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ATTUNING TO THE CHEMOSPHERE: Domestic Formaldehyde, Bodily Reasoning, and the Chemical Sublime

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THE CHEMICAL SUBLIME

Writing on an antithetical technoaesthetic encounter—the first detonations of nuclear weapons in the deserts of New Mexico—Joseph Masco (2004, 4) observed that "the weapon scientist's body [was] the most important register of the power of the bomb." The irradiation, shock wave, and ensuing firestorm of humankind's most lethal weaponry evoked reverence and bodily fear in onlooking male scientists as some were knocked to the ground, flash-blinded, or felt the blast bore into their being. For weapons scientists, the modest or ephemeral bodily traumas of the bomb's destructive might were, in a slightly masochistic fashion, the pleasures of a successful experiment. In the shadow of the world's first mushroom cloud, Masco posits, these bittersweet affects melted into a "nu-

clear sublime." This highly specific version of the sublime propelled some scientists into nuclear disarmament campaigns, while others reveled in a feeling that approached divinity.

Sublime is not simply an adjective or noun denoting a characteristic or state of grandeur or awe. In chemistry, sublime is also a verb, invoked when substances transform from a solid directly to a gas, bypassing the intermediate liquid form. Formaldehyde used in the fabrication of pressed woods, for instance, slowly sublimates at temperatures above −2 °F. In contrast to the spectacular, brutal, and lightning-fast sensorial pummeling that afflicted early nuclear weapons scientists, a multitude of diminutive formaldehyde plumes drifted into Linda's lungs at the sedate speed of chemical off-gassing and regular human breathing.

The constituent effects of what could be summarized as the chemical sublime were often subtle and crept into Linda's consciousness at a snail's pace. The cognitive force of her discovery was not "directly proportional to the danger involved in the experiential event" as Masco (2004, 3) avers, reading Immanuel Kant (2000). Formaldehyde's presence in domestic space was not signaled by overwhelming sensory stimuli, but rather indicated by a thickening veil of indistinction as perceptual faculties became occluded. The interference of air-quality-induced illness is received as a phenomenological transmission of its own right (Fortun 2003, 186). The sensorial noise of illness is the signal of domestic chemical exposure and the bodywork employed to apprehend the qualities of indoor air.

The magnitude of the issue of domestic chemical exposure revealed itself in piecemeal fashion—gleaned from the repeated toxic encounters of an attuned body, rather than patently imposed by a singular event like a mushroom cloud erupting into the stratosphere and tossing scientists to the ground. For Linda, the prevalence of elevated formaldehyde gradually accumulated into a technical and embodied awareness of residential chemical exposure that dwarfed her by its scale. *Within a few weeks I came to realize that there was a problem here. There is a* huge *problem here.* The form of the chemical sublime highlights the gendered assumptions undergirding Masco's and Kant's privileging of sublimity's correlation with public, spectacular, and violent events over the profundity and density of widespread private, indistinct, chronic, and fragmented phenomena.[12]

The velocity of the epochal nuclear sublime is diametrically opposed to that of the mundane chemical sublime, yet they maintain a common substrate of experience—the bodies of scientist witnesses. Linda's body was a vital register of both the chemicals that suffused domestic space and their specific concentration. The chemical process of sublimation, the elevation of state from solid to vapor,

is mirrored by Linda's somatic process of epistemic elevation, of corporeally validating her clients' symptoms and heightening her own bodily analytics. If bodily reasoning is the dynamic process through which knowledge of individual spaces of chronic exposure is somatically attained, the chemical sublime is the accrual of bodily reasoning to the point of articulating the patterned practices and infrastructures that distribute pockets of exposure across space. It is the traversing of a threshold of chemical awareness whereby the *irritations* of one's immediate environment become *agitations* to apprehend and attenuate the effects of vast toxic infrastructures. The chemical sublime thus exerts what Mel Chen (2012, 211) calls the "queer productivity of toxicity and toxins" that demands additional forms of labor.

Linda approached the City Council of San Jose, California, in the summer of 2009 as its members were on the verge of passing a building ordinance that required new homes to be certified as "green" by sealing them more tightly, a measure that would likely result in higher domestic formaldehyde levels.[13] Linda proposed an addendum requiring green homes to be tested and meet indoor air-quality standards. She offered to render those services for free to demonstrate that she held no financial conflicts of interest. Her proposal was met by a smear campaign financed by the Formaldehyde Council, an industry-funded interest group, which commissioned scientific assaults on her findings. Linda's assertions about widespread domestic toxicity put her "at risk for future litigation,"[14] as systems of commercial asset protection transformed her effort to mitigate systemic exposure risks into legal, scientific status, and financial risks on an individual level. Her data were then ignored and her motion scrapped.

The formaldehyde levels logged by Linda's instrumentation were well in excess of government-recommended thresholds, yet her findings failed to crest prevailing thresholds of significance. Why the visceral pull of the chemical sublime does not translate to a resounding ethical call—why Linda's assertions were so easily rebuffed—is not only the result of industry's mobilization of law, science, and capital. We must also look to how the sublime has brokered relations between exposure and the status quo since at least the dawn of the Enlightenment. While the full history extends well beyond the scope of this article, it will suffice to texture the chemical sublime by digging deeper into how it diverges from the Kantian root of Masco's nuclear sublime.

In Kant's (2000) conception, the immensity or might of the sublime first overwhelms our imaginative capacity or indicates the fragility of the human body, yielding a sense of helplessness and distress. This diminutive feeling is then coun-

tered and ultimately overcome by reassuring one's self of the power of the mind, by the belief that reason sets humanity apart and above the physical world. The internal tumult and sensuous displeasure is elevated into the delight and superiority of reason. Quintessential of the Enlightenment project, Kant's sublime outlines a process by which intellectual mastery dominates the threats of the material world and indicates humanity's continued progression. As the critical theorist Gene Ray (2004, 10) asserts, "the ideological function of the aesthetic category of the sublime within Kant's critical system is anxiously bound up with . . . deep metaphysical optimism." The optimism of the sublime serves to affirm existing power orders—to justify the optimist credo of "whatever is, is right"—even in the face of mass calamity, such as the great Lisbon earthquake of 1755 that fascinated Kant and haunts his analytic of the sublime.

The chemical sublime is sharply distinct from Kant's formulation of the sublime in at least four ways: the form (space, time, and intensity) of exposure, the relation between the supersensible (mind) and the sensible (matter), orientational movement (from without to within or vice versa), and political reckoning. Unlike in the case of Kant, who relished the sublime while collecting reports on the great Lisbon earthquake from his East Prussian home, the objects of the chemical sublime cannot be held at a distance. As the practice of bodily reasoning makes clear, the material transformations of the body are inseparable from intellectual processes of molecular deduction. An extended absorption of toxicants is not a situation that can be transcended by way of a feeling of rational control. The sublimation of toxic bodily reasoning does not form part of a mental mastery over perceived threats—intellectually closing off their danger. Rather, it constitutes a sensuous reasoning that indicates how open our bodies are and amplifies—rather than extinguishes—the tensions, agitations, and dissident potentiality of large-scale hazards. It is the coalescing of underrecognized disturbances rather than a compensation for those that overtly disturb—the beginning of a confrontation, not its resolution.

As unfathomably common industrial chemicals warp, distort, and decay human and nonhuman bodies alike, they corrode the optimism and anthropocentrism of the Enlightenment. Instead of "transforming the worst into the best" (Lyotard 1988, 41) as a foil of human triumph, the chemical sublime is a condensation of vaporous displeasures and a way of being deeply moved by the latent toxicity of industrial human progress.

Although Linda's attempt to effect change has ended in a way that is well recited within the contemporary history of toxic contamination (Boudia and Jas

2014), the way it began makes for a less recited story. It is a story that bears on how the chemical sublime can attend to the decentralized crises of the contemporary moment and that gives rise to the potentiality of living otherwise.

BODIES OF EVIDENCE

The chemically aware body is not only borne out of profession and curiosity as in Linda Kincaid's case. More often than not, bodily knowledge of chemical others derives from the necessity of cohabiting with toxins, as was the case with Harriett McFeely and her husband, Dick, who live in a modular home on the outskirts of a small town in Nebraska. In the spring of 2011, I traveled to stay and speak with the McFeelys, who claim to have endured more than two decades of domestic formaldehyde exposure.

Before Harriett got access to free formaldehyde tests from the Sierra Club, and before formaldehyde had been introduced to her as a possible perpetrator, she was near the end of her rope. In twenty years of inhabitation, she had slowly developed constant diarrhea, a runny nose, fatigue, severe eye irritation, double (occasionally triple) vision, the need to read with one eye shut, headaches, a sense of taste that skewed toward metallic or simply "strange," and numerous other symptoms.[15] With resurgent exasperation she recounted her dogs getting sick and dying one after the other, while her and her husband's health steadily deteriorated. Her doctor received her complaints with skepticism and an implied diagnosis of hypochondria: "They couldn't find out what's wrong in my body, so they thought I was crazy. That's the only answer."

Harriett first began suspecting the house as the source of her family's collective illnesses in 2002 when she left home for five days and her vision cleared and other symptoms subsided. Again in 2007 she left the house for three days and her ailments abated. She then ruled out domestic radon exposure, carbon dioxide, sewer gas, black mold, and water contamination.[16] Her last-ditch attempt to ascertain the etiology of her family's illnesses was to invite a friend of a friend, named Nancy Shoemaker, who suffered from multiple chemical sensitivities. Harriett hoped that Nancy would use her chemical susceptibility to pick up where her own bodily knowledge left off by divining the specific source of their health issues within the home.

Nancy, who spoke with delicate and slightly nervous poise, had developed chemical sensitivity at an early age, while attending beauty school in Nebraska. Nearly every morning when sterilizing the styling utensils, Nancy would lose consciousness and collapse. She had to drop out and readjust her dream of be-

coming a beautician. Nancy did not think much of her fainting spells until years later when she moved to Florida, where she and her husband took up residency in a trailer. After moving into the trailer, her sensitivities dramatically escalated, but not only at home. A whiff of cologne on the street or shaking hands with someone wearing a transparent Band-Aid could be enough to wilt Nancy to the ground. Her body became jarringly attuned to the vast chemical infusion of the world around her.

As a result of these continual chemical encounters, she learned to move through the world with caution. When barefoot at home she would cross sections of linoleum with circumspection, unsure of the daily caprice of her sensitivities. Her corporeal vulnerability to chemical vapors or direct contact is not spread uniformly throughout her body. As a high-frequency exposure site, an extra-sensitive area in the center of Nancy's palm became more acutely affected with time. Nancy took advantage of the embodied insights of her palm and tacitly honed its reactivity. She now uses her palm to assess the hazard of the various materials and spaces that she encounters in daily life. As she spoke, her gaze turned down to her hands, and she ran her right index finger in circles around the area on her left hand. "If I put something on that sensitive spot or touch something with that sensitive spot, I can tell if I can handle it at that time or not."

To manage anxiety about her emergent reactivity, Nancy developed a deeper literacy of the chemical world by way of a deeper literacy of her own body. "I know about formaldehyde and I'd never done anything like [what I did] with Harriett," she explained, "but I knew how formaldehyde affected me." She averred an amassing of somatic knowledge about formaldehyde via years of enduring its effects and affects—through dozens of fainting spells, bouts of wooziness, enervating weakness, and daily somatic tests of the material things that populate her world.

It was with the sensitive spot in her hand that Nancy began to assess the chemical constitution of Harriett's home, as an alternative to expensive and inaccessible scientific instrumentation. Sitting in her small and immaculate assisted-living apartment, Nancy recounted the process: "And so I went into the different rooms and I tested the carpet and doors. . . . I went into the kitchen, and I just grabbed hold to open the cabinet or something. I don't think I touched it very long . . . ." At that point in the story, Nancy lost consciousness. Harriett observed Nancy clutch her stomach and let out a groan. The color dropped from Nancy's face as she dropped to the floor and began to seize. Harriett's Boston Terrier,

Bowser, ran into the room to investigate the commotion and curled into a fit of seizing as he approached Nancy. The two lay there next to each other on the carpet, gripped by spasms, for a few moments before Harriett and her husband dragged Nancy outside. Bowser continued to convulse in the kitchen. The dog came to within an hour but remained disoriented, running into the furniture, walls, and doors.

Nancy gradually regained her composure over the course of half an hour. After she felt well enough, she went on her way, confident that she had found at least one source of the McFeelys' suffering. As unnerving as the experience was, Harriett also felt relieved that Nancy had validated her suspicion that chemicals were quietly emanating from her home. With an affirmative nod Harriett emphasized the instrumentality and accuracy of Nancy's body: "In my opinion, that lady is like a human Geiger counter." Of course Harriett, and all exposed and affected bodies, also bears this capacity to make manifest the chemical world, albeit in less eventful ways. Some bodies exclaim while others speak in hushed tones. In domestic chemical exposures, bodies are both the means of apprehension and the site of damage. Bodies uncover invisible toxins with their wounding. Humans and their nonhuman companions serve as their own canaries in the unwitting coal mines of residential America. A month after Nancy's visit, Harriett's fifth dog in twenty years had to be put to sleep after he became wracked with near-constant seizures. As of June 2015, the McFeelys have lost two more dogs to similar ailments.

Like Linda, Harriett felt the pull of the chemical sublime. She felt the attrition in her own body and monitored the bodily ailments of her dogs and her husband. In line with what the sociologist Phil Brown (1997) has called "popular epidemiology," or the lay appropriation of expert means of environmental health assessment (see also Murphy 2006, 62), Harriett sought to comprehend the systemic nature of such exposures. Harriett wrote letters to the editors of newspapers in five or six nearby towns. Her short notes, published in 2008, read: "Modular home owners, have you had any health problems? Have your indoor pets had any mysterious illnesses? Please write or call me." Phone calls began rolling in, one after another. Harriett began to systematically survey respondents. She asked those who called her how long they had been living in their home and what their symptoms were. She surveyed thirty individuals from thirteen different households throughout Nebraska. Respondents supplied thirty-two different symptoms that they perceived to be correlated to the occupation of their modular home, ranging from unusual thirst to cancer. Harriett further inquired about

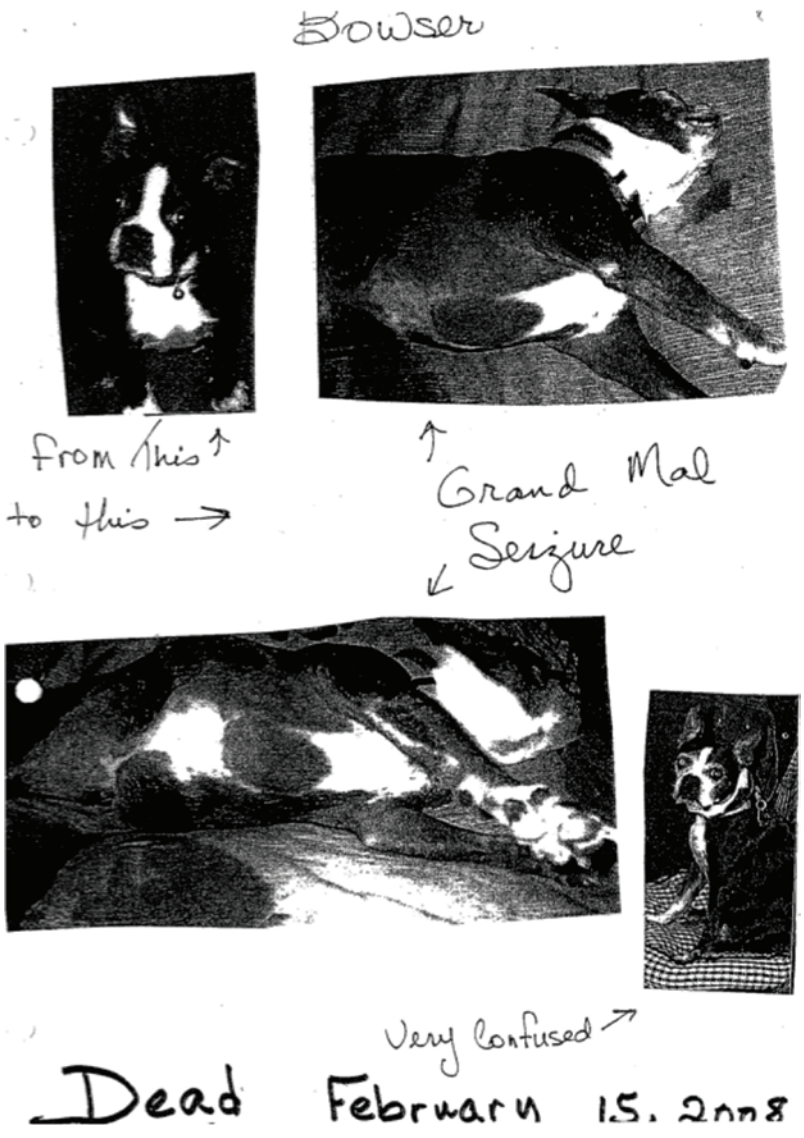

Figure 2. A photocopied entry of the records kept by Harriett McFeely, showing photos of Bowser the dog and notes. Bowser's body and disposition index the presence of otherwise-invisible chemicals.

indoor pet health and recorded the symptomatology of fifteen animals in seven households. She was able to garner funds for formaldehyde test kits from the Sierra Club and tested respondents' homes. Seven of the thirteen homes tested had levels of formaldehyde in excess of the World Health Organization's maximum recommended exposure for half an hour—81 parts per billion. Harriett

Figure 3. The dog owned by the McFeelys at the time of the author's visit to the site of Nancy's seizure. Hastings, Nebraska, April 2011. Photo by Nicholas Shapiro.

mails copies of her data, adorned with a row of skulls and crossbones along the spreadsheet's bottom border, to anyone who may be able to help.

Harriett made her husband promise that a thorough autopsy would be performed on her if she were to "drop dead" before him. Shifting her stone-faced gaze over to me, she asserted with certainty that the decomposition of their dogs' bodies served as a herald of her and her husband's future. "I would bet you a hundred thousand dollars that if they did an autopsy on us today, I would bet money that it is exactly like the dogs.'" Harriett implies that their domestic exposures have reduced her and her husband to the walking dead, that a postmortem examination could rightfully be performed on them at any time. A grim suggestion, perhaps, but one that is representative of many of the persevering residents of potentially chemically contaminated homes. As evinced by Harriett's perceived imminent autopsy, sustained chemical exposures beckon death, but they also render death ambiguous. She takes the logic of bodily reasoning to its conclusion: if wounding intimates the source of harm, then death will surely disclose its ultimate truth.

Coming to corporeally comprehend one's environment does not always have consequences as severe as in Harriett's case. Residents of potentially contaminated homes I met across the United States gradually became aware of minor departures

from their normal sense of taste, sense of balance, clarity of thought, memory, durability of skin, or frequency of contracting colds. Occasionally, inhabitants did not claim even the slightest deviation from their typical physical state. They only recognized atmospheric irritation as an altogether-indistinct feeling. As one North Dakota man noted, "Something about the air in here doesn't seem quite right." Or as a woman living on a reservation in the Northwest observed, "in the middle of the day it gets weird air and I open the doors." While slightly suboptimal health or simply off-putting auras were predominant among my research participants, many suffered from more debilitating illnesses. In these spaces where enduring and knowing are coterminous, the feeling of living death seeped into the margins of life for those with even minimal symptoms.

TOWARD A LATE INDUSTRIAL SUBLIME

The average American home maintains indoor formaldehyde levels capable of inducing irritation (Hun et al. 2010). Chronically absorbing this chemical is not a process relegated to the lower classes or precarious, even if such populations do bear dramatically higher burdens. To somatically apprehend formaldehyde exposure means to begin apprehending the costs of late industrial infrastructures, economies, and standards of living. It sets in motion an appreciation that the molecular cohabitants who physically hold our world together also encourage our unraveling. Becoming a "pupil of the air" (Sloterdijk 2009, 84) is to attune to the aerosolized material culture and more-than-human semiotics (Kohn 2007) within which one is immersed. Focusing on slight sensations and dysfunctions reorients discussions of chemical phenomenology from its current emphasis on episodic olfactory events to an apprehension of the irritating chemical background noise of everyday life.

Ambient formaldehyde makes itself known to mammalian life through minor effects and affects that the exposed can accumulate, over repeated incidents, into an embodied awareness of the scale of chemical saturation, beyond the individual pocket of air we call home. I theorize this string of intimate sensations as amounting to a chemical sublime, which can "aggregate life diagonal to hegemonic ways of life" (Povinelli 2011, 30) and give rise to attempts at living otherwise. The chemical sublime does not merely refigure a form of the sublime in philosophical discourse but poses an alternative schema of eventfulness or call to action, one that expands dominant ideas of catastrophe and the disturbing. The chemical sublime is perhaps just one instantiation of an emergent late industrial sublime that reckons with the temporally and spatially dispersed residues of contemporary

political orders, including climate change (Morton 2013), biodiversity loss (Yusoff 2013), extractive labor practices, and social abandonment (Povinelli 2011), among others.

Yet with formaldehyde production and consumption infrastructure largely locked in, and without the capacity for networking the atomized populations charged by the chemical sublime, decamping from spaces conditioned by uncountable formaldehyde microemissions is, at a societal level, not an option. Such pleas are either actively disqualified, as is the case with Linda, or they passively languish without authoritative clout, as with Harriett. Beyond instrumentalizing viscera, such attunements to encounters between airs and bodies constitute the openings through which to grapple with the composition of our world and with the untold caustic ecologies that remain largely insensible to the human.

ABSTRACT

Chronic domestic chemical exposures unfold over protracted timelines and with low velocity. In this article I argue that such microscopic encounters between bodies and toxicants are most readily sensed by less nameable and more diffuse sensory practices. The apprehension of conventionally insensible toxic exposures is informed by sustained attention to barely perceptible alterations of somatic function and atmosphere. Slight biochemical impressions, which at first appear simply meaningless or puzzling, accumulate in the bodies of the exposed and reorient them to the molecular constituents of the air and the domestic infrastructure from which such chemicals emanate. Through the articulation of these small corrosive happenings, residents of contaminated homes can accumulate minute changes to body and atmosphere across time and space in a process I call the "chemical sublime," which elevates minor enfeebling encounters into events that stir ethical consideration and potential intervention. The chemical sublime is a late industrial experience that inverts an Enlightenment-era, yet still dominant, conception of the sublime. Across authoritative and questioned bodies, companion species and humans, this essay asks: in what ways do diffuse sensory practices generate knowledge of, attention to, and engagements with the chemical world? [phenomenology; anthropology of science; affect; chemical exposure; bodily reasoning]

NOTES

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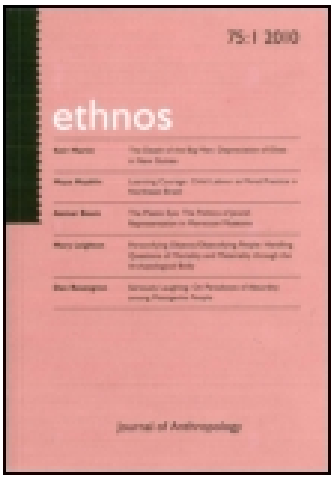

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Scenting a Subject: Odour Poetics and the Politics of Space

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Fragrant Language and the Sublime

A methodology for an anthropology of olfaction might focus on one of two groups, suggests Brian Moeran (2005:97–124): either, loosely smell-related communities (such as the inhabitants of Grasse, where fine perfumes are produced), or, persons who use smell professionally (such as incense makers, tea tasters, florists, doctors, firemen). Moeran also indirectly suggests a third group. If the purpose of such research would be to build up the pieces of a society's olfactory culture by 'finding out how such specialists *articulate*' their olfactory skills, then people with skills of articulation could be just as relevant in describing smells as people with smell skills – the more so if specialist discourses are not taken up by mainstream culture. I once went to a fine wine tasting where someone described a wine's aroma as 'daffodil'. Thinking of how different varieties of daffodil have different smells, I asked the oenologist, which one? Horticultural accuracy was clearly unwelcome, but it reminded me that olfactory language slides between substance and metaphor. The sniffer's allusion was really to a floral category, not a gardening one.

Moeran's work on olfactory culture in Japan leads him to the conclusion 'that it may be possible to map different societies' olfactory cultures according to how much they odorize and deodorize the social world around them.' This model assumes the human body as principal olfactory focus, extended into a discernible space, *around them*. A different approach is taken by David Parkin, whose fieldwork among Bantu-speakers of the East African coast places smell in a nexus of life, breath, wind, spirit, in which smell helps enable a cycle of human and non-human transformation, or movements between material and spirit, between solid and not-solid. In this model, the medium

of air is part of the meaning of smells. The medium is the message, as much or more than any olfactory surface; the comings and goings of odours have phenomenological functions, metaphysically distinct from odour itself. As Parkin memorably puts it (2007:s51) smell 'is itself something betwixt and between, admirably suited for cosmology in dilemma.'

Moeran's work on discourse speaks to 'smell' as noun; Parkin's work on olfactory movement speaks to 'smell' as verb. The latter's emphasis on process has a parallel in the work of Tim Morton (2000) on the importance of spice in Romantic poetry, which he explains in terms of a fascination with how smells cross distance and abolish it, thus providing a vehicle for the imagination to dissolve historical and geographical distances too. Just as for Bachelard, space around a nest is necessary to a sense of nestedness, space shapes meanings around smell.

If we think of descriptive language as part of the substance of fragrances – the nouns and adjectives, if you like, then we need to account for the equivalent of verbs, the grammar of process, the terms of motion that make smell something betwixt and between, and hence a means of nesting meanings. Alfred Gell provocatively argues that for all the associations that perfume may accrue, 'the real meaning of the act of wearing perfume lies less in the communicative ends it may contingently serve, than in the *act* of putting it on.' Perfume, he argues, is not a language or a technique: 'It is a symbolic presentation.' The symbolism to which perfume provides access is that of transcendence. The 'perfume situation', as he calls it, stands for a charmed universe, 'the transcendence of the good life' (2006:405–406).

I want to suggest a different model from Gell's, though also metaphysical: perfume as a version of the sublime. The sublime as an aesthetic runs from classical times and is a philosophically rich category. What I have in mind is one of its Romantic-era manifestations, in which a viewing subject is taken out of itself via an experience of infinity, usually manifested through a vast object – typically, mountains – then returned to itself. Suspended, temporarily overwhelmed, the self experiences pleasurable disarray, the precondition for returning to itself in a heightened state. In urban first-world cities, where perfumes are most concentrated, I think we have a comparable dynamic, the sublime in miniature and in reverse. You spray on perfume to draw attention to yourself as subject, to mark the distance between yourself and others. In what is known as the scent circle, the space an arm's length around you, perfume marks your subjectivity as potentially sublime in its effect on others. Perfumes are marketed through fantasies that persuade you your projection

of sublimity will be returned to you. The gag factor of excess simply shows some people working with a notion of sublimity that is literally overpowering, rather than aesthetically correctly measured.

The sublime is a useful model to explain olfactory effects because it includes a biological and historical body. You escape from the body, temporarily, then return laden with an aesthetic charge. In this respect the sublime perfectly manifests Ardener's conditions of possibility. A sublime response is also one that is expressive, yet not fully articulate; it uses body language as well as words. Hence the iconicity of advertisements featuring the head-turning effects of certain scent-products. The sublime is also an aesthetic model which shows how movement involves a politics of space in which private and public nest uneasily. A sublime dialogue of subject with object is converted – by perfume – into sublime subject affecting object. The case study of odour politics in Halifax, which I discuss later, shows how a sublime subjectivity, your choice of scents or your scent preference, has to nest into ideas and realities of public space where there may be hostility to it.

Scent and Public Subjects: The Case of Halifax

Wearing scent, both in perfume and toiletries, involves a double act of consumption: you buy a scent product, others 'buy' its effect. The slide from literal to metaphorical can, however, produce meanings that conflict, rather than nest, in the sense of co-exist. Smell is open to uncertainty because it has an indeterminate relation to space, or, it has a clear relation but one that shows space to be indeterminate, unbounded. Jim Drobnick has argued that 'An ambivalence between objective and subjective factors accompanies any odorous experience, yielding an intimate interplay between the physical level of materiality and physiology on the one hand, and the symbolic level of culture and ideology on the other' (2006:5). Quite so – and that ambivalence can also inform levels. Both physical levels and symbolic levels can be split-levels. A 'right' to scent yourself; a 'right' not to have the scent of others thrust upon you; a corporate 'right' to impose scent; a public policy of 'scent-free' – these ambivalences circulate in contradictory ways in urban worlds.

According to Jacob and Amado, allergy to fragrance was first reported in medical literature in 1957 (2006:17). A high proportion of cases of Multiple

Chemical Sensitivity, or MCS, involve olfaction. An alphabet of possible triggers includes: benzene, bleach, cosmetics, chlorine, creosote, camphor (as in mothballs), detergents, deodorisers, epoxy glues, flame retardants, fabric treatments, especially dry cleaning products, fragrances, inks (as in printer cartridges), laminates, musks, methanol, plastics (as in packaging, ubiquitous), polystyrene, paints, soaps and shampoos. What's interesting about the list is that many do have a strong smell, and yet the alleged reflex purpose of smell – to deter us from danger – doesn't kick in. Either our noses haven't adapted to modern smells, or modern smells are refined in ways that don't trigger a deterrent response. Avoidance of dangers is anyway not always possible, for instance for people working in building trades. Unions have urged for the replacement of solvent-based paints with alternatives, and for worker protection: 'solvent vapours must be captured and emitted without passing through the breathing zone of workers', supplemented by devices such as hoods, filters and fans, which take on some nasal functions. Thus the European Federation of Building and Wood Workers (EFBWW) laid out guidelines at its conference in 2004, in response to what is popularly known as Danish painter's syndrome, or, in the trade world of Danish painters, Organic Psycho Syndrome (OCS), involving chronic toxic encephalopathy, usually under the label of presenile dementia. The EU partially recognises in law the brain-damaging effect of noxious vapours.

It seems relatively unproblematic to agree workers should be protected against odiferous chemicals that make them ill. But what if odiferous chemicals make people ill in other contexts? Is it right for the state to step in to protect its citizens, or do individual freedoms include the right to scent yourself as a subject? One North American town, Halifax in Nova Scotia, has become a site for this argument. The terms of debate are highly emotive. Organic Psycho Syndrome, which the EU recognises in law, is recast as MCS, or Multiple Chemical Sensitivity. Sufferers claim symptoms are induced by fragrances found in everyday substances. One of the most recurrent substances is 'fragrance', a catch-all descriptor found in most toiletries and household cleaners. It may also turn up as 'perfume' or, for those who like their poisons fancy, 'parfum', showing that Frenchness still sanctions scentedness. The terms of debate invoke deep ideologies of rights: 'Perfumes are amongst the most difficult [substances] to control since they are perceived by their wearers as pleasurable. Personal rights and preferences for perfumed products must be evaluated against the discomfort that scents cause for some people' (users/lmi.net/wilworks/ehnlinx/mcs.htm 2005:5). Hence a violent struggle

between proponents and opponents of the idea that fragrances can make some people sick, borrowing tested discursive weapons. 'Chemical Warfare at Work' claimed one campaigner; others said second-hand fragrance is 'As dangerous as tobacco', 'An asthma trigger', a 'high risk' for breast cancer. 'So you smell good using perfumes and colognes however . . . you could be giving yourself cancer and God knows what else'. One sufferer described herself as 'chemically injured' (users 2005:5–53). Metaphors of war helped define the lines: as *The Albuquerque Tribune* put it, 'When everyday smells are an enemy, society should be an ally' (3 October, 2004).

The arguments turn on discourse. If you say perfume or fragrance, the associations tend to be aesthetic and positive. If you say chemicals with highly volatile synthetic compounds that contribute toxity to closed environments, you move the arguments into a discourse of industrially recognised harm. Workers are a category in which personal and political nest precariously – workers are individuals, workers are employees. Individuals have rights of preference; employees have rights of protection. Some Halifax employees were sent home to shower off scent; an old lady was escorted from City Hall for having a dab of perfume behind her ears, and a teenager at school was nearly charged with assault for persistent use of fruit-scented hair gel, which his teacher said made her vomit. The Mounties were called in on that one – in fragrante delicto! Journalists wheeled out puns: 'Scents and sensibilities', 'scent-sational', 'scents-orship' – and one columnist, Leah Maclaren, set out to challenge the anti-scent law, under the banner headline 'Non-scents in Nova Scotia – Halifax Hysteria'. She headed to a children's hospital where a scent-free policy had been declared: 'This morning before I left my hotel room, I showered with aloe-scented soap, applied honeysuckle deodorant, combed a glob of fruity smelling gel through my hair and, before dressing, liberally spritzed my neck with Dior's J'adore eau de toilette (white-hot-rose notes), my wrists with Noa (an ethereal musk), and the backs of my knees with Chanel No. 5 (a classic). Slipping into a trench coat marinated in that drugstore favourite, Charlie, I hopped in a cab and came straight here to the Grace Health centre in Halifax'. Outcry followed. *The Halifax Herald* reported, with a straight face, 'The two sides in a raging battle over the right to bear scent took their fight to the media [on] Tuesday, although from separate floors of the same Halifax hotel' (29 April, 2000).

By 2003, 'fragrance-free' policies were being extended to some private sector workplaces. The anti-scent lobby struggled to create a positive language – hence 'fragrance-free' – because a language of banning 'makes us look like

zealots and hypochondriacs, and that's not the case.' (Fragrance-free, meaning the absence of aromatic chemicals, goes a step farther than unscented, which can mean additives used to mask aroma.) Via its website, Halifax Regional Municipality proclaims itself 'proud' and 'delighted' by the cooperation of its employees; positive support for scent-free policy is taken to show civic tolerance and sensitivity to others. An arguably illiberal attitude to scent is converted into a metaphor for liberalism.

Two issues are fused here – intensity and syntheticity. Supposing Leah Maclaren had loaded up with an essential oil, and only one? Is it the artifice of perfume or its invasiveness that's at issue? Discussing the scenting of public space in museums, Jim Drobnick argues against synthetic odours, because 'fake smells distort olfactory discrimination and sever the ability to connect odors to their natural sources' (2005:271). Hospitals in Britain now offer treatments with essential oils like lavender: isn't aromatherapy also invasive of the general atmosphere? One has to be careful too about a binary of natural and artificial. There are flowering trees that smell like mushrooms, to attract bat pollinators who think the plants are in humid places or next to rotten fruit, hence thirst-quenching (Simons 1996). Nature has olfactory artifices too.

Annick le Guérer argues, 'Today's ideal is the realisation of bodies and spaces which, if not totally without odor, are at least odor-neutralised by perfumes that mask their natural smells' (1992:215). It may be that the grand narrative of sanitation succeeded by deodorisation is in a phase of evolution: where the twentieth century found it acceptable to mask or replace natural smells with artificial ones, the twenty-first century finds artificial smells increasingly less acceptable. From 1990, multiple chemical sensitivity, formerly treated as a mental disorder, was recognised as an illness under the Americans with Disabilities Act, which is part of employment law (Konopa 2007). Olfactory conventions are changing because relationships between natural, neutral and masking are not quite what they were. Perfume can't be odour-neutral, to the anti-scent lobby; to the pro-scent lobby, fragrance-free is not a neutral language.

Changes to categories and relationships can be seen in the olfactory ambience of public space. In high-density urban environments, some smells are being imposed. In April 2001, a perfumed air enhancer was released into three busy London Underground stations, to test whether it made commuting more pleasant and relaxed. The smell, called 'Madeleine', is used to scent all 360 stations of the Paris Metro, also Hong Kong's MTR and some Mumbai subways. Invented in 1998 and also known as SPXtra, its composition includes

rose, jasmine, top notes of citrus and touches of wood and herbs. It is applied to floors so that as commuters walk along passages and platforms they release the odour. Its manufacturer ICI calls it a slow-release air enhancer. People on the Paris Metro, not yet au fait with 'air enhancer', described it as 'a cross between air freshener and under-arm deodorant'. A BBC reporter in search of the new 'eau de tube' declared, 'Every London commuter is only too familiar with the smell of the Underground. Hundreds of different perfumes and aftershaves compete daily with stale take-away, filth and body odour'. A London Underground spokesperson described the atmosphere rather differently: 'London Underground hopes the perfume will mask the musty smell of the Tube system, which is caused by dust and hot passengers crammed in together.'

What's interesting is that distinct smells – takeaways, sweat, dust, oil – are presented as problematic and an environmental entity to be masked in terms of reception, not diminished at source. The odour-neutralising of perfume, in Guerer's formulation, is allowable if the natural smell to be masked is body odour. As one interviewee said, 'I think the best idea to get rid of the smells is to deodorize the people instead' (http://news.bbc.co.uk/1/hi/uk_news/1292690.stm). Anxiety about body odour is well-established. But it is not natural: it has become naturalised. Body odour, or its contraction B.O., was invented in 1895 by the Lever Brothers' marketing campaign for Lifebuoy soap. They also came up with the (mercifully less successful) term Undie Odour. Products that play on anxieties about body smells have a culturally-specific history: the first deodorant, Mum, was devised in 1888; the first anti-perspirants were sold from 1965. Breath odour is also stigmatised as abject, but has less power to terrify. Peppermint, for instance, widely in use in public as a breath-masking scent, is not subject to the same approval-opprobrium debate as perfume.

With airline companies considering the use of air enhancers, compulsory public olfaction is increasing. Bourdieu argues that the consumer is the commercial substitute for the citizen (1998:25), a trope of identity-masking which echoes the activities of the perfume business as it sells you enhancers of air, of self. Personal masking of bodily smells now co-exists more with a masking of personal choice by public scentedness, an imposition to which those in favour of non-smell, or their own smell, or even other people's natural body smells in preference to artificial masking smells, can make little or no resistance in public.

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Affective atmospheres

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ABSTRACT

In this paper I reflect on the concept of affective atmospheres in the context of the distinction between affect and emotion that has emerged in recent work on emotion, space and society. The concept of atmosphere is interesting because it holds a series of opposites – presence and absence, materiality and ideality, definite and indefinite, singularity and generality – in a relation of tension. To develop this account of atmosphere I juxtapose Marx's materialist imagination with a phenomenology attentive to singular affective qualities. By invoking a material imagination based on the movement and lightness of air, we learn from the former about the turbulence of atmospheres and their indeterminate quality. From the latter, we learn that atmospheres are singular affective qualities that emanate from but exceed the assembling of bodies. As such, to attend to affective atmospheres is to learn to be affected by the ambiguities of affect/emotion, by that which is determinate and indeterminate, present and absent, singular and vague.

1. A revolutionary atmosphere

On the 14th of April 1856, Karl Marx addressed an audience in London at a meeting to mark the fourth anniversary of the Chartist *People's Paper*. In a now famous passage, he began by invoking a certain 'revolutionary atmosphere' of crisis, danger and hope:

> "The so-called revolutions of 1848 were but poor incidents — small fractures and fissures in the dry crust of European society. However, they denounced the abyss. Beneath the apparently solid surface, they betrayed oceans of liquid matter, only needing expansion to rend into fragments continents of hard rock. Noisily and confusedly they proclaimed the emancipation of the Proletarian, i.e. the secret of the 19th century, and of the revolution of that century … the atmosphere in which we live weighs upon every one with a 20,000-pound force, but do you feel it? No more than European society before 1848 felt the revolutionary atmosphere enveloping and pressing it from all sides." (Marx, 1978: 577)

Marx's metaphorical use of the term 'atmosphere' in this famous address has long interested me. In particular, I have been intrigued by the question Marx addressed to his audience: "the atmosphere in which we live, weighs upon every one with a 20,000-pound force, but do you feel it?" (ibid, 577). His answer is no. He assumes his audience does not "feel it", despite it "pressing" and "enveloping" society from all sides (ibid, 577). Marx's invocation of the term atmosphere is, of course, part of an epicurean material imagination that invokes the element of air alongside the state of a fluid ('oceans of liquid matter') and the element of earth ('hard rock'). Nevertheless, Marx crystallizes the conundrum that for me makes the term atmosphere interesting in the slightly different context of work on spaces of affect and emotion and in relation to the slightly different sense of atmospheres as affective and emotive. How does an atmosphere 'envelope' and 'press' upon life? How, put differently, to attend to the collective affects 'in which we live'?

In this paper I offer a series of reflections on what an 'affective atmosphere' is and does. I do so in the context of the recent invention of concepts, methods, and sensibilities that aim to attune to the prepersonal or transpersonal dimensions of affective life and everyday existence. By which I mean the momentary kindnesses that Stewart (2007) bears witness to, or the way that Brennan (2004) invokes the transmission of boredoms or loves between friends. Intensities that are only imperfectly housed in the proper names we give to emotions (hope, fear and so on). I will argue that it is the very ambiguity of affective atmospheres – between presence and absence, between subject and object/subject and between the definite and indefinite – that enable us to reflect on affective experience as occurring beyond, around, and alongside the formation of subjectivity. I am not alone, however, in being intrigued by the notion of affective atmospheres (Bissell, forthcoming; McCormack, 2008). If we understand atmosphere as a term – in Rabinow's

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(2007) sense of the juxtaposition of a word, a referent object, and a concept – then we find that it has been used in multiple ways. I can only touch upon some of these here. In everyday speech and aesthetic discourse, the word atmosphere is used interchangeably with mood, feeling, ambience, tone and other ways of naming collective affects. Each word has a different etymology and different everyday and specialist uses. Moreover, the referent for the term atmosphere is multiple; epochs, societies, rooms, landscapes, couples, artworks, and much more are all said to possess atmospheres (or be possessed by them). Finally, when atmosphere has been developed into a concept we again find differences. Atmosphere is: impersonal or transpersonal intensity (McCormack, 2008; Stewart, 2007); environment, or the transmission of the other's feeling (Brennan, 2004); qualified aura (Böhme, 2006); tone in literature (Ngai, 2005); mimetic waves of sentiment (Thrift, 2008); or more broadly a sense of place (Rodaway, 1994). Of course, we find the same multiplicity when thinking about emotion, affect or any other term that might become part of a vocabulary proper to the logics of affect and emotion. This is unsurprising. Rather than having been downplayed, repressed, or silenced, affective life has been subject to an extraordinary array of explanations and descriptions (Despret, 2004). Acknowledging this multiplicity means we must be careful about the exaggerated trust we place in our theorizations of affect or emotion – whether they result in us attending to emotions and the specificity of subjects or affects and the singularity of a life. We might, instead, learn to offer concepts that are equal to the ambiguity of affective and emotive life.

My aim in this paper is not, then, to offer a conception of affect and emotion. Rather, by holding onto the ambiguities that surround the term atmosphere I want to learn to attend to collective affects that, to paraphrase Marx, 'envelope' and 'press upon' life. My guides will be two phenomenologists who wonder about atmosphere as an aesthetic concept – Gernot Böhme and Mikel Dufrenne – in dialogue with recent work on affect as intensity. But first back to Marx and his material imagination.

2. Collective affects

Marx's use of the term atmosphere is thoroughly materialist. Albeit, a turbulent materialism in which life is imagined through a combination of different elements and different states (Anderson and Wylie, 2009; Bennett, 2001; Tiffany, 2000). The revolutionary atmosphere he invokes is akin to the meteorological atmosphere in two senses; it exerts a force on those that are surrounded by it, and like the air we breathe it provides the very condition of possibility for life. Marx is not quite invoking an affective atmosphere, even though a revolutionary atmosphere must come charged with a sense of danger and promise, threat and hope. Nevertheless, what intrigued me about Marx's comments when I first read them was how they resonated with the strange, puzzling, use of the term atmosphere in everyday speech and aesthetic discourse. It is no surprise that a society is taken to possess a certain atmosphere – qualified as 'revolutionary'. As a term in everyday speech, atmosphere traverses distinctions between peoples, things, and spaces. It is possible to talk of: a morning atmosphere, the atmosphere of a room before a meeting, the atmosphere of a city, an atmosphere between two or more people, the atmosphere of a street, the atmosphere of an epoch, an atmosphere in a place of worship, and the atmosphere that surrounds a person, amongst much else. Perhaps there is nothing that doesn't have an atmosphere or could be described as atmospheric. Marx's comments hint to the ambivalent status of atmospheres. On the one hand, atmospheres are real phenomena. They 'envelop' and thus press on a society 'from all sides' with a certain force. On the other, they are not necessarily sensible phenomena. Marx has to ask if his audience 'feels it'. He assumes not. Nevertheless atmospheres still effect with a certain force – albeit in a way that may be only tangentially related to the subject.

Perhaps the use of atmosphere in everyday speech and aesthetic discourse provides the best approximation of the concept of affect – where affect is taken to be the transpersonal or prepersonal intensities that emerge as bodies affect one another (Massumi, 2002). If we turn to Deleuze's explicit discussion of the concept of affect, we find that intensities take on the dynamic, kinetic, qualities of the atmos; "affects are no longer feelings or affections; they go beyond the strength of those who undergo them" (Deleuze and Guattari, 1994: 164). Since "affects are becomings" (Deleuze and Guattari, 1987: 256) that are "experienced in a lived duration that involves the difference between two states" (Deleuze, 1988: 49). Moreover, and to take us back to Marx's turbulent materialist imagination, when discussing the spacing and timing of intensities Deleuze attends to meteors across a set of literary and everyday examples: in the conditions of rain, hail, wind and air favorable to the transport of affects in demonology; Charlotte Bronte's description of love, people, and things in terms of wind; the affect of white skies on a hot summer day; or wonder as clouds and rainbows form in *Les Météores* by Michel Tournier (Deleuze and Guattari, 1987: 288–289). The link between affect and meteoric bodies of air should come as no surprise. As Tiffany (2000) shows, when reflecting on clouds, winds, rainbows and other atmospheric phenomenon, the atmosphere has long been associated with the uncertain, disordered, shifting and contingent – that which never quite achieves the stability of form.

What do these links between Marx's material imagination, meteors and Deleuze's translation of Spinoza's affectus tell us about affective atmospheres? Perhaps, the links hint to how atmospheres may interrupt, perturb and haunt fixed persons, places or things. Atmospheres would, on this account, be spatially diffuse versions of the 'vitality affects' that the child psychologist Daniel Stern writes about – dynamic qualities of feeling such as 'calming', 'relaxing', 'comforting', 'tense', 'heavy', or 'light' that animate or dampen the background sense of life (Stern, 1998: 54). Perhaps, thinking affect through the ephemerality and instability of meteors reminds us that intensities may remain indefinite even as they effect. Perplexingly the term atmosphere seems to express something vague. Something, an ill-defined indefinite something, that exceeds rational explanation and clear figuration. Something that hesitates at the edge of the unsayable. Yet, at one and the same time, the affective qualities that are given to this *something* by those who feel it are remarkable for their singularity. Think of the breadth of qualities used to describe affective atmospheres: serene, homely, strange, stimulating, holy, melancholic, uplifting, depressing, pleasant, moving, inviting, erotic, collegial, open, sublime, to name but some of an inexhaustible list (Böhme, 1993).

By linking the term to a certain material imagination we reach a first approximation of atmospheres as collective affects that are simultaneously indeterminate and determinate. Affective atmospheres are a class of experience that occur *before* and *alongside* the formation of subjectivity, *across* human and non-human materialities, and *in-between* subject/object distinctions (after Seigworth (2003); see Anderson and Wylie (2009)). As such, atmospheres are the shared ground from which subjective states and their attendant feelings and emotions emerge. Yet the idea of affect as transpersonal or prepersonal has been subject to numerous prohibitions, silences and bans amid the many attempts to link affectivity to human species-being (Seigworth, 2005). With the consequence that reflections on subjectless affects have formed a secret, subterranean, current in theories of affect and emotion. From reflections on the panic and hatred of crowds in turn of the century crowd psychology (Brennan, 2004), through to Maffesoli's (1996)

'affectual tribes', we find an odd archive made up of scattered speculations on the nature of impersonal and transpersonal affects. Most recently, a range of work has focused on forms of somnambulistic imitation as a way of understanding how atmospheres become contagious (see Thrift (2008) on mimetic rays or Brennan (2004) on transmission). Whilst there are substantial differences between these literatures, all draw out the ambiguities that surround the term atmosphere, and linked terms such as aura, mood or ambience. In the following section I want to consider just some of these ambiguities by way of phenomenology, specifically: atmospheres as finished and unfinished; atmospheres as a property of objects and a property of subjects; and atmospheres as reducible to bodies affecting other bodies and yet exceeding the bodies they emerge from.

3. Atmosphere

To think the relation between atmosphere and life I want to turn to a somewhat unlikely source – the mid–twentieth century phenomenologist Mikel Dufrenne (1973 [1953]). Dufrenne provides one of the few explicit reflections on the concept of atmosphere in his classic work on the phenomenology of aesthetic experience. Echoing the concern with corporeal experience in phenomenology, Dufrenne's interest was with aesthetic experience in the Greek sense of *aistësis* – 'sense experience'. What I want to draw from his work is the unfinished quality of affective atmospheres. Atmospheres are perpetually forming and deforming, appearing and disappearing, as bodies enter into relation with one another. They are never finished, static or at rest. Dufrenne's account of the dynamism of affective atmospheres was developed as part of an attempt to distinguish aesthetic objects from other types of object, where aesthetic objects are a "coalescence of sensuous elements" (ibid, 13). For Dufrenne, the "irresistible and magnificent presence" (ibid, 86) of aesthetic objects establish the conditions for representation to occur. Rather than re-present a world, a perceived work of art expresses a certain bundle of spatial–temporal relations – an 'expressed world'. Atmosphere is the term Dufrenne uses for how the 'expressed world' overflows the representational content of the aesthetic object as "[a] certain quality which words cannot translate but which communicates itself in arousing a feeling" (ibid, 178). Throughout *The Phenomenology of Aesthetic Experience*, atmosphere is used interchangeably with other terms – including luminescence of meaning (188), interiority (376), and the unconditioned (194) – as part of a conceptual vocabulary attentive to the affective qualities of aesthetic objects.

The classic aesthetic 'affective qualities' would be the sublime, tragic, comic or beautiful. But Dufrenne also gives numerous other examples of what, after Ngai (2005), we could call minor atmospheres, including the "grace, lightness and innocence" of dance (Dufrenne, 1973: 76), the "nobility, fervor, majesty, [and] tranquility" of architecture (179), the "indifferent cruelty" of a writer like Zola (178), or "the lightness of childhood" in Woolf's *The Waves* (183). Nobility, grace, heaviness and so on are all names for singular affective qualities that emanate from the aesthetic object as a whole. Here Dufrenne describes more formally what an atmosphere is and does:

> "Thus it [atmosphere] is a matter of a certain quality of objects or of beings, but a quality which does not belong to them in their own right because they do not bring it about. The quality in question is like a supervening or impersonal principle in accordance with which we say that there is an electric atmosphere or, as Trenet sang, that there is joy in the air. This principle is embodied in individuals or in things. It is somewhat like the collective consciousness that governs individual consciousness at times of change. Whether or not it is a principle of explanation, it is at any rate a reality that we feel keenly when we come into contact with the group from which it emanates" (ibid, 168).

Note how Dufrenne does not settle on a clear definition of what an atmosphere is, instead he offers a series of approximations in order to attend to the aesthetic object. What is common across these approximations is that an atmosphere is a singular affective quality. And through this affective quality, the aesthetic object creates an intensive space–time. One that exceeds lived or conceived space–time:

> "The architectural monument has a grandeur or a loftiness incommensurable with its surface or its height. The symphony or the novel has a rhythm, a force, or a restraint of which an objective measure like the metronome gives only an impoverished image. We should realize that, in seeking to grasp expression, we disclose an unpopulated world, one which is only the promise of a world. The space and time which we find there are not structures of an organized world but qualities of an expressed world which is a prelude to knowledge" (Dufrenne, 1973: 183)

The atmosphere of an aesthetic object discloses the space–time of an 'expressed world' – it does not re-present objective space–time or lived space–time. It creates a space of intensity that overflows a represented world organized into subjects and objects or subjects and other subjects. Instead, it is through an atmosphere that a represented object will be apprehended and will take on a certain meaning. Examples abound in Dufrenne's writings; a feeling of emptiness communicated by a chilling verse, a tragic feeling in Macbeth, or the motionless opacity of Cezanne's landscapes.

The intensive space–times expressed through aesthetic objects are not self-enclosed. For Dufrenne, the 'atmosphere' of the aesthetic object elicits a feeling or emotion in a spectator, viewer or listener which 'completes' the aesthetic object and 'surpasses' it (ibid, 521). The singular affective quality of an aesthetic object is 'open' to being 'apprehended' through feelings or emotions. What is interesting about this account, for my purposes, is that atmospheres are unfinished because of their constitutive openness to being taken up in experience. Atmospheres are indeterminate. They are resources that become elements within sense experience. Dufrenne invokes the ineffable when describing atmospheres. He also stresses that an atmosphere exceeds clear and distinct figuration because they both exist and do not exist. On the one hand, atmospheres require completion by the subjects that 'apprehend' them. They belong to the perceiving subject. On the other hand, atmospheres 'emanate' from the ensemble of elements that make up the aesthetic object. They belong to the aesthetic object. Atmospheres are, on this account, always in the process of emerging and transforming. They are always being taken up and reworked in lived experience – becoming part of feelings and emotions that may themselves become elements within other atmospheres.

Whilst I remain cautious about aspects of his account, Dufrenne helps us think of atmospheres in terms of singular affective qualities that express a certain world. From his work, we can think through how those affective qualities are constitutively open to being differently expressed in bodily feelings of being and differently qualified in named emotions. Dufrenne's emphasis is on the affective quality of aesthetic objects. However, it is not clear why we should restrict the production of singular affective qualities to sculpture, music, architecture or other self-enclosed aesthetic works. Epochs, societies, seasons, couples, places, buildings and much more can be said to be atmospheric, in the sense that they are animated by singular affective qualities (and the resonances, interferences, and tensions between different affective qualities). Note how Jameson (1998), to give but one example, describes the

atmosphere of 1950s United States as expressed in *American Graffiti*, or the turn-of-the-century atmosphere of E.L. Doctorow's *Ragtime*. This expansion of the concept of affective atmosphere is the starting point of Böhme's (1993, 2006) ecological aesthetics. It is risky. To describe the characteristic affective qualities of a complex assemblage such as a society or even a city, risks reification of the inexhaustible complexities of affective life. Yet I think it is worth exploring because it enables us to think further about the intensive spatialities of atmos-*spheres*.

Like Dufrenne, Böhme notes the ambiguous status of atmospheres, but lays more stress on their in-between status with regard to the subject/object distinction. Atmospheres are a-objective and a-subjective:

> … atmospheres are neither something objective, that is, qualities possessed by things, and yet they are something thinglike, belonging to the thing in that things articulate their presence through qualities – conceived as ecstasies. Nor are atmospheres something subjective, for example determinations of a psychic state. And yet they are subjectlike, belong to subjects in that they are sense in bodily presence by human beings and this sensing is at the same time a bodily state of being of subjects in space. (Böhme, 1993: 122)

Böhme's basic definition of atmosphere shares much with Dufrenne but he puts more emphasis on the spatiality of atmospheres, describing them as "spatially discharged, quasi-objective feelings" (Böhme, 2006: 16). Beyond the emphasis on atmospheres as diffuse, the definition is vague. Deliberately so. Elsewhere, Böhme stresses that atmospheres are ambiguous with regard to their location. It is difficult to say 'where' an atmosphere is since "[t]hey seem to fill the space with a certain tone of feeling like a haze" (Böhme, 1993: 113–114). Here Böhme returns us to the materialist roots of the word atmosphere touched on previously – *atmos* to indicate a tendency for qualities of feeling to fill spaces like a gas, and *sphere* to indicate a particular form of spatial organization based on the circle. Together they enable us to consider how atmospheres surround people, things and environments:

> Thus one speaks of the serene atmosphere of a spring morning or the homely atmosphere of a garden. On entering a room once can feel oneself enveloped by a friendly atmosphere or caught up in a tense atmosphere. We can say of a person that s/he radiates an atmosphere which implies respect, of a man or a woman that an erotic atmosphere surrounds them. (Böhme, 1993: 113–114)

There are two different spatialities being hinted at in this passage. The first – and most general – is the spatiality of the 'sphere' in the sense of a certain type of envelope or surround. Note how an atmosphere 'surrounds' a couple or one finds oneself 'enveloped' by an atmosphere. The center and circumference of an affective atmosphere may, however, be indefinite or unstable. Especially if an atmosphere is taken not only to occupy a space but to permeate it. The second spatiality is again spherical but it is, more specifically, a dyadic space of resonance – atmospheres 'radiate' from an individual to another. They appear and disappear alongside the dynamics of what Sloterdijk (2005) terms "being-a-pair". In both cases we find that atmospheres are interlinked with forms of enclosure – the couple, the room, the garden – and particular forms of circulation – enveloping, surrounding and radiating.

Atmospheres have, then, a characteristic spatial form – diffusion within a sphere. Returning to Deleuze and Guattari, we can say that atmospheres are generated by bodies – of multiple types – affecting one another as some form of 'envelopment' is produced. Atmospheres do not float free from the bodies that come together and apart to compose situations. Affective qualities emanate from the assembling of the human bodies, discursive bodies, non-human bodies, and all the other bodies that make up everyday situations (Stewart, 2007). This is well known by those arts and sciences that aim to shape and manipulate atmospheres, albeit often phrased differently. Indeed, it is precisely the circumvention and circulation of atmospheres that are acted upon when atmospheres become the 'object' of explication and intervention. Think of how atmospheres are sealed off through protective measures such as gated communities or certain types of building design. Or how atmospheres are intensified by creating patterns of affective imitation in sports stadiums and concert halls. Practices as diverse as interior design, interrogation, landscape gardening, architecture, and set design all aim to know how atmospheres are circumvented and circulate. By creating and arranging light, sounds, symbols, texts and much more, atmospheres are 'enhanced', 'transformed', 'intensified', 'shaped', and otherwise intervened on (Böhme, 2006). If atmospheres proceed from and are created by bodies, they are not, however, reducible to them. This is Dufrenne's point. The singular affective qualities that are atmospheres – homely, serene, erotic and so on – exceed that from which they emanate. They are quasi-autonomous. Atmospheres are a kind of indeterminate affective 'excess' through which intensive space–times can be created.

4. The ambiguity of affect

The vague sense of atmosphere as a 'more' seems an appropriate place to finish. For me, the concept of atmosphere is good to think with because it holds a series of opposites – presence and absence, materiality and ideality, definite and indefinite, singularity and generality – in a relation of tension. We feel this tension if we juxtapose Marx's materialist imagination with a phenomenology attentive to singular affective qualities. By invoking a material imagination based on the movement and lightness of meteoric bodies, we learn from the former about the turbulence of atmospheres and their indeterminate quality. From the latter, we learn that atmospheres are singular affective qualities that emanate from but exceed the assembling of bodies. Which means that the term atmosphere presents itself to us as a response to a question; how to attend to collective affects that are not reducible to the individual bodies that they emerge from?

Atmosphere is an interesting concept, then, because it unsettles the distinction between affect and emotion that has emerged in recent work on emotion, space and society as one answer to the question of how the social relates to the affective and emotive dimensions of life. That distinction has been caught up in the subjective/objective problematic via two oppositions: narrative/non-narrative and semiotic/asignifying. The terms have fallen on one or the other of those divides – affect with non-narrative and asignifying and emotion with narrative and semiotic (see Ngai, 2005). Affect with the impersonal and objective. Emotion with the personal and subjective. Invoking one or the other term has come to signal a basic orientation to the self, world and their interrelation (as well as in some cases a particular politics and ethics). Atmospheres do not fit neatly into either an analytical or pragmatic distinction between affect and emotion. They are indeterminate with regard to the distinction between the subjective and objective. They mix together narrative and signifying elements and non-narrative and asignifying elements. And they are impersonal in that they belong to collective situations and yet can be felt as intensely personal. On this account atmospheres are spatially discharged affective qualities that are autonomous from the bodies that they emerge from, enable and perish with. As such, to attend to affective atmospheres is to learn to be affected by the ambiguities of affect/emotion, by that which is determinate and indeterminate, present and absent, singular and vague.

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