On December 2, 2015, San Francisco police officers shot and killed 26-year old Mario Woods in the city’s Bayview Hunters Point neighborhood. Woods was African American and carrying a kitchen knife; his body was ultimately riddled by 20 bullets. His death should be understood as an effect of the systematic vulnerability of black lives in the U.S., part of the lived, embodied experience of racism which the Black Lives Matter movement powerfully critiques. “Black Lives Matter is an ideological and political intervention in a world where Black lives are systematically and intentionally targeted for demise,” write the movement’s organizers on its website. “It is an affirmation of Black folks’ contributions to this society, our humanity, and our resilience in the face of deadly oppression.” These words speak to geographer Ruth Wilson Gilmore’s study of the prison-building boom in California, and her definition of racism as “the state-sanctioned and extralegal exposure of group-differentiated vulnerability to premature death.” We suggest in this paper that the Black Lives Matter movement addresses racism in the U.S. as an embodied experience of structural, environmental insecurity. We explore this embodied insecurity through the everyday act of breathing and, specifically, the conditions through which breath is constricted or denied.

A significant literature has explored the contradictions of “security,” and in particular how discourses and practices of “national security,” “homeland security,” and other contemporary key terms render some people radically insecure. This literature focuses on the recent expansion of state surveillance and other forms of police power in everyday spaces in the U.S. and other Western democracies, through what some call “an emerging geography of securitization in everyday life.” The domestic use of drones, tanks, and other military weapons in U.S. cities, and new forms of biometric identification and surveillance (and “dataveillance”) technologies are examples of domestic policing practices that create internal borders.
and war-like relations within the nation-state. As urban theorist Steven Graham demonstrates, a history of racial violence frames many of these security practices. For example, features of the "new military urbanism" were developed as colonial technologies or used in recent wars in Iraq and Afghanistan, and now are deployed in the metropoles. He writes that homeland security practices "designate communities as dangerous and risky, delineate safe zones from targeted bodies, invoke the pre-emptive strike on city streets." In other words, state security practices also produce landscapes of insecurity.

And yet, the lived experience of the "city as a battlespace" precedes the contemporary, so-called "war on terror." Take a police raid in Los Angeles in 1985 in which an armored vehicle and motorized battering ram was used to knock open the front room of a supposed drug house. What the police found after knocking down the front wall of the house were three children and two women; a male resident, not home at the time, was later arrested under suspicion of selling cocaine. The local NAACP chapter protested the armored car and battering ram by stating, "We don't need new weapons to be tried out on us." An ACLU lawyer commented that "these weapons may be appropriate for a battlefield, but not to serve an arrest warrant." Mike Davis has written about the militarization of Los Angeles in the 1980s through the "Manichaean treatment of space," considering the rise of gated suburbs with private security forces and the increased use of SWAT teams in South Central Los Angeles as two sides of the same coin.

This family's experience can also be approached through what Katherine McKittrick calls "black geographies." Through this concept—as an analytical framework and historical method—McKittrick refers to the ways black subjects and black lives are displaced or absented in both material and imaginative space. Black lives become displaced—rendered insecure—through physical and social marginalization (such as incarceration or gentrification); through the naturalization of black bodies in some spaces and not others (some people are "out of place" while others belong); and through the erasure of black knowledge and experience from scholarly disciplines. McKittrick notes that black writers have historically used spatial categories as a way of challenging dominant narratives and asserting the agency and specific geographies of black subjects. Think, for example, of "the middle passage," "the underground railroad," bell hooks's "margin" and "homeplace," or Paul Gilroy's "the Black Atlantic." Importantly, these spatial categories do not simply mark sites of dispossession; they are not simply critiques of power. They also point us to other ways of knowing, to sites of potentiality and to other world-making practices. For McKittrick, the concept of black geographies is also an affirmation of a different sense of place—of resistance and social struggle, and of creative expression. Black geographies are thus meaningful sites through which to imagine more just and humane worlds.

McKittrick develops the concept of black geographies, in part, through Frantz Fanon's writings. Here we turn to Fanon, and specifically to Fanon's geographies, as a bridge between McKittrick's work and our assertion of breath as an important spatiality through which to critique contemporary relations of power and to imagine a better world. In reading Fanon as a geographer, we turn first to The Wretched of the Earth, to the passage in which Fanon
describes the Manichaean segregation of colonial space. He writes, "the colonist’s sector is a sector built to last, all stone and steel." The colonized sector, on the other hand, is "a world with no space, people are piled up on top of each other, the shacks squeezed tightly together."\(^{15}\) In the segregated city Fanon describes, it is difficult to breathe. We note significant differences between the colonized cities that Fanon concerned himself with and segregated cities within the U.S. However, this passage speaks to the mutual constitution of urban environments, social difference, and embodiment – including health outcomes and forms of violence.

In *Black Skin, White Masks*, Fanon deepens our understanding of racism as an embodied experience. He explores the lived experience of blackness in large part through a psychoanalytic framework, yet his description of the experience of objectification also conveys a sense of physical violence, particularly in the chapter, "The Fact of Blackness."\(^{16}\) This violence is evident in the feeling of being "fixed" and confined by the white gaze and by colonial categories and in the repeated theme of amputation. We find Fanon’s writing on the embodied, often violent experience of antiblackness relevant for thinking about the physical insecurities of Mario Woods and others on U.S. city streets.

Thinking about racism as a lived, embodied experience also opens connections with the environmental justice movement, which has challenged racialized exposures to industrial pollution and consequent health inequalities. Environmental justice research originated in the United States in response to racial justice movements which sought to remediate elevated conditions of pollution exposure and its negative health effects. The research spans a number of interdisciplinary locations (including sociology, public health and legal studies) and is increasingly a global phenomenon, with significant overlaps with climate justice.\(^{17}\)

In the following two sections, we bring environmental justice literature in conversation with critiques of anti-black police violence, as a way of understanding the multiple ways that racism becomes embodied in the US today. We write in conversation with McKittrick and Fanon in order to tell a different or alternative genealogy of security and insecurity through the lived experience of blackness in the US. In solidarity with the Black Lives Matter movement, we focus on breath and breathing—that essential act of life which is often constrained or denied to people of color. If "breathing spaces"\(^{18}\) in the US today are racialized geographies, we believe they are also key sites through which to explore alternative, more just worlds.

**Toxic Ecologies in Bayview Hunters Point**

A short walk from the site of Mario Woods's killing in San Francisco is the Hunters Point Naval Shipyard. Jutting out from the southeastern corner of the city, the shipyard is a Superfund site and is today undergoing environmental remediation for a subterranean stew of the toxic byproducts of militarization, including heavy metals, volatile and semi-volatile organic compounds, pesticides, PCBs, petroleum, and asbestos.\(^{19}\) It is also the site of a former naval radiation laboratory, which operated between 1946-1969 and was connected with nuclear weapons tests at the Marshall Islands and the desert lands of the US southwest. The lab left radioactive waste in buildings and in the ground, including cesium-137, radium-226, and cobalt-60.\(^{20}\)
The Bayview Hunters Point neighborhood, which surrounds the Hunters Point Naval Shipyard, is a mixed industrial and residential place. Historically one of San Francisco’s African American neighborhoods (a legacy of postwar racial segregation), it is a key site of the city’s civil rights and environmental justice movements. Today, Bayview Hunters Point is racially diverse, a population that is (according to U.S. census categories) composed predominantly of African Americans, Asian Pacific Islanders, and Latinos. It is one of the poorest neighborhoods in San Francisco: 18% of the population lives at or below the poverty line, while the unemployment rate in Bayview Hunters Point is 14%, twice the average for San Francisco as a whole. In addition to the naval shipyard, Bayview Hunters Point has housed San Francisco’s heavy and noxious industries since the late 19th century and currently contains one-third of the toxic brownfield sites in the city, including underground leaking fuel tanks and the remains of chemical and metals manufacturers, along with many current hazardous waste-producing industries, the city’s sewage treatment plant, and a large waste transfer station. Until recently, an oil-fired power plant operated near the shipyard, sending emissions of nitrogen dioxide, carbon monoxide, sulfur dioxide, and volatile organic compounds into the atmospheric space of several public housing developments nearby. As one woman testified in a letter to the city attorney in 1995, as part of an environmental justice campaign:

“The air pollution in Hunter’s Point is so bad I can’t hang my laundry outside. I’ve tried and it gets so filthy that I have to wash it again... I have breast cancer... How many girls who go to school across the street... from me will grow up and become victims of breast cancer because of the filthy air they breathe? If filth sticks to my sheets as they dry in the “fresh” air, think about the filth that adheres to the lungs. I can wash my sheets but I can’t wash my lungs.”

Her words speak to a feeling of environmental insecurity, of how the involuntary but necessary act of breathing—of life—renders her vulnerable to premature death. Anthropologist Tim Choy writes about the “many means, practices, experiences, weather events, and economic relations that co-implicate us at different points as ‘breathers.’” In addition to poor indoor quality from substandard housing stock (an effect of the city’s informal policy of “deferred maintenance,” rather than individual behavior), Bayview Hunters Point residents breathe in diesel particulates from nearby freeways, trains, idling trucks, and emissions from the sewage treatment plant. The asthma hospitalization rate for Bayview Hunters Point residents is four times that of the San Francisco average, leading local medical researchers to call it an “asthma epidemic.” In Bayview Hunters Point, the act of breathing is inseparable from histories of racism, urban planning, and industrial and military waste.

In August 2000, an underground fire at the toxic Hunters Point Naval Shipyard added a new, material complexity to the atmosphere, particularly for residents of public housing developments near the old military base. The fire, which burned for nearly a month, emanated from the site of the shipyard’s landfills, which contain asbestos, industrial chemicals, and radioactive waste. Residents of the public housing developments reported respiratory problems—the military’s waste constricted their breathing—as they watched the fire’s occasional but eerie, yellowy-green smoke climb into the air, near their homes. Based on air sampling data...
collected two weeks after the fire, the California Agency for Toxic Substances and Disease Registry (ATSDR) concluded that Bayview Hunters Point residents would only have experienced (what they called) "short term" health effects, such as "burning, itchy or watery eyes and sinuses, headache, nausea, breathing difficulty and asthma-like symptoms." Against the ATSDR’s conclusion that the fire was an inconsequential event, many Bayview Hunters Point residents connected this experience of physical vulnerability with a long history of environmental injustice and racism in the city. We also note that the fire and its aftermath made the often invisible relations of breathing visible, as it became a site through which Bayview Hunters Point residents challenged the U.S. Navy's neglect of the shipyard's environmental hazards, and the ways the residents have been left vulnerable to its toxic effects.

I Can't Breathe: From Metaphor to Materiality and Back Again

When Eric Garner was murdered by N.Y.C. police officers on a "quality-of-life" offense of selling loose cigarettes and put in an illegal chokehold, he pleaded thus with the officers: "I can't breathe." Garner, who suffered from asthma, repeated "I can't breathe" eleven times. The violent encounter represented one of the worst instances of the abuse of police power, the only new element being that it was caught on cellphone video and widely disseminated. The mantra "I can't breathe" became—and remains—a common chant in the Black Lives Matter and anti-police brutality movements. It became a meme, worn on T-shirts by high profile black athletes (LeBron James and Kobe Bryant), supported by entertainers like Jay-Z and even President Obama. The phrase "I can't breathe" encapsulates a broader critique of police violence and it also resonates with an environmental justice and public health standpoint. As we demonstrate in this paper, the history of how and why "I can't breathe" emerged as a critique of the state-sanctioned insecurity of African Americans in the US is part of the same history of racial health disparities critiqued by the environmental justice movement. Here, we focus on asthma.

Garner’s asthma is distressingly common for black communities. According to recent federal health data, African Americans were 20 percent more likely to have asthma than non-Hispanic whites in 2012; African American children had asthma death rates 7 times that of non-Hispanic white children. Asthma is a complicated disease and has become a signature environmental health issue for urban communities of color. These communities throughout the U.S. face elevated exposure to pollution, especially air pollution. This, in turn, is an outcome of the history of urban renewal in the U.S., through which federal highway policy, the active destruction and forced removal of working class and black communities (often by highway building, which leads to air pollution), produced a racially-structured metropolitan space. In 1961, the U.S. Commission on Civil Rights referred to these distinct patterns of racial segregation in postwar cities as a "white noose" around the inner city, another powerful metaphor that references both lynching as a historical racialized practice and the metaphor of racism as figuratively constricting an entire community around the neck.

Asthma remains a central concern of contemporary environmental justice activism. In New York City, racial disparities saturate occurrences of asthma. Child asthma rates reach 25 percent in some communities of color, four times the average rate across the city.
contributes to overall levels of poor health, high stress, and premature death for many. Low-income women of color in particular are often blamed for these rates, due to individual prenatal exposures or what is deemed poor housekeeping, that some say lead to asthma. In response, environmental justice activists in New York have pushed back at public rallies and in campaign documents by emphasizing the environmental factors at play in the disease.\textsuperscript{33} Drawing on their critiques, we think about asthma as a specific embodiment of racial and gender inequalities in the US.\textsuperscript{34}

Asthma is an individualized and group disease where racial disparities remain stubbornly high, and through which lives and life chances are heavily constrained. Asthma is shaped by factors—political, racial and technological—that are both external and internal to bodies, and that hit racialized communities particularly hard. Breath, and the racialized difficulties of breathing, are therefore both real in the sense of the Eric Garner’s asthma and an effective symbol of neglect. News accounts reported that Garner’s asthma, as he lay on the ground, was ignored by the medical first responders, who thought he was “faking it.” At the same time, prosecutors in the Grand Jury trial settled on his asthma as one of the main factors in his death.\textsuperscript{35} In addition to asthma, Garner suffered from hypertension and diabetes, other environmentally-related illnesses common in low-income communities of color.

Although the City medical examiner ruled Garner’s death a homicide, the officer who put Garner in the chokehold was not prosecuted. Garner’s asthma, hypertension, diabetes, and obesity were all listed as factors that contributed to his death. We pause here to note that Garner’s body was already vulnerable to police violence, in part, because of these pre-existing health and environmental conditions. And yet, although these chronic illnesses were recognized as contributions to his premature death, they were understood as an individual rather than a social problem, that is, as an embodiment of race and racial residential segregation in the U.S.

Moreover, the physical chokehold on Garner—the direct, overt violence by the police—was not recognized as a factor in his premature death. In a sense, then, the state criminalized Garner’s own body: his chronic illnesses and his socially-produced difficulties in breathing became the causes of his death. We find this criminalization of embodiment similar to the ways Michael Brown’s body, in Ferguson, Missouri, was described as a “demon” and like “Hulk Hogan” by the police officer who killed him—racist stereotypes that deprived Brown of his humanity. Whereas Brown’s body was too dangerous, Garner’s body was too sick (though the officer also feared him as large and menacing). In other words, the state individualized and blamed them for their own deaths, rather than situating them within a broader political geography of race and racism in the US.

In the renewed attention to police violence in the context of Black Lives Matter, mainstream accounts of air pollution and its differential exposures have refocused attention to this classic environmental justice concern. For example, an article in the Washington Post was titled, “The racial divide in America is this elemental: Blacks and whites actually breathe different air.”\textsuperscript{36} Charles Blow, the New York Times op-ed columnist, wrote about a problem of environmental contamination and environmental racism in his Louisiana hometown entitled,
“Inequality in the Air We Breathe.”37 He writes at the end of this piece: “Of all the measures of equality we deserve, the right to feel assured and safe when you draw a breath should be paramount.”

In this vein, we interpret the phrase “I can’t breathe” as condensing the histories of persistent patterns of pollution and police violence, both which have denied breath and healthy breathing spaces to low-income communities of color. In this sense, the inability to breathe can be understood as both a metaphor and material reality of racism, which constrains not just life choices and opportunities, but the environmental conditions of life itself.

Conclusion
African American poet Langston Hughes’s 1938 poem “Kids who die,” published in a Communist-backed pamphlet, gained renewed attention in 2015 when an activist group released a YouTube video with actor Danny Glover’s reading of it over images of Ferguson and protests of police brutality.38 Shared widely as an eerily prescient statement on our contemporary moment, the poem begins:

This is for the kids who die,  
Black and white,  
For kids will die certainly,  
The old and rich will live on awhile,  
As always,  
Eating blood and gold,  
Letting kids die.

That very same year, Hughes published “Let America be America Again.” This poem is quite long and many others have written on it. Here, we want to end by focusing on his imagery of breath in the third stanza:

O, let my land be a land where Liberty  
Is crowned with no false patriotic wreath,  
But opportunity is real, and life is free,  
Equality is in the air we breathe.  
(There’s never been equality for me,  
Nor freedom in the “homeland of the free.”)

In this poem, “the air we breathe” symbolizes the promise of equality. In our contemporary moment, it also reflects the reality of racial difference and the state of unfreedom. Supreme Court Justice Sonia Sotomayor referred to the breath as a marker of racial difference in her recent dissenting opinion in Utah vs. Strieff (2016): “We must not pretend that the countless people who are routinely targeted by police are ‘isolated.’ They are canaries in the coal mine whose deaths, civil and literal, warn us that no one can breathe in this atmosphere.”39

Similarly, we suggest that the phrase “I can’t breathe” points to the embodied insecurities of black lives, but also simultaneously asserts the humanity of a population to which
human-ness—and life—has been historically denied. In this sense, the act of breathing is an intimate geography that points to multiple forms of racism as well as creative forms of resistance.

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**NOTES**

1 The full quote, "It is not because the Indo-Chinese has discovered a culture of his own that he is in revolt. It is because 'quite simply' it was, in more than one way, becoming impossible for him to breathe," is from the concluding chapter of *Black Skin, White Masks* (1952). Fanon is referring to the rebellion against French colonialism in Southeast Asia. The decolonial connections between Fanon's original words and how they have circulated on the streets of U.S. cities is important, but beyond the scope of our paper.

2 See http://blacklivesmatter.com


10 Ibid.
Following McKittrick, sociologist Simone Browne intervenes in surveillance studies by locating blackness "as a key site through which surveillance is practiced, narrated, and enacted." Through her readings of the diagram of a slave ship, of branding irons as biometric identifiers, and other tracking technologies of transatlantic slavery, Browne writes an alternative genealogy of surveillance through an archive of black geographies. As she puts it, "rather than seeing surveillance as something inaugurated by new technologies, such as automated facial recognition or unmanned autonomous vehicles (or drones), to see it as ongoing is to insist that we factor in how racism and antiblackness undergird and sustain the intersecting surveillances of our present order." Browne's concept of "dark matter" refers to the ways racism structures contemporary surveillance practices in ways that have gone unrecognized within surveillance studies.

14 Fanon, Frantz. The Wretched of the Earth (New York: Grove Press, 2014), 4.


18 "Hunters Point Naval Shipyard" (US Environmental Protection Agency), no date, retrievable at http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/vwsoalphabetic/Hunters + Point + Naval + Shipyard?OpenDocument


25 Kioc, Ken. "Air Pollution & Environmental Inequity in the San Francisco Bay Area." (Golden Gate University of Law, Center on Urban Environmental Law, 2011); “Community Health Status Assessment” (San Francisco Healthy Homes Project), no date, retrievable at http://sfenvironment.org/sites/default/files/fliers/files/sfe_ej_sfhh_community_health_status_assessment.pdf.


28 “Health Consultation”


38 Christopher Mathias, The Huffington Post, August 10, 2015. Listen To The 1930s Poem That Is The Perfect #BlackLivesMatter Tribute, retrievable at http://www.huffingtonpost.com/entry/langston-hughes-black-lives-matter_us_55c3875ee4b0f1cbf1e3f720

39 Here Sotomayor cites The Miner’s Canary: Enlisting Race, Resisting Power, Transforming Democracy (2002), by Lani Gunier and Gerald Torres. In this book, Gunier and Torres describe race as a canary in the coal mine – that which indicates a broader, more systemic problem. They write, “Those who are racially
marginalized are like the miner's canary: their distress is the first sign of a danger that threatens us all" (11).
The danger they refer to is the threat to justice and the democratic process. Importantly, as they also note, canaries worked as indications of a larger threat because they were suffocated by noxious gases in the mine and died. The last lines of Sotomayor's dissent reads, “They are the ones who recognize that unlawful police stops corrode all our civil liberties and threaten all our lives. Until their voices matter too, our justice system will continue to be anything but.”