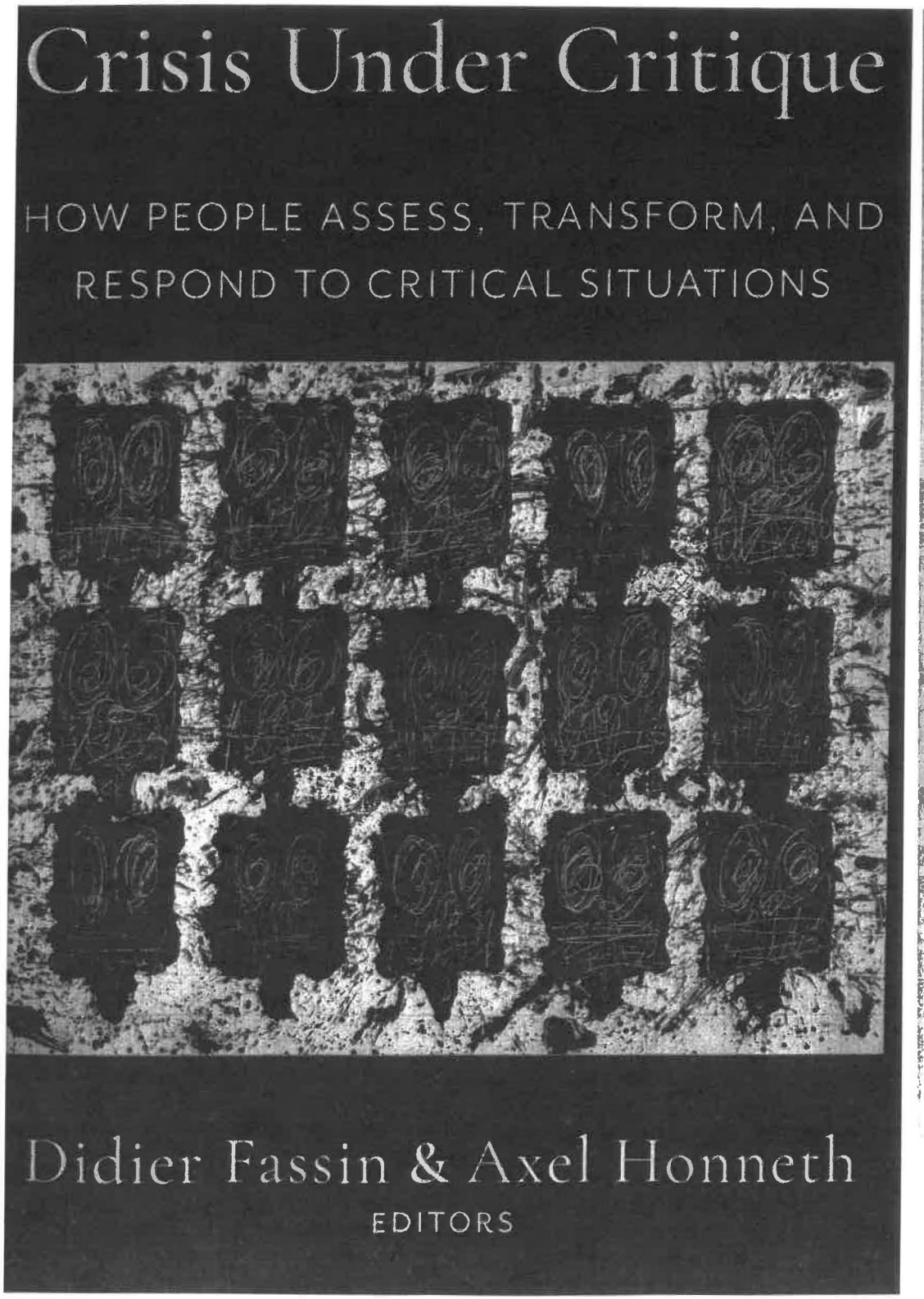

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Toward a Theory of Climate Praxis

Confronting Climate Change in a World of Struggle

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Climate changes everything. Climate changes nothing.

In New York, Hurricane Sandy was supposed to prompt a revolution in climate politics; instead, powerful actors, residents slammed by the storm, and community organizers interpreted the storm in terms of long-familiar frameworks and struggles. The island of St. Croix is vulnerable to sea-level rise and was recently battered by giant hurricanes. Facing up to these rising storms, St. Croix now debates whether to retrofit and reopen an obsolete oil refinery because that's the only revenue source capable of bankrolling the investments in climate resiliency now desperately needed. Our fieldwork on the aftermath of these hurricanes, in two very different places, suggests that people's reactions are more complex than either end of a simple climate binary.

On the one hand, progressive scholars and activists see climate change as a fundamental break with everything that came before, tilting life into an imbalance for which there is no precedent and no guardrails (McNeill and Engelke 2016; Archer 2011). It is a revolution already under way, with dramatically positive or negative potential, depending on the scholar's mood. On the other hand, progressive scholars and activists see climate change primarily as accentuating existing structures of dispossession. In its scientific diagnosis, forecasted impact, and proffered solutions, climate change is the logical outcome of historical projects of profit and power, and it should be confronted as such (Welzer 2011; Patel and Moore 2017; Estes 2019).

We want to home in on a key tension between these dynamics. For a person—and a scholar—to absorb and understand the basics of climate science means recognizing that the world has irrevocably changed and will continue to do so.

(We still believe the worst can be prevented.) In turn, that recognition implies a story of cause and effect: greenhouse gas emissions resulting from human activity—primarily the combustion of fossil fuels—are the cause of climate breakdown. And yet, in the social world there is never a "pure" climate politics; politics always intersects with already existing structures, cultural frameworks, power arrangements, and so on. Responses to worsening climate change are likely to lead to ruptures, but those ruptures will be shaped by complex interactions.

Here, we believe that protracted political struggle—rather than, say, cultural symbol systems, lawlike economic tendencies, or behavior responses to extreme weather—will play the decisive role in shaping how people understand climate change's interconnections with other issues and how they act on them. Our aim in this chapter is to use fieldwork from two different sites, each impacted of late by hurricanes worsened by climate change, to start sketching a concept we call climate praxis, remembering that while climate changes everything (Klein 2014), it is never about climate alone.

We seek to emphasize how situated individuals and groups grapple with climate impacts in the course of long-standing efforts to change the world based on needs and normative goals. We expect these efforts to change and to increasingly foreground climate crisis. But this change will always occur on the basis of layered prior projects, such that the path dependencies of climate politics will obtain indefinitely.

Based on fieldwork in New York and in St. Croix on the U.S. Virgin Islands, we sketch two particular ways in which political struggle informs how people engage in climate praxis. First, we show how people coping with climate change's existential threat seek to domesticate it by downplaying some of its specificities and enormity and by tying it down to longer-standing frameworks and struggles. Second, we examine the contested ways in which situated reactions to climate change always draw on longer histories of dispossession. Our goal is to structure conversations that can lead to better theory, new research needs, and more engaged politics.

We have never been convinced by the optimism of "ecomodernism," the view that states, nongovernmental organizations (NGOs), and corporate elites will produce sufficient decarbonization and adaptation through technocratic means, by simply coordinating an inevitable shift to green technologies and financial instruments (Shellenberger and Nordhaus 2007; Gould, Pellow, and Schnaiberg 2008). But in this chapter, we also want to push back against the inverse optimism of many social scientists and humanists who find in ordinary people an intrinsic social and cultural resource for "good" politics, without attending to

concrete economic, geographical, racial, or institutional specificities. The myopic focus on everyday people's powers of good ignores the political economy and institutions and essentializes how people intrinsically are (whatever that is) in relation to the crisis to come. We do see grounds for hope in bottom-up politics, but that comes through messy, pragmatic political organizing and will ultimately depend on forms of democratic control over major investment flows.

And we see this basic set of dynamics operating across a wide range of contexts. We have collaborated to think through fieldwork that each of us has conducted in two different places whose politics were convulsed by climate breakdown–charged hurricanes: New York City in the aftermath of 2012's Hurricane Sandy, and St. Croix during the 2010s, which were years of multiple brutal storms. In New York after Sandy, Cohen and colleagues founded the Superstorm Research Lab at New York University to track the storm's aftermath. Their research included interviews with a cross section of 75 New Yorkers—18 elite disaster responders, 10 community-based organizations, 37 volunteer responders like the Occupy Sandy activist network, and 17 ordinary New Yorkers directly affected by the storm (several people belonged to more than one group). Cohen has since continued to conduct fieldwork and interviews on the city's climate politics. In 2010 and 2011, Bond began a historical ethnography on what was once the largest refinery and petrochemical plant in the Western Hemisphere, as an example of how oil refining helped define the modern Caribbean and its ecological points of dissent (Bond 2017). Because of his research and the circulation of his findings among advocacy groups on St. Croix, Bond was invited back to the island in 2019 to join with residents working to oppose the reopening of the refineries and to work to envision alternative futures.

ONE CRISIS TO RULE THEM ALL?

Climate conditions life. As climate comes undone, will life come undone as well? Whether by ecological colonialism, petrocapitalism, thermonuclear statecraft, or the globally advertised American way of life, it is clear that certain patterned human activities tilt the stability of the earth's systems beyond the conditions that fostered the social forms of contemporary life and perhaps human life at large. While the impacts of climate change are already under way and disastrously apparent in places like shallow atolls, densely populated deltas, parched megacities, torched landscapes, and coastal communities, the greatest impacts of climate change remain in the future—projected sea-level rises and diminishing

returns on maps and charts. It is on the authority of *predicted* future changes that the climate crisis can claim to be the greatest crisis of all.

In light of those expected changes, climate breakdown highlights the structural fractures and built-in blind spots within historical projects of accumulation and authority, within liberal institutions of state sovereignty and free markets, and within the presumption of enlightened progress. As the historian Andreas Malm (2016, 4) has written, "Global warming is a sun mercilessly projecting a new light onto history." In so doing, climate refracts and recenters the defining crises of the contemporary world around a new recognition and reckoning: the planetary tenets of precarious life. The climate emergency is simply so enormous that other crises shrink in comparison. For earth system scientists, climate change has marked the future as an "unintended experiment of mankind on its own life support system," in the words of leading climate scholars (Steffen, Crutzen, and McNeill 2007, 614).[1] Based in part on this science, economists and development institutions are reshaping the futures of whole countries, like Bangladesh, based on power-laden projects of "anticipatory ruination" (Paprocki 2019; see also Cohen 2021).

Yet even as climate breakdown captures the imagination of young school strikers and critical theorists, climate is a curious crisis. Unlike the crises of inequality, racism, or even the Covid-19 pandemic, climate change unfolds over such sweeping temporalities and geographies as to be nearly impossible to fully grasp at the scale of human experience (Norgaard 2011; Hulme 2009; Jamieson 2014). So much of what we know and how we've come to experience climate change comes through the substantial mediation of climate science (Callison 2014). Climate science has a privileged view on the changes under way. Yet this science is far from disinterested. In the political history of its methods and the regulatory taming of its inquiry, climate science is a discipline born and raised within the halls of state power. As a measurable problem, climate change came into existence through the analytical infrastructure of the Cold War (Edwards 2010; Lepore 2017). Yet as automobile tailpipes have replaced thermonuclear holocaust as the primary means of mass destruction, the view of this infrastructure has shifted from monitoring planetary fallout to modelling planetary collapse. Climate science often presumes a powerful, benign state that has never existed.

Meanwhile, we will show how the definition of climate change remains remote from many people's everyday struggles, difficult to grasp. One might not guess this from public opinion polls, whose multiple-choice methodology creates the illusion of clear climate opinion. On the ground, however, we have found that when people working in the shadow of extreme weather receive an open-ended question on climate, they respond in all manner of complex ways, invoking narratives that range from inevitable human apocalypse to real estate morality tales.

The prevailing scientific discourses of climate change, in their social existence as scientific reports, public relations strategies, and media frameworks, all downplay those myriad, messy ways in which struggling people grapple with climate change as they understand it. Paradoxically, despite their remove from social struggle, climate scientists frequently make some of the boldest demands of the present based on their forecasts of the future. They delineate "planetary boundaries" that are being trespassed without regard (Rockström, Steffen, and Noone 2009); they call for unprecedented, "rapid decarbonization," with the 2020s constituting a decade of "Herculean efforts" (Rockström et al. 2017). For many scientists (and social theorists and activists), their scientific forecasts are ultimately a revolution occasioned by planetary necessity, rather than arising from historic momentum. Nothing would bring this revolution about like concrete weather disasters, massively disruptive events whose wreckage of human lives offers an irrefutable call to arms.[2]

We sympathize with the call for transformative politics. We recognize the depth of scientific consensus on just how devastating climate breakdown will be. But we doubt that the needed change will flow logically from the quantitative models of earth system science—or from a simple moral upswell transmitted magically from below. Our capsule case studies, which look at housing in New York City after Hurricane Sandy and at environmental justice in St. Croix after Hurricane Maria, show how struggles for practical justice and struggles for climate justice can link up or decouple around a rising regime of superstorms.

HOW CLIMATE CHANGE ROILS AMIDST PREEXISTING OUTLOOKS AND PRACTICES

On October 28, 2012, Hurricane Sandy made landfall near New Jersey's Atlantic City, before smashing into New York and devastating the coasts north and south. The storm also tore through the Caribbean, wreaking especially fierce damage in Haiti. It was the first time since Hurricane Katrina had ravaged New Orleans in 2005, seven years earlier, that such a fierce storm had hit the United States. Sandy landed just days before a presidential election; the occasional

climate champion Barack Obama was running for a second term. The billionaire Michael Bloomberg still had fourteen months in his mandate as New York City's mayor—just enough time to revive his legacy as a climate champion. And on the streets of New York, the Occupy Wall Street movement was roughly a year old; in abeyance, but with its networks still strong. In the storm's aftermath, that network reemerged as Occupy Sandy, coordinating tens of thousands of volunteer storm responders.

If Katrina's aftermath had become a story of American racial inequalities, Sandy's aftermath had the chance to be something different: the story of a wealthy postindustrial city pushed from the political realm above and activists below into an unprecedented reckoning with climate change. It was a chance to link cause and effect, climate breakdown and the fossil fuel systems that caused it—systems that needed to be wound down. This was a moment when climate science could shed its abstractions and feel visceral.

Certainly, climate was prominent in the public discourse. Just after the storm, Bloomberg endorsed Obama, citing the latter's potential to tackle climate change; this endorsement provided a coveted last-minute boost from a centrist who largely avoided partisan politics. Obama was also embraced by New Jersey's Republican governor Chris Christie during a joint tour of federal relief efforts. By all accounts, the Obama administration's competent response to the storm boosted his reelection effort—and hopes that a new round of climate policy, at every level of government, was finally at hand. Just after the storm, *Bloomberg Businessweek* ran a notorious cover headline, "It's Global Warming, Stupid." The climate scientist James Hansen echoed *Bloomberg*'s headline with a column in the *Guardian*, asserting what he presumed to be obvious and reflecting the common sense of many climate advocates at the time: the hurricane was "a stark illustration of the power that climate change can deliver—today—to our doorsteps," he wrote. "Ask the local governments struggling weeks later to turn on power to their cold, darkened towns and cities. Ask the entire northeast coast" (Hansen 2012).

Cohen and the Superstorm Research Lab did not ask the entire northeast coast, but they did interview dozens of people in New York who were affected by the storm or were working on reconstruction (Superstorm Research Lab 2013). They found something else: an ambivalence that accepted—but trivialized—the specific climate dimension of the storm (Cohen 2021). And none seemed less interested in climate change's causes than senior bureaucrats charged with relief.

As one senior disaster recovery official, prompted to speak on the storm's link to climate change, said:

> Have we begun to see weather have impact and effects which have not happened in the last 50 to 100 years? Absolutely. . . . So is there such a thing as climate change, there probably is. Do I know the impact that it has on my city? Yes, I see it physically. But what does it mean to me as an emergency manager? I'm from the old school. And so until someone can tell me that this thing climate is actually—it's real and how do I incorporate that into my plans I don't look at it that way. My job is to deal with the facts that are in front of me and prepare for whatever emergency that's going to hit the city. (Cohen 2021, 693)

Most of the disaster relief officials that we spoke to echoed this view. As another senior official put it, the city needed a "forward-looking strategy when it comes to climate change . . . forward-looking resiliency moves. . . . If we're smart, we'll come up with plans that are actionable . . . [so] we can be better prepared, bottom-line, when the next storm hits."[3]

For virtually every disaster official we spoke to, forward-looking policy referred exclusively to adaptation and fortification; of the minority who mentioned decarbonization, only one expressed confidence that the city would make progress there. While climate scientists like Hansen took Sandy to be an obvious example of the cause-and-effect relationship between carbon emissions and natural disasters, most New Yorkers we spoke to situated Sandy's strangeness in the familiar philosophical and material struggles that shaped their everyday lives. For disaster officials, the familiar struggle was disaster preparedness. For community group leaders, volunteer relief workers linked to Occupy Sandy, and ordinary New Yorkers, those struggles were more diverse. The lab consistently encountered people who seemed to be trying to domesticate climate change into preexisting moral and political commitments.

When those prior commitments included climate activism or organizing, the links were smooth. Take one of the volunteer disaster responders in the Occupy Sandy activist group. That activist was already organizing against a new pipeline to bring fracked gas into New York. She said, "Well I mean the best that we can do is start immediately looking into renewable, renewable ways of energizing our planet. . . . We have this amazing sun that shines on us every single day that we totally ignore. I mean Europe is waking up to it."

Luís Garden Acosta, a longtime Puerto Rican social justice organizer and the director of El Puente, an environmental justice-focused community group in Brooklyn's South Williamsburg neighborhood, likewise connected Sandy to climate issues he had long organized around. (Garden Acosta gave us permission to cite him directly.) For him, the storm was the occasion to plan a Latino Climate Action Summit, hosted in Puerto Rico, to draw activists and community organizers from Puerto Rican communities across the United States, to begin assembling the whole diaspora around a common vision. Garden Acosta saw a clear path to effective action, saying, "You know . . . we should never be in situations when it comes to climate change where we say well, we're not going to, we're not going to try to prevent it because it's all over."

Activists who had worked in other spheres, however, often abstracted away from the specifics of climate change. One Occupy Sandy activist, who had spent a decade of her life organizing in solidarity with Palestinians and then participated in Occupy Wall Street, agreed that better climate policies were important. But, she said, "the real ideal would be that these [activist] networks would engage in reclamation of the common projects. . . . That's what I see as like, if something has the stamp Occupy on it, those are the characteristics I would like to see come out of anything related to Occupy. In relation to climate change and, you know, a disaster like this, et cetera. I don't know that that will happen but, you know, some of us will try."

For most community group leaders and activists, Sandy was a crisis in the sense that it exacerbated long-running inequalities in the city, rather than being a solitary event from which one could cleanly recover (Cohen and Liboiron 2014). And with good reason. One poststorm study by a number of housing groups found that 44 percent of surveyed public housing households located near the water's edge had visible mold after Sandy; but 35 percent of those units had had visible mold *before* Sandy (Alliance for a Just Rebuilding et al. 2014, 2). What precisely would decarbonization achieve for these public housing residents in the short term?

Indeed, many seemed afraid that climate change as a topic of struggle would pull them away from what was dearest in their activism: bottom-up mutual aid. But there was more than pragmatism at work. At times, respondents spoke in a way suggesting that climate's threat was just too overwhelming to handle.

A prominent civil society organizer in Red Hook neighborhood said, "You know our programs are mostly around helping young people get jobs, get into school, change their neighborhood, and so the climate change—you know, I guess

in terms of some sort of neighborhood rebuilding, but again I don't know. I mean what can you do? Aren't we just fucked? [Laughs]. I mean in Red Hook, what are we going to do? We're going to put the houses on stilts?" In Red Hook, most of the homes are multifamily apartment buildings and there is a lot of public housing—not the kind of home that can be elevated on stilts.

Other activists also revealed apocalyptic fears, albeit in the context of other political visions. One Occupy Sandy organizer insisted that climate change was ultimately a story about inequality—and in a way that was almost paralyzing:

> It's like people who have means—they have means to get out of a flood. You know what I'm saying? And so that to me is connected to climate change because the people that are going to suffer the most with climate change are the people who don't have the money and the means, you know? And you know, like sometimes I wonder about the climate change thing. Is it even reversible at this point? Do you know what I'm saying? Not that that should just be like, "Well fuck it, let's just do whatever we want." But it's kind of—I don't know. It's terrifying to me.

While many climate activists see linking climate to inequality as a fruitful way to politicize climate change, it might have an opposite effect: linking the challenge of "reversing" climate change to the seemingly impossible task of reversing inequalities. As Fredric Jameson (2003, 76) once remarked, "It's easier to imagine the end of the world than the end of capitalism."

Certainly, for some respondents the language of climate change seemed inadequate to capture reflection about humans' relationship to nature. One New Yorker badly hit by the storm said,

> You know what it could be, it could be a manmade disaster because people, my husband kept talking about global warming and a lot of people blame the things that happen now, like when things happen or when things are out of sync with how nature says they should go, because man has done so many things to alter nature and alter the outcome. I don't know because I know before global warming occurred, or before man sort of had the power to manipulate nature and do different, things happened then. So, I don't look to place the blame anywhere. All I look at is what's in front of me. This is what we're dealing with. I didn't care about whose fault it was or whatever; my biggest concern was what are we going to do from here.

Far from Hansen's prediction that Sandy exemplified climate change, we found people acknowledging climate while settling into more familiar, foundational discourses.

One concrete, everyday issue in New York that has an almost existential hold on New Yorkers' minds was housing and real estate. These were the source of many New York fortunes, the economic sector that literally shaped the city's built environment, and the potential source of eviction and foreclosure. In the Bloomberg era, gentrification often evoked the specter of colonialism; the savagery of housing inequalities was a bit like the empire come home. And this wasn't new. Housing precarity has defined the lives of most New Yorkers for well over a century (Plunz 2016). It was through damage—or destruction—of homes that so many experienced Sandy. And Bloomberg framed much of the response to Sandy not just in terms of repairing that damage, but more broadly as a politics of redevelopment (Greenberg 2014); community groups often found that postdisaster struggles quickly turned into battles over the terms of new building construction. Repeatedly, interviewees across categories answered questions about climate change with reference to housing.

One respondent, when asked what could be done to prevent a recurrence of Sandy's devastation, raised New York governor Andrew Cuomo's idea of buying out some flooded homeowners. The respondent approved of giving some neighborhoods "back to nature [to] protect other properties further in. . . . Maybe we shouldn't be in certain places as human beings. Maybe we don't need to be on the edge of a beach or whatever." Another affected resident likewise urged relocation: "Move to higher ground. I don't know. I mean I know that, you know, there's CO_2 emissions and all that thing and renewable energies, which sounds really good. I don't see it happening unfortunately. That's probably the only way to, I don't know if these things can be reversed, but at least, like, mitigated or slowed down. That would probably be a good idea. I don't know."

One organizer with Occupy Sandy reported that the affected residents they organized with were agonizing mostly about their housing, including the new mandate that people living in the most flood-vulnerable areas should spend tens of thousands of dollars to elevate their home. The organizer said they encountered "anxiety around elevating [their homes] or not. So it's like, 'I need to be back in my home. I need to, like, get a sense of normalcy. But I can't do it again.' And there are people who are leaving. There are a number of people who I've talked to who they're like, 'I never want to swim out of my house again.' "

The sociologists Javier Auyero and Debora Swistún (2008) have argued, based on fieldwork in a poor, heavily contaminated neighborhood on the edge of Buenos Aires, that people often struggle to confront the facts about their own poisoning because of "relational anchoring": they cathect more to long-standing habits than to troubling but uncertain new information. After Sandy, even massive disruption seemed to collide with this dynamic—the storm was simply easier to situate in more familiar, already existing frameworks and habits.

To be sure, many organized civil society groups grappled with the specifics of climate policy. And yet in a kind of "selective continuity," housing, labor, and environmental justice groups focused almost exclusively in Sandy's aftermath on channeling funds for adaptation and rebuilding in an equitable manner, rather than demanding more aggressive decarbonization (Cohen 2021). No doubt, this focus partly reflected the fact that the Bloomberg administration likewise pivoted away from low-carbon policy efforts like reducing car use and tightening building energy efficiency requirements that had stagnated before Sandy. After the storm, administrators focused almost entirely on adaptation for the remaining fourteen months of their term (Cohen 2021). With public investments directed toward defensive fortification, prompting localized political fights over the details of redevelopment (Graham, Debucquoy, and Anguelovski 2016; Greenberg 2014), and people on the ground wrestling the storm into more familiar narratives and everyday concerns, there was little impetus for a larger conversation about carbon and energy systems.

This was not a case of pure "postpolitical" technocracy and/or popular acquiescence (Swyngedouw 2011). Rather, across the categories of New Yorkers the lab spoke with, the idea of climate change was in part incorporated into already existing struggles, and in part relegated to transcendent narratives (humans' relationship to nature) that were beyond the reach of really existing everyday politics. To a large extent, this tendency reflected the fact that major public funding from all levels of government for relief and reconstruction had little to do with decarbonization (Cohen 2021). In that context, neither the storm itself, nor the climate scientists' discourse about it, could turn post-Sandy politics into a low-carbon mobilization. But these politics were neither inevitable—nor permanent.

Just seven and a half months after Sandy hit, Cohen went to the Sheepshead Bay Yacht Club in South Brooklyn to observe an evening of Occupy Sandy activists reflecting on what they had—and had not—achieved in their activism. This was not a conventional "yacht club." The clubhouse consisted of a dimly lit bar and dining area that looked like countless of American dive bars. Using bright markers, activists wrote ideas on large pieces of butcher paper masking-taped to the walls. Many drank cheap beer from glass bottles.

For Cohen, the most striking pattern to emerge from the self-critique was the number of activists who said they wished that during their everyday volunteer relief work they had organized more around, and talked more about, climate change and climate politics.

Soon, they would. In 2014, the United Nations secretary general Ban Ki-moon planned a climate summit to take place in September. Progressive groups from across civil society, including Occupy Sandy organizers and environmental justice groups whose members had been hit hard by the storm, organized a massive march to coincide with the event. New York's new mayor, Bill de Blasio, sought to distinguish himself from Bloomberg. On the eve of the summit, he released a more aggressive decarbonization plan. On September 21, over 400,000 people walked the city's streets in the People's Climate March. The demands were vague—largely centered on green jobs and investing in vulnerable communities. But in the march's aftermath, key organizers in the city decided that de Blasio's new plan could serve as the basis for a new campaign—this time focused on decarbonization, but in a way that protected low-income tenants and created jobs for working-class communities of color.

The Climate Works for All coalition, composed of progressives, labor groups, housing justice groups, and environmental justice advocates, formed around a proposed low-carbon buildings bill that would avoid displacing tenants. The campaign's leaders referred constantly to Sandy to explain and justify the policy, even though the coalition formed almost two years after the storm and the policy itself had little to do with recovery from Sandy. In April 2019, after a long, uneven campaign, the city council passed the New York Climate Mobilization Act, likely the country's most aggressive low-carbon buildings bill, thanks to activist and grassroots pressure that pushed city councilors to approve a bill opposed by the city's powerful real estate industry. Cohen attended the vote in council, sitting in the balcony with housing and environmental justice organizers. Indeed, the housing movement support was key. The bill was specifically crafted by City Councilor Costa Constantanides to avoid triggering "major capital improvements" clauses in rent-regulated and senior-assisted housing that would have facilitated rent increases. As Constantanides said while introducing the bill, "We have ensured that this does not fall on the backs of the most vulnerable." He went on to cite the city neighborhoods that would be "wiped off the map" by unchecked climate change, and he noted that his children and (future) grandchildren would demand real action. But perhaps most importantly, he then cited three supporters who were in the balcony, the political muscle behind the bill: a leader from a municipal union (DC-37), the director of a labor and

economic justice nonprofit (Align), and the climate organizer of a housing and racial justice movement (New York Communities for Change).

It was not climate scientists—or climate economists—who framed the winning arguments. Rather, it was political organizers and their elected allies who had found a way to situate climate change in everyday struggles over rent and employment. The climate praxis found after the storm, and in the legislative campaign that followed, was never automatic or cleanly shaped. New Yorkers also confronted fossil fuel production indirectly, through building energy use and a handful of contested gas pipelines. While the city's financial industry funded fossil fuel extraction around the world and the city's cultural institutions benefited from the philanthropy of major oil executives (Cohen 2016), the city escaped the kind of visceral petro-cum-climate politics found in St. Croix, where a major oil refinery long dominated the island's economy. To grapple with these politics, we widen the lens for a more encompassing view.

HOW CLIMATE CHANGE DRAWS IN LONGER HISTORIES OF DISPOSSESSION

In the summer of 2011, the Hovensa refinery on St. Croix broke down in spectacular fashion. That summer explosions rattled the neighborhoods around the refinery as black smoke draped the verdant landscape in what looked like sooty cloaks. Explosion after explosion was followed by emergency warnings to shelter indoors, and refinery employees in hazmat suits went door to door to skim the oily surface off residential rain catchment basins.

Built in 1967, the Hovensa refinery soon became the largest oil refinery and petrochemical plant in the world, an imperial feat that unfolded under the radar of popular and scholarly considerations of the wider Caribbean. As students and leaders of the Caribbean rallied around the image of the sugar plantation in the making of the region, huge oil refineries such as Hovensa became the largest site of foreign investment in the Caribbean, a leading source of state revenue, and one of the region's primary employers. Bond's research unpacked this neglected history, charting how entrepôt oil refining advanced a new geography of U.S. empire and sparked novel forms of ecological resistance across the Caribbean (Bond 2017).

During its heyday, Hovensa generated enough revenue to transform the modest island of St. Croix into a paragon petrostate. On paper, the economy flourished as the territorial government was flush with refinery tariffs, almost

magically able to hire its way through every economic downturn. As is so often the case, such fiscal wealth came at tremendous ecological cost. The explosions of 2011 helped bring Hovensa's imperial place on the island—its exported profits and gathered injuries—into unsettling focus. As explosions continued, Environmental Protection Agency (EPA) investigators were sent in. They soon uncovered long-standing practices of deferred maintenance and questionable shortcuts, even as several joined with executive staff from the refinery at tropically themed evening parties that flowed with booze and lavish meals.

Contamination, it turns out, was built into the design. As one investigator explained to Bond, "Every pipeline carrying a saleable product was built above ground. Every pipeline that carried waste products was installed below ground." Comprising six miles of cast iron pipeline, some up to thirty inches in diameter, the entire waste stream was buried in the salty sand. The pipelines started rusting almost immediately. In 1982, the refinery estimated that 300,000 barrels of petrochemicals had leaked from these pipelines and formed a petrochemical slick some ten feet thick floating on top of the island's only aquifer. At one point, construction workers on the south shore stood back in surprise as a geyser of crude oil shot out of the hole they were digging. They thought they'd hit it big until the dismal reality of the situation became clear: they had tapped into a shockingly large plume of petrochemicals flowing from the refinery. An internal investigation in 2001 revealed that 95 percent of the waste-stream pipelines were leaking, and by 2005 the refinery concluded they were "deteriorated beyond repair."

Yet the refinery continued to operate as if nothing were amiss. By 2010, over 1 million barrels of oil had been extracted from the plume beneath the plant—an amount four times the size of the Exxon Valdez spill—yet the remediation of the plume was nowhere in sight. Carcinogenic vapors from petrochemicals are now readily detected in homes and neighborhoods along the south shore of St. Croix. When an EPA official came to St. Croix in 2011 to address the severity of what had been uncovered, he was shouted off the stage by residents furious over decades of quiet neglect.

Beyond corroded infrastructure, investigators also uncovered a history of shoddy practices that routinely sacrificed public health on the altar of operational ease and corporate returns. Workers told Bond stories of venting benzene under the cover of night on an island where residents still get their drinking water from cisterns, and of flushing mercury down the drain into a bay still popular among local fishermen. Facing potentially record-breaking fines for this liable history of disregard, Hovensa agreed to settle with the EPA in 2011. The

refinery agreed to pay a $5.3 million fine, and, in lieu of penalties, committed $700 million to extensive remediation, state-of-the-art pollution controls, and substantial investments in public health on St. Croix (including a cancer register to investigate residents' worst suspicions). At the time, this settlement was the largest on record for a refinery in the United States.

After finalizing the settlement, Hovensa shut down and filed for bankruptcy in February 2012. This action not only sidestepped its legal obligation to clean up its own mess but also compelled draconian cuts to the territorial government budget. When the refinery shut its doors, 20 percent of the territory's annual budget disappeared in an instant. The closed refinery had "shaken the foundations" of St. Croix, the governor of the U.S. Virgin Islands said at the time, forcing cuts that were nothing short of "catastrophic." Unemployment soon shot up to nearly 20 percent and energy costs skyrocketed (the refinery had long subsidized electricity and gasoline rates) as the state's governing capacity hemorrhaged. Crime rates on St. Croix rose substantially as theft and assault became commonplace (a United Nations report notes that the U.S. Virgin Islands now has the fourth highest homicide rate in the world). One year out, the U.S. Virgin Islands labor commissioner testified his surprise that there hadn't been a complete meltdown on St. Croix. "But," he added, "it has only been a year."

Catastrophe built on catastrophe. With St. Croix still in a tailspin, an unprecedented Category 5 hurricane brushed up against St. Croix in 2017, causing considerable damage. Two weeks later, a second Category 5 hurricane slammed directly into St. Croix, leaving nearly every building on the island in tatters and obliterating most public infrastructure. Ninety percent of all electrical transmission lines were destroyed. The back-to-back superstorms inflicted "widespread catastrophic damage," as the National Oceanic and Atmospheric Administration (NOAA) put it, and uninsured damages exceeded $7 billion. The hurricanes blew away roughly one in ten jobs on the island and hacked an already emaciated public purse in half. Unemployment claims spiked to twice their previous high point: the closure of the refinery. The territorial government found itself downgraded and beyond bankrupt, unable to secure aid to meet its dire need or able to renegotiate its debt obligations. Three years on, congressionally allocated funds for recovery remain a fading promise in this Caribbean territory. The plight of St. Croix clarifies exactly what "colonial" means in the present tense.

In 2018, a year after one of the worst hurricane seasons in recorded history, Caribbean nations gathered to discuss climate resilience in the region. Many spoke of weaning themselves off fossil fuels and building green economies. The enthusiasm was clear: the Caribbean was poised to become the premier laboratory

for redesigning societies beyond oil. Then the U.S. Virgin Islands stepped on stage. Their plans for climate resiliency pivoted on one idea: restart the refinery. When pushed, officials spoke about the rising challenges and costs that climate change was bringing to the island with storms like Hurricane Irma and Maria. How could the territorial government bear these costs without the refinery? The oil industry may be morally bankrupt and complicit in the coming catastrophe, but who else is still capable of paying the bills?

Over the past two years, the territorial government has facilitated the sale of the refinery with generous tax breaks and promises to absolve the new owners of any responsibility for the legacy of contamination. The ongoing negotiations around restarting the refinery, according to recently disclosed internal EPA emails, "is receiving high visibility inside the beltway" in DC and is being used to showcase wider efforts to remake environmental protections as customer service for corporations. Assisting the new owners with "anything they need," wrote one senior EPA official, offers "a pilot for a broader customer liaison concept" in environmental enforcement (Hiar 2019, 1). In this statement, the EPA seemed intent on ensuring that the new owners need not address the built-in flaws in the waste streams or the petrochemical contamination of the island. Indeed, recent EPA grants appeared to use taxpayer funds to supplement the legal obligations of the refinery to install air-monitoring equipment. In 2020, the overriding priority of the EPA was restarting one of the largest and dirtiest—indeed, most criminally negligent—oil refineries in the world. The EPA, one senior official wrote, "understands that restarting the operations at the former Hovensa site would significantly benefit the economic health and well-being of the US Virgin Islands," something "especially important for the recovery of the US Virgin Islands in the aftermath of Hurricanes Irma and Maria" (EPA 2017, 1). The advice from Trump's EPA was clear: to survive the turbulence of climate change, we have no choice but to double down on the fiscal promise of oil.

When Bond visited St. Croix in the summer of 2019, the island still bore the impact of the superstorms. Tattered blue tarps fluttered atop buildings. Many former homes and businesses still lay in a mess of rubble and fallen trees, while whole sections of the main towns remained boarded up. Hurricane Maria destroyed eight of the thirteen public schools on St. Croix. Some three years later, reopening them remains a distant event. The sole hospital on the island now operates in patched-together units and temporary modules as the main building stands condemned, its roof leaking and the hallways overtaken with mold. A replacement hospital has been promised for years now, but construction is ever deferred. Medical care has been reduced to triage and basic care. Most everything

else is referred to Puerto Rico or Florida. The island continues to lose residents. Those who remain wait on promises still receding.

The refinery, however, is abuzz with activity. Bond watched as piles of equipment twisted and broken in the storm were bulldozed to one side while a man camp had been set up to house the thousand workers from Texas and Louisiana tasked with getting the refinery operational again. Locals were promised jobs in the rebuilding project, but so far the only work to be found was providing menial services to the man camp in the evenings and on weekends. No one is entirely certain about the current levels of pollution around the refinery, as most of the environmental monitoring equipment stopped working when the hurricane hit.

In June 2019, local environmental and civic leaders gathered to discuss the urgent necessity of rebuilding St. Croix. One of the aims of this convening was to envision an energy system on St. Croix that was accountable to people and the earth. The organizers asked if Bond might join them to share his historical research on the refinery. They came together for two days at the still-shuttered Carambola Resort, with tarps stapled on damaged roofs and a beachside pool still full of debris. For many residents, the environmental injustice of the refinery and arrival of new superstorms were not unrelated events. They form a single continuum of fossil-fueled disaster, a continuum that had to be broken if there was any chance of rebuilding with real hope. "From Hovensa to Maria, there has been a plan to keep us down. We got to seek justice together." "Why should we bear the burden for things others have profited from?" "Rebuilding is not enough, we must reclaim the land." One preacher offered an even longer history, noting that "white supremacy and extractive capitalism are bound up together. They only see black people as something to use up and cast away."

"Oil sabotaged our island," a local farmer reflected on the last day, "and now it's up to us to set things right." As residents talked over the present plight for several days, the moment felt both desperate and pregnant with possibility. Again and again, someone would interrupt long pauses in discussions about the immensity of the challenge with the same refrain: "We need justice." And justice started with calling the fossil fuel industry to account for both the rampant contamination of the island and its stark vulnerability to the rising storms caused by planetary instability.

The negative ecologies of fossil fuels assail St. Croix from two sides, as it were: a catastrophic history of neglect and a catastrophic future of climate instability. For state agencies and financial investors (and some strains of social theory), the answer to this conundrum is clear: it is only by turning our backs on the

historical present that we can fully face up to the demands of the future. For the state, rebooting the refinery is the last gamble still offering winnings that are adequate to the great transformation now needed (without, of course, disrupting the neoliberal order of things). But doing so involves a technical baptism to wash the still-simmering history of toxic contamination from the official record. Such thinking advances new justification for substandard citizenship in places like St. Croix: to best prepare for climate change, we must absolve and subsidize the very industry that willingly led us into this crisis. Profits, not people, will save us in the end. Residents are having none of it. The disasters of toxicity and climate change may have very different temporal and spatial coordinates, but they share one liable author: the empire of oil. It is only by holding that empire accountable—by prosecuting the profiteers of destruction—that justice can be found and a society beyond oil begun. St. Croix is a climate crucible.

CLIMATE PRAXIS IN THE NOW

In watching communities cope with acute climate-linked disasters, we have found one striking continuity: people don't face up to climate change as a profoundly new crisis; they make sense of it by situating it within the challenges they already face—everyday struggles for economic survival, long histories of colonial dispossession. This may disappoint some in the climate advocacy community, as well as others in the worlds of social theory, who hope to find a straightforward low-carbon climate politics magically emerge from climate disasters' wreckage—whether thanks to benign, technocratic elites or perfectly virtuous popular movements. In New York, a common theme in post-Sandy organizing was struggles in and around housing. Housing precarity was as existential a threat as climate extremes—and the two had just merged. In St. Croix, many residents are skeptical of the shiny promises of "climate resiliency" they know will only be funded through restarting the refinery and sanitizing a history of toxic injustice; from this perspective, climate change amplifies a longer tradition of liberal reformers giving political cover to old-fashioned exclusionary practices. After all, elites who knew the climate science had driven investment priorities in the name of climate resiliency that held no promise of delivering justice. But we have increasingly seen something else: marginalized communities finding ways, however rough and imprecise, and over the course of years—not weeks—to link ideas about climate change to long-standing struggles for rights to their lifeworld, improved social services, and greater political agency.

The tension here does not arise from the question of whether climate change is bad or not—it's increasingly viewed, by most people, as bad. Rather, we have watched groups struggle to pinpoint how precisely something as new and complex as climate politics might be braided into grievances that seem more simple, immediate, and visceral. In places like the U.S. Virgin Islands, the still-simmering edges of colonial disregard are seized upon as the frontline battle against foreclosed futures. Planetary crisis, in these sites, comes to matter as both the inevitable endpoint of colonial violence, the spark that might ignite a more radical accounting, and a vehicle to secure recognition and reparations from the state.

Making general claims about how people react to climate change in the present and recent past has limits because the impacts of climate change, and discussion about it, are almost certain to grow. All the science points toward increasing weather extremes, with broader economic and social consequences. The best projections of climate change suggest that it will have an outsized impact on the world's poor, deepening existing forms of inequality, racism, and borders (and perhaps clothing the durable injuries of colonial violence in new climatic justification). From that standpoint, it is understandable that many climate scientists and conventional environmentalists take the moral standpoint of the future to make their arguments. And it is understandable that from this perspective, violent hurricanes offer teachable moments—shards of the future in microcosm.

This point recalls anthropologists Kim Fortun's (2001) and Joseph Masco's (2014, 138) insistence on the "future anterior" in ethnography, which draws attention to "a form of history made visible in negative outcomes." By way of Canguilhem and Derrida, Kim Fortun insists that the future anterior is also a political sphere where historical narratives are contested to seize upon the present obligation to the future, where the normative order of the present is not the starting block of critical inquiry and political action but its effect. Fortun (2001, 361) writes, "The future anterior is where the future is worked out, now." The future is not a disembodied and dislocated authority viewing us as if from afar; the future is a political field of contestation and creativity unfolding in the here and now.

But in our view, critical theorists and engaged scholars might do something different: retain our scientific understanding of climate change's dynamic of cause and effect, and of its implications for worsening weather conditions, but shift the moral authority from a modeled future to the contested, open-ended present. Climate praxis is already occurring in the present—only in more fragmented, tentative, and intersectional forms than is comfortable for conventional

climate action advocates. Taking seriously how marginalized people draw climate change into their own struggles must be paired with theoretical strategies that draw analogies to other periods of mass disruption and seek to parse out, among all the climate reactions occurring now, which patterns seem more likely to last (and deepen) as extreme weather worsens.

Climate does change everything—but in ways that only political struggle can determine.

NOTES

1. This is not a novel sentiment. Such a notion was a popular slogan in the environmental crisis of the 1960s and 1970s (Bond 2018). As the UN secretary general put it in 1969: "It is apparent that if current trends continue, the future of life on Earth could be endangered." This sentiment, and its planetary breadth, helped found the UN Environment Program.
2. Scholars of public opinion ask if today's extreme weather events will offer "teachable moments" that will imprint the necessity of climate action through force of example alone (Chemnick 2012). Political scientists urge the clearer communication of attribution science in disasters' wake (Stokes 2018). And yet—scholars of public opinion have found little evidence that extreme weather events transform people's opinions on climate change (Bergquist and Warshaw 2019).
3. These quotations about Sandy, and those following, are reported in this chapter for the first time, from (anonymized) transcripts of research Cohen conducted with the Superstorm Research Lab (2013).

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