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Abstract

This article reviews developments within urban anthropology and adjacent fields to argue for a more-than-human approach to urban inequalities, centered on the relations among humans, sociotechnical systems, and nonhuman life. A first section reviews an established tradition within urban anthropology that focuses on sociospatial relations to understand how resources, risks, and political influence are distributed unequally across urban populations and spaces. A next section highlights the more recent infrastructural turn, which has directed attention toward how such uneven distributions are mediated by sociotechnical systems and a range of urban things. A third section introduces an emergent literature that extends multispecies ethnography to understand how urban nature—specifically animals and plants, but also microbes—coproduces inequalities, while the concluding section notes the need to connect these latter two approaches more explicitly.

INTRODUCTION

How and why are resources, risks, and political influence distributed unequally across urban populations and spaces? When we study the formation of power, difference, and inequality in cities, where do we locate sociopolitical struggles, and how do we recognize agency? Traditionally, anthropological approaches to such questions have concentrated on formal and informal political and economic institutions and on everyday encounters and meaning-making. In recent decades, however, anthropologists have begun to complicate this human-centered perspective on urban inequalities. In this review, I draw on developments within urban anthropology and adjacent fields to argue for a more-than-human approach that centers on the relations among humans, sociotechnical systems, and nonhuman life.

While overall situated within urban anthropology, the work reviewed here is frequently in conversation with fields such as science and technology studies, geography, and urban studies. The latter fields in particular have been problematizing bounded notions of the city that are still predominant in urban anthropology—and indeed, in this review. Arguing that urban studies should focus on processes of urbanization, this critique of "methodological cityism" holds that our analytical object should be the connections, flows, and networks between concentrated city zones and their planetary hinterlands, rather than cities-as-places (Brenner 2014, Angelo & Wachsmuth 2015; see also Rademacher 2015). While this review does include an emphasis on more-than-city approaches that highlight the other scales at which uneven development takes place, this work is not the primary focus. Within urban anthropology, the analytical object generally remains the city and its divisions, perhaps because, for many urban residents, cities are experienced more as meaningful places than as intersections of flows. This review's tendency toward methodologically cityism, then, reflects urban anthropology's overall focus on inequalities *within* cities.

In what follows, I first review an established urban anthropological tradition that centers sociospatial relations in its approach to unequal distributions of resources, risks, and political influence within cities. Next, I discuss how the more recent infrastructural turn has directed anthropologists' attention toward how such uneven distributions are mediated by sociotechnical systems and urban things, from buildings and documents to digital platforms. A third section introduces an emergent literature that extends multispecies ethnography to understand how living organisms—specifically animals and plants, but also microbes such as viruses and bacteria—coproduce urban inequalities. These latter two approaches have developed largely separately, and the concluding section proposes connecting them more explicitly in a more-than-human understanding of urban inequalities.

SOCIOSPATIAL RELATIONS

Urban anthropologists have a relatively long-standing tradition of research on urban inequalities, understood here in broad terms as uneven development within cities or the unequal allocation of risks, resources, and political influence across urban populations and spaces. Urban anthropology began to emerge as a distinct subfield in the 1960s and 1970s, and its scholars demonstrated a strong interest in marginalized areas and "subcultures" from early on. Within this scholarship, the emphasis was often more on urban poverty and cultural difference than on inequality per se (see Jaffe & de Koning 2023).

Classic examples of this early urban anthropology are Lewis's and Hannerz's research in low-income, negatively racialized neighborhoods in US cities, which built on an established Chicago School sociological tradition of ethnographic "community studies" (e.g., Whyte 1943, Drake & Cayton 1945). Drawing on fieldwork in New York City's Puerto Rican *barrio* and Mexico City's

barrio bravo of Tepito, Lewis (1966) developed his "culture of poverty" thesis. This argument (elaborated in Latin American urban contexts in the form of the similarly culturalist marginality thesis) held that structural conditions of long-term poverty could result in the emergence of specific cultural traits that were transmitted across generations and that inadvertently perpetuated low-income residents' marginal position. In contrast, Hannerz (1969), drawing on research in an African American "ghetto" in Washington, DC, sought to highlight the dynamic and context-specific intersections of urban culture and poverty, describing residents' ability to code-switch between subcultural and mainstream cultural frameworks.

From the 1970s onward, urban anthropology took a more Marxist-inspired turn, bringing a political economy perspective to bear on the analysis of everyday urban lives and concentrating more directly on how neighborhoods were embedded in a structurally uneven fashion within the larger city. Scholars such as Perlman (1976), Susser (1982), and Mullings (1987) sought to challenge culturalist, "blame-the-victim" explanations of urban poverty, shifting the anthropological gaze from the urban poor and their neighborhoods to broader relations and processes of impoverishment. Rather than seeing phenomena such as informal labor and self-built housing as evidence of cultural difference or an absence of modernity, their explanatory models—developed in conversation with urban geographers and sociologists such as David Harvey (1973) and Manuel Castells (1977)—centered on how capitalist relations of production and the attendant classed hierarchies played out in contemporary cities.

In the decades that followed, this urban anthropological interest in political economy—and the associated relational approach that privileged urban inequality over urban poverty—began to articulate more explicitly with the spatial turn gaining traction across the social sciences. Urban anthropologists increasingly centered their analysis on sociospatial relations between different areas and populations, within and beyond cities. Connecting ethnographic perspectives and an engagement with everyday life to conceptual concerns within the interdisciplinary field of urban studies, such work has emphasized how spatial arrangements reflect, reproduce, and sometimes transform unequal social relations.

This concern with spatiality has entailed, for instance, studying how emplaced and embodied encounters in urban public space are central to processes of classed, raced, and gendered exclusion (Low 2000, de Koning 2009). In conversation with the "new mobilities paradigm" that emerged in the early 2000s, urban anthropologists also drew on this sociospatial perspective to understand how intraurban, interurban, and transnational forms of movement are central in structuring and challenging established social hierarchies (Chappell 2012, Sopranzetti 2018, Kleinman 2019). An important implication of this relational approach was the need to extend urban fieldsites beyond low-income residential and working environments to include spaces of concentrated privilege, such as the gated communities and "fortified enclaves" of white urban elites (Caldeira 2000, Low 2003, Ramos-Zayas 2020).

This engagement with sociospatial relations has remained a dominant framework within contemporary urban anthropology. As I sketch briefly below, in studying the centrality of such relations in the formation of urban inequalities, a core focus has been on how and why different spaces and groups of residents are exposed to various forms of risk or harm—and conversely, why access to resources is concentrated in other urban spaces and among other social groups. Here, a sustained interest has been in researching those neighborhoods associated with low-income populations and/or marginalized ethnoracial or religious groups and the often colonially derived patterns of planning that produced such segregated geographies (e.g., Jaffe 2016, Checker 2020). Beyond residential segregation, researchers have been interested in how spaces of work reflect and reproduce classed, raced, and gendered inequalities, while also harboring the potential to foster place-based solidarity and collective action (e.g., Millar 2018, Glaser 2023).

Two important themes across such sociospatial research have been urban environmental harm and urban insecurity. In relation to the first theme, a growing concern has been with issues of environmental injustice. Ethnographic work with residents and activists highlights how neighborhoods and workplaces associated with low-income and negatively racialized populations tend to suffer from higher levels of exposure to environmental pollution (Jaffe 2016, Millar 2018, Fabricant 2022). Concentrations of contaminated air, soil, and water resulting from industrial and military activities imperil residents' health in "sacrifice zones" (Lerner 2010), while wealthier, whiter areas are buffered from these toxic hazards. In addition to this attention to unequal distributions of pollutants, such studies of environmental injustice have highlighted the uneven exposure to risk associated with urban heat and flooding, increasingly connecting these inequalities to broader discussions on climate injustice (Frazier 2019, Kaika et al. 2023).

Ironically, urban sustainability policies and efforts to make low-income neighborhoods cleaner, greener, and less exposed to ecological hazards may lead to the displacement of those same populations in a process of "environmental gentrification." As Checker (2020) analyzed in the case of New York City, "[D]iscourses of progress, revitalization, redevelopment, or sustainability veiled the accumulation of privilege for some, and environmental injustice for others" (p. 46; see also Newman 2015). This reinforcing of classed privilege is, in no small part, the result of what Baviskar (2020) has termed "bourgeois environmentalism," the dominance of middle-class and elite voices in many urban environmental movements, which skews the priorities of these mobilizations in such a way that they may harm rather than protect low-income residents.

A second prominent theme has been the spatial politics of urban crime and policing. Overall, anthropologists tend not to study crime through the lens of deviance; rather, they seek to understand how illicit economies are embedded in everyday life, how associated benefits and harms are distributed, and how perceptions of legitimacy and legality may diverge (Jaffe 2024). In many cities, legal and illegal markets are inextricably entangled, with illicit trade requiring both intraurban and transnational networks (Feltran 2020). Illicit economies may produce various risks for society at large, but low-income, racialized workers within this trade are often disproportionately exposed to harm. Ethnographies of the urban drug economy, for instance, have highlighted the territorial basis on which narcotics sales are organized in low-income areas, from "the corner" to the *boca de fumo*, where the competition between criminal factions over who runs these points of sale is associated with exceptionally high rates of often lethal violence (Ralph 2014, Friedman et al. 2019, Hirata & Grillo 2019).

In addition, work on crime and policing stresses the processes of criminalization that result in the labeling of certain practices, populations, and spaces as deviant and dangerous (Schneider & Schneider 2008, Vigh & Sausdal 2018). Again, low-income, racialized urban populations are often impacted most by criminalization; these same populations are most at risk in terms of exposure to state violence, punitive policing, and imprisonment (Bourgois 1996, Fassin 2013, Warburg & Jensen 2020, Jeursen 2023, Gill 2024).

In studying inequalities across and beyond these two fields of environmental injustice and crime and policing, these urban studies have developed distinct analytical entry points into identifying the mechanisms through which inequality is produced. Furthering perspectives elaborated in the 1970s and 1980s, much work draws attention to political economic factors shaping urban labor and housing markets, highlighting how both urban policies and everyday practices exacerbate (or mitigate) sociospatial concentrations of risks or resources. An enduring concern has been with urban property markets and housing politics, with researchers highlighting the ideological work done by the concept of property and showing how housing markets are made and remade through everyday acts (El-Kazaz 2023, Safransky 2023).

Connecting political economy and ecology, approaches developed under the rubric of urban political ecology stress the need to extend such analyses beyond the boundaries of cities in order to understand how global capitalism structures flows of waste, water, energy, and food in and out of cities and to identify how ecological harms are distributed across different spaces and scales (Gandy 2022c, Kaika et al. 2023). Here, ethnographic studies emphasize the multiplicity and contingency of the urbanization of nature, showing how varied and differentially valued ecological knowledges and practices can either reinforce or challenge uneven distributions of risks and resources (Rademacher 2015). Foli's (2025) work on Accra's waterways, for example, details how low-income residents' small-scale infrastructural interventions evidence a clear knowledge of how flood risk is shaped by hydrosocial cycles; notwithstanding, urban professionals mobilize narratives of blame that identify these same residents' waste disposal practices and a lack of environmental education as important drivers of flooding.

Another influential conceptual framework within political economic approaches is that of racial capitalism, which connects the production of racialized difference with capital accumulation, dispossession, and labor exploitation to show how this political economic model generates and indeed requires urban sociospatial divisions. This framework extends earlier analyses of how urban planning can spatialize inequalities, as evidenced for instance in the planned nature of racial segregation under colonial rule (Rabinow 1989), but also as part of the inadvertent outcomes of utopian postcolonial plans (Holston 1989). Kimari (2020) shows, for instance, how Nairobi's colonial urban planning as a railway hub for imperial trade networks established zones for European settlers at higher altitudes, where they could enjoy cooler, malaria-free surroundings. This elevation also enabled the surveillance of lower-lying areas, where South Asian railway workers were housed, while Africans—prohibited from living in the city until the mid-twentieth century—were relegated to self-built settlements in the malaria-prone floodplains on the urban periphery. During the COVID-19 pandemic, the persistence of the colonial geographies of overpolicing and withholding of basic services from these former "native" settlements was thrown into sharp relief; yet, as Kimari outlines, their residents continued to develop forms of mutual aid and mobilize for access to urban amenities. Elsewhere, too, ethnographies of urban planning show how even the most forceful and enduring interventions can be subverted by the everyday spatial practices and political mobilization of exactly those people whom top-down plans seek to police, displace, or uplift (Koster 2020, Abowd 2024).

Such analyses of the structuring role of capital flows, labor relations, and government policies have often been combined with attention to more discursive and aesthetic mechanisms through which inequalities are produced, reproduced, and contested. Here, scholars parse the work of stigmatizing discourse and language in normalizing such inequalities (Ghertner 2015, Roth-Gordon 2017). For instance, spatial imaginaries of good and bad neighborhoods often work to legitimize interventions that privilege some areas and residents while disadvantaging others. As Ghertner (2015) shows in the case of Delhi, India, the specific aesthetic forms associated with imaginaries of urban futures, such as India's aspiration to have "world-class cities" or UN Habitat's vision of "Cities without Slums," are mobilized to normalize the displacement and dispossession of slum residents. Yet aesthetic interventions often have ambiguous outcomes: While they may legitimize and aggravate uneven urban development, they can also work to contest entrenched inequalities. Residents' embrace of Delhi's new urban aesthetics, Ghertner points out, also harbors potential for political contestation and change.

Other clearly political uses of aesthetic forms can be recognized when urban governance actors sponsor forms of artistic expression, from public murals to music festivals, in attempts to promote urban "renewal" and "revitalization," which often end up displacing long-standing residents (Wright & Herman 2018). Yet, as Magaña (2022) emphasizes in his research on

indigenous artists from the Mexican state of Oaxaca in Los Angeles, street art murals and their archiving as digital images on social media also allow marginalized urban populations to document alternative histories and to forge transnational connections. Aesthetic markers can work in subtle, embodied ways, making some urban residents feel safe and welcome, while discouraging the presence of others. Political or gang graffiti, for instance, may signal territorial belonging to residents, even as it is read as a sign of urban disorder and danger to outsiders (Jaffe 2020).

Hip-hop, in particular, is a form of popular culture that plays a central role in the ways urban exclusion and solidarity are experienced, communicated, and contested. Even as hip-hop offers youth in cities across the world a lyrical, sonic, visual, and performative register through which to understand urban marginalization, its articulations are highly place-specific: Hip-hop provides young musicians in neoliberal Accra with models of capitalist success (Shipley 2013); it allows young Muslims in Chicago to reimagine pious geographies as coterminous with Black geographies (Abdul Khabeer 2018); while its digital mediascape helps young migrant men in Delhi negotiate class, gender, and racial belonging as they aspire to make it in a rapidly changing urban landscape (Dattatreyan 2020).

SOCIOTECHNICAL RELATIONS

Where the scholarship sketched above represents an established tradition of analyzing human decision-making, discourse, and everyday practices, the past two decades have seen a growing engagement with the role of nonhuman entities in coproducing or mediating urban inequalities. As I outline in this section, this interest is especially evident in research on urban infrastructures and more broadly in an engagement with sociotechnical relations and the political materiality of cities. Here, political agency is not understood as an exclusively human property defined by intentionality, future orientation, and self-directed action. Rather, urban power struggles are conceptualized as a sociomaterial coproduction: Unequal distributions of risks, resources, and political clout are analyzed as the effects of specific relations between humans and various things, including infrastructures, technological devices, buildings, and documents. Tracing the social lives of urban things sheds light on how cities are constituted through translocal sociomaterial relations, while also inviting us to scrutinize uneven development and political projects beyond the boundaries of the urban.

Inspired by insights from science and technology studies and "new materialist" approaches, such work seeks to theorize the material agency of infrastructures and other objects without resorting to technological determinism. Objects and technologies act in and on the world, in relational, contingent, and often unexpected ways. Drawing on the conceptual language of "affordances" to understand how artifacts shape distinct outcomes for differently situated subjects (Davis 2020), we can ask when and how the material and technological specificities of different urban objects afford the formation of urban inequalities, for instance through their capacity to connect people and places or through the embodied impact of their presence or absence.

The infrastructural turn within anthropology and adjacent disciplines has highlighted the role of sociotechnical systems in affording urban connections and disconnections (Graham & Marvin 2001, Rodgers & O'Neill 2012, Anand et al. 2018). As Larkin (2013, p. 329) underlines, "Infrastructures are matter that enable the movement of other matter. . . . [T]hey are things and also the relation between things." Transport, energy, communication, and hydraulic infrastructures organize the circulation of people, goods, information, electricity, water, and waste. Their material, technological, and geographical features directly enable or impede urban residents' access to essential goods and services: Whether and how a household or a neighborhood is

physically connected to urban infrastructures significantly shape residents' economic precarity and exposure to health risks. In short, these sociotechnical systems act to shield some urban residents from harm while endangering others.

The material, spatially connective qualities of infrastructure also offer an opportunity to trouble bounded conceptions of cities and to extend our analyses of inequalities beyond the boundaries of what is understood as the city. Critically, sociotechnical systems enable the movement of resources and value from zones of extraction into urban economies (Gordillo 2019). Infrastructures distribute toxic matter unevenly between low-income and high-income urban areas, and they also spatialize inequality in a more-than-urban fashion by shifting the burden of urban waste onto peri-urban or more distant spaces and populations (Doherty 2022).

Given that connections to such vital infrastructures may be a matter of life or death, the anthropology of infrastructure stresses the role of these sociotechnical systems in structuring political inclusion and exclusion. As Rodgers & O'Neill (2012) note, the "*physical* exclusion from urban infrastructure, and the corporeal suffering that marks the bodies of those affected, only serves to facilitate forms of *social* exclusion that fundamentally question notions of citizenship, rights and membership claims by the poor and otherwise vulnerable" (p. 407, emphasis in original). In addition to—although not fully separate from—their technical and distributional capacities, infrastructures have aesthetic, semiotic, and affective dimensions. The social meanings of infrastructure are rooted in but exceed the new circulations they enable, and political actors frequently seek to capitalize on such cultural associations. Infrastructural projects are associated with desires and fantasies of modernity, progress, and freedom that may work to legitimize dispossession and violence (Larkin 2013, Knox 2017, Anand et al. 2018).

The political salience of sociotechnical systems extends beyond their capacity to effect "infrastructural violence" (Rodgers & O'Neill 2012); in many cities, infrastructures become the material terrain for marginalized urban residents to claim and negotiate political belonging. For instance, von Schnitzler's (2016) analysis of South African township residents' illegal connections to water and electricity infrastructures and their bypassing, tampering, and destruction of prepaid meters shows how "technologies and infrastructures are not merely symbols or tools for political expression; rather, technology itself is turned into a political terrain for the negotiation of moral-political questions that were at the heart of the antiapartheid struggle and that continue to animate the forms of life left in apartheid's wake" (pp. 106–7). Similarly, Anand (2017) reads Mumbai residents' tinkering with water infrastructures as material claims to political belonging. With the city's self-built settlements eligible to receive municipal services such as piped water only if they have been formally recognized by the state, Anand shows how residents' combined struggles for access to state-provided water and political recognition constitute a form of "hydraulic citizenship."

The research that centers infrastructure in its analysis of urban inequalities connects to a broader engagement with the political materiality of cities (Jaffe & Pilo' 2020), evident in work that attends to urban things less commonly analyzed as sociotechnical systems. In addition to an interest in the work of documents—maps, public contracts, licenses, utility bills, and other bureaucratic artifacts—in materializing urban power relations (Hull 2012, Muñoz 2014, Pilo' 2020), buildings present a fruitful site for analyzing material agency. Specific types of architecture are political artifacts not only through their symbolic associations, but also due to the types of social action and connection that their material forms afford. Extending an interest in the urban politics of verticality as a mode of state surveillance and social separation (Graham 2016), high-rise buildings have attracted particular attention (Smith & Woodcraft 2020). Careful ethnographies of the mundane practices of high-rise construction, maintenance, and inhabitation show both the

potential and the limits of projects of verticality.[1] Gastrow's research on new, aspirational high-rises in Luanda, for instance, shows how this architectural form requires far more structural maintenance than low-rise housing. As the postsocialist Angolan state no longer assumes responsibility for urban maintenance, only the rich can afford the constant investment that a privately sustained "DIY verticality" requires. "Verticality," Gastrow (2020) notes, "is fragile, and it is in this fragility that the everyday politics of relationships to the state, to other urban inhabitants, and to the built environment emerges" (p. 114). Analyzing particular elements of urban buildings, in turn, Ghannam (2023) reads Cairo's balconies as "an entanglement of relationships that provides insight into how humans and things are connected, how meanings and feelings are circulated, and how various inequalities are materialized in the city" (p. 157). Attending to the balcony's everyday uses highlights that its vertical materiality is not that of a panopticon; rather, the balcony is a reciprocal space, one that affords a multidirectional and multisensory policing of class and gender boundaries.

In addition to urban architectural forms, specific construction materials such as concrete, cement, and sand can be understood as having a kind of material agency, with their particular qualities and connotations affording the formation or transformation of urban inequalities. As Archambault's (2024) recent review outlines, the transformative potential of concrete lies in the combination of its material properties—durability, strength, modularity—and its symbolic associations with modernity and progress. As a material that is foundational to the activity of building, concrete shapes projects of urban place-making, future-making, and self-making, illustrating "how built forms mediate and leverage power, how space is used and claimed, and how futures are imagined and constructed, and pasts, remembered" (p. 295). Tracing the production, circulation, and consumption of the various building materials that enable the literal construction of cities, in turn, directs our attention to the often illicit and violent extraction of rock, sand, and water from quarries, beaches, and water reservoirs in both nearby and distant hinterlands (Cipriani 2022, Choplin 2023, Müller 2024).

Another emergent but urgent focus of research is how specific digital technologies, devices, and platforms shape urban inequalities by reconfiguring exposure to urban risks such as punitive policing and access to urban resources such as transportation, housing, and employment. It is increasingly clear, for instance, that a growing reliance on digital surveillance technologies in and beyond US cities tends to reproduce racial hierarchies. Predictive policing software, crime mapping, and other computational technologies in the criminal justice system are often promoted as efficient, objective, and neutral crime management tools. Yet they inevitably rely on racially and geographically biased crime (geo)data and on socially conditioned modes of categorization and coding that, in practice, reinforce the criminalization of negatively racialized groups and neighborhoods (Benjamin 2019, Jefferson 2020, Haynes 2021). As such, these digital technologies can be understood as components of "geo-racial regimes": symbolic and material systems of conjoined racial and spatial difference-making that naturalize uneven geographies (Zeiderman 2025).

More broadly, the growing field of "platform urbanism" seeks to understand how digital platforms—online software that creates value by connecting different types of users—are "intertwined, even symbiotic (or parasitic), with urban space and society—and the critical and uneven implications of that relationship" (Sadowski 2021, p. 1736). In cities across the world, digital platforms have reshaped how residents access urban housing (Fields & Rogers 2021) or find romantic partners. A central concern in terms of urban inequalities has been how platforms are transforming

[1]In addition to studies of high-rises, recent work on urban verticality also studies the classed politics of subterranean expansion (O'Neill 2024).

urban labor markets, with "platform labor" emerging as a key term to conceptualize the precarious conditions of gendered, racialized, and classed workers in the digitally mediated on-demand service economy (van Doorn 2017). Rather than employing workers directly, platform firms such as Uber, TaskRabbit, or Gojek evade labor regulations by acting as "service providers" who connect "independent contractors" to consumers digitally, often through phone-based apps. Proprietary algorithms and transaction geodata allow these platform companies to monitor, assess, and control workers' movements in unprecedented ways (Firmino et al. 2019, Pollio 2019). However, as Frey's (2020) research on *ojek* motorcycle taxis in the Indonesian city of Bandung shows, workers can still develop various collective strategies to navigate platform-induced precarity. Comparing the strategies employed by drivers working for Southeast Asia's leading *ojek* platform Gojek with the traditional *ojek pangkalan* taxi syndicates, Frey shows that neither group of drivers relied on conventional unionizing methods. Rather, they developed "incrementalist" strategies to provide grassroots social security, whether violently defending their economic turf, creating informal forms of insurance, or teaching each other how to trick the platform into granting more rides by using fake global positioning system (GPS) apps.

MULTISPECIES RELATIONS

The scholarship discussed in the previous section has begun to trouble understandings of agency as located solely in humans' intentional actions. Yet in concentrating on technology and other artifacts or human-made things, it has largely ignored the role of other-than-human life. In an often separate strand of research, we can identify a nascent recognition that cities are also formed by multispecies relations.

Although multispecies ethnography is a rapidly growing field, it is infrequently brought into conversation with urban anthropological scholarship. While the emergent anthropological attention to urban animals and other species has not always taken an explicitly political approach, it increasingly connects multispecies relations to uneven outcomes, particularly in terms of health risks (e.g., Blanchette 2020, Nadal 2020). Even more directly than in the anthropology of infrastructure, multispecies ethnographers draw on approaches from science and technology studies and actor-network theory to understand agency as distributed across networks of humans and nonhumans (Latour 2005, Law & Mol 2008). As with sociotechnical relations, we can understand the formation of urban inequalities as emerging in everyday life through such dynamic, contingent relations between humans and the various other species that live and die in cities.

Animals have been frequent protagonists in urban multispecies research. The politics of human–animal relations can be recognized in different ways. Sometimes, the focus is on the "speciesism" that positions humans over other animals and how this hierarchy shapes urban animal welfare and suffering. Such considerations have also informed reflections on how existing political systems might become more "cosmopolitical" as we learn to cohabit and engage with urban animals (Hinchliffe et al. 2005) or on how we might read certain animals' behaviors as agentive claims to their own right to the city (de Bondt et al. 2023). At other times, the emphasis lies more explicitly on how animals are symbols and tools in power struggles among human city dwellers, with less centrality given to the lifeworlds and experiences of animals themselves (Danielsen 2024). A generative way to combine and extend such approaches may be to draw attention to the conjoined exploitation of certain groups of animals and certain groups of humans, connecting critiques of speciesism to understandings of the role of capitalism, racism, and sexism in shaping inequalities among humans.

A strong example in this regard is Blanchette's (2020) *Porkopolis*, a study of industrial pig farming in a Midwestern US company town that foregrounds how animal cruelty is entangled

with the exploitation of devalued classed and racialized workers within the meat industry. His careful ethnography of the production process underlines the fragility of attempts to create standardized porcine life—hogs' fleshy life and death can never be fully controlled by biocapitalist interventions—which leads to the simultaneous disciplining of human and hog bodies within factory farms. These tensions and interspecies entanglements structure the social and spatial organization of the company town as a whole, demonstrating how industrial meat production is simultaneously remaking humans, animals, and places.

Seeking to intervene more directly in urban theory, Barua (2023) similarly observes that some animals are subject to forms of harm akin to those experienced by marginalized human populations. Focusing on parakeets in London, for instance, Barua points to these birds' status as other-than-human migrants, connecting the nativist policing of these unwanted "feral" others to the historical networks of colonialism and commerce that enabled their movement as lively commodities to British cities. Combining the case of these birds with a consideration of macaques and cows in Delhi, Barua considers parallels, divergences, and connections between these two cities to rethink postcolonial urbanism. Following Ingold, Barua (2023) approaches cities as lively, multispecies meshworks, comprising "the lives of people and other than humans, the actions of lively materials, and the atmospheres of ambient environments, all of which enmesh, and all of which give rise to the urban as a living formation" (p. 19).

A recognition of this enmeshment also informs recent studies that engage in "environing infrastructure" (Rippa 2024), analyzing the entanglement of urban infrastructures and living organisms, from the oysters that are harnessed to act as flood protection infrastructure for New York City (Wakefield 2020) to the black soldier flies in Guangzhou, China (Zhang 2020), and storks in Kampala, Uganda (Doherty 2019), that function as lively waste management biotechnologies.

In ways distinct from but parallel to industrial meat and dairy production, such diverse examples of urban animals' infrastructural or metabolic labor also reflect conceptions of nonhuman workers as little more than easily disposable sources of surplus value, mirroring the exploitation and disregard suffered by human laborers. Extending beyond labor markets, other explicitly urban and political multispecies research considers the role that animals play within urban housing markets and specifically in processes of gentrification. Where some animals—rats, pigeons, seagulls—are themselves devalued and displaced at the gentrification frontier, others—honeybees, certain dog breeds—may be enrolled as agents in green gentrification projects and as middle-class boundary markers, arguably becoming complicit in the displacement of stigmatized urban humans (Hubbard & Brooks 2021).

Beyond animals, plants have also proven to be a fruitful entry point for understanding the more-than-human formation, contestation, and transformation of urban landscapes of exclusion and violence (Gandy 2022a). Again, labor proves to be a useful analytic, as illustrated by Randle's (2022) study of nature-based water management infrastructure in a working-class, majority Latinx neighborhood in Los Angeles. Randle develops the notion of "ecosystem duties" to indicate that the burden of (generally unwaged) human labor required to harness plants and soils as "green infrastructure" tends to fall on less privileged residents and neighborhoods, while the benefits often accrue elsewhere. Working on insecurity in Kingston, Jamaica, McKinson (2021) underlines the ambiguous role that vegetation can play in the yards surrounding middle-class homes, marking public/private and classed boundaries even as they also enable the transgression of such boundaries. While trees and shrubs coproduce the fortification of middle-class residences by affording a physical line of defense, at the same time, this vegetation appears to actively invite "the longtime Caribbean art of pilfering fruit" by less privileged Kingstonians (McKinson 2021, p. 315), engendering feelings of insecurity among female residents in particular.

Extending such engagement with "useful" plants to less valued forms of vegetation, Stoetzer's (2022) research on Berlin's green space explores the human–plant socialities that emerge in the urban ruins produced by European nationalism, racism, and capitalism. She draws on the botanical category of ruderals—vegetation that grows in interstitial, inhospitable environments such as the edges of railways or bombed-out rubble terrains—to understand Berlin as a "ruderal city," where a variety of uninvited cosmopolitan beings and unexpected neighbors are alive, both constrained by and disruptive of urban order. Her analysis starts from the recognition that "urban nature is built on histories of extraction, racism, violence, and colonization" but emphasizes that within her conceptualization of ruderal ecologies, "the goal is not to equate people with plants, but rather to ask how people, plants, animals, and other living beings are intertwined in projects of capitalist extraction and nation-making—and how they traverse these projects" (Stoetzer 2022, p. 5).

Like animals and plants, a range of pathogens move in, through, and out of cities: Nonhuman life does not respect the boundaries that humans seek to establish between cities and hinterlands, between "good" and "bad" neighborhoods, or indeed between urban public space and domestic space (Kelly & Lezaun 2014, de Bondt et al. 2023). This unruly dimension of living organisms is especially evident in research on urban health, which draws explicit connections between multispecies relations and unequal health outcomes. This research includes work on zoonotic diseases that connects uneven urban geographies of health to specific forms of human–animal intimacy. Nadal's (2020) research on rabies in urban India, for example, points to the problematic nature of locating blame for the disease in canine bodies when rabies cannot be understood outside of broader multispecies relations among humans, dogs, cows, and macaques: "Blaming dogs for spreading rabies is akin to blaming the poor for their poverty, and just as dishonest, on both a moral and a practical level" (p. 225). At the same time, she shows how sociospatially differentiated practices of eating, feeding, and defecating connect low-income residents to urban animals in intimate, often violent ways that increase their exposure to the virus's transmission. More broadly, historically shaped sociospatial relations and infrastructures direct the global and intraurban circulation of pathogens away from certain spaces and human bodies and toward others (Hoffman 2016, Wolf 2016, Gandy 2022b). This concern was, of course, made all the more salient by the COVID-19 pandemic.[2]

URBAN INEQUALITIES BEYOND THE HUMAN

In seeking to understand the formation of power, difference, and inequality in and beyond cities, anthropologists have fully incorporated a sociospatial perspective that foregrounds the relations among different urban areas and social groups. An increasingly diverse body of scholarship has traced the processes of impoverishment and endangerment—and the concomitant processes of enrichment and protection—that result in unequal distributions of risks, resources, and political influence across these urban places and populations. As I have outlined above, two distinct perspectives on urban inequalities can be identified in, respectively, the infrastructural and multispecies turns that have also gained traction in anthropology more broadly. These perspectives involve a recognition that urban socialities are the effect of more-than-human assemblages and that "urban life" includes a much broader range of matter and of emplaced and embodied life-forms than people alone. Accordingly, they direct our attention beyond human agency, locating sociopolitical struggles in the relations among people and things and other living organisms.

[2]A virtual issue of *City & Society* published in 2020 compiled an extensive range of "COVID-19 City Dispatches" documenting these processes in a range of cities from early in the pandemic; see **https://anthrosource.onlinelibrary.wiley.com/doi/toc/10.1111/(ISSN)1548-744x.covid-city-dispatches**.

Developing a truly more-than-human approach to urban inequalities invites more explicit connections between the two perspectives outlined above. Critical studies of urban infrastructure have only recently begun to consider their entanglements with other-than-human species. Similarly, research on urban animals, plants, and other species has not always been attentive to how multispecies relations are mediated by sociotechnical systems. To understand how our relations with nonhuman entities shape the unequal distribution of risks and resources, it would serve anthropology well to study the relations among infrastructures, humans, and other forms of urban life together, whether through the lens of urban cyborgs, meshworks, or assemblages. Anthropology is also well-situated to extend such relational analyses of inequalities to another set of urban beings that is hardly ever considered through this lens: spiritual entities such as deities, ghosts, ancestral spirits, and other urban presences that exist beyond the physical realm. In addition to the diverse material artifacts and life-forms discussed in this review, anthropologists know that urban socialities and politics are also formed by the relationships that humans maintain with transcendental beings. A politically urgent and conceptually novel future avenue would be to explore how urban inequalities result from the relations among these beings, humans, inanimate things, and living organisms.

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