobjects. A new methodology in anthropology called *sensory ethnography* privileges sensory experience as a way of gathering essential information and reactions. Pink has noted the connections between sensory ethnography and installation art practices in engaging or gathering people’s responses. “Perhaps the clearest example is in forms of practice in each discipline that use walking as a method of researching”<sup>51</sup> (e.g., artist and researcher Sissel Tolaas, who collects and displays odors from different cities; social anthropologist Katrín Lund, who studies walking and narrative in the perception of landscape; and multidisciplinary artist Jenny Marketou, who imbricates walking, smells and fashion as a form of political

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<sup>50</sup> Deborah Lupton summarizes the scholarship on affective atmospheres which draw on phenomenological perspectives in “How Does Health Feel? Towards Research on the Affective Atmospheres of Digital Health,” *Digital Health* (January 2017). <https://doi.org/10.1177/2055207617701276>

<sup>51</sup> Pink, *Doing Sensory Ethnography*, 20-21.

engagement). All three of these practices relate to *Pollution Pods*. Though a formal sensory ethnography study was not done, documentation of visitor sensory reactions is available through journalist interviews, Twitter posts, visitor comment books and YouTube videos.<sup>52</sup> At the *Pollution Pods* venue in Dorset, UK, visitors mentioned “nose and lung opening,” “recognizing New Delhi and London and Beijing on a cold day,” “pollution that we now understand for real is poisoning our cities all over the world,” and “thought provoking—good to feel the changes in atmosphere, temperature and the visual effect of the smog.” (Fig. 3.26)



Figure 3.26. *Pollution Pods*, Trondheim, Norway, 2017

In *Pollution Pods*, the sense of smell is the foremost indicator of airborne environmental risk. From an evolutionary standpoint, smell helped ensure our survival as it directed us towards and away from healthful or harmful entities. Scientific evidence

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<sup>52</sup> See note 1.

shows that the olfactory bulb connects directly to the limbic system of the brain, the area that regulates emotion. This is why an odor may trigger nearly instantaneous feelings of fear or desire before one even becomes fully aware of what one is smelling.<sup>53</sup> Taste is entwined with smell because the nose and throat share the same airway, so it too can convey meaning and emotion, as in the madeleine of Proust. Smell flows through our bodies as we breathe; it is a trans-corporeal sort of medium and therefore defies binaries such as nature/culture, in/out, here/there. When olfactory art is deployed in art installations or exhibits, it merges subject and visitor, actants and environment.

There is also a cultural significance attached to certain kinds of odors. We associate smell with food, events, places, and nature. We can anticipate a situation through smell, or remember a scenario from the past. Smell is a place-making element in architecture. It not only defines places but also distances between the smell's source (whether object, human, event, etc.) and the ones who perceive it. The sense of smell gives direction, depth, and distance, and expands over space and time.<sup>54</sup> Curator Jim Drobnick, an authority in the field of smell and contemporary culture, has coined the term *toposmia*, a compound of the Greek words for "place" and "smell," to describe a field of inquiry concerned with "the spatial location of odours and their relation to particular notions of place."<sup>55</sup>

Pinsky uses *toposmia* and the cultural affinities of smell in *Pollution Pods*, though he is certainly not the first artist to do so. "Olfactory art" can be traced back to

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<sup>53</sup> Carl Sherman, "The Senses: Smell and Taste," Dana Foundation website, Aug.12, 2019 <https://www.dana.org/article/the-senses-smell-and-taste/>

<sup>54</sup> Anna Barbara and Anthony Perliss. *Invisible Architecture : Experiencing Places through the Sense of Smell* (Milano: Skira, 2006) as paraphrased in Karandinou, *No Matter*, 27-28.

<sup>55</sup> Hsuan L. Hsu, "Olfactory Art, Transcorporeality, and the Museum Environment." *Resilience: A Journal of the Environmental Humanities* 4, No. 1 (Winter 2016): 9

Duchamp's manufactured coffee aroma evoking the smell of Brazil in the 1938 Surrealist exhibition in Paris. Less pleasing smells, even pungent and nauseating ones, were part of avant-garde practices in the following decades. Joseph Beuys used decaying organic materials to evoke ideas of death, primitivism, and ecology in *Fat Chair* (1964) and *I Like America and It Likes Me* (1974). Edward Kienholz used urine, cigarettes, beer, and fatty food to suggest his local bar in *The Beanery* (1965); Judy Chicago used blood in *Menstruation Bathroom* (1972). In the twenty-first century, artists began evoking the smell of cities with the aid of master perfumers and odor specialists. Two cases in point are Brian Goeltzenleuchter's *Sillage* (Santa Monica Museum, 2014), where sprays of scent replicated various Los Angeles neighborhoods, and Sissel Tolaas's exhibition for the National Gallery of Victoria Triennial (2017), where she created a "smell landscape" of Melbourne. Tolaas has literally captured the smells of over fifty cities; they are preserved in her Berlin lab. Belgian artist Peter de Cupere's *Smoke Cloud* (2014) warrants the closest comparison with *Pollution Pods* because it employs both visual and olfactory elements, and requires the visitor to move into an immersive atmosphere. (fig. 3.27) The gallery participant ascends a ladder into a fluffy evocation of a cloud, then smells the pollution.



Figure 3.27. Peter de Cupere, *Smoke Cloud*, 2014

Pinsky goes beyond de Cupere and the others by using smell as a signifier of a global threat. As sensory studies scholar Hsuan Hsu notes, “air can be a medium of toxicity as well as a medium of sensation.”<sup>56</sup> By duplicating the odor of five distinct cities, Pinsky generated a comparative range of toxicity and comfort levels. (fig. 28) The previous examples of olfactory art are place and space-specific, intertwined with memory, or refer to the functions of the body. *Pollution Pods* is not meant to evoke personal recollection, nor does it aim for novel excitements, nor does it produce scent for scent’s sake. Rather, it provides scent as a means of enviro-social comparison and a sensory wakeup call to global environmental inequities.

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<sup>56</sup> Hsu, *Olfactory Art*, 7.



Figure 3.28. Interior of New Delhi *Pollution Pod*

Another bodily mechanism that plays an affective role in *Pollution Pods* is thermoception, the sensation and perception of temperature. Little has been written about thermoception in installation art, although ironically it has been addressed in recent film and television studies.<sup>57</sup> I propose that changes in temperature and humidity, along with smell, taste, and vision make *Pollution Pods* extremely rich on an experiential level. These changes have the ability to affect motor responses such as recoiling from heat and humidity (New Delhi) or conversely, relaxing in a cool dry climate (Norway). Pinsky explained his strategy: “In some of the domes the visibility is lower like New Delhi and Beijing so you’ve got a haze, so there’s something visible. It could be cold and clammy or it could be hot and dry. There’s something to feel. Those things hit you in the face as well as the pollutants.”<sup>58</sup> Pinsky creates a structure where the visitor

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<sup>57</sup> Luis Rocha Antunes, *The Multisensory Film Experience : A Cognitive Model of Experiential Film Aesthetics*. Bristol, UK: Intellect Books, 2016 and Antunes, “Slow TV: The Experiential and Multisensory Documentary.” In *Cognitive Theory and Documentary Film*, edited by Catalin Brylla and Mette Kramer (New York: Palgrave Macmillan US, 2018), 205-221.

<sup>58</sup> Pinsky, interview, 2019.

probes the atmosphere of a city through physical sensations. Unlike watching a documentary about air pollution where the spectator is passive and relies on sight and sound, *Pollution Pods*' immersive conditions elicit somatic markers. Some visitors experience shortness of breath, irritated eyes and sweating; others feel claustrophobic and run for fresher air.<sup>59</sup> Somatic markers cause a fear response, an impulse to flee, and other strong emotions, discussed later in the chapter.

As potent as affect is in producing sensory-based knowledge, some see limitations to its credibility. Erika Doss has noted that, "Admittedly, focusing on feelings and emotions—the senses—as sites of critical inquiry raises questions for those accustomed to the clarity and coherence of seemingly more objective and conceptual bodies of evidence."<sup>60</sup> Perhaps to counter that sort of skepticism, Pinsky has included different forms scientific data in each venue. All pods contain screens which record the real-time air quality index in each city. (fig. 3.29) Some venues have included outdoor flags that change color based on the amount of ultraviolet light they receive, demonstrating the heightened risk from the hole in the ozone layer. Other sites offer lists of facts regarding CO2 emissions and practical actions that can be taken to reduce them.

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<sup>59</sup> See notes 1 and 2.

<sup>60</sup> Doss, *Affect*, 10.



Figure 3.29. Interior, *Pollution Pods*, Trondheim, Norway, 2017

### **Public Response, Critical Reception, Psychological Effects**

The first exhibition of *Pods* in Trondheim, Norway generated so much interest that Pinsky has been invited to install them at conferences around the world.<sup>61</sup>

Venues have ranged from the courtyard of Somerset House in London (April 2018), the COP25 UN climate conference in Madrid (December 2019), the Science Gallery Melbourne (August–September 2019), to the TED2019 in Vancouver, BC. The encapsulated atmospheres and the affective responses they created resulted in new epistemologies of climate change, and sparked real-time conversations about air pollution. Some of the venues had a direct link to climate politics. When *Pollution Pods* was exhibited at the UN Climate Summit in September 2019, it was visited by

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<sup>61</sup> Pollution Pods debuted at STARMUS, Trondheim, Norway in 2017. It then travelled to Somerset House, London, UK; World Health Organisation's First Global Conference on Air Pollution, Place des Nations, Geneva, Switzerland; Klimahaus, Bremerhaven, Germany; TED Annual Conference, Vancouver, Canada; Clean Air Week, Media City UK, Greater Manchester UK; B-Side, Portland, UK; Melbourne Science Gallery, Australia; UN Climate Change Summit, UN Headquarters, New York City, USA; Nuit Blanche, Brownsea Island, Activate, UK; COP25 Madrid. The tour was interrupted by the global pandemic of 2020-21, but resumed for the COP26 in Glasgow October 31-November 12, 2021.

environment ministers, heads of state, NGOs, and social media magnates Mark Zuckerberg and Sergey Brin among others.<sup>62</sup> (figs. 3.30, 3.31, 3.32)



Figure 3.30. *Pollution Pods*, UN Climate Summit, NYC, September 2019



Figures 3.31 and 3.32. International WHO visitors (left) and Greta Thunberg (right) inside *Pollution Pods*, New York City, September 2019

One noteworthy visitor was Greta Thunberg, the renowned teenage activist who has become the international face of climate change advocacy.<sup>63</sup> A compelling video of her experience inside *Pollution Pods* illuminates the artwork's affective component, the link

<sup>62</sup> Pinsky interview with author, 2019.

<sup>63</sup> Among Thunberg's international awards are TIME person of the year 2019, Nobel Peace Prize nomination, 2019, the journal *Nature's* 10, 2019, and the Rachel Carson Prize, 2019.

to education about global health, and its potential to catalyze climate politics.<sup>64</sup>

Thunberg is accompanied by Dr. Maria Neira of the World Health Organization, who explains the links between respiratory diseases and pollution.

It's not just the fact that it is very unpleasant...but the particulate matter that is in the air gets into our lungs. It causes already a lot of damage. Now we have more evidence proving that it's affecting our cognitive development. So can you imagine that as a society we are getting less intelligent?

A few minutes after Thunberg says that she finds it hard to breathe and that she has a headache, she has the realization that “If we see that clear connection, then it makes it much easier for us to connect the dots and to want to stop this problem. The climate crisis and air pollution—it’s just so connected. And we cannot solve one without solving the other.”

*Pollution Pods*' sequence of environments reflects the fact that although the cities of the Global North like London (or Athens, or Los Angeles) have poor air quality on many days of the year, air pollution in cities of the Global South like New Delhi and Beijing is many times worse owing to coal burning factories, vehicles with lower emission standards, open waste burning, and massive industrial output.<sup>65</sup> *Pollution Pods* gives “shape” to formless and obscure environmental dangers that are not immediately apparent to the human eye. Those attritional dangers build over time and

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<sup>64</sup> “Greta Thunberg Experiences ‘Pollution Pods’ at UN Youth Climate Summit,” Sept. 26, 2019 [https://www.youtube.com/watch?v=i\\_ZhZhh947g](https://www.youtube.com/watch?v=i_ZhZhh947g)

<sup>65</sup> The cities of the global north are subject to toxic emissions of ammonia and methane from nearby agriculture and livestock.

overwhelmingly affect the poor, oppressed and disenfranchised. This growing inequity is what literature scholar Rob Nixon calls “slow violence.”<sup>66</sup> Cities like New Delhi and Beijing are representative of populations whose infrastructure and industry are geared to serving markets in wealthier countries. Though not shown in the *Pods*, injustices abound in other communities of Asia, Africa, and South America who supply raw resources and labor to the Global North, but don’t derive economic or environmental benefits. Visitors to *Pollution Pods* hail from regions with diverse (unequal) economies, and with differing proximities to sea level, air and water quality, societal norms, environmental education, and government commitment to progressive climate policy. *Pods* offers them a chance to mingle and converse about these issues, a bottom-up response to toxic air. Naturally, responses will differ according to what the visitor is accustomed to. Pinsky describes one scenario.

When people enter a pod together (up to ten people) and they come to New Delhi, it’s such a shock for them. Instantly they start talking together—my God, is it really like this? And the conversation just ignites in these different environments... it’s quite a big work but the advantage is that you get these group communal experiences as well as individual, but you can share it. That process leads to an engaged experience.<sup>67</sup>

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<sup>66</sup> Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, MA: Harvard University Press, 2011).

<sup>67</sup> Pinsky interview with author, 2019.

The group he mentions found New Delhi unbearable, but some visitors had completely different experiences. For example, people who are used to high levels of pollution told Pinsky that “it’s [New Delhi] really not that bad.” On the opposite end of the spectrum, Pinsky recalled people from the west of Ireland who “just physically can’t get through it.”<sup>68</sup>

The conversations extended beyond the *Pods*. The installation generated thousands of Twitter posts from around the world, particularly in the United Kingdom, US, Norway, and India.<sup>69</sup> In the sampling read by the author, visitors first communicated what they did and felt in the *Pods*, then added extracts of scientific data, upcoming climate conferences, and the logos of non-profit health or sustainability organizations dedicated to cleaner air initiatives. These posts indicate that *Pods* worked on an affective and cognitive level. Social media, today’s popular equivalent of the Habermasian public sphere, is a potent platform to record affective experiences, climate change facts, and present and future actions. *Pods* also reached thousands through videos posted on the Internet, from sources as diverse as the BBC, the World Health Organization, Science Gallery Melbourne, Radio Bremen, Times of Oman, and UN Climate Change. Additionally, there have been hundreds of articles and reviews in print and digital magazines.<sup>70</sup> *Pollution Pods*’ relevance and impact achieved the rank of no. 71 in Artnet’s article “The 100 Works of Art That Defined the Decade” (December 30, 2019). Critic Ben Davis commented, “It [*Pods*] takes the strengths of “immersive” installation art and puts them to agitational ends.”

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<sup>68</sup> See note 65.

<sup>69</sup> Data on audience, sentiment, demographics, themes, and volume obtained February 2021 from Twitter by the author.

<sup>70</sup> See note 1.

*Pollution Pods'* psychological effects have been documented in a transdisciplinary study by some of the members of the CLIMART team.<sup>71</sup> The conclusion begins, "Our work points to the value of large-scale immersive art for communicating the perceptually linked concerns about air pollution and climate change."<sup>72</sup> This questionnaire study, along with another qualitative one,<sup>73</sup> found that participants felt that experiencing the conditions in the pods immersively was much more powerful than reading information about it. The immersive experience of the *Pods* was designed to target a variety of emotions. Visitors were found to have experienced quite a range of emotions—sadness, helplessness, anger, guilt, shame, awe, inspiration, surprise, happiness, and pride. Those who experienced happiness and pride believed that the pods which represented their home cities (Trondheim or London) had better, healthier environments than the other pods. Both positive and negative emotions were associated with an individual's intention to take environmental action and change their behaviors. Not only emotions but cognition played a role in creating intention. The visitors reported that art provoked cognition of the following—one's personal place in the environmental system; social connections; physical effects that occur over time; and connection between one's actions and environmental effects. The analysis found that intentions to act were strong, and slightly increased from before participation. The experience increased belief in the relevance of environmental problems for daily life. This belief is an important factor in counteracting the psychology of climate change

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<sup>71</sup> L. K. Sommer et al., "Pollution Pods: The merging of art and psychology to engage the public in climate change," *Global Environmental Change* 59, no. 101992 (November 2019).

<sup>72</sup> Sommer, "Pollution Pods," 11.

<sup>73</sup> Roosen, Liselotte J. and Christian Klöckner, "Art and Documentaries in Climate Communication: Experiencing the Reality of Climate Change and Leading the Way to Change." *Art Research International* 5, no. 2 (2020): 524-552.

denial, which is still prevalent in many communities around the world.<sup>74</sup> What the study could not ascertain is whether the participants acted upon their intentions—a common limitation of such studies.

## **Conclusion**

*Pollution Pods* is a form of ecoaesthetics that draws people in through appealing artistic means, then immerses them in real-time human-induced environmental problems. It creates sensory conditions that stimulate somatic markers and emotions, all of which play a definitive role in meaning making. Further, the emotions travel the neural highway to the pre-frontal cortex, which regulates behavioral changes and decision making. *Pods* changes perceptions about “nature out there” because as visitors breathe the polluted air, they become inseparable from nature. They begin to think about the fossil-fueled homes and cars, and the industries that produce the products they use daily. The strength of *Pollution Pods* lies in its distinct atmospheric contrasts from cell to cell, which causes a physical and cognitive reckoning of environmental injustices and the socioeconomic conditions that produce them.

The installation functions as a great equalizer of diverse groups as they collectively move through compromised spaces. The increasingly uncomfortable cells force new sensory and cognitive understandings of pollutions’ global implications. The experience fosters communal conversations in the pods themselves, and later in social,

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<sup>74</sup> See Kari Marie Norgaard, *Living in Denial: Climate Change, Emotions, and Everyday Life* (Cambridge, MA: MIT Press, 2011) and Sally Weintrobe (ed.), *Engaging with Climate Change: Psychoanalytic and Interdisciplinary Perspectives* (London: Routledge, 2013).

digital, and print media. Perhaps most importantly, high-ranking health, government, and industry leaders visited the *Pods*. Pinsky's hope is that they can effect policy change around air pollution, which will impact climate change.

*Pollution Pods* literally confronts the hyperobject in a form that is inescapable. It challenges notions and perceptions about environmental health by showing how bodies are affected by air pollution. It connects air pollution to global inequities. It makes the visitor empathetic to environmental injustice.

The power and effectiveness of *Pollution Pods* as an exhibition cannot be denied. The public, journalists, and critics alike were deeply affected by their experience inside the pods. As the work travels to venues worldwide, environmentalists and artists will be asking if all this acclaim and recognition will engender concrete environmental action.

— Chapter 3 from the dissertation “Images, Theater, Embodied Experiences: How Ecoartists are Shifting Consciousness Around the Climate Crisis,” University of the Arts, Philadelphia, (2022)