

# For a politics of atmospheric governance

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## Abstract

A rise in social science scholarship on atmospheres has raised questions on how to articulate complex material and imperceptible events and encounters. Responding to Peter Adey's *Air Affinities*, this review proposes the need to traverse geopolitics and geopoetics to more fully engage these. Going further, it argues that such traversals are key to approaching specific situations and devices of what we call 'atmospheric policing'. Exploring recent examples of tear gas and sound warfare deployment in occupied Palestine, the review shows how discourses on atmospheres may be used to bring accountability into ecologies of violence.

## Keywords

atmospheric policing, occupied territories, politics, sonic warfare, tear gas

The interest in atmospheres has been gaining traction within the social sciences of late, particularly from cultural and human geography (Adey et al., 2013; Anderson, 2009; Ash, 2013; Edensor, 2012; McCormack, 2008; Pink and Mackley, 2014). This complements work undertaken in architecture (Thibaud, 2011; Wigley, 1998; Williamson, 2006; Zumthor, 2006) and the creative arts (Boühme, 2000; Grant, 2013) on the ways in which infrastructures, bodies and events collide and fracture to engender particular affective environments and states. Significant to the geographical input is a concern with the political and territorial determinants and consequences that help to make up these environments. Considering the very material compositions that contribute to the atmospheres of everyday and exceptional encounters, the geographical literature brings to the conversation an attention to the social, political and economic productions of space and place. At the

same time, more experimental trajectories within this literature are traversing the metaphorical and poetic, non-representational, languages more commonly used by scholars of aesthetics to speak about ephemeral and contingent human and non-human relations.

Peter Adey's 'Air Affinities' (2015: 54) offers commendable insight into where these trajectories may be going. Combining geopolitics with geopoetics, 'Air Affinities' articulates an expansive research field spanning governance to climatology to classic scientific and literary praxis. In what stands as one of the most comprehensive outlines on the possibilities of

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atmospheres for contemporary geographical analysis, Adey's article draws together the appreciable turn to affect and post-phenomenology with ongoing investigations into mobilities, risk and securities. Of particular note is how the experiential and philosophical understandings of atmospheres are brought to bear on the geopolitical; it is this direction that we wish to emphasize and further pursue.

In his discussion of geopolitical literature on atmospherics, Adey argues that 'air expresses the anxieties of elemental alchemic magic, and the geopolitico-mythic obtrudences persisting in today's geopolitical and militaristic discourse'. Addressing recent scholarship on what has been called 'atmoterrorism' (Sloterdijk, 2009) – a term used to capture the evolution and increasing use of atmospheric techniques (i.e. tear gas, noise pollution and flash bang grenades) – Adey provides an overview of how the air becomes present as atmospheric in the suppression of political voices. Citing Nieuwenhuis (2013), he draws attention to authors who see the struggle for public space as 'increasingly taking place in the air'. This attunement to the air as an agential feature of political control does well to capture how military and state operatives treat the atmosphere as measurable and open to manipulation.

At the same time, as pointing out processes of governance relevant to atmospheric debates, Adey cautions that 'as soon as we reduce the elements to the epistemologies and ontologies of networks, science and geophysics, we may remove precisely what is elemental about them'. This tension within Adey's work raises the question of why our analyses must choose between the two. Are the only options before us to either designate air within the sphere of reductive ontology *or* engage in geopoiesis? Accepting air, as an elemental substance that always exceeds or troubles attempts to measure and manipulate it does not mean we should stop short of developing stronger critiques of how atmospheres are designed and produced. Rather, by firmly embedding our critiques within material and empirical understandings of how atmospheric governance operates we get a far better sense of the myriad ways in which the political and poetic must come together to communicate the embodied – collective and individual – modes of subjectivation that such governance entails. Moreover,

political intervention often demands sensitivity to the air as both an elemental and a standard in control networks and assemblages. A look at technologies for the discipline and management of civilian populations, and their role in what we term 'atmospheric policing', reveals the importance of bringing together these aspects.

Atmospheric policing refers to those technologies and techniques for controlling populations that are fundamentally predicated on their relationship with air; through requiring air for their transmission and dispersion, they colonize space in ways that other weapons do not. Atmospheric policing remains an under-examined area of inquiry for geography, perhaps for the simple reason that 'gas' and sound are less tangible objects in security networks – one cannot apprehend them the way one can, a gun or a police line. The tangibility, or more so the tactility, of other control technologies makes them easier to examine both forensically and semiotically. Likewise, similar to the other ambient phenomena that Adey addresses, it is difficult to generate a signification system for objects that lack easily representable surfaces.

Tear gas is only visually capturable in a small window of time following its smoke-like release, with sound not at all (aside from its mechanical visualization). For tear gas, this brief temporality gives way to our imaginary of it as a cloud, for example, the image so often caught by a photojournalist's lens. But tear gas is comprised of tiny droplets of fog-like moisture that sticks to, and covers, the surfaces of skin, soil and architectures. In the words of trauma cleaning and biohazard removal specialists 'Aftermath', 'tear gas pellets or missiles not only damage property, but the residue they leave behind presents a serious health hazard'. Tear gases are designed to attack the senses simultaneously, intentionally producing both physical and psychological trauma. In medical terms, tear gas operates as an irritant on multiple sites of the body at once, primarily affecting mucous membranes and respiratory system. It can cause excessive tearing, burning, blurred vision, redness, runny nose, burning of the nostrils and mouth, difficulty swallowing, drooling, chest tightness, coughing, a choking sensation, wheezing, shortness of breath, skin burns, rashes, nausea and vomiting (Centers for Disease

Control and Prevention, 2003). Tear gas has also been linked to miscarriages (Physicians for Human Rights, 2012), long-term tissue and respiratory damage (Hill et al., 2000).

The atmospheres created by sound warfare through technologies such as long-range acoustic devices or loudhailers, stun grenades, sonic booms produced by jet planes, sirens, alarms, the sounds of artillery fire, music played to prisoners and so forth are similarly violent. Sound creates atmospheres through its pitches, tones, volumes, frequencies and rhythms, which penetrate and travel through material and immaterial matter across distances, filling spaces within and between bodies. The vibrational force of sound makes it almost impossible to escape as it is tactilely felt as much as it is heard; it travels through the air in waves, which are as uncontainable and unrepresentable as they are damaging. Alongside tissue and bone injuries sustained from the impact of projectiles produced by the detonation of stun grenades (Bozeman and Winslow, 2004), sonic weapons cause injury predominantly through the register of volume, hitting the body's surface and eardrums at levels that are at the least painful and at the worst can lead to permanent injury and even death (Altmann, 2001). Reports of dizziness, nausea, disorientation, temporary deafness, nosebleeds, anxiety and tension accompany all forms of sound warfare, with some reports tying sonic booms to increased heart failure and miscarriages (Makdisi, 2010). Infra- and ultrasonic sound can cause bodily harm even when the sound itself is imperceptible, falling outside of the range of human hearing.

If the turn to the material – or in this case material imaginations – is to better account for air, then how do we think of air in relation to political accountability? We want to further our argument here by way of empirical evidence. On 20 April 2014, English-language media platforms published reports of an attack on the Al-Aqsa Mosque in Jerusalem by Israeli police and armed security forces. As Islam's third holiest site, political protests by Palestinians outside the mosque attempting to stop Israeli and foreign visitors from entering had been ongoing; this was indicative of wider struggles over territorial sovereignty. Police fired non-lethal stun grenades at the outer plaza and, later, into the interior of the

mosque itself (Lewis, 2014a). Colloquially known as 'flash bangs', stun grenades comprise a mix of mercury and magnesium powder. With peak sound pressure levels between 130 dB and 190 dB at a distance of 5 feet (well above the safety limits), they are used to distract and disperse non-combatant targets through the combination of pyrotechnics and sound (Department of the Army 2009: A–11). Whilst they are designed to be discharged within confined spaces, this is with the proviso that they do not come within 5 feet of human bodies, for example, a proviso necessarily difficult to maintain when there is limited knowledge of how a space is inhabited or in highly mutable conflict situations where bodies are rapidly crossing terrains.

On 8 October 2014, it was again reported that stun grenades were launched into the mosque, causing a fire to break out. The compounds used to detonate both stun grenades and tear gas grenades are often incendiary. Such instability of what the object *can do* when moving through, or coming into contact with, air points again to Adey's notion of the elemental. Where politics lie, however, is between what standardized measurements predict and what actually takes place. Just one week later on 14 October 2014, riot control agents were deployed to eject Palestinian Muslims from the site. According to Al Jazeera America's report, Israeli police in riot gear used tear gas and rubber bullets, both inside and outside the mosque. 'We couldn't breathe from the tear gas inside', the Mosque's director told a journalist from Reuters, 'There were 14 injuries from rubber bullets, and anybody who was inside was wounded by gas inhalation'.

Like stun grenades, the 'safety' of tear gas is measured in relation to architectural volumetrics. The toxicity of tear gases arises from a ratio of toxins released per metre square. Protocol for firing tear gas, like launching stun grenades, attempts to standardize the distance from which grenades are fired at crowds, accounting for the direction and strength of the wind as well as the location of barriers and structures that might trap the chemical substance in the air. On occasions like 14 October, tear gas was fired into an enclosed space. This elevates the risk of serious injury and death from inhalation, whilst invoking trauma and anxiety by choking people in spaces in which the air stagnates.

Whilst this atmospheric policing of civilians via stun grenades and tear gas is common in the contested territories of occupied Palestine, they are certainly not confined to 'exceptional' events. Sound and chemical weapons are deployed in commercial as well as militarized contexts and come with directives that assume an 'ideal' site and situation for detonation. In reality, these sites and situations, along with the bodies being targeted, do not match those they are designed and tested for. Atmospheres of terror are built through the escalation of military governance into the air in which everyday life is enveloped.

Given the growing ubiquity of atmospheric policing, what 'Air Affinities' can inspire are explorations of the ways in which the elemental is politically important, insofar as it allows us to nuance our understandings of how atmospheres function as part of broader political systems of discipline and containment. As Adey writes, elements exceed and elude their predictability. They curve and spread around architectures. However, the political significance of this elemental geography demands the ability to hold the experiential up against a critical and nuanced understanding of the deliberate attempt to measure and control the elements.

Firing tear gas canisters and flash bang grenades into densely crowded spaces, with the uncertainty of bodily proximities, changes deployment from legal to 'illegal' dosings (or from likely non-lethal to likely lethal). Moreover, these dosings are based on measures that perform a standardization of bodies, estimating the effects of atmospheric weapons on a stereotype of a young, male, physically able constitution. This means that atmospheres become embedded or entangled in the creation and application of a medical military standard; and they operate as an unspoken partner in the negotiation of violent force.

By drawing attention to atmospheres as a material event, what is made visible is the gap between the reductionist deployment of atmospheres to militaristic ends and the reality of atmospheres as encompassing and indefinite. It is in this gap that human and non-human forms of life get injured or killed, and it is in maintaining this gap that the use of such weapons remains legally legitimate. It is also within this gap that political contestation can take place.

The approach to the air as element allows us to make very real interventions into health and safety standards as well as illuminating the flaws of standardized measurements. It allows us to show that atmospheres are, as Adey elucidates, neither silent nor neutral. Air is never 'the same', a quantifiable *mise en scène* that humans and non-humans move in and through. However, this enveloping, mercurial elemental quality need not confine us to poetics or imprecision. It can also be used to open up a politics of accountability that can challenge the militaristic lens given to the reduction of atmospheres to measurable units. This turns the justificatory measure on itself; it can be shown to breakdown and fail in its real-world assemblage of conditions (wind speed and direction, inclement weather, architectural design, respiratory disease, age and hearing ability). These unknowns and contingencies run contra to the flattening notions that thinking of atmospheres may produce. It is by traversing these polyphonic geopolitical and geopoetic worlds that geographical work on atmospheres can help to reveal how bodies are always interpellated by the environments and states that they produce and are produced through.

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