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The Deadly Life of Logistics

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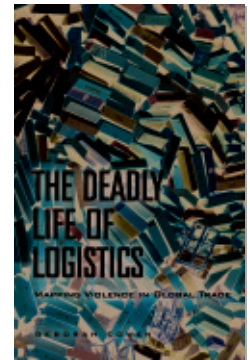
Published by University of Minnesota Press

Cowen, Deborah.

The Deadly Life of Logistics: Mapping Violence in Global Trade.

University of Minnesota Press, 2014.

Project MUSE. muse.jhu.edu/book/34578.



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INTRODUCTION

The Citizenship of Stuff in the Global Social Factory

Sneakers may still be easier to order online than smart bombs, but the industry that brings us both is making it increasingly difficult to discern the art of war from the science of business. Today, war and trade are both animated by the supply chain—they are organized by it and take its form. At stake is not simply the privatization of warfare or the militarization of corporate supply chains. With logistics comes new kinds of crises, new paradigms of security, new uses of law, new logics of killing, and a new map of the world. For many, *logistics* may only register as a word on the side of the trucks that magically bring online orders only hours after purchase or that circulate incessantly to and from big-box stores at local power centers. The entire network of infrastructures, technologies, spaces, workers, and violence that makes the circulation of stuff possible remains tucked out of sight for those who engage with logistics only as consumers. Yet, alongside billions of commodities, the management of global supply chains imports elaborate transactions into the socius—transactions that are political, financial, legal, and often martial.

With the rise of global supply chains, even the simplest purchase relies on the calibration of an astonishing cast of characters, multiple circulations of capital, and complex movements across great distances. Take the seeming simplicity of a child's doll purchased at a suburban shopping mall. We can trace its production to places like Guangdong, China, where dolls are packed into containers in large numbers, loaded onto trucks in the local Industrial Development Area, and transferred onto ships in the port of Zhongshan. Many of these dolls make the trek across the Pacific—6,401 nautical miles—via Hong Kong by sea to arrive at the Port of Long Beach approximately nineteen days and one hour later. Two days later the ships are unloaded, three days later they clear customs, and then

our containers full of dolls are transferred to a set of trucks and delivered 50 miles east to a distribution center in Mira Loma, California. Here the containers are opened and the boxes are unloaded, sorted, and repacked before being loaded again onto any one of the 800 diesel trucks that pick up and drop off cargo every hour in that town. Some of these trucks travel as far as 800 miles or more to a regional distribution center before their cargo is unloaded, sorted, and reloaded onto a final truck and sent to one of Wal-Mart's 4,000 American outlets.

If this set of movements seems elaborate, this is in fact a heavily simplified and sanitized account of the circulation of stuff. First, it is misleading to think about a singular site of production. Commodities today are manufactured *across logistics space* rather than in a singular place. This point is highlighted if we account for "inbound logistics"—the production processes of component parts that make the manufacture of a commodity possible—and if we recognize transportation as an element of production rather than merely a service that follows production. The complexity would be enhanced dramatically if we took stock of all the ways that capital circulates through its different forms during this physical circulation of commodity to market. A more nuanced narrative would especially start to surface if we were to highlight the frequent disruptions that characterize supply chains and the violent and contested human relations that constitute the global logistics industry. To the everyday delays of bad weather, flat tires, failed engines, missed connections, traffic jams, and road closures, we would also need to add more deliberate interruptions. Just-in-time transport systems can be disrupted by the labor actions of transport workers at any one of the multiple links along the way. Workers, organized or not, may interfere with the packing and repacking of cargo at any of the transshipment sites. Ships are frequently hijacked by pirates in key zones on open waters, and truck and rail routes are sometimes blockaded—in response to both long histories of colonial occupation and current practices of imperial expansion. Even national borders, with the unpredictable delays of customs and security checks, challenge the fast flow of goods. The threat of disruption to the circulation of stuff has become such a profound concern to governments and corporations in recent years that it has prompted the creation of an entire architecture of security that aims to govern global spaces of flow. This new framework of security—supply chain security—relies on a range of new forms of transnational regulation, border management, data collection, surveillance, and labor discipline, as well as naval missions and aerial bombing. In fact, to meaningfully capture the social life of circulation, we would have to consider not only disruption to the system but the assembly

of infrastructure and architecture achieved through land grabs, military actions, and dispossessions that are often the literal and figurative grounds for new logistics spaces.

Corporate and military logistics are increasingly entangled; this is a matter of not only military forces clearing the way for corporate trade but corporations actively supporting militaries as well. Logistics are one of the most heavily privatized areas of contemporary warfare. This is nowhere more the case than in the U.S. military bases in Iraq and Afghanistan, where private companies are contracted to do much of the feeding and housing of troops. “Public” military logisticians rapidly cycle into the private sector, often precisely to facilitate the shifting of logistics contracts to private military companies. The entanglement of military and corporate logistics may be deepening and changing form, but logistics was never a stranger to the world of warfare. The language of the supply chain (its recent corporate management speak) would have us believe that logistics emerged out of the brave new world of business to only recently colonize the old institution of the military. And yet, while national militaries have indeed been taken over by a new kind of corporate calculation, it was historically the military and warfare that gave the gift of logistics (De Landa 1991; Shoenberger 2008).

Logistics was dedicated to the art of war for millennia only to be adopted into the corporate world of management in the wake of World War II. For most of its martial life, logistics played a subservient role, enabling rather than defining military strategy. But things began to change with the rise of modern states and then petroleum warfare. The logistical complexity of mobilization in this context meant that the success or failure of campaigns came to rely on logistics. Over the course of the twentieth century, a reversal of sorts took place, and logistics began to lead strategy rather than serve it. This military history reminds us that logistics is not only about circulating *stuff* but about sustaining life. It is easy today to associate logistics with the myriad inanimate objects that it manages, but the very sustenance of populations is a key stake in the game. Indeed—the definitive role of the military art of logistics was in fueling the battlefield, and this entailed feeding men as well as machines. More recently, we see logistics conceptualized not only as a means to sustain life but as a lively system in itself. Contemporary efforts to protect supply chains invest logistical systems with biological imperatives to flow and prescribe “resilience” as a means of sustaining not only human life but the system itself. In this context, threats to circulation are treated not only as criminal acts but as profound threats to the *life* of trade. As I argue in the pages that follow, new boundaries of belonging are being drawn around

spaces of circulation. These “pipelines” of flow are not only displacing the borders of national territoriality but also recasting the geographies of law and violence that were organized by the inside/outside of state space. Those on the outside of the system, who aim to contest its flows, face the raw force of rough trade without recourse to normal laws and protections. Logistics is no simple story of securitization or of distribution; it is an industry and assemblage that is at once bio-, necro-, and antipolitical.

The Deadly Life of Logistics is concerned with how the seemingly banal and technocratic management of the movement of stuff through space has become a driving force of war and trade. This book examines how the military art of moving stuff gradually became not only the “umbrella science” of business management but, in Nigel Thrift’s (2007, 95) words, “perhaps the central discipline of the contemporary world.” But this book considers logistics as a project and not an achievement. Logistics is profoundly political and so contested in all its iterations—on the oceans, in cities, on road and rail corridors, and in the visual and cartographic images that are also part of its assemblage. This book explores how the art and then the science of logistics continue to transform not only the geographies of production and distribution and of security and war but also our political relations to our world and ourselves, and thus practices of citizenship, too.

This book makes four central arguments. First, it insists on the precarity of the distinction between “civilian” and “military,” even as it also attends to the political, historical, and geographical force of that distinction’s effects. It asks that we at once acknowledge the work of the separation of war and trade in the world as we also interrogate their entanglement. Second, in concert with countless other contemporary works, this book elaborates on the profoundly political life of forms of knowledge and calculation that present themselves as purely technical. It tells a story of logistics that highlights rather than hides the histories and geographies of conflict and violence through which the field has emerged in its present form. This work positions logistics’ claims to “technicality”—the profession’s assertion of its own expertise, objectivity, and political neutrality—firmly within that trajectory of struggle. This book addresses the antipolitical assemblage of logistics primarily through its constitutive cartographies, taking up the mapping of spaces of circulation as fundamental to the profoundly political and contested production of logistics space. The third intervention is related to the first and second; it highlights questions of violence and calculation specifically by interrogating the shifting boundaries between “civilian” and “military” domains. These boundaries are not only conceptual and legal; they are also geographical

(Mbembe 2003). As many scholars have outlined, the architecture of modern war was also a map of the modern state. War “faces out” from national territory, whereas the civilian was said to occupy domestic space (Giddens 1985, 192; Foucault [1997] 2003, 49). In the context of modernity, war designated “a conflict in some sense external to the structures of sovereignty and civil war a conflict internal to them” (Evans and Hardt 2010). But these boundaries are in significant flux. If we are living in an era of “global civil war” (Hardt and Negri 2002), wherein the national territorial framework that underpinned modern war erodes, then we are also seeing a corresponding “shift from the external to the internal use of force,” with armed conflicts administered not “as military campaigns but police actions” (Evans and Hardt 2010). And yet, this shift takes on a much more specific spatiality; the networked infrastructure and architecture of the supply chain animates both war and trade. This book insists that any serious engagement with contemporary political life must think through the violent economies of space. Our theory needs to engage our present as fundamentally a *time of logistics space*.

Finally, *The Deadly Life of Logistics* aims to open a queer engagement with logistics. This is not primarily a project of performing a “queer reading” of logistics, as J. K. Gibson-Graham (1996) aims to do of capitalism more broadly, but of highlighting the queerness that is already installed in this assemblage (cf. Puar 2005). This engagement exposes the vital role of this banal management science—a science that was born of war—in the recasting of the economies of life and death. It interrogates the uneven terrain of logistics space and how it differentiates groups’ rights and rights to life on the basis of their relationship to systems of supply. A profoundly imperial cartography, while logistics space takes new shape and sets a new pace to social life, it also demonizes old enemies of empire—workers of many kinds fighting exploitation and oppression, and especially racialized peoples, differently positioned, fighting dispossession. This engagement also therefore allows for a reconsideration of the central place of geography in the constitution of our material, political, and martial infrastructures. Beyond this diagnostic dimension—a queer engagement opens up the instabilities of the “system,” highlighting the “perverse installed within” (cf. Puar 2005, 126) that also incubates alternative spaces and futurities.

Markets and Militaries

While it is rarely acknowledged or interrogated, the old military art of logistics played a critical role in the making of the global social factory—not

simply the globalization of production, but the invention of the contemporary supply chain and the reorganization of national economies into transnational systems. Logistics was once a military art of moving soldiers and supplies to the front. In the years after World War II, the broad managerial uses of logistics were at the fore of research and gave rise to a business science. Writing for the RAND Corporation in 1960, Murray Geisler marks this growing interest in the civilian uses of military logistics. He explained that the “management problems of large military organizations share much in common, both on the general and specific level, with those of private industrial and commercial organizations,” and he argued that military logistics research should thus have relevance to civilian corporations. Geisler outlined two desires—that management sciences would learn from military logistics and that the former would assist the latter by taking up logistical challenges as central to their work. “The demands on the Air Force managers are becoming more challenging and difficult. Their need for assistance from management science is growing proportionately,” he explains (1960, 453). His desires materialized in the decade that followed. Business logistics began to lead the field, though always in close conversation with martial actors and institutions. For business management, a “revolution in logistics” took shape in the 1960s that entirely transformed the ways that corporations imagine, calculate, plan, and build spaces of production and of distribution and gradually remade the global economy. The revolution in logistics gave rise to transnational circulatory systems that span sites of production and consumption. Yet despite the postwar rise of a business science of logistics out of a military art, the revolution in logistics hardly marked its “civilianization” but rather a different and deepened entanglement between the just-in-time geographies of production and destruction. The entwined military and civilian life of logistics is particularly stark in the present. The recent rise of “supply chain security,” a network security that troubles borders and territory, highlights the profound entanglement of war and trade through logistics (Amoore and De Goede 2008; Bigo 2001; Bonacich 2005; Bonacich and Wilson 2008; Cooper et al. 1997; Flynn 2003; Haveman and Shatz 2006).

The idea that war and trade are intimately acquainted is hardly new. Critics have been marking the growing interlacing of the supposedly separate spheres of military and corporate life for some time. In his famous departing words, U.S. president Eisenhower warned of the “total influence” of an expanding *military-industrial complex*. Writing in 1974, Seymour Melman published a powerful analysis of the “permanent war economy,” in which he argued that postwar American industry was increasingly organized around martial accumulation. More recently, a lively literature traces

the rise of private military companies as a central force in contemporary war. Yet even as we are seeing the militarization of the economy and the privatization of warfare (Kinsey 2006; Chestermann and Lehnardt 2007; Leander 2010), I argue that something more significant is under way. Both war and trade are changing in an era of globalization and privatization in ways that warrant attention, but the long history and complex geography of their entanglement prompt us to investigate the very salience of the military–civilian conceptual divide. Scholars including Foucault ([1997] 2003, 2007), Barkawi (2011), De Landa (1991, 2005), Griggers (1997), Mann (1988), Jabri (2007), Mbembe (2003), Mohanty (2011), and Neocleus (2000) argue for such a profound rethinking of the ways we conceive military and civilian life. Their work is part of a tradition that reaches far back, even as it has also been recently renewed. Writing in 1938, Bertrand Russell (1938, 123) argued that all economic power, “apart from the economic power of labor . . . consists in being able to decide, by the use of armed force if necessary, who shall be allowed to stand upon a given piece of land and to put things into it and take things from it.” His conception is helpful not only because it places geography at the center of the analysis but also because he theorizes law as part of the operation of this violence rather than its antithesis. After elaborating on how the most banal of legal arrangements over land ownership (a tenant farmer paying rent to the landowner) have their historical source in conquest, Russell suggests that law is the relation of force that reproduces the power relations and social ordering achieved by physical force. He asserts, “In the intervals between such acts of violence, the power of the state shall pass according to law.”

This more sociological approach to the entanglement of military and economic force is complemented by a genealogical approach to the shifting contours of power. Foucault ([1997] 2003, 267) is particularly helpful here, questioning the ways in which warfighting and military institutions underpin civilian forms and asserting the profoundly martial contours of political imaginaries and logics. Many scholars have taken up the call to unearth the ways that war underpins peace in diverse domains: through material culture, industrial innovation, landscape, scopic regimes, and medical techniques and in social scientific discovery. Especially since the rise of industrial war and mass mobilization, in this is expansive terrain, as Mark Duffield (2011) notes, “everything from rope to jam had acquired a military significance.” A part of this growing chorus, this book instead traces the ways in which calculation—specifically the martial expertise in calculation of the most banal but essential aspects of war in supplying the means of life (provisions) and death (munitions)—was imported from the world of state war into the world of corporate trade, redefining both in the process.

Imperialism admits this entanglement but also considers its shifting ground. “Imperialism,” Raymond Williams (2013, 160) explains, “like any word which refers to fundamental social and political conflicts, cannot be reduced semantically, to a single proper meaning. Its important historical and contemporary variations of meaning point to real processes that have to be studied in their own terms.” Nevertheless, Williams also helpfully distinguishes between two different meanings of imperialism that have some resonances and parallels in contemporary debates about “geopolitics” and “geo-economics.” He notes that if imperialism is defined, as it was in nineteenth-century England, as “primarily a political system in which colonies are governed from an imperial centre . . . then the subsequent grant of independence or self-government to these colonies can be described, as indeed it widely has been, as ‘the end of imperialism.’” However, a different conception yields a different diagnosis of the present. “On the other hand,” he writes, “if imperialism is understood primarily as an economic system of external investment and the penetration of markets and sources of raw materials, political changes in the status of colonies will not greatly affect description of the continuing economic system as imperialist.”

Logistics maps the form of contemporary imperialism. Over the course of the last century, logistics has come to drive strategy and tactics, rather than function as an afterthought. Meanwhile, over the last fifty years, corporate civilian practice has come to lead this former military art, redefining logistics as a business science. Yet despite all this change, logistics remains deeply tied to the organization of violence. If logistics was a residual military art of the geopolitical state, where geopolitics is concerned primarily with the exercise of power and questions of sovereignty and authority within a territorially demarcated system of national states, then logistics as a business science has come to drive geo-economic logics and authority, where geo-economics emphasizes the recalibration of international space by globalized market logics, transnational actors (corporate, nonprofit, and state), and a network geography of capital, goods, and human flows (Sparke 1998, 2000; Pollard and Sidaway 2002; Cowen and Smith 2009).

Transforming Territory

The paradigmatic space of logistics is the supply chain. This network space, constituted by infrastructures, information, goods, and people, is dedicated to flows. Casually referred to by those in the industry as a “pipeline,” logistics space contrasts powerfully with the territoriality of

the national state. Today, the supply chain is understood to be both vital and vulnerable and so in urgent need of protection. This networked space surfaces over and over again as the object of supply chain security, rendering its trademark cartography. The corporate supply chain has a history in the military and colonial supply line. It is no accident that the supply *chain* of contemporary capitalism resonates so clearly with the supply *line* of the colonial frontier. It is not only striking but diagnostic that old enemies of empire—"indians" and "pirates"—are among the groups that pose the biggest threats to the "security of supply" today. It is also incredibly revealing that these groups frame their struggle in explicitly anti-imperial terms. Indeed, the supply line or chain is the geography of transnational flow but also of imperial force. The resurfacing of the supply line at the center of contemporary geopolitical economy with the echoes of empire connects present war with past forms and indicts the era of national territory as the historical anomaly.



FIGURE 1. (American) military supply line near Namiquipa, Mexico, 1916.
Source: National Geographic Creative.



FIGURE 2. Corporate supply chain near Vancouver, British Columbia, 2009.
Source: Photograph by Debra Pogorelsky.

How does this supply line—this network space of circulation—remake the world of nation-states and national territoriality? The growing importance of the supply chain in our political as well as economic geographies begs this question. Crucially, while logistics space collides with and corrodes *national territoriality*, it by no means marks the decline of *territory*. Saskia Sassen's recent work on the remaking of political and legal authority taking shape through processes of globalization is instructive (Sassen 2006, 2008, 2013; see also Elden 2009, 2013). Sassen traces transformations that she deems epochal in the recalibration of "the most complex institutional architecture we have ever produced: the national state" (Sassen 2006, 1). At stake is not the decline of territory but a more precise transition: the denouement of a particular historical-geographical instantiation of territory organized through nation-states—namely, territoriality. "Territory," Sassen (2013, 25) writes, "is not 'territoriality.'" If "territoriality" is a form associated with the modern state, Sassen (2013, 23) sees territory in itself as "a capability with embedded logics of power and of claimmaking." Key to these transformations is the rise of new "transversally bordered spaces that not only cut across national borders but also generate new types of formal and informal jurisdictions . . . deep inside the tissue of national sovereign territory" (*ibid.*). This book argues not simply that logistics spaces are one form of emergent jurisdiction among many that challenge the authority of national territoriality but rather that logistics is a driving force in the transformations in time, space, and territory that make globalization and recast jurisdiction. A ubiquitous management science of the government of circulation, logistics has been crucial in the process of time-space compression that has remade geographies of capitalist production and distribution at a global scale.

The politics of circulation are at the forefront of a number of threads of scholarship today—but which *forms* of circulation are we talking about? On the one hand, *circulation* refers to material and informational flows, and there is a growing body of scholarship considering the government of circulation in this vein. Much of this work emerges in conversation with Foucault's lectures collected in "Security, Territory, Population," in which he outlines the rise of a form of government concerned with the management of circulation (Foucault 2007, 65). Tracing the emergence of what he calls "security" in town planning, Foucault traces the encounter with "a completely different problem that is no longer that of fixing and demarcating the territory, but of allowing circulations to take place, of controlling them, sifting the good and the bad, ensuring that things are always in movement." More broadly, there is a dynamic and growing body of literature in the interdisciplinary study of "mobilities," which interrogates the

radically undervalored role of movement and circulation in everyday life (Sheller and Urry 2006; Sheller 2011). This sense of circulation (the movements of things, data, and people) is our common sense of the term, but it stands in some contrast to the notion at work in the study of the circulation of capital through its different forms. Indeed, this latter notion of circulation, perhaps most rigorously taken up in Marx's *Capital*, volume 2, is also at the center of contemporary debates—but about the political economy of crisis. While debates about circulation are experiencing resurgence, these different forms of circulation elaborated on in distinct literatures and networks rarely collide. Yet it is precisely the shifting relationship between the circulation of stuff and the circuits of capital that is at stake in the story of logistics. I suggest that on offer at this intersection is a vital political history of the economic space of our present.

Logistics entails not only “transversal networks” but a suite of other spaces that underpin circulation—nodes, chokepoints, “bunkers” (cf. Duffield 2011), borders, and overlapping jurisdictions such as cities and states. The making of logistics space challenges not only the inside/outside binary of national territoriality but also the “tidy” ways that modern warfare has been organized along national lines. In his classic account, Charles Tilly considers the long histories of European state formation that were defined by contestation between capital accumulating networks of mercantile cities and the territorially bounded coercion of military states. For Tilly (1990, 19), “Capital defines a realm of exploitation,” whereas “coercion defines a realm of domination.” Importantly, Tilly allows that “coercive means and capital merge where the same objects (e.g., workhouses) serve exploitation and domination.” If, as I assert in this book, the revolution in logistics transformed the factory into a disaggregated network of production and circulation, then arguably the supply chain as reformed workhouse is a paradigmatic and expansive space for the entanglement of exploitation and domination. Indeed, while Tilly's intervention is typically remembered for its separation of these two organizations of power—capital/city and coercive state—he nevertheless marks the historical expansion of both forms. “Over time,” he writes, “the place of capital in the form of states grew even larger, while the influence of coercion (in the guise of policing and state intervention) expanded as well.” Indeed, as I argue in the pages that follow, the story of capital and coercion is not an either/or. As the title of this work hints, logistics space is produced through the intensification of both capital circulation and organized violence—although in ways that might be difficult to recognize.

Perhaps it is not surprising that some of the most promising insights on the spaces and scales of contemporary government come from critical

scholars of *security*. Martin Coward's (2009) arguments about the urbanization of security are prescient in that they focus on the networked infrastructures that render contemporary life neither local nor global; it is at once urban and transnational. While infrastructure has long been vital to political economic life and the target of organized violence, Coward suggests that significant change has occurred in the relationship between infrastructure and the urban that makes them both *critical* in circuits of power and violence today. Historically, he writes, "infrastructures were targeted because they were an element in a war machine that happened to be concentrated in cities," whereas today, the city is targeted because it is constituted by critical infrastructure (Coward 2009, 403). Critical infrastructure is not simply proximate to urban centers but constitutive of the city (*ibid.*, 404). What Coward describes is essentially the rise of logistics space wherein cities (logistics cities) have become key informational, infrastructural, economic, and political zones and thus the targets of attack. Mark Duffield (2011) offers some stunning insight into this very claim, suggesting that a reformulation of total war has given way to an "environmental terror" that targets the conditions of life through attack on vital infrastructures. Duffield (2011, 765) argues that environmental terror and its Nomos of Circulation (Evans and Hardt 2010) have a precise architecture in "nodal bunkers, linked by secure corridors and formed into defended archipelagos of privileged circulation." Duffield (2011) emphasizes the ways in which "secure corridors" delineate "global camps" and thus offers a map of the world that is also a map of logistics space. Logistics logics drive both war and trade and constitute a complex spatiality at once national, urban, imperial, and mobile—an "interlegality" (de Sousa Santos, quoted in Valverde 2009) of rough trade.

Questions of (logistics) space are also profoundly questions of citizenship. If national territoriality gave literal legal shape to modern formal citizenship, what are the implications of its recasting for political belonging and subjectivity? As the assemblage of a global architecture for the protection of trade flows brings new forms and spaces of security into being—the network spaces of logistics infrastructure and flow—it also provokes, at least potentially, new paradigms of citizenship (Partridge 2011). Supply chain security crosses over land and sea, encountering and recasting the government of national borders, but it also collides with the rights and livelihoods of groups, reconstituting those groups in the process. Protecting trade networks from disruption creates new spaces of security and in doing so problematizes the political and legal status of subjects. For instance, military, corporate, and civilian state managers deliberate whether pirates in the Gulf of Aden should be administered as "criminals"

or “terrorists” when they disrupt shipping traffic. Their answers have produced a new category of problem—“the Somali pirate”—and a whole new arsenal of antipiracy initiatives that violently transform the lives of Somali fisherfolk, as they also remake international law. While supply chain security is highly contested and in flux, the problematization of disruption and possible responses are tied to the political and spatial logics of logistics. In other words, the network geography of supply chain security does not elude longstanding territorial problems of sovereignty, jurisdiction, and security, but it does work to dramatically recast these spatial ontologies.

After several decades of work in political geography and citizenship studies, it should not be strange to pose these questions in this way. John Pickles (2004, 5) suggests that “maps provide the very conditions of possibility for the worlds we inhabit and the subjects we become.” Even more directly, Peter Nyers (2008, 168) eloquently argues that “acts of bordering are also acts of citizenship in that they are part of the process by which citizens are distinguished from others: strangers, outsiders, non-status people and the rest.” Kezia Barker (2010, 352) likewise emphasizes viewing citizenship through a geographical lens, which she sees as “the unstable outcome of ongoing struggles over how constructed categories of people come to be politically defined in space.” For Engin Isin (2009, 1), citizenship is not only about the strategies of rule through which rights are defined and distributed, but more important, it “is about political subjectivity. Not one or the other but both: political and subjectivity. Citizenship enables political subjectivity. Citizenship opens politics as a practice of contestation (agon) through which subjects become political.” Questions of this sort are posed in these pages in only preliminary ways, but already here we begin to see some of the contours of the citizenship of stuff and its contestation.

Resilient Systems and Survival

The rise of a business science of logistics has been pivotal in the broader tilt toward a public-private partnership of geo-economic power. Yet the rise of geo-economic logics and forms does not mark the *replacement* of national states and their populations and territories, or even of geopolitics, but rather a profound reshaping. While global logistics corridors challenge territorial borders, and while a new paradigm of security is assembled to protect goods and infrastructure, the politics of populations and territories remain extraordinarily salient, as the brief preceding discussion about citizenship suggests. Struggles over territory, rights, and the laboring body are at the center of the citizenship of stuff, as the chapters that follow insist. Likewise, while this book traces the rise of a distinct

paradigm of security that is concerned with circulation, the logistics system at its core is not only sociotechnical but persistently biopolitical.

An insistence on the biopolitics of logistics is *anything but* simple. With the securitization of supply chains, it is the circulatory system itself that becomes the object of vulnerability and protection, not human life in any immediate way. Efforts to secure supply chains might be understood in the context of the rise of a form of collective security that Stephen Collier and Andy Lakoff term “vital systems.” This form of security seeks to protect systems that are critical to economic and political order ranging from transportation to communications, food and water supply, and finance. Vital systems security responds to threats that may be impossible to prevent “such as natural disasters, disease epidemics, environmental crises, or terrorist attacks” (Collier and Lakoff 2007). Vital systems security is thus distinguished by the wide range of disasters to which it aims to respond and by its emphasis on preparedness for emergency management rather than preventive or predictive responses that characterized risk-based models of insecurity. Lakoff (2007) explains that for vital systems security, the object of protection is not the national territory or the population but rather the critical systems that underpin social and economic life. Unlike population security and its welfarist rationality, vital systems interventions “are not focused on modulating the living conditions of human beings, but rather on assuring the continuous functioning of these systems.” I intend to highlight this shift in government from concern for the security of national territories and populations to the security of the circulation of stuff but also to hail debates in the “new materialities” that insist on a more-than-human political theory (Mitchell 2002, 2011; Bennett 2010; Braun and Whatmore 2010; Coole and Frost 2010). This demands some engagement with the liveliness of the sociotechnical systems that constitute contemporary logistics space. Specifically, it begs the question of whether these systems have a meaningfully precarious *life* in ways that are more than metaphorical.

This question is taken up centrally, though in perhaps somewhat oblique ways, in the concluding chapter. Despite the fact that *inanimate objects* are largely what constitute its infrastructures, I argue that logistics space is nevertheless profoundly biopolitical. As Duffield (2011, 763) argues, “Biopolitics has changed”; it has “realigned around processes of remedial abandonment.” I suggest that making sense of logistics as a “vital system” requires an elaboration of the “more-than-human” politics of nature. The politics of inanimate objects and information are a key domain of logistics, but I direct attention toward the lively instead. I make this move, in a sense, empirically—by addressing the convergence

of logistical and biological politics through discourses of systems, survival, and resilience. Logistics systems figure as natural systems rather than “things,” where *nature* is not just a metaphor but a metric. It is not just any nature at work here but a very distinct conception—a social Darwinism of circulation. A modern-day and hypermobile recasting of social Darwinism explicitly calibrates logistics systems to the nonhuman migrations that National Geographic (Kostyal 2010, 16) calls “the elemental story of instinct and survival.” Looking to popular culture and advertising campaigns but also to the actual securitization of supply chains, the concluding chapter traces how survival through circulation is mapped on both the nonhuman and economic worlds at once.

Mark Duffield’s recent work elaborates on the dangerous discourse of resilience, specifically the ways it links war and trade through nature. Duffield (2011, 763) argues, “Not only do we see a diagram of war in nature, nature itself has been rediscovered to function as a market.” His insights are prescient. The conflation of a survivalist politics of circulation in nature and trade has troubling implications; it naturalizes trade flows, casting disruption as a threat to life itself, ideologically buttressing active efforts to cast acts of piracy, indigenous blockades, and labor actions as matters of security subject to exceptional force. And yet the ironies of this maneuver are also potent. If social Darwinist ideas of animal migrations serve to naturalize economic circulation, Darwin’s ideas have also been interpreted as the transposition of capitalist social relations onto nature. More than 150 years ago, Karl Marx suggested that Darwin’s work in the *Origin of the Species* described the relations of production that constituted the capitalist mode of production as his “*nature*” (Ball 1979, 473). Initially upon reading this work in 1860, Marx expressed his appreciation to Engels for Darwin’s refusal of a teleological approach to nature. Just two years later, in 1862, he reports to Engels that on rereading Darwin, he found him “amusing.” As Ball explains, “Darwin emerges, on Marx’s rereading, as a nineteenth-century English Bourgeois-turned-naturalist.” In a letter to Engels, Marx writes, “It is remarkable how Darwin recognizes among beasts and plants his English society with its division of labour, competition, opening up of new markets, inventions, and the Malthusian ‘struggle for existence.’ His [nature] is Hobbes’ bellum omnium contra omnes, and one is reminded of Hegel’s Phenomenology, where civil society is described as a ‘spiritual animal kingdom,’ while in Darwin the animal kingdom figures as civil society” (Marx, quoted in Ball 1979, 473). In perfectly circular fashion, “nature” is thus a metric for trade, which is *already* a metric for nature.

At stake in this survivalist circulation, and in these debates about the bios, are also the contours of contemporary organized violence. Biopower

is centrally a matter of death as well as life, as Achille Mbembe's crucial insights on the management of killing and his elaborations on the politics and geographies of warfare teach us. If the limit of the inside/outside geography of modern war was the colony—for instance, that which Mbembe (2003, 23) describes in the context of *jus publicum* and the bounding of legitimate war (see also Badiou 2002; Mignolo and Tlostanova 2006; Asad 2007), where “the distinction between war and peace does not avail” (25)—then contemporary war, logistical war, imports this indistinction across its transnational networks of security. This is not to suggest that uneven and exceptional spaces have become smooth—global space is if anything as divided, segregated, and differentiated by rule and force as ever—but rather that the spatial logics of contemporary warfare and biopower are also shifting.

The concluding chapter explores the *circulation of the biopolitics of circulation* and its violent cartographies, yet this engagement with the “nature” of circulation is also an effort to open up alternatives to the technocratic antipolitics of logistics space. In this aim, the work of feminist and queer theorists is particularly helpful. I take up Elizabeth Grosz's recent (2005, 2011) work centrally, for while she does not directly engage the world of logistics, she is centrally concerned with the problem of social Darwinism that has become so vital to logistics logics. Grosz suggests that new materialist feminist futurities rely on disaggregating two key concepts in Darwin's work. In a move that shares rhythms with queer critique, Grosz insists on the autonomy of sexual from natural selection. Sexual selection locates creative transformation in desire without determination. If natural selection is the logic of mimetic reproduction, sexual selection charts unpredictable assemblages, both in the immediate realm of sex and sexuality and in the capacity for “artistic” practice to organize futurity. If sexual selection offers the profound political openings that Grosz suggests, it provides some potentially powerful ways for conceptualizing alternatives to the necropolitical, racialized, and heteronormative premises of natural selection that currently code the violent logics of logistics space. Thus the concluding chapter of the book asks what the unhinging of sexual from natural selection might mean for logistics space. Here I ask that if social Darwinist ideals of species survival are serving as discursive infrastructure for the assemblage of “resilient” global supply chains, how might we instead encourage them to “appear in all their queernesses” (Puar 2005, 126)?

This book only briefly engages the many movements that labor toward a different calibration of logistics and everyday life, yet in this engagement and in offering a map of logistics space, it intends to contribute to

these counter cartographies. Logistics space is constituted through distinct political geographies—networks of circulation—and I explore how these same spatialities are also an opportunity for alternative alliances.

The Logistics of *The Deadly Life of Logistics*

This book mobilizes a variety of research methods and archives to trace a long history and global geography of logistics. To organize the study of such a vast terrain with both rigor and humility, the book targets key events in the emergence and transformation of the field. Each chapter focuses on a time and place where significant change takes place and where important experiments in the government of circulation are under way. My intention is to provide a sketch of an emerging network of power and violence with no pretense to comprehensiveness. There are dramatic and necessary limitations on this work, which I hope might be interpreted as invitations and open questions. First and foremost, and with some irony—the *geography* of my geography is profoundly partial. The project is bounded by the practical need to locate the analysis of a globalized system in place, although there is a deliberate choice here, too. The United States figures centrally in the stories that follow, as the book also traces the mobility of rough trade through Canada, Iraq, Dubai, and the Gulf of Aden. American actors and institutions have played a pivotal role in the emergence and transformation of the field, and despite the multinodal map of contemporary global power, U.S. imperialism remains profoundly salient (Smith 2004; Panitch and Gindin 2012). There are, however, countless places, events, and questions that should be addressed in the chapters that follow but that do not make appearance. The “known unknowns”—to paraphrase Donald Rumsfeld (and Matt Hanah 2006)—the things I am already aware deserve more attention than they get, are massive and multiple. Major events like containerization are only briefly addressed, despite clearly having a profound impact on the shape of this story. Likewise, the widespread sweep of port privatization during the last decades of the twentieth century is only addressed in passing. The power of finance capital in fueling logistics’ life deserves its own book. No doubt there is also a list of “unknown unknowns”—things I do not even realize I have neglected but that should be included here.

If there are limits of time, space, and capacity in terms of *what* this book highlights, there are also profound limitations in terms of *how* this book is crafted. I take some comfort in Christopher Kelty’s (2008, 20) comments on the study of “distributed phenomena” wherein he reminds us that *careful* and *comprehensive* are not the same thing. Kelty suggests

that comprehensiveness is not only impossible but undesirable, and certainly unnecessary, when the object of study is distributed. “The study of distributed phenomena does not necessarily imply the detailed, local study of each instance of a phenomenon,” Kelty writes. “Such a project is not only extremely difficult, but confuses map and territory.” Indeed, the study of something as widely distributed as *distribution* itself raises complex methodological questions and demands reflexivity on the limits of knowing, yet, as Kelty argues, “it is possible to make any given node into a source of rich and detailed knowledge about the distributed phenomena itself, not only about the local site.” The sites I study are nodes in networks of flow rather than discrete objects, and this implies that the site is never *simply* local or entirely contained. I also draw important lessons from Timothy Mitchell, who provides a model for careful conceptual work through events and places that refuses the abstraction of so much theory. In his beautiful book *The Rule of Experts*, Tim Mitchell (2002, 8) suggests, “The theory lies in the complexity of the cases,” and I aim to follow his approach in opening theoretical questions through these empirical adventures. This book’s rhythm, which may feel peculiarly empirical for theoreticians and strangely theoretical for empiricists, thinks through *things*—events, places, relations, and institutions.

Maps are critical infrastructure for the arguments presented in this book and essential architecture for its unfolding. While “a map is not the territory” (Korzybski 1973), maps are nevertheless crucially important in the production of space (Harley 1988, 1989; Kitchen and Dodge 2007; Lefebvre 1991; Wood 1992, 2010). Maps purport to represent the world, yet critical cartographers have reiterated that they are not in any simple sense representations; instead, “maps and mapping precede the territory they ‘represent’” (Pickles 2004, quoted in Kitchen and Dodge 2007, 4). When maps work, they respond to something concrete in our lived experience but frame it or channel it in a particular way. They are “the products of power and they produce power” (Kitchen and Dodge 2007, 2). Maps are neither true nor false; they are “propositions” (Krygier and Wood 2011) that authorize “the state of affairs which through their mapping they help to bring into being” (Wood 2010, 1). Wood argues that the rise of the map as we know it today is “the rise of the modern state” (*ibid.*). Modern Western cartography emerges as part of state power, where maps serve to “replace, reduce the need for the application of armed force.”

A central irony of supply chain maps is thus that they conceal histories of organized violence as they render them visually. It is the networked space of the supply chain that is mapped in the images that open each of the chapters of this book. Some of these render very particular spaces—for

instance, the Gulf of Aden (chapter 4) or even the illustrations of Basra Logistics City (chapter 5). The rest are conceptual maps—diagrams of abstracted spaces that detail the designs of processes and relationships that are not obviously or immediately geographical in the same sense but that nevertheless have their spatialities. *How* each of these images work in the world to render actual spaces is elaborated in each respective chapter, but they collectively constitute key cartographies of rough trade. The images of specific places may seem more straightforward in this regard; the map of the Gulf of Aden renders the invention of a new space, a corridor of public and private security: the *International Recommended Transit Corridor* off the coast of the Horn of Africa. The plan for Basra Logistics City, on the other hand, lays out a vision for the transformation of the largest military detention center in Iraq into a glimmering hub of global oil trade. Yet the diagrams are no less significant in the making of space, even if in ways that are less immediately visible: the “system of supply” that animates the birth of business logistics in chapter 1, the network space that is the object of supply chain security in chapter 2, and the ordering of exceptional authority that defines the “process model” for secure ports in chapter 3. Together the images map a series of violent and contested geographies: spaces of movement and flow, and spaces of bordering and containment.

This book opens up a genealogical and geographical investigation of the modern art and science of logistics. Chapter 1 offers a sketch of the long life and mobile meaning of logistics. It traces a series of astounding transformations that characterize modern logistics in its infrastructures, technologies, landscapes, forms of labor, and expertise but also in the very meaning of the term. It outlines, first, the long military history of logistics as an art of war and the technopolitics of early twentieth-century petroleum warfare that placed it in the driving seat of strategy and tactics. This chapter then dwells heavily in debates in the fields of systems analysis, business, and physical distribution management (the latter briefly known as “rhocrematics”) from the 1940s through the 1960s to trace the revolution in logistics and its remaking of spatial calculation and so too geopolitical economic life. Like chapter 1, chapter 2 also sets some technical ground for the more political chapters that follow. It traces the birth of “supply chain security,” locating this increasingly important transnational paradigm of security at the core of the project of logistics space. The chapter thus examines the problem of disruption as part of the assemblage of the infrastructures, technologies, institutions, labor forces, and regulations that support the building of the “seamless” corridors and gateways of logistics space. As an ever-present threat to just-in-time circulation

systems, disruption has come to figure as a threat to the “security” of supply chains. Disruption can stem from many forces, and one of the defining features of supply chain security is the interdisciplinary nature of the threats it aims to govern. Earthquakes, equipment failures, pirate attacks, rail blockades, and myriad other disparate forces of disruption are all governed under its rubric.

The distinct work of securing systems of supply in specific places is taken up in chapters 3, 4, and 5. These are key sites of experimentation—zones where circulation faces particularly potent disruption. Chapter 3 looks at the labor of logistics and situates recent initiatives to “secure” workers in a much longer tradition of managing the bodies and movements of productive labor. Logistics technologies have devastated the conditions of work across entire sectors, but I insist that we shift perspective somewhat to see this as centrally a reorganization of the geographies of (unfree) labor. If the boundaries of making and moving are both obscured in logistics networks that stretch around the world as the revolution in logistics suggests, we also see the rise of an extraordinary apparatus of management that is neither just public nor private and neither military nor civilian but something else. Yet the people that labor at logistics may be more “resilient” than these systems, as they continue to disrupt flows and construct alternative circulation. Workers have been intransigent in their claims for economic and social justice and can create bottlenecks that ripple powerfully through global logistics networks. Yet if the factory is a global system, then it is not just workers in the strict sense that may disrupt production. Indeed, piracy—taken up in chapter 4—has surfaced again as a global threat to the legally sanctioned rough trade of contemporary imperialism. Firmly within the global social factory, the crucial shipping corridor of the Gulf of Aden has become a hotspot for experiments in martial, legal, and “humanitarian” efforts. Europe and the United States have been particularly active in deploying physical and symbolic violence in ways that remake political space and echo the colonial violence of a century ago.

Chapter 5 explores the *urban* revolution in logistics. While it traces the urbanization of infrastructure and economy, it also insists that the study of the “global city” refuses a civilianization of vision. It suggests that there is significance to the rise of the “logistics city”—a hybrid form that combines the exceptional spaces of the military base and the corporate export processing zone. Both parasite and supplement, the logistics city provokes questions about the future of urban citizenship, circulation, and political struggle.

The conclusion—“Rough Trade?”—also investigates alternative futures, drawing on a very different archive. It looks to advertising (which emerged out of management sciences as did logistics) and specifically the corporate campaigns of a leading logistics company and the branding of logistics as alternately lovable and lethal in human and more-than-human worlds. Collecting themes raised throughout the book, the analysis explores visions of violence and desire in the social and spatial assembly of logistics space while highlighting paths toward alternative futures and perhaps even alternative economies of rough trade.

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