UCL Press

Chapter Title: Breath from the sky: aerial ecologies in the Anthropocene
Chapter Author(s): Maja Fowkes and Reuben Fowkes

Book Title: Postcolonial Air and Atmospheres
Book Subtitle: Elemental life and environmental crisis
Book Editor(s): Sarah Nuttall, Isabel Hofmeyr
Published by: UCL Press. (2026)
Stable URL: https://www.jstor.org/stable/jj.40036196.15

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at https://about.jstor.org/terms



This book is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0). To view a copy of this license, visit https://creativecommons.org/licenses/by-nc/4.0/.



UCL Press is collaborating with JSTOR to digitize, preserve and extend access to *Postcolonial Air and Atmospheres*

This content downloaded from 185.237.63.220 on Fri, 30 Oct 2026 11:28:46 UTC
All use subject to https://about.jstor.org/terms

9

Breath from the sky: aerial ecologies in the Anthropocene

Maja Fowkes and Reuben Fowkes

The golden age of the sky

The sunlight breaking through saturated air was a compelling prism through which painters captured the nineteenth-century skyline. Climatologists examining Claude Monet's series of depictions of Charing Cross Bridge have established a correlation between the visibility of buildings in the paintings and the measurements of the London Fog Enquiry of 1901, enabling them to estimate the approximate concentration of pollutants in the atmosphere at the time. Several decades earlier, at the onset of industrialisation, painter John Constable's curiosity for meteorological science was reflected in the large portion of his canvases devoted to the portrayal of clouds. His landscapes could be perceived as a record of 'the golden era of natural skies', when, according to meteorologist John Thornes, 'atmosphere was the last part of nature as yet uncontrollable and unspoilt by culture' (Thornes, 2008: 572). Another presence in Constable's cloud-filled landscapes are leafy trees, a reminder of the essential role of plants in creating the life-sustaining atmosphere of the earth. Today greenhouse gases from the burning of fossil fuels, sulphurous emissions from heavy industry and the lingering presence of radiocarbons from atomic explosions are all part of the gaseous materiality of the atmosphere, invisible yet toxic traces of the anthropogenic modification of air.

The permutations of Croatian artist Dora Budor's site-specific exhibition at Kunsthalle Basel in 2019 were determined by external environmental factors, calling to mind the complexity theory of the 'butterfly effect'. First raised by a meteorologist in 1972 in relation to weather prediction, the question 'does the flap of a butterfly's wings in

This content downloaded from 185.237.63.220 on Fri, 30 Oct 2026 11:28:46 UTC
All use subject to https://about.jstor.org/terms

Brazil set off a tornado in Texas?' eventually challenged the certainties of the Newtonian scientific paradigm by highlighting the critical role of environmental variability. In Budor's installation, sound-sensitive devices placed in the building opposite the art gallery – a concert hall in the midst of renovation – converted the clamour of construction drills, welding and hammering into electronic frequencies that modified the artworks in unpredictable ways. For instance, sonic events on the building site triggered eruptions of pigment in a sculptural installation consisting of three glass chambers containing sedimented coloured dust. Entitled *Origins* (2019), each vitrine referred through colour to a particular landscape painting by J. M. W. Turner that captured atmospheric conditions at the dawn of the industrial era. The dynamic scenarios played out in the testing chambers of Budor's work demonstrated the complex interaction of natural phenomena, such as volcanic eruptions, with anthropogenic disruptions, including the dispersal of industrial particles, in the climatological feedback loops of the Anthropocene.

Most blue skies

In their search for the answer to the ostensibly straightforward question 'where is the most blue sky on the planet?', Lise Autogena and Joshua Portway resorted to complex technological solutions. They devised the computer-generated installation *Most Blue Skies* (2009), which measured the passage of light through the atmosphere and calculated the exact colour of the sky observable from numerous places on earth, based on the data collected from several satellite monitoring systems, meteorological information and geographical specificities. Notwithstanding their recourse to technological exactness and scientific objectivity, the artists also referred to the romantic connotations attached to admiration of the blue sky, the relativity of the 'most blue' colour and the culture-specific relationship to the heavens, with climate disruption gathering like a dark cloud over the optimism emanating from the blue sky.

Certainly, the sky was not always blue. It became so as a consequence of the activity of photosynthetic cyanobacteria that produced oxygen as a side effect, turning the earth's atmosphere into an oxygen-rich one around 2.3 billion years ago, which, as editor of *The Life of Air* Monika Bakke observed, 'gave the sky the blue colour it has today' (Bakke, 2017: 50). This transformation, also known as the Great Oxygenation Event, caused the mass extinction of life dwelling in a carbon-dioxide-rich

This content downloaded from 185.237.63.220 on Fri, 30 Oct 2026 11:28:46 UTC
All use subject to https://about.jstor.org/terms

atmosphere and propelled the formation of plant and animal organisms. The deep history of air is at the core of Australian artist Emily Parsons Lord's research presented in the installation *Different Kinds of Air, a Plant's Diary* (2014), which attempted to re-create the gaseous composition, temperature, taste and smell of air as it changed over the course of geological history. For instance, the air of 300 to 350 million years ago had oxygen levels that were nearly double what they are today, supporting the flourishing of mega flora and fauna. Over seven stages in the installation, the artist demonstrated how, in her own words, the 'history of the atmosphere on Earth is inexorably linked to the history of life' (Lord, n.d.).

Star-gazing in low-threshold skies

Artist Rohini Devasher's exploration of the sky dates back to art school in New Delhi at the turn of the millennium, when she joined a group of amateur astronomers for regular 'star parties' on the roof of the Nehru Planetarium. Today, due to light and air pollution, the Indian capital's stargazers have to travel hundreds of miles to reach 'low-threshold skies', leading the artist to speculate that entire generations 'born without stars' are being denied opportunities for celestial wonder (Devasher, n.d.). Collecting conversations with amateur astronomers in India and abroad, Devasher has investigated the transformative experience of gazing at the sky, and focused in the sound piece *Shadow Walkers* (2010) on the recollections of seven solar eclipse chasers (see Figure 9.1). Lying on mats in an open space under the sky, the audience listened together to personal stories of a 'hair-raising experience' that 'occupies you entirely, consumes you', and which 'when it was over changed my life' (Devasher, n.d.). At issue here, and exceeding the confines of scientific understanding, was the sense of oneness with the cosmos and reciprocity between the vastness of space and intimacy of the self that arises in intense encounters with celestial phenomena. In other words, in conditions of encompassing atmospheric pollution, what sense of self can arise from gazing into smog?

Drawing in her practice from findings in the philosophy, politics, science and lived experience of air, Stockholm-based artist Hanna Husberg used her three-month residency in Beijing to conduct research into cultural and political aspects of urban air in the Chinese metropolis. The resulting audio-visual work *Often People Ask How Birds Are Affected by the Air* (2017) assembled interviews and dialogues

This content downloaded from 185.237.63.220 on Fri, 30 Oct 2026 11:28:46 UTC
All use subject to https://about.jstor.org/terms



Figure 9.1 Rohini Devasher, *Shadow Walkers*, 2010. Photography: Ryan Waggoner. Image courtesy of the artist and Spencer Museum of Art.

with locals about the acute toxicity of the ground air in recent years. Respondents deliberated about the state's weather control measures to ensure that no rain fell during the Olympic Games of 2008, when factories and traffic were also shut down for better visibility. Others wondered about the absence of once-regular strong winds and how smog used to be a term related to English literature, before it became a permanent fixture of the local atmosphere. Husberg also pointed to linguistic adaptations to the new circumstances of hazardous air pollution, such as the changing meaning of *wumai*, which used to be a technical term for haze in optics, before it became a familiar meteorological condition. She also showed how new technoscientific representations of air quality, notably phone apps giving daily updates of the $PM_{2.5}$ index measuring the level of 'fine particulate matter' or tiny toxic particles in the atmosphere, made people aware that what locals call 'white skies … is actually pollution' (Husberg and Marzecova, n.d.). Recent transformations in the air could equally be envisioned through traditional aerial imaginaries as a disruption of the harmonious balance between *qi*, standing for energy or vital breath, and the dangerous wind or *feng*, from which a 'hundred diseases' arise (Husberg and Marzecova, n.d.).

Airborne toxicity

The atmosphere is simultaneously shared by all living beings that inhale it and subject to social and environmental inequalities that make the

This content downloaded from 185.237.63.220 on Fri, 30 Oct 2026 11:28:46 UTC
All use subject to https://about.jstor.org/terms

air more or less breathable for particular communities. Visceral fears of airborne contamination are dramatised in the Karrabing Film Collective's *The Mermaids, Or Aiden In Wonderland* (2018), an experimental video work conceived in response to the insidious spread of poisonous fracking technologies in Australia. Nightmarish scenes of sterilised hospital spaces and visions of military scientists advancing overland in chemical protection suits with breathing apparatus are the backdrop to a story about a young Indigenous man, Aiden, who was taken away as a baby to be part of a medical experiment to save the white race from pollution. On returning as a stranger to his family, Aiden has to choose between the agenda and temporality of the multinational chemical-industrial complex and the nature and folklore of his homeland. Departing from the realities of the differential effects of ecological degradation in order to underscore the injustices of colonial extractivism, in the film toxic contamination only affects the white settler colonialists who bear responsibility for social and environmental degradation, leaving Indigenous people unharmed. The imagery of gas masks speaks also of a generalised breathability crisis on planet earth caused by airborne toxicity and oxygen depletion, inseparable in its turn from the survivability crisis of the acidifying seas and the deteriorating health of soil biomes. Pointing to the unsustainable rate at which the natural wealth of the planet is being consumed, theorist Achille Mbembe has posed the crucial question of how far away we are from the moment when 'there will be more carbon dioxide than oxygen to breathe' (Mbembe, 2021: 62).

Atmospheres of the Anthropocene

While the burning of fossil fuels in transportation, industry, the energy sector and agriculture is commonly pinpointed as a source of carbon emissions, Barcelona-based artist Joana Moll directed attention to the emissions of atmospheric carbon dioxide from the internet, problematising the hidden materiality of online transactions. Her work *CO2GLE* (2014) was a real-time, net-based installation that calculates the amount of CO_2 emitted each second from google.com, the most visited site on the internet. With an approximate average of 47,000 requests every second, the artist estimated that around 500 kilogrammes of CO_2 were emitted per second. In other words, the physical properties of the internet do not only include infrastructures and the synthetic or rare earth components in electronic devices, but also extend to the transformation of the planet's air. Acknowledging that 'cloud computing is still rather dependent on

This content downloaded from 185.237.63.220 on Fri, 30 Oct 2026 11:28:46 UTC
All use subject to https://about.jstor.org/terms

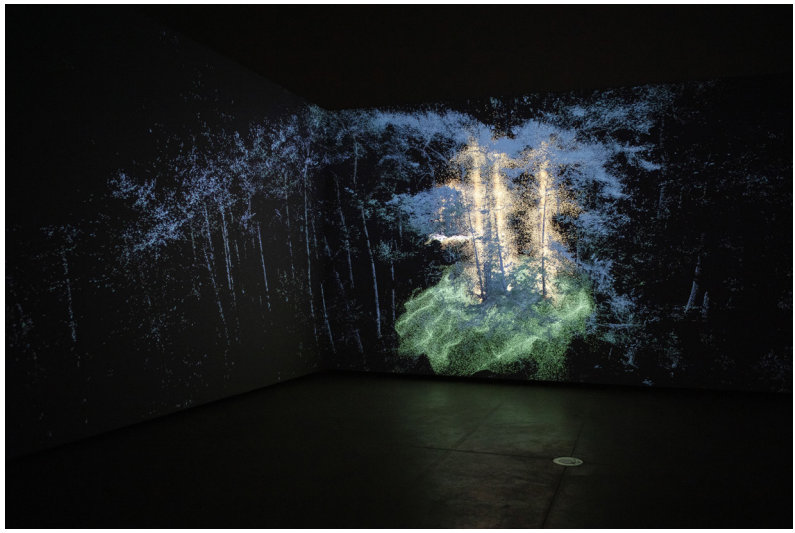


Figure 9.2 Rasa Smite and Raitis Smits, *Atmospheric Forest*, 2020. Purvītis Prize 2021 exhibition, National Museum of Arts, Riga, Latvia. Photography: Kristine Madjare. Courtesy of the artists.

non-renewable energy with heavy CO_2 emissions', media theorist Jussi Parikka in *A Geology of Media* also broached the issue of the technological contamination of lungs by asking, 'what if you breathe the residue of metals and chemicals of digital culture?' (Parikka, 2015: 43).

In contrast to the moon landing half a century ago, which was based on 'nationalist, colonial and patriarchal ambitions that have depleted the world', Tomás Saraceno's artistic experiment to realise the first fully solar and untethered flight was achieved 'without lithium and batteries, without solar panels, without helium and hydrogen, without fossil fuels, only with the sun and the air we breathe'.[1] The most ambitious of a series of investigations into the possibility of aerosolar flight and the wider utopian potentialities of living and moving in the air, *Aerocene Pacha* (2020) also articulated a critique of the polluting and exploitative technologies of extractive capitalism. Named after the Incan cosmovision of Pachamama and bearing the slogan 'water and life are worth more than lithium', the first flight of the Argentinian artist's floating sculpture took place above the Salinas Grandes, local salt flats that are exposed to the environmental devastation of lithium mining, which for Indigenous communities is also a sacrilegious act of violence against Mother Earth.[2] Saraceno's vision of non-harmful and non-extractivist flight opened up the aerial imaginary to speculative immersions in the ephemeral materiality of the atmosphere.

This content downloaded from 185.237.63.220 on Fri, 30 Oct 2026 11:28:46 UTC
All use subject to https://about.jstor.org/terms

In the video and sound installation *Topologies of Air* (2021), Shona Illingworth charts the transformation of the atmosphere in the Anthropocene, as the affective attachment to the skies as an unbounded realm of freedom and potentiality, and a plurality of ethereal visions across cultures, is eclipsed and curtailed by the destructive impacts of military, industrial and financial interventions into airspace (see Figure 9.3). A collage of cinematic imagery and oral testimony exposes the toxic dust storms thrown up by warfare and the invisible spread of nuclear fallout and chemical weapons, as well as the interference in airflows of geoengineering projects and the extension of state power into the electromagnetic spectrum, with the development of airborne technologies of surveillance and control. The direct connection between the degradation of the air and the operations of carbon modernity come to the fore in a sequence in which the voice of a geologist describing the formation of the earth's oxygen-rich atmosphere over billions of years plays to footage of nodding donkeys and gas flares in a desert oil field. To counter the technological colonisation of the sky, the artist has also collaborated with a law scholar to propose a new human right to guarantee 'the freedom to live without physical and psychological threat from the air' (Albano, 2024: 151).

Taking as her starting point air pollution in her hometown of San Francisco, Amy Balkin's *Public Smog* (2004–) was conceived as a clean air reserve made up of a lower park in the troposphere and an upper park in the stratosphere that fluctuates in size and location in response to changing political, legal and financial activities. The lower park addressed the noxious cocktail of airborne particles and invisible toxic gases hovering above the earth's surface associated with coal burning, industrial processes and the photochemical smog of vehicle emissions. The upper park was devoted to greenhouse gases, which have a vital function in sustaining life by trapping outgoing radiation, but which due to accelerating carbon emissions now endanger life on earth by raising surface temperatures. The park was open to the public three times over

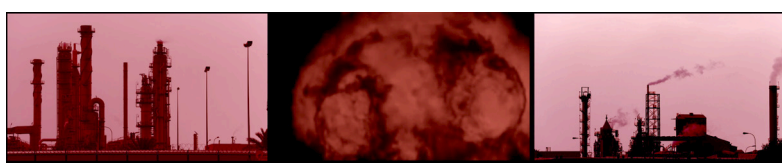


Figure 9.3 Shona Illingworth, *Topologies of Air*, 2021. Digital video stills. Three-channel digital video and multichannel sound installation, 45 min. Courtesy of the artist. Commissioned by The Wapping Project.

This content downloaded from 185.237.63.220 on Fri, 30 Oct 2026 11:28:46 UTC
All use subject to https://about.jstor.org/terms

the course of a decade through the purchase and retiring of offset credits in emissions trading markets, although the artist readily conceded that to 'buy back the sky' on the open market could only work if the entire supply of these virtual commodities could be acquired and removed from circulation.[3] This ongoing project drew attention to the opacity of the emissions trading scheme, which, as Naomi Klein pointed out in *This Changes Everything*, by paying out 'real money based on projections of how much of an invisible substance is kept out of the air tends to be something of a scam magnet' (Klein, 2014: 220). Repurposing the dissembling rhetoric of the climate trade lobby, the artist's billboard *Public Smog Is No Substitute for Direct Action* (2009) in the Cameroonian city of Douala explored the potential of opening a clean air park over Africa.

The (life-giving) breath of plants

Running counter to the tendency under conditions of colonial-capitalist extractivism to financialise the atmosphere, ecocritical thinkers reveal the embeddedness of the air in natural systems. In his *The Life of Plants*, Emanuele Coccia brings to the fore the ability of plants to produce the air that most life forms, humans included, need to survive, observing that 'the being in the world of plants resides in their capacity to (re)-create atmosphere' (Coccia, 2018: 45). The oxygen in the atmosphere that renders the air breathable is therefore not just an isolatable chemical element, but imbricated in a continuous process of metabolic exchange with vegetal beings that photosynthesise more than they respire. This state of vital interconnectedness with the air extends to the act of breathing, considered as a form of immersion in 'a medium that penetrates us with the same intensity as we penetrate it' (Coccia, 2018: 45). By disclosing the role of the plant world in producing the conditions of life and – through their corporeal intimacy with the atmosphere – the radical entanglement of all living beings in the biosphere, Coccia decentres anthropocentric accounts to reconnect gaseous and vegetal realms.

As Latvian artists Rasa Smite and Raitis Smits demonstrate in *Atmospheric Forest* (2020), the panacea of reforestation is complicated by the fact that trees are not machines, but breathing organisms that also emit carbon dioxide. More carbon is released back into the atmosphere when trees die through drought, forest fires or accelerating biological processes, which underpins the journal *Nature*'s announcement on its

This content downloaded from 185.237.63.220 on Fri, 30 Oct 2026 11:28:46 UTC
All use subject to https://about.jstor.org/terms

cover in March 2020 that 'the ability of tropical forests to sequester CO_2 is in decline'.[4] Smite and Smits's multimedia installation visualised and sonified findings about the relationship between forest and climate, based on the research they conducted in Pfynwald, an ancient Swiss Alpine forest, where they analysed the effects of drought on weather conditions in the valley. By visualising the data collected from observations of pine trees during the growing season, the artists revealed the connection between environmental factors and arboreal physiology. Evidence about the interaction between climatic conditions and pine tree emissions suggested specifically that stressful situations, such as extended dry spells, influence the production of resin and trigger the release of volatile organic compounds that are responsible for the characteristic scent of the forest. The intensity of forest fragrance reflects arboreal climate anxiety in the face of rising global temperatures, while distressed forests make for unwilling absorbers of our carbon debt.

Just as a more plant-centric understanding of the world is gaining acceptance – with notions of plant intelligence and vegetal agency no longer marginal viewpoints, but part of a widespread understanding of the reality of interspecies interaction and interdependence – the conditions for interspecies flourishing are critically endangered by human interventions in natural systems, and above all by the silent emergency of climate breakdown. Even the life-affirming vision of plants, and above all trees, as the creators of an atmosphere that we breathe together is imperilled by rapid anthropogenic heating, leaving us to wonder what it means to share the air with trees when the conditions for respiration are failing. The observation of atmospheric effects, by artists as well as scientists, at the dawn of industrialisation and today, has revealed the interconnectedness of ethereal realms with terrestrial processes, whether natural, anthropogenic or in unpredictable combination. Ecocritical art practices destabilise assumptions about the constancy of air by investigating the deep history of earth's transforming atmosphere, as well as by considering the ways in which pollution is affecting the contemporary experience of the sky, giving rise to linguistic and cultural changes as urban dwellers adapt to airborne toxicity. Artists also bring to light inequalities in access to clean air that follow in the wake of colonial extractivism, amplifying calls for an environmental expansion of fundamental rights. While intervening in the chimeric quest to develop non-polluting forms of aerial technology or make visible the heavy atmospheric footprint of dematerialised online worlds, they have also confronted the malleability of capitalism in rebranding itself as green and turning emissions trading into a source of opportunistic profiteering. On a planet that is breathless

This content downloaded from 185.237.63.220 on Fri, 30 Oct 2026 11:28:46 UTC
All use subject to https://about.jstor.org/terms

with polluted and overheated air, and breathless too with trepidation at the speed of a runaway climate crisis, artists invite us to turn to trees to inspire us in breathing the spirit of restoration.

Notes

1 See project description on the artist's website, accessed at: https://studiotomassaraceno.org/fly-with-aerocene-pacha.
2 https://studiotomassaraceno.org/fly-with-aerocene-pacha.
3 See project website, https://www.publicsmog.org.
4 See the cover of *Nature* 579.7797 (5 March 2020).

References

Albano, C. 2024. 'Topologies of air: Shona Illingworth's art practice and the ethics of air'. *Digital War* 5.1–2: 1–16. https://doi.org/10.1057/s42984-022-00053-6?urlappend=%3Futm_source%3Dresearchgate.net%26utm_medium%3Darticle.

Bakke, M. 2017. 'Art and metabolic force in deep time environments'. *Environmental Philosophy* 14.1: 41–59. https://doi.org/10.5840/envirophil20173744.

Coccia, E. 2018. *The Life of Plants: A metaphysics of mixture*. Cambridge: Polity Press, 2018.

Devasher, R. n.d. 'Shadow walkers', artist text available on *Arts Cabinet*. Accessed 10 February 2026. https://www.artscabinet.org/migration/shadow-walkers.

Husberg, H. and A. Marzecova. n.d. 'Sick air in the making of smart cities'. *RTV Magazine*. Accessed 10 February 2026. https://magazynrtv.com/en/wydanie-2/critic/sick-air-in-the-making-of-smart-cities.

Klein, N. 2014. *This Changes Everything: Capitalism vs. the climate*. New York: Simon & Schuster.

Lord, E. P. n.d. 'Different kinds of air, a plant's diary'. Accessed 10 February 2026. https://www.emilyparsons-lord.com/#/lumen-avenue.

Mbembe, A. 2021. 'The universal right to breathe'. *Critical Enquiry* 47.2 (2021): S58–S62. https://doi.org/10.1086/711437.

Parikka, J. 2015. *A Geology of Media*. Minneapolis, MN: University of Minnesota Press.

Thornes, J. E. 2008. 'Cultural climatology and the representation of sky, atmosphere, weather and climate in selected art works of Constable, Monet and Eliasson'. *Geoforum* 39.2: 570–80. https://doi.org/10.1016/j.geoforum.2006.10.015.

This content downloaded from 185.237.63.220 on Fri, 30 Oct 2026 11:28:46 UTC
All use subject to https://about.jstor.org/terms