The Great War of Enclosure: Securing the Skies

Ian G.R. Shaw

School of Geographical and Earth Sciences, University of Glasgow, Glasgow, UK;
ian.shaw.2@glasgow.ac.uk

Abstract: Swarms of police drones, fleets of overhead delivery bots, and flocks of private security drones are set to multiply the complex interfaces between state, capital, and sense. This paper explores the military and economic enclosure of the atmosphere by drones. For centuries, capitalist enclosure has privatized and secured common spaces: territorializing new power relations into the soil. Enclosure now operates through an increasingly *atmospheric* spatiality. The birth of airpower enabled new vertical regimes of state power, capital accumulation, and violence. Now, drones are materializing both intimate and pervasive colonizations of local, national, and international airspace. Crucially, this discloses new morphologies and ontologies of urban (in)security, in which an *atmospheric state* polices deterritorialized aerial circulations. Such a reenchanted atmosphere collapses the geopolitical and geoeconomic in uncertain robotic orbits. This paper, which connects past and present, is driven by a deeper concern for the existential dimensions of dronified skyscapes, subjects, and violence.

Keywords: enclosure, drones, policing, atmosphere, urban security, capitalism

Securing the Skies

The atmosphere has figured centrally in the grand story of human being. From ancient gods to mythical cosmologies, the sky has been a canvas for wonder and fear (see Figure 1). Yet the modern age saw the gods dragged down from the heavens. Occupying their vacant celestial spheres, fleets of aerial *prostheses* (Stiegler 1998) now dance among the stars. Planes, satellites, and drones, each survey, secure, and at times destroy humanity from above. In turn, this armada has posed significant challenges to state territory and security, now remade "as a three-dimensional volumetric space ... beyond its rather more traditionally constructed two-dimensional plane" (Williams 2010:52; see also Adey 2014; Weizman 2002). As Stuart Elden (2013:49) writes: "Just as the world does not just exist as a surface, nor should our theorisations of it; security goes up and down; space is volumetric". Accordingly, this paper argues that a contemporary *reenchantment* of the atmosphere—with vibrant materials, artificial intelligences, marauding machines, and rebellious objects—needs to be understood through a history and theory of enclosure. As Alex Jeffrey et al. (2012:1248) ask, "a driving question relates to how different materialities and technologies enter into the *constitution* of enclosure?" How, then, is the drone productive of new regimes of enclosure?

Typically, enclosure refers to the privatizing and securing of common spaces. It operates by territorializing new social and spatial relations into the landscape. Historically, enclosure was conditioned by the shifting territories, objects, and infrastructures of the planet (Sevilla-Buitrago 2015:1014). The archetypal enclosure

Figure 1: Dante and Beatrice gaze upon the highest celestial sphere, The Empyrean. Illustration by Gustave Doré from the *Divine Comedy* (source: Wikimedia Commons, https://en.wikipedia.org/wiki/Celestial_spheres#/media/File:Paradiso_Canto_31.jpg). [Colour figure can be viewed at wileyonlinelibrary.com]

of the English commons transformed the countryside into a system of closed fields and estates, using fences, walls, and hedges (Blomley 2007). Today, enclosure operates through an increasingly *atmospheric* spatiality. The birth of airpower enabled new regimes of state power, capital accumulation, and violence. Now, drones are materializing intimate and pervasive colonizations of local, national, and international airspace (Williams 2011). Such dronified skyscapes generate both opportunities and discontents for the state. On the one hand, the drone is a technology for "the police pursuit of mastering the atmosphere" (Wall 2013:43). Yet on the other hand, a range of non-state actors are seeking to commercialize the vertical. Accordingly, enclosure embodies the twin imperatives to secure and to profit (see Neocleous 2014). With this in mind, the paper considers how the atmosphere—as an emerging frontier for dronified forms of enclosure—is productive of new anxieties, morphologies, and subjects.

What this paper calls atmospheric enclosure thus fuses militaristic forms of aerial occupation with the vertical logics of capital accumulation. Atmospheric enclosure collapses geopolitical and geoeconomic imperatives to "secure the volume" (Elden 2013). The 20th century crystallized a raft of planetary anxieties, from the hole in the ozone layer to the havoc wrought by climate change. Such ecological discontents were, and remain, fundamentally concerned with *space*: the hydrospheres, biospheres, geospheres, and atmospheres that incubate life. Accordingly, an essential problematic for the modern state is not only the management of unruly bodies

and populations (Foucault 2003), but the unstable geographies of being: the immersive, more-than-human shells of existence that stretch above and beyond, "a kind of geography of air and sky which does not see air divorced to a ring around the planet apart from us somehow" (Adey 2015:57). Yet despite this cofragility, securing and weaponizing the planet's undulating spheres—with missiles, planes, chemical gasses, napalm, and drones—has haunted any notion of human progress. "The art of killing with the environment," writes Peter Sloterdijk (2005:226), "is one of the ideas of modern civilization". The Vietnam War, for example, inflicted terrible ecological wounds on the landscape under a project of "atmospheric warfare" (Shaw 2016a).

The US has been at the forefront of atmospheric warfare. Under the Ronald Reagan administration, the upper atmosphere became a space of US national para-noia and militarization. The Strategic Defense Initiative—or so-called Star Wars pro-ject—was a blueprint for an outer-space defense shield to protect the US continent from Soviet missiles. Its legacy echoes in the billions of dollars still spent on missile defense. The 1990s saw experiments with the Predator drone, a technology of "lethal surveillance" (Kindervater 2016) that would figure centrally in the expansive geographies of the war on terror (Chamayou 2015; Gregory 2011). Beyond this "dronification of state violence" (Shaw and Akhter 2014), today's atmospheres are being reimagined as commercial spaces for robotic capital: drones for logistics, agriculture, real-estate, surveillance, and potentially thousands of other uses. Geopolitical anxieties about targeted killing are thus morphing into domestic anxieties about privacy, surveillance, and the use of drones for crime and terror. The atmosphere, in short, is fast becoming enclosed and contested by state and non-state technics. As Stuart Hodkinson (2012:507–508) explains, "Capital must ... continuously and simultaneously devise 'strategies of enclosure' ... to open up new areas of commodification". Consequently, we can add a volatile *technosphere* to the list of spheres that now envelop the planet: one constituted by the bubbling object-spaces of flying robots.

During the early years of the war on terror, the US military dominated the unmanned skies it patrolled—a *unilateral right of vertical access* (see Figure 2). Now, around 90 countries possess drones, and at least seven have deployed them for combat. Additionally, US multinationals Amazon, Google, and Facebook are all devising techniques to monetize airspace with drones. So too are criminals and terrorist groups developing drones for surveillance, reconnaissance, propaganda, and conflict. The opportunities presented by the drone for state security are now accompanied by a raft of anxieties. These are oriented by a crisis of unwanted aerial access: a fear of invasion in and through newly disclosed drone airspaces. Consider the scramble to install no-drone zones around airports, public spaces, and government buildings. If the dronification of state violence (Shaw and Akhter 2014) transferred risk from US pilots to a radically exposed enemy, then the atmospheric enclosure of the "homeland" imports this vertical risk. We are entering an era of complex, aleatory, and risky skyscapes.

An *atmospheric state* is emerging to codify and secure these aerial circulations (see Feigenbaum and Kanngieser 2015; Whitehead 2009). This codifies a new set of socio-spatial relations, such as the US Federal Aviation Authority's (FAA) complex

Figure 2: A Reaper drone lands at Kandahar Airbase, Afghanistan, in 2011. Credit: Fg Off Owen Cheverton/MOD (source: Wikimedia Commons, https://commons. wikimedia.org/wiki/File:Reaper_RPAS_Aircraft_Lands_at_Kandahar,_Afghanistan _MOD_45154678.jpg). [Colour figure can be viewed at wileyonlinelibrary.com]

legal and regulatory geographies. The FAA has forecast that 4.3 million hobbyists drones could be sold per year by 2020 (Masunaga 2016). Accordingly, we must consider how drone airspaces will create anxieties and security problematics beyond those existing terrestrial regimes of urban security. With mounting frequency, objects of risk and danger now penetrate the halos of our coexistence and swim through the intimate atmospheres of our everyday lives. An atmospheric state must, therefore, secure a newly disclosed *drone city* (Jensen 2016) against dangerous prostheses: ensuring only safe objects orbit the urban volume. While Michel Foucault (2007) considered the urban ecologies and milieus of state power (see Philo 1992, 2012), the rise of remote, and even autonomous objects in the drone city reenchant the "elements" of the atmosphere (see Adey 2015), and complicate the spaces and subjects of enclosure.

The paper is structured into the following sections: (1) "The geographies of enclosure" introduces existing geographic scholarship on enclosure; (2) "Ground zero" revisits the history of English enclosure to examine the historical battlegrounds where human beings were forcibly dragged inside the world interior of capital; (3) "The reenchantment of the atmosphere" explores how the biopolitical climate of an atmosphere condenses the subjective, the material, and the political in volumes of shifting cohabitation; (4) "*Atmo-Economica*" details the political economy and legal regimes of atmospheres; (5) "Battlesphere" looks at the violent logics of militarized atmospheres; (6) "Urban battlespheres" extends this concept to examine how urban (in)security is being transformed by drones; (7) "Immunizing the atmosphere" concludes the paper with a broader reflection on how the atmosphere has become a medium of capital and state security. Although each section is animated by empirics, the purpose of this paper is to

develop a theoretical argument for understanding the atmospheric enclosures of our *airport earth*.

The Geographies of Enclosure

This section examines existing scholarship on enclosure. Enclosure, writes Alvaro Sevilla-Buitrago (2015:1001), is "a prominent territorial feature in the *longue durée* of the capitalist mode of production of space". It is a metaphysical projection that renders the planet legible for capital. Karl Marx argued that enclosure, or what he termed primitive accumulation, was the violent birthplace of capitalism, "the historical process of divorcing the producer from the means of production" (Marx 1990:875). Primitive accumulation was a process of "reckless terrorism" that is "written in the annals of mankind in letters of blood and fire" (1990:875; see also Williamson 2000:57). Between the 14th and 19th centuries, enclosure transformed agricultural society and commodified labor power. It ended the last vestiges of the English peasantry (Neeson 1993), and created a landless working class, with "nothing to sell except their own skins" (Marx 1990:873). Accordingly, enclosure is not a synonym for economic privatization: it is a social war engineered by a ruling class, what Mark Neocleous (2014:59) calls "*the law of private property as war*".

Existing scholarship has explored how enclosure was a legal and symbolic power (Blomley 2007); a regime of incarceration (Foucault 1977; Linebaugh 2014); a form of social alienation (Arendt 2013; Thompson 1963); and, of course, an inherently spatial process (Sevilla-Buitrago 2012, 2015). For all these reasons—economic, political, spatial, and ontological—enclosure should be understood as a *mode of existence* that deworlded communities, village by village, "like a coinage reducing all things to a common measure" (Thompson 1991:164). Enclosure remains active in world politics today, with a number of multinationals privatizing vast swathes of the globe. A neo-Marxist approach thus understands enclosure as a continuous condition for the survival and expansion of capital (Midnight Notes Collective 1990). Under this understanding of what David Harvey (2014) calls accumulation by dispossession, enclosure is constantly mutating. From resource grabs to the neoliberal onslaught against social welfare, capital depends on the division, appropriation, and securing of common being-in-the-world.

The use of enclosure in critical human geography encompasses a range of spaces, processes, and events (Sevilla-Buitrago 2012, 2015). Jessie Goldstein (2013:362) uses the concept of *terra economica* to conceptualize a capitalist ontology that renders nature as a plane of resources, "to be worked upon and made profitable by rational economic actors". *Terra economica*, then, defines capital's ontological preconditions of existence. Enclosure has elsewhere been used to conceptualize warfare and state violence (Shaw 2016a), ongoing appropriations of nature (Johnson and Goldstein 2015), Palestinian occupation (Fields 2010), gentrification (Hodkinson 2012), and the violent co-imbrication of biopolitics and geopolitics (Jeffrey et al. 2012; Vasudevan et al. 2008). Accordingly, there is a shared concern for understanding *spatial injustice*. As Alex Vasudevan et al. (2008:1642) argue, enclosure "seeks to uncover how spatialities of inclusion and exclusion operate across networks and territories, and that requires connecting logics and processes

of neoliberal restructuring, military violence, and modes of appropriation, manipulation and exploitation at different scales, including the corporeal". As an inherently spatial force, then, enclosure is the means by which we can understand the *worlding* of capitalist spaces, which aims "at securing the hegemony of a social group to the detriment of the autonomy of others" (Sevilla-Buitrago 2015:1005).

Urban space has long been a battleground for enclosure: both public spaces and communal housing continue to be targets of neoliberal marketization and securitization (Hodkinson 2012). "Microtechnologies of social and spatial control", writes Ed Soja, "infest everyday life and pile up to produce a tightly meshed and prisonlike geography punctuated by *protective enclosures* and overseen by ubiquitous watchful eyes" (2010:243, emphasis added). Urban enclosure can thus be seen as an immunitary project. Roberto Esposito (2008), building upon Michel Foucault's (2003) notion of biopolitics, defines immunity as a defensive mechanism of (state) power. It is materialized by subtracting, securing, and shielding communities from danger. Immunization, in this sense, is coextensive with ideals of (Hobbesian) sovereignty, liberty, and property, since each convert *open* lifeworlds into *closed* lifeworlds:

> Indeed, one could plausibly claim that it is coextensive with the entire history of civilization from the moment that it constitutes the ultimate precondition, or better, the first condition, in the sense that no society can exist without a defensive apparatus, as primitive as it is, that is capable of protecting itself (Esposito 2008:54).

Immunity, as a defensive subtraction, thus creates a gap between life and itself, and this can be understood as a *space of enclosure* (Jeffrey et al. 2012:1260). Immunity strives to engineer pacified worlds and subjects.

While urban enclosure may be performed by human bodies, it is enforced by a range of nonhuman actors (Meehan et al. 2013), such as electronic gates, biometric borders, brick walls, CCTV cameras, barbed wire, cars, or drones, all of which complicate human subjectivity. As Martin Coward (2009:413–414) notes, "as urban forms of life are increasingly constituted by technical systems, it is harder to separate the human and the technological". Objects *perform* spaces of enclosure, and "mediate relationships of power, agency and governance over time and space, and shape social and political processes by virtue of their irreducible presence" (Walters 2014:102). For Don Mitchell, the enclosure of public space represents a kind of "SUV" (sports utility vehicle) mode of being-in-the-world: a cocooned and capsularized society. As he writes, "we want to move freely through public space, encased in an impregnable bubble of property ... We want—and expect—to feel safe at all times" (Mitchell 2005:92). An examination of enclosure thus transverses the links between space, object, and subject. "Here we can think of enclosure as imprisonment, as the enclosure of our minds and bodies within the capitalist-imperialist-authoritarian machine ... as ideological adherents of capitalist society" (Hodkinson 2012:509).

Accordingly, enclosure entrenches the existential foundations for closed lifeworlds, mass surveillance, restricted mobilities, and homogenized—yet ever atomized—populations (Shaw 2016b). Claudia Aradau (2010:494) argues that "securitization needs to be understood as a process of materialization that enacts

a reconfiguration of the world". While enclosure is certainly an economic force, it must be understood under this notion of an ontological reconfiguration of world: the transduction of an ancient mode of communal existence into a dominant capitalist realism (Fischer 2009). To begin this inquiry, we must first excavate the logics of English enclosure. Such an archeology—one that is both geographical and existential—enables us to confront the "precedent of a new form of sociospatial governmentality ... a new strategic manipulation of territory for social change" (Sevilla-Buitrago 2012:210).

Ground Zero

This section outlines the brutal precedent for atmospheric enclosure. English Enclosure was the ground zero for a metaphysical projection of an atomized and partitioned planet. The enclosure of the commons erased shared spaces of agriculture, husbandry, and being-together: from the open-fields of Midland England to the pastures of Cumbria. Even if commoners, what J. M. Neeson (1993:12) called "the last of the English peasantry", didn't own land directly, they often enjoyed customary use rights, which helped sustain a more autonomous mode of existence. As medieval England marched into modernity, these commons came under prolonged attack by capital. This led to pronounced inequality, conflict, alienation, and a sharp decline in living standards (Blomley 2007:1; Linebaugh 2014:144–145). Over centuries, customary use rights were converted into an altogether alien framework of capitalist property relations. Of course, enclosure soon generated its own problematic: a rising number of dispossessed populations. The response to such *ontological insecurity* was the imposition of new geographies of security. Lords and yeoman erected hawthorn hedges, wooden fences, and stone walls, to police a fissiparous world. It is this contradiction that makes privatization and securitization inseparable forces. Rather than detail the intricacies of enclosure (see Fairlie 2009; Fields 2010; Neeson 1993; Sevilla-Buitrago 2012; Thompson 1963, 1991), this section paints broad historical strokes to understand atmospheric enclosure's key lines of descent.

Enclosure was conditioned by many events, physical geographies, and personalities (Williamson 2000), but the desire to profit was omnipresent (Hodkinson 2012:502). For this reason, many historical analyses frame enclosure as a social war (Fairlie 2009; Foucault 1977, 2003; Linebaugh 2014; Marx 1990). E. P. Thompson famously called it "a plain enough case of class robbery" (1963:238). Enclosure was not, however, an overnight agricultural revolution. There were two main periods: smaller, piecemeal enclosure, and large-scale, general enclosure (see Williamson 2000:59). In England, enclosure began with the Ancient Statute of Merton in 1235, passed under Henry III. As the feudal system declined in the 14th and 15th centuries—partly a result of the Black Death and the Hundred Years' War—manorial lords began to convert their depopulated estates into sheep pastures. By the turn of the 17th century, enclosure had developed great momentum, requiring a private Act of Parliament. Between 1604 and 1914, over 5200 bills were enacted in this way. Unlike in prior centuries, enclosure during this later stage converted open fields, pastures, and wastelands into spaces for "productive"

agriculture. This led to the engrossment and amalgamation of smaller farms and the imposition of rents (Fields 2010:223). In 1801, parliament passed the General Inclosure Act. This created a unified framework for mandating large appropriations of land (Thompson 1991:160; Williamson 2000:59). Over the 18th and 19th centuries, over 20% of England was enclosed by parliament, about 6.8 million acres. This land grab represented close to a third of agricultural land (Neeson 1993:329).

Despite widespread and successful forms of resistance (Thompson 1963:241, 1991:122), parliamentary enclosure ultimately spelled the death of the commons. "Much of England was still open in 1700; but most of it was enclosed by 1840" (Neeson 1993:5). Key to enclosure's victory was an ideology of nationalistic "improvement". Enclosure was underwritten by enlightenment ideals of progress, including John Locke's philosophy of economic improvement and private property (Fields 2010:225). Large landowners, politicians, and the Board of Agriculture overwhelmingly agreed that private land was in the *national* best interest. Commoners were subsequently attacked with a "xenophobic intensity" (Neeson 1993:34). Such state-backed propaganda belies an enormous concentration of class power. The publication of the 1872 Return of Owners of Land (or new Domesday Book) revealed that 0.6% of the population owned 98.5% of agricultural land (Fairlie 2009).

Historians often downplay the existential impact of enclosure (Williamson 2000:57). Yet this system of proleterianization destroyed countless lifeworlds that defy modernist ontological dualisms between land and labor (see Linebaugh 2014:13; Neeson 1993:179). Accordingly, the "loss of the commons entailed, for the poor, a radical sense of displacement" (Thompson 1963:239). In other words, a fissiparous mode of existence subjugated a patchwork of common spaces and livelihoods: installing a closed *architecture* and a closed *anthropology*. "The world was being enclosed, life was being closed off, people shut in" (Linebaugh 2014:80). A landless and deworlded humanity was actively manufactured by enclosure, "a new reserve army of labour, totally dependent on wages and the market for its social reproduction" (Sevilla-Buitrago 2012:217; see also Neeson 1993:12). Accordingly, the emerging capitalist order was predicated on the ontological insecurity of a surplus population. As a result, there emerged the necessity for elites to impose new regimes of security and incarceration (Blomley 2007:2; Foucault 1977).

Although various forms of legislation were imposed (consider the draconian 1723 Black Act), enclosure's success ultimately depended upon reconfiguring the world directly. A material architecture of some "200,000 miles of newly-erected walls, hedges, and fencing" (Fields 2010:232) bulldozed ancient milieus. The Hawthorne hedge, in particular, "sought to protect private property from the bodies of the poor and became an instrument of class discipline" (Blomley 2007:9). Or as Tom Williamson (2000:58) argues: "The development of social and economic forms which emphasised the centrality of the atomised, autonomous individual naturally predisposed people to favour a landscape of discrete and enclosed holdings". In this sense, enclosure was a *geopower* that mobilized objects to police the landscape. The great age of enclosure materialized terrestrial partitions to restrict, impede, and stymie the movement of bodies *across* the surfaces of the land. Now, hundreds of

Figure 3: The inside of the Crystal Palace, London, site of the Great Exhibition in 1851. Peter Sloterdijk (2013) argues that this decadent glass building provides the ideal metaphor for what he calls the "world interior of capital". Credit: William Simpson, 1851 (source: Wikimedia Commons, https://en.wikipedia.org/wiki/The_Great_Exhibition#/media/File:Crystal_Palace_interior.jpg). [Colour figure can be viewed at wileyonlinelibrary.com]

years later, the state must manage circulations that are no longer bound to surfaces, and install new regimes of atmospheric enclosure.

Atmospheric enclosure therefore crystallizes, and emerges from, this longer historical trajectory that has witnessed human beings *brought inside*—into the spaces of what Michael Hardt and Antonio Negri (2000) called "empire" or Peter Sloterdijk (2013) defines as the "world interior of capital" (see Figure 3). Both of these grand narratives circumscribe the same process: the ideological, material, legal, and psychological *interiorization* of capital's external spaces. *The great war of enclosure*. Moreover, if, as Sloterdijk (2013:170) argues, "biopolitics begins as enclosure-building", then there is a crucial existential dimension to the dronification of the skies: the installation of ontological architectures of experience. Atmospheric enclosure produces biopolitical climates for human beings to dwell inside. It is this existential dimension of being-on-the-inside, of dwelling in the world interior of capital, that loops the study of atmospheric enclosure back to the inescapable *throwness* (Heidegger 2010) and precarity of the human condition.

The Reenchantment of the Atmosphere

This section explores the *reenchantment of the atmosphere*: the animation of the volumes of coexistence with vibrant materials, artificial intelligences, marauding machines, and rebellious objects. It advances previous sections by detailing the ontological logics of atmospheric enclosure and the rise of an atmospheric state. This reenchantment is predicted on understanding the "magic, animacy and

intimacy" (Adey 2015:59) of atmospheric objects. As Bruno Latour (2010:88) argues, "[i]f animism is about things having agency, then one thing modernists have done has been to multiply the amount of agencies in the world to an extraordinary degree". In this sense, we can appreciate how atmospheres are produced by the shifting configurations of agents, both subject *and* object (Anderson 2009:78). Atmospheres envelop us, hailing us with peculiar space-times, disruptive molecules, prevailing moods, and inescapable intensities. This atmospheric attunement is what Kathleen Stewart (2011:445) labels, after Heidegger, a process of *worlding*. Consequently, we must understand the worldliness of security (Aradau 2010), or "security as fundamentally alive, encompassing, and immersive" (Adey 2014:838).

Atmospheres *world* the subjective, the objective, and the political. The atmosphere is not only a vertical space of technological extension, embodied in the Predators stalking a militarized sky, but also, a realm animated by magic and myth (Adey 2015)—suffused with the intangible desires, hopes, fears, memories, and affects that haunt the climates of a spherically disclosed humanity. Today's atmospheres are enchanted by objects that *hail* atmospheric subjects into being.

How can we understand the politics of this atmospheric worldliness? One response is found in Foucault's turn to biopolitics, which as Chris Philo (2012:507) notes, "renders his work even more profoundly geographical". Biopower, Foucault (2003:239–240) argues, names "the acquisition of power over man insofar as man is a living being, that the biological came under State control". Biopower mobilizes a distinctly atmospheric logic, one that not only targets living beings, but their environment or *milieu* (Foucault 2003:245). The milieu serves as Foucault's ecology of state power (Philo 1992). It is composed of natural elements such as rivers, hills, marshes, and climates, together with urban infrastructures. "The milieu is a certain number of combined, overall effects bearing on all who live in it" (Foucault 2007:36). Biopower is nested within what Foucault would eventually term security. Crystallizing in the 18th century, security manages natural and artificial circulations, from "flows of water" to "people, merchandise" (Foucault 2007:34, 51). The territorial sovereign, replaced by the architect of disciplinary space, now becomes the "regulator of a milieu" (Foucault 2007:51), concerned with "the security (sécurité) of the population" (Foucault 2007:92).

Foucault brings this analysis to consider the security of the modern town. The walled, closed town of medieval ages was replaced by an open town, "a space of circulation" (2007:27; see also Philo 2012:508). This shift *uplifted* state power to the atmosphere, evident in government strategies to prevent "morbid miasmas" (Foucault 2007:419). Foucault thus describes "a state of government that is no longer essentially defined by its territoriality, by the surface occupied, but by a mass: the mass of the population, with its volume" (Foucault 2007:145). Here, one finds a succinct expression of a nascent atmospheric state: one that does not target the surface, but the *volume* (cf. Elden 2013). While the miasma theory of disease transmission was discredited at the close of the 19th century, the industrial revolution only multiplied the objects of concern—such as pollutants—circulating in the atmosphere. As Mark Whitehead (2009:222) writes, by the 1950s, "the urban atmosphere became a key medium for nascent governmental strategies for individual reform within the city". The atmospheric state thus arose in response to the

reenchantment of the above, and the creation of atmospheric subjects and societies below.

The modern atmospheric state continues to manage the rogue pollutants of the industrial revolution, but also, must now manage the circulations of planes, helicopters, and drones. As a result, urban environments, write Claudia Aradau and Tobias Blanke (2010:45), have been transformed into *airports*, "with all the surveillance and orientating technologies of the airport having been transferred to the governance of the town". This airport metaphor can be understood more literally. Unlike the rivers, miasmas, and climactic forces that circulate in Foucault's town, today's urban environments are enveloped—and governed by—an armada of aerial actors with ontologically disruptive object-spaces. Blimps, planes, helicopters (Adey 2010), and now drones add a complex Z axis to urban (in)security and state violence (see Figure 4). These prostheses are unimpeded by terrestrial obstacles and can *access* subjects from above, reconfiguring the interface between capital, state, and sense. For this reason, aerial prostheses must be considered ontologically: as existential structures of, and destinies for, our airport earth.

The atmosphere is not a hollow volume, a politically neutral verticality, or an existential hiccup: the technics that enclose its auras reinforce and transform relations of political economy, domination, and violence below. Accordingly, I follow Francisco Klauser (2010:327) by using "the term '(atmo)sphere' not in its physical sense but in its psychopolitical meaning". Atmospheric objects, from Predator drones to Amazon Air quadcopters, are materializing new time-spaces, mobilities, and subjects. The psychopolitical climate of an atmosphere condenses

Figure 4:   Los Angeles County Sheriff's Department helicopter circles Carson, California, 1991. Credit: Tequask (source: Wikimedia Commons, https://commons. wikimedia.org/wiki/File:LASD_Helicopter_Circling.jpg). [Colour figure can be viewed at wileyonlinelibrary.com]

new subjective and objective gravitational fields. For this reason, an object-oriented understanding of atmospheric enclosure must therefore confront an object-oriented psychopolitics. The power-laden orbits of atmospheric objects police, capture, and disrupt the phenomenological interfaces between humans and nonhumans: the sites and volumes of *ecstasy*, of being-outside-oneself, of vertical exteriorization. This raises "important questions regarding the forms of political subjectivity enrolled within, and created through, materialisations of contemporary enclosure" (Jeffrey et al. 2012:1254). As Andreas Philippopoulos-Mihalopoulos (2016:151) puts it: "In its enclosure, an atmosphere directs bodies and their airborne affects in politically specific ways and for politically specific purposes". Such a psychopolitics, one that directs bodies and minds for "politically specific purpose", is inseparable from the technogeographies of a dronified capitalist realism.

Atmo-Economica

This section explores the economic and legal issues surrounding atmospheric enclosure, and outlines what exactly is at stake with the commercialization of the skies. For most of human history, the upper atmosphere was an inaccessible frontier. Grounded by gravity, capital was born on the surface of the planet. Since the 20th century, terrestrial enclosure has been uplifted by aerial technologies. Planes now shift cargo and people across vast oceans. The planet's surfaces are photographed, digitized, and sold by intelligence companies (Crampton et al. 2014). GPS systems commercialize and militarize the mobilities of everyday life. Radio signals bounce between satellites, enabling US drone pilots in Nevada to assassinate people in Somalia. The occupation of the atmosphere in short, has transformed the ontologies, morphologies, and subjectivities of capital (see Rossi 2013).

The reenchantment of the atmosphere is inseparable from the political economy of a multibillion-dollar drone industry. In the US, corporations of various sizes are seeking to colonize the skies with a robotic armada of delivery drones, private security drones, surveyor drones, police drones, and paparazzi drones, all of which orbit the towering skyscrapers of a capsularized elite, materializing *a cloud city of secessionary volumes*. As Tyler Wall (2013:34–35) explains, "[u]nmanned military commodities routinely create profits for the U.S. security industry, with the hunt for locating new 'internal' drone markets" (see also Wall 2016). And as Stephen Graham and Lucy Hewitt (2013:86) add, "military-industrial-security complexes [are] seeking to normalize drones, satellites and other vertical surveillance and targeting systems across the widest possible markets". Securing the skyscape to accommodate these deterritorialized technics will be a defining issue for the atmospheric state.

The atmosphere is thus being reimagined and reengineered as an economic space to be brought *inside* the world interior of capital (Sloterdijk 2013). Rather than *terra economica* (Goldstein 2013) is it not precisely the case that today we are witnessing the crystallization of an *atmo-economica*: a verticalized, immersive, and worldly form of capital? *Atmo-economica* is the latest ontological dispositif that

seeks to profit from the enclosure of space, a "complex set of sociocultural and institutional relations ... which allow the process of capitalist accumulation to come into being and expand further" (Rossi 2013:350). But how is a specifically dronified form of capital colonizing the atmosphere? While the skies have long been a space for transporting cargo, bombs, and people, the drone is creating more intimate and emergent volumes of *atmo-economica*, striating an already complex national airspace.

But who *owns* the sky (Banner 2008)? For most of history, the skies were considered the property of whoever owned the ground below: known as *the ad coelom* doctrine. This was complicated by the birth of airpower, since planes flying across the sky would technically be trespassing private properties below. In the US, Congress responded to this untidy problem by passing the 1926 Air Commerce Act, which codified a "public" navigable airspace, later defined as above 500 feet (or 1000 feet in congested areas). This was affirmed in a 1946 Supreme Court case (*United States v. Causby* [328 U.S. 256, 1946]), which heard the plaintiff's complaint that military planes flying at 83 feet were scaring his chickens to death. While the court ruled that *ad coelom* doctrine had "no place in the modern world", Justice William O. Douglas acknowledged the landowner "must have exclusive control of the immediate reaches of the enveloping atmospheres". The Causby opinion thus codified distinct public and private airspaces—but it did not rule on how much of the "enveloping atmospheres" landowners controlled.

Two further Supreme Court cases are pertinent. In *California v. Ciraolo* (476 U.S. 207, 1986), the Supreme Court ruled that naked-eye police surveillance conducted from an airplane flying in public airspace did not violate Fourth Amendment privacy rights, since the police flew from a public vantage point (in this case, 1000 feet). In 1989, the Supreme Court heard *Florida v. Riley* (488 U.S. 445, 1989). It similarly ruled that police helicopter surveillance at 400 feet did not contravene Fourth Amendment protections, since helicopters are exempted from the 500 feet requirement. Accordingly, there is a prima facie grey zone for aircraft flying between 83 feet (*Causby*), 400 feet (*Riley*), and 1000 feet (*Ciraolo*). Drones further complicate this legal geography. If the police were to fly drones *below* the limit set by the Supreme Court would this require a warrant? What if incriminating footage was gathered from a drone hovering above a public sidewalk? Moreover, since a 2007 directive, the "FAA says the advent of drones has extended 'navigable airspace'—and thus the FAA's authority—down to the ground" (Nicas 2015). This broad definition of navigable airspace holds big implications for the atmospheric state and, of course, commercial drones.

In 2016, Price Waterhouse Cooper valued the global market for drones at over $127 billion. AUVSI, the Association for Unmanned Vehicles Systems International (which lobbies for the integration of drones in US airspace), forecast 100,000 drone-related jobs by 2025, representing an economic impact of $82 billion (AUVSI 2013). Of course, the military drone industry already employs tens of thousands of people. For this reason, (state) securitization and (nonstate) capitalization are difficult to untangle: Reapers stalking Syria and police quadcopters in North Dakota are both manifestations of atmospheric enclosure. As Wall (2013:38) argues, "[b]oth imperial and domestic police UAVs are first and foremost security

commodities invested in and bounded by the prerogatives of security and accumulation". An important perspective is therefore to consider *atmo-economica* through the prism of the military–industrial complex. Since at least World War II there has been a permanent war economy at the service of the US national security state. US spending on drones, for example, surged from $363 million to $2.9 billion between 2001 and 2014 (Hall and Coyne 2014:453).

The FAA intends to open US skies to drones without a case-by-case system of permissions. Currently, the only way for businesses to use drones in domestic US airspace is to obtain a Section 333 exemption from the FAA. By the turn of 2016, there had been over 3136 such exemptions. Pressure to change this system has been applied by the so-called "drone lobby" in Congress, the Congressional Unmanned Systems Caucus (CUSC), which has close ties to AUVSI. In addition to the millions spent on direct lobbying, in the 2012 US election cycle, Lockheed Martin, Northrop Grumman, Boeing, General Dynamics, and General Atomics spent $11.9 on campaigns (Hall and Coyne 2014:455). So too are giant US tech companies keen to profit from the drone age. Amazon spent $9.4 million on lobbying Congress in 2015 (Kang 2016). Its Prime Air automated drone delivery system seeks to link warehouse to backyard with a "high-speed transit" drone airspace of between 200 and 400 feet. Similarly, Alphabet has outlined its drone delivery project, codenamed Project Wing. Like Amazon, it is lobbying for the creation of "Class G" segmented air corridor. Finally, Facebook is developing larger, solar-powered drones to fly in the upper atmospheres. The purpose, Mark Zuckerberg (2015) explains, is "to use drones and satellites to connect the billion people who don't live in range of existing wireless networks". These Aquila drones—capable of flying between 60,000 and 90,000 feet for months at a time—are quite literally bringing the planet inside the world interior of capital.

Battlespheres

This section focuses on violently militarized atmospheres, which, of course, are always-already volumes of *atmo-economica*. It seeks to understand how atmospheric technologies, like drones, are changing the composition of the battlespace. Since World War II, the atmosphere has been the site of pronounced military occupation and weaponization (Elden 2013; Shaw 2016a; Sloterdijk 2009). This has challenged the flat and linear logics of geopolitics (Weizman 2002), contributing to a "crisis of aerial sovereignty" (Williams 2010). Replacing the notion of a two-dimensional battlefield, the idea of a three-dimensional battlespace has gained traction since the revolution in military affairs (RMA) of the 1990s, which popularized network-centric war. The battlespace signifies a heavily computerized, multi-dimensional information environment that unites military operations across land, sea, space, and cyberspace. As Stephen Graham (2010:31) writes, the "concept of battlespace thus permeates everything ... the everyday sites, spaces and experiences of city life, to the planetary spheres of space and the Internet's globe-straddling cyberspace". Such an expansive geography fuels what Derek Gregory calls an everywhere war, where it is no longer "clear where the battlespace begins and ends" (2011:248).

The battlespace is, however, a curiously hollow—and unenchanted—space. Its technologically fetishized geographies maintain (implicitly or explicitly) Cartesian logics of distinct subjects and objects. As Adey (2014:836) puts it, the "immersion in and by security architectures seems dominated by political-technical-analysis, which is highly visual and abstract, rather than an embodied, intimate, material-affective, and phenomenological examination". In other words, although we possess a vocabulary for the technologies of state power, "little attention is paid to the inherent atmospheric volume of the thereby created spaces of security" (Klauser 2010:328). Moreover, by being everywhere, the notion of a battlespace risks evaporating into *nowhere*. Instead, Peter Denton (2012) develops the idea of a *battlesphere*, "the dynamic operational sphere surrounding a particular conflict which is bounded in all directions by its causal effects. Included within that sphere are the dynamic relationships of the geographical, logistical, tactical, strategic, and human elements involved". The battlesphere resembles a weaponized *milieu*, one that condenses the material and the psychological (Denton 2012). A milieu, to recall, is composed of natural and technical circulations, contributing to "the problem of the 'naturalness' of the human species within an artificial milieu" (Foucault 2007:37).

The battlesphere does not denote a globalized battlespace, then, but a localized—and at times lethal—zone of violent enclosure. Battlespheres are increasingly materialized through the presence of robotic prostheses, lending them an emergent and cyborgian character (see Figure 5). Indeed, battlespheres are the signature spaces of the US-led war on terror in its post-counterinsurgency phase: the dronification of state violence (Shaw and Akhter 2014). In 2015, for example, US Air Force drones in Afghanistan fired more weapons—56%—than conventional warplanes, up from 5% in 2011 (Reuters 2016). As a kind of persistent lethal surveillance (Kindervater 2016), the battlesphere represents a three-dimensional "temporary autonomous zone of slaughter", which "could be opened up anywhere in the world if an individual who qualifies as a legitimate target has been located" (Chamayou 2015:55). Accordingly, the military drone—backed by a range of algorithmic infrastructures—produces orbs of atmospheric violence that immerse humans within artificial climates. This atmospheric enclosure is three-dimensional object-space of radical exposure and vulnerability.

In their descriptions of battlesphere and milieu, both Denton (2012) and Foucault (2007:36) describe a circulation of causes and effects. These *effects* can also be understood as *affects*: forces that complicate the divisions between the human and nonhuman. As Philippopoulos-Mihalopoulos (2016:157) puts it, "an atmosphere is a posthuman emergence, not centred on human experiences or connections but rhizomatically spread across the (human and nonhuman) bodies of its emergence". If the battlespace is an abstract, Cartesian space, then the battlesphere denotes an existential sphere. This is a worldly orb saturated with—and modulated by—objects, affects, forces, memories, fears, anticipations, and hauntings: a violent magic swirls in these airs and crackles like thunder. As a weaponized milieu, then, the battlesphere destabilizes the ontological coherence of a spherically disclosed humanity. Here, violence is not simply enforced with death and destruction, but in the discombobulation and disorientation of spherically enclosed subjects. Nerve

Figure 5:   An MQ-1 Predator drone over Southern Afghanistan. Credit: US Air Force photo/ Lt. Col. Leslie Pratt (source: http://www.af.mil/News/Photos.aspx?igphoto= 2000640436). [Colour figure can be viewed at wileyonlinelibrary.com]

gases, drones, blimps, helicopters, acoustic cannons—all of these transduce the psychosomatic climate of the battlesphere. The distribution of sense and sensibility is violently reengineered.

   "Atmospheric policing", write Anna Feigenbaum and Anja Kanngieser (2015:81), "refers to those technologies for controlling populations that are fundamentally predicted on their relationship with air". The 2014 war diary, *The Drone Eats With Me*, chronicles daily life during Operation Protective Edge in 2014 in the Gaza Strip. In one passage, Abu Saif (12 July 2015) writes, "We all sit around five dishes: white cheese, hummus, orange jam, yellow cheese, and olives. Darkness eats with us. Fear and anxiety eat with us ... The drone, and its operator somewhere out in Israel, eat with us". Such banal terror demonstrates why the battlesphere is an affective atmosphere, alive with death. By policing the atmospheric climate, drones can produce oppressive psychic prisons (Chamayou 2015:45). The very presence of these robotic specters materializes a haunting absence. The 2012 report, *Living Under Drones*, contains numerous examples of how Pakistani civilians altered their way of life—their daily behaviors and social patterns—in response to US drone surveillance (Cavallaro et al. 2012). Of course, life beneath drones will produce a range of subjectivities. The psychic horror felt by those trapped within a battlesphere collides with the manufactured joy of Amazon Air consumer-subjects staring into the sky for their latest fix.

Urban Battlespheres

This section explores how atmospheric enclosure will both extend and transform existing urban security. The theatrical staging of cities as spaces of risk and

danger—particularly after the terrorist attacks of 11 September 2001—has legitimated a range of militaristic technologies (Graham 2010) and the growing presence of "warrior cops", particularly in the US (Balko 2013). The drone continues to blur these lines between the war on terror, the war on drugs, the war on crime, and the war on poverty. In other words, the complex geographies of militarized *land*scapes (Woodward 2014) are now accompanied by a growing number of militarized *sky*scapes. The reenchantment of *atmo-economica* is reconfiguring the splintering geographies of urban policing. This reinforces what Klauser (2010:332) calls a fortressed city, "a highly fragmented, polyspherical patchwork of more or less detached and controlled enclosures". For the past decade, drones have been moving inwards from the US borderlands to infest law enforcement. This trajectory generates dystopian predictions of a brave new drone world. "Swarms of tiny, armed drones, equipped with advanced sensors and communicating with each other, will thus be deployed to loiter permanently above the streets, deserts and highways" (Graham 2010:xiii). Could drones materialize this hawkish fantasy of persistent robot policing?

Security has long materialized a vertical dimension, as with helicopter policing in megacities (Adey 2010). The dronification of violence—however novel—must therefore be situated within existing police infrastructures (Graham 2010; Wall 2016). "Thinking drone war with police violence," argues Wall (2016:2), "helps to challenge the apparent 'exceptionality' of the drone by usefully locating the drone within one of the most pervasive, insidious, yet mundane rationalities and mandates of emergency power: police". With or without drones, the police will continue to surveil, hound, and hunt an economically "surplus population" (Shaw 2016c). Crucially, the composition of this surplus population is violently uneven, reflecting "how the geographical dynamics of accumulation have become increasingly racialized" (McIntyre and Nast 2011:1466). US policing in the "Age of Ferguson" (Dickson 2016), for example, is directed most aggressively against black populations (see Figure 6). That is to say, militarized and preemptive forms of US policing overwhelmingly target what was first described as the "American underclass", namely, impoverished urban black men (Mitchell 2009). Rather than interrupt these historical injustices, atmospheric enclosure will further entrench segregated urban ecologies: policing the b/orders between lives that are valued and abandoned by the state (see Gidwani and Reddy 2011).

Drones could therefore materialize a totalitarianism of the skies: an *everywhere atmospheric war*, or "air power as the *everywhere police*–in which the exercise of violence is an ever-present possibility" (Neocleous 2014:162). In addition to police quadcopters deployed for surveillance, French company Aero Surveillance, for example, is developing the AS-150 drone, which can deliver canisters of tear gas, or smoke grenades for "crowd control". Here, the logic of the urban battlesphere is to occupy—and *target*—the city with deterritorialized technics. "Atmospheres of terror", write Feigenbaum and Kanngieser (2015:83), "are built through the escalation of military governance into the air in which everyday life is enveloped". It is thus vital to consider how urban battlespheres will materialize bubbles of psychic fear, dread, and terror, "the affective trepidation potentially invoked in a near future with ubiquitous unmanned policing" (Wall 2013:48–49).

Figure 6: Police use tear gas during Ferguson, Missouri protests in August 2014 (source: Wikimedia Commons, https://commons.wikimedia.org/wiki/File: Ferguson_Day_6,_Picture_44.png). [Colour figure can be viewed at wileyonlinelibrary.com]

Yet with its relatively low cost, ease of use, remote control, and increased autonomy, the drone *disrupts* the power geometries of existing urban (in)security. As Ole Jensen (2016:67) writes, the "problem of regulating the 'drone city' is probably going to be the key issue here since a city swarmed with privately operated drones seems like a scenario of little attractiveness". In addition to dronified forms of state violence (Shaw and Akhter 2014), the drone is *itself* becoming an object of state anxiety, since it radically democratizes the conditions for "atmoterrorism" (Sloterdijk 2009). Drones allow human-beings as tool-beings to *access* remote atmospheres and bypass the terrestrial obstacles of a walled or horizontal urbanism. A slew of 2016 news reports detailed plots by the so-called Islamic State to attack western cities with "dirty drones" packed with nuclear material. In response to these type of threats, a number of drone countermeasures are being developed: radio jammers, spoofing technologies, surface to air missiles (and lasers), and even drone-on-drone policing. These demonstrate how "thick" and "deep" future anti-drone systems will be entrenched in the city, as "security starts to become an enveloping, overlapping, and immersive world, as it tries hard to encounter, grasp, and capture those worlds" (Adey 2014:835).

The drone holds the potential for chaotic, fragmented, and emergent battlespheres that both challenge and police a capsularized world caught in the throes of a mounting war of all against all. Unlike the medium-altitude Predators and Reapers, the future of drone (in) security lies with swarms of small drones that can cooperate together. These micro-drones, unlike police helicopters prowling high above city skylines, can pass seamlessly between the urban Y and X axes, descending from remote clouds into the corridors of an exposed metropolis. As

Jensen (2016:71) writes, "[w]ith the advent of drones, the voids and volumes in-between the buildings become subject of a new spatial imagination". In other words, the future policing of the urban atmosphere, "is not simply a detached aerial view of an entire city ... but also the ability to intervene on a local level" (Wall 2013:43). By local, we can here imagine police drones monitoring, and intervening, within the intimate urban ecologies of everyday life.

This desire to immunize hyper-individualized spaces has materialized artificial—yet disarticulated—bubbles of urban security. Sloterdijk uses the metaphor of "foam" to describe these co-isolated spaces of human habitat, the "rather amorphous structures that correspond to the populated landscapes of our area, and especially to the urban conglomerates that are like veritable foams composed of individualistic cells" (2005:236). Accordingly, instead of a single urban battlesphere—a totalitarian world orb—consider a restless foam of battlespheres that striates the drone city into hyper-secured bubbles of surveillance. Atmospheric enclosure is likely to be materialized through these emergent *battlefoams*: swarms of police drones zipping through the canyons and peaks of the city. The everywhere atmospheric war is "a universalized war of foams" (Sloterdijk 2011:71).

Since 2009, the US National Institute of Justice has made millions of dollars available in grants for extending predictive policing across the US (Stroud 2014). One piece of software, *PredPol*, geolocates a crime "hotspot" measuring 500 feet by 500 feet, which then guides police officers at the start of their shift. But is it so hard to imagine that in the future it will be swarms of police bots that autonomously occupy these hotspots? Imagine "swarms of half-manufactured, half-organic cyborgian insects; myriads of robotic devices spread generously through the 'urban battlespace' which use computer code linked to vast databases to automatically define and even destroy targets'" (Graham and Hewitt 2013:86). This represents a self-generating, spontaneous and autonomous mode of drone policing. At its most draconian stage, this system becomes an apparatus of robotic terror, as the living is policed entirely by the nonliving. Such a brave new drone world may, of course, fail to materialize. Yet as Harvey (2014:264) insists, "[a]nyone who does not see elements of such a dystopian world already in place around us is deceiving herself or himself most cruelly".

Immunizing the Atmosphere

This paper has explored the economic, political, and existential logics of atmospheric enclosure. The historical enclosure of the English commons was a geopower that engineered the enclosed landscapes of the capitalist world interior. Atmospheric enclosure uplifts these surficial divisions to a contested skyscape, compounding late modernity's process of atmospheric explication (Sloterdijk 2009:23). Accordingly, this paper has advanced "a notion of enclosure that encompasses a complex set of sometimes overlapping, sometimes distinct set of *spatialities* of inclusion and exclusion, *modes of subjectification*, and *technologies of power*" (Vasudevan et al. 2008:1645). With drones in particular, the anthropotechnics of humanity collapse the geopolitical and geoeconomic in

uncertain robotics orbits. Crucially, this discloses a new morphology and ontology of atmospheric (in)security. An object-oriented approach to atmospheric enclosure thus describes how the volumes of our co-being are reconfigured by (security) prostheses.

The 20th century saw the atmosphere become a medium of capital: the *installation of an airport earth*. Sloterdijk (2013:46) argues that the primary fact of the modern age was not that the earth rotates around the sun, but that money circulates around the earth. We can now add another primary fact: that drones circulate the planet in increasingly dense orbits. Under this planetary prostheticization, the drone is driving new morphologies of capital. Humanity is disclosed not only as a creature of gravity, but an atmospheric species suspended in gaseous and electromagnetic milieus. And as the sky is continually opened for profit, it discloses novel regimes of (in)security: from the corporatization of the vertical to unprecedented opportunities for state surveillance. The twin poles of enclosure—ontological insecurity and artificial security—provide the existential foundations for capital. Atmospheric enclosure thus embodies the desire to secure the transcendental worldliness for a dronified form of capital, "a general police power engaged permanently in the reproduction of order" (Neocleous 2014:189). Atmospheric enclosure crystallizes capital's fantasy of securing everything, and pacifying everyone.

Accordingly, the goal of the atmospheric state is not to sustain existential solidarity, but to immunize space. Immunity can be defined as the biopolitical power to preserve life: the construction of artificial enclosures (Esposito 2008:55; Sloterdijk 2013). A biopolitics of immunity "is itself a *spacing* and a form of enclosure where immunity functions to segregate life from that which threatens its perpetuation and its potency" (Jeffrey et al. 2012:1260). Or as Hodkinson (2012:506) writes, "enclosure in all its multiple senses (privatisation, physical fortressing and control, displacement, exclusion, etc.) is the principal method by which city space can be *purified*". The atmospheric state's desire to immunize against dangerous circulations, which now includes aerial prostheses, is enclosing ever smaller bubbles of urban space. Marauding swarms of police drones, fleets of overhead Amazon delivery bots, and flocks of private security drones are set to multiply the interfaces between state, capital, and sense. Biopolitical immunity must, therefore, target and occupy a foam of micro-airspaces in a newly disclosed drone city. Within the seemingly mundane orbits of the drone we must see a political—and existential —economy at work.

A rising atmospheric state is collapsing the geoeconomic and the geopolitical within the battlespheres of a dronified planetary urbanism. Millions of urbanites already exist within hyper-secured bubbles of cohabitation, in a state of constant electronic synthesis: "the irreversible transformation of political security collectives into groups with individualistic immune designs" (Sloterdijk 2013:153). Swarm policing is one response to these disarticulated foam worlds: it targets co-isolated subjects, enforcing an intimate and pervasive spheric pacification. This mode of existence is propelling us towards an atmospheric regime of autonomous state power, where the living is immunized almost entirely by the nonliving. The atmosphere, in short, is becoming an increasingly complex frontier of enclosure, an

immersive homeland security. For centuries, capital battled to absorb spaces beyond its world interior. Now, it is erecting a giant robotic canopy for humanity to dwell beneath. Assassination by Predators, the slow creep of drone policing, and the commercialization of the sky all spiral back to a tragedy long entombed in the soil: the great war of enclosure.

Acknowledgements

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