Electric Light: Automating the Carceral State During the Quantification of Everything

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Electric Light: Automating the Carceral State During the Quantification of Everything

by

R. Joshua Scannell

A dissertation submitted to the Graduate Faculty in Sociology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

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R. Joshua Scannell

This manuscript has been read and accepted for the Graduate Faculty in Sociology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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This dissertation traces the rise of digitally-driven policing technologies in order to make sense of how prevailing logics of governance are transformed by ubiquitous computing technology. Beginning in the early 1990s, police departments and theorists began to rely on increasingly detailed sets of metrics to evaluate performance. The adoption of digital technology to streamline quantitative evaluation coincided with a steep decline in measured crime that served as a proof-of-concept for the effectivity of digital police surveillance and analytics systems. During the turbulent first two decades of the 21st century, such digital technologies were increasingly associated with reform projects designed to improve the transparency and accountability of police departments. This dissertation challenges that assertion, and argues that digitization functions to make “numerical” and “mathematical” racial and sexual violence that is internal to policing neoliberal political economy. Rather than transparency and accountability, this dissertation posits that the effect of digitally-driven police technology is the accelerative disentangling of the “human” from “life” and “life” from government. The consequence has been the ossification of a racialized carceral state under the aegis of putatively anti-racist technocratic governance.
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INTRODUCTION: ELECTRIC LIGHT

The machine could swallow everything, incorporate it seamlessly, like a giant loom that reweaves all fabric, no matter how recalcitrant and jarring its raw form, into what my hero would have called a master-pattern – or, if not that, then maybe just the pattern of the master.

Tom McCarthy
Satin Island

Mimetic becomes apocalyptic in the penal landscape that is passing for a homeland – and logically so, for this is where death is manufactured.

Joy James
Warfare in the American Homeland

On December 15, 2014, twelve days after a Staten Island Jury fails to indict NYPD Officer Daniel Pantaleo for choking Eric Garner to death, Newsweek publishes an op-ed called “Can Big Data Help Build Trust in the Police?” (Lim 2014). The pitch is simple. The failure of Grand Juries to indict Pantaleo in New York, and Officer Darren Wilson, the man who shot teenager Michael Brown to death in Ferguson, Missouri, have “spurred a national conversation on police-community relations.” President Barack Obama’s effort to engage in that “conversation” is a Task Force on 21st Century Policing that the op-ed argues is doomed to fail unless it embraces a “21st century approach.” That approach has to harness the way “individuals and organizations use data to improve performance.” The problem with policing and racialized death is not, as Black Lives Matter activists argue, racism. Instead, it is a problem of information flow that can only be solved with the latest digital analytic techniques. Big Data, in other words, will resolve racist policing.
The author, Nelson Lim, is a sociology professor at the RAND Corporation’s Pardee RAND Graduate School. He is articulating a line of thinking that has gained enormous purchase during the Obama administration in general, and that intensifying organized resistance to racist policing in his second term weds to police reform. The logic goes like this: the problem with policing in America is a problem of a trust deficit between the police “and the communities that they protect” (“Fact Sheet: Task Force on 21st Century Policing” 2014). The way to fix that deficit is to improve police departments’ “accountability” and “transparency.” The way to improve accountability and transparency is for cops to “provide meaningful, revealing analytics to their communities” (Lim 2014). To shore up this argument that conflates American state racism (Foucault 2003) with trust deficits, and reform with data collection, Lim turns to an old Louis Brandeis canard about sunshine.

In 1913, Brandeis is economic policy advisor to Woodrow Wilson and his Progressive New Freedom project. While Wilson makes himself busy Progressively segregating the federal government, the future justice of the Supreme Court focuses on banks. Against anti-trust regulation or nationalization, Brandeis argues that the best way to break financial houses’ control over the economy is to publish their service fees. Doing so, he claims, alerts investors to unfair practices, incentivizes them to invest with honest houses, and forces banks to behave fairly. “Sunlight,” he says, “is said to be the best of disinfectants; electric light the most efficient policeman” (Brandeis 2009).

Brandeis is wrong about sunlight regulating banks. In the absence of effective state regulation, they continue to concentrate power, and eventually collapse, triggering the Great Depression.
But his slogan becomes a mantra for what Tariq Ali calls the “Extreme Center” of American politics (Ali 2015). The Extreme Center, made up of political agents of all parties whose allegiance is to the maintenance of free market capitalism at all costs, is in 2014 caught between the rock of “transparent” racial state violence and the hard place that necessitates state-sanctioned armed cadres to maintain a fraying political economic structure. Overwhelmed, the extreme center insist that the facts aren’t in, and call for better data, and for better analytics. Or for what Lim, quoting Brandeis, calls “sunshine.”

In the mid 2010s, that call for “sunshine” translates into the rollout of police worn body cameras on the one hand, and improved resource management software on the other. Critics like Elizabeth Joh point out that, from a civil rights standpoint, police worn body cams are a disaster (E. E. Joh 2016). She’s right (E. Joh 2016). The distinction between transparency (“sunshine”) and surveillance is fictive to begin with (Levy and Johns 2016).

For instance: The Axon Corporation, formerly called Taser, is most famous for its former-namesake “less lethal” police weapon. But it is also the largest producer of police worn body cameras, among a range of other surveillance technologies and analytics systems. As early as 2010, Taser articulates a vision of integrating facial recognition technology into police worn body cameras that can scan crowds and match faces to outstanding warrants in real time (Gross 2010). In 2017, the company pivots its business model to analytics. In April 2017, the company announces that Taser is now Axon, and will offer free body cameras, as well as “supporting hardware, software, data storage, training, and support to police departments free of cost for one year.” Axon plans to use a proprietary, expanding database of body camera videos to develop
technology that can “anticipate criminal activity” by reading body language to warn officers if “someone’s demeanor has changed and may now be a threat” (Kofman 2017). So, the tool to achieve greater transparency (“sunshine”), and heal the trust deficit between police and “the communities they protect” is also how police surveillance generalizes, and how analytics automates carceral precarity, debilitating populations (Puar 2017). What the extreme center never says out loud is that the other side of transparency and sunshine is the policeman, and electric light.

In September 2014, a few months before Lim publishes his article in Newsweek, the New York Times runs a report on policing in Brownsville, a poor and largely black neighborhood in Brooklyn. A new Mayor, Bill de Blasio, has recently been elected on the promise of ending the New York Police Department’s unconstitutional Stop, Question, and Frisk policy (Vaughan 2013). The reporter is in Brownsville to see what has changed since the city pivoted to its new strategy, called “Omnipresence.”

He finds: police cruisers parked at every junction, emergency lights flashing until the early hours of the morning; powerful floodlights on all night pointed at public housing projects’ windows; officers patrolling building interiors with flashlights on and guns drawn; helicopters flying overhead, shining searchlights down at the neighborhood. Electric light, everywhere. One person who lives in the neighborhood tells the reporter that “[we] feel like we live under siege” (J. Goldstein 2014).
Omnipresence is the brainchild of Commissioner Bill Bratton, who, in 2014, is pushing hard to drive NYPD’s information technology development. The NYPD’s Information Technology Bureau estimates that implementing the total wish list will cost $350 million. It includes plans to build a proprietary fiber optic network for the police, new data centers and cloud capability, efforts to link NYPD camera feeds with independent agencies (like NYCHA), to construct a citywide data fusion center under NYPD control, to expand the existing Domain Awareness System nerve center for processing data streams and to push that system’s platform to field officers, to install ShotSpotter gunshot detection centers city-wide, to contract predictive policing software as a service from a private company, to equip officers with body cameras, and to issue NYPD emails to officers (New York City Police Department 2015). These are a different sort of omnipresence; a different set of techniques for leveraging algorithms to bathe a city in electric light.

In *Dark Matters*, Simone Browne introduces the concept of “black luminosity” as a framework for understanding the racializing violence that inheres in the productive surveillance of blackness. Black Luminosity is “a form of boundary maintenance occurring at the site of the black body, whether by candlelight, flaming torch, or the camera flashbulb that documents the ritualized terror of a lynch mob.” This boundary maintenance is “intricately tied to knowing the black body, subjecting some to a high visibility…by way of technologies of seeing that sought to render the subject outside of the category of the human, un-visible” (Browne 2015, 67-68). We might add to this historical list floodlights, CCTVs, facial recognition software, gait matching software, social media surveillance, data fusion, predictive policing, body cameras, surveillant
sensors, heat maps, compstat maps. In other words, the 21st century technological assemblage of black luminosity that underwrites American matrices of domination (Collins 2009).

Algorithmic policing – Electric Light – is a deepening and extension of the boundary making that Browne identifies. Emerging concerns about digital surveillance technologies - that they inhumanize and dividuate people to circulate their data as valuable, securable information (boyd and Crawford 2012, Lyon 2011) are in some ways a much-belated realization of the process by which taxonomies of the body have organized and distributed population. Against the concern that digital surveillance presents a new problem of reducing people to constituent parts and alienates the subject from itself and from the law, we might look to Jennifer Morgan’s argument in Laboring Women that early modern European taxonomies of non-white women were central to nascent state projects of colonialism. These taxonomies laid the intellectual, financial, and ideological groundwork needed to produce captive labor forces on which new modes of capitalist accumulation could be built (Morgan 2004).

Morgan argues that a fundamental technique of the production and circulation of what we now understand as “race” was European explorers’ efforts to “read” non-European women’s bodies as uniquely capable of producing new bodies for captivity through pregnancy and reproduction while also doing agricultural labor. This subtended a colonial fascination with the imagined physicality of the “indigenous other.” European “experts,” for instance, argued that non-European women’s breasts were especially and monstrously elongated so that babies could be carried on their backs and “suckle o’er their shoulder” while they did agricultural labor. The (imagined) breast became a key metric, along with the supposed ease and painlessness of
delivery, by which Europeans determined the sliding scale of populational fitness for civilization or enslavement. Biometrics and racialization have always been of a part (Ajana 2013, Browne 2015, Duster 2003).

And the racializing technologies of biometrics always require illumination. Eighteenth century British colonial authorities in New York developed what Browne calls “Lantern Laws” in response to widespread enslaved’ and indigenous resistance to the colonial regime. The white ruling class feared that the free and untracked movement of enslaved persons invited danger. Where enslaved people could freely meet and talk, they could strategize insurrection and plan revolt. These laws thus mandated that black and native persons, when walking two or more at a time and unaccompanied by a white person were required, after dark, to carry lit candle lanterns. They were made to be luminous (Browne 2015, 76-83).

An urban reimagining of the rural “pass,” the Lantern Laws organized the imagined infrastructure of the city through the circulation of illuminated black and native bodies (Hadden 2003; Browne 2015). Colonial luminosity assembles surveillant technologies (candles, lanterns), racial technologies (bondage, property rights), capital (the sea, the ship, the financial instrument, the east India company) and imperial affects (the impetus for these laws is to defend the sanctity of the afternoon tea ceremony) to map carceral, colonial New York. Back to the future, in 2014, the New York Police Department assembles surveillant technologies (cctv, ShotSpotter, crime mapping, gait matching, facial recognition, automated license plate readers, predictive policing), racial technologies (incarceration, underfunded schools, rent gouging, poor wages), capital
(credit, real estate value, data farming, analytics), and imperial affects (the colorblind land of opportunity, the American dream) to map carceral, 21st century New York.

As in Brownsville in 2014, so too in colonial New York: the mobility and opacity of free white colonial subjects depends on black and native bodies’ forced illumination. In their passage through the colonial city, black and native bodies were not only forced to present before the panoptic regard of the white gaze, they were constitutive of sovereignty’s field of vision (Kelley 1996, Bell 1992, Scott 1999, Ong 2006). As in the 18th century, so the 21st: racialized bodies’ “improper” movement (including the refusal to “move along”) in and through New York invites a range of punishments, up to and including torture and death. Surveillance, torture, capital, necropolitics, biometrics, carceral securitization, hot spot policing. The conflation of the terrorist and the criminal all coalesce across time and space. Light organizes race.

Police tactics have not changed much. We may not call them “Lantern Laws” anymore, but NYPD’s “Omnipresence” strategy positions police floodlights in and around “high crime” neighborhoods so that the police can see, can “know,” when and where people of color move about the city. The designation of “high crime neighborhood” is itself a certain type of luminosity. The heat maps that transform the lived environment into a state target, and depress the constitutional protections of people living under conditions of “high crime” (Ferguson and Bernache 2008) are themselves the product of the ubiquitous racialized surveillance that Broken Windows reauthorized in the 1990s, and that Microsoft analytics digitizes on behalf of “the public.” Risk, heat maps, hot spots, and predictive policing are some of the 21st century’s techniques for illuminating the progress of “dangerous” bodies through the urban environment.
So, the logic of securitization endures. What has changed is that inhumanist techniques of “algorithmic governance” now deliberately disaggregate the metrics of flesh from any imagined figure of the human (Negarestani 2014a; Terranova 2007; Patricia T. Clough 2010). Electric light means an intensification of the violent, profitable production of flesh against the body, hidden behind mathematical parameters, and “progressive” reforms (Spillers 2003). There is not a contradiction between a more accountable and technologically savvy police department and siege. The former makes the latter possible.

But the techniques of policing and organized dispossession (Harvey 2004) that constitute the “changing same” of American carceral capitalism are nonetheless transforming. Jasbir Puar writes about the Israeli occupation of Palestine as “inhumanist biopolitics,” in which state power turns on the deliberate debilitation and stunting of target populations (Puar 2015). This “right to maim,” she argues, is useful to contemporary modes of imperial rule that depend on comporting with the letters, if not spirit, of international human rights benchmarks. By rendering subject populations debilitated, rather than dead, regimes suspend victimized communities in a profitable interstice of “will not let or make die.” Populations in such necropolitical limbos provide the grist for expanding domestic security industries, non-governmental organizations, medical research, and other sectors whose use-value accrues from the profitable management of organized debility (Puar 2017).

The term “inhumanist biopolitics” tracks two theoretical lines in this mode of debilitative governmentality. On the one hand, that it is biopolitical in the “classical” Foucauldian sense of
the word. It is a logic of governing that is dependent on figuring some populations’ bodies for maximum life and capacity and others for slow death (Berlant 2007) and debility through a positive feedback loop between state science, state racism, biological knowledge, and what David Beer calls “metric power” (Beer 2016; Foucault 1978).

On the other hand, Reza Negarestani’s (2011) term, “inhumanism” denotes a break with the “human” temporalities and figures that frame “biopolitics” (Negarestani 2014b). Negarestani’s concept of the “labor of the inhuman” is dense, and I will not attempt a full excursus. To gloss, Negarestani argues that, “humanist” and “anti-humanist” conceptions of “the human” are rooted in nostalgic (imagined historical) or theological (either explicitly religious, phenomenal, or “natural”) reifications of “human” as coherent, and self-evident figure. Inhumanism reworks “human” as a process of constant renovation and construction – what he calls “the revisionary catastrophe.” His point is that, pragmatically, what “human” means is under incessant revision and stress, and that this stress comes “as a force that travels back from the future to alter, if not to completely discontinue, the command of its origin.” To commit, politically, ethically, or intellectually, to “human” means taking as a starting point the constant destabilization of “the human” that unfolds from the future. The systems through which “human” is distributed are multiscalar, complex, and functional (in the sense that they are processual and material). “Humans” do not preexist these systems’ feedback processes, which splay the “human” across diachronic temporalities. Negarestani means (I think) to develop the concept of inhumanism as a tool for liberation, as a means for reckoning with the failures of liberatory politics and philosophies to make sense of the ways in which cascading technics and technologies ontologically destabilize sociocultural units of analysis and action. While there is certainly merit
in this aspect of the project, inhumanism scans much more readily as Puar invokes it: as a schematic analysis of contemporary forms of (post)-biopolitical control.

To return to Puar’s example of Gaza, we might ask how to conceive of the temporal scales of the epigenetic research streams that flow from Gazans’ toxified bodies. Militarized epigenetic research is driven by a speculative loop that aims to locate a proteinate source of Palestinian resistance to occupation. Occupation policy aims to debilitate “generational time” by inflicting “psychological and cognitive injuries” that “stunt” human development, foreclosing the possibility of children’s resistance in an indeterminate future. These tactics decant “the human” from its molecular composition to make Palestinians “literalized and lateralized as surface, as bodies without souls, as sheer biology, thus ironically rendered non-human, part of creating surface economies of control, and captured in non-human temporal calculations” (Puar 2015, 15). The ultimate target of these tactics of (literal) molecularization, and debilitation is an old “biopolitical fantasy, that resistance can be located, stripped, and emptied.” In these occupational dynamics, resistance itself” becomes a target of computational metrics: How to measure, calculate, and capture resistance? But not only is biopolitical control a fundamentally productive assemblage; the ontological irreducibility of “resistance itself” is elusive at best” (ibid).

Eyal Weizman explains this conjunction of biopolitical control, transnational norms, computational capacity, and technocratic measurement in the context of possible soldiers’ defense against war crime charges brought under the framework of “International Humanitarian Law (IHL).” He notes that militaries have, in part due to pressure from international humanitarian organizations and national legal bodies, increasingly adopted automated and
robotic technologies to command, control, and govern the normative distribution of violence and death (Weizman 2011).

This integration has transformed military action into a systemic process of command and control “that is undertaken by a diffuse assemblage of sensors, automatic weapons, computers and optics together with human operators, overseers and regulators.” This inhumanist structure makes it nearly impossible to identify, with any certainty, nodes at which war crime violations take place. Computers and sensors cannot be held responsible for the commission of crimes, and human operators are often acting under their “direction,” which is normally “designed” to inflict minimal, rather than maximal violence (Chamayou 2013). Weizman points out that this produces a perverse circumstance in which a human accused of committing war crimes might feasibly launch a legal defense on the grounds that they inflicted maximal possible violence. Against computers’ antiseptic program of minimally inflicted damage elongated over the maximal durée, the human warfighter evinces humanity by committing greater violence than is asked or “required.” As Weizman puts it, “The breach of the techno-civilized logic of computation and calculations could thus be argued as madness itself” (Weizman 2011, 16).

Perhaps it is madness, but it reads like meticulous work. In particular, it conjures the infrastructures of human commodification that undergird the “intimacies of four continents” in the black Atlantic (Lowe 2015; Gilroy 1993). It reads like the “protocol of search and destroy” that Hortense Spillers identifies as the “zero degree of social conceptualization” between “body” and “flesh” (Spillers 2003). The digitally driven surveillance and control techniques that render Palestinians soulless “surface economies of control” may call to mind, as many have argued, a
posthuman reordering of Giorgio Agamben’s concept of bare life in an “algorithmic state of exception” (McQuillan 2015). But, following scholars like Alexander Weheliye (Weheliye 2014) I want to suggest that the musselman of the Nazi camps is not, as Agamben (Agamben 1999) argues, the zero degree of this moment’s methods for inscribing a “hieroglyphics of the flesh” (Spillers 2003). There is nothing particularly “exceptional” about the dehiscence of “human” from “flesh” (Moten 2008; Pitts-Taylor 2011a), nor have those terms historically relied on “life,” no matter how bare.

Dylan Rodriguez argues in “Forced Passages” that the carceral organization and mechanization of the Middle Passage is the working prototype for the contemporary “prison regime” (Rodriguez 2007). For Rodriguez, the American prison regime, like the Middle Passage “is a point of massive human departure—from civil society, the free world, and the mesh of affective social bonds and relations that produce varieties of ‘human’ family and community” (Rodriguez 2007, 40) that exceeds economic logic. Although organized by and in response to assemblages of speculative capital, labor transformation, and mutually articulating state and economic crises, Rodriguez argues that both regimes are tutelary. In both cases, the regimes serve “a pedagogical and punitive” function that, in the case of Middle Passage “deployed strategies of unprecedented violence to “teach” captive Africans and coerce them into the methods of an incipient global ordering.” The Prison Regime has

Come to form a hauntingly similar spatial and temporal continuum between social and biological notions of life and death, banal liberal civic freedom and totalizing unfreedom, community and alienation, agency and liquidation, the “human” and the sub- and nonhuman. In a reconstruction of the Middle Passage’s constitutive logic, the reinvented prison regime is openly articulating and self-valorizing a commitment to efficient and effective bodily immobilization within the mass-based ontological subjection of human beings (Ibid. 48).
Rodriguez points out that contemporary digital technologies of surveillance and control represent an “epochal leap from the carceral practices of the Middle Passage” that

“Represents a multiplication of the potential sites and scenarios of subjection and physical punishment. This high technology re-maps prisoners’ bodies onto a virtual terrain, abstracting their bodily movements and gestures into a computerized grid of obedience and disobedience, submission and violation. Such innovations effect a re-spatialization of the prison itself, marking the extension and veritable omnipresence of the state’s capacity to practice a violent domination over its “inmates” (Ibid. 50).

Technologies designed to extend the surveillant reach and punitive freedom of the carceral state are ontological conditions for racial capitalism, rather than the ramifications of a state of exception. To Agamben’s argument that the logic of “security” has, after 2001, instituted a sort of soft crisis in which biometric technologies that were “invented for recidivist criminals, [and] remained for longtime their exclusive privilege” have now been turned on the general population, thus undermining Western countries’ claim to “democracy” or even “politics” (Agamben 2014), we can posit Simone Browne’s point that race has always been a biometric project, and Western “democracy” and “politics” has likewise always been “impossible.” What Browne (2009) calls “digital epidermalization,” the “exercise of power cast by the disembodied gaze of certain surveillance technologies (for example, identity card and e-passport verification machines) that can be employed to do the work of alienating the subject by producing a ‘truth’ about the body and one’s identity (or identities) despite the subject’s claims,” does not have its roots in the “crisis” of the post-9/11 terror state, but the “mathematics” of racialization (Browne 2010, 135). Or, as Katherine McKittrick puts it, “the list, the breathless numbers, the absolutely economic, the mathematics of the unliving” to which the “pedagogical” regime of Middle Passage sought to reduce black life (McKittrick 2014, Rodriguez 2007). Digital policing technologies are a contemporary iteration of this mathematics. They are part and parcel of a
broad reorganization of the techniques and tactics of racialization and value concurrent with
digital capitalism’s “quantification of everything” (Browne 2010, 2015).

Just as Rodriguez argues that the rudimentary digital surveillant technologies of turn of the 21st
century prisons were an “epochal leap” from the Middle Passage, I am going to argue that the
contemporary datafication and mathematization of the world has conditioned another “epochal
leap” in which the target of the carceral state ceases to strictly be “human,” or “life” but rather
“population,” and “liveliness.” In other words, to circle back to Puar and Negarestani: policing is
“inhumanist.”

As an example, let’s consider predictive policing – a contemporary (if somewhat minor)
technology that we will circle back to throughout the dissertation. Predictive policing
consolidates and operationalizes risk, possibility, and insecurity as ontological indeterminacies
against which apparatuses of security must be brought to bear in a state of durable crisis. This
long crisis is both beyond exception in that it is mundane, and also in that it depends on the
feeding back from the future of “inhumanist” (Negarestani 2014b) populations of insecurity.
These are the predicted calamities to come – the digitally realized failures to act on a future
subjunctive that hemorrhages consequences in the present. From the “perp” not arrested to the
stock not shorted, the future materializes as demand for action in the present, and as the ongoing
failure to not have acted “otherwise.” In practical terms, this means an intensification of policing
surveillance logics and practices, and circulations of risk historically generated by the carceral
archipelagos of racial capitalism (Nelson 2016, Duster 2012, Gandy 2009, Foucault 1995; C.
Robinson 2000).
This “epochal leap” is not just a byproduct of changing technologies, or the unfortunate result of an interesting set of technical solutions being used to bad effect (O’Neil 2016). It was engineered with the specific intent of transforming policing from reactive enforcement of the penal regime to proactive agent of digital capitalism’s economic infrastructure. The impetus for this was the state crisis of the 1970s and 1980s. In the face of massive popular resistance to the American penal regime, American cadres of law and order reimagined the racial-sexual rationales of American racial capitalism as plausibly different from the historical cartographies of racial-sexual difference (McKittrick 2006; Gilmore 2007). Policing became inhumanist because the police could no longer justify their mission in “human” – (or should we say dehumanizing) terms. The solution was to shift the terms that justified American policing. From the “condemnation of blackness” (Muhammad 2010) that epistemologically enframed policing during the postwar Race liberal order (Melamed 2010), advocates of state repression turned to “swift and sure” “law and order” maintenance as a praxis of technocratic common sense (Hall et al 2013, Gilmore 2009). Against race, police intellectuals leveraged the imagined neutrality of “math” and “prediction” (Harcourt 2007). That turn is at the root of the bad faith question that haunts most criticism of the consolidated techno-dystopian present: How can an algorithm be racist and sexist (Brennan 2015)?

**Command and Control**

In the closing days of 2015, Ray Kelly and Bill Bratton -- two of the most powerful figures in US law enforcement -- made national headlines for fighting over data-entry methodology. (Fermino, Sandoval, and Tracy 2015; FOX 2015; Weichselbaum and Blau 2014; Levitt 2015, Yee 2014).
The fight itself was frivolous, but it elicited a degree of rancor from public officials that illustrates just how central the minutiae of data collection and analysis is to narratives of 21st century crime control. Only twenty-one years prior to Bratton and Kelly’s spat, the NYPD did not even record regular statistics except to file semiannual Unified Crime Reports to the FBI. The extensive use of digital databases to granularly track crime and disruption dates to 1994, when Bratton introduced the CompStat system to the NYPD.

In the years since, data-driven police management has become commonplace and widespread. It increasingly mirrors contemporary corporate management schemes and structures -- what you might call a proof-of-concept for remaking America’s civil service in Silicon Valley’s image. In 2009, for instance, the LAPD explicitly recommended that cutting edge departments look for best practices in the algorithmically driven logistics and data mining strategies championed by companies like Wal-Mart and Amazon (C. Beck and McCue 2009) rather than in public safety agencies. Digitization as a police strategy has grown in tandem with the centrality of digital capital.

Of course, it’s no revelation that police strategies and aims transform with shifts in political economy: Police exist to ensure the viability of a society’s capacity for social reproduction. That is, after all, what it means to maintain “law and order” or “keep the peace” (Hall et all 2013, Gilmore 2007, Linebaugh 1992). This not only means enforcing regimes of economic dispossession (the law) but cooperating with state and infrastate agencies to produce populations primed for debilitation and exploitation (Puar 2017, Beckett and Murakawa 2012), or what Foucault calls “racism” (Foucault 1978) and Ruth Wilson Gilmore defines as “the state-
sanctioned or extralegal production and exploitation of group-differentiated vulnerability to premature death” (Gilmore 2007, 28).

Terms such as “group-differentiation,” “vulnerability,” and “premature death” are non-categorical – each is a metastable range of intelligibility brought into being through techniques of measurement. Articulating that range demands stewardship and benchmarks, rationalizing techniques and social investment (Latour 1999). It requires social projects that conjure bodies as objects of (dis)investment, discipline, punishment, and control. Race, in other words, is technology. It organizes the horizons of the social and directs the technical apparatuses of the state and its surrogates to intervene differently in different bodies, structuring the spaces, times, and places in which those bodies concatenate as targets for management (Roberts 2011; Benjamin 2016).

This, of course, is what Michel Foucault called biopolitics: a distribution of life chances, or the exposure to premature death, that is articulated at the level of the population and legitimated by invoking the health of the polity (Foucault 2008, 1978). Biopolitical projects are in turn managed by a tripartite political structure that he collectively refers to as governmentality. For Foucault, governmentality is a “complex form of power, which has as its target the population, as its principal form of knowledge political economy, and as its essential technical means apparatuses of security” (Foucault 2007). Governance under capitalism is, in other words, a project of differentiation that is instrumentalized at the level of the population to organize exposure and vulnerability to facilitate accumulation. The current centrality of metrics to what Bratton calls “the practice of policing” (Bratton 2016) is in keeping with 21st-century governmentality’s
inhumanist investment in prevailing technologies of neoliberal accumulation (Roberts 2010; Brown 2015). But it also indicates the reverse: that policing is increasingly central to the development of these metrics. After 1994, with the introduction of the COMPSTAT system, policing went from enforcing capitalist social relations to a leading innovator in reorganizing them.

Like aught else, neoliberal reforms in 1980s New York drove a breakdown in the previous century’s practices of American policing. Spurred by the orchestrated collapse of Fordist disciplinary institutions like schools and factories, and the onset of a generalized “crisis” of crime, public and private leaders demanded a transformation of police logics from an integrated, criminal justice model to a proactive, punitive one centered on maintaining “order” (Murakawa 2008, Phillips-Fein 2017, Henry 2002, McDonald 2001). Order, of course, is not a neutral term, and it tends to be defined against the vulnerable. The homeless, for instance, were in 1980s and 1990s New York considered, ipso facto, to be signs of “disorder.” By 1994, public discourses of “order” explicitly tethered the term to wealth, proximity to whiteness, and heteronormative sexual discretion (Hanhardt 2013, Delaney 1999). The “Zero Tolerance” campaign to “retake” New York City in the 1990s was waged explicitly in defense of that particular intersectional “order” (Smith 1996; Vitale 2009). It is in the context of that campaign to make the city safe for neoliberalism that the computer, and its analytic capacities, emerges as a central tool of policing.

Overwhelmed by the scale and scope of its adopted civilizing mission, and heavily influenced by neoliberal management theory’s love affair with cybernetics, the 1990s NYPD turned to digital statistics and mapping software to organize their campaign against “crime.” This set the stage for
a transformation in what Clough and Craig Willse call the “political branding” of crime such that
it came “to resonate with the more ordinary biopolitics of branding policy and programming, or
what might be referred to as the ‘technical solutions’ of making live and letting die” (Patricia
Ticineto Clough and Willse 2010, 49-50).

CompStat’s influence is enormous. It is not merely an innovation in police management
protocol, but a coalescence of strategies designed to produce and manage surplus populations in
the context of massive political economic restructuring (Patricia T. Clough 2010). It is also a
peerless example of what Michel Callon et al have called “technical democracy,” in which
metrics and number stand for transparency and political community (Callon, Lascoumes, and
Barthe 2009).

CompStat’s reflection of the American political economy’s neoliberalization is crucial to its
success as a political object (Harman 2009; Morton 2007, 2013) that has successfully reoriented
commonsense understandings of how to govern crime and crime prevention. But CompStat also
reorganizes the demands made of calculation and digitization to assemble heterotopic
“liveliness” (Bennet 2010) that undergirds the emergent “stack” of planetary computation
(Bratton 2015). If meta-level digital “worlding” (“the quantification of everything”) is the
ontogenetic waypath for transnational capital after the crisis of neoliberalism, then the lodestar is
CompStat.

This is true first because if one scratches hard enough at political economy, one finds carceral
diagrams an assemblage of racialized value and metric precision (Moten 2018), of biomedial and ontopower (Thacker 2006, Massumi 2011) that is directly inherited from longstanding traditions of American racial capitalism (Roberts 2011; Fouche 2012). Specifically, I refer to American racial capitalism’s metric production of the raced and gendered distinction between the “body” and “flesh” that Hortense Spillers argues is the “central one between captive and liberated subject-positions” (Spillers 2003, 206-207). Flesh, for Spillers, is “the zero degree of social conceptualization that does not escape concealment under the brush of discourse.” This flesh, she argues, is produced by the rending violence of racialization. It is,

A kind of hieroglyphics…whose severe disjunctures come to be hidden to the cultural seeing by skin color…These lacerations, woundings, fissures, tears, scars, openings, ruptures, lesions, rendings, punctures of the flesh create the distance between what I would designate a cultural vestigiality and the culture, whose state apparatus, including judges, attorneys, “owners,” “soul drivers,” “overseers,” and “men of God,” apparently colludes with a protocol of “search and destroy” (Spillers 2003, 207).

I want to return here to Browne’s theory of digital epidermalization in which the “white prototypicality” of biometric technologies organize “the computational means through which the body, or more specifically parts and pieces of it, are mathematically coded as data” in order to perform digitized racialization as a “fracture of the body from its humanness, refracted into a new subject position” that is “ontologically unstable” and subject to a “structured violence that is productive of and produced by a certain white normativity” (Browne 2009, 134-135). Where Browne focuses her cases of digital epidermalization on the productive and performative racializing violences of biometrics, I want to suggest that thinking through CompStat’s non-biometric analytic frame lets us productively expand the concept of digital epidermalization to encompass a broader racializing assemblage in which the “protocol of search and destroy” is fed forward into a capacious rendering of the social field as ontologically destabilizing productive
violence. This ontological destabilization occurs, under CompStat, at the level of
governmentality, even as the “real life” violences of that ontological instability redound onto the
intersectionally “same” historically violated bodies that are foundational platforms of racial
capitalist extraction. That is to say, the digitalizing infrastructures of 21st century carceral
capitalism do the work of digital epidermalization without necessary recourse either to
biometrics or to “white prototypicality,” but always with recourse to “blackened” population
racism and racialized extraction (Sojoyner 2017; Sharpe 2009). And because the capitalized
digitalization of the ontologically destabilized social field is intrinsically cathected to, and in fact
conditioned by, the carceral infrastructure of political economy, all the smart city’s sensor-laden
streets lead back to the foundational dehiscence of “body” from “flesh,” to the “cultural
vestibularity” of the “protocol of search and destroy” (Spillers 2003). Or, in other words, to a
digitizing carceral state.

Or, to put it more bluntly: we must heed the oft-repeated truth that surveillance and policing
require neither digital technologies, nor complex technical infrastructure to be omnipresent,
intrusive, and violent. That, in fact this is the specific work that racialization and gendering are
meant to achieve (see e.g. Morgan 2004, Hartman 2007, Shabazz 2015, Amar 2013).

Enfleshment under racial capitalism is precisely a project of group-differentiated debilitation
because it weaponizes organic surveillance systems and organic complex technical
infrastructures: that is to say bodies (Kaba 2015; Pitts-Taylor 2016, 2006).

Cops don’t need surveillance cameras or biometric technologies, and banks don’t need
automated credit forecasts to produce and police racial difference because “race” is already
datafication, and human wetware, indeed the human sensorium, is already weaponized (Nelson 2016; Gumbs 2016; Kaba 2015). But, knowing that the correct answer to the question of whether policing requires advanced technology to violently perpetuate inequality is “no;” that Chicago Police are perfectly capable of terrorizing black and brown youth with or without automated heat lists; that the NYPD do not need surveillance vans to construe Muslim college students as terrorist, new technologies nevertheless make a difference.

Database-driven, automated, digital technologies do real work to the real world even if the phenomenological fallout from those processes feels like more of the “changing same” (Gilmore 2007, Yost 2008, Fouche 2012). The fact that the product is the reproduction of already existing structures of oppression and exploitation speaks to the effectiveness of new iterations of digital epidermalization to do the work of maintaining racial and sexual difference while also reconfiguring corporeality for-and-as capital in new techno-shocked arrangements (Tallbear 2015; Brown 2015). The digital obviously does not introduce the idea of rending vulnerable flesh into profitability through “protocols of search and destroy” but it facilitates new ways in which capital flows into, out of, and through corporeality (Noble and Tynes 2016, Chun 2008, Povinelli 2016, Hansen 2015). This, in turn has an impact on ontologies of the body and its capacities that matters very much to the institutional commitments of carceral capital (Jackson 2016, Amoore 2013). The fact that this “mattering” is so very dear to “carceral capitalism” (Wang 2018) means, I think, that it ought to matter to those who would abolish those institutions and their intellectual foundations. So, to the question “does digital technology change everything or nothing?” we might characterize the deep center’s long-recurring answer as “everything needs to change, so everything can stay the same” (Lampedusa 2007).
Pushing this argument, I am suggesting that the “smart city” is not so much the offspring of the historical violences that devalue the lives of the intersectionally oppressed, but rather the contemporary iteration of mutative institutions of inhumanist biopolitics that work to assign, with terribly mounting precision, the value of extractable life, and the liveliness of extractable value. Fred Moten calls the ontological condition of this “logistics in the hold” (Moten and Harney 2012), this surgery of life, capacity, and price “blur” (Moten 2018). I want to suggest that we also colloquially call a consolidating technosocial iteration of it “the cloud” (Peters 2015, Bratton 2015).

Inhumanist Archiving and Smart City Surveillance

CompStat’s influence helps explain why corporate and state power are so invested in the project of making cities smart, and the implications of building “smart cities” that are, to borrow David A. Banks’ term, “engineered for dystopia” (Banks 2018). Originally, “Smart Cities” referred to purpose-built urban venues comprehensively wired with digital sensors set to monitor a wide range of urban activity. The idea was that engineering a city for ubiquitous connectivity would generate a high degree of urban efficiency and attract potential investors from the private sector. As a bonus, these cities were presumed to incubate the sort of large-scale digital information gold mines that a tech market increasingly delighted with the idea of “big data” could analyze and monetize (Crandall 2010).

Developments like Songdo in South Korea, Masdar in the UAE and PlanIT valley outside of Porto, Portugal, are public-private partnerships, purpose built to be economic development zones, usually centered around the logistics or tech industries. Heralded for years as the
harbingers of the future, these projects have largely turned out to be failures (Greenfeld 2013). Most of the anticipated private investment has stalled (Halpern et al. 2013; Cowen 2014), turning these sites into high-tech ghost towns. Moreover, the promising technologies built into the urban developments have turned into a liability, as technological development has outpaced brittle digital infrastructures. Songdo, for example, was designed and engineered before the smart phone became widely commercially available – a development that has obviously completely transformed large-scale data collection (Townsend 2014).

The first generation of smart city projects did not live up to expectations but functioned as a sort of proof-of-concept for the widespread wiring of urban areas as massive data collection platforms (Goldsmith and Crawford 2014). Doing so has involved two closely related projects:

In the first project, cities retrofit themselves for the future by installing sensors designed to collect a wide array of information, from building heat to vehicle emissions to structural stresses. Generally public-private partnerships between development corporations, universities, and technology companies, these projects are imagined as revenue generators and valuable engines of digital surveillance. In addition to siting centers in strategic areas targeted for economic growth, like Brooklyn’s new “Tech Triangle,” and Manhattan’s Hudson Yards, these urban laboratories are meant to spin off high-investment tech-driven entrepreneurial projects that make use of the extensive data collection resources.

Cultivating tech-friendly corridors for investment is the 21st century’s version of what Neil Smith calls the “Urban Frontier.” For Smith, the “urban frontier” strategy targets real estate that
is depressed economically but has potential for economic growth (what Smith calls the “rent gap) and might appeal to yuppies because of “edgy” reputations. This process of gentrification is ensured by policing strategies deliberately designed to make life in a gentrifying area unlivable for poor inhabitants (Clear 2001, Sexton 2007, Smith 1996).

The NYPD in the 1990s called their strategy for securing investment-driven gentrification “Zero Tolerance,” but it has become more widely known by the theory from which it was derived: Broken Windows. As a policing regime, Broken Windows leverages a revanchist respectability politics that partakes of a logic and genealogy of racial uplift and good governance (Stewart 1998, Roberts 1999). And, like its historic corollaries, this discourse - this theory of the human - poses as a liberal form of pastoral care that mobilizes the racially organized expropriation of land and resources by deliberately stripping assets and wealth from the working classes while drawing down the municipality’s capacity to redistribute wealth and services (Camp and Heatherton 2016, Vitale 2017, Mcardle and Erzen 2001, James 1996, Woods 2009). Neil Smith shows us that Rudy Giuliani, in 1995, stated the political-economic logic plainly:

Thus, in the spring of 1995, faced by a $3.1 billion budget deficit, Mayor Rudy Giuliani voiced explicitly a long-implicit intent of service and budget cuts. By cutting services, the mayor told a small group of newspaper editors, he hoped to encourage the poorest of the city’s population, those most dependent on public services, to move out of the city. Shrinkage of the poor population would be a “good thing” for the city, he suggested. “That’s not an unspoken part of our strategy,” he added. “That is our strategy” (Smith 1996).

It is not coincidental that this rhetoric mirrors the logic of “smart,” responsive cities that promise that by transforming the urban into a laboratory they enable municipalities to “do more with less.” What such logic of governance flags is that the “the city” in such a regime exists primarily
to deliver services to demanding and deserving consumers. This, I want to suggest, demonstrates the synergy between “smart” municipal governance, and digital epidermalization as “infrastructural warfare” (Browne 2009, Weizman 2011, Mbembe 2003). In this “smart” mode of governmentality, the urban is organized around axes of capacitation and debilitation of populations assembled from recombinant markers of wealth, access to services, sexual discipline, self-sovereignty, and self-government materialized as racialized and sexualized infrastructures of pricing and extraction (Puar 2017, Feher 2009).

Advocates of this neoliberal model explicitly invoke Google, Amazon and Úber as models for the urban (B. Goldstein and Dyson 2013). This is not a fine-tuning of the city’s capabilities so much as an end point in a long struggle over who, and what, the city is for. It is not a place where communal resources can be put towards achieving something like the generalization of livable life (Butler 2004). It is a place where services, rendered as convenience, can be delivered most effectively to those populations that most effectively demand them, effectively encoding the slow death of debilitated populations (Berlant 2007). That capacitated populations that are disposed towards the provision of urban resources and services are the wealthy, white, gentrifying populations that the city courts against the debilitated the poor, and working class etc., closes a loop on the logic of how “broken windows” and the generalized development of the “Post-Keynesian militarism” works in tandem with racially and sexually mobilized strategies of expropriation and settlement (Gilmore 2002, 1999).

Fifteen years after Giuliani explained the expropriative logic of Zero Tolerance as urban efficiency, Mayor Michael Bloomberg worked with NYU with the specific and expressed intent
of repeating the process in downtown Brooklyn. The results in the 2010s are predictable, as rents continue to rise, and poor families are displaced, often intentionally and violently, by landlords and speculators intent on making the most of a digitally driven land grab. In a post-industrial economy like New York City’s, building the “immaterial” infrastructure of the urban-as-digital-laboratory concretizes as asset stripping land redistribution scheme (Burrington 2016). Information might, as Stewart Brand famously claimed, “want to be free,” but freedom, in the context of the American carceral archipelago is a freighted term – one inextricably linked to the extraction of value from the strategic subjugation of racialized, gendered, and sexed bodies (Vergès 2017, Gilmore 2007).

In addition to wiring cities for digital surveillance, cities create data and analytics departments tasked with missions like eliminating departmental “data silos” and rationalizing and making machine-readable information that municipal departments collect but don’t know what to do with. In New York, for example, the mayor’s office of data and analytics has built algorithms to read the data coming in from building inspections in order to find buildings that are likely to be dangerous (Flowers 2015). By identifying these buildings in advance, the city can direct its intentionally limited manpower resources most efficiently and prioritize the most dangerous buildings for the most immediate inspections. Other cities, like Boston, have developed smart phone apps that allow citizens to report problems like potholes, which the city then analyzes in order to prioritize when and where to send repair crews (Goldsmith and Crawford 2014).

Advocates for these programs argue that they make urban government, and therefore cities themselves, “smarter” (Townsend 2013), more “responsive” (Goldsmith and Crawford 2014) and
more “transparent” (Goldstein and Dyson 2013). They also frame these programs as a means of dealing with an institutionalized crisis in urban funding. By becoming smarter, cities also become “more efficient.” This allows them to “do more with less” by breaking down existing bureaucratic structures (like departments) and replacing them with a more nimble “digital civic switchboard” (Goldsmith and Crawford 2014) that directly connects constituents with municipal service providers.

Texts that explain the logic of producing a transparent laboratory city speak to the desire to harness and monetize the daily metabolic fluxes of urban environments (Swyngedouw 2006). The smart city, the “light” urban governance, the “transparent” city, are engines as much of capital generation and the legitimation of urban surveillance as they are civic minded enterprises in “postprogressive” (Goldsmith and Crawford 2014) reform.

This is a central theme of many of the articles in Beyond Transparency, a collection of essays by “leading experts” in the growing open data movement, produced by Code For America (2013). In their piece, “Generating Economic Value Through Open Data,” analysts from the Mckinsey Global Institute (MGI) Michael Chiu, Diana Farrel and Steve Van Kuiken argue that municipal decisions about what data to make transparent should be based on “potential value.” Their case takes a logic of the Private Public Partnership to its logical conclusion, arguing that city government should collect and standardize data, and make it available for third parties, who can then use this to drive “significant increases in economic performance for companies and consumers, even if this data doesn’t directly benefit the public sector agency” (Chiu, Farrell, and
Van Kuiken 2013, 168-169. Emphasis added). The innovation of the smart city is to turn the public into a data mine for private investment.

“Thought leaders” in the movement for the responsive city often explicitly model their concepts on companies like Übers and Amazon (O’Reilly 2013), and share these companies’ pathological hatred of organized labor in specific and economic “inefficiencies” (i.e. workers) in general. As Konstantinos Christodoulakis, the IT Governance officer for the National Bank of Greece gleefully pointed out in 2015, the “digital disruption” advocated by Silicon Valley has already happened. He notes (sic throughout) “Most popular media owner creates no content (Facebook). Worlds largest taxi company owns no taxis (Über). Largest accommodation provider owns no real estate (Airbnb). Largest phone companies own no telco infrastructure (Skype, WeChat). Worlds most valuable retailer has no inventory (Alibaba). Fastest growing banks have no actual money (SocietyOne). Worlds largest movie house owns no cinemas (NetFlix). Largest software vendors don't write the apps (Apple & Google)” (2015). This logic has spread to best governance practices for advocates of smart cities – which see the basic infrastructure of municipal governance as a, if not the, central obstacle to achieving a “light,” more “responsive” urban governance infrastructure. But, just as the end goal of “disruptive” capitalism is profit generation without commodity production, the end dream of light governance infrastructure is a type of governance without (human) governors.

Tim O’Reilly, the founder and CEO of the popular O’Reilly media company, has made this argument explicit. In his piece “Open Data and Algorithmic Regulation,” he argues that governance should be clearly separated into two domains: laws and regulation. Laws, well
crafted by humans, should be durable enough to “stand the test of time.” He likens this to the desired end results of computer code. Once the desired ends have been codified, the regulatory infrastructure should “specify how to execute those laws in much more detail [and] should be regarded in much the same way that programmers regard their code and algorithms, that is, as a constantly updated toolset to achieve the outcomes specified in the laws” (O’Reilly 2013). He goes on to argue that, in this scenario, government would act as a “platform” which would be regulated by real time feedback through “reputation” models, like those used by Uber and Amazon to govern their employees (Golumbia 2015; Rosenblat and Stark 2016).

Central to this capacity to build the real-time government-platform city is the widespread installation and dissemination of sensor arrays. O’Reilly envisions these sensors tracking everything from car speeds on roads, in order to automatically adjust speed limits depending on traffic flow to developing smart parking meters and tracking systems that replace a gasoline tax with a tax indexed to miles driven. At some point, “further out into the future, you can imagine public transportation reinventing itself to look much like Uber” (O’Reilly 2013, 297).

Transparency, then, takes on a very particular meaning in these cases. Whereas critics of “black box societies” (Pasquale 2015) argue that transparency is a necessary precondition for engagement with increasingly automated governance, with a slightly different inflection, it becomes a project for putting the resources of the common wheal at the disposal of private capital. Moreover, it is deliberately and consistently leveraged as an assault on the workers of the public sector. To pursue transparency in the sense that it is being pursued by governors across the political spectrum and across the country, it is necessary to “black box” the social
assemblages and technocratic veneers that make the overarching project viable (Fuller and Goffey 2012).

The purportedly neutral technocratic project of making cities “transparent,” of retrofitting them with the latest digital technologies and surveillance apparatuses as a means of increasing the efficiency of their municipal departments and smoothing of their sites of capital generation and resource extraction are functions of political economy (Ruppert 2012; Gandy 2006).

Most of the work done in the service of making the city “smart” invokes a liberal or (post)progressive trajectory of the national state. This rhetoric envisions the capacity to render the city “meaningful” and to turn it into a laboratory as a critical innovation in the more general project of effectively tethering the denizens of American cities to existing political formation through the increased sense of “civic pride” and “civic duty” that a more responsive and, implicitly, responsible urban infrastructure will afford constituents. It is, however, no coincidence that this movement has emerged in a moment in which other punitive technologies have become a part of the American mainstream, and the new “common sense” of law enforcement. Indeed, these two projects are intimately linked. Many of the industry leaders in implementing smarter, responsive cities, come out of law enforcement or military backgrounds (Mayer-Schönberger and Cukier 2014; B. Goldstein and Dyson 2013). Almost all point to New York City’s mid-90s innovation in statistics-based policing, Compstat, as a legitimating moment in reorganizing police practices specifically and urban governance more generally towards large scale, metrics-driven performance paradigms. That this occurred during a long, unprecedented expansion of carceral apparatuses, the generalization of punitive regimes, the installation of
Broken Windows theories of policing and ubiquitous security surveillance as common sense, is constitutive of the laboratory city, rather than coincidental to it.

As Chandan Reddy points out, the liberal assumption that the political progression of American institutions is a telos towards “better,” more expansive practices of granting “unity and “self identity” affirms an idealization of the American subject that has “historically been the means by which egalitarian efforts and politics in metropolitan contexts became the vehicles for creating devastating, crushing, and broad social violence – violence that appears again and again to Western metropolitan publics as antecedent, transitory, epiphenomenal, or coincidental to the project of real egalitarianism and the juridical politics of equality” (Reddy 2011, 19). In what follows, I will trace the ways in which this idealization has worked in the unfolding of digitally driven police technologies from the 1990s to the 2010s. I will try to make sense of what, exactly, electric light can do.

METHOD AND ORGANIZATION

This project aims to make sense of the consolidating logics of rule that authorize and legitimate the expanding digitality of the carceral state. In recent years, a tremendous amount of work has gone into analyzing and understanding the changing relationship between digital technologies and practices and aims of policing. And, while much of this has been invaluable, the role and responsibilities of police is often framed narrowly (Brayne 2017; Christin 2017). For instance, questions about new technologies like body cameras or predictive policing software are often framed as issues of “proportion” of different populations arrest (Lum and Isaac 2016). That is an understandable concern that nevertheless reifies policing as a project that can exist in some sort of platonically “neutral” state of transparency and equanimity. A second example might be the
centrality of constitutional and legalistic protections and violations to arguments over digital policing technologies. Constitutional rights are, of course, important. But framing the watershed transformations of, for example, stochastic DNA analysis software as uniquely and newly threatening to constitutional protections is confusing (Duster 2012, Nelson 2016, Lane et al. 2014). We can only understand contemporary policing’s investment in digital surveillance strategies as “new ground” if we are deliberately omitting the ways that constitutionality has historically been a weapon of state violence as much as a shield to ward against it (Murakawa 2014). By grounding an analysis of contemporary technologies in prior iterations and historical trajectories of policing over the last several decades, I hope to help to expand some of the conceptual frameworks that critics rely on.

Theoretically, I aim to show that digitization is inextricable from the rise of neoliberal modalities of organizing the carceral state. Rather than see digitization as an “immaterial” form of labor (Lazzarato 1996, Hardt and Negri 2001), or an antiseptic means of “measuring” the social world in ways that don’t account for or misunderstand “the human,” I argue that digitization is a materialization of the affective anxieties that outflow from the rearrangements and resistances of neoliberal counterinsurgency (Heatherton 2016, Clough and Willse 2010). Rather than a surplus that escapes and lures calculation, affect is in fact internal to calculation (Parisi 2016, Clough 2012). Digitization and calculation are, in other words, strongly material. Bodies, affects, and objects are not “(mis)represented” in measurement. Rather, they circulate as calculation.

I am particularly interested in making sense of the logics of rule that drive the transformation to digital government, and have to that end focused on publicly facing, and publicly available
documents meant to explain that rule. I do not try to find a “new” archive that will show some previously undiscovered truth of how and why the particulars of the present came to be. Instead, I focus on critically reading documentation that was always intended for public consumption. This includes objects like memoirs, public speeches, strategic orders, publicly funded reports, etc. My hope is that, by focusing on the public-facing texts designed to iterate or prototype policy, we can push the logics of government to their conclusions, and thereby explain some of the otherwise-intractable contradictions of transparent carcerality. The chapters that follow are designed as a series of interrelated cuts into the overarching logics of policing, designed to highlight different themes in the ongoing consolidation of the digital security state.

Predictive Policing is a direct outgrowth of CompStat, the hybrid crime mapping software and labor management strategy that the New York Police Department developed in the 1990s (Perry et al. 2013). Designed as the logistical axis around which the Giuliani administration’s steroidal vision of Zero Tolerance policing could turn, CompStat is responsible for transforming a violent fringe theory of policing, Broken Windows, into a technocratic commonsense (W. J. Bratton and Knobler 1998; Maple and Mitchell 2000; Eterno and Silverman 2006; Silverman 1999). It is the fountainhead from which two decades of expansion and consolidation of digital surveillance, pursued in the name of anodyne goals like “efficiency” and “transparency,” flows.

This seems like a lot of water for a rudimentary piece of mapping software to carry. CompStat can do so for two reasons. First, its outsized importance stems as much from its mythology as its demonstrable effectiveness. Second, CompStat is a cypher for an interlocking set of politics and policies that, for the sake of brevity, I am glossing as “neoliberal.”
As to its mythology: Compstat’s implementation, in 1994, coincided with a precipitous drop of reported major crimes in New York City. The NYPD, and especially its commissioner Bill Bratton, took full (if dubious) credit for the decline, which the press branded as a monumental victory in the ongoing “war on crime.” When Time Magazine asked Bratton, in January 1996, how he achieved his “victory,” his answer boiled down to CompStat (Lacayo 1996). Giuliani fired Bratton for hubris a year later, but what Rachel Herzing calls “The Bratton Brand” (Herzing 2011) was firmly established, and well on its way to becoming police orthodoxy.

Bratton’s answer to Time has never changed. His brand narrative is staked on a version of 20th century police history in which 1994 is Year One, and the widespread adoption of CompStat is the major fault line in the last 60 years of police practice. He divides his history into four phases:

The first phase, “Professional Policing,” stretches from the 1960s-1980s. Bratton describes this era as a period of generalized urban crisis and decline brought on by a widespread collapse of social norms that drove deteriorating “quality of life.” He argues that prevailing ideas about how to police contributed to this collapse by responding to a raft of fiscal crises and corruption scandals with overly rigid bureaucratic structures, overemphasis on combatting internal corruption, and a misplaced focus of resources on rapid call response instead of crime prevention. These had the combined effect of “handicapping” cops, and preventing them from maintaining order.
The second phase, “Community Policing” roughly encompasses the 1990s. The term “Community Policing” has always been hotly contested, and has meant many things to different people. But for Bratton it means the introduction of the CompStat process and its four tenets: accurate and timely intelligence, effective tactics, rapid deployment, and relentless follow-up. Bratton’s idea of community policing effectively tethered “Broken Windows” theory of urban disorder and policing to relatively novel digital management technologies and techniques. While CompStat is often regarded as simply a tool or piece of mapping software, I argue (as, in fact, does Bratton, though he doesn’t put it this way (Bratton and Malinowski 2008)) that it is indistinguishable from broader processes of labor reorganization, logistical truncation, and the deliberate and selective projects of building out the experimental digital infrastructure of the carceral state. In other words, CompStat stood in for a post-Fordist reorganization of police labor tailored to shore up urban “order” in the context of the transforming political economy – and particularly the increasing economic centrality of the Finance, Insurance and Real Estate industries – of the 1980s and 1990s.

The third phase, “Intelligence Led Policing,” roughly covers the decade after September 11th, and the massive influx of funding for digital surveillance and analytics technologies in the 2000s (Carter and Carter 2009). If, for Bratton, Community Policing and CompStat are the first necessary steps toward reorganizing the project of policing as futural, preventative, and algorithmic, the developments of the 2000s solidify the centrality of data collection and digital analysis technologies in policing. The decade saw the establishment of Fusion Centers, Command and Control centers, the integration of databases across different spaces of municipal government, the standardization of Crime Analysts training programs under the direction of the
DoJ, and later the International Association of Crime Analysts, the development of theories of hotspot policing, the standardized deployment of ArcGIS, the turn towards Enterprise Content Management Systems, etc. Bratton understands these technologies as extensions of the original logic of CompStat, which he maintains is the “engine that drives crime reduction” across the decades (W. J. Bratton 2016).

The final phase, Predictive Policing, starts with the great recession of 2007-2009, and covers developments in data analysis and prediction made in the 2010s (and forward). What, exactly, distinguishes this period from the third phase is somewhat nebulous, and so I will sum it up under the deliberately nebulous umbrella term of “Big Data” (Kitchin 2014). The literature explains the predictive era as a quantitative change in available data and processing power that marks a qualitative change in policing technologies. After the recession of the late 2000s devastated police department budgets, Bratton, his colleagues at the LAPD, researchers at UCLA, and various private sector technology companies like Microsoft, IBM, Hitachi, Siemens, and others, advocated that departments save money on deployment and logistics decisions by adopting companies like Amazon and Wal-Mart’s data analytics techniques. By pinpointing where and when crime will happen, supporters argue, police departments can intervene in criminal processes before they unfold and prevent them from occurring, thus saving money on overtime, court processing, jailing, etc. Charlie Beck called this interfering in the decision cycle of police adversaries, and it is the premise underlying the turn toward prediction, preemption, and prescription (C. Beck and McCue 2009). Bratton, who coined the term Predictive Policing, considers this a natural outgrowth of the aims, intentions, and methodologies first developed for CompStat (W. J. Bratton and Malinowski 2008).
For those with even a passing knowledge of the history of policing, this periodization may seem odd and self-serving. Some of the phases, like Professional Policing, and Community Policing, have little to do with either the theories or practices as they were developed at the time, or the time frames in which they were adopted and implemented. Rather, the phase changes correspond suspiciously with Bratton’s career advances. Nevertheless, it tells a compelling story. Before CompStat, there was chaos, and policing was “dumb” and inefficient. After CompStat, there is order, and policing is “smart” and effective. Bratton and his allies’ influence in policing is large enough that many have adopted his periodization as doxa (White 2014; W. J. Bratton and Malinowski 2008). Whether it reflects a “true” or “accurate” history of police theories and practices, it reflects the story that many of the most powerful “progressive” voices in policing tell themselves and others. This, in turn, frames policy discussions around the development and adoption of digital policing technologies. It normalizes digital capitalism’s labor control innovations as necessary common sense reforms to reconfigure and improve “public safety.”

CompStat reinterpreted both the fallout from, and the widespread opposition to, state-driven processes of dispossession and the imposition of neoliberal reform in the 1970s-1990s, as individuated criminality, rather than the product of social engineering. In doing so, it aligned with what Jodi Melamed has identified as the emerging “official antiracism” of the Reagan era, and prevailing neoliberal theories of state and society (Melamed 2011). This reorientation effectively reversed the job of the police, from wardens of last resort in a mechanistic social structure to social engineers, empowered and expected to impose appropriate behavioral and social norms on a recalcitrant populace.
This official reorientation was a crucial precondition for the rise of the digital surveillance state. Once the responsibility to identify and resolve social problems was transferred to the police, police were free to redefine a wide range of social problems as criminal. The campaign to discredit criminological and sociological explanations of crime further legitimated policing as a research-driven growth industry, and empowered an impoverished narrative of the social world whose imagination was exhausted by crime and punishment.

The first part of the dissertation, “CompStat” focuses on that program’s development and implementation. In the first three chapters, I will examine how CompStat delineated the parameters for transforming the means and metrics by which state and parastate institutions rendered the social world intelligible and actionable. In the first, “Breaking Windows,” I will trace Broken Windows’ inheritances in contemporary police ideologies by closely reading portions of Bill Bratton’s memoir, Turnaround (W. J. Bratton and Knobler 1998). A good example of the “Changing Same” of the “apartheid local of American nationalism” (Gilmore 1993). Broken Windows and zero tolerance policing implicitly draw on Jim Crow ideologies of policing racial-sexual difference. “Broken Windows” tries to hide this by skirting any mention of race or sex, and instead articulating the mission of policing as an aesthetic one, of literally of keeping the city clean (Ranasinghe 2012).

In his memoir, which Bratton organizes as a long-form defense of Broken Windows as a theory, Bratton lets this façade drop, and explicitly tethers urban deterioration to racial and sexual difference. In doing so, he clarifies the stakes of implementing Broken Windows as a normative
police strategy, and betrays the notion that adopting digital or mathematical technologies is somehow oppositional to policing racial and sexual hierarchies. Once paired with the technofetishism of a number of influential institutional partners like the Manhattan Institute, the Police Foundation, The Police Education Research Foundation, and the Heritage Foundation, the set of ideologies that underwrote the Broken Windows doctrine became enshrined as the basis for the collection of data. In reading Bratton’s memoir, I argue that the development of digital policing technologies is fundamentally a project of digitizing and mathematizing affect (Patricia Ticineto Clough 2013; Patricia T. Clough 2010; Puar 2007). Furthermore, I argue that if we take Bratton’s logics of policing to their conclusion, we find that the goal of mathematizing police organization and deployment is not, and never has been “transparency,” or rigor, but rather a mobilization of an abyssal gap between police and policed that legitimates an expansively moral mission of police work as “care” for an imagined white, heteronormative nuclear family. It is not “crime” so much as the affective affordances of sexism, racism, and classism that populate CompStat heat maps.

The second chapter, “Policing Large Numbers” addresses how the project of generating data became cathected to police performance under CompStat reforms. In 1994 there was a “six month lag in the department’s ability to examine crime statistics and trends” (White 2011). For many major crime indexes, statistics didn’t exist. For those that did, their reliability was often uncertain, and the consistency in methodology varied tremendously from precinct to precinct. There was no overarching structure in place for coordinating the methods, training, and bookkeeping norms necessary for large-scale data collection and analysis (Bratton 1997). The biweekly CompStat meetings were designed to remedy this problem by forcing commanders to
regularly account for their own “statistics,” and by tying promotion and demotion to improvements in crime rates (Police Executive Research Forum 2013; Vito, William F Walsh, and Julie Kunselman 2005). And this, in turn, drove the cops to police comportment, social networks, and sociality (Eterno and Silverman 2006, 2010; Silverman 1999; Maple and Mitchell 2000). CompStat was part of a deliberate strategy to break down the existing relationships between police agencies and the rest of the criminal justice system (W. J. Bratton and Knobler 1998). This created a crisis that demanded digitally driven speedup of arrests and processing time, which was then in turn used to focus the efforts of police forces on disciplining purportedly unruly people and populations, rather than responding to crime.

In part II, “Analytics,” I trace the economic and carceral conjunctures that, in the 1990s and 2000s, made contemporary policing techniques and technologies possible. I do so to advance a broader, more speculative argument, that carceral analytics diagram an emerging style of capitalism that is not, or is not strictly “neoliberal” and a society that is not, or is not strictly “of control” (Deleuze 1992). That, instead of thinking through the contemporary conjuncture of carceral capital and digitization as “immaterial” and “predictive,” we would be better served to think it as object oriented and “prehensile” (Clough 2016). And, finally, that central to this turn to calculativeprehension is a refiguration of what “counts” for measurement. That is to say that the spatio-temporal scale of what generates measure, and that measurement aims to freeze and extrapolate, increasingly ingress from an “outside” to human wetware (Parisi 2016). Or, in other words, that their “inhumanism” forces a different sort of ontological relationship between “the human” and the “technological” that is entirely bound up in the ongoing alchemical project of transforming flesh and its imbrications into accumulation.
The third chapter, “All Your Bytes are Belong to Us” connects the logics of “risk” and criminality in a “decarcerating” California in the early 2010s to earlier neoliberal political-economic projects of deregulation and flexibilization. I argue that changes in the copyright status of algorithms, and the efforts of major retailers, like Wal-Mart, to streamline their logistics networks transformed the sort of “work” that digital tech could do into a form of “labor” (Rossiter 2016). This labor, in turn, drove the technological capacities underlying data mining, and collapsed digital computation systems into police work.

The fourth chapter, “Injunction and Counterinsurgency” traces the differential application of civil injunctions in California and New York. I argue that the injunction regime is an explicit effort to integrate counterinsurgent methods, logics, and technologies into the official “heart” of American policing doctrine (Mitchell 2010; Gordon 2007). Moreover, I make the case that it was these counterinsurgent aims that laid the groundwork for building out the interoperable, large scale carceral databases on which contemporary digital policing technologies depend. Part and parcel of this was the development of what I call “networked populations,” by which race, and sex were rendered “mathematical” and, in the context of the digital revolution, legalized and formalized as the bedrock target of best police practices. Digital technologies, in other words, do not merely reflect or refract existing racial-sexual regimes. They actively produce them.

The fifth chapter, “Gaming Brute Force” looks at the work of Mark AR Kleiman in order to a trace how the project of Broken Windows is translated into mathematical and computer logics. By considering Kleiman’s work – and in particular his essay “When Brute Force Fails” (Kleiman
2005) in genealogical context of Thomas Schelling’s cybernetic “Tipping Point” thesis (Schelling 2006), I deconstruct the political and sociological imaginary that undergirds projects of preemptive policing and that injects econometric assumptions and desires into the imaginary structure of “swift and sure” punishment and crime prevention. I call this process “policing the virtual.”

The business processes associated with CompStat are not only current police orthodoxy, they are at the heart of the criminal justice world’s expansive embrace of forensic and analytic digital technologies. I am interested in understanding how the logics of rule that underwrite this consolidation of the digital surveillance state came about. I want to know, in other words, what we can learn about the operative logics of policing by taking Bratton and his Lieutenants at their word and pushing it to its endpoints (Massumi 2015a, 20). That has meant a close and credulous engagement with memoirs, speeches, and policy positions that are of dubious historical value and specious accuracy. By “reparatively reading” the paranoid positions that I am interrogating (Sedgwick 2003), I hope to show begin to deconstruct the rhetorics and logics that underlie the “progressive” way in policing.
Repressed in this manner, ideological thought (the need to analyze, understand, transform) invents new forms for itself and plays tricks with profusion: it projects itself into futurology, which also has no limits. It attempts, for example, to create a synthesis with likely applications from the sciences, which gradually leads into theories of model making. The models claim to base the matter of Relation in relationships; in other words, the claim to catch its movement in the act and then translate this in terms of dynamic or energized structures.

Édouard Glissant

*Poetics of Relation*
ONE: BREAKING WINDOWS

You and I have seen the old factories where every window pane on their thousands of windows is broken. It started, however, with that first broken window. If you don't correct the problem, you cannot check it.

William J. Bratton
“Cutting Crime and Restoring Order”

Until quite recently in many states, and even today in some places, the police made arrests on such charges as ‘suspicious person’ or ‘vagrancy’ or ‘public drunkenness’ – charges with scarcely any legal meaning. These charges exist not because society wants judges to punish vagrants or drunks but because it wants an officer to have the legal tools to remove undesirable persons from a neighborhood when informal efforts to preserve order in the streets have failed.

James Q Wilson and George Kelling
“Broken Windows”

At the risk of overstating the obvious, people ask windows to do a lot of metaphorical labor. For Bratton, in the epigraph above, the broken window looms as the harbinger of a sort of fungal apocalypse of discipline and good government. Factories’ abandonment tells a complicated and demoralizing story of the sustained violence of capital’s war against working class people over the longue durée of industrialization. So, it is telling that, for Bratton, the moment at which a dilapidated factory’s story becomes problematic is not the likely period of automation, then drawdown, and then removal that leaves workers unemployed, or structural crises of over accumulation, or the labor arbitrage that surplus population enables. It is not the “trap economics” (C. A. Woods 2006; C. Woods 2009) that fastens working class populations to places without work. It is not the spatial fix that organizes surplus accumulation into spaces like the prison (Gilmore 2007). The problem begins the moment someone, maybe out of work, maybe working for a low
wage, maybe without many options, and probably bored, picks up a rock and throws it at useless piece of glass.

But new windows installed in the same dilapidated factories speak of a different sort of “creative classes” apocalypse of displacement and expropriation (Florida 2002, Brenner and Theodore 2002). If the “old factories where every windowpane on their thousands of windows is broken” invoke a story of mid-century deindustrialization and decay, the freshly glazed pane behind the banners of real estate development speaks to 21st century crises of precipitously rising rents, scarce housing, police crackdowns on daily life, and the belated provision of previously scarce municipal services.

The underlying nostalgia that animates Broken Windows theory is, in other words, indicative of a broader politics of class and power that associates dangerousness with the dispossessed working classes, and not with their dispossessors. The ideological inversion of Broken Windows theory is that disorganized behavior, and not organized dispossession and disinvestment accounts for deterioration and economic decline.

Broken Windows draws on a long tradition of ostracizing the poor and dispossessed through recourse to the aesthetic judgments of capitalized classes. Rhetorically, it reflects a neoconservative shift in legal logics that occurred in the second half of the 20th century. These converted offensive but tolerable conduct (like loitering or drinking in public) into positively harmful acts that directly cause crime (Harcourt 2001, 183). Internally inconsistent, Bernard Harcourt argues that Broken Windows “has great rhetorical power
but little empirical substance and troubling theoretical implications, a type of aesthetic policing that focuses on the disorderly” (Harcourt 2001, 181). Rachel Herzing goes further, and claims that it is not so much a coherent theory that can explain empirical facts as “an incantation, a spell used by law enforcement, advocates, and social scientists alike to do everything from designing social service programs to training cops” (Herzing 2016). That is about as accurate a description as one is like to find.

Nevertheless, Broken Windows has enormous cache across the deep center of American politics (Ali 2015). And, in part because it is a cypher, it has been employed with great effect to expand the purchase of the police on the governance of American cities. This has been particularly true in the development and deployment of digital policing technologies. It is, in fact, impossible to make sense of the rise of digital surveillance and police practices without first understanding how “Broken Windows” facilitates the development and expansion of sexualized and racialized mission of policing.

Broken Windows lent academic credibility and sociological veneer (what Bratton will elsewhere call “beautiful words”) to a project of reorganizing police strategies that put the practices of place-making directly in the cross hairs of the carceral state. This was deliberately designed as a spearhead for a broader and more profound project of gentrification’s engineered enclosure. Broken Windows police strategies target the social habits and lifeworlds of racially enclosed working class populations. Politicizing and criminalizing aesthetics are a crucial component of this project, because doing so condemns an entire range of practices, comportments, outlooks, and world making
intrinsic to what Clyde Woods has elsewhere identified as “the Blues Epistemology” (C. A. Woods 2000; McKittrick and Woods 2007). These include symbolic resistances to asset stripping, informal congregations, survival strategies, and creative expression.

In 1990s New York, two of the highest priority targets for Broken Windows-inspired Zero Tolerance policing broken were neighborhood parties, and boom boxes (New York City Police Deptartment 1994; Wilson and Kelling 1982, Herzing and Mcardle 2002, Howell 2009). The idea is to drive people inside, to atomize them, to make public space dangerous, to criminalize techniques and technologies of community making to break communal power and organized resistance to consolidating spatial contours of dispossession (James 1996, Fagan and Davies 2000, Shabazz 2015). Broken Windows recasts both the effects of, and the resistance to enclosing and stripping public assets as “disorder,” and thus positions the police as uniquely empowered guardians not only of “law” and “order,” but of economic “improvement” and the emotional satisfaction of the ruling classes (Thacher 2015, Taylor 2000). Digital driven policing emerges out of the effort to automate this mission conjunction as part of the project of formalizing a deliberately punitive and rapacious vision for the city as technocratic and “transparent” best practice in liberal government (Vitale 2017, Mitchell 2018).

BROKEN WINDOWS AND RACIAL CAPITAL

Broken Windows reimagines the history of policing as a benevolent and homespun project of building and maintaining robust communities up until the “urban riots” and “mass violence” of the 1960s. The story, as Broken Windows authors John Wilson and George Kelling tell it, is that widespread post-war ownership of automobiles led to a
communal disinvestment in maintaining urban neighborhoods. Given the prospect of buying homes in the suburbs, right-thinking people took advantage of the mobility that had “become exceptionally easy for all but the poorest or those blocked by racial prejudice,” and left the cities. By depriving neighborhoods of their middle class moral center, these flights eliminated the “self-correcting mechanism” of business and land owners “determination…to reassert controls over its turf” in the wake of “crime and gang wars.” Wilson and Kelling argue that the city dwellers that did not participate in the postwar wave of white flight were too poor and/or too culturally disordered to cope with the fallout of increasing levels of urban poverty. This led to a collapse in moral order, which further deepened the city’s disorganization, and so on. This social disorganization, coupled with overly liberal models of policing, and the misguided decision to move officers from foot patrol to radio cars is, according to the theory, to blame for the rebellions and crime “crises” of the 1960s and 1970s.

Against the Vietnam War era’s supposedly over liberal policing’s failures, Wilson and Kelling point to a golden age of policing and social order “before, say, World War II” when

the police in this earlier period assisted in that reassertion of authority by acting, sometimes violently, on behalf of the community [emphasis added]. Young toughs were roughed up, people were arrested ‘on suspicion’ or for vagrancy, and prostitutes and petty thieves were routed. ‘Rights’ were something enjoyed by decent folk, and perhaps also by the serious professional criminal, who avoided violence and could afford a lawyer (Wilson and Kelling 1982, 33).

Although they will not come out and say it, Wilson and Kelling can only be talking about Jim Crow, both de facto and de jure. The “young toughs,” vagrants, “prostitutes,” and “petty thieves” that police targeted on “behalf of the community” “before World War II”
were people of color, women, queer people, and the poor. That only “decent folk” (who we can read here as normatively white, heterosexual, and middle class) “enjoyed” “rights” is exactly what drove the Civil Rights Movement (that is mysteriously absent from their narrative), and forced the Supreme Court and the congress to formally invalidate this social structure as unconstitutional (Stewart 1998; Roberts 1998).

In addition to romanticizing Jim Crow, Wilson and Kelling invert the history of who broke the city’s windows. The authors tag the collapse of community to the rebellions of the 1960s, which they blame for the subsequent rise of “crime fighting” as opposed to crime prevention. They argue that officially discouraging police violence was a cynical means of preventing the repeat of mass violence, and that it is to be blamed for what they see as the period’s collapse of order.

But that argument depends on fancy historiographical footwork that is frankly hallucinatory in imagining police departments of the 1960s and 1970s as benign. Between 1964 and 1972, police violence against people of color sparked rebellions in over 300 cities across the United States. The state treated these uprisings as insurrections, and quelled them with massive military and paramilitary responses work-shopped in the killing fields of Vietnam. The counterinsurgency campaign killed 250, seriously injured 10,000, and arrested over 60,000. Victims were overwhelmingly people of color, and mostly black (Robin D. G. Kelley 2016; Marable 2007; Hinton 2016). It was counterinsurgency that marshaled liberal support for the passage of the LEAA, and solidified paramilitary occupation of a literally burned-out urban core as common sense
police strategy (Murakawa 2014, 2008). Neither the police, nor the state, need “Broken Windows” theory in order to pursue breaking windows as policy.

Broken Windows does not constitute a break in the ontologies of American matrices of domination (Collins 2009) but it does show that meticulously policing the effects of racial capitalist political economy have come to replace domestic “Keynesian warfare-welfare” (Gilmore 1999) state-building in the turn toward neoliberalism. As Neil Smith puts it, the embrace of Broken Windows as the guiding principle of urban governance in the NYPD’s 1994 Police Strategy No. 5 marked a “spatialized, postmodernized” reordering of criminality in which “Deep-seated fears and insecurities are enlisted to conflate physical and psychic safety: the symptoms [of urban decline] were the cause” (Smith 1998). The state and state-adjacent capacity to transform these deep-seated fears and insecurities into liberally-oriented metrics of good governance and urban justice rely on an American archive of sexual and racial measurement that is both an inheritance of historical structures and practices and materially internal to the logic of digitally driven “intelligence-led policing.”

The databases that drive computational policing regimes in the wake of Broken Windows’ implementation are populated by the deliberate and systematic dispossession of what Wilson and Kelling call “disreputable or obstreperous people” and “disorderly elements” from the “inhospitable and frightening jungle” of American cities (Wilson and Kelling 1982, 32-34). Broken Windows, in other words, elaborates the necessary roles for the armed branches of state power in the process of expropriating urban land from the

Understanding Broken Windows policing as care for the capacitated contextualizes the clumsy aesthetics of “Broken Windows” as metaphor. In the original text, the “broken window” slides around an ontologically flat world in which it comes to mean anything that Wilson and Kelling dislike about urban life. Actual broken windows in abandoned cars, disputes “between a businessman and a customer” (in which the businessman is “assumed to be right, especially if the customer is a stranger,” street art, people listening to music loudly, “the unchecked panhandler,” or “even a single strange youth” are all “broken windows” (Wilson and Kelling 1982). Although Wilson and Kelling rail against the “aesthetes” who defend graffiti as folk art (Wilson and Kelling 1989), their argument is held together by idealized aesthetics.

They are directly inspired by Jane Jacobs’ concepts of “civility” (by which she, too, means heteronormative social performance geared towards the proper instruction of children) and informal surveillance (“eyes on the street”) (Ranasinghe 2012; Hanhardt 2013; Halberstam 2005). For Jacobs, Kelling, and Wilson, the opposition of order to disorder is pregnant with racial, class, and sexual fantasies. In their imaginaries of the
city, the queer specter of the subject out of place and out of time is a constant, animate threat (Halberstam 2005).

TURNAROUND: SEXUAL AND RACIAL GEOGRAPHIES OF BROKEN WINDOWS MYTHOLOGY

Bratton’s memoir, Turnaround, is a long-form defense of Broken Windows theory, in which his own life tropes as archetype. Although much of the book concerns the office politics of the Boston and New York Police Departments, a significant portion of the first half is devoted to his memory of growing up working class in white southern Boston, and his early experiences as a beat officer in black Mattapan. Bratton leans on these racialized geographies to make implicit but formally race-neutral claims about the deviance and disorganization of black subjects’ sexuality, and cathects the queered capacities of black bodies to monstrous and bewildering violence. For Bratton, sex, race, and violence intermingle as a “tangle of pathologies”\(^1\) that demand the muscular intervention of the police.

Bratton is obviously inspired by the comportment and civility arguments of Broken Windows, and Turnaround shows that the theory’s use-value is in furnishing a framework to clear judicial ground to institutionalize a racially and sexually organized “state of exception” (Agamben 2005) as durable police policy. In Bratton’s telling, this state of exception does not so much expand the brief of the police force, as it does commit the state to intensifying already-existing extralegal tactics. At a moment when the historical

\(^1\) A term that he does not cite directly, preferring instead to reference Moynihan’s claim that the United States has “defined deviance down” (Moynihan 1993)
justifications for the police were in a protracted period of crisis, Broken Windows provided its adherents with a framework for reorganizing policing best practices as permanent counterinsurgency (Camp and Heatherton 2016).

For instance, he notes that the seventies saw a general rise in the number of domestic disturbance calls for police help. He implies that the proximate cause of the rise of domestic violence is the disorder of the 1960s, in which it was “as if the country had had a nervous breakdown.” The upheavals of the period confuse Bratton, who reads rebellion as “fashionable to be anti.” Instead, he “never felt disenfranchised” or “harbor the anger and mistrust toward the government that other people did. I believed in order and conformity and the need for everyone to abide by social norms. There was behavior that was accepted and behavior that was not…There were rules, there were reasons for these rules, and I understood and accepted those reasons” (W. J. Bratton and Knobler 1998, 36). Of course, the actual proximate causes of urban rebellion in the 1960s were structural racism, widespread poverty and racist police violence, and their aim was often exactly to force departments to surrender their power (Taylor 2016). But Bratton’s language mirrors “Broken Windows,” which also blames the countercultural fashions of the 1960s for generalized disorder and growing levels of fear. According to the authors, the “urban riots” of the 1960s effectively forced police departments to change their mission from order maintenance to crime control in order to “reduce the incidence of mass violence.” This, in turn, generated a crime wave that paralyzed communities, undermined informal community controls on behavior, and drove citizens to call police
for help control situations that might otherwise have been handled informally (Wilson

My reading of Turnaround is inspired by Roderick Ferguson’s argument, in Aberration in
Black that sexual regulation, and sexual difference, have been the often unspoken, yet
fundamental criteria against which racially differentiated populations are constituted in
sociological studies (R. A. Ferguson 2004). Although I would not call Turnaround
sociological in any meaningful sense of the word, it nevertheless reproduces many of the
central dynamics that Ferguson identifies.

As we will see, Bratton’s worldview is inextricably connected to a form of nominally
desexualized whiteness that is assumed to stand in for the “normal life” of “good people”
on whose behalf the police fight. His protagonists are a rotating cast of upstanding white
men whose barely contained anti-sociality, racism, heterosexism, and patriarchal
commitments are rendered as a type of rough-around-the-edges fulcrum through which
“good” heteronormativity stabilizes. Against these figures, and the women and children
they “protect,” is arrayed a throng of racially othered and generally dishonored “thugs”
and “gangbangers,” “wolfpacks,” and “lowlifes” (Foucault 2003; Puar 2007, Patterson
1983).

This, I want to suggest, is not fundamentally different from the commitments of
“canonical sociology” that Ferguson deconstructs. Indeed, we hear echoes here of
Ferguson’s argument that “the Chicago School’s construction of African American
neighborhoods as outside heteropatriarchal normalization underwrote municipal
government’s regulation of the South Side, making African American neighborhoods the
point at which both a will to knowledge and a will to exclude intersected” (R. A.
Ferguson 2004, 41).

Bratton begins his memoir with a nostalgic picture of Irish working-class Dorchester in
the 1950s and 1960s. Life is not always easy (poverty is endemic), but it is nevertheless
represented as a sort of working-class idyll. This is notable because the capacitative
racialization of Dorchester’s working class as white inoculates the community against the
sort of systematically violent intervention of the carceral state that Broken Windows
theory would otherwise call for. Poverty forces Dorchester’s families to improvise
survival through constant petty legal violations. The Brattons, for instance, illegally pack
coal-fired ash underneath the family porch and pay off the neighbors to do the same.
They use illegal kerosene stoves for extra warmth in winter. Bratton drives without a
license. Teenagers gamble and fight on the street. Bratton’s parents, “like a lot of people
in the neighborhood…played the numbers each week” (W. J. Bratton and Knobler 1998,
6). But, in his telling, the law breaking is acceptable because it is either necessary or
benign. In other words, these are either crimes of survival or crimes of preference.
Kerosene lamps are illegal because they are fire hazards, but they are necessary because
they filled a gap in Boston’s municipal services. Teenagers playing three-card Monty and
gambling on street corners is acceptable because they are “so benign there was no phrase
for [them].” Bratton, describing his group of friends, claims, “we didn’t drink, we didn’t
disturb anybody, we didn’t act up, we just be there hour after hour until eleven or twelve
o’clock at night. The cops never once asked us to leave” (W. J. Bratton and Knobler 1998, 12).

That this sounds like exactly the sort of “disordered” behavior that Broken Windows theory would violently stamp out in black and brown neighborhoods seems lost on Bratton. But this elision productively situates an American nation-building project in which white heteromasculinity goes as normatively unmarked, with white subjects assumed sovereign and citizen, and the “private” “white” home granted public sanctity, and privately regulated by the white paterfamilias (Ngai 2004, Nakano Glenn 2002, Davis 1983).

When Bratton explains his attachment to “broken windows,” and his commitment to it as a theory of policing, he frames it as “articulat[ing] and put into beautiful words what I had found from experience” as commander of the Boston-Fenway Program (an early community policing pilot). His description of that program is informative. Throughout Turnaround, Bratton conflates racial composition and rising disorder. In a particularly telling passage, he actually points to redlining as the direct cause of rising crime and disorder, but narratively inverts the process. He writes,

For Many years, the Mattapan area had been a predominantly middle-class Jewish community. It had a very famous neighborhood delicatessen, the G&G, a favorite campaign stop for presidential candidates. In the late sixties and early seventies, Mattapan, like my old neighborhood, had been a victim of redlining; in three or four years, a neighborhood that had been almost 100 percent middle-class and Jewish became 90 percent poor and black. Crime shot up, law enforcement went down, corruption took root (W. J. Bratton and Knobler 1998, 42).
Compare this description to the “eyes on the street” and heteronormative familial order that defines his Dorchester, only three miles away. The passages describing 1950s and 60s Dorchester are rich with detail, including descriptions of the housing, the popular décor, the cars driven, and the type of light emitted by gas streetlamps. The most detailed description of Mattapan is of the Franklin Field, an “all-black public housing project. A tough part of a tough district.” Bratton describes it as “a typical cinderblock and glazed-stone housing development of three-story multiunit buildings.” (W. J. Bratton and Knobler 1998, 44)

Not only is this a sharp distinction from the lovingly recreated nostalgia of Dorchester, it is indicative of a broader tendency to frame racial difference as metonymic for dysfunction and moral decay. This mirrors the aesthetic work of Wilson and Kelling’s article, where personal preferences (like disliking graffiti) are racialized and transformed into a normative standard. It also points to the way, to quote Christina Sharpe, Bratton’s gaze transforms “readable progress [as] proximity to whiteness.” Sharpe argues, and Bratton’s memoir seems to bear out that when

Justice depends on the ‘point of view from which a thing is viewed’ and on the ‘time and location we are in,’ and if justice is being recognized as human in a ‘white gaze’ or in the gaze of those in power, then the injury slips from slavery (colonialism, segregation, lynching, ethnographic display, incarceration, etc.) to blackness (or being blackened) itself (Sharpe 2010, 13).

And, in keeping with Sharpe’s argument, this difference – this judgment – is, in Bratton’s mind, inextricable from sex. Black sexuality, in Turnaround, is overfull with violence and trauma that must be physically regulated by the police. Bratton never shows the reader evidence of “proper” heteropatriarchal comportment or intimacy among non-white or
queer people, but he constantly reminds us of the implicit failure of these subjects to properly self-regulate.

Bratton implies that, in the 70s in general, the family was dissolving, since “cops were called increasingly to referee domestic disputes.” This, apparently, was especially true of Mattapan, where the police were “continually being brought in to deal with husbands and wives fighting or kids fighting with their parents” (W. J. Bratton and Knobler 1998, 45).

Inside these houses, he and his partner “find” a stunningly thorough inventory of paranoid white racial fantasies. I am not interested in retelling or reconstructing the details of his stories here. Suffice it to say that his repeated invocations of superhumanly strong men, violent and sexually irrepressible women, infanticide mothers, and callous indifference to human life are exactly the type of racist fables that, as Priya Kandaswamy reminds us (Kandaswamy 2012), have historically structured the American state’s gendered racial backformation of black American families.

Bratton, in other words, is reproducing a familiar American trope that renders racial difference as monstrosity to ground a larger argument for employing Broken Windows as national policy (Spillers 1987; Hartman 1997; C. J. Robinson 2007). But, contra his obvious interlocutors like Daniel Patrick Moynihan, Bratton argues that the police are most capable of intervening to save or recover the remnants of the “disordered” black family. Indeed, he goes further and insists that the failed liberal policies of the 1960s and 1970s demonstrate that the police are the only agency that can stand in for the “black family’s” absent patriarch to instill order and “respect.”
So the BDP crash into homes, pull people down stairs, and wrestle them to the ground. The police materialize the racial state’s sovereign claim as arbiter of the proper racial-sexual health of the nation (Glenn 2002, Goldberg 2009, 2002; Roediger 2007) and, in turn, produce a topological structure of race, gender, and geography that is forcibly integrated by police power’s privilege to pry open the fugitive spaces of black “cartographies of struggle” (McKittrick 2006).

Bratton explains this state violence as a form of pastoral care. The police must (and in his mind are begged to) stand in to protect black children from their black mothers, or black women from black men (Morris and Spivak 2010). His interpretation of Broken Windows reproduces a spinal logic of American racial formations: the failure of poor mothers to produce proper subjects is at the root of social disorder (E. N. Glenn 2004; Hartman 1997; Byrd 2011). And this social disorder transforms “black” neighborhoods into “broken” ones, which in turn makes them the legitimate targets of broad and untrammeled police authority and state violence (Muhammad 2010, Cohen 1999, Taylor 2016, Kelley 1996). It demands, in other words, a penetrative and distributed punishing apparatus capable of constantly delivering swift and sure discipline. It is an exact instantiation of Katherine McKittrick’s formula: “polluted + inexpensive regions = unhealthy/black dwellings = sub-human/sub-woman/bad-mother” (McKittrick 2006, 13). When the subjects are poor and they are black, the social and the carceral are made to be indistinguishable (Browne 2015, Rodriguez 2007, Shabazz 2015, Sharpe 2016, Moten 2003). Bratton’s imagination of a racialized other sequestered geographically in black

To continue McKittrick’s argument, in Mattapan “black geographies…[are] rendered unintelligible: racial captivity assumes geographic confinement; geographic confinement assumes a despatialized sense of place; a despatialized sense of place assumes geographic inferiority; geographic inferiority warrants racial captivity” (McKittrick 2006, 9). As is so often true in discussions of American political economy, in Turnaround, Black possession of space is never imagined as ownership or belonging. Instead, it is transient, a condition of the broken-window deterioration of neighborhoods that once were white, and an impediment to their possible gentrified rebirth (Hall 2017, Oliver and Shapiro 1995, Sampson 2011, Omi and Winant 2014).

Compare Bratton’s descriptions of Mattapan with what is easily the most violent event in Turnaround: a South Boston riot protesting desegregation in 1977. Bratton frames the riot as part of the ongoing white revolt against busing that came to a head in the mid-1970s. But whereas, in Mattapan, violence was indicative of familial collapse and racialized inhumanity, in South Boston, the rebellion that, at one point, was so intense that a district station had to be evacuated because “a rumor went around that it was about to be attacked by antibusing forces” is down to familial concern. The cops, portrayed as tragic victims caught in the middle of the conflict, often find themselves looking “across barricades [at] the screaming faces of their sisters, their brothers, their cousins and nephews” (W. J.
Bratton and Knobler 1998, 73-75). They go home at night having to explain to friends why they arrested “Johnnie Jones.”

That antibusing rebels are presumed have social networks or complex interior lives already distinguishes them from people in Mattapan. Once the riot begins, these concerned families turn into “a mob” and “boiling angry crowd” that Bratton begins to describe in racialized terms. At one point, after word has gone out that rioters are going to try to capture the local high school, Bratton cruises around the neighborhood looking for them, “like a scout out hunting marauding war parties.” When he finds them, he discovers a mob that charges him. Facing them, he imagines himself as “Davy Crockett fighting through Mexican lines to get into the Alamo” (W. J. Bratton and Knobler 1998, 75).

The riot is eventually contained, but the busing conflict continues and, over the decade, deepens animosity between the police and Southies. Eventually, “guys…would go at a cop rather than accept his authority.” Most of these “cop fighters” are eventually arrested, often for domestic violence. But, unlike in Mattapan, Bratton doesn’t recount any horror stories of broken families, callous indifference to suffering, or deranged value systems. Instead, he describes a neighborhood that, when confronted with the prospect of white, black and brown children going to school together, launched a violent rebellion against the state as “a very close-knit community with some great strengths and tremendous pride. They played in their own ballpark and by local rules.” Judging the conduct of this “close-knit community” that broke windows and killed people to fight for school
segregation, Bratton says “I’m not sure it’s something I would have bragged about” (W. J. Bratton and Knobler 1998, 75-77).

ARRESTING AFFECT

Bratton’s different treatment of Mattapan and South Boston demonstrates how his brand of Broken Windows policing demands a new set of logics of measurement, in which the affective and the embodied, rather than “traditional patterns of geometry, progress, cartography, and conquest,” become raw material for constructing a virtualized carceral landscape (McKittrick 2006). The carceral geography of racial difference – of the “state-sanctioned or extralegal production and exploitation of group-differentiated vulnerability to premature death” is not rooted in the cartographic practices of “ownership” or an “objective” ordering of transparent spaces that hide geographic structures of domination (Gilmore 2007; McKittrick 2006). Broken Windows doesn’t produce “transparent” space. It is riddled both in theory and praxis with emotional commitments, concentrations of violence and affective intensities. The aim of the state, under this regime of police logic, is not to render everything visible, as a glance at a CompStat map might suggest. Instead, the aim is to produce the geography of the city as a terrain of digitized affective intensities in which “unruly deviant bodies do not have the capacity to produce space and effectively participate in geographic progress; unruly deviant bodies should be kept “in place”” (McKittrick 2006, 9).

In Bratton’s memoir, “race” is often synonymous with blackness, but it is always homogenized and ontologized as danger. This, as Lisa Marie Cacho points out, effectively reduces the unprotected to a state of presumed criminalization, and suspension
of subjectionhood (Cacho 2012). By turning race into “heat” and concentrations of incidents, Bratton’s Broken Windows reorders racial formations as tools of producing and refining ontologies of measurement. Rather than seek to nullify difference through the flattening mechanics of social science (Melamed 2011), Bratton’s Brand of Broken Windows insists on an indivisible remainder.

For Broken Windows to function, disordered populations must be effectively inscrutable. Rather than the “god-trick of seeing everything from nowhere” in Turnaround (D. Haraway 1988), Bratton’s Broken Windows mobilizes affect. Bratton reads the interior spaces in Mattapan as abyssal and terrifying, as absolutely beyond comprehension. The project of policing should, in fact must, cease to be a project of making sense of a “reality” that exists in the world. Instead, the proper “practice of policing” depends on the extraction of measurement from “technoperceptual composites through an experimental practice of duration, attention, sense, sensation, and time scale” (Rai 2012). In other words, through the metric capture of possibility materialized in the violent affective prime of the police as racializing agents.

For Bratton, order resides in the affective attachments, and the monstrous intimacies of the police and the policed (Ahmed 2006; Sharpe 2010). In Mattapan, the possibilities of capturing the affective intensities of racialized social order emerges out of the violent interposition of bodies. It is the virtual territory of violent capture and control that police officers’ proximity to “90 percent poor and black” residents produce through ceaseless
touching, tackling, rolling on the floor, snapping wrists, cradling, dodging, falling down stairs. The body’s proximity becomes the terrain on which a rejuvenated carceral landscape is built. Out of this tactility, this repetitive staging of the encounter between the bodies of police and policed, in which “blackness provided the occasion for self-reflection as well as for an exploration of terror, desire, fear, loathing and longing” (Hartman 1997, 7), Bratton seems to imagine that the nation itself can be forged in decency and order. So, it is a body politics that Bratton invokes when he argues that by finding the political will to nationally implement broken windows, the police “can take back America state by state, city by city, borough by borough, block by block. And we will win,” (W. J. Bratton and Knobler 1998, 313; Pitts-Taylor 2007, 2016).

And here is the break between Bratton and Wilson and Kelling: all agree on abandoning the project of making the world “knowable” in any objective sense. But, whereas Wilson and Kelling resort, after the end of knowledge, on order and force (essentially on the institutionalization of crisis without decision (Agamben 2014)), Bratton depends on the impossibility of the social as the generative core in the construction of statistical reason. The fact, in other words, that the world as such is “unknowable,” because it is both monstrous and affective does not militate against the possibility of statistical reason but, as Browne suggests, set a stage on which the police can produce a world of their own (Browne 2009, 2015). For Bratton, the “technical solution of making live and letting die” that Broken Windows makes possible is the redistribution of the sensible world into

The Bratton Brand’s reformulation of Broken Windows expands the purview of police sovereignty to legally and institutionally demand targeting bodily comportment and demeanor. It assembles from the debilitated “flesh” of the urban poor the numerical raw material from which it architects informatic infrastructures of extractive violence (Spillers 2003, Puar 2017, Gilmore 2007). As Alex Vitale argues (Vitale 2009), Command and Control policing is designed to proliferate the points of contact between the police and policed so that the remit of officer responsibility penetrates an ever-more granular bodily field such that affective bodily dispositions, like “furtive” movement, becomes cause for state intervention. Such an expansion in the legalized and memorialized mission of the police demands a corresponding inflation of surveillance capacity. For the “proactive” mission of policing the minutiae of the body to comport with Bratton’s paternal mission of transforming the behavior of the subjects of the state, the personal litanies of infractions must be archived for indefinite retrieval (Puar 2007; Pitts-Taylor 2016).

And it is with these memorializations, these teratic deformations differential violence, that the Bratton Brand builds a world. The world begins with the aesthetic inheritances of the political economic histories of organized abandonment. It transforms into the cultivation of racial difference as ontological, demanding the violent mastery of the
officer at “the tipping point” of a neighborhood on the verge of becoming a “jungle.”

These histories of domination are distilled, at the point of contact, into strata of pregiven causes and effects: the UF-250 form that converts the “schematic racism and white paranoia” (J. Butler 1993) of the “apartheid local of American nationalism” (Gilmore 1993) into the reasonable suspicion of “furtive movements.” Thus rationalized by the aesthetic presumptions of state racism, they are transmuted into colored clusters – “heat maps”, that redraw urban space as affective clusters of violence-to-come (Clough and Puar 2012; Clough 2000; Clough 2010; Massumi 2015b, 2011). This virtual epidemiology of crime, in yet another iteration of a time-honored tactic of American unfreedom, stamps out the life-worlds of the city, transforming communities into bulls’ eyes and installing “community leaders” as comprador collaborators (Gilmore and Gilmore 2016; James 2007). Bratton and his cops imagine themselves sovereign over these bureaucratic cartographies of domination, these virtual color-coded terrains of speculative violence and violation. His officers nickname him “Lord Dots.”
TWO: POLICING LARGE NUMBERS

All dots are created equal.

Jack Maple
The Crime Fighter

Essentially, a Compstat program requires police to gather timely, accurate information about crime patterns, and then respond quickly to break up those patterns.

Police Executive Research Forum
Compstat: Its Origins, Evolution, and Future in Law Enforcement Agencies

In 1990, the Metropolitan Transit Authority faces a fiscal crisis caused by low ridership, low revenues, and underinvestment. These have been problems for the better part of a decade, and their causes are overdetermined. But the Authority decides that the issue is fare beaters. Claiming that 250,000 fare beaters are avoiding turn styles on any given day (W. J. Bratton 1996), the Authority hires George Kelling, co-author of “Broken Windows” as a consultant to resolve the crime crisis. He unsurprisingly believes that the root cause of fare beating is a collapse in the sense of public order and recommends that Bill Bratton be hired to lead the Transit Police in a Broken Windows-inspired campaign to “clean up” the subways.

The problem with Bratton and Kelling’s thesis (and it is a problem that the MTA seems to recognize) is that, when 250,000 of 3 million daily riders are turnstile jumping, it is less “crime crisis” so much as “public reclamation of a utility.” Even assuming that the city wants to arrest its way out of the problem, the scale poses a seemingly insurmountable obstacle. The logistical capacity to incarcerate at scale for such
insignificant offense simply doesn’t exist. The Authority seems to recognize this and asks the Transit Police to help stem the tide of fare beaters while turnstiles are redesigned to be more difficult to jump. The MTA is anyway already in the process of replacing old token turnstiles with a card-based fare system and will gradually install the new gates in 1993. But in 1990, fares account for less than 5% of the Authority’s revenue, and increasing this share is crucial to implementing their capital construction plan.

The MTA understands farebeating as an administrative and technical problem. But it is a problem of poverty. By the end of 1990 almost 250,000 people are officially unemployed in New York City, a rate of 7.5%\(^2\) But even these numbers are depressed, as they do not take into account the underemployed or those who have given up on seeking work. Homelessness has reached unprecedented levels and available housing stock for low-income people is diminished. One dollar and fifteen cents (the subway fare in 1990) might seem like a pittance to someone on a generous salary. But the New York hourly minimum wage in 1990 is $3.80.\(^3\) For those making minimum wage, paying for the subway amounts to selling almost an hour of labor time to get to work, to say nothing of using the trains for purposes other than selling one’s labor on the formal market. A rational economic actor, making the most of limited resources, and living under conditions in which the dilapidation of the system is sometimes so extensive that people cannot pay to use turnstiles even if they wanted to might jump a turnstile here and there.

\(^2\) https://www.labor.ny.gov/stats/nyc/  
\(^3\) https://www.labor.ny.gov/stats/minimum_wage.asp
There is a historical term for the laboring classes appropriating the material excess of their labor process and using it to survive when the wage floor is lower than the cost of social reproduction. It is “custom.” For shipbuilders in 17th century London, for example, it was “customary” to collect discarded chips of wood at the end of a laboring day, and use them as fuel or sell them on the informal market (Linebaugh 2006). During periods of conjunction, when social relations are in crisis, it is customary for the state to criminalize “custom” (Hall et al 2013, Gramsci 1971). For shipbuilders in the 18th century, who worked in wood, this meant hanging as a thief for taking home scraps at the end of the day, as had been customary. It meant the racialized criminalization of the edges of the working day, and rendering suspicious the practices of the common that had, until shifts in political economic logic, been acceptable or, at least accepted (Linebaugh 2006).

In 1990, in the midst of the implementation of the service-based Finance Insurance Real Estate Education economy, New York City’s governors and administrators developed new mechanisms for targeting and criminalizing custom. But, whereas 18th century shipbuilders were stripped of their wood chips, late 20th century working classes were stripped of a particular form of “undisciplined” body, its affects, and capacities. FIRE industries’ dependence on speculative capital investment centralized disorder as a problem for economic growth in a way that had not been true under the industrial-Keynesian regime (Brash 2011; Smith 1996; Phillips-Fein 2018). Neoliberalism’s flagship FIRE industries demanded a laboring disposition of servility and deference that recalled the demands of plantation capital, an ancient strategy of bodily discipline and
expropriation used in the United States to undermine what Clyde Woods has called the

**MAKING SUBWAYS A “HOUSE OF DISCIPLINE”**

In Black Geographies, Woods argues that the traditional scholarly mode of understanding
the plantation system as a “military form of agriculture” that is “backwards and semi-
feudal and incompatible with capitalism” (C. Woods 2007, 56) in fact overlooks the
central organizing principles of the plantation system. Rather than “backwards and semi-
feudal,” the strategies and structures of labor organization that plantations prototyped and
refined provided the American state and neoliberal policy with its “core organizing
principles.” He notes that when one follows the logic of the plantation system’s territorial
and bodily demands into the present, one can see that it has not disappeared but has
expanded and mutated into “enclosures and reserves; industrial estates and mill villages;
free-trade and export zones; enterprise and empowerment zones; ghettos and gated
communities; suburbanization and gentrification; ghettos and gated communities;
suburbanization and gentrification; game preserves and tourist resorts; pine plantations
and mines; and migratory and prison labor.” All of these sites are designed specifically to
“reproduce the basic features of plantation capitalism: resource monopoly, extreme
ethnic, class, racial and gender polarization; an export orientation; and the intense
regulation of work, family, speech and thought” as well as “multiple types of regulations,
sometimes violently imposed, upon organic institutions, communities, and leadership”
alongside the “militarized diminution of human rights, labor rights, and democratic forms
of governance” (ibid.). Woods’ concept of contemporary plantation capitalism is a useful
heuristic for understanding the 1980s and 1990s campaigns to make the City’s human geography safe for neoliberalism.

During the 1970s financial crisis, New York City’s budget and finances were put under the control of the Municipal Assistance Corporation – a state entity charged with balancing the city’s budgets and improving its bond ratings (Municipal Assistance Corporation for the City of New York 1976). MAC drove the city’s pivot to FIRE industries – Finance, Insurance, Real Estate. FIRE industries are speculative. In order to be profitable, the environment in which their capital flows circulate must sufficiently reflect the expectations and the desires of investors, and be convincingly actuarial in their ability to return on investment (Municipal Assistance Corporation for the City of New York 1980). They are also white-collar service industries, whose primary practitioners hail from the upper classes, to which they, by design, redistribute wealth. The city’s pivot to FIRE reorganized employment for working class New Yorkers, whose prospects now centered on servicing incoming Yuppies.

With the transition to service, the city’s capacity to economically produce and grow increasingly depended on the docility of the dispossessed. As Neil Smith argues (Smith 1998, 1996), Real Estate, both as an industry and the (literal) ground on which Finance and Insurance companies would build, had to be made available through gentrifying processes, tethered to capital investment and state-driven clearance of the working classes. Neighborhoods had to be made enticing to moneyed cadres, whose inroads into dilapidated neighborhoods signal the demise of available housing for the working class
and poor. This call increasingly manifested itself in shrill demands to deal with the sense of high crime, even when it did not reflect the realities of the likelihood of “being victimized,” or the actual social conditions in which people lived. These affective demands to make the city docile were implemented as campaigns to “take back the streets.” To do so, the city had to secure the means of transportation for circulating labor. As capital concentrated in Manhattan, and work sites moved further and further from laborers’ homes, commuting had to be made attractive and normative. Behaviors and appearances in train cars had to reflect the proper comportment at a place of work.

Conduct in the vehicle had to reflect the expectations of a newly ascendant FIRE ruling class. Transit had to be reorganized around the “needs” of the “commuter.” The police had to subdue the subways.

Subduing the subways was a complicated project that set the stage for the emerging intellectual frameworks, labor structures, and policing protocols of digitally-driven carceral capitalism. To understand this campaign, I rely on Foucault’s theorization of modes of power as “sovereign,” “disciplinary,” and (after Deleuze 1992) “control.” This theoretical framework is, of course, well-worn (one might say worn-out), but it retains some value for a few reasons.

There is an ongoing debate about these regimes’ periodization. Foucault’s quasi-historical methodology makes it seem (in spite of his strenuous protestations) as though the transitions between regimes are teleological. That, historically, we move inexorably from sovereign power to disciplinary power to control. Too, that the transition between
these regimes generally sheds the prevailing violences of the prior period. So, as we
move from sovereign power to disciplinary power to control, we move from “harder” to
“softer” power, from the power to punish to the incitement to discipline to the enticement
to modulation. The state, infrastate, and capital learn to govern from increasing physical
distance. Thus, biopolitics in the 21st century becomes “soft,” rooted in remote
databases, analytic profiles, and predictive assessments.

I am being deliberately over-broad, here. Most writers agree that the periodization is not
quite so simple, that the different forms of power overlap and interlock. And, as Joy
James (1998, 2007) and many others have shown (Weheliye 2014, Browne 2015,
McKittrick 2006, Sexton 2007, Stoler 1995) that the “Foucauldian” structure of
biopolitical governmental transformations misses the enduring violence that inheres over
the long duree in colonial and postcolonial geographies of racial and sexual difference.
Nevertheless, in current discourses around surveillance and digital technologies, the
tendency remains to invoke “soft” biopower and “control” as essentially nonviolent
processes of categorization that have violating effects. The 1990s MTA police campaign
shows is that this is not true. That, instead, the “soft” power of digitization and
modulation is completely bound up with projects of ratcheting sovereign state violence,
and the ceaseless creation of disciplinary spaces outside of the canonical settings like the
prison, the school, and the hospital. It, in other words, is the effort to turn subway cars
and stations into “houses of discipline” that legitimates and necessitates both increased
police violence and the production of carceral databases.
So, in keeping with the Foucaudian framework, I want to argue that the 1990 Transit Police campaign in the subways was three-pronged. It was sovereignty, discipline, and control altogether, and all at once.

First, sovereignty. The transit police overhauled officers’ mission priorities. Instead of passively guarding token booths, entrances and exits, Bratton ordered cops to proactively seek out “disruptive” or “disorderly” riders and to collar them. He upgraded the officers’ equipment and weaponry, bought them new military-style uniforms, and “took the cuffs off” his cops (W. J. Bratton and Knobler 1998; W. J. Bratton 1996). They began their campaign by targeting homeless people – and particularly those who had developed semi-permanent encampments in the tunnel system. Derogated as “mole people,” the Transit Police, who had previously been ordered to leave them alone, reversed their stance, and violently cleared them out of their homes. Police trashed their belongings, and charged those that they caught, driving them above ground onto the street and into jail or a violent, underfunded and massively overburdened shelter system that was incapable of handling the influx of homeless persons brought on by the neoliberal economic transformations of the 1980s and 1990s (Vitale 2009; Brash 2011).

Having worked out new and aggressive tactics on the most vulnerable populations in the subway system the police turned on fare beaters. Cops, often undercover, were instructed to pursue, subdue, arrest, charge and process turnstile jumpers, rather than write them Desk Appearance Tickets or Summonses, which could result eventually in warrants issued, but rarely in jail time (Maple and Mitchell 2000).
Bratton ordered his officers to charge violators with stiff penalties. Bratton claims that this new proactive stance encouraged his officers and made them feel that they were empowered and protected by superiors in a way that had not previously been true. “For the first time in a long time,” he argues, “the cops were making arrests. They were being cops! The cops were motivated and getting noticed” (W. J. Bratton and Knobler 1998, 153). But the dramatically increased rate of arrest created a labor power crisis for the Authority. Police were arresting and charging more people than they could effectively process at a time, leading to backlogs and lost labor hours spent processing individual fare beaters downtown. The solution formed the basis of the second prong of the MTA campaign.

This was to be a performative display of police power designed to institutionalize subway stations and trains as disciplined and disciplinary spaces. Rather than individually process arrested fare beaters, Bratton’s officers linked them in daisy chains and forced them to stand on the platform until the twenty cuffs in the chain were full, at which point, “when [the officers] had a full catch” (ibid.), the arrested were paraded out of the station and put in wagons for processing downtown. Daisy chaining fare beaters was an explicit implementation of Broken Windows police theory, and was designed to achieve two goals. First, to signal to “scruffy characters” (W. J. Bratton et al. 2004, 4) causing disorder including “drunks, panhandling, youth gangs, prostitution, and other urban incivilities” that police would arrest them, cuff them and process them for minor violations. This was designed to publicly demonstrate and publicize the new extent of
police power. Second, and more importantly, coffling people was intended to drive communal resentment against fare beaters (Joseph 2002; Povinelli 2011).

We would do well here to remember Saidiya Hartman’s argument that the 19th century coffle was central to the “innocent” construction of “benign” and “benevolent” structures of white supremacy that undergirds American chattel slavery. Hartman argues that

“While it is not surprising or unusual that the extreme and incongruous display of the coffle prompted reflection upon the human condition, what is remarkable is the way violence becomes neutralized and the shocking readily assimilated to the normal, the everyday, the bearable. In effect, reflection acts to normalize the scene and deny the presence of violence by characterizing it as within the context of the socially endurable; and, accordingly, the scene shifts from one of despair to one of contentment and endurance” (Hartman 1997, 34-35).

This clearly prototypes police intentions in 1990. Bratton hoped that late-capitalist coffling would do the spectacular affective labor of mobilizing “white civil society” around new projects of institutionalizing commuter space as a key geography of subjugation and docility. Doing so would, it was hoped, further legitimize police violence, and increase the political capital of police agencies, thereby expanding their reach (W. J. Bratton and Knobler 1998, 153).

Failure to submit and comport led one directly to the spectacular daisy chain. Bratton fantasized that proper subjects, seeing their fellow riders displayed in chains, experienced a sort of joissance: “Riders saw fare evaders getting arrested and thought, “good. I pay a buck-fifteen, why shouldn’t they?” They saw cops hauling long lines of folks out of the subways and said, “Go get ‘em,” “great job!” “Way to go!” It’s about time!” (W. J.
Bratton and Knobler 1998, 153). The subway became a site of labor discipline and disciplinary labor. To be a good subject was to be a subject on the way to or from work, respectful, polite, and deferential to power. In a period in which unions and industrialized labor collapsed, the working class was hollowed out, massive displacement of the poor was ongoing, and the conversion to a service-based FIRE economy was underway, these were the proper behaviors of the working classes and the poor. The wealthy weren’t taking subways.

Police administratively determined who and what was permissible on subways (Spade 2011). Officers targeted youth traveling from Brooklyn to Manhattan during normal business hours on the supposition that being on a subway meant that they were not where they ought to be – at work, or at school (Bratton and Nobler 1997). They targeted gender non-conforming people at night because they assumed them to be sex workers, and therefore criminal (Maple and Mitchell 2001). In a period of unprecedented explosion of homelessness, they targeted people that asked for money or tried to sleep (Vitale 2009). The subways, in other words, were made into “houses of discipline,” intended to manufacture and convey docile bodies to their places of work (Foucault 1977).

 Officers could not target fare beaters in the train cars themselves, so they instituted regular sweeps to target minor behavioral violations, like sleeping, being loud, or asking for money. Panhandlers and sleepers were often physically thrown out of cars at station stops. Unsatisfied with the public reaction to these sweeps, (riders tended to ignore officers as they walked through) the police implemented “Operation Glazier.” “Glazier”
halted trains at stations and instructed conductors to announce over the cars’ loudspeaker that “The Transit police are conducting a sweep of the train. There may be a momentary delay while they go through the train to correct all conditions. Thank you for your patience” (W. J. Bratton and Knobler 1998, 159).

These disciplinary programs were designed to “use the police in a very public, visible way to control behavior” (W. J. Bratton et al. 2004). Police ideologies of behavior control are intrinsically tied to political assumptions about why, and for whom, transit exists. Programs like the fare-beating minisweep and Operation Glazier targeted “unruly” bodies (Foucault 1995). Channeling the tactics of counterinsurgent and Jim Crow policing, police targeted people who were prostrate (sleeping), or overly boisterous (too loud), or moved too quickly (disorderly conduct), or that congregated in racial configurations that officers found menacing (“wolfpacks”) (Camp 2016, Camp and Heatherton 2016, Hinton 2016, Heatherton 2016, Gilmore and Gilmore 2016). And this police intervention was, increasingly, conducted undercover. Plain-clothes patrols and sweeps were meant to frighten and incarcerate increasing numbers of people, instilling a generalized fear of arrest that delimited bodily capacities.

Finally, Control. The police digitally sped up charging, booking and processing. This created the conditions for implementing database-driven techniques of population control. Daisy-chaining offenders was a partial solution to the problem of police labor shortage in 1990, but it was insufficient. The sheer numbers of people being arrested, held, and charged, overwhelmed the administrative capabilities of the officers and the
city. In 1990, processing an arrest in New York cost about 12-24 hours of police administrative time, plus transportation to and from central booking (White 2014; Maple and Mitchell 2000; W. J. Bratton and Knobler 1998). Both Bratton and Maple claim that this effectively deterred mass arrest. While the daisy chain streamlined the process by detailing one officer to process a “full catch” of people at any given time, the transit time remained significant. Moreover, lack of managerial supervision over officers at central booking led many to drag their heels in order to max out hours. This cost the city a prohibitive amount of money in overtime. The solution was to bring the jail to the subways. Bratton dubbed the new technique the “bust bus,” and it set the stage for the data-driven industrialization of incarceration and processing (Bratton and Nobler 1998, Bratton 1995).

Bust buses were repurposed city school buses equipped with a computer terminal that allowed officers to run rapid warrant checks against the City’s case management database. The transit police parked the buses near stations where farebeating sweeps were being conducted. Police brought people cuffed for farebeating or other violations to the bust bus for immediate processing. Those with outstanding warrants – for anything from unpaid parking tickets to violent felonies – were held on the bus. Those without warrants were entered into the database and released. When the bus filled, its passengers would be driven to jail. The labor power dedicated to processing was drastically decreased to one dedicated officer handling both processing and transportation.
At the same time, the digital surveillance net massively expanded. Those without arrest records were now “in the system,” and flagged as having a record on any subsequent search. This greatly expanded the discretion of the police to charge and arrest people in subsequent rounds of crackdowns. It also solved the problem of serving warrants on “delinquent” citizens. The Transit Police found that one in seven people brought in on fare beating were wanted on a warrant (W. J. Bratton and Knobler 1998; Maple and Mitchell 2000; Vitale 2009).

Bust buses turned officers’ subway discipline mission into a digitally driven, citywide dragnet system. The “catch and release” strategy distributed people with warrants and arrest records throughout the city in order to make them vulnerable to police pressure in the future (Maple and Mitchell 2001). The idea was to “infect” their networks so that, if they or their friends were confronted by officers in other times or places, they would be easy to turn into criminal informants (Parikka 2007; Harcourt 2004). The presence of a prior history of arrest put those ensnared by the Transit police’s dragnet at risk of harsher and longer sentences for other minor crimes. This pressure was assumed to modulate future behavior. People with priors, Broken Windows theorizes, are less likely to commit repeat offenses. Those who do are most likely violent or incorrigible. Their bodies, insufficiently docile, need to be removed from the street in the defense of the common wheal (Heiner 2007; Greene 1999, Foucault 2003). In other words, the Bust Bus program institutionalized a system of control that emerged out of an expansion of police sovereignty, and its implementation in the disciplinary spaces of the subways, and cybernetically ramified it into the social networks of the city.
The mass generation and industrialized enforcement of warrants below ground was a lynchpin for the expansion of stats-driven “Zero Tolerance” above. Warrants, so far as Bratton and his lieutenants were concerned, were a bane. Slow to process, and often ignored by officers and civilians alike, Bratton thought they depressed officer morale (W. J. Bratton 1996; W. J. Bratton et al. 2004). Desk Appearance Tickets were one of the main mechanisms that officers issued to people charged with minor infractions of the penal code, like drinking or panhandling. Their advantage was that officers could issue the tickets, which demanded that the issue appear before the court on a designated date, without the hassle of charging and processing. This required less police labor power and saved money. The downside, which earned them their “disappearance ticket” nickname, was that it was incumbent on the charged citizen to appear before the court at the appointed date and time in order to resolve the ticket. This directive was often misunderstood or ignored. Missing the DAT date, however, automatically generated a warrant, on the charge of “jumping bail” – technically, a felony (Maple and Mitchell 2001, Bratton 1996).

THE COURTS: REENGINEERING WARRANT ENFORCEMENT

Before 1990, outstanding warrant for missing a court appearance was a risk that many could live with. The NYPD’s warrant squad was a low-morale, punitive assignment, whose officers were often uninterested in expending great energy or effort (White 2014; W. J. Bratton and Knobler 1998; Maple and Mitchell 2000). This was especially true when the warrants were connected to minor offenses. Moreover, it was not standard
practice for patrol officers to run warrant checks on everyone they charged. Before easily accessible computer databases, running warrant checks was both time and labor intensive. At the very least, checks required a fully functional radio, which transit officers often did not have. There was also significant lag time to do departmental siloing. The gap between a warrant’s issue and the NYPD’s notification could be six weeks (Silverman 1999; White 2014; Maple and Mitchell 2000; W. J. Bratton and Knobler 1998).

The process, in other words, was cumbersome and inefficient. Bratton and Maple argued that this inefficiency made officers complacent. What was the point in charging people, they asked, if the charges always came to nothing? To the extent that officers enforced order, it was through informal (often violent) tactics. Maple called informal enforcement the “Ball Busting” school of policing (Maple and Mitchell 2000, 153), and complained that because it leaves no paper trail, it leaves managers without a database of actionable intelligence. Bratton and Maple wanted a database, and to build it, the Transit Police reengineered warrant enforcement.

Prior to 1990, the NYPD handled warrant enforcement for subway arrests. Transit officers on semi-permanent loan to the parent organization were tasked with filling the Department’s priority wants and wanted.4 In keeping with commissioner Lee Brown’s concentration on Index Crimes, the NYPD prioritized major offenses, which rarely were

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4 “Wanted” indicates someone who is being pursued as a fugitive for a particular crime. Wants are people who are of interest to police, particularly as informers for higher priority cases. As we will see, a key innovation in reengineering the warrant enforcement will be the collapse of wants and wanted
committed in the relatively safe subways. This effectively siphoned transit officers off to do the NYPD’s work (White 2014, Henry 2002). In order to turn the warrant squad into a high-efficiency operation, Bratton demanded that NYPD-assigned transit officers return to the home organization and then turned them over to Jack Maple for reorganization and deployment (Bratton and Knobler 1998).

Once again, the precondition for digitization and automation is the expansion of police sovereignty. Maple renamed the warrant squad with “one of those cool law enforcement acronyms” the Fugitive Investigative Strike Team (FIST). He issued windbreakers with FIST written on the back and instructed them to be worn on missions. FIST teams were organized differently from traditional warrant enforcement units. Ordinarily a one or two-person assignment that is conducted during regular working hours (8am-4pm), Maple transformed warrant squads into small units patterned after Marine fire teams. Changing the productivity metric from number of doors knocked on to ratio of fugitives apprehended to doors knocked on, Maple then partnered low performing officers with high performing ones, and placed them under the direct supervision of hand-picked sergeants and Lieutenants (Maple and Mitchell 2000, 167).

Prefiguring the later reorganization of the entire NYPD under the CompStat program, Maple pushed responsibility down to the sergeants and out to the officers. He set high target numbers in order to turn enforcement into “a high-volume operation – the McDonalds of fugitive abduction,” and set the start time for taking doors at 4 o’clock in the morning. Maple and Bratton give three reasons for changing the start time from 8 to
4. First, they intended to streamline the warrant enforcement process from end to end. FIST units were expected to have collected ten or more fugitives each and have them at their respective station houses by the time detectives arrived at work in the morning. Second, Maple and Bratton agreed that serving warrants at home during normal working hours was tactically self-defeating both because fugitives were likely to be at work, and, just as importantly, because their neighbors were. Third, they wanted to sleep through it (Maple and Mitchell 2000 167-171).

FIST’s new tactical disposition was aggressive and designed to harass individuals who failed to appear at court, and their neighbors. FIST teams that were unable to find fugitives on the first pass to their resident address returned to the same building morning after morning before daylight hours “banging on the door” until eventually neighbors would, out of exhaustion, tell the police where they believed the fugitive to be hiding. In addition to pressuring communities into turning their own over to police officers, FIST hoped this tactic would broadcast the unit’s reach and power while advertising the potential consequences that faced those charged with even the most minor of violations. The police deliberately parlayed social ties and networks into potential liabilities for the predominantly poor fare beaters that they were hunting down in the expanded sweeps (Maple and Mitchell 2000; W. J. Bratton and Knobler 1998).

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5 Beyond the organizational structure and the start time, Maple left tactics to the units “because if twenty-five cops under my command were going to be hitting doors at four-thirty every morning, I wanted to be able to sleep through it.”
The reforms achieved two sets of results. On the one hand, they sought to affectively close a topological loop between the disciplinary spaces of the subway cars, and the world above ground. The jurisdiction of the Transit Police extended from the disciplinary spaces below ground into the social networks of the city. In doing so, they targeted what Brian Massumi calls the “future birth of the affective fact” as police strategy. FIST concretized the possible presence of subway police somewhere as a durable concern amongst marginalized populations everywhere (Massumi 2015b; Safir 1997). On the other hand, it overwhelmed the court system, and precipitated a crisis of labor and computational power. Bratton and Maple believed that solving the self-induced crisis required a full scale “reengineering” (Hammer and Champy 1990) of how Transit hunted down and apprehended fugitives. Scaling up the volume of warrant enforcement effectively forced the routinized digitization of Transit Police data, the regular maintenance of police databases, and the coordination of information across previously siloed jurisdictions.

Understanding the courts’ protocols for processing warrants and distributing them to precincts as a “loophole through which people were disappearing from the justice system,” Bratton was determined to truncate the time lapse between “bail jumping,” warrant issue and enforcement (W. J. Bratton and Knobler 1998, 170). He assigned a dedicated officer to map the spatio-temporal movement of warrants through the court system, and then digitized the findings. This reduced the turnaround time for warrant notification and database logging from two weeks to near-instantaneous. This facilitated high-volume FIST operations, which scaled up in turn. The Transit Police then leveraged
the volume of arrests to demand that DAs and judges prioritize Transit warrants and expedite the trials of their prisoners (Maple and Mitchell 2000, 167). This, in its turn, drove the growth of a carceral data mine that expanded the possibilities of criminalizing vulnerability.

Expanding the carceral net deteriorated the distinction between “wants” and “wanted.” FIST’s neighborhood harassment tactics translated into a hugely inflated cordon in which “fugitives” wanted for minor crimes (like fare beating) living in the same building as those wanted for more serious crimes (like robbery) were arrested on procedural felony charges (bail jumping) and then pressured to turn Criminal Informant on friends and acquaintances. The deliberate dismantling of social relations was designed to modulate future potential behaviors and networks of people living in targeted neighborhoods (Clear 2001, Deleuze 1992). The carceral database system was built to identify and track down individual fugitives for particular crimes, and also to render entire communities as potentially “fugitive.” Rigorous digitization and logging of names, addresses, and known associates in the Warrant Address Generator produced an accelerative feedback loop in which disorder, crime, and demography all worked together to inflate the horizontal reach of the carceral state, as well as its affective penetration into intimate ways of being (Puar 2007; De Genova 2007). Here, again, the loop closes between violent sovereign power, behavioral disciplinary power, and virtual control.

The warrant enforcement reforms caught the attention of other punitive state agencies, particularly the New York State Board of Parole. Impressed by FIST’s high capture rates,
Parole asked Transit to link their databases and take over enforcement. The expansion of the FIST team’s duties to include parolees was called the Wake-Up Program. It was the backdrop for a media blitz whose most (in)famous ad was a radio spot called “we know who you are.” Over canned street sounds, Bratton says:

“Serious crime in the subway has gone down dramatically for seven months in a row. Robbery alone has fallen 12 percent. That’s because there are a lot more cops in the subway, and because of the many strategies they are using to stop crime. Today I’d like to tell you about one of those strategies. Our crime-analysis unit keeps computer files on everyone who has been arrested in the subway. We have their names, their aliases, and their jail time. And when they come home from jail, a transit cop goes to visit them. First, we wish them well. Then, we tell them we’re keeping their pictures and records on file. We think that’s going to prevent a lot of crime, because someone who has committed a crime in the subway – and paid for it the hard way – is going to think twice about doing it again if he knows we know who he is. That’s one way we’re working to take the subway back for you” (W. J. Bratton and Knobler 1998, 178-179)

The ad’s vague language and invocation of nebulous technological capabilities demonstrate that, like the emerging paradigm of tracking and targeting social relations, the target is affect (Seigworth and Gregg 2010, Anderson 2010). By implying that everyone arrested on the subway is potentially violent, and implicitly robbers, the ad conflates all paroled offenders with all targets of the Transit Police’s campaign. It positions this constructed population of muggers against an implicitly law-abiding, docile “we” who are then doubly separated from the “we” of the police (Hall et al 2013). But in the context of what the Transit Police’s sweeps were actually about, namely criminalizing quotidian practices like fare beating, asking for money, and sleeping, the “we” of the law abiding or docile citizen and the “you” of the dangerous criminal blur into a fuzzy population of almost-criminal (De Genova 2012; R. A. Ferguson 2004).
That is to say, a potential population is affectively conjured against a police archive (Patricia Ticineto Clough and Willse 2010). The figure that is constituted here is what John Cheney-Lippold calls the “digital self,” a “self” produced by the accumulation and patterning of metadata, identifying information, and generalized surveillance (Cheney-Lippold 2017). This “digital self” circulates and is put to work through “digital epidermalization” as a type of luminosity (Browne 2015) – a type of electric light – that organizes the relationship between the “soft biopolitics” of algorithmic control (Cheney-Lippold 2011, Noble 2017, Amoore 2013, Miller 2018), and the carceral “protocol of search and destroy” (Spillers 2003). By tethering the apparatus of discipline and control to the subways, the city’s transit network is made to be a dangerous and debilitating space for anyone who might be in the “computer files” of the transit police. The police don’t only know “you,” the criminal. They know you, the delinquent. And it is the likelihood of delinquency and recidivism that, in the eyes of the state, authorizes the digitization and archiving of a confessional inventory out of which future crimes are imagined and combatted on the plane of the possible (Foucault 1995, 2003; Puar 2007).

The police know “your” name, “your” alias, the time “you’ve” done, “your” known associates, where “you” live, that is to say they know – or, more to the point, have generated “your” sociality. They have not mapped the city onto you but, through the confessional “knowledge” of “your” body, mapped the city as a space of incipient danger, of criminal patterns that can and must be identified, and broken up (Foucault 2008; Gandy 2006; Amar 2010). Targeting social patterns is not a byproduct of the turn towards a technocratic, digital way of extracting “knowledge” of the city from the bodies
of the dispossessed. It is the overarching theoretical structure of data-driven policing. To gather timely, accurate data about crime patterns and to quickly break up those patterns means policing the possible, rather than the actual. It is an explicitly affective mode of policing designed to foreclose social formations that are inconvenient or anathema to FIRE industries’ hegemonic order of docility and service. It is, in other words, the deliberate criminalization of everyday life as a means of instituting neoplantation capitalism against the “blues epistemology” of the subaltern (C. Woods 2007; Hall et al 2013; Certeau 2013; Hall and Jefferson 2006).

In 1990, the city had the capacity to institute routinized digitization of basic carceral functions like issuing warrants and running background checks. But it was the twinning of Broken Windows’ “busting balls” theory of policing with the technical-legal insight that charging and booking en-masse can be a cost-reduction strategy (through flexibilizing police labor and pinning it to computer-enabled granular metrics) that laid the groundwork for the adoption of Computational Statistics by the middle of the decade. The police, in other words, turned a crisis of conjunction into a crisis in policing (Hall et al. 2013), and leveraged that crisis to centralize the police, rather than the remnants of the welfare state, as the primary agents of population control. Generating large numbers, in other words, was not an accidental byproduct of overbearing police practices. Generating large numbers was the point.

Transit used digital technology to drive a labor speedup meant to snap the spinal connection between policing and the courts (Brown 2017). Overwhelming the courts
drove adoption, in turn, of increasingly automated command and control systems, like the proto-email intranet designed to notify districts immediately when people failed to appear for summonses. This effectively reversed the relationship between the DAs, courts, and police. Whereas, before, prosecutorial agencies’ discretion to indict, prosecute and convict directed police power, the skyrocketing volume of arrests overwhelmed the court systems, forcing prosecutors and judges to struggle to catch up to police initiatives.

**METRICS: ADJUDICATING THE REAL**

Generating large numbers – the point of the police reforms – creates a dual crisis (in policing and in measurement) that demands an adjudicator empowered to decide what is real in a state of suspended judgment (Agamben 2014). Derived from Greek, “crisis” originates as a medical term for a moment when the instability and urgency of a particular affliction necessitates a suspension of “judgment” in the interest of “decision.” This effectively removes the moral force of “judgment” from the physician’s actions in the interest of salvaging the body of the patient. Decision, during the suspension of judgment, is technical. The physician is empowered to act in the best interests of the diseased body, even when said action falls outside accepted ethical or legal norms (Agamben 2014; Derrida 1992). For a crisis to exist, then, there must be a pre-judgment of the relation of the physician to the diseased body, in which the body is given over, physically and legally, to the physician.

Bratton explicitly draws this connection between policing and medicine. In his 2016 address to the CityLaw breakfast, he characterizes policing as a “practice” like medicine
and law. What defines the “practice” is a commitment to constantly evolve and advance, and also to “have the basic mission to the best of our ability to do no harm.” Imagining crime as a terminal cancer eating away at the body politic, Bratton sees the police as the doctor empowered to administer chemo and radiation treatments. And, while he acknowledges that an imprecise application of these treatments can, in fact, kill the patient, the point is that his doctor-policeman is empowered with discretionary power to determine the best “treatment.” And what qualifies the police to take this role is, as usual, Bratton’s “successful” campaign to “solve” the “crime crisis” of the 1970s and 1980s. Bratton posits that his campaign’s success justifies police seizure of a society’s capacity to “judge” proper courses of action in the context of an always-unfolding “crime crisis.” Metrics underwrites this claim.

Bratton, Maple, Kelling, et al understood the instrumental relationship between metrics and reality, and built a regime for informational command and control. CompStat effectively hammers datalogical “reality” out of bodily vulnerability (Clough et al 2015). The Transit Police reforms were meant to establish police agencies as statistical adjudicators of the real. Like crisis medicine, statistical reasoning accrues to certain actors the capacity to render a putative history actual out of the generation of futural information. Statistical inference is, ultimately, a leap of faith (Peirce 1992; Simondon 2016). It is a wager on the real, an ontoepistemological politics that distills a predicate and actionable future from a range of possible eventualities (Avanessian et al. 2015). That is what technocracy really means.
Bratton and Kelling worked hard to create a sort of carceral Mont Pelerin Society (Van Horn and Mirowski 2009) based out of Harvard’s Kennedy School of government (W. J. Bratton and Knobler 1998). Unsatisfied with Community Policing’s de-emphasis on statistics, and enraged at what he perceived as the inability of criminologists to develop metrics that reflected the “realities” of police officers and their neighborhood constituents, Kelling worked with influential organizations like the Manhattan Institute, the Police Foundation, and the National Institute of Justice, to advance the Transit Paradigm in ongoing debates about how best to resolve the crisis in policing. The message was impressively coordinated, best demonstrated in “Measuring What Matters: Proceedings from the Policing Research Institute Meetings,” a series of meetings on the proper relationship between measurement and police strategy co-Sponsored by the NIJ and the Office of Community Oriented Policing Services (COPS).

The meetings, conducted in 1995 and 1996 took their name from a Kelling Article published in City Journal in 1992 (Kelling 2015). In that article, Kelling rehearses his familiar Broken Windows argument about the greater importance of disorder over UCR metrics. He argues that an overreliance on UCR Index crimes as benchmarks for Department performance produces a rift between how Departments think they are doing at fighting crime, and how communities think of their effectiveness. He claims that this disconnect is especially egregious in New York, where by the Department’s and federal metrics, the NYPD is doing a good job on fighting crime in the late eighties and early 90s. Citizens, on the other hand, “are frantic over what seems to them the increasing lawlessness of the city.” He argues that low crime rates in New York compared to other
major cities cannot actually reflect a real lower rate of crime, because widespread
disorder and vandalism has so “demoralize[d] communities, destabilize[d] 
neighborhoods, and terrorize[d] families” that they no longer bother reporting crimes to 
the police. UCR benchmarks, in other words, are not only meaningless, they are to blame 
for splitting the police from communities.

This critique is similar to 1980s theories of Community Policing. But whereas 
Community Policing envisioned an ongoing relationship between community leaders and 
the police organized around regular formal and informal dialogue, Kelling instead argues 
that what is required is “to begin a revolution in American Crime Statistics.” And that 
revolution, specifically, must be to measure and store in “databases” the “problems that 
citizens really care about, the ones that spread crime and fear, disrupting the trust of 
neighbor and community cooperation that is essential to preventing crime. They should 
develop databases that measure whether police are responding to these problems and 
databases that measure whether the problems are getting better” (ibid.). Kelling argues 
that ongoing measurement of continuous, granular and geographically stratified 
populational affect (Patricia T. Clough 2010; Patricia Ticineto Clough et al. 2015) allows 
the NYPD to change the narrative on crime. By amassing a set of proprietary statistics 
that measure nebulous rates like “community satisfaction” with police performance, or 
the “sensation” of disorder, the police can draw attention from morbid reports of murders, 
robberies and rapes. “Measuring what matters” also provides a new system of managerial 
control, in which the NYPD “tie career advancement to the tasks that make community 
policing work, especially being a good patrol officer…[To] find a way to change the
numbers and show police officers that the new way to get ahead is to rack up good numbers of a different sort” (Kelling 2015).

Kelling argues that amassing such extensive police-led statistics reestablishes the link between number and affect. Rather than UCR statistics rupturing communities from officers, “measuring what matters” drives departments to “make an enormous annual or biannual public fuss about the new numbers, crowing shamelessly about every bit of good news, and cheerfully expending the great portions of patience and fortitude it will take to explain them to the press. For to really ensure the future of community policing, we have to change not only the internal culture, but also the public mythology of policing” (ibid.). Kelling reasons that changing that public mythology allows organizations like the NYPD to “create new heroes of public service…citizen soldiers who know how much their fellow citizens suffer from the grinding, day-to-day incivilities and minor street offenses that erode the quality of urban life, make people afraid, and create the milieu within which serious crime flourishes.”

Kelling’s primary example of how to measure what matters and change the mythos of the police is, unsurprisingly, the institution for whom he consulted at the time he was writing: the New York City Metro Transit Police.
The majority of the talks given as part of the Measuring What Matters meetings were delivered by criminologists, and focused on methodological tweaks or epistemological shifts that might better enable social scientists to account for changing crime rates, and their relationship to subjective experiences in communities. But Bratton, presenting the keynote, rejects the basic premise of criminology on its face. Arguing that criminology in general is interesting but ultimately irrelevant for police forces, he targets O.W. Wilson’s Police Administration and the entire tradition of Professional Policing as incorrect at the level of epistemology, and actively harmful at the level of practice. Damning it, and criminology he argues that

“As a basic tenet of epistemology…we cannot conclude that a causal relationship exists between two variables unless the intuitive explanation for the relationship has face validity—it must make sense and conform to our objective observations of the world around us—and unless three necessary conditions occur: one variable must precede the other in time, an empirically measured relationship must be demonstrated between the variables, and the relationship must not be better explained by any third intervening variable. Although contemporary criminology’s explanations for the crime decline in New York City meet the criteria of the first two conditions, they don’t explain it better than a third intervening variable. That variable is assertive, strategic enforcement by police officers in a well-managed and highly directed police agency. When it comes into play, the causal equation is radically altered” (W. J. Bratton 1995, 17).

Here, then, Bratton’s wager on the real: the correlative relationship between two variables is epistemologically insufficient to explain trends in crime. It is the space between the measurable, the excess of the calculable, that houses “reality.” And the only way to access that metric surplus is to produce it: to enact (Barad 2007). Or, put differently, his brand of policing merges with, and constitutes the real. As he puts it: “I…question the basic premise that because no credible causal relationship has ever been shown to exist between police activity and reductions in crime, no causal relationship can exist.” For Bratton,
criminological conclusions are inextricably linked to the Professional Model’s bureaucratic organizational structure, and the delimited and sporadic use of statistics as benchmarks. But criminology as a science can no longer tell us anything about how to understand the relationship between crime and policing because “In New York City, we have radically altered the face of policing by empowering the agency and its officers with policies and tactics that ‘capitalize on community crimefighting initiatives and take the bad guys off the streets,’ a strategic approach that John DiIulio has so graciously dubbed “Bratton’s Law” (W. J. Bratton 1995, 17-19). To rework one of the most commonly invoked clichés in debates around police technologies: Bratton is not talking about a hammer that makes everything look like a nail. He’s talking about a hammer that makes nails real.

Bratton’s logic is that the problem with the prevailing “practice of policing” is that practitioners falsely assume a mechanistic relationship between organizational structure and the production of knowledge. Rather than seek to better understand why something is not working and improve it, Bratton argues that the organization must obliterate its practices and reengineer them completely, using digital technology. To that end, Bratton asserts that “the NYPD now has the technological capacity to identify crime patterns almost immediately, and our response can be virtually contemporaneous with evolving patterns” (W. J. Bratton 1995, 20).
The digital opens the door for a contest over reality itself: an ontoepistemological shift that fundamentally transforms the relationships between police, crime and populace, in which the police are the arbiters of a “real” affective state of the population (Berry 2011). For Bratton, the point is that “a new kind of police department is emerging—a flexible, responsive, focused organization that can swiftly identify new crime patterns and just as swiftly counter them. It is time for the discipline of criminology to recognize the change. To compare the old reactive agencies to the NYPD circa 1995 is to compare apples and oranges” (W.J. Bratton 1995, 20).

And, while Bratton is referring to CompStat, it was the MTA reforms in 1990 that made this wager possible. The Transit Police reforms, from the Bust Bus program to the development of WAG, and operation Wake Up, aggressively assailed vulnerability populations and expanded aggressive tactics to redefine transit as a utility for racially, sexually and class taxonomized “good” workers as against “bad” criminals. They revolutionized warrant squad tactics to generalize the surveillance networks of the City’s carceral apparatus. The initiatives generated a massive influx of data that facilitated the granular identification of crime patterns and the gradual transition away from explicitly political ideologies of policing (like broken windows) and towards an officially neutral technocratic (and therefore, implicitly more fair and reliable) logic of “following the numbers.”
In 2012, New York University establishes the Center for Urban Science and Progress. An interdisciplinary consortium of international universities and private partners, CUSP is committed to using new techniques of digital data collection (which they call urban informatics) from sensors that, strategically deployed throughout the urban environment, “instrument New York City.” CUSP imagines this “instrumenting” as part of “The Digital Revolution” that will also “use existing data from a network of agencies to transform the city into a living laboratory and classroom.” CUSP implies that this digital revolution is brand new. Or, rather, is eternally brand-new. On its website, CUSP claims, without a date marker, that “90 percent of the world’s data has been created in the last two years alone.” This, they argue, is one of the “two extraordinarily profound developments in human history” that structure their cutting-edge mission.

Instrumenting the city to collect, collate, digitally store, and act on emergent patterns and trends is prefigured by the Transit Police proto-Compstat reforms. The subways, as a “closed and contained system” presented a “special case” in which Bratton, Maple, and their lieutenants could test out their theories of law enforcement (W. J. Bratton 1995, 14). As we have seen, this was done by massively expanding the transit police’s carceral net, then digitizing it in order to speed up labor time and increase turnover. These projects institutionalized databases of “delinquent” subway riders and fed forward the debilitating

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6 For an excellent account of CUSP and its relationship to real estate development and neoliberal economics in NYC, see Shannon Mattern “Instrumental City” and “Methodolatry and the Art of Measure” (Mattern 2016, 2013).
7 http://cusp.nyu.edu/about/
tactics meant to discipline the spaces of the subway into the social networks of the city above ground.

This was an instrumenting of the subway, in which the arrival and departure of trains, their transit through a tunnel system, the points of opening and closing of doors, the turnstile-bounded architectures of the stations all combined to delineate the forms of sociality and bodily comportment that were acceptable to the police, and in turn became benchmarks against which police determined population discipline. The transit of bodies through specific nodal points (turnstiles, doors) reformatted their relationship to the police, and bounded the spaces that capacitated officers to intervene in bodily comportment, whether that be holding a door open at the turnstile (jumping the fence), or lying down in the car itself. This making-laboratory of the subway drove an accumulation of carceral data that acted as proof-of-concept for the Transit Police reforms’ reorganization of the real. The effect was, by increasing datalogical precision, to “blur” technical capacity, carceral reach and modulation of permissible population (Moten 2018). This blurring eventually morphed into CompStat. But in 1990, Jack Maple still called his strategy of data-driven crime prevention “Charts of the Future.”

The conceit behind Charts of the Future, and then CompStat, is not nearly as innovative as its boosters proclaim. Nor was it new in 1990. It is to “‘map the crime and put the cops where the dots are.’ Or more succinctly: ‘Put cops on dots’” (Maple and Mitchell 2000, 128). An obsessive reader of military history, Maple took inspiration from the signal achievement of data-driven operations research to achieve an unprecedented military
victory in World War 2: The Battle of Britain. The Battle of Britain was one of the most unlikely allied victories of the war and was attributable almost entirely to the generalized deployment of radar by the Royal Air Force. Wildly outgunned and underequipped, the RAF was able to use its superior intelligence and logistical organization to eventually turn back a Nazi air onslaught and indefinitely postpone the planned invasion of England. It was also the event that directly leads to the development of first order Cybernetics (Galison 1994).

This connection between first order cybernetics, operations research and the particular ways in which the police came to think of the subway as a “closed and contained space” are important to understand the impact that “Charts of the Future” would have on the ontologepistemological disposition of CompStat, and the technical conditions that it made possible in the later adoption of data-driven population control techniques and strategies that will eventually encompass predictive policing and “transparent” governance. Much like CompStat was the inheritor, through Post-Fordist management theories, of 3Ci concepts of organizational management and control, so would predictive policing be the inheritor of a different tradition of cybernetics that is also rooted in military and economic research: game theory. Maple’s Charts of the Future, so closely based on the Battle of Britain, and (perhaps unintentionally) deploying so many of the same assumptions as game theory, is crucial to the use of “algorithms” as a major tool of the carceral state, and for the near-total erasure of political economy from the “urban informatic” ontology of the city (Mattern 2013).
The basic concept behind Maple’s charts of the future is simple: pin crimes on maps, organized by type and time. Maple installed blueprints of every subway station in the NYC system in the Transit Police offices and developed a rudimentary numerical code for six categories of crime. “One was a gun robbery, two was a knife robbery, three a strong-arm robbery, four a wolf-pack robbery, five a bag snatching, and six a booth robbery” (Maple and Mitchell 2000, 85). The numbers were drawn with colored pencil where the crimes occurred. Written next to each entry were brief descriptions of the perpetrators. This is how he describes a hypothetical use of the system:

“The charts gave us our marching orders. A streak of green twos would light up across seven or eight stations, so we’d look closer and see five of them were committed on different nights but all within the same three-hour span by a pair of male blacks, one nicknamed “Drac.” “Ok,” the charts were saying, go out and get ‘em. Sure enough, when we spread out across the same stations during those same hours, we’d eventually spot a guy missing four front teeth, and if we followed him and his pal, we’d be able to grab them as they moved on another victim. Later…our…detectives [would] consult “The Charts of the Future” again before doing an interrogation, pull out the pertinent files, and the crook would wind up giving up several other robberies…With our charts now in the game, [“these characters”] were being sent away for heavy time” (Ibid.)

“Charts of the Future” sets up an oppositional duality between transit police (the surveillance system – the chart, and the state behind it) and “the enemy.” Maple considered “the enemy” to be patterns, rather than people, thereby substituting stochastic probability for individual perpetrators. In ontologizing “the enemy” in this way (Gallison 1994), Maple reproduced the basic tenets of game theory: The parties contest circumscribed series of numerically rendered operations. These operations can only occur in delimited space (the subway stations) and stratified labor time (the colors of the pencils indicating the police shift when the incident took place). The game ends when the state recognizes a sequence of “enemy” patterns and deploys units at the correct time and
space to halt the game. The “enemy” is presumed cunning, but also mechanical. Or differently, the enemy only comes to exist as criteria (Hu 2015, Hui 2016). The state’s goal is not to apprehend specific persons, but to successfully establish a decision tree that identifies likely future time spaces of an event. It does not matter who commissions the event, but rather that the event is foreseen and is preempted. Charts of the Future makes policing informational. Without using a single computer, it transforms policing into an algorithm, the city into information, and population into “the enemy.”

When, in 1994, Bratton and Maple introduce “Charts of the Future” to the NYPD and rename it CompStat, Maple claims that its potential is due to “faith in timeless ideas like mapping,” rather than technology (Maple and Mitchell 2000, 104). That is not entirely true. Starting in the mid-1980s, the NYPD had access to almost 20 different databases housed in One Police Plaza. But these were underutilized until the Transit Police’s warrant enforcement reforms. Prior to the reforms, anti-corruption policies denied rank-and-file officers access to the databases. Officers that wanted information from centralized databases had to pass requests through a Management Information Services Division (MISD). Bratton and Maple reversed that policy in 1994 and required detectives to use them (Maple and Mitchell 2000; W. J. Bratton 1995; White 2014).

When Maple insists that CompStat is driven by “mapping,” rather than “technology” he diagrams a particular logic of sense (Deleuze 1988, 1990). Maple’s maps are visual, presentist and predictive as opposed to narrative, historical and numerical (Deleuze 1986; Hayles 2012). They, in other words, materialize the virtual. He is explicit about his
distinction. Numbers, he argues, are “indispensable for assessing trends or performance over time” but are, in and of themselves, unable to direct the actions of police officers. Numbers leave cops “equipped to make only the following type of judgment: “There’s a lot of crime out there” or “there’s not much crime out there.” Narrative, on the other hand, is useful for particular investigations in order to determine “descriptions of...crooks, their tactics, and the types of victims they prefer” (Maple and Mitchell 2000, 105).

But maps “tell a story in a way numbers and narratives can’t.” A “map that plots crime over a given period of time makes the past present. For the area it depicts, it says these are the crime conditions now” (emphasis added). Maple makes this claim as though it is intuitive; as though this is just what maps do. But his argument erases history and compress time and event into an expansive present. This is presented visually as ontologically flat space, a straightforward reflection of the conditions of a parametric city. Maps of the Future are a perfect example of what Orit Halpern calls “communicative objectivity,” where visualizing technologies produce “a new aesthetic and practice of truth; a valorization of analysis and pattern seeking” that transforms concepts of “recording, memory, sense, and time” into a policeable archive (Halpern 2014, 15-27, Derrida 1995).

And this “communicative objectivity” is meticulously constructed. When the NYPD first begins logging their crime data into GiS systems, the systems are not programmed to visually represent crime clusters. Coded to overlay events in a time series, the NYPD had
to specifically reprogram their software in order to synchronically visualize diachronic events (Henry 2002, 257-259). CompStat, in other words, reprograms the time-space of the city to visually produce affectively charged clusters of crisis. The NYPD “really relied on [programmer John] Yohe’s creative ability, because he was able to devise a way to get around the software’s logic and make our hot spots look like hot spots” (Maple and Mitchell 2000, 108).

CompStat shows a city aflame with dots. It visually compresses the city as an affective technology (Deleuze 1985). Maple argues that CompStat map nonconsciously compels commanders to act by transforming the life of the city into a body under attack, consumed by “the enemy” (Hayles 2017; Barad 2012). The political economy of “accumulation by dispossession” (Harvey 2004) and the forceful transformation of social networks into human capital or liability transforms into a series of colored dots overlaying a structural layout. It looks like the schematic of a failing machinery, like a chronic infection of the body politic. CompStat compresses the past into a message directed back “from the future,” in which the dots of past reported crimes double as crimes that are always already unfolding (Avenessian 2015, Negarestani 2011). It, in other words, reverses the arrow of time. The future has already happened, but it is the job of the police to interrupt it. One can argue with a commander assigning units to areas based on instinct or personal experience, but how can one argue with a map? Patterns, rather than the people, give the police their “marching orders.”
Maps and patterns redistribute the sensible, and enact a “communicative objectivity” that realizes digital techné (Halpern 2014). As Kelling has already told us, capturing ideology and spearing it to truth is the entire point of “measuring what matters.” For Maple, CompStat is a visualization tool of “what matters” for the statistically illiterate. So, Maple breaks CompStat’s maps’ data into three distinct categories, which he calls the “existing landscape,” the “customers,” and “the crimes.”

Maple’s “existing landscape” is primarily the city’s public infrastructure. The “watering holes” where “predators” will track down their prey are “abandoned houses, schools, public housing projects, homeless shelters, methadone clinics, subway stops, schools [sic], parks, [and] check-cashing businesses.” This is largely a list of public spaces and services. The exact institutions hollowed out by the imposition of neoliberalism under MAC are transformed under CompStat into generators of criminal activity. The public becomes the punished. In addition to infrastructure, Maple advocates mapping businesses that survive on the margins of capitalist surplus. In a late-20th century version of criminalizing custom, Charts of the Future targets “pawnshops, jewelry stores, scrap yards and auto body shops.” On top of this, police overlay “drug spots, prostitution strips, gang hangouts, truancy hangouts, and corners where there are regular dice games or drinking” (Maple and Mitchell 2000, 110).

CompStat’s “customers” are less clearly defined. At the broadest level, they are “citizens who live, work and hang out in the neighborhood.” Most of these citizens are “law-abiding people who deserve nothing but the best but who only make infrequent demands
for direct service.” For the most part, these will show up on CompStat screens as “victims or complainants” who “need good police service more than anybody else.” But demanding too much service is cause for suspicion. A “serial” complainant is probably “working insurance scams…making false accusations against their enemies, or…a little bit nutty.” But if the line between good and bad citizen can be blurry in some cases, Maple draws an absolute red line at parolees. Any and all persons who have been released from prison or jail are automatically “problem customers” who, along with “gang members and drug crews…as well as anybody wanted on an outstanding warrant, should have their current addresses and past arrest locations mapped” (Ibid.).

And what counts as “crime” is productively vague. Maple argues that CompStat should track a broad range of crime, which should be categorized and color-coded. But beyond that, he suggests only that data be updated regularly and watched “every day, just like checking in on the Dow Jones Industrial Average” (Maple and Mitchell 2000, 113). For the CompStat system, population is the crime. The “customers,” good and bad, are internal to the mapping logics and policing mission. They are identified by police intuition (how many calls for service make one a “serial” complainant?), dependence on public infrastructure like schools and subways, and history of prior arrests. But, under the zero-tolerance-plus policing regime, those criteria interlock. Police targeted the subways, and subway users, and arrested “customers” at enormous rates for minor violations. This carceral campaign deliberately instantiated a crisis in policing that rationalized police assumption of the power to map, explain, and punish (Glissant 1997; Foucault 2003). The contours of New York City’s crisis in the 1970s and 1980s, its histories of policing, and
its racialized and sexualized structure of the distribution of wealth and life chances

guaranteed that the overwhelming majority of police enforcement would fall on the poor,
people of color, and LGBTQ populations. The long history of state violence that
produces and polices these bodies in difference is the material condition of possibility, as
well as the informational substrate of the now-ubiquitous CompStat system (Kaba 2014,

And the subway – the urban port – is the obvious place to work out such a model of
informatics policing. Subways are transmission vectors (Parikka 2007; Mitropoulos 2012).
Stations assemble the energies and capacities of a city. The circulatory system of
the metabolic city (Gandy 2004), stations are axial points of the dense sociality of organic
and inorganic matter. On top of this efflorescence, Charts of the Future grids a phase
space matrix across which carceral causality moves inexorably. Binary logics drive
decision – is the station suspect yes or no? If yes, proceed to time: does the hour coincide
with concentrations of incidents, yes or no? If yes, proceed to space: does the station
subspace in which you (officer) are positioned have a concentration of incidents, yes or
no? If yes, move to crime: is the concentration robbery? If yes, proceed to physical
markers. As the policing algorithm phase shifts through this matrix it, like a Markov
Chain, becomes context-independent. One can begin this sequence at any point and move
through it in any direction and arrive at the inevitable conclusion that this is interdicted
space. CompStat makes the polyvocality of urban lifeworlds into a flattened ontological
ground that is methodically stripped of relations until all that remains is the binary logic
of carcerality: to arrest, or to let move. CompStat didn’t reflect a preexisting reality of how crime is distributed throughout New York’s time spaces. It built that relation.

Reading Maple, it is clear that he believes in the inherent justice of his system. He thinks that CompStat’s Charts of the Future democratize crime control, and eliminate political considerations from policing. He likes to say that “all dots are created equal.” In his memoir, Maple tells the reader that “when the dots come up on the maps, they tell us what questions have to be asked, but they don’t tell us whether the victim they represent was Leo DiCaprio or a sweatshop seamstress making $2 an hour” (Maple and Mitchell 2000, 115). But Maple’s seamstress has, long before she entered a CompStat database, been subjected to incessant, punishing, criminal economic violence. She is paid less than minimum wage. One wonders whether the employer who robs her hour after hour and day after day, the corporation that subcontracts to her sweatshop to drive down labor costs, the financial houses that provide credit to finance illegal labor, or the political regime that facilitates wage theft and massive labor exploitation, are also dots on the CompStat map. The answer, of course, is no. It isn’t the job of the police to arraign racial capitalism’s structural illegality and violence, but to punish its victims.
Each of these strands of thought has a purchase on imagination in the present moment, when the human is being displaced as the central concern in critical theoretical engagements with perception, cognition, bodily feeling, or affect. In each of these strands of thought, there is a rebooting of ontology in order to give weight to the ahuman, the anorganic, and the asubjective as ground of being and knowing. That is to say, there is a move beyond deconstruction to what necessarily is a speculative philosophy, a philosophical speculation on what is beyond human perception, cognition, and consciousness. There is also the return to aesthetics. There is an elevation of aesthetics to first philosophy such that aesthetics comes to inform measure when measure has become speculative, or a mode of modulating futurity or potentiality. All this is giving shape to the viral as diagram, as the viral invites a rethinking of measure and method in the arts, the humanities, the sciences, and the social sciences, as well as practices of governance and economy.

Patricia Clough and Jasbir Puar
“Introduction: Viral”

It is world as laboratory, feasting on space.
Nigel Thrift
“The Insubstantial Pageant”
FOUR: ALL YOUR BYTES ARE BELONG TO US

One-way functions, in other words, hide an algorithm from its result. For software, this cryptographic effect offers a convenient way to bypass the fact that by virtue of Turing’s proof the concept of mental property as applied to algorithms has become meaningless. Precisely because software does not exist as a machine-independent faculty, software as a commercial or American medium insists on its status as property all the more. Every license, every dongle, every trademark registered for WP, as well as for WordPerfect, proves the functionality of one-way functions. In this country, notwithstanding all mathematical tradition, even a copyright claim for algorithms has recently succeeded.

Friedrich Kittler
“There Is No Software”

In 2011, California legislators passed AB109, a “Realignment” bill designed to bring the state into compliance with a federal court order that state prisons meet 137.5% capacity. This was to be achieved, largely, by transferring non-violent felons from state prisons to county jails, increasing the number of convicts sent to “fire camp,” and cycling certain inmates into probation (California Department of Correction and Rehabilitation Office of Research 2013). In 2012, voters passed prop 36, which provided for non-violent “third strike” convicts to be resentenced. In 2014, California voters passed prop 47, which reduces penalties for some crimes. Public sector criminal justice agencies seem to hate these laws. Microsoft, on the other hand, clearly loves them. Now that indiscriminate arrest and incarceration potentially puts the state in violation of a federally mandated order, and county jails, by absorbing state prison populations are themselves overfull, the pressure is on to reduce recidivism. In San Diego county, the Sherriff’s department turned to Microsoft to provide a few key services: to link the different agencies “data silos,” to provide software and hardware that facilitates the GPS tracking of paroled convicts, and to develop an efficient data analytics system that can analyze, in real time,
the different agency databases and surveillance information to determine “risk levels” of persons that the police encounter. In their promotional materials for the project, Microsoft smooths over the distinctions between the public and private sector agents of criminal justice, referring to all the players in the public-private-partnership of policing as “Criminal Justice Partners” (Microsoft in Government 2016a).

The commander in charge of San Diego sheriff department’s transition to prop 47 demonstrates this granular logic when he argues in a Microsoft ad that “risk” evaluation should be the only criteria by which “offenders” are judged upon their release or reentry. He justifies this by arguing that the victim of a criminal offense doesn’t care about the classification of the crime against them (Microsoft in Government 2016b, 360)). “All they know is that something was taken from them and they want a recourse for that. Well, criminality is the most important aspect of addressing crime, I believe. An offender either has a high risk to commit a new crime or a low risk to commit a new crime. And whether we call that felony or misdemeanor, it doesn’t address the criminality.” Because victims don’t care about what happens to victimizers, police should be authorized to transubstantiate people into roving rubrics of risk.

But, of course, the concept of “risk” is, itself, quite slippery. An enormous amount of research has sought to make sense of the work that “risk” does in contemporary society (U. Beck 1996), and to trace its histories through a variety of genealogies – financial (Bernstein 1996; Bouk 2015), ecological (Tsing 2015; D. J. Haraway 2016), governmental (Foucault 2008; Amoore 2013; Hacking 2006), and criminological
(Harcourt 2007; O’Malley 2010; Caplan and Kennedy 2016) to name a few. Risk has become an especially common term in studies of contemporary capitalism, and its predication on enormous and rapidly changing conditions, of financial liquidity (Stuart 2003, MacKenzie 2004; MacKenzie and Millo 2003; Millo and MacKenzie 2009; Knouf 2016), of security threat (Massumi 2015a; Amoore 2013; Ajana 2013) of surveillance (Lyon 2007, 2009). Keeping this wide range of work in mind, I want to offer a particular reading of how “risk” works in the contemporary blending of the state and capital’s efforts to reimagine the work of policing as a project of risk management achieved between “criminal justice partners.”

**Risky Business**

Risk, in my reading, involves several moves. It cathects the increasingly normative demand to measure and analyze everything to a state project of governance in the breach. Policing, in crisis, has settled on “risk” as a means of conferring legitimacy on proactive order maintenance strategies that, under even the loosest interpretations of the civil rights and liberties conferred on individual subjects in the context of a nation state, would be formally untenable. The expansion of formally counterinsurgent strategies of policing, like the proliferation of civil injunction zones against gangs, drugs, and other loosely defined criteria, the proliferative use of nuisance abatement laws, and the popularity of civil forfeiture, are all predicated on an enormously dense series of projects that have the collection, proliferation and distribution of data as a mechanism for constituting populations for governance, at their root (Khalili 2013; Patricia Ticineto Clough 2013; Foucault 2008, 2003). And, while policing institutions enact these strategies on individual
bodies through confinement, banishment, fiscal, and corporeal violence, they are conceived, executed, and disseminated at levels that are super and supra individual (Deleuze 1992). These practices of measurement are, in the event of the encounter between subject before the law and the law itself, irreconcilable within a legal apparatus that individuates punishment (Pitts-Taylor 2011b, 2016). This gap is settled in the breach by the authority of the police, who affectively determine whether or not particular bodies comport with state and parastate missions of population control (Parisi and Goodman 2011), and the rule of justices that mete out punishment through the distribution of mechanisms of control with reference but not recourse to metrics (Martin 2011; Patricia Ticineto Clough and Willse 2010).

To be clear: I am not suggesting that risk is a mechanism of a “state of exception” in which the state suspends civil administration and invests itself totally in biopolitical projects of population control (Agamben 2005). That United States policing is exceptional, and that the police consider themselves exceptions to the rule of law is beyond question. But neither of these truths reflects an “exceptional” state of American society so much as the contemporary iteration of a changing same of American unfreedom (Singh 2017).

Many of the narratives of security and the “state of exception” point to 9/11 as the moment when the United States clicked into its contemporary setting as a security state. We should resist narratives that invoke the exception of 9/11 to point to a moment when terrorism as a concept became totally diffused throughout the demos, and crime and
terror infelicitously collapsed. Security officials conflated terrorism, war, and crime long before 9/11. And pointing to 9/11 as a moment of collapse and then exception implies that that there is otherwise something like a natural distinction between war and crime control. For this to be true, there would need to be an ontologically or epistemologically stable understanding of crime. One does not exist. “Crime” changes often, and what constitutes criminality is always assayed through the institutional mechanics of “state racism” (Foucault 2003). That is to say, vulnerable people are always the most “criminal.”

Historically, American paranoia around crime, race, and gender, is indistinguishable from the prosecution of racial projects designed to enshrine differentiated laboring obligations and capacities. So, rather than claim that risk emerges as new at our digitally inflected moment, I am interested in examining how, when combined with the already-discussed transformation in tactics in policing and the developments in data collection and management, it produced, beginning in the 1990s, a new orientation towards the relationship between the intersecting modus operandi of policing and capital.

This intersection has produced something like Nigel Thrift’s concept “an untoward land” (Thrift 2012). What Thrift means by this is that the particular dynamics of cognitive capitalism have created a new sort of ground; a novel geography built on the “expressive infrastructures” of digital capitalism. These infrastructures are intended to capture

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8 This bibliography is endless. But I am thinking at this moment in particular of drawing a connection with Walter Johnson’s argument that after the Haitian revolution, the southern American institution of slavery explicitly doubled as a long term counterinsurgency (Johnson 2013).
affective and creative forces conjured by the drive toward honing logistics and producing logistical subjects in an open economy (Andrejevic 2007; Harney and Moten 2013). I am not sure that I am ready to take this idea as far as Thrift, and argue that it constitutes a new Industrial Revolution. But it does point to the novel ways in which capital and security have bent their attention to the production of value in the smallest interstitial points of rupture in logistics chains. The assumption that the increasing granularity of information technology will itself produce more and more of these gaps pushes the attention of security further and further into the minutiae of biotechnical production. The aim of risk mitigation projects and advanced analytics is not so much targeting problems or gaps that are already known, but instead producing new gaps and threats that can be in-folded into new managerial projects (Preciado 2013).

This has, unsurprisingly, driven an unprecedented thirst for metrics. Metrics, value, and security are hardly distinguishable. Measuring more, and measuring better is no longer turned toward particular ends, but becomes the end point of the production of value. I want to argue that a particular arrangement of forces in the 1990s and early 2000s, in the context of the particular available digital infrastructures and a transforming political economy of technology normalized the transformation of all sorts of social problems into technical assessments of risk. Solutions to these problems transmuted into the increasingly granular capacity to mitigate risk, increase efficiency, and network solutions through the development of digital capabilities.
Rather, then, than point to “exception” as the condition of possibility for the rise of “risk management” as police logic, we might instead look to the mundanity of risk – how it is built into managerial infrastructures that seek to deliver efficient resolutions to the daily practices of governance under American racial capitalism. To return to our example of the San Diego county Sheriff’s Department’s adoption of a Microsoft software suite:

Prop 47 reduced certain drug convictions from felonies to misdemeanors, and allowed inmates to petition the court for resentencing under new guidelines. It also allows for freed convicts to retroactively appeal for a reduction in sentencing from felony to misdemeanor. Resentencing is not permitted to people with any prior convictions for “sex offenses including rape, child molestation and other sex offenses; murder, attempted murder and solicitation to commit murder; assault with a machine gun on an officer; or any serious or violent crime punishable by a life sentence or death.”9 Inmates who are still eligible must be resentenced “unless the court finds an unreasonable risk to public safety” which the court determines based on “the offender’s criminal history, the types of crimes committed and when they occurred, the extent of injury to victims, the length of prior prison commitments, the inmate’s disciplinary and rehabilitation records while incarcerated, and any other relevant evidence.”10

“Risk” describes a transactional relationship between the constituent population and “criminal justice partners.” The problem raised by the passage of Prop 47 – that the criminal justice system has slightly less leeway to lock “modestly educated women and

9 http://www.cdc.r.ca.gov/news/prop47.html
10 ibid
men in the prime of their lives” (Gilmore and Loyd 2012) in cages – transforms into an opportunity to redesign the entire structure of the relationship between the subject and the criminal justice system.

San Diego County Commander Will Brown, looking for a silver lining to the damage that he imagines Prop 47 does to law enforcement, finds it in the opportunity afforded to leverage the concept of “risk” to “basically level the playing field, reevaluate how criminal justice happens in our county and remove all the labels that we’ve learned over the past three years: split sentences, straight sentences, post-release community supervision, 999 [the term for someone sentenced under California’s “three strikes” laws]…all those labels I think should go away.” In their stead, Brown (and by implication Microsoft, for whom he is a spokesman) envisions “risk and risk alone” determining “how we spend resources and how we provide for public safety.” If the police and the courts determine that someone is at a high risk of committing new crimes, he argues that the police owe it to their “elected constituents to reduce that risk by spending resources on an offender to lower their recidivism so they’re not creating new victims in the community.”

In this schema, public safety is determined by risk, and technocrats meeting “behind a closed door” determine risk. In fact, Brown argues that the principle advantage that Microsoft’s package offers to “Criminal Justice Partners” is that it facilitates the smooth and seamless communication between agencies necessary to ask how to “share resources…[and] information to make your county safer[.]” These conversations cannot
happen publicly and, in fact, cannot take place amongst elected or public officials. Instead, it takes place among the “people below that position” who can be “very frank and can just put it on the table in a way that your elected and chiefs can’t[.]”

This is a good example of what Matthew Fuller and Andrew Goffey call the “gray media” of contemporary governance (Fuller and Goffey 2012). The problem here is absolutely mundane: what is the most efficient way to get a number of criminal justice agencies to discuss and coordinate the criteria they use to evaluate their wards? Or, in other words, how to upgrade data infrastructure? The answer is even more mundane: use Microsoft Office 365. But the effect is a secret, non-scrutinizable reorganization of the theoretical relation between individuals and the police, determined by unelected technicians looking at excel spreadsheets. The effect is the institutionalization of a proprietary metric of “risk” as a quasi-object (Massumi 2002) that drags human beings’ subjective governance along with it.

If a judge at a resentencing hearing is presented with a “risk assessment” level – a number, remember, that is developed by experts who worked out its often “black boxed” formula away from the general public (Pasquale 2015) – it becomes a question of juridical responsibility and ethics whether the judge can ignore the number (Berk and Hyatt 2015). What if a judge orders resentencing for a “high-risk” person who, upon “community reentry” “creates new victims?” Why, the question will be asked, did the judge not take into account the “risk” that he “knew” such a person’s reentry would pose to the “community?” (Koepke and Robinson 2017).
The flattening of distinctions between citizen, metrics, and risk grants enormous flexibility to law enforcement in choosing who to prosecute and how (Patricia Ticineto Clough and Willse 2010; A. G. Ferguson 2017). This is, as we have seen, a central rationale for implementing Broken Windows policing under CompStat. Such a system flattens and reverses the “traditional” trajectory of enforcement. Common sense understanding of law enforcement presumes a reactive stance, in which “criminal justice partners” respond to individual violations of the law by issuing punishments designed to redress a social grievance. Although such logic has always been true only in theory and not in practice (Camp 2016; Hinton 2016; Khalili 2013), the centrality of risk conjugates with the logic of broken windows and CompStat to explicitly reconfigure the common sense of policing as proactive, as designed to address a spectrum of possibilities instead of any actual transgression.

In the formulation of policing-as-risk-management, policing begins with securitization and moves to potential victimization (Harcourt 2012, 2007). This is the practical effect of the “criminal justice partners” meeting behind closed doors to have frank and private conversations about how to conceive of risk. Nobody need have actually offended. Instead there are virtual victims (who will have actually been victimized, but who have not been victimized yet) and roving assemblages of histories, infrastructures, and logics of sense that concatenate in human bodies as mobile levels of “risk of reoffending.” The “black boxed” (Pasquale 2015) nature of risk – that it is generated by the seamless flow of information between public sector and private sector security agencies out of view of
the public – serves to cement the political insistence that policing agencies are the only legitimate managers of sociality because they are the only agencies capable of adjudicating what counts as public safety.

In other words, when “risk and only risk” is the axis around which decisions of who is a viable social actor revolve, then the metric for determining risk necessarily elevates intangibles that are only legally and logically the responsibility and right of the criminal justice system to determine. What constitutes risk? If, like the San Diego sheriff, we no longer care about whether people have committed misdemeanors or felonies because “that doesn’t address the criminality,” then what do “we,” care about? What is “at risk?” Although the rhetoric of “risk” is now a familiar vernacular of public safety and criminal justice, it is formally counterintuitive. It demands a prejudgment of the likelihood of a range of formal transgressions of law and order, organized against a deliberate devaluation of the formal metrics used to determine the severity of those transgressions. This, on the one hand, requires foreknowledge of the range of possible violations that can occur. Probabilities, after all, can only measure the likelihood of known outcomes. On the other hand, it forecloses state’s ability to contain a possible range of violation. Risk can never be eliminated or prevented, it can only be “managed,” or preempted (Amoore 2013; Massumi 2015a; Patricia Ticineto Clough 2013).

The risk analytic, then, conjures the legal-juridical gray area in policing out of which the ideological foundations of police authority as a nominally disinterested practice, is repeatedly reproduced (Derrida 1992). On the one hand, for there to be risk, the contours
of the risky subject, space, and time, must be known in advance. Developing a risk profile, and acting on this knowledge, is the role of the proactive police. On the other hand, these cannot be known, because if they were known then they would be actual, rather than “risk” (Ayache 2010). This is complicated by the particular contradiction between the American traditions of racial capitalism, and a half-century of formal, but empty, liberal equality before the law (Reddy 2011). The American Liberal response to the gap between the racially-driven realities of the American carceral state and formal, but empty, equality before the law has been to promote impartial measurement and procedural transparency (Murakawa 2014, Marable 2004, Melamed 2011, Bell 1992).  

In other words, data and metrics are supposed to seal a breach opened by the political economy of American capitalism. Precisely because class, race, and sex determine the punitive attentions of the carceral state, they are transformed, through “neutral,” mathematical, sober accounting practices, into disembodied “neutral” risk profiles. That analytics companies’ algorithms for predicting the risk of reoffending are often wrong, and seem to very closely mirror the racial and sexual structures of American political economy (Julia Angwin 2016) is less surprising than the fact that people, in apparently good faith, think that they might not.

The breach is why data-driven police practices like those that have been widely instituted under the auspices of CompStat, and its successors in predictive policing and Domain Awareness, are widely hailed as progressive and instituted by Liberal governments.

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11 For instance, the Obama administration’s task force on criminal justice, or the federal government’s oversight of NYPD after Floyd vs. City of New York found the department’s Stop and Frisk policy to be unconstitutional.
interested in “rationalizing” American criminal justice and making it more fair. Such data-driven practices rest on a different carceral “regime of truth” than that which Foucault points to as a judgment of the soul. In that formulation the carceral regime functioned by looking away from the fact of the crime committed and instead sought to understand the “soul” of the criminal herself in order to determine the necessary level of rehabilitative (which is to say disciplinary) punishment. Critics have long pointed out that this rehabilitative function of the disciplinary criminal justice system does not reflect the history of the American case (James 1996). To the extent that American criminal justice has ever been interested in rehabilitation, it has always been on the basis of racial, sexual, and gendered stratification that is indexed to a person’s proximity to a normative propertied, heterosexual, cismale, white body (Haley 2016; LeFlouria 2015; Seitler 2004; Perkinson 2010; Reddy 2011; Christianson 2001). As we have discussed, the collapse of white supremacy as an official ruling legal structure in the post-war era, and the concomitant rise of various “official antiracisms” (Melamed 2011) ushered in a renewed mania for calculable, and thereby “neutral” or “disinterested” metrics to determine racial, sexual, and gendered differences in criminality emerging from theories of cultural, rather than biological, difference. Jordan Camp has demonstrated that mutating state efforts to contain freedom struggles in the name of counterinsurgency drove much of this thirst for metrics (Camp 2016). Whereas in Foucault’s carceral regime, it is the soul that is of interest to the state, in the case of the neoliberal-counterinsurgent American state, it is the metric power of official antiracism that drives carceral decisions. Metric power, constantly expanding and “improving,” able to handle ever-more-granular data inputs
has, in fact, come to stand in for juridical decision – as risk (A. G. Ferguson 2017; Beer 2016).

So, to Microsoft’s ad team, and its police surrogates, it is the excitability of metrics – which is to say, the theoretical capacity to divine formulae that determine the precise level of risk that a datalogical subject poses to the social – that catalyzes the carceral. In the 2010s, when data became “big,” (Mayer-Schönberger and Cukier 2014) and highly capitalized information technology companies promised that they, and only they, could finally make sense of this “big” data; that they, and only they, could finally eliminate the uncertainty, the subjectivity from juridical decision, and instantiate a perfectly mathematical official antiracism in criminal justice, the momentum in many criminal justice enterprises tilted towards embracing this regime of knowledge.

As Louise Amoore has pointed out, this movement towards risk management and analysis has been diagrammatic across a number of industries, and has in fact done much to bleed together once-distinct fields like profitably running a casino, anticipating the effects of earthquakes, trading on the futures markets, or preparing for terrorist attacks. Most of the experts in modeling these sorts of scenarios are private entities that emerged in the wake of the US Patent Office’s 1994 decision to treat algorithms as intellectual property. They form the core actors in the rise of a knowledge formation that Amoore calls consulting, “a way of thinking, ordering, calculating, and acting on the world – rather than primarily the actions of consultants as identifiable agents…[that are] a key element in the contemporary mode of sovereign power that plays out on multiple sites
and draws mobile lines between inside and outside, self and other, us and them, norm and
exception” (Amoore 2013, 7). Thus we return to the professionals in a room in San
Diego, sitting at a faux-wooden desk behind a closed door, looking at their Excel
spreadsheets on old laptops, determining how to transform human beings into risk
assessments.

This particular arrangement of forces consolidated as normative police practice after the
success of CompStat and Broken Windows. These programs drew liberally from
counterinsurgent best practices, and indeed commonly framed the United States in the
1990s as a nation at war with itself, or at least against “street gangs” and
“superpredators.” Several MOUT articles point, especially, to the military deployment
during the LA uprising as being a good example of a successful, urban counterinsurgency
operation (Desch and Army War College (U.S.) 2001). This is an important moment in
the rise of contemporary big-data driven police systems because it reminds us that data-
driven counterinsurgency as normative police practice did not begin with the Patriot Act.
Rather, that act, as well as other responses to 9/11, expanded already-established best
practices, and infused them with the capital to turn a niche market into a major
transnational industry. Furthermore, although concerns about the militarization of police
often point at the wars in Iraq and Afghanistan as operations that “came home,” (Balko
2013, Graham 2011) this is almost exactly backward. Rather, once counterinsurgency
began in earnest in Iraq, the American military turned to CompStat, Giuliani, and
domestic crime fighting strategies for inspiration. Counterinsurgent policing moves
across the transit of empire (Byrd 2011). This logic of counterinsurgency is crucial
because it normalizes many of the most controversial policies of domestic policing, like gang injunctions, drug injunction zones, civil forfeitures, and nuisance abatements. Normalizing the city as an open-ended carceral zone is crucial for later projects to transform it into a preemptive, and then predictive virtual space. In doing so, counterinsurgency lays the groundwork for the rise of the dividuated subject, of the person-as-risk-profile (Deleuze 1992, Cheney-Lippold 2018).

There are three interweaving processes that, over the 1990s and early 2000s, generated the big-data driven security state. First, the transformation of algorithms from mathematical concept to protected intellectual property, and the transformation in the logic of labor that this secured. This, particularly, was affected by the rise of data mining technologies and the increasingly normal concept of data mining the future. Second, counterinsurgency consolidated as the operative logic of American policing. This, in turn, broke wide open a market for accumulating and analyzing security data. Third, and connected, the increasing use of civil injunction laws, nuisance abatement laws, and special security zones naturalized the institutionalization of both “hard” and “soft” state power in the breach. All of these were well established in New York and Los Angeles by the end of the 1990s. The federal funding frenzies that 9/11 created ensured their durability. These strategies were pursued with increasing urgency in the mid-2000s, when the crisis of mass incarceration (particularly its effect on state budgets) became too acute to continue to ignore, elading policy makers to reformat of the city as a generalized surveillant space. Building the control society was, in other words, the condition of
possibility for venting inmates out of overtaxed prisons into digitally surveillant carceral archipelagos.

**CAPITALIZING ON ALGORITHMS**

Wendy Chun has pointed out that one can track the consolidation neoliberalism by following the shifting logics in patent law that, between 1972 and 1994, transformed “algorithms” from mathematical tool to patentable intellectual property (Chun 2013). In 1972, the Supreme Court rejected engineers’ Gary Benson and Arthur Talbott’s effort to patent an algorithm that converted digital into binary bits. The court reasoned that an algorithm (the meaning of which, as Pamela Samuelson points out, they clearly didn’t understand) (Ibid.), was a human “mental process” in which “human beings took measurements about something, and after making calculations with data derived from these measurements, learned useful information about how to solve a problem in a technological field” (Samuelson 1990, 38). The court had historically reasoned that, in instances in which the mental process had a tangible effect on the physical world, a patent was reasonable only under the conditions in which the process contained novelty in both the physical and mental steps. The issue of patentability of software was increasingly heated over the course of the 1960s, and the Johnson administration appointed a commission to determine its patent status. The commission determined that software patenting was undesirable, and that software, as an essentially mental process, fell outside of the scope of patent law (Ibid.).
But, while the patentability of software had been much discussed prior to the 1970s, it was not until the Benson case that the court specifically considered “algorithms.” The court argued that, since the system that Benson was attempting to patent consisted of a method of transforming one set of numbers (digital information) into another set of numbers (binary digits), that the process constituted a “discovery” of a law of nature, rather than an invention. In order for a process to be patentable, it had to transform matter. In other words: no labor, no patent.

Picking up on this test, the patent office, over the next decade, increasingly pursued claims that characterized the process in question as “transformative.” The basic test of patentability became whether an algorithmically driven process could, at its end point, demonstrably leave a material archive. During the 1970s, over 20 cases were tried between the Patent Office and the CCPA, all over the patentability of algorithms. In one case, in which a patent was approved, this archive consisted of printouts of seismic activity. In another, that was rejected, the archive was relational – it compared the results of two existing systems (Samuelson 1990). The growing centrality of the liveliness of objects (Bennett 2010) to the reasoning of the courts drew cases inexorably toward the industrial. In 1981, the Supreme Court ruled in Diamond v Diehr that a computer program controlled process for curing rubber was patentable. The reasoning was that the system was patentable because algorithms were put to work in directing a series of machines how to automatically cure rubber, thereby leaving a material archive. The court specified the industrial character of the process in Diehr, and tried to narrowly define the grounds for granting patents for algorithms to industrial settings. But, in the ten years
following the Diehr decision, the Patent Office liberalized its patent policy, and increasingly granted software patents for algorithms that acted outside of traditionally industrial settings. The court ruled that only mathematical formula “in the abstract” was unpatentable. When software is linked to machines in a process that transforms matter, a patent holds (Samuelson 1990).

In 1989, the patent office granted Narendra Karmarkar a patent for his solution to the “traveling salesman problem.” The “traveling salesman problem” asks how to calculate the most efficient route between two points when the possible number of paths is so great that the effort required answering the question is unmanageably large. This is the “brute force” problem in engineering that. The Karmarkar algorithm was not the first to solve the traveling salesman problem, but in 1989 it was the best one. Corporations like AT&T adopted it to develop resource-allocation software. The algorithm was, if anything, more abstract than Benson’s, which the court had rejected in 1972. What had changed in the interim was not the mathematical principle, but political economy (Ibid., 17).

By 1994, after the rise and subsequent ubiquity of the personal computer, and the ongoing computer automation of infrastructural processes, the court reached this logic’s inevitable conclusion: all software, everywhere, transforms matter. The court reasoned that, because software is linked to hardware, and in fact only exists to direct the states of currents in a machine to change, then algorithms that are designed, as part of a software package, to work on computers, are necessarily mechanical (Chun 2013). They produce an electronic archive, and electronic archives are both material and have material effects

That changes in the patent law governing algorithms maps so conveniently onto both transformations in political economy, and the increasing centrality of computers to the daily conduct of capital is no accident, just as it is no accident that transformations in the logics of policing are tethered to transformations in political economy. For obvious reasons, cases deciding patent laws move with technological developments, and reflect the existing realities of capital generation. That someone would try to patent an algorithm that converts digital data to a language that is readable by computers makes sense in 1972. Computers, after all, had become increasingly ubiquitous in research institutions and corporate headquarters. Economic policy under Nixon and Paul Volcker was moving towards floating, neoliberal monetary policy. Information, and the capacity to process it rapidly, was an obvious growth industry. That the courts were operating under an industrial paradigm, in which the predominance of fictitious capital had not yet become clear, makes sense as well. That, in 1982, after decades of industrial transformation, the back-breaking labor defeat in the PATCO strike, and the obvious ascent of industrial automation, someone would seek to patent an algorithm that automated an industrial process makes sense. That the courts accepted this framed their approval within an industrial paradigm does as well. That, in 1994, in the midst of the corporate wars over the personal computer, the wholesale investment in computer-driven managerial techniques, and the emergence of the World Wide Web, the courts finally officially reversed Benson, and confirmed that algorithms were patentable material actors on the
world, makes sense. Down the line, patent courts follow the movements of capital, as they are designed to do.

In 1993, one year before the Supreme Court fully reversed the Benson decision, and ruled that algorithms could be patented, Rakesh Agrawal and a team of researchers at IBM Almaden published a paper summarizing work that they had done for the British supermarket change Marks and Spencer (Amoore 2013). Marks and Spencer had asked IBM whether they could develop a program that would make sense of the reams of new information generated by a recent development in logistics chain technology: bar-codes. Before logistics companies standardized the use of bar codes (Cowen 2014), large retailers could only accumulate “global data about cumulative sales during some time period” (Agrawal, Imieliński, and Swami 1993, 1). So, retailers could track broad trends, like percentage growth of particular products over the course of a season. But bar codes generated “basket data” that recorded every item sold in every transaction at every store. This level of specificity, Marks and Spencer reasoned, would allow them to fine tune decision making about “what to put on sale, how to design coupons, how to place merchandise on shelves in order to maximize profit, etc.” (Ibid.).

Agrawal and his team developed an algorithm designed to identify “association rules” between elements in a large database. Association rules, essentially, are relationships between different items that are both statistically significant (“support”) and strongly correlated (“confidence”). Their hypothetical example is “90% of transactions that purchase bread and butter also purchase milk” where bread and butter are the antecedent
of the rule, milk alone is the consequent, and 90% is the confidence factor (Ibid.).

Finding these association rules had the potential to yield new insights to Marks and Spencer, and could allow them to fine tune their incentives programs and their logistics operations. Given the enormous revenue potential such a program represented, the team picked an appropriate name for their new technique: “mining.”

Although the Almaden paper is widely regarded as the first instance of true data mining, the techniques that they developed were similar to ongoing research in Artificial Intelligence. It was particularly similar to the work done at GTE laboratories (then a part of the Bell system that was later folded into Verizon) by Matheus et al on automated knowledge discovery in large databases (Matheus, Chan, and Piatetsky-Shapiro 1993). But whereas that work focused on discovering quantitative rules in highly controlled database environments (in other words, relying on ideal-type database models as a ground for developing new systems capable of being applied to the more “dynamic, redundant, noisy, sparse, and very large” databases in the real world) (Ibid.), Almaden designed their system, from the ground up, to search for qualitative laws. That is to say, by starting with an actually existing business’s database, they had closer access to the “uncontrolled real world,” and focused their program on being able to discover association rules in databases that use “little or no domain knowledge” (Agrawal, Imieliński, and Swami 1993, 9).

The Almaden algorithm worked from establishing certain threshold criteria that the researchers want to find – the strength of relationships between different items sold, and
establishing parameters that limited the number of variables in a dataset. Finding a strong confidence that a customer who buys every item on sale at marks and spencer has a statistically significant and extremely confident likelihood of buying any item in the store is not a particularly helpful relationship rule. This distinction, in which the focus moves from quantitative rules to qualitative laws, and in doing so, transforms the operation from one of discovering patterns to one of uncovering the density and intensity of parametric relationships, is why data mining has become so popular in both the private and public sectors.

Data mining, in short, put algorithms to work in a way that had not previously been possible. That is not to say that it was a novel innovation in harnessing computer power to labor for capital. Tethering human labor to the shifting regimes of industrial mechanical capacities is, as Marx noted, a traditional trait of capitalist production (Marx 1993; Franklin 2015). The generalized adoption of the digital computer in the 1960s was a mid-20th century instantiation of intrinsic component of capital’s labor process. But, the fact that it was in the tradition of older modes of capitalist production does not mean that its impacts on the labor market, or on the relationship between labor and capital, were not distinct. Indeed, as Tung-Hui Hu points out, the concept of “real time” – emergent in the late 1960s – was, in fact, a means of reconciling the breaks and discrepancies in the labor processes that “yoked the user’s labor to the labor of the computer itself” (Hu 2015).

The concept, in fact, emerged out of a 1968 ARPA study that followed 21 programmers’ work coding on either time-sharing or batch processing systems. The researchers
“carefully logged and tracked each user’s person-hours worked ‘by close personal observation,’ and compared the figure with the number of computer-hours used” (Ibid. 47). Hu points out that this management technique worked “to fashion an efficient worker capable of flexible managing time,” and links it to Maurizio Lazzarato’s critique of the late-20th century movement of capitalist production regimes and worker subjectivity towards “immaterial labor,” in which the site of production moves from the factory floor to the digital interface (Virno and Hardt 2010). “Real Time,” in Hu’s reading, “actually functions as an ideology of economic productivity. By splitting a problem into thousands of increments, and then stitching these intervals of computer and worker time alike back into a seeming whole, the computer disavows unproductive moments with ‘no mode or routine,’ and turns our attention away from these gaps, stutters, and freezes, and toward more productive modes of work” (Hu 2015, 47).

Carceral logistics

That the cybernetic linking of human and computer labor power brought with it new managerial regimes, and transformed reckonings of useful labor time, seems beyond dispute. But I would like to follow in a robust tradition of critiquing the idea that this transformation was either “immaterial,” or primarily occurred at the site of intellectual labor. Instead, Hu’s point that the transformative regime of “real time” broke up and distributed the work of work along an ever more granular series of points of productive work, in order to analyze points of frictions, and redistribute inefficiencies throughout the entire network of value production recalls not so much the work of graphic designers as it does the revolution in industrial logistics. Like Lazaratto’s concept of immaterial labor,
changing logistics regimens were designed to take the point of production out of the factory. But, rather than resituate it at a desk, they were designed to distribute it across the whole infrastructure of distribution and delivery of goods and services.

Logistics did not so much make labor “immaterial” as leverage the “immaterial” information processing capacities of computers to break down complicated points of the distribution process over which workers had a modicum of control, and through measurement and streamlining, put control over those points in the hands of capital. Logistics moved the labor battles that had been fought outside of the factory onto the factory floor, by transforming nodes and chokepoints into “seamless” points of production, tethered inexorably to the ratcheting demands of major retailers and distributors. It is not coincidental that many of the digitally-driven management strategies that emerged in the 1970s and 1980s that have become paradigmatic “common sense” workplace management regimes were designed, specifically, to streamline logistics (Medina 2014; Cowen 2014; Bernes 2013). It is the revolution in logistics that set the stage for data mining and, in turn, made the prospect of digitally driven police systems viable. This relationship is not causal. Police and security agencies do not adopt data mining techniques or digital management infrastructures because they are demonstrably means-tested solutions for improving order or fairness, and reducing “crime.” They do so because digitally driven police systems – whether predictive policing, or risk analytics, or situation awareness programs – are all built to efficiently organize resource allocation and to tightly control labor. They are logistics systems adapted to stage-manage the optimal distribution of carceral state violence.
Major realtors Marks and Spencer and Wal-Mart were early adopters of data mining systems. Both of these companies’ business models (but especially Wal-Mart’s) are tightly linked to their dominance and sovereignty over their logistics networks. Indeed, it was the effort to streamline the logistics process in the 1980s and the 1990s that led to the adoption of technologies like, at first, the bar code and, later, the Radio Frequency ID chip (Sterling 2014). This process was, as Deborah Cowen points out, itself a product of the “social war” driven by ascendant neoliberalism of the late 1970s and early 1980s (Cowen 2014, 44-45).

Cowen points, especially, to the effort to deregulate railroads as the “lynchpin in the construction of the global material infrastructure for business logistics” (Cowen 2014, 45). Part and parcel of the longer history of “containerization” in the logistics world, Cowen notes that American regulatory bodies established under late-19th century anti-trust mandates, like the Interstate Commerce Commission, prevented the emergence of fully integrated logistics networks. Prior to the passage of the Staggers Act in 1980, groups like the ICC prevented transportation companies from owning various “modes” of logistics infrastructure (like both rail and shipping), and had final oversight over companies’ decisions to ship more than one type of cargo per load, or change rates. After deregulation, these barriers fell, and the race was on to expand ownership across different arterial infrastructures of commodity circulation in pursuit of “seamlessness.” Without anti-trust oversight, logistics firms consolidated and relentlessly pursued containerization – a logistics process that rendered the overwhelming majority of longshoremen
redundant, thereby eliminating the greatest impediment to “efficient” transport of goods across different modal seams: labor. In the wake, logistics companies could further standardize, streamline, and automate the work required to move stuff across a series of different logistics terrains. Intermodal standardization, and the accompanying fantasy of “seamless” circulation, reorganized the sites at which shrinkage and loss occurred. In effect, as Cowan points out, deregulation and standardization extended the site of value production out from the factory and into the entire network of transporting goods. Impediments to smooth transit now tallied as value lost across an enormous arterial infrastructure, which in turn demanded an increasingly granular attention paid to the movements of all goods across all terrains from the point of assembly at one or different factories to the point of sale to the consumer (Ibid.). Bar codes met this demand, and generated an effluence of data that were used to train algorithms to mine the interior lives of machines.

When Almaden developed their data-mining algorithm, then, they were directly intervening in a long-running struggle to consolidate control over the production system. This hinged on the ability to redistribute the production of value from the factory floor throughout the entire distribution network, through such mechanisms as “just in time” production and procurement strategies. Marks and Spencer did this by tethering the caloric demands and gastronomic preferences of their customers to the computational labor of computers, and pointed this assembled knowledge at networks of industrial production and distribution. This was an early instantiation of what Solon Barocas and Karen Levy called “refractive surveillance,” in which the collection of consumer data
from one group frequently also impacts an entirely different group (Barocas and Levy 2016). In the Almaden case, surveilling the shopping preferences of British M&S patrons informed the company’s procurement strategies, and in turn increased the precarity of the workers on the production end of the supply chain. Refractive surveillance is deliberate. The point of the Almaden algorithm is to harness a preference for sausages and milk to the corporate project of minimizing the life chances of workers in globally distributed production lines. That is what we mean when we say “economic efficiency.”

Data mining emerged out of struggles over deregulation and supply chain efficiency, but the supreme court’s decision, in 1994, to allow algorithms to be patentable re-presented the technique as a technology, and laid the groundwork for the contemporary crisis over “black boxes” (Galloway 2010). That is to say that the supreme court’s ruling granting protected intellectual property status to algorithms transformed the practice of mining data for nonobvious correlations into an operative logic of two inextricably intertwined processes: capital generation, and security. On the one hand, data mining became central to private companies looking to conjure value out of the hiccup points in their logistics chains. And, on the other, it became increasingly valuable to the security agencies tasked with maintaining a smooth flow of capital and population. But this development drove a secondary tendency. The increasing centrality of “algorithms” to capital production meant that algorithms, themselves, were now things that had to be secured. With the nascent capacity to publicly network computers onto a new “World Wide Web” promising massive transformations in communications, labor, and data accumulation, and

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12 Or, to use management’s terms, increasing “seamlessness” across “friction points” in the global economy.
the data mining algorithm as the best available tool to make sense of (which is to say, to
capitalize), this emergent world, algorithms had to be protected – which is to say, black
boxed (Hu 2015; Franklin 2015; Gallagher and Hager 2016). Not only would capital and
security now have the capacity to “know” the populations that they are mandated to
surveil in new and powerful ways, but the capacity of those populations to know how
these companies and these agencies know, was also necessarily foreclosed. As Louise
Amoore has pointed out, normalizing data mining and management of CRM across
different industry spaces, also produced a boom economy in cyber security and
infrastructure hardening (Amoore 2013, 40-41). Doing so demanded the capacity to
model a network, and to identify its weaknesses by breaking up information into its
constitutive parts, such that it could be rapidly accumulated, and algorithmically analyzed
to find stress or weak points. In other words, data mining.

The normative strategy of data mining the data mines stacked series of secret, proprietary
analytics systems on top of one another in an increasingly mystified tangle of security
and capital (B. H. Bratton 2015). Algorithms might now be laborers, but they labored in
an almost pre-industrial sense, realizing jealously guarded trade secrets in a physical
world that, by dint of the ideology that their work scaffolded, was increasingly collapsing
into an informational one (Patricia T. Clough 2010).

The thirst for nonobvious correlations emerged out of this fantasy of finding value in the
interstices of the production process, and the vagaries of transportation, but quickly took
on logic of its own – that something like surplus value is hiding in plain sight in matrices
inscrutable to the human eye. That this is exactly the ideological transformation that had been animating the NYPD’s adoption of systems like Compstat is no accident. But, beyond the obvious connection that both the police and industries adopted data mining in order to see proximate human-inscrutable patterns, was a separate ideological transformation that had long animated liberal politics, but that data mining and machine learning would exaggerate: that something like the truth of the social world exists in the correlative properties of surveillance data, and that solving this truth was a matter of engineering. Although similar to positivism, the valence of this ideological formation is different. Whereas positivism assumed that the “truth” of the social was not actually accessible by data, but that data for itself presented the best means of modeling the world, the new ideology of the 1990s saw the world as the product of data, the universe as one enormous math problem, the social as a comprehensive challenge of proper pattern recognition. This, cathected to free market capitalist ideologies, is what Richard Barbrook and Andy Cameron called “the Californian Ideology” (Barbrook and Cameron 1996). Unlike in positivism, the enormous math problem called the world, was, to use Elie Ayache’s terms, a “medium of contingency” (Ayache 2015). That is to say that, in the consolidating logic of a tech world driven by data mining, the world had ceased to exist outside of the enactment of the algorithms designed to make sense of it. Laboring algorithms, in other words, collapsed analysis and production, and reversed the trajectory of “knowledge” from a model that reflects a real, to an engine built to realize a virtual.

The development of the relationship between data mining, finance, and security, that is sketch out here usually points towards the creeping power of the surveillance state. This
is especially true after September 11th, and the fury of securitizing legislation passed in
the aftermath. There is certainly a truth to this. Funding for digital surveillance
technologies absolutely increased with the passage of the Patriot Act and the
establishment of the Department of Homeland Security. But, what too many accounts of
this development miss is that the policing apparatus of the post 9/11 security state, and
the ideological basis for the creeping criminalization of the mundane, where metadata
could be inculpatory evidence, predated the War on Terror. The Patriot Act didn’t
transform the American criminal justice system from one based on individualized
criminality and presumption of innocence to one of generalized suspicion and preemptive
policing. That was the organizing logic of policing American cities since before the
passage of the LEAA. The logic of blurred criminality – in which civil violation and
injunction collapsed criminal offense, and the data of everyday life rendered entire
populations vulnerable to the power of the state was an organizing strategy of community
policing. Microsoft’s surrogates in the San Diego Sherriff’s department aren’t
spearheading a scary new logic of the carceral so much as describing civil injunctions
with on-brand rhetoric.
Five: Calculating Counterinsurgency

Compstat statistics and meetings inevitably trigger civil enforcement in precincts with demanding crime problems. The meetings spotlight surges in shootings, and top brass demand reductions. “Every shooting became a big deal after Compstat,” recalls a precinct special operations officer, Lieutenant Martin Stein. “The bosses ask questions about what the detectives and others are doing at the crime scene.” Imaginative precinct commanders swiftly include carefully crafted civil enforcement in their antiviolence campaigns.

Eli Silverman
_NYPD Battles Crime_

The injunction identified a variety of actions that were “precursors” to the ultimate crimes of drug dealing and violence. The goal was to arrest alleged gang members before they did anything technically illegal. In the spirit of predictive policing, law enforcement was concerned with what alleged gang members might do rather than acts they already committed. John laid out the problem and his proposed solution in his declaration to the court: “If, for example, police officers were able to stop and detain gang members before they dealt their drugs to be sure they are not in possession of any contraband, then law enforcement would be able to slow down and interfere with the drug dealing”

Ana Muñiz
_Police, Power, and the Production of Racial Boundaries_

Civil injunctions are a cornerstone tactic in “community policing” strategies. They were innovated in the wake of the Supreme Court’s Papachristou vs. Jacksonville decision that evacuated broad vagrancy statutes. The court eliminated a central tool of American police departments, which had relied on catch-all vagrancy ordinances to arrest and prosecute undesirable people in public places (Douglas 1972; Goluboff 2016). The Papachristou decision was an end-point of decades of mobilization and action. It built on several other cases that successfully challenged vagrancy rules in states like California and set the terms for future legal challenges to discriminatory police practices. It made “vagueness” the legal test.
Papachristou was part of a broader set of political victories against police surveillance and discretion. These included institutionalizing 911 response calls, and institutionalizing the “professional” model of policing. Wilson, Kelling, and their supporters targeted this array of reforms with “broken windows,” which was designed as an end-run around eliminating vagrancy statutes. Because injunctions were a local response to a supreme court decision, they were not monolithic. Instead, they were designed to accommodate local distinctions, and the contours of their rollout depended on local geographies and legal regimes. New York City, for example, has very few “gang injunction” zones, but has a preponderance of targeted civil enforcement policies enforced under Nuisance Abatement and civil forfeiture laws. These statutes are often issued based on CompStat maps. Los Angeles, on the other hand, is a patchwork of enjoined terrain.\textsuperscript{13} What unites the two is the when and where of enforcement. In both cases, enjoined space lands on black and brown neighborhoods undergoing gentrification, or in developers’ crosshairs (Muñiz 2015; Gilmore 2007; Ryley 2016, 2015).

Risa Golobuff (2016) points to the efforts that the Broken Windows brain trust invested in reinventing the legal apparatus of surveillance. She argues that after the Papachristou ruling, and in particular after the Terry decision, authorized stop and frisk became a broadly constitutional tactic that police leveraged against now-unconstitutional “vagrancy” laws. She argues that these tactical infrastructures are different in kind. She

\textsuperscript{13} http://assets.lapdonline.org/assets/pdf/COLUMBUS%20STREET%20GI%20gang_injun_citywide_85x11.pdf
claims that “substantive and procedural innovations of the 1960s civil rights movement” ensured that Papachristou would bring to light, and eliminate the “assiduous record keeping of stops and frisks unheard of during the vagrancy law era and only in existence because of the changes that the era had produced” (Goluboff 2016, 343). And, while she concedes that there is a very long list of “contenders for vagrancy law’s replacement today” they are not “by definition…as broad and flexible as vagrancy law. Each targets some people, some conduct, and some places more than others…No Matter how many of them there are, they cannot legally do what vagrancy laws legally did precisely because they have to be specific and obvious while vagrancy laws were broad and hidden.”

This conclusion is, in some sense, inarguable. No existing criminal statutes are so specifically broad and so deliberately comprehensive as the pre-Papachristou vagrancy regime. Policing inarguably moves toward a data-driven model, in which the volume and specificity of data collection are central organizing principles of police departments. But that datalogical (Clough et al 2015) turn explains why injunctions are civil, not criminal, and thus skirt the protections and thresholds that govern interactions between law enforcement and civilians (Stewart 1998). The neological syllogism that collapses the data-driven and the real is the condition of possibility for the smart city. What makes the digital surveillance of urban “everyday life” palatable is the “success” of police strategies that digitize urban life for surveillance. Without successful digital-driven policing strategies, there is no “smart city.”
Papachristou capacitated the CompStat model’s civic reengineering of digitally driven systems of surveillance, labor control, and resource distribution. After Papachristou, law enforcement reorganized along data-driven managerial pathways. No longer “Fordist” in their bureaucratic structure, the new iteration of police managerial structure was “controlled” (Deleuze 1992). That is to say, it was bureaucratized, regulated, and reliant on diligent record keeping. Before the reforms, those traits were thought to be impediments to progress. After digital reengineering, they transformed into necessary preconditions for data-driven “smart” government.

COUNTERINSURGENT COMPUTATION: CALIFORNIA’S GANG INJUNCTIONS

Laleh Khalili points out that this scrupulous attention to legality and bureaucratic process undergirds contemporary states’ prosecution of neo-imperial warfare, or “counterinsurgency” (Khalili 2013). A state demand to meticulously account for the minutiae of bodily comportments, reasonable suspicions, suspect times and spaces, etc., is perfectly in line with standard practice of contemporary warfare. The legal limits that Papachristou imposed were a victory for strict civil libertarianism. But, in that victory, they clarified the failure of civil libertarian discourse’s capacity to effect structural changes (Bell 1973, 1997).

Laleh Khalili points out that such capillary metric power is constitutive of states’ ability to prosecute the mass confinement of civilians while comporting with normative or legal models of “good behavior.” Procedural specificity facilitates the ongoing prosecution of
asymmetric war by “removing the necessity of independent reflection on the ethical dilemmas that are fundamental to asymmetries of power” (Khalili 2013, 240).

By virtue of their ambiguity and broadly drawn criminal mandates, civil injunctions seem to fly in the face of rigid proceduralism. In the context of a “criminal justice” system rooted in legal codes, particular violations and individualized suspicion, they surely would. But injunctions and civil enforcement rather operate as counterinsurgency and “state building” engines, rather than “criminal justice” (Camp 2016, Heatherton and Camp 2016, Glenn 2004, Singh 2018, Woods 2009, 2018). Domestic counterinsurgency’s formally unrecognized status is precisely why America’s data-driven police “wars” generate enormous amounts of data. It is because of their legal ambiguity. Conjured out of a normalized state of exception that frames poor people of color as “street terrorists,” and deliberately utilized to institutionalize racial terror as a population management strategy (Street Terrorism Enforcement and Prevention Act [186.20 - 186.35] 1988; P. Butler 2014; Muñiz 2015; Herbert 1997), contemporary racial counterinsurgency is prosecuted in the context of a formal ban on race as criteria for suspicion.

Gang injunctions are scrupulous, in this regard. They do not “target” by race, but by formally secondary modifiers that, when taken together, produce a racial regime. In the absence of race as ipso-facto just cause, police have turned to data: to the accumulation of biometric markers, nonobvious relationships, networks of affiliation conjuncted with
time, space, and class markers, to police haecceity. The (unacknowledged but inevitable) effect is racial oppression.

In Police Place and Power, Ana Muñiz explains the first gang injunction, issued in Los Angeles in 1987 in Cadillac-Corning (Muñiz 2015). A predominately black and Latinx working class district bordered by middle class white neighborhoods, Cadillac Corning was not an obvious location for stretching Papachristou beyond recognition. It was not, in 1987, a particularly violent neighborhood, or particularly notable for gang activity. But it was located in gentrifying, predominately white West Los Angeles, and it was the zone where the West LAPD district focused most of their resources. LAPD focused especially on a local “gang,” the Playboy Gangster Crips. After a white person on a motorcycle was shot and killed buying drugs in the neighborhood, local police and media framed the area as extraordinarily dangerous, and local prosecutors developed the civil injunction as tactic to force young men of color indoors (Muñiz 2015).

Muñiz points out that the original injunction was explicitly racialized. Police and prosecutors argued that, unlike Latino gangs, which they imagined to be highly organized, and therefore more easily policeable, black gangs like the Playboy Gangster Crips had no meaningful organizational hierarchy. They attributed this to imagined racial differences between Latinx and Black heteronuclear families. Cops supposed that Latinx families were internally rigid, with strong hierarchies and deeply ingrained senses of loyalty and commitment. Black families, on the other hand, were supposed either nonexistent, or inconceivably deviant. In the eyes of law enforcement, the difference in
family structures accounted for racially distinct violence. Latinx gangs, the prosecutors argued, targeted and rationalized violence to comport with strong internal hierarchies. Black gangs, supposedly without loyalty or propriety, were indiscriminate in violence, unpredictable and unpolicable.

City agencies wrote gang injunctions to coordinate race, gender, and age as ipso-facto civil disturbance territorialized in black neighborhoods. The intent was to lock young black people indoors, thus solving the problem of supposedly unpredictable and violent natures (Muñiz 2015, 41-42). As we saw in chapter two, this is the same racial-sexual logic that underwrites the broken windows paradigm of policing in general, and legitimates its attendant regime of data collection. And, like Bratton’s account of Mattapan, the counterinsurgent logic of injunction zone draws metrics and data out of racial-sexual affective structures (Puar 2007).

The Playboy Gangster Crips injunction laid the groundwork for “gang” injunctions that followed. But the practice remained legally uncertain until the end of the 1990s. Two major decisions, People ex rel. Gallo vs. Acuna (1997) 14 Cal. 4th 1090 and City of Chicago v. Morales, 119 S.Ct. 1849 solidified gang injunction law as it is currently understood. In the first case, the California Supreme Court overturned a Court of Appeals decision to strike down most provisions of an injunction order issued by the City of San Jose. The Court of Appeals found in People v. Acuna that the city, in enjoining non-criminal behavior, overreached the constitutional limits established and accepted in the Playboy Gangster Crips case. Consequently, the Court invalidated 15 of the 24
injunctions issued against the Vario Sureno Treces gang in California. The Supreme Court, on appeal, overturned the Appellate court ruling. They found that when an injunction was limited to alleged gang members interaction, then it was within the rights of the city to enjoin non-criminal behaviors like "standing, sitting, walking, driving, gathering or appearing anywhere in public view" together (O’Deane 2012).

This decision settled two questions in California. First, that interdicting everyday embodiment and expression is acceptable when it is relational. The court found that injunctions cannot criminalize individual behavior but can criminalize sociality. Second, and following from the first, injunction is permissible insofar as “gangs” are a public nuisance that impacts the value of private property or the circulation of capital. The definition of public nuisance in the Acuna ruling legitimated injunction claims on the basis of unrealized capital extraction due to congregant racialized bodies (Lonschein 2000).

In a late-20th century iteration of 18th century “Lantern Laws,” (Browne 2015), the courts found that black and brown groups of friends become “gangs” (and therefore a policeable public nuisance) once their bodies threaten the rent-gap (Smith 1987). After Acuna, the racial injunctions of Walker v Benjamin’s collateral bar rule, which stripped the civilly injunctioned of the “the panoply of procedural due process guarantees that attach to criminal penalties.” (Stewart 1998, 2267) were reinstated through the logic of the lantern law. Although, “juridico-discursively” (Foucault 1995), it was no longer permissible to criminalize solely based on race, normatively the law assembled a supposedly discrete and
distributed set of criteria into apartheid-by-proxy. Taken together at police discretion, being “black” or “brown,” wearing colors, moving through space, and being convivial became legally reimagined as civilly injunctable because they pushed a community past a “tipping point” of high property values and relative safety. When one’s bodily coordinates converge in this datafied field of social death (Cacho 2012; Patterson 1982), one can be prosecuted outside of the formal structures of criminal law. Or, to travel back to the future and invoke Microsoft’s back-office parlance: injunction is predicated on “risk.”

The Supreme Court decided in Chicago V Morales that this datafied economic standard separates constitutional injunction from unconstitutional ordnance. In that case the court decided that Chicago’s city ordinance presented too high a threshold for the vague anti-loitering language of Chicago’s 1992 Gang Congregation Ordinance. The Supreme Court found the city in violation of Papachristou’s constitutional protections against vagueness because the ordinance was based on criminal, not civil grievance. Gangs, then, were a civil matter of resource extraction – a question of how and where to geographically fix bodies in order to make capital flow (Gregory 2011; Gilmore 2007).

The Cadillac-Corning injunction passed before the 1988 Street Terrorist Enforcement and Prevention Act that added increased criminal penalties for any person that “actively participates in any criminal street gang with knowledge that its members engage in or have engaged in a pattern of criminal gang activity, and who willfully promotes, furthers, or
assists in any felonious criminal conduct by members of that gang” (Street Terrorism Enforcement and Prevention Act [186.20 - 186.35] 1988). Law enforcement determines “gang membership” based on three criteria: “associating with known gang members, being seen in a known gang neighborhood – such as sections of Compton in the Los Angeles area, the Fillmore District in San Francisco and the Skyline area of Southeast San Diego – or wearing attire that might be gang related, such as a red San Francisco 49ers hat (Norteños/Bloods) or the blue caps of the Los Angeles Dodgers (Sureños/Crips)” (Winston 2016).

In Los Angeles, police violence and discretion ramped up in the decades after the Watts rebellion (Institute for the Study of Labor Economic Crisis 1982). By 1987, Darryl Gates – the racist (The New York Times 1982) godfather of Special Weapons And Tactics (SWAT) – had been chief of the LAPD for nine years. In that time he institutionalized violent, “excessive” counterinsurgency through programs like Community Resources Against Street Hoodlums (CRASH, formally called Total Resources Against Street Hoodlums - TRASH), mass arrests designed to lock down Los Angeles in advance of the 1984 Olympics, and Operation Hammer (Davis 2006; Zirin 2012). As in New York over the same time period, the rise of “community,” data-driven policing happened in tandem with the normalization of militarized counterinsurgency as baseline policing logics (Heatherton 2018, Camp 2016, Murakawa 2008, Gilmore and Gilmore 2016). Injunctions, in other words, were not an anomalous police strategy so much as a formalization of existing protocols of violent sequestration, abuse, and indiscriminate arrest.
Injunction zones’ lower thresholds and frameworks that govern criminal apprehension and prosecution. For all intents and purposes, injunctions reinstate the criminal racial statutes that Papachristou evacuated as racialized “civil” ordinances. Because they are civil injunctions, courts can de facto criminalize non-criminal behavior, like “loitering” in public, wearing specific colors, placing milk crates near walls, etc. And, because police prosecution of violations is civil and not criminal, the targeted have no right to representation (among other suspensions of civil protections). Moreover, civil injunctions’ ordinant status gives judges leeway to set extraordinarily low thresholds for what constitutes violation. For example, exculpation from the CalGang database requires two years without contact with law enforcement. For (especially) young people of color that live in injunction zones, this borderlines on impossible, and goes some way to describe why CA-DOJ approves so few appeals for removal (Winston 2016; Muñiz 2015).

Like in New York, where zero tolerance transformed informal sociality into criminality, and laid the groundwork for a carceral database, the injunction regime produced a radical inflation of “gang members” in California. When STEP passed, the state logged the new data in an ad-hoc database called GREAT. By 1993 - one year after the Los Angeles Rebellion, the subjugation of which the RAND Corporation refers to as a successful “domestic case study” of Military Operations in Urban Terrain (military jargon for urban counterinsurgency) (R. W. Glenn and Cherry 2000; Camp 2016) - the STEP generated enormous numbers of “gang members,” distributed in increasingly rural and sparsely populated areas. The density and geography overwhelmed GREAT, and the state began
contracting to develop a new comprehensive, searchable system. In 1996, the Orion Corporation built a working prototype of CAL/GANG, which they tested in San Diego. It was online statewide by November 1999. By May 2015, it contained over 150,000 people (Winston 2016).

A principal shortcoming of GREAT was that it was DOS-based, and therefore textual. This limited officers’ case management abilities, because it tethered identifying markers to individuals’ names. Requiring officers to know names in advance prevented them from searching based on other imagined criteria, like common physical markers. CAL/GANG resolved this by cataloguing “just about every piece of information available, including tattoos, mugshots, vehicle types and photographs, nicknames and known associates” (Mace 2000). California DOJ explained this new approach by arguing that “gangs of every type survive and prosper by creating internal links and tiers of power. Through an easy graphical user interface (the web browser), CAL/GANG allows officers to use collected gang data and images to use collected gang data and images to track, retrieve, and analyze gang-related information” (Ibid.).

New querying protocols expand the domain of actionable “data” and distribute it across time and space. It was the penetration of the GREAT database into the rural hinterlands of California, and the subsequent collapse of coherent methodologies of text-based querying that drove the DOJ to build out CAL/GANG. And CAL/GANG was meant to be “more than just a database of information.” Instead, it was an “investigative tool that allows investigators to quickly create and illustrate links between different information.”
Anticipating where data analytics were headed, a CA-DOJ report on the new system pointed out that the “data and the link and image tools can all be accessed through laptops in the field” (Ibid.). The ultimate goal of CAL/GANG was to make biometric information that would be formally inactionable outside of injunction both available and actionable across porous jurisdictional boundaries. Logging biometric data somewhere was no longer an issue of convenience for local enforcement, but a necessary precondition for policing networks of people flung across state, and national boundaries.

Developing this data network also intensified police focus on the bodily. After the introduction of CAL/GANG and the passage of STEP, Tattoos, and other easily identifiable body modifications and marks were elevated from secondary concern, to primary. This reorientation of police gaze – towards the evidentiary structure of the Case Management Systems, and the organizational logic of the database, prefigures the ascendance of biomedia, and the re-evaluation of “soft” biometrics as measurable and codifiable science (Thacker 2004; Hayles 2005; Hansen 2006).

Although Papachristou outlawed vagrancy laws on the basis of racial prejudice, and group suspicion, CAL/GANG used new digital technologies to racially assemble bodily disposition, affect, clothing color, time of day, weather, and modification into “non-racial” proxies for datalogical apartheid.

Much the same way that the bar code heralded the rise of data mining, the capacity to log and categorize the particularities of differentiated embodiment spurred an intensive
ingression of law enforcement’s racial gaze into the supposedly “deracialized” networked population. Big data law enforcement, in other words, starts with the conversion of centralized police intelligence services from text query to Enterprise Content Management.

Under the conditions of this transformation, the medium – which is to say the field-accessible “data and link and image tools”– descales the conjunction of bodily vulnerability and populational threat (Thacker 2005; P. T. Clough 2004; Puar 2007). The combination of STEP and injunctions fed forward the racialized suspicion of the carceral state into a granular mechanism for data collection and collation. CAL/GANG eclipsed the epistemological daylight between police work, and data mining.

It is precisely because Papachristou ordered data collection disaggregated from “generalized suspicion” of race, gender, and class that law enforcement became obsessed with the particular, the mathematizable, and the algorithmic. Injunction zones produced a legally gray end-run around the Papachristou decision that encouraged mass data collection as a legitimating strategy. Tactics associated with Broken Windows, Order Maintenance, and Zero Tolerance policing were developed in the wake of the “vagueness” body blow to American law enforcement, and are designed to extend the discretion, reach and capacity of American police departments. “Precision policing” exists, in short, because vagrancy laws don’t.

**Carceral Computation: New York’s Stop, Question, and Frisk**
New York offers a parallax view of how the tactics of data collection compounded with counterinsurgency to lay the groundwork for the post-9/11 turn toward digital-forward command and control systems. There are a great many differences between policing in New York and Los Angeles, not the least of which is that the sort of territorial injunctions that have almost come to define California’s policing have never officially taken hold in New York State. That is not, however, for lack of trying.

Like in Los Angeles, civil enforcement became a popular NYPD strategy during the violent reorganization of New York’s political economy in the 1980s and 1990s. New York City’s passed the first Nuisance Abatement Law in 1977 in the midst of a moral panic over the sex trade in Times Square (P. J. O’Connor 1977). That piece of legislation identified 19 classes of “nuisance” that merited the city’s Office of Corporation Council to file for an injunction against a violating commercial operation. Advocates saw the law as an improvement over the criminal justice system, which was too specific in the relation between charges, convictions and punishments of civil offenses. In short, the law argued that sex work was not individualized, but was instead dependent on infrastructures of labor and land. Prosecuting sex workers criminally did nothing to address the larger structural preconditions – like access to real estate and employment structures – that make sex work possible. So, the Nuisance Abatement Law provided for the confiscation or padlocking of entire businesses, and injunction against all parties affiliated with an enterprise found to violate one of the nineteen nuisance clauses.
That the law largely targeted queer people, people of color, and the poor, as part of a broader City war on sex is well documented (Mogul, Ritchie, and Whitlock 2012; Hanhardt 2013). But it was not implemented systematically as part of a broader project of mobilizing civil enforcement to assert City control over space and comportment until Ray Kelly and Jeremy Travis developed the Office of Civil Enforcement in the early 1990s. Bratton’s implementation of Police Strategy No 5, in 1994 (New York City Police Department 1994; Vito, William F Walsh, and Julie Kunselman 2005) exploded the practice, and transformed civil enforcement into a first order, generalized tactic (Silverman 1999). In Strategy No 5, the NYPD orders the reassignment of attorneys from the Department’s Legal Bureau to precincts throughout the city, where they were to work directly with precinct commanders to develop enforcement strategies for a range of “vexing, difficult, and persistent quality of life conditions.” The Strategy also effectively doubled the number of precincts with active Civil Enforcement Initiatives.

Civil Enforcement expansion was the most popular CompStat reform amongst police managers, and the reasons are self-evident. One officer explained the appeal succinctly:

“NYPD’s use of their civil enforcement unit proved to be a remarkably effective tool for fighting crime and disorder. By placing the emphasis on property and its owners, this tactic identifies a defined target for police efforts. With thresholds lower than criminal convictions, civil remedies enable police departments to seize or shut down properties continuously used in criminal activity” (Vito, William F Walsh, and Julie Kunselman 2005).

Given the popularity of Civil Enforcement as a technique, its broad (and widening) enforcement mandate under the Giuliani administration, and its spatiotemporal organization through the CompStat mapping and management process, it is unsurprising
that the City tried to expand its application from particular private property to generalized injunctions in the style of California. There seems to be little intuitive difference between a designated zone of social banishment specifically delimited and enjoined by the civil court, and a more informal one driven by police maps. The court disagreed.

In 2000, the year after the US Supreme Court ruled anti-gang ordinances unconstitutional in Morales, and two years after the California Supreme Court ruled broad-based injunctions constitutional under Acuna, New York City filed a petition for extraordinary injunctive relief to control street prostitution in the Queens Plaza neighborhood in Queens, New York. The city, following the logic laid out in Acuna, argued that the public nighttime sex trade in Queens Plaza had such deleterious effects on the commerce and quality of life of the neighborhood that it constituted a public nuisance. They asked the court to order temporary restraining orders against 37 named persons, both alleged sex workers and “pimps.” The City named 21 defendants as members of the “Bloods,” and asked that the court issue an injunction order between 11pm and 7am. Notably, the non-criminal behavior that the City sought to enjoin the defendants from was copied, almost directly, from the Acuna decision, and included “Standing, sitting, walking, driving, gathering or appearing anywhere in public view” (Lonschein 2000).

The judge, Arthur Lonschein, emphatically “dismissed in its entirety” the city’s request on both narrow technical, and broader constitutional grounds. On the one hand, he argued that the city failed to concretely make its case against the particular individuals named in the request for injunctive relief. The judge found that the city did not provide the hard
evidence necessary to demonstrate that the named “pimps” really were in control of the sex trade in Queens Plaza. The City relied on testimony from officers that the judge noted “went beyond mere hearsay, and consisted of general reputation among police officers or mere rumor.” He found this testimony to be “flagrantly improper and inadmissible” (Ibid., 8). He also found that the City did not provide sufficient evidence that the named defendants’ “civil banishment” would actually end the sex trade, given that the City suggested that it was “the Bloods” as an organization, rather than individuals that were in control. Second, it was unclear whether “the Bloods,” rather than opportunists, actually ran the trade.

The judge found that the City’s request for relief “goes at once too far, and not far enough.” By enjoining the defendants broadly from Queens Plaza, Lonschein thought that the City unconstitutionally restricted their constitutional right to intrastate travel. And, by drawing the injunction narrowly against named defendants, the city failed to prove the balance of equity. In other words, the city didn’t demonstrate that the putative benefits of injunction (that it would putatively eradicate the sex trade in Queens Plaza) outweighed the constitutional costs. Lonschien argued that the City never proved that enjoining named defendants from public space would in fact eradicate the sex trade.

The latter point is crucial. Lonschein found, not that the sex trade in Queens Plaza did not create a nuisance, but that the civil court’s authority to enjoin the activities of individuals is predicated on whether said nuisance sufficiently “impairs a property right” such that “equity will intervene.” The nuisance created by the sex trade, he found, “adversely affects
property interests not only of the city itself but of all the legitimate people and businesses in the Queens Plaza area.” But, for Lonschein, the proposed injunction would not, in effect, grant equitable relief to the city. The property rights and values of the “legitimate people and businesses” in the enjoined area would not be saved by injunction against the particular individuals named by the city, and therefore equity was not appropriate. This logic is central to the court’s rejection of Acuna as an appropriate case on which to base their injunction. In Acuna, the judge notes, “the defendants were not forbidden from entering the Rocksprings Neighborhood. They were forbidden from associating with each other within its borders, which is quite a different thing.” The City, in other words, failed to demonstrate the need for injunction because it named individuals and individual actions, rather than organizations and affiliation, in the context of a public street (Ibid. 13-15).

This ruling is predicated on a distinction between individuals and networks that (as we saw in Part I) the NYPD had been officially blurring since the early 1990s. City v. Andrews killed the NYPD’s efforts to introduce California-style gang injunctions to New York, but it did not kill civil enforcement. In fact, the rise of the City’s use of civil injunction as a strategy directly correlated to the rise of CompStat. That system’s digitally driven managerial infrastructure is predicated on breaking down the distinctions between public, private, individual, group, and network on which Lonschien’s dismissal rests.
For the NYPD, the legalistic particulars of counterinsurgency are less important than the practical effects: first, that networks continue to be mapped, and that data continue to be collated. Second, that the effect of these intelligence gathering strategies is both tactical, in that they effectively facilitate the accumulation of actionable data, and strategic, in that they also project force against a non-isometric target population (U.S. ARMY/MARINE CORPS COUNTERINSURGENCY FIELD MANUAL. 2015). The NYPD localized this dual mission in a piece of paper called UF-250, which, after 1997, officers were ordered to complete every time they performed a “Terry Stop.” These stops are colloquially known as Stop-and-Frisk (Berry 2000).

The histories of stop and frisk in New York City, and, in particular, its impact on communities of color, has been extensively documented. Rather than rehash this history, I want to very briefly point to how Stop-and-Frisk functioned as a modular tactic of counterinsurgency in three interlocking ways. First, in the 1990s, as a nebulous tactic first strike centered in an “elite” Street Crimes Unit. Second, after the 1997 mandate that officers rigorously complete the UF-250 form when conducting stops, as a mechanism for massively inflating the NYPD’s databases. Third, as a legitimating tool that, in conjunction with CompStat, stabilized an official logic of policing as a context-free, data-driven “medium of contingency” (Ayache 2010, 2015) best understood by third party data analytics technologies.

Stop-and-Frisk was attractive to the NYPD because it allowed the department to do the work that gang injunctions do in California. A lower legal threshold than formal arrests
or searches governs “Terry Stops.” Instead of probable cause, a police officer is empowered to initiate a Terry Stop when they have “reasonable suspicion” that a person is carrying weapons, or more broadly, “whether a man of reasonable caution is warranted in believing that the action taken was appropriate” (Warren 1968). This language granted officers broad leeway in determining whether or not a stop was warranted, and facilitated an informal policy of civil injunction by proxy (P. Butler 2014). Through the 1990s, the city concentrated this tactic in its roving Street Crime Units. In 1997-1998, the SCU was responsible for fully one-third of filed UF-250 reports. These were plain-clothes squads that did not respond to radio calls or requests for service. They were, like CRASH units in LA, “proactive.” In practice, this meant that the SCU adopted an extraordinarily aggressive stance, and was under intense pressure to make high quotas for arrests and stops (Berry 2000). Over ninety percent of the time, the unit targeted black and Latinx people (Fagan and Davies 2000; Berry 2000). This pattern of aggressive, racially organized policing predictably generated appalling violence that culminated in the 1999 killing of Diallo. Like CRASH, the SCU was dissolved amidst intense popular rebellion (McArdle and Erzen 2001). In 2002, concerted organization from the Coalition Against Police Brutality, and the class action Daniels v. New York City drove Commissioner Kelly to officially disband it (Rashbaum and Baker 2002).

But, while the city disbanded the SCU as a dedicated unit, it affirmed its tactics as Department protocol. Terry Stops increased enormously between 2002, when the city officially stopped New Yorkers 97,296 times, and 2011, when the department stopped
people 685,724 times. Each stop generated data that was, until 2006, manually entered into a database by a central processing unit in the Department. After 2006, the Department contracted a third-party vendor to automate the process. Each stop generated four pieces of data: “system-generated location coordinates, a suspected crime field, and a system-generated code for the officer preparing the report.”

As in California, the adoption of counterinsurgent, injunctive practices generated data on a scale that overwhelmed legacy collection and analysis tools. Beginning in 2004, with $11 million made available from the private Police Foundation and the new Department of Homeland Security, the Department began investing in a new way of making sense of the data. Contracting with IBM, the Department developed a control room that could “consolidate the Department’s intelligence resources and data in order to help identify patterns and stop emerging crime.” Initially focused on shootings and homicides, the Center gradually expanded to track other serious crime. In 2005, it had access to “More than 5 million New York State criminal records, parole, and probation files. More than 20 million NYC criminal complaints, emergency calls, and summonses. More than 31 million national crime records. More than 33 billion public records.” They were linked by IT provider Dimension Data to satellite images and mapping technologies to geospatially tag crime trends, suspect’s known addresses, and “locations to which the suspect might flee” (Riley 2010). This new nerve center demanded a new mode of making sense of information and, like in California, NYPD turned to Case Management Systems. In 2006, they contracted with ABM America (Now ABM Software, then a subcontractor of

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14 http://www.nyCLU.org/content/stop-and-frisk-data
15 http://www.nyCLU.org/files/Stop-and-Frisk_0.pdf
Motorola) to implement Prochart. Prochart was built to allow detectives to “to mine the vast amount of data collected by the department, unlocking the patterns and trends within” and to “view hidden and indirect relationships between incidents and offenders across all New York boroughs” (PoliceOne 2006). This is the language of the data mining industry. It is “Big Data” avant la lettre.

Just as in California, old querying logic could no longer make sense of the amount, granularity, and classes of data that NYPD’s digitized surveillance operations generated. So, Prochart reorganized database querying as a centrally visualized case where “information from multiple live databases is simultaneously represented in one chart reducing the time spent searching for information” (Ibid.).

As in California, the establishment of the Case Management System reorganized the gaze of the police towards the bodily particular. By 2010, the RTCC had a fully operational tattoo database, as well as “a database for body marks, like birthmarks and scars. It keeps track of teeth, noting missing ones and gold ones. It keeps track of the way people walk: if there is a limp, it notes its severity. And it has a so-called blotchy database, of skin conditions” (Schmidt 2010). This vast database of bodily specificity was the byproduct of the UF-250 form’s biometric fields: sex m/f, race – six options, height, age, weight, height, hair, eyes, build, “other (scars tattoos, etc.)”.

UF-250 forms had several distinct fields. There are nine boxes that the officer might check off explaining why they stopped a person on the street. They are broad, and include
“wearing clothes/disguises commonly used in commission of crime” and “furtive movements. If an officer decides to frisk the person that they have stopped, again, have nine justification boxes. These are more specific, in theory. All but one explicitly or implicitly state that the officer believed the stopped person to be violent or carrying a weapon. In practice, as the court found in the 2013 Floyd ruling that “suspended” the practice, the forms remained quite broad.

In addition to the justifications boxes is a “Additional Circumstances/Factors” field that suggests that sociality and liveliness are suspicious. Possible additional circumstances include “Time of Day, Day of Week, Season Corresponding to Reports of Criminal Activity,” “Proximity to Crime Location,” “Area Has High Incidence of Reported Offenses Of Type Under Investigation,” and “Ongoing Investigations e.g. Robbery Pattern.” These options can only useful in the context of a robust program for collating, tracking, and analyzing crime data. Mapping it across space and time, and subdividing it into seasonal stratifications of the working day is a necessary precondition for the additional circumstances/factors to flesh out the regime of information gathering. In other words the legitimating context for “reasonable caution” is CompStat. CompStat squares the injunctive circle, and turns social contingency into carcerality. The digital map does not so much act on the world as create a “medium of contingency.” Transforming policing into a stochastic numbers game provided the conditions for the hyperinflation of stop and frisk as a police tactic. And stop-and-frisk, in turn, generated the sorts of datasets that could only be sorted out by the practices developed and driven by the rising data mining industry.
The antiseptic ideology of data science has lent a nonviolent veneer to this accumulation of mathematics in the populational reorganization of police work. But it is impossible to dissociate the infrastructure of carceral data science from the systematic and generalized police violence of the 1980s and 1990s. Data driven policing emerges from a long running domestic counterinsurgency that sometimes admits that it was a war (on drugs, crime, or gangs), but usually hides behind rhetoric of community assistance and protection (Khalili 2013; Gilmore and Gilmore 2016; Institute for the Study of Labor Economic Crisis 1982; Hinton 2016; Schraeder and Crane 2015). It was not a state of exception brought on by 9/11 or the War in Iraq that introduced CompStat or police analytics to the United States. It was, instead, the unexceptional commitments of “warfare in the American Homeland” that brought CompStat and analytics to Afghanistan and Iraq (James 2007; Mitchell 2010; De Genova 2012, 2007).

The counterinsurgent turn towards the bureaucratization and regulation of parochial practices, and the demand for precision measurement of legally floating injunctioned space, are the conditions of possibility for “big data” in law enforcement, and government. They work together to conflate the logics of policing and governance with the increasingly technocratic goals of an ascendant tech industry. Counterinsurgency, exemplified by the turn towards legalistic injunction, has the counterintuitive effect of transforming the logics and rhetorics that frame crime control and governance as engineering problems rather than social ones.
SIX: GAMING BRUTE FORCE

The fact that we cannot telegraph the pattern of a man from one place to another is probably due to technical difficulties, and in particular, to the difficulty of keeping an organism in being during such a radical reconstruction. It is not due to any impossibility of the idea.

Norbert Weiner,
*The Human Use of Human Beings*

Alienation used to diagnose the condition of a population becoming foreign to itself, offering a prognosis that still promised recovery. All that is over. We are all foreigners now, no longer alienated but alien, merely duped into crumbling allegiance with entropic traditions.

Sadie Plant and Nick Land,
“Cyberpositive”

Between 1994 and 2006 the Clinton administration signs the Violent Crime Control and Law Enforcement Act of 1994, the Personal Responsibility and Work Opportunity Act, the North America Free Trade Agreement, and repeals Glass-Steagal. The Bush administration signs the USA PATRIOT Act, the Joint Resolution to Authorize the United States Armed Forces Against Iraq, the Homeland Security Act of 2002, the Bankruptcy Reform Act of 2005, and the raft of tax cuts and aggressive home ownership policies that will cumulatively destroy the economy by 2007, and set the stage for the contemporary conjuncture in digital-carceral capitalism. In response to many of these government acts and their second order effects, police departments at all levels in the 1990s and 2000s invest heavily in the expansion of counterinsurgent carceral data collection and surveillance strategies.
Crime mapping, for instance, is a national policing priority. Between 1995 and 2002, the federal government’s COPS office provides $53 million to police agencies specifically earmarked for acquiring technology and training staff. In 1997, the Department of Justice creates the Mapping and Analysis for Public Safety Program to fund research and dissemination of Global Information Systems (GIS) technology. Environmental Systems Research Institute (ESRI), establishes itself as a GIS market leader by combining mapping with data mining public records, and selling the product as “business intelligence” (Noble 2011). In 1998, the National Institute of Justice creates the Crime Mapping and Analysis Program to systematically train crime analysts to use ESRI’s ArcGIS and MapInfo (Santos 2013, 52-53). In 1999, Dr. Ned Levine develops the first workbook specifically made for mapping crime incidents using common GIS software running on Windows system. He calls it CrimeStat (Levine 2010). In 2007, the NIJ is directly distributing the third version of CrimeStat, called CrimeStat III. It contains plug-and-play algorithms for crime mapping in ArcView, MapInfo, Atlas*GIS, Surfer for Windows, and ArcView Spatial Analyst. In the introduction to the workbook, Levine articulates what might as well be the slogan of the emerging paradigm, insisting that “crime is geography. Policing is geography” (Ibid., 3). Space constricts.

On the ground, these developments translate into concrete transformations in the organization and operation of police departments. In 2004 in New York the NYPD completes its Homeland Security-Funded Emergency Operations Center in time for the Republican National Convention. Based out of this operations center are four units that did not exist in 1993: The Technical Assistance Response Unit, which handles video
surveillance. The CompStat Unit, in charge of managing and analyzing that program’s data. The TrafficStat Unit, dedicated to collecting and analyzing traffic data. And NarcoStat, which never publicly releases its data (Stokes 2005). In 2005 the NYPD stops, questions and frisks people 398,191 times. That is about four times as many stops as they recorded in 2002, but only slightly more than half than of what they will record at the program’s peak in 2011. The data on those UF-250 forms are meant to be fed into the department’s databases, and mapped.

The private sector also undergoes a profound transformation. In 1993, people can privately register domain names for the first time. By 2005, “tech” has consolidated as a titanic set of closely interrelated industries – hardware, software, e-commerce, logistics, etc. – whose boundaries are increasingly porous. The 90s see the rise and then the collapse of web 1.0. By the early 2000s, observers talk about web 2.0. Its contours are taking shape. Google goes public, and is valued at $52 billion in 2005. This is possible because algorithms have been protected intellectual property for a decade. Expanding data storage, improved mining techniques, and a renewed push to truncate logistics chains usher in the new gold rush. Facebook launches in 2004. In 2005 it begins its rollout to non-Ivy League colleges and universities. It will have 6 million users by year-end. Amazon expands beyond books in 1998 and begins its deliberate consolidation over online retail (Hansell 1998). In 2005, the company launches Mechanical Turk, inaugurating the scramble for the “gig economy.” It prepares to launch Amazon Web Services in 2006. AWS will corner the market on the cloud storage and remote database
services required for web 2.0. It is why we currently live in a universe of big data and networked things.

The decade, in other words, sees a simultaneous hard take off of digital surveillance and economic enclosure (Andrejevic 2007). Improving computer technology plus the consolidating norm of data-driven counterinsurgent policing together spark a veritable cottage industry in new criminological forecasting techniques. The NIJ and Police Foundation fund high-profile studies of the efficacy of approaches like Place Based Policing, Problem-Oriented Policing, Hot-Spot Policing, Crime Mapping and data mining at major research institutions. In the main, these studies draw on theories from the late 1970s and 1980s like Routine Activity Theory (L. E. Cohen and Felson 1979), and Computational Criminology (Brantingham and Brantingham 1981).

These studies have been valuable for analysts, and for the development and implementation of crime mapping and analysis techniques. But they also have a core limitation. They are criminological, and are constitutively unable or uninterested in articulating a coherent vision of the relationship between crime and capital, embodiment and policing. They are narrowly technical treatments pursued at a political-economic conjuncture that is driving wholesale reorganization of basic social relations. As a philosophy of governing, they are limited. Broken Windows does not have this problem. By suturing RANDian operations research and advancing digital surveillance technologies to the increasingly codependent logics of counterinsurgent policing and
algorithmic labor CompStat-Broken Windows provides a structure of governmentality. It adumbrates a proper art of carceral accelerationism.

Over a roughly fifteen-year period, from 1993 to 2009, Mark AR Kleiman drove the efforts to develop a computational model of Broken Windows. The idea was to provide a mathematical basis for that particular set of ideologies in order to translate its tenets into formally technocratic best practices. Kleiman, like the creator of CompStat, Jack Maple, imagines crime and crime control cybernetically. But, whereas Maple’s “Charts of the Future” invokes Game Theory and the logics of cybernetic control intuitively and analogically, Kleiman is deliberate, and literal. His work is a hinge between the CompStat paradigm of crime control, and the predictive model of policing the virtual that has emerged in the 2010s. In trying to present a mathematical basis for the necessary and just extension of the digital surveillance state, he updates the RAND and Harvard tradition of Operations Research for the dot-com era.

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In 1993, while a faculty member of the John F Kennedy School of Government, Kleiman published “Enforcement Swamping: A Positive-Feedback Mechanism in Rates of Illicit Activity” in the journal Mathematical Computer Modeling (Kleiman 1993).

“Enforcement swamping” is Kleiman’s update of the Broken Windows problem. But whereas Kelling, Wilson, et al. rarely explicitly invoke “deterrence” as the operative logic of broken windows (relying, instead, on vague appeals to the health and well being of “the community”), Kleiman builds his model around it. Enforcement swamping presumes a number of conditions.
First, that deterrence is the proper target of policing. And that the effectiveness of
deterrence is best modeled economically as “the price-elasticity of demand for criminal
activity, with the price understood as some function of the probability and magnitude for
any given act” (Kleiman 1993, 65).

Second, that in 1992 the American prison system is operating beyond its capacity and is
therefore a limit case. Since “confinement” is the “primary means of punishment,” and
prisons and jails are overcrowded, the state’s capacity to punish “is saturated.” This sets
the condition for “swamping” since, under saturated conditions “the rate of punishment
per crime must fall as the number of crimes rise…Diminished deterrence will tend to
generate more criminal activity, further reducing punishment per crime, and so on” (Ibid.
66).

Third, that crime rates are inappropriate proxies for the impacts of crime and punishment,
which cannot be measured. In fact, he concedes, the relationship between crime and
punishment has “an unknown but complicated lag structure that makes causal modeling
difficult.” Compounding this problem, Kleiman argues that the real impact of crime and
punishment is confused by the precautions that “potential victims” take in response to
possible criminal activity. These precautions can cause “the rate of completed crimes to
rise more slowly that the willingness of offenders to commit crimes.” This increases the
social damage of criminal risk because “crude calculations suggest that the cost of
avoiding crime are, in aggregate, greater than the costs of completed crimes” (Ibid.).
Kleiman is reestablishing the broken windows paradox: on the one hand, measuring crime is “what matters,” but on the other hand, “crime” and its effects are empirically immeasurable. But here Kleiman breaks from the orthodoxy of the Broken Windows trust. That orthodoxy claims that the inhering crisis of the social world outstrips empirical interrogation and therefore puts prerogatives of police forces in the realm of affect, and outside of accountability. Kleiman, accepting the premise, makes a different epistemological claim. No, he argues, one cannot measure the relationship between crime and punishment, or evaluate whether deterrence works. But, empirical failure does not preclude the interested scholar from building a model. The most powerful discipline in the social sciences is built on exactly this premise. And, so, it is to economics – and to his teacher Thomas Schelling’s “Tipping Point”\footnote{Malcolm Gladwell’s insipid \textit{Tipping Point} made a garbled version of this idea liberal common sense for a mercilessly long time.} in particular – that Kleiman turns.

Thomas Schelling’s story is intimately bound up with the development of Game Theory at the RAND Corporation. He was instrumental in driving that institution’s adoption of the Nash equilibrium model as the logical infrastructure for the emerging field of computer modeling. The Nash Equilibrium subsequently absorbed economics in the 1980s and 90s, and brought its paranoid brand of non-cooperation and non-communication to neoliberal economics and governance (Mirowski 2002). The story of how that happened is interesting, long, and thoroughly recounted in several other places (Mirowski 2002; Hayles 1999; Pickering 2011). Rather than reproduce it here, I will instead flag some rudimentary background on the “tipping point” that is helpful for...
reading Kleiman, and clarifies his importance to the transforming logic of data-driven policing in the 1990s and 2000s.

Schelling’s tipping point thesis is a reskin of his 1960 work on nuclear deterrence, The Strategy of Conflict. In that work, Schelling adopted John Nash’s Equilibrium to the study of nuclear warfare. He made the case that Nash’s hyperrationalist interpretation of game theory as conflictual, noncommunicative, and context-independent is ideally suited to modeling how to properly ratchet deterrent apocalypse in the context of high-stakes cold war negotiations (Mirowski 2002, 365-367). But, whereas Nash’s equilibrium amounts to a fixed-point solution to a non-cooperative game with bounded goals (in which both players with mutual desiderata “realize” that all possible moves to achieve said desiderata are exhausted, and therefore reach halt at equilibrium (Nash 1950; Mirowski 2002, 340)), Schelling expands Game Theory to apply to “the aesthetic properties, the historical properties, the legal and moral properties, the cultural properties” (Mirowski 2002, 367). In moving the “object” of the game from Nash’s particular and theoretical, to a generalized social and aesthetic, Schelling accomplishes two things.

He imagines game theory as a context-independent model for any “conflict between adversaries” including, but not limited to “negotiations, war and threats of war, criminal deterrence, tacit bargaining, extortion.” For Schelling, Game Theory enables the analyst to recognize the “enlightening similarities between, say, maneuvering in limited war and
jockeying in a traffic jam, between deterring the Russians and deterring our own children” (Schelling 1960).

Too, he makes game theory incomputable. That is to say that, in insisting on the transcendent validity of the context-independent model, Schelling eliminates not only the possibility of empirically calculating any instantiation of the Nash equilibrium (already its biggest problem), he eliminates any incentive for calculation or empiricism. Such a determination is predicated on Norbert Weiner’s original cybernetic assumption: that the introduction of stress paradoxically works to rationalize and automate (rather than scare, or frustrate) the behavior of the “player” of the game. This, in turn, blurs the distinction between “man and machine” (Mirowski 2002, 367).

This presumed rationality in the face of threats is a necessary condition for Schelling’s social models’ context-agnosticism. It allows Nash and his interlocutors to posit, as a precondition, that the more complex and high-stakes the “game,” the more individuated and hermetic the players, the more automated their self-interested responses. It transforms the bloody guts of human decision into binary automata, and presents the entirety of social life as an infinite loop of the prisoners’ dilemma.

This is the theoretical premise for Schelling’s effort, in Micromotives and Macrobehavior, to logically explain racial segregation in American cities through a thought experiment. He calls it the “Tipping Point.” For Schelling, segregation is a function of what he calls “economics,” which he defines as aggregate effects of any
individuated decision that can reasonably be said to operate in an environment, “modeled on market principles” (Schelling 2006, 34). “Individuals” in his economic model are unit that can engage in specific transactions with unified purpose. A human is as much an “individual” as an insurance company, so long as decisions’ benefits and consequences accrue to the decedent in toto (Ibid. 21). The market in which these individuals are enmeshed is any system in which “everybody affected is a voluntary participant” in a transactional process of exchange. This means that the market is a communications network. All “participants” in the market intrinsically affect it when they act (Ibid. 28).

From this premise, Schelling defines segregation as an abstract market effect, as merely “separation, or sorting.” Consequently, his model can only address the “kind” of segregation that “can result from discriminatory individual behavior” (Schelling 2006, 138). Therefore, although the particular concern of the tipping point analysis is “segregation by ‘color’” it is “so abstract that any twofold distinction could constitute an interpretation – whites and blacks, boys and girls, officers and enlisted men, students and faculty. The only requirement of the analysis is that the distinction be twofold, exhaustive, and recognizable” [emphasis added]. This definition is troubling and wrong for several reasons, not the least of which is that segregated housing policy produces race and racial difference, rather than reflects it. More “abstractly,” Schelling uncritically reiterates the insidious logics of American racial difference as definitional. First, the lie that “race” is “two-fold,” and that “race” is euphemistic for “black.” Second, that race is “exhaustive,” which is to say stable, and coherent. And third, that it is “recognizable,” which is to say intuitive and obvious (Omi and Winant 1994; HoSang, LaBennett, and
It is little surprise, then, that he admits at the outset that his discussion of segregation does not, and cannot address racism. To whit, he concedes that:

“At least two main processes of segregation are outside this analysis. One is organized action – legal or illegal, coercive or merely exclusionary, subtle or flagrant, open or covert, kindly or malicious, moralistic or pragmatic. The other is the process, largely but not entirely economic by which the poor get separated from the rich, the less educated from the more educated, the unskilled from the skilled, the poorly dressed from the well dressed – in where they work and live and eat and play, in whom they know and whom they date and whom they go to school with” (Schelling 2006, 138).

Rather than explain processes that produce and reproduce racially segregated housing, the “tipping point” works to partition racial capitalist realities, what Stuart Hall calls “the modality in which class is ‘lived,’ the medium through which class relations are experienced, the form in which it is appropriated and fought through” from the “logical” explanation of segregation (Hall 1978, 341). The tactics of racial class war’s accumulation by dispossession (Harvey 2004) exemplified by deliberate maldistribution of wealth, organized denial of housing, systematic asset stripping, massified prison industrial complex, and etc. are excised from the “economic” social model that he imagines.

Schelling develops these arguments at Harvard in the 1970s, a mere handful of miles from where Bill Bratton is extracting his theories of policing racial and sexual difference from the bodies of black folk in Mattapan. Where Bratton arrives at Broken Windows - race war that dares not speak its name - Schelling sees in the throes of the bussing crisis, and in the rebellion and counterrevolution of the 1970s, the conditions for cellular automata thought experiment. Not for the first or last time, American liberalism articulates its commitment to extractive racial violence through bland appeal to calculative clarity. He
merely substitutes American racial categories of “black” and “white” for phase states, and the outrageous violence of racial capitalist geography for initial conditions. In doing so, he provides the intellectual scaffolding for the policing logics that Bratton will impose, and that Kleiman will try to formalize.

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Schelling begins his discussion of segregation by offering two models of neighborhood, a “Self-Forming Neighborhood model” and a “Bounded-Neighborhood Model.” The Self-Forming Neighborhood is standard cellular automata (though he never identifies it). An eight-by-eight “neighborhood” is laid out with pennies and dimes. Forty-five spaces are occupied, and nineteen are blank. The distribution is random, and the ratio of “dimes” to “pennies” is up to the modeler. Any given coin has “moderate” demands, meaning “each wants something more than one-third of his neighbors to be like himself” (Schelling 2006, 148). These are the initial conditions. Beginning with a random cell, look to see whether the surrounding cells meet the conditions. If yes, move on to the next cell. If no, then that cell becomes “discontented” and “moves” to a blank space. Repeat the process until all cells satisfy the moderate conditions, and the pattern halts (the model achieves entropy). This model consistently reproduces segregated “neighborhoods.” When the ratios of pennies to dimes is uneven, the “minority” clusters more tightly, and the “majority” spreads out across the field. Schelling finds that “a moderate urge to avoid

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17 “For example, we can postulate that every dime wants at least half of its neighbors to be dimes, every penny wants a third of its neighbors to be pennies, and any dime or penny whose immediate neighborhood does not meet these conditions gets up and moves. Then by inspection we locate the ones that are due to move, move them, keep on moving them if necessary and, when everybody on the board has settled down, look to see what pattern has emerged” (Schelling 2006, 147-148).
small-minority status may cause a nearly integrated pattern to unravel, and highly segregated neighborhoods to form.” Equilibrium is durable so long as the variables in the model do not change. Destabilizing equilibrium requires the introduction of new forces that put the model back to “work.” The amount of force introduced is minimally context-dependent. In theory any perturbation can begin a destabilizing chain reaction that eventually flips a “neighborhood” from pennies to dimes, white to black” (Schelling 2006, 153).

The “Bounded-Neighborho Model” eschews automata for probability. Rather than the phase states of adjacent cells in a delimited matrix, this time the neighborhood is a “particular area that everybody, black or white, prefers to its alternatives.” This area is assumed to share a common definition and agreed upon boundaries. At issue is the overall ratio of black and white residents, rather than the particular spatial disposition. He presumes that all residents have a limit in the acceptable racial ratio of the neighborhood beyond which they will move out. He calls this “tolerance.” He assumes that the neighborhood, while bounded, is porous. Outsiders who are attracted to any given ratio will replace people who leave for more monocolored surrounds. This in turn changes the ratio and drives the cycle forward. So, as a “black” neighborhood becomes “whiter,” “black” residents with a low “tolerance” for white presence will leave and be replaced by white people with a high tolerance of black people, which then drives a feedback loop. The neighborhood “whitens,” thus attracting more “whites” with a lower “tolerance” for “blacks,” which then drives out “blacks” at a faster and faster rate until, finally, the remaining “blacks” have a high enough “tolerance” for “whites” that they do not leave.
Eventually, depending on how the initial tolerance condition is set, the ratios stabilize. The neighborhood reaches an equilibrium point (entropy, again) when both “black” and “white” are satisfied with the neighborhood ratios and nobody moves. These equilibria are, he argues, stable against “relatively large perturbations.” But, (and here is the logic of broken windows): once sufficiently intense stress has been introduced to the model, it can quickly “tip” from one equilibrium to another. So, in his example, at a mean white tolerance of 2.5 blacks per white, a neighborhood of 100 would stabilize at either 80 “black” or 80 “white.” But with a sufficient effort to disturb this equilibrium (in the case of a neighborhood stabilized 80-20 “black” tipping to “white,” that means somehow forcing 25% of “blacks” out), the model “tips,” and stabilizes again at its reverse. Because of the movement mechanics of the probability curve, the neighborhood naturally tends toward equilibrium again, but this time as a reverse of the prior ratio (Schelling 2006, 155-156).

As should be abundantly obvious, neither tipping point explains much about segregated housing in actually-existing neighborhoods in actually-existing 1970s America. Even Schelling seems unclear on the policy applications of his thought experiment (Schelling 2006, 154, 165-166). But that doesn’t matter. It made sense to James Q Wilson, Schelling’s colleague at both Harvard and RAND. And Wilson, evidently convinced that the model is indeed abstract enough to substitute any of its terms for any other, also imagined a world of opposing equilibrium states. For Wilson, one state is ordered and the other is not. One state’s windows are intact and one state’s windows are broken.
So we return to Kleiman, who will mathematically formalize Broken Windows as “enforcement swamping.” To do so, he adopts both the mathematical structure of the tipping point, and Schelling’s preference for a sufficiently elegant “stylized model” over the messiness of social processes. To do so, he follows Schelling’s blueprint.

The actors in Kleiman’s crime control model are, essentially, binary automata. He assumes that they are hyperrational,\(^{18}\) that they do not directly communicate (and that their decisions therefore depend on “perception of the cost of compliance and the risk of punishment”),\(^{19}\) and that they are emotionless. Kleiman presumes that they “absorb no psychic cost from violating [model law], and gain no psychic benefit from complying.”

These actors work in under idealized market conditions in which “the effectiveness of deterrent threats…might be thought of as the price-elasticity of demand for criminal activity, with the price understood as some function of the probability and magnitude of punishment for any given act” (Kleiman 1993, 65). This confusing assertion essentially poses a political conclusion - that the best “means of controlling the rate of criminal activity is punishment, and in particular the threat of punishment: deterrence” – as a premise. Root causes don’t matter to automata.

\(^{18}\) His \(N\) of potential violators is presumed “risk neutral, rationally self-interested decision makers, homogenous with respect to underlying preferences, each of whom makes a series of binary choices between a permitted and a forbidden course of action” (Kleiman 1993, 66).

\(^{19}\) This is Maxwell’s Demon reappearing. By insisting that the actors in the model cannot communicate directly, Kleiman makes them reliant on the flow of information throughout the system. The goal of the system will be to play Maxwell’s demon, and modulate the flow, in other words, to forge particular recognizable signals out of systemic noise that will force predictable reactions.
The problem with this assumption is that it seems to be refuted by social science. Kleiman acknowledges this. He recognizes that the premise that deterrence is the most reasonable means of controlling crime is “vigorously denied” in the criminological literature. He also concedes “systematic attempts to answer the question of the nature and extent of the criminal deterrent effect have been markedly unsuccessful” (Ibid.). But he argues that those objections are irrelevant for three reasons. First, because the relationship between crime and punishment has an “unknown but complicated lag structure that makes causal modeling difficult.” Second, and more importantly, that we can’t really know the impact of deterrence because it “depends on the threat of punishment as perceived by potential offenders” which is not “straightforward or well-understood.” Finally, that completed crime rates don’t reflect precautions that people take to avoid being targeted, and therefore “measured crime rates may be poor proxies for the social goals that deterrence is intended to serve” (Kleiman 1993, 65-66). In other words, even if potential offenders’ perceived threat of punishment was understood it still would be irrelevant. There is no outside the model (Deleuze 1988; Deleuze and Guattari 1987; D. Haraway 1988).

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To solve the problem of “Enforcement Swamping,” Kleiman interpolates Schelling’s “bounded neighborhood” as parking lots. One, a free lot earmarked for a grocery store, is desirable (“inside” the “neighborhood”). The other, metered street parking (“outside” the “neighborhood”) is undesirable.
Non-customers are parking in the lot illegally. Enforcement capacity is extremely limited. It is impossible to ticket every violator, and random ticketing across the whole lot has no effect on violation. Actors’ mean “tolerance” for being ticketed is therefore high, and thus is enforcement swamped. Even if the individual penalties for parking violation are incredibly severe, the number of violators sufficiently outweighs law enforcement capacity. The low probability that any individual will be caught and punished nullifies (“swamps”) the deterrent effect. Kleiman’s goal is to determine the most cost-effective way to destabilize the “equilibrium” of illegal parking. How to produce a feedback loop that “tips” “behavior” into equilibrium of legal parking?

Kleiman’s answer is to play Schelling’s cellular automata game: combine formally randomized, spatially concentrated enforcement with stiff punishments. Because moving a state out of equilibrium in the Bounded-Neighborhood requires massive stress and displacement, Kleiman calls for the application of overwhelming force. Again drawing the lines between crime control and counterinsurgency, Kleiman advocates a police surge.

He argues that swift and sure punishment will destabilize the equilibrium of rule breaking, and force one of two possible responses from drivers: to continue to park illegally in a “safer” part of the lot, or abandon the lot entirely. In Schelling’s terms, it precludes the “Self-Forming Model” from settling into a stable parking formation. In other words, punishment injects external energy into the nominally closed system. As enforcement expands, enforcers will begin campaigns to communicate that the whole lot
is under a new, severe enforcement regime. This will have the effect of making the lot feel “unsafe” without necessitating blanket enforcement presence. Drivers, moved rationally by evidence of the new punishment regime’s severity and consistency, will decide that it is in their self-interest to abandon the lot entirely. In common parlance, this is the “swift and sure” sanctions model.

After a few iterations of overwhelming enforcement, Kleiman’s model shows that greater numbers of offenders will determine that the parking lot is no longer “safe” and will opt for the modest up-front penalty of paying for street parking. The constant and communicated threat of enforcement combined with swift-and-sure sanctions pushes out even those drivers with high tolerance for fines. This behavior will be self-reinforcing, as violators with higher thresholds become increasingly isolated and therefore more likely to be fined. When that equilibrium tips, actors will return to paying for parking on the street (Kleiman 1993, 66-69). Eventually the lot will clear of illegal parking, behavioral patterns will settle at a self-sustaining law-abiding equilibrium, and police and punishment levels can be reduced.

Kleiman draws two “implications” from his “stylized model.” Both are articulations of Wilson and Kelling’s Broken Windows theory. Theoretically, Kleiman argues that the model’s dual equilibria show that crime does not function like a classically thermodynamic social system.20 Rather than tend naturally from order to entropy and

20 Kleiman confusingly distinguishes between the classical and multiple-equilibrium systems by naming the latter “non-thermodynamic” rather than the more accurate terms “complex” or “chaotic” (Kleiman 1993, 71).
homeostasis, systems with “multiple equilibria” are complex and temporally
deterministic. Unlike “single equilibrium” systems, multiple-equilibrium systems’ resting
states are dependent on initial conditions, and move from the chaotic to the organized.
Heinz van Foerster called this the “order-from-noise” principle (von Foerster 2003).
Kleiman translates initial conditions as “history,” and argues that its role is so outsized in
both social and environmental systems that contemporary conditions cannot explain
patterns of equilibrium.

“History,” then, and not social conditions, explains crime. Because history is the prime
mover explaining differing crime rates across groups, criminological literature that
examines current conditions in order to make sense of different crime rates miss the
point. “The investigator will search the present in vain” for reasons why one group is
more prone to criminal activity than another, when the real answer is in the past. The
initial conditions have already been set, and can’t be altered. Parroting the logic of
Broken Windows, he concludes that crime is therefore “self-sustaining,” rather than due
to “difference in current conditions or dispositions between a relatively law-abiding
population and a relatively offense-prone population” (Kleiman 1993, 71). This is a
particularly telling iteration of liberal ideologies of formal equality (Reddy 2011; E. N.
Glenn 2004). Justified by a mathematical model, Kleiman articulates an insidious
presentism that cloaks a racialized logic of punishing the poor and disenfranchised in the
putatively “progressive” language of dispelling “conservative” racial-sexual myths about
natural dispositions to criminality (R. A. Ferguson 2004). This is the calculative logic of
“population racism” at work (Patricia Ticineto Clough and Willse 2010). To control
crime is to produce deviant populations stochastically, to organize them parametrically, and to punish them intensely.

This leads to what he calls his practical inference: that criminal justice agencies should do away with what he calls “horizontal equity,” or the “principle which [sic] requires that like cases be treated alike” (Kleiman 1993, 71). Horizontal equity cannot account for the equilibrium holding patterns that dispose different groups to be more or less crime-prone. Instead, law enforcement needs to embrace strategies that concentrate “resources on a single class of potential violators until they are pushed over the ‘tipping point.’” He calls this “divide and conquer,” admits that it has no moral standing, but that the model leaves us no alternatives, because “mechanical application of the principle of horizontal equity to the problem of crime control may be extremely costly.” In plain terms, he is calling for the police to deliberately and officially target particular groups for intensified surveillance and enforcement on the grounds that treating everybody equally is too expensive.

Lest the point be missed, Kleiman is here echoing Schelling’s liberal political commitments to the neutrality of computation, and reworking it to advocate for the explicit identification and isolation of “problem” populations, singled out for extraordinary punishment. Even the most cursory knowledge of American history makes it impossible to understand how Kleiman can imagine this program can be implemented in a spirit of formal liberal egalitarianism. Doing so necessarily denies the relevance of institutions – like the police – that were and are deliberately established to produce and
reproduce mutually reinforcing white supremacist racial structures, heteronormative sexual structures, patriarchal oppression, and class exploitation.

At their most benign, police forces structurally exist to maintain existing patterns of oppression, exploitation, and violence by “maintaining law and order.” The point here is not to call out the particular role that law enforcement plays in maintaining these relations. Rather, it is to reiterate that their structural position makes police unexceptional. Police are a node in the necropolitical mundane, but they are the node that generates something called crime for the state. It is police that are responsible for “self-sustaining” patterns of criminality across different populations, because it is the police that determine “what” crime is, and “who” commits it. “Crime control” makes and remakes populations.

In the obvious biopolitical culmination of this logic of rule, Kleiman argues that this model does not only apply to his imagined parking lots, but to any “situation in which a rule is to be enforced.” These include: “securing compliance with administrative deadlines, encouraging one’s children to do household chores, noise control within an apartment complex…compliance with taxation, water pollution laws, or workplace safety regulations” (Kleiman 1993, 71). But, more than anything else, he argues that his model explains the “logical structure of rioting, whether the “topic of the riot is race, religion, famine, politics, or football.” A model, then, that logically demonstrates the need for order at the expense of law or “justice.” More precisely, it is a model that conflates the
workaday maintenance of order with the project of suppressing rebellion. Mathematical
and computer modeling here meets policing-as-counterinsurgency.

Written for an audience of computer scientists, rather than law enforcement officials,
“Enforcement Swamping’s” placement in Mathematical and Computer Modeling’s helps
clarify the extent to which the omnivorous logics of computation eclipse the imagined
horizons of criminology and sociology (Patricia Ticineto Clough 2010; Steinmetz 2013;
Patricia Ticineto Clough et al. 2015), and shows how the move from a society of
“discipline” to “control” does not usher in new forms of coercion so much as bring back
“the older methods, borrowed from the firmer societies of sovereignty...with necessary
modifications” (Deleuze 1992, 7). MCM’s editorial mission is ecumenical, and
“Enforcement Swamping” appears in a special issue devoted to “Mathematical Models of
Drug Markets and Policy.” The editor John P Caulkins, a future RAND researcher and
frequent Kleiman collaborator, describes the issue as an attempt to “approach the issues
with an open mind, free of ideological baggage” and argues that when the goal is to
“adopt as an objective the minimization of the total harm done to society,” then it
becomes possible to “conceive of concrete, feasible, constructive measures that could be
taken to ameliorate one or more aspects of the problem” (Caulkins 1993, ix).

Kleiman’s article stands out. Most of the pieces are sophisticated analyses of existing
tactics and historical strategies, or are attempts to make sense of data that has been
historically difficult to work with. They are all efforts to address specific problems, or at
least to work from specific, bounded data sets. Kleiman, on the other hand, offers his
“stylized and…general” analysis of why enforcement hasn’t worked to curb crime in general, and offers a model for how to amplify enforcement’s impacts of rule breaking in general. Crime, stripped of sociology and treated as a computational riddle, is reduced to a complex, far from equilibrium, and non-intuitive system, like many other “natural” processes. And, like many such systems, crime is formally incomputable, even though the math that governs the forces is very well understood. The model’s dual-equilibrium structure implies that the only way to conceive of crime is through engineering. He is, in other words, building an algorithm for producing order in the crisis.

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Twelve years after “Enforcement Swamping,” the National Institute of Justice publishes Kleiman’s follow-up study, called “When Brute Force Fails: Strategic Thinking for Crime Control (Kleiman 2005).” New York in the 1990s and early 2000s will be the successful “case” of “crime control” to which Kleiman turns.

With Enforcement Swamping as the basic model, “Brute Force” lays out the policy algorithm for “solving” crime control. But whereas “Enforcement Swamping” was almost entirely theoretical, “Brute Force” attempts to articulate policy.

Spirit channeling Gary Becker, he poses the following problematic:

“Putting aside the question of justice, we could set up the crime-control problem as a cost minimization. There are costs of crime, and there are costs of crime control, and the optimal policy (ignoring justice) would be to find the set of enforcement strategies that minimized the sum of those costs over time, subject to constraints on the system such as the budget, the organizational realities, and the procedural requirement of a fair trial” (Kleiman 2005, 11).
Kleiman’s premise that the United States’ policy of “brute force” mass incarceration approach is a disastrous use of resources, both fiscal and human. He lists familiar metrics: a seven-fold increase in incarcerated prisoners between the mid-1970s and the mid-2000s, tens of billions in cost outlays, overburdened court systems and swamped police departments, “disproportionate” incarceration of African-Americans, and “damage to prisoners and their intimates,” and the Protestant perversity of stripping surplus populations from the labor force at the prime of their working lives. He also, rightfully, acknowledges that prison is cruel. Or, rather, that it might not be the most economic application of state cruelty. Intrigued by a study that found that the reported happiness of quadriplegics and the able bodied were comparable, Kleiman infers that the human capacity to adapt means that psychological impact of prison on inmates comports with the law of diminishing returns (Kleiman 2005, 34).

His innovation is to contend that mass incarceration’s waste is precisely mirrored in the possible economic impact of crime. Though it is “less widely recognized” than the truism that poverty causes crime, it is equally certain that “crime causes and sustains poverty, by driving businesses and jobs out of poor neighborhoods” (Kleiman 2005, 7). Instructively, he does not cite the latter point. The assumption that crime has a direct impact on economic performance is both “widely recognized” and, as we saw in the last section, the legal logic undergirding the civil injunction regime.

But, rather than drag this citational failure, I want to suggest that the elision signals a crucial, unspoken assumption of the “Brute Force” project. In “Brute Force” the
economic functions as a palimpsest. It is a logic structure that centers the virtual as the
target of “crime control.” Against the actual and demonstrable impacts of mass
incarceration, “economy,” or specifically, the possible economies that crime prevents
from materializing, moves the criminological gaze to speculative ground. “Economy”
works as a logical torque that poses the hypothetical organization of resources as a matter
of abductive logics and probabilities (Martin 2007, 2015).

To whit, shortly after introducing the equivalence between mass incarceration’s social
effects and the virtual impact of “crime,” Kleiman argues that it is, in fact, the virtual
alone that can properly reckon crime’s social impact. He argues that, although crime rates
have fallen across the United States for decades,

“the incidence of completed crime is a very imperfect measure of the success of crime
control, since a low level of completed crime can co-exist with a high level of
victimization risk. That will happen when the environment is so risky, and potential
victims engage in so much costly crime avoidance, that actual victimization is low. When
a big city closes its parks at midnight to prevent muggings, the rate of actual muggings in
the parks after midnight will be very low; but that reflects a defeat, not a victory, for the
forces of law and order” (Kleiman 2005, 8).

Here, the event of crime is distributed throughout social space and time. Crime does not
crystalize as an occasion. Rather, it is viral and virtual, an osmotic excess that seeps into
the spatiotemporal interstices of the lived environment (Parisi 2013; Parisi and Goodman
2011, 2004). It is potentiality and threat rendered real as a drag on accruable capital
(Shaviro 2009). It is tempting to make the connection to Brian Massumi’s concept of the
affective fact, but the analogy between Massumi and Kleiman doesn’t quite hold
(Massumi 2010). For Massumi, the affective politics of the war on terror mobilized
bodily disposition at the level of the population. Bodily priming both justifies and makes
inevitable policy and politics acting on a real that is virtual but not actual (Massumi 2005). Kleiman’s crime is more specifically computational, more specifically divorced from the body as a real target of policy. “Crime” is negentropic energy, productive noise. It is the force that pushes the tipping point, the materiality that moves the model.

Lest this sound far-fetched, consider that Kleiman does not accept the effectiveness of crime control methods that succeed on their own terms. For example, in the quote above, he argues that successful efforts to securely discipline the built environment by closing parks after dark perversely transforms into defeats for law and order. Closing parks is an admission of failure, rather than an example of success. Closing the parks forecloses the possible. It feeds forward (Hansen 2015b) the contingencies of the present into the realities of the future, and instantiates an immeasurable but real loss of potential future value (Parisi and Goodman 2011; Martin 2015). Because the “criminal threats faced by potential victims in various parts of the social environment” are insufficiently measurable to address directly, we ought to imagine “victimization rates” which we could “operationalize” at “some fixed level of crime avoidance or exposure: for example, the probability that a car parked overnight at a given location with a suitcase in the back seat is broken into, or that a given person walking down a given street at a given hour is assaulted or robbed” (Kleiman 2005, 8).

Here, we can once again see the virtual slippage that Kleiman’s invocation of “economy” conditions. Even under conditions in which crime does not exist, the economic impact of crime has already happened, and crime avoidance has always already dampened
economic potential. In a telling reflection of the granular depths to which contemporary
digital capitalism will go to extract value from “the immaterial,” Kleiman argues that we
must always account for the cumulative effect of the untold number of micro decisions
that anomic actors take to avoid being victimized. For Kleiman, this remainder is
ontological. The issue is not the discrepancy between the perceived safety of a place and
its real dangers, but between its real safety and the real drag on a virtual economy that is
the precondition for that safety. This is a logistical question, a sort of post-Zuckerberg
Taylorism that calculates the possible anxieties and walking paths of a pedestrian as real
impacts of crime on “victimization rates.”

Crime is a paleonomy (Derrida 1993). A remainder of the liberal fantasma of a world of
perpetually shattering glass, crime control depends upon the fact that crime is
uncontrollable. In Kleiman’s model, crime distends into nightmare game theory: a
bounded system in which the player-automata’s “decisions” are imperfectly knowable,
but nevertheless stochastic; in which the parameters of play are fuzzy, but determinable;
in which the feedback between action and reaction is time-insensitive, and prior
conditions are responsive to measurable outcomes. Crime control morphs into vectors of
information and probability, a complicated engineering conundrum with a sample set too
rich and distributed to measure by straightforward calculation. It is, in other words, like
the weather.

Since the ecological complexity of the stylized model – its incomputability - follows
“rules” of “natural systems” that can be modeled ecologically, but not acted on socio-
politically, the good policy director works to set initial conditions that will achieve desirable states of equilibrium. This transforms what “modeling” crime means. Instead of working with historical data sets and social knowledge about social relationships, engineers can produce knowledge about crime speculatively and mathematically. They can build models that forecast how to “address” it. Or, as Kleiman puts it, “when multiple equilibria exist, history as well as underlying conditions helps determine the outcome…All of the difference between groups may stem from historical accident. Arranging for the right set of historical accidents is a task for policy-makers” (Kleiman 1993, 67).

Suddenly, the Professional Policing Paradigm’s putative emphasis on rational organizational hierarchies, strict separation of crime control from law and order, highly disciplined officers, rehabilitative punishment, and egalitarian prosecution sounds laughably thermodynamic. Strategic crime control, in other words, articulates Foucault’s genealogical break between “discipline” and “control” as an explicit logic of rule. What matters is not the inculcation of bodily norms, skills, and behaviors instilled in what Foucault called “the houses of discipline,” but the population’s aggregate threshold tolerance for punishment (Fisher 2009; BROWN 2017). What must be determined is the proper application of force, the correct level of stress, the optimal modulation of the affects and sensibilities of the recalcitrant equilibrium necessary to tip it over into a docile state. In other words, what Wilson and Kelling call “Broken Windows,” and Gilles Deleuze calls “Control.”
As economy, ecology, and sociology become indistinguishable, “crime” mutates into “merely…a social problem, like air pollution.” Like air pollution, the rates of different types of crimes are “facts about the world, as the ozone count is a fact about the world.” In the wake of this transubstantiation, Kleiman insists that all that is left is “perception management:” an interlocking series of “enforcement policies [that] consider how best to communicate deterrent threats.” In a crypto-cybernetic rearticulation of the four principles of CompStat, Kleiman envisions a communicative enforcement system based on “predictability, swiftness, concentration and communication” (Kleiman 2005, 9-11).

By moving the question of “crime control” from the world, with its “imperfect information-gathering and information processing” (Kleiman 2005, 17) to the whiteboard, Kleiman eliminates the formally empirical in favor of a radical empiricism (Deleuze 1991). The model – a “factish” Brownian Ratchet of carceral expansion – becomes an operative inhumanist logic (Latour and Latour 2010; Stengers 2010; MacKenzie 2008; Massumi 2015a; Negarestani 2014b):

“If there is a lag between a change in enforcement and punishment practices and offenders’ observing that change and adjusting their behavior accordingly, then moving to a higher-probability or higher-severity punishment regime will incur transition costs, even if, in equilibrium, it pushes the system past the peak of the inverted U and thus in the long run would produce a low level of offending and consequently of punishment. That means that casual empiricism – trying things to see how they work and abandoning them after a while if the work badly – won’t be a good meta-strategy for law enforcement, since the short-run results of a policy on the total amount of punishment required may have the opposite sign form the longer-run results: A strategy that looks disastrous when first tried might (or, of course, might not) pay off with persistence” (Kleiman 2005) (emphasis added).

Unsurprisingly, crime control strategy so disinterested in concerns like justice or cruelty arrives at baroque policy prescriptions. After laying out his mathematical-theoretical
model, Kleiman spends sixty pages presenting the Broken Windows’ party line on its 1990s “success” in New York City as original insight. To do away with Brute Force mass incarceration, he suggests a regime of relentless tutelary state violence carefully targeted at those populations most in need of behavioral “tipping.”

Couched in the carefully deracialized language of tipping points and equilibriums, Kleiman rationalizes his demand for an astonishing level of ubiquitous violence and interdiction with the hypothesis that it’s ultimately good for the victims. He claims that “what seems superfluously drastic in the short run may be economical and merciful in the only-slightly longer-run if, as seems plausible based on what happens in the behavioral-psychological laboratory, people adapt much more quickly to moves toward certainty than they do to intermediate changes in probability.”

Instead of long periods of prison confinement, he suggests regularly applied short and intense periods of incarceration in “specially designed and operated community corrections sanctions facilities designed to take advantage of the short-term nature of their task” (Kleiman 2005, 73) He pairs this with enormously empowered community corrections departments with the latitude to enforce “swift and certain low-intensity punishment for each detected violation of [set] rules” (Kleiman 2005, 69). The “number and onerousness” of these rules can be “varied as a means of rewarding and punishing probationers,” but some ideas for punishment include “hours of unpaid labor, tightening of curfews, and other restrictions, and short periods of [isolated] confinement... (No radio or television, just books).” He imagines these not-jails devolved to neighborhood corners
where, “with sufficient legal ingenuity” people can be swiftly and certainly punished without the worry of violating due process (Kleiman 2005, 73-74).

Even at its most speculative, stylistic, and “strategic,” such a cybernetic model of crime control runs up against the problem of accruing necessary data. Theoretically, this is the bounded system problem alluded to above. Kleiman’s dual equilibrium model only works if the system’s loops are closed. Despite Kleiman’s suggestions to the contrary, second-order cybernetic systems are just as dependent on thermodynamics, and therefore on closure, as first order. The difference is that, in the “cybernetics of cybernetics,” discrete systems interact with one another, and autopoietically transform. But, as theorists like Katherine Hayles, Patricia Clough, and Steven Shaviro have argued, a central problem of the theories of the second order is that they seem unable to account for the unbounded breaching of the world that that they ushered in. And, like the second order theorists that he draws from, Kleiman’s model needs a bound. In “Enforcement Swamping,” this was described as the “finite space” of the parking lots. Of course, cities are not parking lots, and their geographies are not neat, stable, nor discrete.

But the bound need not be spatial. In a certain tradition of cybernetics, space is broadly metaphorical. It is a stand-in for the parameters of the system through which information flows. “Finite space” is merely the capacity to collect, surveil, and circulate data, and it can be produced in a databank (Hayles 2012).
And so it is to information systems, to the co-extension of the body into the digital (Hansen 2006), that Kleiman looks to close his loop. In lieu of the disciplinary partition of physical space, he suggests that emerging surveillance technologies like the “electronic handcuff that monitors an offender’s proximity to a fixed base unit…currently underdeveloped applications of cell-telephone or geo-positioning satellite technology…the use of mobile video scanners equipped with face-recognition capacity” be employed by probation departments to keep tabs on offenders.

Drawing from California and New York City in the 1990s, Kleiman concludes that the only way to control urban crime digitize and quantify: to massively expand database capacity, enhance granular data collection, distribute GPS bracelets and other tracking devices, network security cameras, populate the built environment with microphones, and generally expand, connect, and concentrate the surveillant apparatuses of the carceral state. Like Jack Maple, he imagines the surveillant interweaving of the variegated apparatuses of governance through “the development of data links between community corrections offices and other public and private entities – drug, anger management, and other treatment programs; agencies supervising community service; agencies collecting child support or restitution payments or fines; family services agencies; schools; and workplaces” (Kleiman 2005, 71). In other words, he wants make the city Smart. New York will eventually hire Microsoft to build and market exactly this sort of systematic cinching of the bounds of urban carcerality. Fittingly, it is called the Domain Awareness System.
In an accelerationist chiaroscuro to Marx’s dream of the technological communist liberation of labor, Kleiman imagines that the successful establishment of such digital fusion “might allow a probation officer to look at a computer screen each morning to find out which of his or her clients had been out of compliance the previous day. That probation officer could then exercise a degree of control scarcely dreamed of today” (Ibid.). Any imagined inconsistencies between the desires of capital and of correction deteriorate as the officers of community corrections metamorphose into automatic subjects of capital.

Kleiman’s end game is to develop a modular punitive system based on constant enforcement of “small rewards and punishments to induce compliance” with administrative rules. Probation officers, armed with seamless digital surveillance data will be free to “communicate” punishment gradients to their wards. In a particularly grim touch, he imagines explicitly tethering the non-profit and prison industrial complexes, through the regularly applied sanction of forcing parolees to perform unpaid labor for “community-based non-profits with specific tasks that do not compete with the market economy.” Ultimately, the point is to transform “punishment” into a machine for fashioning the properly improvable neoliberal subject “as measured by criminal behavior, drug use, and acceptance of family and workplace responsibilities” (Kleiman 2005, 73-75). In other words, for managing risk.

And so, we return to the back office mundane with which we began Part II. Kleiman, for all his aspirations to techno-shocked innovations in policing, arrives at Microsoft Office
and Enterprise Content Management. Five years after he publishes Brute force, California contracts with Microsoft to develop an IT strategy and infrastructure capable of handling that state’s mandated “decarceration” and “realignment.” And, theorizing the work of policing in the realigned regime, Microsoft’s representatives argue that the new work of law enforcement is to modulate “risk” against some possible future victimization, rather than act on the carceral mnemonic of memorialized conviction.

“Brute Force,” then, reflects an extractive trajectory of crime control that welds the political economic transformations of digital capitalism to changing theories and tactics of the proper virtualization of the carceral. By the mid-2000s, the National Institute of Justice increasingly issued research grants for studying crime control to non-criminologists, and particularly to engineers. They, naturally, began to reframe crime – all crime – as a math problem. If crime is a math problem, engineers and their associates like Kleiman argued, then it must hold to certain basic mathematical principles. It must be possible to model it.

At this point, Kleiman’s cybernetic logic is exhausted. For all the economism of “Brute Force,” from its cynical opening gesture to set aside the “question of justice” for one of “cost-minimization” to its repeated insistence that the market is the only available lens through which to understand the social, Kleiman misunderstands the fundamental movement of digital capitalism after the millennium. What does not comport with his bounded model, is that the “strategy” in his “strategic thinking for crime control” is, as Stefano Harney and Fred Moten remind us, precisely that which algorithmic governance seeks to eliminate in favor of logistics.
As the counterinsurgent technologies of networked population management showed in New York and California, the proper target of “crime control” after the database is no longer a speculated “individual” whose behavior can be “tipped.” Instead, it is the “logistical population” that

“[is] created to do without thinking, to feel without emotion, to move without friction, to adapt without question, to translate without pause, to connect without interruption, or they will be dismantled and disabled as bodies in the same way they are assembled, by what Patricia Clough calls population racism” (Harney and Moten 2013, 91).

“Crime control” outruns itself, as the target of logistical preemption increasingly is its own constitutive metrics, its own mined data (Hansen 2015a). Invoking economy to move “crime” into the virtual is a necessary step toward the novel intertwining of digital capital and crime, but it is insufficient. After the recession destroys the budgets on which Kleiman’s wholesale carceral reorganization would depend, the aim of law enforcement moves from control to prevention, preemption, and prediction. What will deliver real value is not the drawdown of the investments of the carceral state, but the capacity to extract value from data mining the future. This is not fictitious capital or imagined crime. Math makes things real. In the conjuncture, calculation and computation are ontological engines. Digital technology moves the speculative paranoia of absolute social criminogenesis from the virtual to the actual. It materializes even or especially when it remains non-phenomenological (Ayache 2010; Kirby 2004; Patricia Ticineto Clough 2013; Mitropoulos 2012).
Here is the next step: If crime can be modeled, then that model must be replicable. And, if a model is replicable, then it is also predictable. And, if a model is predictable, and if crime is reducible to this model, then crime must be predictable. If crime is predictable and crime models are replicable across different contexts, then crime must also be preventable. And if, as Broken Windows has taught us, the presence of police is the only real guarantee against crime, then deploying officers where crime will be – where it is predicted – will prevent that crime. And if a model can do that – if it can facilitate a form of predictive policing that both drives down crime, and cuts the costs for trials and jails, then it would inherently improve the economy. But why stop at such concrete cost reductions? If the possibility of crime, even when there is no actual crime, is always a drag on the market, then the potential benefits from streamlining the logistics of crime control stretch toward the infinite (Harney and Moten 2013, 91). Successfully controlling crime incentivizes mining the virtual. When crime is inevitably a drag on economy that cannot be stopped, and when the mission of government is to anticipate the fluxes of markets (Massumi 2015a) in order to maximize the possible circulation of value, there is an obvious incentive to develop technology that can ensure the seamless flow of value, unstoppered from the economic “effect” of crime.
CONCLUSION: POLICING THE VIRTUAL

Software could scan the publicly-available records of officers and send photos and alerts about specific officers to residents of a neighborhood: “Warning: You are within close range of an officer who has posted racially charged comments on Facebook and has recently been mentioned in an article about police brutality. Here is their photo. If you encounter them, it would be wise to speak calmly and make no sudden movements.”

Berit Anderson, Brett Horvath, and Glen Hiemstra
“Should the Future of Policing Look Like This?”

We won’t admit that our creations are beyond us; they may speak in tongues, but our priests can read those signs. Gods leave their algorithms carved into the mountainside but it’s just li’l ol’ me bringing the tablets down to the masses, and I don’t threaten anyone.

Peter Watts
Blindsight

Princeton University Press published When Brute Force Fails in 2009. The book is an expanded version of the arguments that Kleiman made for the DoJ four years earlier.  

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21 Much of the new material is made up of case studies of Swift and Certain, and Fair (SCF) sanctions probation programs that align with Kleiman’s schema. He is particularly interested in Hawaii’s Opportunity Probation with Enforcement (HOPE) program, which a Honolulu probation judge implemented in 2004 with Kleiman as an advisor (http://www.nytimes.com/2010/01/10/magazine/10prisons-t.html). The HOPE program instituted mandatory, daily calls to probationers randomly assigning drug tests that had to be taken within hours of receiving an alert. Dirty results triggered short stints in jail. Kleiman and his partner Angela Hawken evaluated HOPE for the DoJ, and predictably found it to be a resounding success (https://www.ncjrs.gov/pdffiles1/nij/grants/229023.pdf). It was widely adopted on the mainland in the early 2010s as a sort of panacea for recidivism and cost burdens. Recent re-evaluations have found it to be no more effective or inexpensive than traditional probation programs (http://justicecenter.psu.edu/research/projects/files/HOPE%20DFE%20Findings%20Summary%202016%202009%202007.pdf). On the contrary, probationers enrolled in HOPE spent more time in jail than those that do not – an overlooked fact that likely accounted for the “reduced recidivism” rate in the initial observation’s findings. Swift, Certain, and Fair sanctions mostly meant more time behind bars, and less due process.

Part of what undermined the HOPE program’s cost-cutting potential was foreseeable. The program’s higher surveillance burden on police and probation departments drove demand for automated systems. This, in turn, kickstarted a contractual relationship between Honolulu and
And, while Brute Force and the Swift, Certain, and Fair (SCF) sanctions regime gained a lot of positive press from organizations like The Economist and the New York Times, and writers like James Q. Wilson and David Frum, the hype around the sanctions model would quickly be outpaced by another emerging technological strategy that promised to reduce costs, drive down crime, and cut recidivism: predictive policing.

PREHENSIVE POLICING

Bill Bratton, the head of the LAPD from 2002-2009, coined the term predictive policing with his Lieutenant Sean Malinowski in a 2008 article for the journal Policing called “Police Performance Management in Practice: Taking COMPSTAT to the Next Level.” The article is, in most ways, a hash of arguments that Bratton et al had been making for twenty years. The sharp crime declines in the 1990s and 2000s are, they argue, attributable to CompStat in particular, and police management and accountability, in general. CompStat has allowed police departments “on both sides of the Atlantic” to drive a “tipping point effect” in “crime reduction” by focusing enforcement, training, and equipment where it is needed most. CompStat allows police to properly take credit for “helping to inject new quality-of-life initiatives into our inner cities, for spurring economic development and for returning large tracts of the urban landscape to the law abiding” (W. J. Bratton and Malinowski 2008).

Morpho, one of the largest biometrics firms in the world, and a subsidiary the transnational weapons behemoth, Safran Group. That relationship is expensive, and Honolulu has since become a testing ground for novel biometric police technologies, like real-time facial recognition. [Link to article](http://justicecenter.psu.edu/research/projects/files/HOPE%20DFE%20Findings%20Summary%202016%2009%2007.pdf) [Link to another article](http://www.biometricupdate.com/201501/honolulu-pd-facial-recognition-solution-now-accessible-to-police-across-hawaii).
Bratton’s branding efforts are disciplined and relentless. To illustrate the success of CompStat’s adoption in LA, Bratton and Malinowski point to LA’s Macarthur Park, which they claim had been “overrun by thugs and dope dealers since the late 1970s. Gang members dominated the landscape and the local community suffered not only the loss of their park, but the regression in quality of life that comes from local businesses and jobs fleeing for safer environments.” CompStat allowed the police to return the park “to the residents.” In 2008, by contrast, the authors argue that “Parents take their children to play and pensioners meet and greet each other and play dominoes, where the drug dealers and gangs used to ply their trade. Legitimate businesses have returned and have spread quickly north down the corridor from Rampart toward Hollywood and south down Wilshire Boulevard toward the revitalized downtown.” Bratton could swap out the LA-specific place names with New York or Boston’s, and otherwise leave the paragraph unchanged and have it be equally applicable at any point over a twenty-year period. This is true down to the deliberate omission of extraordinary police violence and corruption (crystalized in the Rampart scandal that brought down the CRASH unit) to the assumption of credit for driving gentrification. The CompStat process is the Bratton Brand’s alpha and its omega. It is the engine that drives everything else.

And so it is as an expansion of and upgrade to the CompStat process that Bratton and Malinowski first introduce the concept of predictive policing. Noting that the Police Executive Research Forum foresaw a “‘gathering storm of crime’ on the horizon,” and that American cities had begun to register crime increases, the authors argue that police
leaders must turn (again) to the innovations of the private sector in order to stay ahead of their criminal opponents. And, whereas in the late 1980s and early 1990s, that meant taking inspiration from post-Fordist “reengineering” strategies, in 2008 it meant taking cues from “large retailers” like Target’s new analytics to “more quickly measure and improve [police] performance” and to “provide managers with real-time feedback on their progress against agreed-upon goals and established benchmarks” (W. J. Bratton and Malinowski 2008).

Construing crime reduction as policing’s profit motive, Bratton and Malinowski argue that

From a business analytics’ perspective, experts foresee the expanded use of streaming data analysis, preprogrammed threshold alerts and improvements in the way in which we visualize the data analysis that the computer performs on its own. We will move from near real-time analysis to true real-time analysis and then to a ‘predictive policing’ posture wherein more accurate and reliable probability modeling will be utilized to forecast potential crime trends over an increasing time span (Ibid. 264).

From there, Bratton and Malinowski turn to ontology, and argue that the way forward in policing is to “to shrink down the real-time continuum both on the input side of the equation and on the analysis side of the equation.” Although the CompStat model is still spinal to 21st century policing, it now requires turning the map’s analytic gaze away from the past and into the future, so that latency between data collection and action disappears. Or, more accurately, that data collection and action temporarily collapse into one another. As in business analytics, real time is not enough. In the interim between visualization and intervention, the event has already occurred (Hansen 2015b). And, in this context of policing, the “event” itself is a failure – a rupture in the smooth accumulation and circulation of economic value and affective sentiment.
Taking CompStat “to the next level” means “An increasing ability to forecast potential performance problems in time to set up appropriate interventions… Computer technology will…be used to not only identify possible issues earlier, but to recommend interventions based on artificial intelligence decision support programs and functions that are self-healing and self-correcting” (W. J. Bratton and Malinowski 2008). This is a call neither for policing as fast-reaction or preemption, but what AN Whitehead calls “prehension” (Whitehead 1978).

The work that “prehension” does in Whitehead’s metaphysics is extensive, but I intend, here, for it to denote the following: First, an ontology in which all force is creative, and all creative forces are material (whether or not we want to call them “objects”) (Harman 2009). All forces have “subjectivity” in that they recognize and form relations with one another. These can be either positive (incorporative and accumulative) or negative (rejective). This act of forming relations is what Whitehead calls “prehension,” and it is distinct from “perception” in that all entities regardless of whether they are organic, or inorganic, are regularly and incessantly doing the work of prehending other entities.

Second, and following, the effect of this work of incessant, material prehension is the production of irreducible novelty. Each “actual entity” that “concresces” from the incessant work of “prehension” is irreducible to any other. All have specific components, forms, and capacities. Prehension occurs at multiple levels and timeframes simultaneously, so that “the human” or “a person” can both be an “actual entities,” and
also contain and be composed of multitudinous other “actual entities” operating at independent temporal and physical scales all also doing prehensive labor. This allows us to say two things: that “the human,” concresced in a body is real and actual but is also at the same time distributed far beyond sensorial or phenomenological frames. That also means that “human consciousness” is an operant in a cosmology of operants, all of which are in existing or potential relation to one another, but that it is not the operant or a “prime mover.” At the same time, “the human” is distributed across space and time cosmologically so that its traces, like all other entities’ are everywhere and always acting. Mark B. N. Hansen calls this “human dust,” and Patricia Clough et al have called it “the datalogical” (Hansen 2015b; Patricia Ticineto Clough et al. 2015).

Third, and this brings us back to policing, that prehension implies a cosmology of perpetual novelty. All things are new. Existing entities fade away into the “datum” of the universe as soon as they flicker into being. The universe is a constant accrual, production, and circulation of data in relation at infinite time scales. And what I am contending is that the logic of surveillance that Bratton and Malinowski are beginning to sketch is targeted at the prehensive. That is to say that, rather than intuition, they want metrics. Against patterns, they want singular predictions (Hansen 2015a). Opposing both “structures” and “root causes,” they want granular data that is prehensive because it is real. Their fantasy is not to capture merely human intentions, perceptions, and bodies. All of that is, in fact, ancillary to the overarching project, which is to map the already-mathematized world (Kirby 2011; Barad 2007). Prehension denotes a target of power that is deeper and more extensive that biopower and biopolitics, because it is only interested in the “biological” as
part of a broader inhumanist project of mapping human’s components into the real
(Negarestani 2014, Moten 2018). It is more targeted and diffuse than preemption,
because it attends to the specificities of speculative yet real, actual occasions precisely to
reduce the financial load of policing probabilities. Preemption is expensive. Prediction,
by foreclosing the possibility of the criminal event, and the financial loads associated
with its aftermath, saves money. Bratton and Malinowski are uninterested in preempting
the possible. They are, instead, reaching toward incarcerating the virtual.

Against the obvious objection that this is impossible – that the technological capacity to
do this doesn’t exist in 2017, to say nothing of 2008, and that is improbable – that this is
reading quite a lot into a fairly rote op-ed in a minor police journal, I want to counter that
the fact that it is technically impossible is precisely how we can identify it as a logic of
rule. And, moreover, that governmentality has always worked in the realm of the
“impossible” or the unreal. The histories of racial and sexual “scientific knowledge”
attest to exactly this. How to measure the distinction between the human and the non?
What slope gradient on a skull accounts for intelligence? How does the curve of a hip
denote criminality (Seitler 2004)? All of this is to say that biopolitical regimes have
always distributed their violence by realizing the “unreal,” by collapsing the ontological
distinction between the “inhuman” and the “human,” by circulating capital through the
“hieroglyphics of the flesh.” Biopower tells us that we have ever been technically
assembled by regimes of violence and control that operated on, in, and through flesh and
populations (and the two of those terms are in some ways indistinguishable) without ever
touching bodies, to say nothing of humans (Foucault 1978; Spillers 2003; Sexton 2007).
What changes in the “society of control” are the material horizons of technical desire. In the emergent mode of governmentality, it is precisely the “impossible” that policing targets, because policing has accrued the mission of forging the real. This is not so much a “call” as a calling in the theocratic sense. And, as I have argued elsewhere, it is exactly this sort of mystical “calling” that the technics of contemporary digitization routinely authorize and demand (Scannell 2016). Trust the neural net to find something new. We never know in advance what an algorithm can do (Deleuze 1983).

What can an algorithm do? The correct answer: execute commands in an ordered sequence until it halts. A better answer: Organize sociality. What Bratton and Malinowski are offering is an ontological call for a new understanding of both what “counts” as the social, and how best to organize it. That there are no software programs that can (yet) accomplish their tasks creates an ever-receding horizon for investment, in which the capacities and capabilities of technologies like predictive policing always strain towards a not-quite-realizable future (Terranova 2004, 2007). But this is not about the practicalities of implementing a system so much as a way of arranging the nature of policing’s relation to the real. In much the same way that, in the 1990s, the Broken Windows Brain Trust sought to redefine what “statistics” means, now the move to prehension in the late 2000s seeks to articulate a political program that can harness the increasing power and granularity of analytic software to de and re-territorialize the fields of intervention available to policing. This, in turn, collapses any possible distinction between policing,
capital, affect, etc. The prehensive apparatus of policing sits at the heart of the contest over prediction.

Technology companies and agents understand the connection between smart security and the smart city to be integral. To paraphrase what Darrin Lipscombe, the head of head of Public Safety for Hitachi Data Systems told Security Systems News: the way to the smart city is through the safe city (Security Systems News 2016). Prehensive carcerality is the way forward for capital.

This is policing as philosophical praxis, as iteratively determining how to effectively circulate the violated body, its affects and its capacities as data, as capital, as materialized sites for accumulation. This is the regime of truth and power that Bratton and Malinowski point to when they end their article by arguing that the police “need to partner with businesses at the forefront of performance management to drive our own kind of profitability or performance by measuring everything from crime reduction versus last year or last month to overtime control, sick and injured on duty time usage, morale, community satisfaction, misconduct, excessive force, officer safety, employee wellness and a host of other measures.”

In November 2009, a little over a year after Bratton and Malinowski published their piece, and in the depths of the Great Recession, the LAPD hosted the National Institute of Justice for the first of two national symposia on predictive policing. Laurie O Robinson, the Assistant Attorney General in the Office of Justice Programs, explained in her
opening remarks that the overarching goal of the symposium was straightforward, and that the “first order of business is to define what we mean by ‘predictive policing’” (National Institute of Justice 2012, 17). The question would turn out to be intractable.

During a Technical Breakout Session on the first day of the symposium, John Morgan, the Office Director in the Office of Science and Technology at the NIJ offered, as a working definition, that predictive policing “refers to any policing strategy or tactic that develops and uses in formation and advanced analysis to inform forward-thinking crime prevention” (emphasis for some reason in the original) (Uchida 2009). The definition did not go over well. Participants in the session contested “advanced analysis” because “simple methods could be used for prediction.” They contested “crime prevention” because the definition ought to include “any activity in which police might engage.” They contested “forward-thinking” because it “implies backward thinking,” and suggested that even the term “predictive” was inappropriate. As replacement suggestions, the group offered “proactive policing,” “preventative policing,” “adaptive policing,” “evidence-based policing” and “data-driven policing” (National Institute of Justice 2012, 10). The problem with these terms was that they were, in 2009, already in use to describe different paradigms of police work. “Predicting” where and when crime would occur was, after all, not new. Neither was using sophisticated computer technology to assist in analyzing crime patterns and future forecasting. Symposium attendees had a great deal of difficulty making sense of what “predictive policing” offered beyond a rebrand of techniques like hot spot policing, problem area policing, risk terrain modeling, and computational criminology. The answer, which is in keeping with Bratton’s long-term frustration with
and rejection of professional social scientific studies of crime, was a turn away from “criminology.”

The same month as the symposium, Bratton’s soon-to-be-replacement as commissioner of the LAPD, Charlie Beck, wrote an op-ed with Colleen McCue for Police Chief Magazine called “Predictive Policing: What Can We Learn from Wal-Mart and Amazon about Fighting Crime in a Recession” (C. Beck and McCue 2009). At this point we can see the logic of “transparent government,” with which this dissertation began, come full circle.

Beck and McCue argued that, in the context of the great recession’s massive impact on police budgets, the data collection practices of the “public safety community” were necessary, but insufficient, in that they relied exclusively on historic crime reports. They contend that this type of accounting was unable to recognize improbable relationships between non-intuitive variables, like Wal-Mart’s discovery that people tend to buy more strawberry Pop-Tarts when large weather events are approaching. Police agencies, like Wal-Mart, could use similar methods of “advanced analytics” to develop more holistic and granular maps of where crime is likely to occur, and why. They could then use this data to direct deployment to be preventative, rather than reactive. This would have the advantage, Beck argued, of continuing to drive down crime rates because officers would “enter the decision cycle of our adversaries” in order to develop “preventing, thwarting, and information-based response.” In other words, rather than expending resources chasing down people who have already committed crimes, and done social injury, this
type of analytics would allow officers to deploy to interrupt crimes before they could be commissioned.

Beck argued that targeted deployment based on advanced analytics was a money-saving strategy that would allow officers to “do more with less.” It would also drive down costs at the back-end, by reducing actual arrests, trials, and incarceration. Predictive policing does not describe a technique so much as a genre of software applications that aim to collapse and automate the analysis and operations steps in what the RAND Corporation has called the “Prediction-led Business Process” (Perry et al. 2013).

Although they are marketed, and talked about in the press, as a sort of magical tool for divining where and when crime will happen, they are more accurately understood as a subset of digital resource management programs. They should be understood more like Amazon’s fulfillment centers’ employee management algorithms and countdown timers than Minority Report. In the Prediction-Led Business Model, “crime” does double work. On the one hand, it refers to an actual range of possible events – burglary, robbery, assault, drug use, drug sale, etc. Catching the perpetrators of criminal offenses, turning them over to the courts, and logging the event for future reference is the end “product” of police work. On the other hand, “crime” describes a range of virtual events that have not, and might not happen. It is, nevertheless, the job of the police, to prevent crime from happening. Ensuring that virtual crime does not become actual crime is impossible to assess, so police departments (and many criminologists) use proxies: crime rates. In order to rely on crime rates as benchmarks for effective policing, departments and technologists
have to assume that police presence and activity is what deters and prevents crime. Hence, crime prevention as labor management: send the cops where the crime will happen, and it won’t. Concentrate warehouse pickers where you think there will be purchasing spikes, and you increase supply chain efficiency. Seamlessness is predictive policing’s basic pitch.

MINORITY REPORTS

I want, at this point to circle back to the paradigmatic reference for all discussions of predictive policing technologies: Minority Report. There are two of them worth discussing.

The first, “The Minority Report,” (Dick 2002) is a 1956 short story by Phillip K Dick about enslaving children born with hydrocephaly. Abducted by the state as early as age six, kids are “placed in a government-operated training school” specifically designed to cultivate latent psychic “precog” talent “buried under layers of tissue corrosion.” The training is designed to deprive the children of self-consciousness or self-awareness. Dick describes one, who is put to work at age nine, as living at age twenty-four “in the aimless chaos of idiocy; the burgeoning faculty had absorbed the totality of his personality” (Dick 2002, 87).

These people, called “precog mutants,” live their lives in the hold of the “Monkey Wing” of the headquarters “of every important bureau.” There they are “imprisoned in their special high-backed chairs, held in one rigid position by metal bands, and bundles of
wiring, clamps.” They spend their days in “gloomy half-darkness…babbling…dull, confused, lost in shadows… gibbering, fumbling creatures with…enlarged head and wasted bodies… contemplating the future” (Dick 2002, 73). Anderton, the story’s protagonist, explains that “the talent absorbs everything; the esp-lobe shrivels the balance of the frontal area. But what do we care? We get their prophecies…They don’t understand any of it, but we do.”

The machines that they are wired to monitor “Every incoherent utterance, every random syllable… analyzed, compared, reassembled in the form of visual symbols, transcribed on conventional punchcards, and ejected into various coded slots” (Dick 2002, 73). In the police bureau, the “monkeys” churn out the names of people who will commit some crime at some point in the next two weeks. Officers arbitrarily select people and place them in detention camps, indefinitely, without trial.

The second Minority Report is a 2002 Tom Cruise vehicle directed by Stephen Spielberg. It is a tale about performing exotic genetic experiments on poor drug users’ children, and enslaving the survivors. The film’s premise is that in 2054, America is recovering from an epidemic of a new drug called “neuroin.” When this drug first hit the street, the poor only had access to an “impure form” rather than the “engineered cocktail that became so popular among the more educated.” Parental use of this impure form of neuroin caused severe brain damage in children. The state separated children born with neuroin-related damage from their parents and placed them in a clinic called “Woodhaven.”
Doctors in this clinic performed trial genetic therapies designed to treat the damage. The experiments induced a state of constant trauma, the children began to “wake up in the night curled up in the corner of the room screaming, clawing at the wallpaper.” When the lead scientist on the project realizes that “these little children…dreamed only of [actual] murder over and over one after another,” she turns them over to the police who enslave them.

They become “oracles” kept in “The Temple,” an off-limits room at the core of the Precrime unit’s facilities. There, they are kept in a state of constant REM dreaming through the adjudication of dopamine, endorphins, and “careful control over…serotonin levels.” They are locked into perpetual trauma – forced to dream perpetually of murder. “It’s better,” Tom Cruise tells us, “if you don’t think of them as human.” They are “pattern recognition filters. That’s all.”

The police, through Hollywood pseudoscience, see precog dreams, and use the visual evidence therein to arrest would-be-murderers. Rather than the mass camps of 1956, the condemned of 2002 are rendered permanently unconscious and are interred in individuated cubby cells, where they remain on life support until they die.

I relate these Minority Reports because when people discuss predictive policing, Minority Report is always the first point of reference. The viewing public, alerted by these stories to the dangers of sacrificing privacy and individual liberty in the name of eliminating crime, pose the ethical lacunae at the center of the stories as one of checks and balances
on public safety. But this misses the fundamental political-economic hell of these worlds. Both versions of Minority Report densely cluster American matrices of domination (Hill Collins 2000) and call back the most infernal techniques of American biopolitical regimes. That the “babbling idiots” of the “Monkey Wing” are impressed to brutally, relentlessly, labor (and that the wards excuse this horror by claiming that “idiot” human bodies and minds are incapable of processing harm) immediately invokes racial, sexual, and ableist logics of the middle passage, plantation, braceros, Jim Crow, and the neoliberal warfare state (Gilmore 1999) is not a warning but a callback to the eugenic scaffolding of American political economy (Mckittrick 2013, Johnson 2013, James 2007).

In 2013, the RAND corporation released a report called Predictive Policing: The Roles of Crime Forecasting in Law Enforcement Operations. A mixed-method survey of the then-nascent field, it sprawls over 189 pages. At the outset, the authors attempt to assuage fears that reports on predictive policing stoked in the general populace. In a subchapter titled “The Nature of Predictive Policing: This is Not Minority Report” they note that “‘predictions’ are generated through statistical calculations that produce estimates, at best; like all techniques that extrapolate the future based on the past, they assume that the past is prologue” (Perry et al 2013, 8).

That all past is prologue is exactly what the Minority Reports – and all speculative fiction – assume as well. Dick, writing in the 1950s, imagines a future of detention camps full of people rendered criminal by a paranoid state. Spielberg, re-envisioning Dick fifty years
later, barely bothers with implication and names the drug crisis that ravages America’s poor a “neuroin” epidemic. But if in both cases the science fictional points to a real of mass incarceration and organized dispossession, it also enacts a constitutive violence of American racial semiosis (Robinson 2007). In both Dick’s vision and Spielberg’s, race is present only as negation. In the original race registers in its absence but the film actively disavows it. Choosing, in 2002, to cast the instigators, tools, and victims (not mutually exclusive) of speculative state violence as entirely white evokes what Frank Wilderson (2010) calls “socially engaged feature film’s” “bad faith of civic invitation,” whose “faux interpellation…can be discerned by deconstructing the way cinema’s narrative strategies displace our consideration and understanding of the ontological status of Blacks (social death) on to a series of fanciful stories that are organized around conflicts which are the purview only of those who are not natally alienated, generally dishonored, or open to gratuitous violence. in other words, people who are white or colored but who are not Black” (Wilderson 2010, 25)

In seemingly perfect parody of Wilderson’s point, RAND’s dossier argues that, given that predictive statistical calculations produce estimates, “the results [of predictive policing software] are probabilistic, not certain” (Perry et al 2013, 8). The racial penal consequences of such technocratic transubstantiation of police logics are more certain than probabilistic (Muhammad 2010). And, of course, growing evidence is confirming the obvious suspicion that predictive policing reproduces and ratchets up the racial organization of state violence in the United States (Lum and Isaac 2016).

But RAND’s point that “the results [of predictive policing] are probabilistic, not certain” is cunning. RAND would reassure us that any system that deals in probabilities, as opposed to certainties, couldn’t pose a threat to the inviolability of individual liberty,
individualized suspicion, and protection against unreasonable search and seizure. That such legalistic formalities have not, do not, and cannot do enough to secure the well-being of people whose bodies constitute the iterative hierarchies of American racial, sexual, and class structures is an obvious and predictable problem with RAND’s case.

Nevertheless, I take the RAND Corporation at their word on two counts: That all past is prologue, and that advances in the logistical capacity to deploy and circulate police forces will “probably” reproduce and expand racialized carceral violence. Moreover, the past is the ontological ground that organizes livable lives (Gordon 1997). Christina Sharpe (2016) has recently theorized the racist contours of this ontological condition, arguing that we live “in the wake” of “the still unfolding aftermaths of Atlantic chattel slavery” (Sharpe 2016, 2). In that wake

The semiotics of the slave ship continue: from the forced movements of the enslaved to the forced movements of the migrant and the refugee, to the regulation of Black people in North American streets and neighborhoods, to those ongoing crossings of and drownings in the Mediterranean Sea, to the brutal colonial reimaginings of the slave ship and the ark to the reappearances of the slave ship in everyday life in the form of the prison, the camp, and the school (Sharpe 2016, 21).

Commercially available software does not and cannot “know” who will commit what crimes, or when. It will never “know” such things because crime is a social relation produced by the state and the police. It does not exist outside of state interdiction. More profoundly, the organizing logic of American criminal justice is not premised on individuated guilt and punishment, but on “the state-sanctioned or extralegal production and exploitation of group-differentiated vulnerability to premature death,” (Gilmore 2007, 28) that is to say, on racism. In the chiaroscuro technics of predictive policing,
group-differentiated vulnerability is translated into probable criminal “risk.” Predictive policing software uses almost every conceivable measure of vulnerability and victimization under American racial capitalism as an inflationary benchmark for calculating the likelihood that black, brown, queer, and poor people and the places where they live are intrinsically threatening to the broader public. This digital reformulation of the “dangerous poor” is deracinated and re-presented as hot spots and “mission areas:” a “prescriptive” (Hunchlab 2016) geography digitally manufactured to legitimate proactive police incursion. And it is on the basis of this manufactured geography of “high risk,” with that designation’s concomitant relaxed “standards for what constitutes reasonable suspicion” (Perry et al 2013, 124) that predictive policing programs proceed.

Leading predictive policing programs like PredPol and Hunchlab mine social data, employ prevailing criminological theories to model it, and project these models into the future as geospatially rendered probabilities of violence and disruption. Police commanders then direct units to respond to the map. Predictive Policing systems are labor management tools. They leverage the digital information infrastructures of computational capitalism to occult the American carceral state’s (Gilmore 2007) constitutive population racism (Clough and Willse 2010). Systems like HunchLab do not only rely on crime data to make their predictions. Instead, they blend mundane police surveillance like Request for Service (911) calls with punitive renderings of the built environment (tracking for items like number of take-out restaurants, schools, or bars within a geographic range), and cosmic processes (weather, time of year) to “forecast” where and when crimes are most likely to occur, and direct police power accordingly.
But, while this sort of “holistic” surveillance may correct for “bias” in police reports, it does so by mobilizing the racial capitalist (Robinson 1983) infrastructure of American political economy. Far from addressing the necropolitical (Mbembe 2003) organization of American populations, “race blind” algorithms designed by companies like Azavea digitally “zero out” the entanglements between race, carcerality, and capital.

The effect, as Safiya Noble (2013) argues in her critique of Google Search, is to reinstantiate “race” as an unspoken and unspeakable remainder, rather than an axial structure of American political economy (Melamed 2011). Or, as Noble puts it:

This rhetoric of post-racialism and colorblindness places the onus of discrimination or racism on the individual, or in the case of Google, on the algorithm. Rather than situating problems affecting racialized groups in social structures, those who call attention to the problems are made the problems themselves.

Following Noble’s critique, I want to argue that we cannot put the onus on the algorithm because algorithms cannot “code out” race from American policing. Race is an originary policing technology, just as policing is a bedrock racializing technology.

Most arguments in favor of predictive policing rest on a purported ethic of care and remediation. Azavea, the software company that builds “Hunchlab,” states that a core tenet of its mission is “reducing harm associated with overpolicing.” To do so, Hunchlab advocates “transparency” and employs “a probabilistic model to vary where officers are sent…[and] show[s] officers a 15-minute timer when they enter a mission area to encourage them to patrol without over-saturating that area” (Azavea 2016). Once police
deploy, they can avail themselves of “Advisor” which, among other features, has an “adaptive tactics component [that] uses Bayesian statistics to recommend tactics on-the-fly (Azavea 2017). Such features sound like steps in the right direction. But the recourse to digital transparency is in fact a product of surveillant regimes of violence that refigure contact between the police and the policed as a site of punitive data accumulation that transmutes techniques of reformation into technologies of sovereign control (Deleuze 1992).

Azavea are an excellent example of how liberal ethics cathect to expansions of the datafied imaginaries of a morphing carceral state. Azavea is a “Certified B Corporation,” meaning “a for-profit company with a social mission.” Their mission is “to apply geospatial data and software to create more sustainable, vital and livable communities while advancing the state-of-the-art through research” (Azavea 2015). HunchLab 2.0 is their effort to repair policing. Azavea describes the product as “a web-based proactive patrol management system. Advanced statistical models forecast when and where crimes are likely to emerge” and specialize in “figuring out the best way to respond” (Azavea 2017 Emphasis added). To that end, they “pride [themselves] on transparency, a commitment to reducing harm associated with over-policing, and a focus on helping officers find the best tactical solutions to improve their communities” (Azavea 2016).

Hunchlab offers several services:
First, a mapping tool called “Predictive Missions” that trawls available databases to automatically generate “Missions.” Unsatisfied with crime forecasting models that focus on crime reports, Hunchlab dramatically expands the scope of its analysis
For example, we can incorporate concepts such as: temporal patterns (day of week, 
seasonality); weather; risk terrain modeling (locations of bars, bus stops,
etc.); socioeconomic indicators; historic crime levels; and near repeat patterns. The 
system automatically learns what is important for each crime type and provides 
recommendations of where to focus the resources that you have available.

If you don't have particular datasets (such as bars or bus stops), the system simply 
adapts to use the data available in a given jurisdiction (Azavea 2015, 10).

The “Missions” are geographically and temporally specific crimes that the program 
deems most likely to occur, most likely to be preventable by police patrol, and calibrated 
for optimal “dosage” (the company’s term for optimal number of missions in a particular 
neighborhood). It arrives at these recommendations in a few ways. It “uses ensemble 
machine learning approaches” that incorporate and analyze data associated with a variety 
of crime forecasting models. Then, it displays a chart showing how effective a particular 
theory is at explaining the likelihood of a crime. It compiles this with “patrol efficacy” 
(how likely patrol is to impact the likelihood of the crime in question) and “severity 
weight.” The “severity weight” is evaluated in dollars of “sum to predicted cost of 
preventable crime” crossed with the value of allocating patrol resources to prevent that 
crime. In the case of rape in Lincoln Nebraska, the dollar value of the crime is evaluated 
at $217,866. But the likelihood of preventability, apparently zero, makes it “not really 
that important in terms of allocating patrol resources” (Azavea 2014). Commanders 
customize each crime’s “weight,” but the system measures this against the likelihood that
patrolling will be an effective deterrent. It prescribes Missions based on the resulting dollar value cost-benefit analysis. Hunchlab then paints these Missions on a map that streams to officers through GPS-enabled tablets and smartphones equipped with the Sidekick app.

When Hunchlab recognizes the officers to be in a designated Mission zone, it triggers the product’s second feature. This tool, called “Advisor” suggests two tactics and asks that officers select one. The system then starts an approximately fifteen-minute timer (based on the “Koper curve” (Koper 1995)).

During those fifteen minutes the officers are expected to prosecute their chosen tactic. At the end of the window, they stop, respond to an “exit question” and proceed to the next mission. Exit questions include (Azavea 2017b)

- Did you have a positive interaction with the community?
- Did you feel that the mission location was appropriate?
- Did you feel that the risk fingerprint was correct?
- Should we send you here less often?
- Should we send you here more often?
- Should we set the mission timer higher here?
- Should we set the mission timer lower here?
- Was it difficult to patrol this location?

The exit questions are designed to collect data, which are then run through decision trees that automatically revise suggested tactics and mission prescriptions. The company also hopes that leading questions like, “Did you have a positive interaction with the community?” will affect future officer behavior by reminding them that they ought to be having positive interactions.
Finally, Hunchlab offers a service called “Dashboard” (funded by a grant from Homeland Security) that “automatically keeps track of key performance indicators.” Azavea suggests that Dashboard be made available to officers as well as management, suggesting that departments “keep KPIs on display in station houses through low-cost wall displays” so that “officers know how their metrics compare to the rest of the department” (Azavea 2017). It is hard to think of a clearer realization of Gilles Deleuze’s model for “societies of control” (Deleuze 1992) than this.

Hunchlab raises a few points about how predictive policing works at peak benevolence.

First, Hunchlab is designed as a riposte to the largest predictive policing firm, PredPol’s methodology. PredPol bases its predictions on three variables: crime history, location, and time. It employs what it calls “self exciting point process modeling” to analyze that data and builds its forecasts (Brantingham et al 2012). It has come under fire for being reductive, and overly dependent on biased police data (Upturn 2016). HunchLab, by contrast, strives to be as holistic as possible. It maximizes the reach of its datasets and runs a number of forecasting models simultaneously. It does so by transforming the policed “community” into a field of criminogenic data. Take-out restaurants, schools, bus stops, bars, zoning regulations, temperature, weather, holidays, and more are all assigned criminogenic weights, and analyzed based on density; a preponderance of inexpensive food options becomes a nexus of criminal activity. Gastronomy and budget transform
into criminality and risk, thereby mathematizing and forecasting the “community” euphemism.

Second, the neoliberal tactics of gamification and surveillance that plague the tech industry eclipse Hunchlab’s field of vision. Prediction, presented as a method of harm reduction, makes no effort to change the structural inequalities and violence of the American carceral state. Instead, Azavea relies on labor management techniques like the Koper curve and tactical recommendation; methods of soft control like constant KPI projection and review; and Gary Becker-like (Becker 1974) calculations of comparative harm as dollar value to bend police agencies towards “reform.” That these techniques all systematize American racial capitalism is elided through the imaginary of neoliberal efficiency. This is the sociopathic logic of Silicon Valley: that the conflicts and inequalities of the social world are ultimately an engineering problem borne of human inefficiency. “Fixing” those problems is merely a question of applying algorithms to mitigate the drag on the ideal functioning of the system. Doing so will, in turn, “make the world a better place.”

Finally, to quote Foucault (1977, 200), “visibility is a trap.” Hunchlab does not target individuals but “a certain concerted distribution of bodies, surfaces, lights, gazes; in an arrangement whose internal mechanisms produce the relation in which individuals are caught up” (Foucault 1977, 202). But whereas Foucault understood the Panopticon to individuate the effects of power, so that the “inmate” comes to recognize their perpetual observation, and thus comport with the desired norms of the penal house, Hunchlab
produces a Panopticon without inmates; surveillance without subjects; criminality without criminals. Human subjects are incidental to the model and its effects. This reflects the company’s Californian Ideology (Barbrook and Cameron 1995) discussed above. But it also suggests a mode of power that weaponizes transparency. The constant agglomeration and analysis of data culled from the lived existence of persons and places under American racial capitalism renders contact between the police and the policed an open moment of data accumulation. In this inflated encounter, the physical, metaphysical, and social violence ensconced in the mechanics of carcerality partition into anodyne “exit questions” and automated decision trees that granulate and distribute the lived oppressions of captivating technology into a “reparative” metric of reform.

Such a “reparative” transformation of police labor protocols relies essentially on a wager that the speculative, probabilistic logics of the platform economy can durably assemble as proxies for the intersecting racial, sexual, and class-based structures of state violence, thereby profitably eliding the carceral engineering of American criminal justice. But this doesn’t scan. Édouard Glissant critiquing exactly this imperial model fever that Relation…does not act upon prime elements that are separable or reducible. If this were true, it would itself be reduced to some mechanics capable of being taken apart or reproduced. It does not precede itself in its action and presupposes no a priori. It is the boundless effort of the world: to become realized in its totality, that is, to evade rest. (Glissant 1997, 212)

Carceral Computation beyond Necropolitics

There is a moment at the beginning of Spielberg’s Minority Report in which Colin Farrel’s agent Witwer asks the Precrime unit “why [the precogs] can’t see rapes? Or
assaults, or suicides?” To which an agent Fletcher replies “Because of the nature of murder. There is nothing more destructive to the metaphysical fabric that binds us than the untimely murder of one person by another.” Pausing, first, to reflect on the murderous work that the word “untimely” does here, the bare minimum response to this proto-All-Lives-Matter armchair philosophizing is incredulity. One wonders how many killing officers exonerated by American courts and judges would, in this alternate universe, find themselves incarcerated in the Precrime unit’s meat lockers. If, as RAND reassures us, “all past is prologue,” then the answer hovers near zero. Presumably, those murders were all timely.

Beyond those spectacular cases of “bold instances of cruelty” we might attend to “more mundane displays of power and the border where it is difficult to discern domination from recreation,” (Hartman 1997, 42) and ask about the work that social death, genocide, enslavement, institutional rape, organized accumulation by dispossession, organized food insecurity, Bourbon trap economics, mass incarceration, block busting, rate busting, skull busting, school busting (this list goes on) do to constitute the actually existing “metaphysical fabric” that binds America together.

It is this real onto-logic that Christina Sharpe calls The Wake. American criminal justice doesn’t detect rips in humans’ collective life world. It systematically excises black and brown lives from the repertoire of beings for which the state bears responsibility. Noting that “the list of nonindictments in the wake of state murders of black people continues to grow: Michael Brown, John Crawford, Aiyana Stanley Jones, Sandra Bland, Jonathan
Ferrell, Miriam Carey, Tamir Rice, Rekia Boyd, *” Sharpe argues that “Black being appears in the space of the asterisked human as the insurance for, as that which underwrites, white circulation as the human. Always, black beings seemed lodged between cargo and being. Wake: in the line of recoil of (a gun). Wake: The track left on the water’s surface by a ship. Wake: the watching of relatives and friends beside the body of the dead person.” (Sharpe 2016:111)

Centering Sharpe’s analysis, I want to return to that brief interchange in Minority Report to think through how the pastoral pretensions of the American carceral state have reorganized under the rubrics of data-driven strategic and tactical deployments. Spielberg’s invocation of murder as the only crime that the Precrime unit can detect is an enormous change from the operational logic (Massumi 2015) of Dick’s original world. Dick’s minority report is a more prescient vision of our actually existing datalogical (Clough et al 2015) dystopia. The “Monkey Wings” in Dick’s story are in most government bureaus, financial houses, and industrial sites, and the police borrowed the idea to use this captive labor from Wall Street. Real-world police borrowed the idea from Wall Street, but also from Amazon and Wal-Mart (Beck 2009), and honed their algorithms studying the distribution of Iraqis killed in the battle of Fallujah (Bond-Graham and Wilson 2013).

In Dick’s vision, precogs see a variety of crimes, and officers arbitrarily decide what arrests to make. In a telling moment, Dick’s Anderton pulls a stack of cards with names and crimes written on them and tosses them sight-unseen to a subordinate, telling him to
“see which ones we want. Use your own judgment.” Murder might be the particular crime of which Anderton is accused, but Dick’s point is not to meditate on the boundaries between security and justice. Instead, his is a cold-war warning about the impact of black-boxed, unaccountably broad-based police power vested in vast and unknowable data generation.

Dick’s story is also unfortunately prescient in that it tethers fear of creeping extrajuridical police power to a science fictional warning about the potential uses and misuses of digital technologies. In so doing, Dick and his later interlocutors (Spielberg, but also the journalists, academics, and researchers that see “The Minority Report” coming to life in contemporary policing techniques) miss the punch line that the punitive, unaccountable, terrifying organization of the relationship between police and policed is neither new nor “technological,” in a futureshocked sense, but an undergirding logic (Foucault 2008) of the American racial state (Browne 2015). There is obviously something deeply unsettling about one’s being transmuted to “risk.” But it is also telling that critics and proponents alike constantly point to science fiction to articulate this fear. For people of color, for women, for queer people, the state presumption of abjection has never been science fictional. Neither Jim Crow nor Zero Tolerance required the deployment of massive computational power. Bodies, themselves, did that work.

It is the structure of American racial antagonisms (Wilderson 2010) rather than the advent of new technology that underwrites the biopolitics of actually existing America. As Simone Browne points out in Dark Matters (2015), inscribing the “materiality” of race
is internal to biometrics and surveillance. From 1783’s Book of Negroes, colonial “Lantern Laws,” and the design of the slave ship Brooks (to name but a few examples), Browne shows over and again that the racial rendering of bodies is the condition of possibility for our data-driven world.

At any rate, Spielberg characteristically transforms Dick’s diagnostic of Where-America-is-Going into a morality play about the dilemma of how even good (white) men can, when invested with too much power, fray the inherent decency of American civil society. The ghost that haunts the film is the then-novel PATRIOT Act, whose effects were only in 2002 beginning to be felt, and whose novel technics of control (Deleuze 1992) are nodded to in the film’s biometric mundane. And, in a recuperative act of American liberal nationalism (Reddy 2010), Spielberg reimagines the actually existing surveilled, accused, hunted, detained “monster-terrorist-fag” (Puar 2007) target of the war on terror as an upstanding, heteronormative, white police officer. It is only by doing so that he can pose the question: how far is too far? His intended lesson – that there might be such a thing as “too far” when the legal rights of individuals are compromised in the name of security – has been widely drawn by the public. When journalists, pundits, and critics discuss predictive policing technologies, they autonomically invoke Minority Report (the movie) and wonder whether it could possibly be legal for the police to arrest you before you’ve committed any crime. The technical answer is no. It is legally impermissible (even if practically normal) to target and arrest individuals for crimes that they have not committed. But it is telling that, when faced with widespread public nausea at the idea of predictive, preemptive, proactive, prescriptive policing, defenders point to amendments
one, four, and five of the bill of rights and assure the public that their programs comport with those strictures.

Though such a legalistic defense is certainly not nothing, it comes close to it in a country that historically prosecutes its terrors in prideful accordance with the letter of its law, while simultaneously mobilizing the material and affective pleasures (Hartman 1997) of a deputized “white civil society” to maintain capitalized racial hierarchy. As Dylan Rodriguez puts it,

To blur the boundaries and limits of juridically and culturally legitimated racist state violence is the act at the heart of the American policing modality, and this rearticulation of the state – a political labor that disembodies the formal state while reembodying it in the lives of its subjects – entails more than the institutionalization of police impunity: it calls for the deputization of white civil society itself. (Rodriguez 2006, 26)

Following Rodriguez, I am arguing that predictive policing, and its carceral cousins in the ever-expanding field of “data driven public safety solutions” does the ground work of instituting how “boundaries and limits of juridically and culturally legitimated state violence” are methodologically reorganized as part and parcel of the consolidation of the digital as a cornerstone of American political economy (Clough 2013). Far from the remedial gesture of course correcting failed strategies of mass incarceration (President’s Task Force on 21st Century Policing 2015), data driven policing constitutes an enormous expansion of both the carceral field of vision and the calculative logics under which racism is imagined and enacted (Clough and Willse 2010). The incorporation and transubstantiation of ever-increasing, ever-more-granular data points and models aimed at building a perfectly “accurate” policing regime does not so much reduce harms
associated with “overpolicing” as cement a perverse digital mysticism in which not only
the material world, but the affective, climactic, and geomantic transform into the raw
material for a seemingly limitless expansion of the carceral state’s datalogical paranoia.22
At the root of this hideous gnosis (Masciandaro 2010) is not the avowedly proto-fascist
call to Make America Great Again. Rather, to borrow Axon (formerly Taser)’s slogan,
injunction is to “Protect Life.”

We come full circle. The Axon Corporation takes up Spielberg’s formulation that there is
“nothing more destructive to the metaphysical fabric that binds us all than the untimely
murder of one person by another,” truncates it, extends its reach, and expands its domain
to “Protect Life.” To that end, we are offered the dystopian prospect of

a team committed to pushing the boundaries of technology to help you [read: “law
enforcement, militaries, and citizens alike”] feel more confident in the field, at the
station, and in court. From Smart Weapons, like our TASER devices, to police body
cameras and digital evidence management systems, every product works together as a
single network. Seamlessly integrated. Completely connected. And designed to help
police, sheriffs, and law enforcement agencies everywhere make the world a safer place.

This again, is what Jasbir Puar calls “inhumanist biopolitics” (Puar 2015). But it is
precisely the political that companies pedaling digital criminal justice software disavow.

To acknowledge politics rather than constitutional comportment requires
acknowledgement that the point of digitizing the carceral is to manufacture an end run
around the narrow legalistic protections nominally afforded to Americans. It is precisely
the abductive deployment of risks, rates, and probabilities that work around these

22 I am not using “paranoia” as a polemical term here. Rather, I am thinking of Tung-Hui Hu’s
(2015) argument in A Prehistory of the Cloud that the epistemological default of “the network” is
a paranoia that produces “network fever,” “the desire to connect all networks, indeed, the desire
to connect every piece of information to another piece.”
constraints while invoking a quasi-progressive adherence to “smarter,” more transparent policing. And, as we have seen, advocates like Azavea imagine predictive policing as reducing harm and protecting civil liberties. But their approach renders as criminal variables lifeways, foodways, and lifeworlds, to say nothing of the cosmological or planetary inevitabilities of living on a rock with atmosphere. That is to say: The Weather.

Taking the absurd logic of criminogenic weather to its conclusion, criminality increasingly becomes a direct consequence of anthropogenic climate change and ecological crisis. Far beyond the slow violence that Rob Nixon (2011) has identified as a slow-burning biopolitical attack on the poor, the irreversible transformation of the earth’s temperature becomes a vital virtual variable in local police departments’ deployment decisions and strategic initiatives.

I want to make explicit an injunctive logic threading throughout this paper: that, insofar as the world drags the planet into paranoid collusion to reproduce racialized logics of command and control, then the world must go. We ought not to be concerned about making it “a better place.” To the extent that of repair has fueled the benevolent impetus of data-driven policing, the best that it can offer is a denuded penal rehabilitation that rejiggers state violence as an intricately calibrated management of populational debility.

So, then: perhaps against repair, an undercommons (Harney and Moten 2012). Predictive policing is a fraud and a scam in the most predictably triangulated neoliberal tradition. But its failures and elisions set the stage for an undercommoning (Moten 2008) of data - a
movement in place, or a break— that wrecks the disjunctive synthesis (Deleuze 1995) of algorithmic governance. To use Moten’s own language, it beckons “in the face of the brutally imposed difficulties of black life…a celebration.” The celebration is not “to make us feel good or make us feel better, though there would be nothing wrong with that” but rather to anchor the “condition of possibility of black thought, which animates the black operations that will produce the absolute overturning, the absolute turning of this motherfucker out” (Moten 2013).

DOMAIN AWARENESS

To that end, and by way of conclusion, I am arguing the following: that vitality, lively data, lively bodies, are not only the tools but the raw material of a contemporary neoliberal human-security state that has monetized virtual carcerality (Amar 2013). This shift has been catalyzed by a white supremacist, heterosexist utopianism (“Broken Windows”) that aestheticizes itself as rational and pastoral. This idealized logic of the straight, white, wealthy city, has been built into digital infrastructures of governance that rest on recent euphoria surrounding the “possibilities” of digitally “knowing” the social via urban informatics. This database driven sociality is advocated as a crucial, contemporary means to “disrupt” old, “inefficient” ways of measuring and governing in order to reduce waste, crime and unemployment, and to seamlessly integrate the public and the private spheres (Noys 2014). This, in turn, has rested on a refusal to recognize that an aesthetics of the inhuman animates the consolidating ontological settlement of contemporary politics and its virtual, affective target (Cheah 1996; Beller 2017; Shaviro
I want to consider one final example of this logic of rule: the New York Police Department’s Domain Awareness System.

Often regarded as a sophisticated continuation of the CompStat crime prediction program that Commissioner Bill Bratton instituted during his first tenure as police commissioner in the 1990s, the DAS and the discourse surrounding it participate in an emergent popular obsession with the possibilities - instrumental and profit-driven - opened by the convergence of enormous computing power and colossal information collection. Microsoft, which developed the system in conjunction with the NYPD, owns the system, which it brands nationally as “Aware.” Microsoft has aggressively pursued expanding its use into city departments across the country. It has based much of its sales pitch on the brand power of the NYPD, and the reported reductions in crime rates that have coincided with its deployment. As part of its agreement with the corporation, the City receives 30% of the revenues for each package of the system sold. Mayor Bloomberg envisioned this as an alternative tax structure, saying, “Citizens do not like higher taxes, so we will (find other revenue outlets)…I hope Microsoft sells a lot of copies of this system, because 30% of the profits will go to us” (Ungerleider 2012). Under the city’s agreement with Microsoft, the practice of data-driven policing is itself profit-generating.

The DAS is designed to fulfill two overarching missions for the NYPD:

The first is to constantly monitor the city’s surveillance apparatuses (cameras, twitter feeds, cellular metadata, etc.) so as to efficiently coordinate responses to crises. The
department’s favorite example of this is an incident in 2012 in which officers were able to respond rapidly to a handgun assault in front of the Empire State Building. The DAS, the department argues, was crucial in identifying the nature of the incident as it unfolded and coordinating information pushed out to first responders, so that they could quickly contain the unfolding situation (Post Staff Report 2013). There is some merit to this claim. Officers were able to subdue the gunman and neutralize an already lethal situation in the heart of the city’s tourist district within minutes. What the department does not often mention - it is incidental to the effectiveness of the System’s mobilization of resources - is that, in “subduing” the perpetrator of the assault, officers accidentally shot 9 civilian bystanders (Barron 2012).

The system’s second purpose is predictive, rather than responsive. By collating and analyzing the same surveillant information used to organize force response, the DAS determines where and when crime is likely to happen, which it translates into heat maps that are pushed out to unit commanders, who can distribute forces accordingly. Recently, the NYPD equipped all of its cruisers with Microsoft tablets pre-loaded with the software, so that officers will be able to “respond” to crimes that are about to happen without the temporal drag of the chain of command. In an all-too-obvious development, the Department’s relationship with Windows led them to buy Windows smartphones shortly before the product line was discontinued (Liao 2017). They were quickly forced to purchase iPhones as replacements, further demonstrating how the “epic struggle of the internet of things” works to secure the “shadow carceral state” (Beckett and Murakawa 2012; Sterling 2014).
The department, unsurprisingly, won’t tell anyone what data is being collected or how, exactly, it is being analyzed. In all likelihood, they aren’t sure, themselves. But they are collecting enough information that Commissioner Bratton felt comfortable claiming in 2014 that Microsoft and the NYPD are “beginning to write algorithms that identify in a real-time way paths of criminal activity” (Schaeffer 2014).

Rather than pick apart the fact that Bratton’s statement means nothing in practical terms, I want to highlight how it operates as logic of rule - an aesthetic reworking of Broken Windows policing as mathematical, technical, computational and dispassionate. As we have seen, Broken Windows theory is itself an aesthetic repurposing of a combination of older traditions in American social control: Jim Crow and militarized heteropatriarchy. By this I mean that broken windows transformed the overt racial logics of black codes, on the one hand, and race liberalism on the other; and the overt sexual politics of heterosexual evangelism on the one hand, and liberal engineering of public health on the other, into a series of aesthetic decisions about what the city “should” look like (white, masculine, straight, rich, formally employed, sexually demure, etc.) (French and Browne 2014).

It is a perversely utopian project of imagining the city - and its rule - “otherwise.”

This utopianism was perhaps never articulated quite so clearly as at its inception when it was deployed as a state practice of violently depopulating sexually plural spaces of
“nonproductive” conviviality (particularly Times Square) in order to pave the way for the circulation of white heteronormative, transnational and nonlocal bodies and capital between discrete private spaces. This was most dramatically symbolized by the Disney corporation’s capture of midtown, and the rhetoric of “cleansing” social pollutants that authorized it (Delany 1999).

That this series of decisions should be enforced by occupation-style policing performed by what former mayor Bloomberg classified as “my own army in the NYPD, which is the seventh biggest army in the world” (Walker 2011) participates in this logic of the urban. “Omnipresence,” the current iteration of militarized policing, is a policing strategy that assumes that occupation is the only method capable of subduing dispossessed communities (J. Goldstein 2014). That this is articulated as a logic of “caring” for and “protecting” these communities from enacting any sort of resistance to neoliberal racial capitalism (graffiti, selling loose cigarettes, walking too slowly in the street, having condoms while gender non-conforming) is instructive. Broken Windows says, and police are paid to believe, that a proper city simply doesn’t have people relaxing on street corners or selling loose cigarettes, doing sex work or walking alone at night. They should be “at work,” “at home with their families,” at school, at a restaurant, shopping, or any combination of the above. Queer temporality and postmodern geography cannot, do not, must not exist (Halberstam 2005). The state makes such lived geographies the target, rationale, and end of its war machine.
The problem with such a policy is that enforcing it via overwhelming police violence is costly - both to the city’s coffers and to the goal of social quiescence that policing is meant to achieve. No doubt anticipating the backlash that thirty years of such clumsily heavy-handed necropolitical policing would produce, and believing Microsoft’s argument that policing-by-algorithm is the way of the future (or maybe more importantly, a way to reduce lawsuits), New York has invested heavily in transitioning to a more explicitly surveillant apparatus of control. By rendering the City itself a surveillance system - through the thorough distribution of environmental sensors, the constant collation of metadata, the proliferation of security cameras, etc., the NYPD is closing the circle on the aesthetic logic of “cleanliness” that Broken Windows mobilizes (Carney 2012). The city morphs from a degenerate space in need of care via occupation into an “urban laboratory” constantly generating data to be analyzed - the very ideal of a sterilized environment (Kitchin and Colleta 2016).

Rather than explicitly maintaining the color line through projects like redlining, the stated aim of the state transforms into “protecting” non-white, non-heteronormative populations from themselves. In this sense, we can think of the relationship between aesthetics and the political on the terrain of human decision, in which the field of the political reflects a human-centric ontology. Bratton’s “real time way paths of criminal activity” comment traces a shift from the heavy handed power of the state to care through punishment to the “lighter” touch of predictive policing and distributed surveillance (Cheney-Lippold 2011; Lyon 2015). In the current iteration, algorithms are meant to enable the city’s police force to determine where crime will happen, and who will commit it, so that the event never
takes place. The “algorithms for real time way paths of criminal activity” diffracts the surveillant gaze of the now homonormative racial capitalist state into the queer times and places of an inflated present, bundling the emergent possibilities of “undesirable embodiment,” capital circulation and temporal unpredictability into monetizable, modular capacity.

The reality, of course is that state violence in New York renders the same bodies unlivable that it always has. Mathematizing Broken Windows via complex surveillance systems renders “impossible” the racial and sexual violence of this human security city. If the software that determines where police go and why is neutral in a way that people so often argue only artificial intelligence can be neutral, then the rampant violence of the state is indicative of incidental breach of the common wheal, rather than the beating heart of contemporary racial capitalism. Recall that the department’s favorite example of the system in action involved the incidental shooting of nine bystanders. And yet, that is not considered a failure because the system did what it was supposed to do: maximize force response at a site that is crucial to the flows of the neoliberal city at minimal resource cost and temporal drag. The nine bystanders are the result of officer error, are considered unrelated to the performance of the DAS. And yet, nine people were still shot in an essentially random act of state violence. The obvious point, then, is that if the Domain Awareness System is designed to reduce and rationalize state violence, then the Domain Awareness System does not “work.”
But this consolidating settlement of the political, the machinic and the aesthetic does not demand the human, or the “body” (in Hortense Spillers’ sense of the word (Spillers 1987)) as an organizing figure, or even a horizon that politics bends “towards” (Pitts-Taylor 2016). Predictive data analytics systems, after all, are designed to excise the human from the work of observing, understanding, interpreting and acting on the social. The human becomes, in this regime, incidental to what the analytics systems “see” in the urban laboratory. That this is the intention of these systems is often shrouded in liberal language of accountability or eliminating bias, but instrumentally the “elimination of bias” and the elimination of the human amount to the same thing (Wynter 2003; McKittrick 2015; Glissant 1997). Foucault’s famous invocation of the Panopticon as a technology points to the deep-seated relationship between liberal political theory and ahumanism. Panopticons, after all, are intended to work without a human governor (Foucault 1995).

Complaining that big data and its attendant techniques and technologies don’t deliver what we demand of it - doesn’t sufficiently process the world, is to make the problematic assumption that the world of big data is “for” the human. What I would suggest is that these systems don’t so much fail humans as fail to recognize the human as such; fail to find us interesting (Miyazaki 2012; Parisi 2013; Galloway and Thacker 2007). This is a shift in social ontologies that is not so much away from biopolitics as from bios. It literally sociality without “us.” For example: NYC’s Aware System has radiation sensors distributed throughout the city that are sensitive enough to pick up recent chemo treatment in a passing body (Ungerleider 2012). It is not particularly interesting to these
sensors whether the spike they register on the street is emanating from a dirty bomb or a treated human (Crandall 2010). The “object” that triggers their interest is, rather, a set of qualities - modulations of intensity and duration against a normative background surveillance (Bennett 2010; Coole and Frost 2010). These spikes and flatlines are what Microsoft monetizes, what circulates as derivative capital.

Being surveilled - generating lively data - provides meaningful labor for capital and the state’s mutual production of spaces for the smooth circulation of value (Patricia Ticineto Clough and Puar 2012; Patricia Ticineto Clough 2013; Barad 2007; Bennett 2010). And this recruitment of labor for surveillance is a recruitment of the non-human, or at least the non-subject. It is an incarceration of liveliness that recruits non-conscious actants into the profitable production of security (Latour 2007; Negarestani 2014b; L. R. Bryant 2011). Cancerous cells, in their mutant proliferation, are doing the labor of the carceral state - conjoining a body with biomedical treatments that will then go on to form the background radiation levels of a city against which the likelihood of a terrorist attack can be measured (Galloway, Thacker, and Wark 2014; Thacker 2011; B. H. Bratton 2015). Cancer is terror is metrics is profit.

In this iteration of aesthetics, the computational sets the parameters for what qualifies as the social (Parisi 2013). The relationship that the Aware system can make between ambient radiation levels, metadata, and the possibility of social irruption becomes the logic by which politics organizes. The capacity to smear the human and the built environment into a set of possible outcomes that recombine or don’t in time frames that
operate outside of human phenomenological capacities (the true meaning of that ever-elusive “real time” (Hu 2015; Hui 2016; Shaviro 2014; Avanessian et al. 2015)) comes to stand in for something like political power.

Governance, rather than being an effective and efficient means of directing resources with the aid of digital information, becomes the capacity and desire to smooth out the distinction between the digital and the analog (Galloway 2014). The target of analytics systems is less accurate prediction (though of course this is important) but the capacity to smooth out the distinction between the curve and the digital (famously demonstrated by the side-by-side comparison between a handwritten B and a digital B (Liu 2010)). This relationship is a stochastic one. No amount of digital granularity can “become” the curve. Rather, the curve must be imagined by the analytics systems as otherwise. This requires the inhuman creative temporal and physical distribution of ontologically indistinct data points across an increasingly unbounded digital ecology (Ernst 2013; Miyazaki 2012; Landecker 2011).

In this sense New York’s DAS laboratory is not so much a digital representation of the world, as a making of the world from digitality and towards the analog. What we might think of as a “misrecognition” in the relation between the digital and the analog (in which digital renderings of the real world inevitably “fail”) is more productively understood as an aesthetics without us (Shaviro 2014; L. Bryant, Srnicek, and Harman 2011; Grosz 2001). Technological systems are not miscommunicating. They are, instead, making themselves intelligible to one another outside of the ontological ground of the human
mediator (Galloway, Thacker, and Wark 2014; Thacker 2011). They are producing a world that is not the world of the human, but is nevertheless the world in which the human travels, in which the human body is disassembled and reformatted as digital possibilities as real or as unreal as the particulate matter or cancerous growths out of which “we” are composed (Stengers 2010; Land 2012; Negarestani 2008).

Politics, then, becomes a practice of imagining, policing and monetizing the curve, which is to say imagining the possible emergent actions and relations between things (Parisi 2012). The idea behind the NYPD DAS is not so much to be somewhere before the crime happens, but to imagine the relationships that render crime an emergent possibility, and reorganize them so that the event is impossible (Hansen 2015a). It is a question of playing with the variables, rather than acting on results. Rather than use statistics abstracted from the social in order to make predictions, the DAS imagines space where crime is going to happen (the curve into the heat map), and deploys an assemblage of forces (police cars, uniforms, Tasers, bodies, cameras) in order to destabilize this relation. In this sense, it is not so much predictive as prehensive, reaching towards the immediate and immediated, a logic of governance that is about scrambling productive forces into destabilized relations, rather than organizing them towards particular ends (Hansen 2015a; Patricia T. Clough 2003; Puar 2015).

All of which returns us to Microsoft, and the city’s 30% cut off of every copy of the system sold. The city’s capacity to operate is, in other words, increasingly dependent on the production of disembedded populations’ subjection to policing and arrest. The racial,
class, sex and gender differences that articulate a body as necessarily outside the
normative neoliberal ideology of the state circle back as raw material for the development
and deployment of algorithmic analytic systems (Puar 2009; J. Butler 2011; Pitts-Taylor
2016).

When Bratton talks about algorithms knowing virtual criminals before they exist, he is
deploying a human-indifferent ontology in which “the algorithm” licenses an orientation
of the state towards the city in which subjected bodies’ (queer, poor, people of color, etc.)
rhythms of daily life constantly produce monetizable and actionable “paths” to “criminal
activity,” which is to say towards incarceration. This tautological logic of security only
makes sense in the context of the authorization of “the algorithm” as powerful, neutral
arbiter of truth and futurity - in other words, as something like a God. If a progressive
Democratic mayor’s commissioner of police said outright that poor, queer, black children
were inherently and naturally and justifiably subject to inevitable police repression, he
might, at least, be reprimanded. And yet “the algorithm,” in this case, authorizes
precisely such a statement. That is what electric light can do.


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