Central Lancashire Online Knowledge (CLoK)

Title	Breathing in the megacity: photographic atmospheres, polluted airs
Type	Article
URL	https://clok.uclan.ac.uk/id/eprint/37163/
DOI	https://doi.org/10.1080/17540763.2020.1847179
Date	2021
Citation	Aitken, John and Brake, Jane (2021) Breathing in the megacity: photographic atmospheres, polluted airs. Photographies, 14 (1). pp. 15-28. ISSN 1754-0763
Creators	Aitken, John and Brake, Jane

It is advisable to refer to the publisher's version if you intend to cite from the work.
https://doi.org/10.1080/17540763.2020.1847179

For information about Research at UCLan please go to http://www.uclan.ac.uk/research/

Article Title: *Breathing in the megacity: photographic atmospheres, polluted airs.*

Authors:

Jane Brake

Manchester School of Art, Manchester Metropolitan University, Manchester U.K.

j.brake@mmu.ac.uk

https://orcid.org/0000-0001-8159-5613

John van Aitken

School of Journalism, Media & Performance, University of Central Lancashire, Preston U.K.

jaitken@uclan.ac.uk

https://orchid.org/0000-0002-7261-1332

Author Biographies:

In 2004 Brake & Aitken formed the *Institute of Urban Dreaming* (IUD), a research collaboration investigating the impact of urban redevelopment on public housing. From their tower block flat in Pendleton Salford, UK they have been creating a multimodal, plurivocal record of the area as it has been transformed through accumulation by dispossession and various strategies of gentrification. https://iudblog.org

Abstract

Written from an artists' perspective this article considers photography's engagement with the polluted meteorological atmosphere and its constitutive role in the production of megacity imaginaries**.** On visits to Shanghai between 2017 and 2019 we made elevated views of the megacity, generated field notes, poetics, breathed the air and became unwell. We draw on the work of Gernot Böhme and Peter Sloterdijk amongst others to initiate a new and pressing discussion: what happens when we think of photography and breathing together?

Key words: Air, Atmosphere, Breathing, Gernot Böhme, Megacity, Pictorialism, Photography, Pollution, Shanghai.

Shanghai View

While we wait to check in, I scan the sculpted panorama of the city through the polarised windows on the 40th floor of the hotel. Squeezed from above by atmospheric pressure the Pudong district of Shanghai is a crystalline field descending towards the river and beyond. This is the 'steepling gentleness' of skyscrapers: shimmering towers muffled in a cloudy embrace, set to the heavy breathing of the hotel air conditioning (1).

Fig. 1. *Shanghai*, 2020. Credit: John van Aitken & Jane Brake.

From the hotel lobby, for the first time, I am in thrall to the view, which in turn is in thrall to

the haze. The hotel manager looks over my shoulder. Her name is Eva we discover later.

'Beautiful, isn't it?'.

I am not sure why I say yes and the word emerges more of a question than an affirmation.

But the view *is* beautiful, in the way that powerful and terrifying things are sometimes able to

twist themselves into the mantel of beauty.

'But this pollution is worrying'. I say.

'It's not pollution it's the atmosphere,' Eva corrects me. 'This mist is a distinctly Shanghai thing'.

Introduction

This article considers photography's engagement with the polluted meteorological atmosphere, its frequent deployment in the megacity view and as such, its constitutive role in the production of megacity imaginaries. The urban landscapes of early 20th century New York by Alfred Stieglitz and Alvin Langdon Coburn, as well as those of 21st century Shanghai circulating on tourist social media, employ polluted haze to produce compelling and sensory city views.

Between 2017 and 2019 we visited Shanghai to work on material for our artists' book. Shanghai today is a self-conscious exemplar of the global megacity and in some ways is prescient of emerging UK megacities such as Manchester, where our practice is situated. We draw on textual accounts and photographs made during these visits as well as the experience of creating views of the megacity, breathing the air and becoming unwell.

Peter Sloterdijk (2009) has notably expounded a deficiency in atmospheric understanding, which in this instance, we argue, elides the pollution effects of the megacity view in favour of the seductive atmospheric overlays we want to see instead. We wish to disrupt the megacity imaginary whereby photographic haze is considered to be a meteoritical effect which produces affective capital. On the contrary, it is a matter of urgency that we recognise this

atmosphere, for its agency as anthropogenic pollutant and its substantive materiality. Our affinities are with a materialist approach to atmosphere, in the sense that it acts upon and within bodies, and is crucially also a planetary commons, a finite life-giving resource, the degradation of which escalates global inequalities. The photography we recognise is a multiple in which meanings, materials, chemistries, bodies can only produce intersectional outcomes. Photographic surfaces and the narratives that reside there represent only one aspect of this multidimensional complex.

The study of atmosphere is well established in geography where the simultaneity of metrological and affective atmospheres and the elemental crisis demand that we question, amongst other things, the distribution and inequities of breathable atmospheres (2). Anthropologist Tim Ingold draws attention to the essential corollary of embodied knowledge: the "enwinded body" for which air is always the medium of knowledge (3). Photography's engagement with air pollution is not simply about illustrating or making visible the evidence of particulate matter for example, but it employs an exhaustive range of optical processes, camera and scanning apparatus, photographic datasets and algorithms towards analytic and diagnostic ends, as we call upon it to quantify, measure and organise this evidence.

Our journey towards atmospheres has involved studies of auras, spectacles and ambiances; with tentacles extending between the work of Walter Benjamin on arcades; practices of the situationist derive, as a technique for apprehending ambiances; the Right to the City and walking practices generally. Here we also draw on several aspects of German philosopher Gernot Böhme's wide ranging philosophical work on atmospheres. Finally, we wish to draw attention to our use of artistic assemblage as the dominant mode of production of this article.

We have included textual and photographic materials from our artists' book in development, which in the process of exploring the megacity view, begins to reach for an eco-poetics of polluted air as it is encountered from an elevated perspective. Whilst this approach leaves some aspects of our argument wanting, we hope it enables positive sensory engagement with a subject of vital concern.

We initiate the following question: what happens when we think of photography and breathing together? Immediately we recognise that embodied photographic events involve entanglement with toxic airs in darkrooms; in mines where rare mineral extraction takes place for the digital industry and dyeworks where printing inks are manufactured. Bodies, whether human or posthuman, making megacity views on the pacific rim, encounter excesses of ultraviolet radiation requiring filtration; they must monitor particulate levels, take precautions such as wearing breathing apparatus and so on. With Alberto Pérez-Gómez we understand that with 'breath, everything in the universe is capable of touching everything else' we also note how the exhaled breath of furnaces and exhaust pipes, which touches the negative or digital sensor, appears as a tainted residue (4).

Atmospheric Ecstasies.

German philosopher Gernot Böhme proposes a new aesthetics concerned with the 'relationship between environmental qualities and human states,' and with sensuous experience rather than judgement (5). This is a critical intervention in the aesthetics of judgement which has hitherto associated itself mainly with art, and originates in Böhme's ecological thinking. It is a reappraisal of the scope of aesthetics affording it the capacity to

encompass all aspects of sensory experience and appreciation without hierarchy. Meteorological phenomena, art and the sensory outputs of aesthetic capitalism such as tourism imagery and city branding can all be addressed by the new aesthetics. In response to a saturated manufacturing sector, value is increasingly located in experience rather than products and in this way, the production of atmospheres is key to the staging effects which produce these experiences. Any new aesthetic formulation must be sensitive to the multiplicity of fabricated atmospheres produced in aesthetic capitalism, which include: interior design, scenography, cosmetics, architectural visualisations, acoustic environments, landscape gardening and so on. According to Böhme scenography or the art of creating a stage set, is the paradigm of an atmosphere in aesthetic capitalism, an example which also suggests ways that atmospheres may be phenomena experienced in common rather than purely idyosyncratic. Photography is engaged in the staging of buildings, their surfaces and surroundings for tourism and development. In other work we have demonstrated how housing environments are atmospherically conditioned to create resonances of well-being and confidence which produce the affective conditions necessitated in the valorisation and financing processes of new spatial projects (6).

Finally, Böhme's concept of ecstasies calls upon us to think through a nexus whereby polluted atmospheres and photographic apparatuses and bodies are entangled and may be revelatory for each other. Although we have a rich vocabulary with which to describe them, atmospheres remain ontologically indeterminate. We are not sure whether to 'attribute them to the objects or environments from which they proceed' or to the subjects who experience them (7). We are also unsure where they are, although we feel that they are spatial because they seem to fill space with a tone of feeling, like a haze. Böhme attempts to resolve this peculiar intermediary status of atmospheres, their drifting presence between spaces and

subjects by considering what he terms the ecstasies of things. A blue cup aids Böhme's explanation of this concept but rather than the blue simply being what distinguishes the cup from a red one, for example, we are invited to think of the way the colourfulness of the cup 'organizes space as a whole, that is, it enters into constellations with other things, or it centres the space if its colour is overwhelming, at the same time tingeing and tinting all other things' (8). Rather than clinging to the cup the blueness is emanating, radiating in space towards other things that do not possess the property of blue themselves but are caught in the orbit of blueness, which structures space. Later we return to an idea of ecstasies which provokes thoughts of a critical photography of atmospheres and airborne particulates, one in which the photographic structuring of images and their spaces helps us to grasp the materiality of compromised air.

Photographic Atmospheres

In an article for Photographic Mosaics in 1892, Alfred Stieglitz, a staunch advocate of Pictorialism at the time, urged his American compatriots to rectify deficiencies in their work by introducing 'atmospheric effects':

> Atmosphere is the medium through which we see all things. In order, therefore, to see them in their true value on a photograph, as we do in Nature, atmosphere must be there. Atmosphere softens all lines; it graduates the transition from light to shade; it is essential to the reproduction of the sense of distance. That dimness of outline characteristic for distant objects, is due to atmosphere (9).

Graham Clarke notes how Stieglitz uses the atmospheric qualities of ice, snow, storm, rain, mist, vapour – water in all forms – to create a 'fluid iconography'. 'Lyric intensity' and

'spiritual condition' are intensified as solid gives way to the transmutable (10). Whilst photographing New York, Stieglitz employed the dust, dirt, smoke and polluted smog of the 19th century urban scene to produce a Pictorialist atmosphere, fulfilling his longstanding aim of making photography reveal 'what is not visible to the surface': the transcendent (11).

In 1912 fellow Pictorialist, Alvin Langdon Coburn used soft-focus Pink-ham & Smith Semi-Achromatic lenses to photograph New York from new elevated vantage points. The specially designed soft-focus lenses created diffusion and eliminated insignificant detail without losing the particular in his idealized views of the city's skyline (12). Symbolist correspondence theory instilled in Coburn a belief that the physical world of matter was endowed with inner harmony, not 'merely sensuous but also spiritual' (13). Photographing from an elevated perspective, adopting what De Certeau later termed the 'solar Eye', Coburn applied a similar liquid iconography to the New York skyline, softening its depth of field optically, incorporating steam, mist and pollution to cloak it with atmosphere (14).

William R. Taylor argues that Pictorialist images of the emerging modernist city played a key role in both naturalizing and aestheticising the skyscraper, so that rather than provoking revulsion, they eventually generated an aura of progress and sophistication. Early anxieties from the 1880's onwards about the explosive rate of change in the city, its loss of public space and familiar environments brought about by new vertical corporate building strategies were tempered by the 1920's. Taylor outlines how initially this new building form generated conflict between the 'civic horizontalism' of those promoting a human scale city and the 'corporate verticality' of others who utilised the new building technologies to amass greater rates of profit from real estate footprints. These new aestheticized visualisations of New York became part of a wider on-going visual culture that reconfigured urban consciousness to

perceive the once reviled structures as 'picturesque' (15). Mary Woods argues that the New York photographs of Stieglitz and associates were instrumental in the development of a new urban aesthetic, bridging the divide between the nineteenth and twentieth century, producing enduring icons of the modern metropolis (16). In an examination of the persistence of certain city tropes Joan Ramon Resina concludes that, as images acquire meaning through time, we should see them as 'after-images'. Characterised by a lack of stability and susceptible to change, an after-image 'denotes a visual sensation that lingers after the stimulus that provoked it has disappeared' (17). For Resina, the retinal retention of certain urban imagery occurs when the synchronicity between the image and the original event in which it was embedded, is ruptured. Here the imagery outlives its original context, being reactivated or mutating as it engages with future cultural, perceptual and contextual paradigms of the city. We could argue that these 'after images', which haunt the megacity with the romance of the skyscraper, also repeatedly sanitise the ghostly apparitions of pollutant residues, trapped in photographic emulsions, lingering in the printed skies, glitching across screens.

Following this we can understand how this original elevated depiction of the Manhattan skyline became the basis of an enduring imaginary, in which natural and anthropogenic elements are lent a transcendent quality, perception is destabilised as polluted airs are cleansed, particulates removed by climate change denying, affective, photo-filtration processes.

Fig. 2. Observation Deck, 2020. Credit: John van Aitken & Jane Brake.

Shanghai Blue

On our first visit to Shanghai we focused on everyday life in the vertical city and the
practices and performances of looking which accompany the high-level perspectives of tall
buildings. With time we became increasingly gripped by atmospheres, by the spaces in
between, and around the buildings of the megacity, and above, where the troposphere and
stratosphere meet, and we feel the pressure of the weather system on the anthropogenic city
air. We began to realise the degree to which contemporary aesthetics of atmosphere are
contested: particulate matter mingles with denial, miasma and charisma become
interchangeable (18).

Pollution is often deemed invisible, in the case of megacity airs, however, residues of sulphur dioxide, nitrogen dioxide, oxides of nitrogen and other emissions, are manifest as colour casts and other visual effects. Stratospheric pressure bearing down on a polluted megacity can produce a thermal inversion, in which contrary to the norm, the air nearest the ground is colder than the air above it, resulting in a city paralysed in frozen trapped smog. Elevated positions allow us to see the inversion as a clash between systems where a smog filled featureless troposphere is sutured to pastoral clouds that bulge upwards towards the stratosphere.

The promise of the elevated view is what Rebecca Solnit has called the blue of distance (19). We might think of this as a timeless aura and something of a birth right, just reward for our elevated position, whether we achieved this by climbing a mountain or pressing an elevator button. In a time of mass-extinction the blue of distance is a thing of increasing rarity and in need of preservation. Blue haze tracing the horizon or wooded mountain tops is an ancient atmospheric effect produced by solar radiation striking naturally occurring aerosols. We have added anthropogenic pollutants to this cocktail which is activated by the sun's rays. And it's not just about colour but the degradation of light, its disappearance into unpunctuated, ungraduated space.

The first black and white photographic emulsions did not easily record the full light spectrum, leaving skies flat and featureless. Photographers either accepted this or made an art of combination printing clouds into position. Resolving, correcting and rendering skies became one of photography's normative challenges. A pre-occupation with the relationship between emulsions, metering and the realism of blues has given way to new digital colour

technologies, expanding possibilities of blue and but also seeding blue atmospheres with ideas of absence. Blue is the machinic panic space-'behind' the digital screen.

We started to question the atmospheric qualities of photographs used to promote Shanghai's Pudong district. We must note something probably obvious: that having a blue sky is not just, or maybe not even at all, about the weather conditions in the environment. When we look at a selection of Pudong photographs we should not imagine we are looking at a representative sample of skies, but at the atmospheres that are chosen, the ones we admire or are prepared to accept.
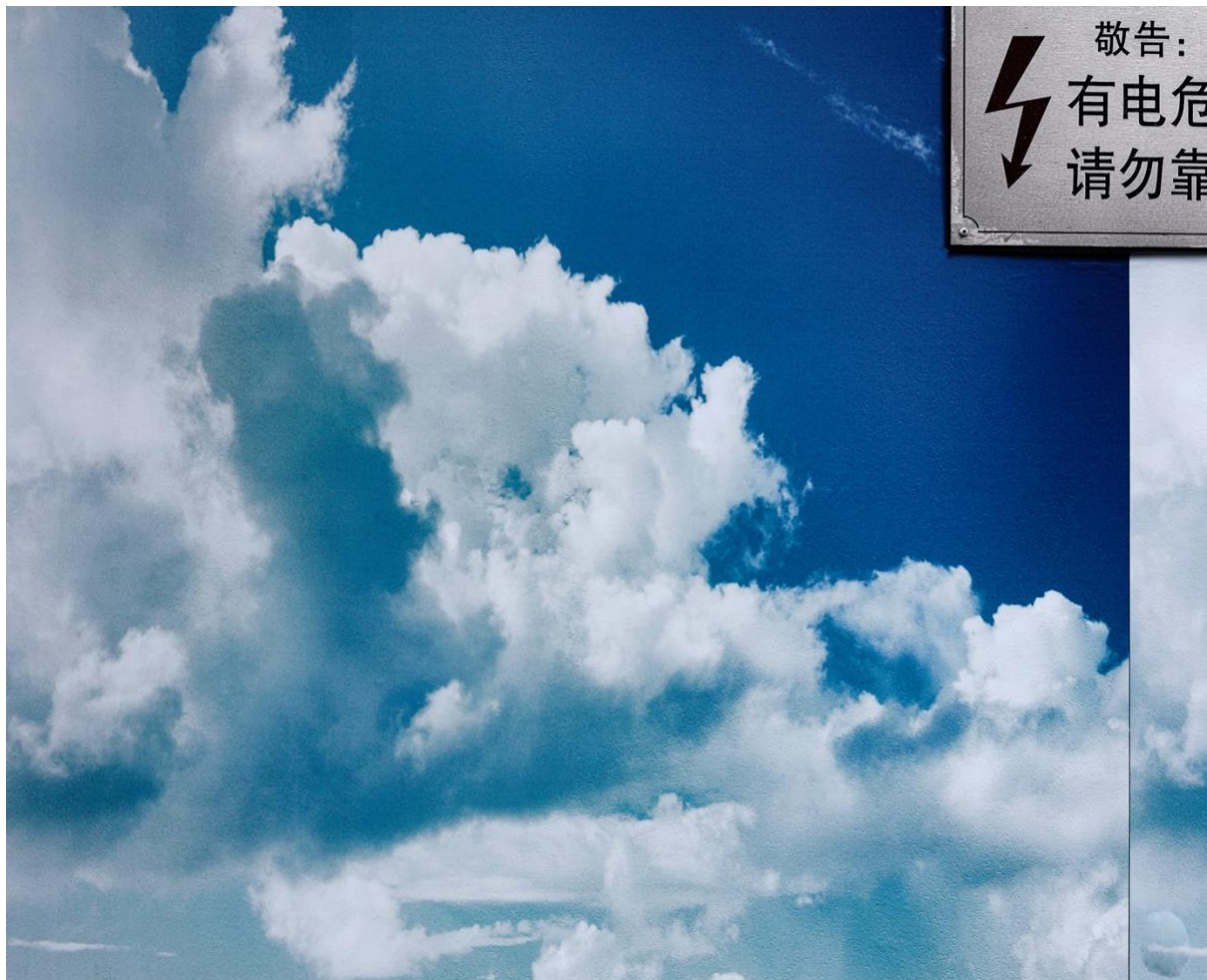
Fig. 3. Clouds, 2020. Credit: John van Aitken & Jane Brake.

The Pudong skyline with its tv tower, hotels and business district, is instrumentalised in city branding campaigns which manage atmospheres as staging effects of this skyline. We can see what appears to be the warming tint of smog, cloaking the buildings and limiting the depth of field as these pollution-scapes are co-opted into general use for tourism and advertising. Smog or haze smothers the perspective lines so significant to the modernist urban vision, upon which Pudong, is modelled. There is correlation between this and the way Pictorialists employed pollution to produce atmospheric meaning. In our own visual research, the perpetual blue-sky imaginary of Pudong's skyline showed signs of deviation. In adverts aimed at English speaking tourists we saw, emerging sporadically, the hazy after image of the Pictorialist's Manhattan. Positioned not as images of concern regarding air quality, they appeared on the contrary to be lending the city a sense of mystique. In several adverts for hotel chains, travel companies or on Instagram's Shanghai.explore, the cinematic pan of the Pudong skyline emerging from cloud shifted disconcertingly into the zone of airborne pollution.

As we have previously suggested this may in some way remain entangled, as an after-image, with our perception of the elevated view and the vertical city as a place of transcendence, of promise. In the case of Pudong, what coalesces along with this iteration of transcendence pertains to economic growth, national pride in China's success and a literal rise out of the soft sediment upon which Shanghai is built. Whilst incorporating and twisting the visible evidence of pollution into something akin to a lens or a lighting effect, the atmosphere produced by these photographs also suggests that it might be toxicity and its consequences that are transcended, when we reimagine the visible manifestations of pollution as photographic effects.

Blue Haze

Blue Haze is distilled in the photographic atmosphere of our Shanghai photographs, digital files already balanced for daylight. If we employ an ecologically attuned atmospheric awareness, remembering the ecstasies of things, which we first heard about in relation to Gernot Böhme's blue cup, we can clearly see the ecstasies in our elevated view of Shanghai. These ecstasies are particulate matter and noxious gases wafting from their respective things: vehicles stuck in a traffic jam on the elevated roadway and factory chimneys we might be able to make out on the horizon if the air quality was better.

In the case of our blue tinged landscape it is the ecstasies of airborne organophosphates in their interaction with atmospheric anthropogenic pollutants which we are sensing as a blue aura. We can think of sensing as something in between brain, optic nerve, our embodied selves and the photographic objects, scenes or qualities we respond to. But then, into our way of sensing photographic atmospheres we need to introduce the lungs and their way of sensing. The way they reach out through breathing, their inhalations and their ecstasies of breath.

Finally, we can think of the ecstasies of cameras, devices reaching out for the light, for the blue in a scene. While we are sensing atmospheres, the camera is also sensing, already predisposed, committed by its manufacturer to see grey as standard, maybe unable to compensate efficiently for excesses of ultraviolet light and for all these pollutant diffracting auras. There are the camera's peripheral perceptions, tinctures, particles that are being refracted but then being seen elsewhere. And there is the dehaze tool in Photoshop Raw,

pruning and sculpting the visual noise and adjusting for the blue of surface, rather than the blue of distance.

White out

I often look out of my window at the growing vertical city of Manchester. I watch the white plume of smoke from the cement works, which intersects horizontally with buildings reaching for the sky and shows its sheer whiteness against the dark depths of the treelined railway embankment. In turn I think of the white out. I am no longer sure if this is a photograph that exists on a hard drive or an image I have forged with the memory of air dense enough to stick in the throat.

I am standing by the window, breathing the luxurious conditioned air of expensive hotels, that has its own soporific soundtrack, an intrinsic lull, an atmosphere to vaporise the climate emergency. The white out is dense, a cloud forged out of granite in a dream, a podium for gods and goddesses, deceptive and treacherous aerial landscaping that would evaporate if you put your foot on it.

I am wondering if, perhaps, in approaching post blue, we are also becoming post view?

Responding to Sloterdijk, Jerry Zee contemplates life in high rise apartments sealed off from the air:

> How can we consider the lived form of the Chinese city through this idiosyncratic
> respiratory architecture, a proliferation of conditioned airspaces? As buildings fade

into the contracted visibility of the urban pall, a different city actualizes, a rendering of city space as an architecture of nested volumes rather than gleaming surfaces, a city of fixed and mobile interiors scooped out of the dangerous sky. Containment of the air, and of breathers of the air, is a reframing of architectural inhabitation (20).

The apartment is the tiny bubble and the foam is the nesting of similar spaces alongside each other in megacities. You can communicate with your social sphere, but your apartment is 'a spatialized immune system' (21). You are immunized against the influences of the outer world and toxic individuals, but living as 'co-isolated foams of individualistically conditioned society… multiplicities of loosely touching life worldly cells,' whose isolation is reinforced by the white out consuming the view (22).

Breathing Air

We can add to our failure to recognise the contamination of the atmosphere, the failure of the atmosphere itself. The Anthropocene atmosphere is losing the capacity to sustain healthy animals, plants, lungs or the intrinsic regenerative chemical processes of the planet as we know it. We might not be able to say what the atmosphere wants but we could say that it is failing to be breathable for us. We need to ask: what does photography do? Is its purpose simply to reimagine the atmosphere as it once was? To work hard to stage the anthropogenic as urban transcendental?

Pollution processes often manifest themselves in the photographic: when sunlight touches the microscopic surfaces of particles or the filmy vapours of gaseous omissions, chemical reactions take place which transform the chemistry of the particles and their atmospheric qualities, light, colour and their interactions with the properties of objects within their orbit.

Does this processual correlation between airborne pollution and photo-imaging create potential for any kind of ecologically positive transformation?

We are not used to thinking about breathing and photography together. How breathing affects photography and vice versa. Working with photographing bodies and meteorological atmospheres forces us to acknowledge the connection between breathing and photography. Photographable air needs to be breathable, after all. And in a climate emergency atmospheric aesthetics necessitates an account of its breathability and a critique of how it often endeavours to cloak the toxic with seductive, shimmering diffusions.

Fig. 4. Untitled, 2020. Credit: John van Aitken & Jane Brake.

Leaving Shanghai

The sun is low as the taxi glides along elevated roads. In the sepia slipstream of smog filtered sun we are leaving Shanghai.

We pass through fields of tower blocks, and occasional patches of negative space, rectangles of concrete or levelled hard core where factories used to be and building sites where new towers are being constructed.

Yellow refracted light traces the outlines of geometric forms. The landscape is a basic lesson in perspective and shading. And it is pixelating like a low-resolution scan of itself, washed with caustic yellow, everything rectilinear etched faintly with a nicotine outline. In the midst of this, towers seem to be straining upwards as if the earths gravitational pull is fading, sending them adrift, lurching slantwise across molten sky.

The taxi driver focuses only on the road ahead. From my seat in the back I can see the thin silver rim of his sunglasses. I am blinking, my eyes smarting. The light is stronger than you would think, despite being this thin yellow trickle, rinsed through sulphur dioxide.

It feels as if we have joined the flow of traffic you see in photographs, where a slow shutter speed fuses individual vehicles into a golden liquification. This automotive ecstasy is otherworldly, splintering memory, cutting it with films we have seen, cutting into my dreams as I transit between sleeping and waking. We are bobbing through the future forged underpasses of Tarkovsky's Tokyo, or leaving the Westway Interchange accompanied by David Bowie, in Chris Petit's film *Radio On*. Either way nothing impinges on our liquid momentum through cinematic space as the airport approaches us.

While the landscape is panning, fields and blocks and sky shunting past, we seem to be the

fixed point, at the speed of stasis, like the memory train going nowhere forever in Wong Kar-

Wai's film 2046.

Declaration of Interest Statement: The authors declare that there is no conflict of interest.

Notes:

1. Baudrillard, *America*, 13.

2. See Adey, "Air/Atmospheres of the Megacity*",* Anderson *Engineering affective atmospheres &* Martin*, Fogbound.*

3. Ingold*, "*Footprints through the weather world*",* 136.

4. Pérez-Gómez, "Place and Architectural Space," 34.

5. Böhme, *Atmospheric Architectures,*14.

6. Aitken and Brake, "Shimmering Surfaces," 2020.

7. Böhme, "Atmosphere as the fundamental concept of a new aesthetics," 121.

8. Böhme, *Atmospheric Architectures*, 51.

9. Nordstrom, *TruthBeauty*, 115.

10. Clarke, "The City as Ideal Text", 16.

11. Ibid., 14.

12. Mike Weaver, *Alvin Langdon Coburn Symbolist Photographer*, 30.

13. Ibid.

14. De Certeau, *The Practice of Everyday Life*, page 92.

15. Taylor, *In Pursuit of Gotham,* 33.

16. Woods notes how critics have argued that Stieglitz and his Pictorialist associates had their 'feet in two worlds.' They were not fully at home in either the nineteenth or twentieth century, modern without being modernists, depicting the 'new New York' through 'tonality, symbolism, and aestheticism of the fin de siècle.' Woods, "After-Images of the 'New' New York and the Alfred Stieglitz Circle", 203.

17. Resina, *After-Images of the City,*1.

18. Adey, "Air/Atmospheres of the Megacity", 292.

19. Solnit, *A Field Guide to Getting Lost,* 2006.

20. Zee, "Breathing in the City", 50.

21. Morse, "Something in the Air", 2009.

22. Sloterdijk, *Spheres*, 565.

23. McCormack, "Elemental Infrastructures for Atmospheric Media", 2016.

Bibliography:

Adey, Peter. "Air/Atmospheres of the Megacity." Theory, Culture & Society 30, 7/8 (2013): 291-308.

Anderson, Ben. "Affective Atmospheres." *Emotion, Space and Society* Volume 2 (2009): 77-81.

Aitken, John van and Jane Brake. "Shimmering Surfaces, Toxic Atmospheres, Incendiary Miracles: Public Housing and the Aesthetics of Revalorization in Salford UK." In *Gentrification around the World, Volume II*, edited by Jerome Krase and Judith N. DeSena. Palgrave Macmillan, 2020.

Baudrillard, Jean. *America*. London: Verso, 1999.

Böhme, Gernot, "Atmosphere as the fundamental concept of a new aesthetics". *Thesis Eleven* 36 (1993): 113-126.

Böhme, Gernot. *Atmospheric Architectures: The Aesthetics of Felt Spaces*. London: Bloomsbury, 2020.

Clarke, Graham. "The City as Ideal Text: Manhattan and the Photography of Alfred Stieglitz, 1890-1940." In *New York: City as Text*, edited by Christopher Mulvey and John Simons, 12-27. London: MacMillan Press, 1990.

Certeau, de Michel. *The Practice of Everyday Life*. London: University of California Press, 1988.

Ingold, Tim. "Footprints through the weather-world: walking, breathing, knowing." In *The Journal of the Royal Anthropological Institute* Volume 16 (2010): 121-139.

Martin, Craig. "Fogbound: aerial space and the elemental entanglements of body-with-world." *Environment and Planning* D Volume 29 (2011): 454-468.

McCormack, Derek. "Elemental Infrastructures for Atmospheric Media. On Stratospheric Variations, Value and the Commons." *Environment and Planning D: Society and Space* 35(3)(2016): 418-437 https://doi.org/10.1177/0263775816677292

Morse, Erik, 2009. "Something in the Air." *Frieze*, 01, November 2009. https://frieze.com/article/something-air

Nordstrom, Alison. *TruthBeauty: Pictorialism and the Photograph as Art, 1845-1945*. Vancouver: Vancouver Art Gallery and Douglas & McIntyre Publishers Inc., 2008.

Pérez-Gómez, Alberto. "Place and Architectural Space." In *The Intelligence of Place: Topographies and Poetics*, edited by Jeff Malpas, 157- 176. London: Bloomsbury, 2017.

Resina, Joan Ramon & Dieter Ingenschay, eds. *After-Images of the City*. Cornell: Cornell University Press, 2003.

Sloterdijk, Peter. *Terror From the Air*. Cambridge, MA: Semiotext(e) / MIT Press, 2009.

Sloterdijk, Peter. Spheres Volume 3: Foams Plural Spherology. South Pasadana, CA.: Semiotext(e)/MIT, 2016.

Solnit, Rebecca. *A Field Guide to Getting Lost*. London: Canongate Books, 2006.

Taylor, William R. *In Pursuit of Gotham: Culture and Commerce in New York*. Oxford: Oxford University Press, 1992.

Weaver, Mike. *Alvin Langdon Coburn Symbolist Photographer, 1882-1966*. New York: Aperture, 1996.

Woods, Mary N. "After-Images of the 'New' New York and the Alfred Stieglitz Circle." In *After-Images of the City*, edited by Joan Ramon Resina & Dieter Ingenschay, 183-208. Cornell: Cornell University Press, 2003.

Zee, Jerry. "Breathing in the City: Beijing and the Architecture of Air." *Scapegoat* No.8 (2014): 48-58. http://www.scapegoatjournal.org/docs/08/ZEE_6.pdf