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## ORIGINAL ARTICLE

# Prosthetic species: Security dogs and the more-than-human sensing of urban danger

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**Abstract**

Focusing on human–dog relations, this article develops a more-than-human approach to the sensing of urban insecurity. Extending work on the embodied, sensory dimension of fear and other security affects, it centers the role of non-human, canine bodies in processes of risk assessment. Drawing on research in Kingston, Jamaica, I explore how a range of city dwellers learn to sense danger with and through security dogs. How do those who live and work in the city construct and experience its threats through attunement to their dogs' olfactory, auditory, and visual acuity? And how does this interspecies sensing of urban danger co-produce distributions of urban safety and precarity? In this context, I suggest, dogs are not only a companion species but also a “prosthetic species,” animals that enhance and extend the limits of the human senses, enabling a more-than-human knowledge of what threats look, sound, and smell like. I discuss such practices of interspecies sensing and their effects, concentrating on the identification of criminal, political, and spiritual forms of danger. Together, such instances of interspecies sensing can provide new insights into the everyday perception, construction, and negotiation of fearful cityscapes.

**KEYWORDS**

animals, crime, fear, insecurity, sensory urbanism

**INTRODUCTION**

As I reached Marlene's residence, in a leafy suburb of the Jamaican capital of Kingston, she buzzed open the electronic gate for me to drive up to the house. She came to the door to welcome me, clad in a silky pink blouse and white lace shorts with her long wavy hair falling down her shoulders. Greeting me with a hug, she led me into an airy open living room with contemporary art decorating the walls. Both Marlene and her home could have walked straight out of the pages of a Caribbean lifestyle magazine. Her dog Pepper, a Jack Russell mix, rushed up to sniff me, but soon decided I was of little interest. We cozied up on her large white couch under the ceiling fan, as I told her more about my research on urban security. I asked her what

forms of security she relied on to protect her home in a city like Kingston, with its high rates of violent crime and fear. She curled up, twisting her hair into a bun as she began to tick off the security features of her current home:

So ... We've got a video camera at the front so that you can see what's happening at the front of the house. ... We have razor wire. We have high fences. We had four dogs, five dogs at one point. The alarm system. You know we have the panic button, we have burglar bars everywhere. We almost always have had some kind of live-in guard or live-in help, so there is always somebody around.<sup>1</sup>

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Her partner, she continued, was a licensed firearm owner, and his weapon could also be considered part of their security apparatus. In addition, her car had a panic button that she could press when she reached her home. She used to walk with it as she crossed the short distance between her vehicle and the front door, so that she could summon the armed response unit of the security company protecting her house, should there be an intruder hiding in the yard. However, she never used that anymore:

Because I know that, once I come in, the dogs will alert me. Because I know that, if there is something, I will be reliant on their assessment. So if I were to come home and hear barking, then I'd know something was wrong, and I might not come out of the custody of the car. Or I might back my car right back out and just ride on. So to that extent, they replace the need for that button.

As a wealthy “Uptown” Kingston resident, Marlene relied on a broad range of human and non-human forms of security: gates and burglar bars, fences with razor wire, video cameras, an alarm system with panic buttons and a laser sensor monitoring all access points that would summon armed security guards, her partner, and his personal firearm. And her dogs.

In the course of researching the privatization and pluralization of security in Kingston, where high rates of crime and widespread fear have made private security a booming industry, I had become interested in understanding the role of non-human entities, from weapons to digital technologies. As recent scholarship on urban security and policing has begun to show, how we recognize danger is often mediated by a range of security technologies. This process of identifying and deterring threats often results in uneven relations of protection and endangerment, as specific security “objects” privilege the protection of some groups, while neglecting or aggravating the vulnerability of others. In particular, critical analyses of digital policing technologies have emphasized how supposedly neutral sensors and algorithms produce images of urban threats in ways that reproduce existing racialized inequalities (e.g., Brayne, 2020; Colona, 2020; Frossard, 2021; Jefferson, 2020). But where do sentient creatures, such as *dogs*, fit in our understandings of how danger is sensed? And what are the sociopolitical effects of residents such as Marlene relying on the assessment of their dogs as they navigate dangerous cityscapes?

Focusing on human–dog relations, this article develops a more-than-human approach to the sensing of urban insecurity. Extending work on the embodied, sensory dimension of fear and other security affects, I explore the role of non-human, canine bodies in processes of risk assessment. Connecting to the focus of this special issue, I understand the canine-mediated sensing of urban danger as resulting from processes of multidirectional sensory enskilment. Living and working with companion species such as dogs, I emphasize, can enable two-way sensory learning. In the context of the focus on urban insecurity, I am specifically interested in how humans and dogs learn

together, and from each other, what constitutes a threat. In this context, I suggest, we might understand dogs not only as a companion species but also as a “prosthetic species,” as animals that enhance and extend the limits of the human senses.

This analysis is based on research conducted during a series of fieldwork visits to Kingston from 2013 to 2022. This research broadly sought to explore the practices and imaginations of security provision beyond the state and beyond the human. During initial trips, I concentrated on the collaboration, competition, and overlap between different state and non-state security providers. This involved interviewing a range of actors within government agencies tasked with security provision, from police and military officers to officials within the customs agency and relevant ministries. In addition, I interviewed owners, managers, and guards across Jamaica's many private security companies. I became increasingly interested in the deployment of dogs across these state and non-state agencies, and from 2017 onwards, my visits focused on canine units in private security companies and the military, and on household reliance on dogs for security purposes. In addition to interviews with canine professionals including trainers and handlers and with dog owners in high-income and low-income urban areas, this fieldwork involved spending time with these various individuals and their dogs during training exercises, deployment to guard sites, and everyday care activities.

Drawing on this fieldwork, I explore how a range of city dwellers learn to sense danger with and through security dogs, concentrating specifically on security professionals and residents positioned differently in the urban hierarchy. How do those who live and work in the city construct and experience its threats through attunement to their dogs' olfactory, auditory, and visual acuity? And how does this interspecies sensing of urban danger co-produce and configure distributions of urban safety and precarity? In what follows, I first outline how a sensorial approach to urban insecurity might fruitfully be connected to recent research in human–animal studies. I draw on insights from both fields of scholarship to conceptualize security dogs as a prosthetic species, as animals that enable a more-than-human knowledge of what threats look, sound, and smell like. Following a brief overview of Kingston's dominant imaginaries of danger and difference, the next three sections illustrate such practices of interspecies sensing and their effects, discussing, respectively, how criminal, political, and spiritual forms of danger are identified. Together, such instances of interspecies sensing can provide new insights into the everyday perception, construction, and negotiation of fearful cityscapes.

## SENSING URBAN INSECURITY

In urban contexts with high levels of violent crime, fear plays a large role in residents' experience of the city. Fear of urban violence is mediated through discourse, for instance, through regular news reports of homicides and through the everyday talk of crime (Caldeira, 2000). In addition, recent work has drawn attention to

the *sensorial* registers of security. Affects, such as fear and safety, are embodied experiences that are connected to sensory perception and atmospheric attunement, including the ability to recognize sights, sounds, and even smells that mark a place as dangerous (Frossard, 2021; Ghertner et al., 2020; Robb Larkins, 2023). We come to understand, in both cognitive and precognitive ways, that urban safety and danger have a certain look or feel. Growing up in contexts of political or gang conflict, urban residents learn to perceive when violence is imminent, reading specific aesthetic forms and sensory stimuli as indicators of danger or safety. This may require visual skills, for instance, glancing automatically at a man's waistline or the hang of a teenager's backpack to assess whether they are carrying a weapon. It also involves kinesthetic enskilment (Stasik, 2017), coming to know which bodily movements—whether stealthy or erratic—tend to be followed by bloodshed. In addition, this sensory attunement to urban danger may involve sonic skills: an ability to hear which silences indicate calm, and which indicate that gunfire might be about to erupt, which gunshots indicate celebration or warning and which have a lethal intent (Gilsing, 2020).

Such sensory attunement to danger can be understood as a socially shaped and situated response to the urban environment. As the editors of this special issue underline, feelings of security or insecurity are the result of processes of sensory enskilment. Becoming attuned to the meaning of specific sights, sounds or movements involves a process of learning that is embodied and emplaced, and generally connected to everyday practices. An influential figure in thinking about such processes has been Tim Ingold, whose concept of practical enskilment refers to “the embodiment of capacities of awareness and response by environmentally situated agents” (Ingold, 2000: 5). He emphasizes the entanglement of learning and doing, a process that involves a simultaneous fine-tuning of perception and action—and insists that this process can only be understood in relation to humans' practical engagements with their surroundings (Ingold, 2000: 37). Drawing on this work to develop the notion of skilled vision, Cristina Grasseni (2004) argues for an understanding of vision as “an embodied, skilled, trained sense” that is developed within communities of practice and contributes to the formation of collective identities. She understands the process of achieving skilled vision as an “apprenticeship of the eye” (2004: 42) through which ethnographers can also learn to see anew.

How might we extend such scholarship on skilled perception beyond the human, to also understand the sensing of urban insecurity as an interspecies form of practical enskilment? Here, I am inspired by Stephen Feld's work on acoustemology, a concept that connects sensory and cognitive processes to understand “sounding and listening as a knowing-in-action: a knowing-with and knowing-through the audible” (2015: 12). Feld's approach to sonic knowing understands it as emergent within specific material contexts, akin to Ingold's emphasis on practical engagements with the world. However, his elaboration of acoustemology emphasizes more explicitly that this is a relational, more-than-human epistemological accomplishment, working from “the basic assumption that life is shared

with others-in-relation, with numerous sources of action ... that are variously human, nonhuman, living, nonliving, organic, or technological” (Feld, 2015: 15).<sup>2</sup>

Drawing on this more-than-human approach to sensory enskilment, which can of course be extended beyond sound to other senses, I suggest thinking of our relations with dogs as enabling similar epistemological accomplishments. For my purposes here, I am interested in interspecies ways of sensing and knowing urban danger. When humans and dogs engage together in practices of protection, in the specific context of a specific city, they develop ways of sensing-with. They learn with and through each other, and with a range of security technologies, what danger might look, sound, or smell like.

## Prosthetic species

To understand how humans and dogs learn to sense urban insecurity together, I suggest thinking of dogs as a “prosthetic species” that enhances and extends humans' physical capacities. Where prostheses are sometimes understood as medical devices that replace or repair human limbs or organs, social theorists have challenged this conception of prosthesis as compensating for impairment, or “completing” somehow incomplete bodies. Elizabeth Grosz, for instance, maintains that human bodies (and many animal bodies) are fundamentally prosthetic in their constant use of supplementary objects. Such objects become prosthetic objects “through a kind of incorporation that enables them to function as if they were bodily organs,” a process that involves “an opening up of actions that may not have been possible before, the creation of new bodily behaviors, qualities, or abilities rather than the replacement of or substitute for missing or impaired organs” (2005: 147).<sup>3</sup> Grosz (2005: 152) distinguishes two types of prosthesis:

one which accommodates existing needs, which fits into the body's current and recognized needs and desires; and another which introduces new aesthetic and practical possibilities not yet available, still awaiting prosthetic incorporation, yet to be incorporated into human need ... prostheses both augment and generate, they both confirm an already existing bodily organization and generate new bodily capacities.

In relation to the sensing of insecurity, dogs inhabit this ambiguous role of both confirming existing needs and extending human bodily possibilities in new directions. Dogs act as “sentinel devices,” non-human indicators that allow humans to perceive imminent danger (Keck & Lakoff, 2013): They identify and communicate the presence of threats, while also deterring those same threats. Humans generally rely on visual indicators of threat—we tend to have a conscious or sub-conscious sense of what a threatening person *looks* like, or perhaps *sounds* like should we hear them speak. Dogs, who can see, hear, and smell better than humans, extend our capacities for threat detection

by deploying a broader sensorial range. While their sense of smell is 10,000 to 100,000 times as acute as humans', dogs also have an extra organ humans do not have, the vomeronasal organ, which can identify pheromones. Their phenomenal sense of smell is, of course, why sniffer dogs are so popular in detecting drugs or explosives at airports and harbors. But fearful residents, and security guards protecting more mundane urban properties, also rely on these olfactory powers. Dogs can smell apprehension, anxiety or fear—not only do they smell sweat, but they can also smell adrenaline and sense increased blood-flow. In this sense, their noses work like polygraph machines, alert to suspicious physiological changes that humans cannot detect on their own (Horowitz, 2010: 80).

Yet dogs are evidently not polygraph *machines*, sentinel *devices*, or prosthetic *objects*.<sup>4</sup> As living creatures, dogs are fundamentally different from objects. In contrast to technologies, animals can be understood as knowing, feeling, and caring subjects. Pointing to their cognitive, emotional, and communicative capacities, research in human-animal studies increasingly recognizes animal agency (Holmberg, 2015; Pearson, 2013). Animals, such studies demonstrate, play an active role in creating meaningful relationships with humans and places (Bull et al., 2018; Lorimer et al., 2019; Porter & Gershon, 2018). These are two-way relationships—to accurately interpret dogs' attempts to signal threats, their owners or handlers must engage in long-term embodied learning, become attuned to canine forms of communication and ways of being in the world (Fox et al., 2023).

More than other animals, as Donna Haraway (2003, 2008) underlines in her seminal work on companion species, dogs share an evolutionary “co-history” with humans: an embodied history of becoming together and learning to affect and be affected by each other. Where Haraway (2008: 18) notes that “the discursive tie between the colonized, the enslaved, the noncitizen, and the animal ... is at the heart of racism,” recent scholarship has sought to engage more centrally with the racialization of human-canine co-histories. Such work recognizes the discursive, legal, and physical associations between Black people and animals, that is, the ways that antiblackness, dehumanization, and animalization have been linked throughout modern history (Bennett, 2020; Dayan, 2011). It also highlights the deployment of dogs as forms of (state) violence in the context of colonialism, plantation slavery, and their afterlives, noting in particular the racialized use of police dogs (Boisseron, 2018; Doble, 2020; Parry & Yingling, 2020; Wall, 2016). In addition, however, this scholarship explores the formation of interspecies solidarity within and against these structures of violence, suggesting that the dog might also be read as “as a double agent or quiet insurgent, the dog not as an extension of a human master but an infinitely more complex being, one with a set of desires that are largely unknowable to the human mind” (Bennett, 2020: 15).

In my elaboration of security dogs as a prosthetic species, I foreground this complexity and multiplicity, in which a dog can be an extension of human wants, needs, and sensory capacities—but can also be a loving and beloved companion, and an agentive being with certain unknowable canine desires and generative sensibilities.

These dogs become a prosthetic species, then, when humans incorporate them so that they can function in a similar way to bodily organs, but this incorporation, this sensing-with and sensing-through animals, involves multidirectional interspecies learning in which the outcomes may exceed human systems of control. In the practical context of security, this more-than-human process of sensory enskilling—with dogs learning from humans and vice versa—is not a “flat” pedagogy. The human-canine world of security is one that cannot be separated from violent sociopolitical orders, even as it is also imbued with affective interspecies relations of trust or love, and marked by some measure of canine unknowability.

In the rest of this article, I focus on the case of Kingston to analyze how dogs extend human sensory capacities in identifying danger, exploring how dogs' sensory powers are harnessed to existing human geographies of insecurity, but also how practices of interspecies sensing might exceed such orders. In so doing, I am particularly interested in thinking through the political consequences of protection involving canine prostheses: how does the more-than-human sensing of danger affect distributions of risk across urban spaces and populations? Work on interspecies sociality has tended to focus on the political consequences that this sociality might have for relations between humans and animals and, importantly, for enacting less environmentally damaging ways of being in the world—such scholarship highlights the urgency of developing “convivial” multispecies futures, in and beyond cities (e.g., Hinchliffe & Whatmore, 2006; Houston et al., 2018). In this article, however, I am primarily interested in the consequences of human-dog relationships—and the more-than-human sensing of danger that develops from these relationships—for an *intra-human* urban politics of difference. In what follows, I discuss various instances in which differently situated Kingstonsians sense danger with and through dogs. In parsing these instances, I am interested both in how human-canine sensing develops in the context of urban insecurity, and in how interspecies threat identification reflects, reproduces, or reconfigures established social hierarchies of race, class, and space.

## DANGER AND DIFFERENCE IN KINGSTON

In many urban contexts, residents may not associate dogs primarily with protection. In Kingston, a city suffering from high rates of violent crime, security is a constant concern for the majority of the population, whether they live in high-income gated communities or low-income “ghetto” neighborhoods. Many households both rich and poor keep dogs not so much as pets but as a security measure. In addition, a range of security professionals work with dogs: the police and military, as well as private security companies have specialized canine units. To detect and deter threats, these various households and professionals rely on dogs in combination with a much larger security infrastructure, which includes a range of technologies and objects, from computational risk assessment tools and electronic alarm systems, to machetes, firearms, walls, and barbed wire (see, e.g., McKinson, 2021).

The more-than-human security practices that individuals, households, and professional organizations develop are emplaced within historically shaped urban geographies. In Kingston, urban difference is made and remade through a binary spatial imaginary that maps class and skin color onto urban space, divided roughly into a wealthier Uptown to the northeast and a low-income Downtown toward the southeast. This classed division incorporates a history of racialized segregation: Uptown is associated with an overrepresentation of lighter-skinned middle-class and elite “Brown” Jamaicans, and Downtown with a population considered “Black.” Most violent crime is concentrated in Downtown Kingston, and prevailing discourse on crime frequently incorporates racist and classist explanations.

In Downtown Kingston, a system known as garrison politics has resulted in additional socio-spatial fractures. In the postcolonial period, the country's two main political parties—the Jamaica Labour Party (JLP) and the People's National Party (PNP)—developed clientelist relationships with low-income constituencies in violent defended, electorally homogeneous “garrison communities.” While electoral violence has diminished significantly in recent decades, the long-standing criminal-political entanglements that characterized garrison politics have meant that previously political borders now often mark the boundary between the territories of opposed criminal organizations.<sup>5</sup>

As noted above, the identification of danger is based on learned forms of sensory attunement: residents engage in a constant, often subconscious monitoring of the urban atmosphere to recognize imminent danger. This monitoring involves a skilled, sensorial knowledge of what danger feels like, an education of attention toward specific sounds, sights, and sensations that signal the threat of violence. This sensing, too, is entangled with Kingston's socio-spatial divides (see Jaffe, 2020). In Uptown Kingston, wealthier residents and professional security guards may be mainly attuned to recognize the potentially transgressive presence of classed and racialized “outsiders,” while in low-income areas, residents may be more alert to sensory indicators of gang conflict and unauthorized border-crossing. In addition, threatening spiritual beings may also manifest as threats in ways that cut across classed divides. In the three sections that follows, I discuss how such various threats are sensed through human-canine practices, in which dogs and their humans learn to identify risks through and with each other.

## RECOGNIZING THE “BADMAN”

Situated directly within Kingston's fragmented urban geographies, the city's archetypical security threat is the “badman.” The term is used to refer to violent criminals, gangsters, and gunmen, implicitly or explicitly understood as lower-class Black men from Downtown Kingston. In similarly implicit and explicit ways, this classed, raced, and gendered embodiment of urban crime informs the deployment of security dogs. The specter of the badman can be recognized in different forms of canine security provision—it haunts the practices and discourses not only of Uptown canine professionals and

dog owners, but also those of private security guards whose raced, classed, and gendered positioning is frequently similar to that of the badman.

In working with private security guards, I sought to understand how they saw dogs in relation to some of the risks their jobs involve, specifically potentially dangerous encounters with other humans. Guards working lonely nighttime shifts, protecting isolated industrial compounds or corporate properties on the outskirts of town, felt particularly vulnerable to the possibility of armed robberies. In discussing the risk of violence, various guards and handlers made explicit comparisons between working with firearms and working with dogs. Overall, guards emphasized the distinct capacity dogs had to help them sense urban danger. This came out, for instance, in an interview with Tony, a guard at a company I call Shieldsman. Tony, who had been employed by Shieldsman over a long period of time and had moved up through the ranks to become a technology specialist, explained to me how a dog's sentient skills helped him navigate the security landscape:

The difference between a firearm and a dog: the dog is alert, the gun stay on your waist and it sleep. Without you move it, it don't move. And remember, you might work with the dog and somebody is in the dark; you cannot pick him up but the dog is like: “Somebody ova deh so [over there]”. The dog just focus. Sometimes the person might just walk past the dog, the dog just arouse just like that: “Something is wrong with that person”. Sometimes typically you might see the person walk pass and say: “Cho, go on 'bout you business, you alright,” but the dog always say: “Alright, there is something about that man, something weird”. The dog is like watching him.

Both guards and residents tended to describe dogs as embedded in, but superior to, an extensive range of security objects and technologies. Compared to other security tools, such as firearms, a dog is not inert, it does not sleep when its human does. This example highlights the potential of dogs as prosthetic species, as hyper-sentient extensions that help guards sense threats, especially when their capacity to stay alert is compromised by fatigue. Guards often fall asleep during night work or while doing double shifts, and in this context, a gun can be a liability rather than an asset. Indeed, “badmen” may seek to steal a sleeping guard's gun, as Tony's female colleague Keisha explained: “Sometimes by the time you wake, the gun gone.” Unlike dogs, the inanimate gun remains “asleep” in the face of threats. A frequent comment I heard, echoing Tony's reference to a sleeping gun, was “when you're asleep, your gun sleeps too.” In contrast, security dogs stay alert during the night and will rouse a guard if any threat emerges.

The group of guards spoke positively of digital technology, primarily because of its supposed neutrality. Tony explained that your average guard would be inclined to let someone in through the gate “because him White, him Brown, him does not fit a certain criteria.” Automated access control, using keycards and the like, could

counter guards' propensity to assume that criminals were always darker-skinned Black Jamaicans: "I think that's why we implement electronics, to kind of minimize the amount of human emotions what you put in terms of the decisions what you make. 'Cause, I mean, an access control wouldn't see you as being a White person or a Black, it's just either a valid or a non-valid person."

However, Tony and many other guards rated dogs even more highly than technology. They described dogs as better than neutral, as having not just a heightened sense of smell, but also a heightened sense of morality, attributing dogs with a sixth sense of knowing who is bad, or ill-intentioned. This connects to Marlene's description of the security role of her dogs. Like Marlene, other Uptown residents I spoke to also offered accounts of how, in addition to relying on their dog, they carried a privately licensed firearm on them, traveled in a car with an electronic tracking system, and protected their home with electronic alarm systems, remotely controlled cameras and metal gates and grilles. Unlike technology, though, both wealthy owners and security guards characterized dogs as infallible and incorruptible. Relying on this incorruptibility, guards also allow dogs to teach them new ways of sensing. As Tony pointed out, dogs teach their handlers to not rely solely on visual indicators. A passer-by might appear innocent to a security guard making a visual assessment of the man's skin color or clothing, mobilizing raced and classed ideas of what criminals look like. The guard's dog, however, can use his nose and other senses to recognize non-visual indicators of threat, and tell you "there is something weird about that man." The dog becomes a security prosthetic, extending the guard's capacity to identify danger.

In addition to teaching humans to become attuned to forms of danger that might not register as threats to human eyes, dogs themselves also learn from humans what sounds, sights, or smells are considered dangerous. Through largely unintentional practices, dogs become socialized into human sensory constructions of threat, as I noticed while observing "bite training" at a security company I call ProSec. Young dogs are trained to bite an antagonist at the command of their handler, sinking their teeth into the antagonist's arm and releasing only when commanded to do so. In bite training, the role of the antagonist was played by an ProSec employee wearing a thick bite sleeve to protect his arm against the teeth of the young Rottweilers who were being trained. It struck me that his performance approximated the dominant image of the "badman"—in approaching the dog, the employee walked with an exaggerated swagger, shouting, and cursing loudly. As soon as the training was over, he moved and spoke much more calmly, as did the other guards. With dark-skinned trainers like this employee performing the role of Patois-speaking, swaggering aggressors, the "threat" that the dogs were taught to attack looked, spoke, and moved like stereotypical Downtown Kingston residents. What does it mean for a dog to be taught to bite a man who moves and sounds like the stereotypical raced and classed embodiment of danger? By being trained into established visual, sonic, and kinesthetic differentiations between threatening and vulnerable populations within Kingston, guard dogs themselves are socialized into sensory notions of socio-spatial

difference and danger— notions with roots in Jamaica's long history of colonialism and plantation slavery.

Within the professional context of guarding—this specific community of security practice—dogs may be taught human prejudices as they are trained consciously or unconsciously to recognize locally specific perceptions of threats. Dogs can assume classist and "shadeist" (as well as sexist) dispositions, not because they have a canine ideology of class or racial hierarchy, but because they are socialized into human differentiations of threat. Beyond the formal educational moments during bite training, at the sites where dogs do guard work, repeated exposure and visual "imprinting" reinforce this visual and sonic picture of a threat.

Similar processes of prejudicial imprinting are at work in domestic environments where the guard dog is acquainted with a much smaller patch of the urban landscape. Lorraine, a wealthier dog professional who lived in a hilly peri-urban area and who would generally be considered "Brown," stressed this without prompting. "I've always told people, I've had one or two dogs in my life, wonderful home pets but they're color prejudiced. And they were like, 'Why is that? That's because you made them that!' And I'm like, 'No. How many people do you see trying to climb my walls and steal off my mango tree?'" Because her dogs only witnessed darker-skinned—Black, not Brown—intruders, she suggested, it was only natural that they came to be prejudiced against this group of Jamaicans. This was how just visual imprinting worked: "They see a certain type of person. It may even be certain types of smells, looks, maybe it's [dread]locks, etcetera, it doesn't matter. If it were blonde, blue eyes, it wouldn't matter." But it is rarely the small, generally elite minority of blonde, blue-eyed Jamaicans who are profiled by dogs—here, too, Black Jamaican men were those subject to canine suspicion. Regardless of Lorraine's intentions—I had no reason to think she had actively sought to instill color prejudice in her dogs—her positioning within Kingston's patterns of class and color segregation meant that the dogs in her household were more likely to encounter Black men as thieves than as houseguests.

As prosthetic species, dogs are both attuned to human needs and extend their capacity for sensory perception. They extend their humans' capacity to sense criminal intruders—to hear, smell, or see them before their owners do. However, in a close human-dog relationship, dogs will be disposed to identify those people that their human trusts as trustworthy, and to associate those people their human distrusts with "suspicious" looks, sounds, or smells. The visual imprinting and other forms of socialization that dogs are exposed to means their canine sensory capacities become attuned to human constructions of transgressive behavior and bodies. As the racialized nature of these constructions in Kingston suggests, dogs' functioning as a prosthetic species is not universal, but shaped by distinct historical contexts. As other scholars have noted, Kingston's geographies of segregation and dominant understandings of crime and violence need to be understood in the context of the Jamaica's colonial history of plantation slavery and post-emancipation institutionalized racism (Carnegie, 2014; Thomas, 2019). While a historical analysis of canine policing in

Jamaica is beyond the scope of this paper, it is likely that dogs' present-day entanglement with racial profiling—at work across professional and domestic forms of canine security provision—similarly echoes the racialized co-history of dogs and humans in a society rooted in plantation slavery.

## SENSING POLITICAL THREAT

While the human-canine identification of criminal threats described above is largely disadvantageous for low-income, Black Jamaicans, other dogs have been socialized differently, precisely to protect these Kingstonians from people *they* consider to be dangerous. Dogs' sensory capacities have been shaped not only by the city's classed and raced hierarchies; they also learn to identify and communicate danger along lines of conflict and political antagonism. In such contexts, they channel existing prejudices and direct security in the directions of certain persons and spaces rather than others.

I sat in the front of a dog truck belonging to Protex, another security company, squeezed between Sean, the dog handler, and Everton, the driver. Seeking to beat rush hour traffic as dusk fell, Everton steered the truck through the streets of Kingston as we made our way from the security company's kennel to drop off dogs at dozens of guarded sites throughout the city. Clouds of dust and exhaust fumes blew into our faces through the open windows as the heat of the day began to dissipate. In the back about two dozen dogs—Rottweilers, Doberman Pinschers, and various mixes—lay mostly quietly, grouped into separate gridded sections according to their relationships of competition or friendship. At each site, Sean let one or more dogs out of their cage, explaining to me that they were excited to go to work. I had noticed that as soon as his truck rolled up at the kennel, the entire canine division would start barking in anticipation, ready to spend their night out guarding. As we drove, however, they only really barked in response to the city's other dogs. Their interactions with this population increased as we began to pass through the low-income neighborhoods of Kingston's Downtown area, where many variations of the same yellow-brown "mongrel dog" roam the streets.

Sean not only kept track of all the personality traits, health issues, and relationships of his company's guard dogs, but he was also well acquainted with the different street dogs he encountered every day along this regular route. As we rounded each corner, he could tell me which dogs would be waiting there to bark at us from their yard, or to run with the truck until they were sure it had left their territory. We drove down a street that marked the border between two historically antagonistic "garrison communities." In such neighborhoods, separated by decades of electoral violence and gang rivalry, streets can become impassible divides, reflecting the scars that long-standing criminal-political entanglements have left on the urban landscape. Sean drew my attention to how the dogs from the two communities would run down the sidewalk alongside our truck, barking at the guard dogs, but would not cross the street. He

explained that they "patterned," or copied, their owners: "As night fall, they don't cross the border."

Here, dogs reproduce the boundaries between politically opposed low-income neighborhoods, sticking to their side of the street. Where guard dogs are socialized into profiling individuals—learning to sense the threat of "the badman" on the basis of certain bodily markers—these free-roaming neighborhood dogs have learned from their humans that urban risk is territorial: the humans and dogs on their own side of the street are safe, and those on the other side of the political border represent danger.

This canine form of political boundary-making can also take the shape of a broader anti-state disposition. In some inner-city neighborhoods, where criminal leaders known as "dons" may take on a governance role and act as local security providers, dogs learn to recognize police and soldiers as threatening outsiders and to bark in warning when they spot them entering the area. The director of an animal welfare agency, Veronica, described to me how she had come to learn about these dynamics. In May 2010, in a major security operation during which 69 civilians were killed, the Jamaican military and police entered the "garrison" of Tivoli Gardens in an attempt to capture the area's leader, one of the country's most influential dons. Following what became known as the "Tivoli Incursion," Veronica explained, the security forces carried abandoned dogs to her kennel:

After the Tivoli Incursion, when JDF [Jamaica Defense Force] had to go house to house, apartment to apartment, and check and clear and what have you, a lot of places were abandoned and animals were left, so JDF would bring them down here. Weeks later, I'm still asking the Police Commissioner to dispose of these animals, as they hadn't been collected, some of them hadn't. I will never forget one in particular, a Pitbull, I called him Tivoli. If he smelt a policeman or a soldier, he could smell them from the doorway, he would go ballistic. The whole kennel would know. He would go ballistic.

She went to describe another dog that been shot during the security operation and brought to her organization for treatment.

It was a little brown mongrel. Evil, absolutely evil little dog. ... That dog was trained to only kick off when police are around. Oh, it's a fact. It's a given tactic. We've had many a policeman bring a dog here that they've had to shoot and they said, "I never see it coming and when I saw it coming there was nothing else I could do." In the inner-city communities, every child would run up and down that road, everybody, you don't hear a sound [from the dogs]. Make a police or soldier go down there at night or in the day and those dogs would come rushing out of the tenement yards.



Veronica suggested that while those dogs might be able to identify security forces based on the visual stimulus of a police or military uniform, it was more likely that they responded to the smell of specific weapons, detecting the hostile presence of the state in the dark, or like the Pitbull she called Tivoli, before an officer had even entered the kennel. She explained how these dogs were socialized into this anti-state disposition: "They consider the police and military as a form of aggression against them, 'cause they were watching how, from they're puppies, their owners react when they see police and soldiers. So they're just mimicking what they see from the people that care for them."

This form of canine enskilment into human constructions of political threat, while perhaps surprising, was confirmed to me by multiple residents of such "inner-city communities," where the police and military often only enter during security operations. To a casual observer, it might appear as if the many dogs in such neighborhoods, sprawled on the hot concrete or slinking through the gutter in search of scraps, were "strays," with no ties to the humans who live there. On the contrary, as I was told and observed over time, these dogs enjoy relations of mutual support and affection that might not fit neatly into a model of "pets" or "property."<sup>6</sup> While many dogs in low-income areas do live on the streets rather than in the often crowded houses and "tenement yards," they bond with specific residents, who will feed them leftovers and protect them from abuse by children or passersby. These dogs, in turn, will seek to protect these humans from danger, raising the alarm when they become alert to specific sounds or smells that they have learned are followed by distress. For instance, one friend explained to me, the dogs appear to hear the advent of the state security's vehicles—which cause the asphalt to vibrate before they are audible or visible to human residents—and will reliably bark to warn residents of the imminent danger.

As with guards protecting properties at night in the dark, in such instances dogs act as a prosthetic species. They enhance and extend low-income residents' physical capacities to protect themselves against state forces that many experience as threatening rather than protective. It would appear that they have become attuned to the sensory indicators of this form of political threat—the particular sounds of police vehicles, the smells of state weapons and uniforms—through lived experience, recognizing that the residents with whom they have developed caring relationships become afraid when the humans generating these sounds and smells enter the neighborhood territory.

As such examples show, dogs function as a type of semi-agentive communicative security "device," as sentinels signaling imminent danger. Yet these forms of "anti-state" canine security work shows how dogs, as prosthetic species, are *not* devices. Rather, they are living creatures who can act agentively and, in Grosz's terms, generatively: having developed relations of mutual care with low-income residents, dogs deploy their sensory capacities to extend their humans' awareness of threat. Crucially, these humans need to have developed a sufficient level of attentiveness to these dogs' behavior that they can interpret their warnings accurately.

## SENSING MORE-THAN-HUMAN DANGER

As prosthetic species, dogs can also extend human bodily capacities in more transcendental directions. In addition to the all too human threats posed by criminals or hostile security forces, for many city dwellers, dangers can also emanate from more otherworldly sources. Spiritual beings present an additional source of insecurity that many Kingstonians feel they need to take into consideration as they go about their lives. Amidst the diversity of Jamaican religious and spiritual beliefs, from Pentecostalism to Revivalism, combined elements from creolized African and Christian traditions inform a widespread sense of the imbrication of everyday life and the spirit world.<sup>7</sup> The pursuit of urban security also involves contending with the presence of malign spirits, including the spirits of the dead, known as "duppies." While often discussed half-jokingly or with some embarrassment, in the course of my fieldwork on urban insecurity, duppies also emerged as a specific source of danger, and one that dogs could help address.

Historically in Jamaica, duppies have been known to sometimes assume the shape of animals, including that of dogs.<sup>8</sup> However, in my conversations with urban Jamaicans from varying class backgrounds, dogs featured only as guardians who could raise the alarm or protect against spiritual threats, rather than as material manifestations of those threats themselves—while they may emit an otherworldly howl, this is meant to warn their humans and to scare off the duppy. Unlike criminal and political threats, the threat posed by malevolent spirits cut across the city's socio-spatial divides, with Uptown and Downtown residents confirming the presence of duppies and the ability of dogs to sense and deter them.

This was flagged during my interview with Marlene, the Uptown Kingston resident introduced earlier in this article. In discussing the different dogs she had lived with in different households, Marlene described one house she had lived in, that she came to realize was also inhabited by a spirit presence. "I just had this sensation all the time that there was somebody watching me," she told me, "when I was brushing my teeth, or in my bath or in my bed, I would just feel ... and I thought this was strange." She was not the only one to sense this presence, she explained. She had hired two new domestic workers simultaneously—two former employees had left at the same time, her housekeeper because of the duppy and her nanny to take up other employment. "And these two new women—and I told them nothing—and they came up with this thing ... What they told me was exactly the same thing I felt, they always felt that someone was watching them in the bath."

Marlene explained how the dog she lived with at the time—a Shih Tzu Poodle—was also able to sense the spirit presence, identifying its location within the house and helping her deal with it. "So she would go in the corner at night and bark, up in the ceiling in the corner, where I perceived I was being watched from. And she would go there and 'bark bark bark' in the middle of the night. And I would be like 'oh lord this is so strange.'" Marlene laughed, but it was clear that this episode had been a distressing one. She went on to explain how her dog had helped her come to terms with this unseen presence: "So

she became my coping, until I became so courageous enough just to like stare it down and be like ‘Look, we’re all going to live here harmoniously, either you go on and stay and everyone’s going to chill.’” Seeking to tone down her account a little, she told me, laughingly, “Let’s say all of this was all in my head ... but I believe in the world of spirits. This dog helped me to navigate that because I did not feel as afraid, because *she* was not afraid.” The small Shih Tzu Poodle, which Marlene described as an “inside dog,” a breed that would rarely be considered as a guard dog, had a canine sense of the spirit’s location—its attunement to the threat resonated with how Marlene and her helpers sensed its presence. Yet more than her nanny and housekeeper, the dog helped her to feel safer and to eventually find a way to live in harmony with the spirit.

Marlene’s account prompted me to ask other dog owners and handlers whether they felt dogs could sense the presence of duppies. They tended to respond laughingly, before confirming that yes, dogs did have the ability to discern a spiritual presence. Where some described ceaseless barking in the night at seemingly “nothing” as an indication that dogs sensed a duppy nearby, canine professionals had acquired a more finely-tuned sonic attunement to their dogs’ detection of malevolent spirits. I broached the topic with a group of canine trainers and handlers at ProSec, where I returned a year after having been invited to watch them conduct their bite training. Having been assured that this canine capacity to sense duppies did exist, I asked them how they could tell that this was the case. One of the more talkative trainers, Mr. Williams, had already been explaining to me how to “translate” a dog’s vocalizations, demonstrating which type of sound should be read as an initial warning growl (a low *grrrr*) and which was a serious rumble that meant the dog was ready to attack (a sharp *rrrruff*). Now, he went on to explain that there was a specific eerie howl that dogs made when they sensed a duppy: “Ah-wooooo! Ah-wooooo!” His colleagues chuckled but nodded, yes, that was the sound that dogs made to warn that there was a duppy close by.<sup>9</sup>

Such spiritual threats are rarely included in research on urban insecurity. Yet for many urban residents, danger does not always present itself in a human form. In addition to criminals or violent state security forces, otherworldly beings such as duppies also feature in the everyday urban geographies of fear, apparently manifesting themselves across the socio-spatial divides that structure other distributions of risk. Unlike human threats, security guards, guns, or electronic systems seldom detect or deter these spirits—but dogs’ specific sensory skills allow them to do so.

## CONCLUSION

Throughout this article, I have sought to extend our understanding of the sensory dimension of urban insecurity to encompass more-than-human forms of sensing, discussing how differently positioned Kingstonians learn to sense danger with and through security dogs. Dogs alert their humans when they smell, hear, or see a threat, and bark, bite, or chase that threat to protect them—humans learn how to interpret these embodied responses, but equally importantly, in

many instances dogs learn from humans what smells, sights, and sounds indicate danger. Where humans’ long-standing reliance on dogs for protection is well known, my aim has been to think through this reliance more carefully in relation to anthropological debates on urban security, suggesting that we understand dogs as a prosthetic species that can extend humans’ sensory capacity to identify danger.

In trying to understand this prosthetic process, my interest has been less in thinking through what this conceptualization adds to human–animal studies; rather, I suggest that bringing insights from multispecies ethnographies to bear on anthropological studies of urban insecurity can push us to extend our existing analyses. Where this scholarship has become increasingly concerned with security technologies, and rightly so, this special issue proposes that we pay special attention to the embodied dimension of how we identify and negotiate urban danger. My contribution here has been to insist that this sensory focus includes attention to human *and* animal bodies.

As with broader studies of urban insecurity, it is important to ask how dogs’ sensory practices of protection take shape within human geographies of insecurity, affecting distributions of risk across urban spaces and populations. In familiar security contexts that involve dogs protecting households or businesses against criminals, we see how the two-way learning between dogs and humans may result in the socialization of dogs into classed and racialized constructions of “the badman,” directing canine aggression toward those low-income, Black Jamaicans who are already the focus of private and public security. However, in other contexts, dogs may help marginalized populations protect themselves: They can help security guards—a highly precarious group of workers—navigate risk during lonely nightshifts, but also alert residents of low-income urban neighborhoods to the advent of hostile state security forces. And in yet other circumstances, dogs extend the geographies of risk to encompass other-than-human spirits, helping Jamaicans across established social hierarchies of race, class, and space to contend with spiritual threats. Accordingly, even as interspecies threat identification may often reproduce uneven relations of protection and endangerment, it also harbors the potential to reconfigure distributions of urban safety and precarity.

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## ENDNOTES

<sup>1</sup> Language use in Jamaica ranges along a linguistic continuum from the vernacular Jamaican Creole English (more commonly known as Patois) to Jamaican Standard English, associated largely but not solely with class positioning. I have chosen to render interview quotes as spoken (with slight amendments to improve readability for non-Jamaican audiences) to reflect these different positionings.

- <sup>2</sup>See Fijn and Kavesh (2021) for a related interest in connecting sensory anthropology and multispecies anthropology.
- <sup>3</sup>For lengthier critiques of medical conceptions of the prosthesis-as-replacement, see, for example, Jain (1999); Shildrick (2013).
- <sup>4</sup>A more extensive literature has studied how “seeing eye dogs” extend the perception of visually impaired persons in ways that are distinct from prosthetic objects such as walking canes; see, for example, Dickel (2022, C3).
- <sup>5</sup>For more on Kingston’s (imaginative) geographies, including the history of garrison politics, see Carnegie (2014); Scafe (2015); Jaffe (2016); Campbell (2020).
- <sup>6</sup>See Srinivasan (2013) for a related discussion of free-living “street dogs” as neither pet nor stray.
- <sup>7</sup>See, for example, Austin-Broos (1997); Wardle (2007).
- <sup>8</sup>For a recent account, see Barrett (2019).
- <sup>9</sup>Many of my interlocutors were also familiar with the visual rather than auditory modes by which dogs might enable humans to sense a malevolent spirit: rubbing one’s eyes with a dog’s tears or “eye matter” will allow humans to see duppies. My attention was drawn to this by scholarly and media reports, including mid-twentieth century folklore scholar MacEdward Leach’s account of a man who described using this method to identify the duppy that had been making his wife sick: “I rub me yeye [eyes] wi dog’s tears. Then I see the duppy; I enable fe see the duppy” (Leach, 1961, p. 213). More recently, a newspaper contributor discussing the potential of “duppy tourism” similarly describes being told that, to see a duppy during a funeral procession, “One is to put the accumulated ‘matter’ in the corner of a dog’s eyes into the corner of your eye. This will help you to see the duppy sitting on top of the coffin” (Simms, 2011).

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