Environmental destruction is a story of disablement. While past environmental movements in the United States traditionally focused on the protection of landscapes understood as pristine, untouched, and wild, today those fighting for the environment work with an understanding that nature has been altered and damaged in profound and serious ways. What we live with in the present, and will for decades to come, even under the best-case scenarios, is mass ecological disablement of the more-than-human world. Arriving in Tucson in the summer of 2017 to research the pollution I had long understood to have caused my own disability, I recognized intimately just how utterly entangled this mass disablement of nature is with the disablement of human beings.

The pollution I came to the desert to be reunited with was born during Tucson’s postwar boom, when various defense contractors and electronics manufacturers began disposing of barrels full of toxic chemicals in open-air pits dug straight into the desert ground of Tucson’s southside. Lead among them was Hughes Aircraft Company, which began operations in 1951. Bought out by the defense giant Raytheon in 1997, Hughes Aircraft was a major player in Tucson’s postwar era. And a major polluter. Only a few dozen feet below Hughes’s headquarters lay the southside’s ancient aquifer system.1 Thousands of years of geologic history composed of

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1. The small words that hug the bottom of these pages are this book’s underground—it’s aquifer. Welcome to the underworld of this book. Here exists the vast web of relations and contexts that have allowed for what is written above to emerge on the surface. Like an aquifer, this space will hold both deep histories and current relations—long trajectories of ideas and the current conversations they are situated in. This space will help me realize an essential method of this project: to keep the main text of this book as accessible and readable as I can. Following the
sediments and waters were forever altered by the detritus of the war industry—including the chemical trichloroethylene (TCE), an industrial solvent that would become synonymous with the pollution of the southside. Once the ancient water body became polluted, so did the drinking water of those living above.

I was drawn home to this long-ago-injured landscape and the powerful environmental justice movement that would emerge from it because they offer a vision of living with: a refusal to abandon those who have been harmed, and an insistence on staying with the trouble of a troubled landscape. Arriving back in Tucson, I found that the easiest way to begin to understand the southside’s contamination was to follow the trails of disability left in the pollution’s wake. Very quickly, an expansive web of disability goals of critical disability perspectives (refer to later note 4), I want the words above to flow easily for those who utilize screen readers, those whose minds easily meander, and those who aren’t trained in reading academic work where theoretical and citational interruptions define the genre. This will be the place where words will be unpacked; where other people’s ideas and labor are situated; where longer histories of ideas and events are elaborated; and where tangential thoughts and personal anecdotes are allowed to take up space. To make it easier for you as a reader to decide which notes to read and which to skip, I have created five categories that notes will be organized under: historical, theoretical, definition, informational, and source. I am inspired by countless scholars, novelists, poets, and artists who have utilized notes in creative and expansive ways. Of particular inspiration for this project is Alison Kafer’s essay “After Crip, Crip Afters,” which uses the body of the text, the endnotes, and the blank space on the page to create a conversation inspired by the disability culture concept of crip time. Refer to Alison Kafer, “After Crip, Crip Afters,” in “Crip Temporalities,” ed. Ellen Samuels and Elizabeth Freeman, special issue, South Atlantic Quarterly 120, no. 2 (April 2021): 415–435. Ally Day similarly invokes crip time writing: “Endnotes insist on a kind of crip reading—using the wasted space of the margins, disrupting the flow of the main narrative, providing tension... Endnotes exist in Crip Time.” Ally Day, “Crip Time and the Toxic Body,” in The Temporalities of Waste, ed. Fiona Allon, Ruth Barcan, and Karma Eddison-Cogan (London: Routledge, 2020), 176.

2. Informational: Throughout these pages, TCE will refer to one of two things. The first is the industrial solvent trichloroethylene, a clear and sweet-smelling volatile organic compound (VOC). It is still used in the manufacturing of a wide variety of products, despite the fact that studies have continuously shown that TCE is more harmful than originally argued. In the EPA’s most recent risk assessment, finalized in 2023, TCE was finally acknowledged to present “an unreasonable risk of injury to human health under its conditions of use.” These risks include various cancers, immunosuppression, neurotoxicity developmental toxicity, reproductive toxicity, liver toxicity, kidney toxicity, and more. US EPA, “Final Risk Evaluation for Trichloroethylene,” January 9, 2023, https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/final-risk-evaluation-trichloroethylene. At other times throughout this book, TCE will refer to Tucsonans for a Clean Environment, the name given by southside organizers to the environmental justice movement they formed.
Introduction

emerged. Disability emerged locally (through the contamination of the water supply) and internationally (through the war industry), disproportionately impacting the health of communities of color both in Tucson and in countries targeted by US militarism. Disability also emerged rhetorically (through legal and political frames) and across the more-than-human world (from mesquite trees to cattle to aquifers). Over time I came to think of this expansive web of injury as a disabled ecology—networks of disability that are created when ecosystems are corrupted and profoundly altered. Disabled ecologies reflect both the material and cultural ways in which disability emerges among living beings and their environments. The more I learned, the farther these injuries—human and wild—reached. And while they told stories of often debilitating and sometimes life-ending injuries, they also clearly mapped out alternative modes of connection, solidarity, and resistance. They exposed a set of ethical attunements useful for thinking

3. Theoretical: This book is, at its depths, a multispecies story, and the concept of disabled ecologies is a multispecies concept that exposes the necessity of thinking of human communities as inseparable from aquifers, plants and animals, watersheds and sediments, the myriad structural and cultural dynamics impacting our worlds, and so much more. The phrase “more-than-human” aims to illuminate the multispecies relationships that at once exceed yet are a part of the human. It is one of many terms that have been theorized over recent decades in an effort to challenge traditional dualisms (nature/culture, human/animal, etc.), denaturalize taxonomic systems and hierarchies, and decenter the human as the sole agent of change, history, and meaning. The phrase points to the importance of attending to the entanglements of species—seeking a better understanding of “what is at stake—ethically, politically, epistemologically—for different forms of life caught up in diverse relationships of knowing and living together.” Deborah Bird Rose, Thom van Dooren, and Matthew Chrulew, Extinction Studies: Stories of Time, Death, and Generations (New York: Columbia University Press, 2017). The multispecies approach utilizes the term “species” in its broadest sense, examining the complex relationships between living and nonliving beings and entities that are in relationship to each other. Donna J. Haraway, When Species Meet (Minneapolis: University of Minnesota Press, 2013). Refer also to Thom van Dooren and Matthew Chrulew, eds., Kin: Thinking with Deborah Bird Rose (Durham, NC: Duke University Press, 2022); Anna Lowenhaupt Tsing, The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins (Princeton, NJ: Princeton University Press, 2013); Eben Kirksey, ed., The Multispecies Salon (Durham, NC: Duke University Press, 2014); Thom van Dooren, Flight Ways: Life and Loss at the Edge of Extinction (New York: Columbia University Press, 2014); Kim TallBear, “Beyond the Life/Not Life Binary: A Feminist-Indigenous Reading of Cryopreservation, Interspecies Thinking and the New Materialisms,” in Cypopolitics, ed. Joanna Radin and Emma Kowal (Cambridge, MA: MIT Press, 2017); and Zoe Todd, “An Indigenous Feminist’s Take on the Ontological Turn: ‘Ontology’ Is Just Another Word for Colonialism,” Academic Freedom and the Contemporary Academy 29, no. 1 (March 2019): 4–22.

4. Theoretical: The trails of disability we will be following in this book will be both material and discursive. This project’s bedrock is disability studies, an interdisciplinary field of study that
through what kinds of assistance, care, and access harmed people and environments need in the long aftermath of injury.

Officially, the area encompassing the southside’s contaminated aquifer would come to be known as the Tucson International Airport Area (TIAA) by the Environmental Protection Agency. Named simply for the airport that sits atop the poisoned area, the TIAA moniker does little to signify the site’s complex history. The name does not, for instance, call forth the legacy of Mexican American and Indigenous communities who have made the Sonoran Desert home for generations and faced years of racist accusations and denial of the harmful effects of the pollution. It does not call forth the mysterious workings of the water moving beneath the fragile desert surface. It does not call forth nearly seven decades of illness, disability, and injury, nor the ways of living that have emerged from them. It also does not identify the culprits of wrongdoing.

This book begins to tell some of that history, though it cannot claim to be a sweeping historical account of what happened in Tucson—that work is still needed. This book will explore the area as a disabled ecology, tracing relationships and entanglements that are rooted deep in the desert’s aquifer, while also reaching far beyond Tucson’s southside or even the Sonoran Desert region. It’s a story that stretches across national boundaries, across taxonomical categories of species, and across ecosystems, regional and planetary. The story of the TIAA pollution offers a way into a larger story about our past, our present, and our future—a future that is increasingly shaped by disability.

examines the shifting meanings of disability and ablebodiedness across time and location. The field challenges the idea that disability is solely a biological, knowable fact of the body or a medical problem (Simi Linton, Claiming Disability: Knowledge and Identity [New York: NYU Press, 1998]) and instead examines disability as a social, political, economic, and relational dynamic that is historically situated and always entangled with other categories of social difference. Refer to, for example, Marta Russell, Beyond Ramps: Disability at the End of the Social Contract (Monroe, ME: Common Courage Press, 1998); Nirmala Erevelles, Disability and Difference in Global Context: Enabling a Transformative Body Politic (New York: Palgrave Macmillan, 2011); Eunjung Kim, Curative Violence: Rehabilitating Disability, Gender, and Sexuality in Modern Korea (Durham, NC: Duke University Press, 2017). The field, which has emerged from both outside and within the academy, interrogates ableism as a system of power that privileges and perpetuates the normalization of ablebodiedness and creates barriers and exclusionary practices, structures, and institutions that discriminate against those who do not meet these norms. Alison Kafer, Feminist, Queer, Crip (Bloomington: Indiana University Press, 2013).
DISABLED ECOSYSTEM

The multicolored poisonous waste disposed of by Hughes Aircraft Company was never just TCE, the most infamous ingredient. It was always a toxic soup: dozens of volatile organic compounds and heavy metals, contaminants with names like dichloroethylene, chromium, cadmium, and benzene. The chemicals were used in the early 1950s in the manufacture and cleaning of missiles that would travel thousands of miles overseas to maim and kill people during the Korean War. Back in Tucson, these chemicals would be dumped unceremoniously in pits or along fences that bordered the Hughes site, or sold to laborers to resell to businesses and individuals across Tucson. Eventually the waste was dumped in enormous unlined lagoons, which would overflow, stressing and killing the mesquite and cottonwood trees and other plant life in the area. Wildlife drank from the open pits and perished. Tohono O’odham representatives from the neighboring San Xavier Reservation protested the pollution on their land, which arrived when rainwater flowed through the desert arroyos, taking the contaminants with it. Their cattle would drink the water, become sick, and die (refer to earlier figure 2).

The movement of waste was also happening belowground. The pollution sank downward through less than a hundred feet of porous earth, entering Tucson’s regional aquifer and altering the chemical makeup of the groundwater. Traveling northwest, the pollution entered the sand, gravel, and clay that made up the aquifer’s geological matter, moving with gravity toward the north-flowing Santa Cruz River. Before the contaminants could reach the surface and enter the water aboveground, they reached municipal and private wells where they were pulled up and distributed across Tucson’s southside, an area that grew steadily through the 1940s–1960s as a racially diverse population sought secure employment. The “TCE plume,” as it came to be known, eventually reached out five miles from south to north and three-quarters of a mile east to west (refer to earlier map 2).

By the 1970s, residents began to notice their plants died when they watered them. Their dogs and cats and farmed animals became ill. Many people were diagnosed with rare illnesses: lupus, testicular cancer, brain tumors, leukemia. Babies were stillborn or were born with congenital heart impairments or other disabilities.
During this decade the white population in the area had begun declining, while the Hispanic population grew swiftly. In the 1980s, when the pollution finally came to light, southside residents endured years of racist accusations that their conditions were their own fault. As alarm grew and suspicion fell on the lagoons, Hughes spokespeople and city health officials stated at public meetings that although people in the area were disproportionately becoming sick, it was not a result of pollution. They were, according to city officials, “genetically susceptible to illness,” given to poor reproductive choices, and suffering the consequence of poor diet and lifestyle. Community members vividly remember that at one public meeting city officials blamed the southside’s illnesses on “the chilies and beans they ate.”

Although the Environmental Protection Agency’s Superfund program eventually began to oversee various groundwater treatment facilities in Tucson in the 1990s, the thousands of people made sick did not receive treatment. Environmental remediation, city, industry, and EPA officials made clear, ended at the threshold of the human body. Southside community organizers, on the other hand, had a far more capacious understanding of what remedial action should include, one that was shaped by their experience as people of color living with illness and disability. For three decades, ill and disabled southsiders would articulate a vision of justice that included treatment for both human communities and landscapes and that acknowledged long histories and potential futures of injury. And, at least at times, they were able to make these visions a reality.

These are but some of the trails that can be followed in what I have come to understand as the disabled ecology of the southside’s defense industry plumes. This book traces these trails to explore how disability is understood


6. Theoretical: I use the broader terms “defense industry plumes” or “Hughes Aircraft’s plume” interchangeably with “TCE plume” to name the central polluters: Hughes Aircraft and, more broadly, the US Air Force. I also do this to challenge the persistent narrative that emphasizes TCE instead of the interactions among dozens of toxic chemicals, as well as to identify the multiple chemical plumes coming from different source points in the area. As we will see, in the early years of this history the emphasis on TCE as a sole indicator would have profound impacts on the
in environmental contexts and for what ends. In these trails we can see disability as bodily injury impacting many species. We can see the way that injury is shaped by social inequality. We can see disability as a lived experience leveraged to provide evidence of harm and wrongdoing, or, in contrast, as a moralizing concept utilized to direct blame back onto the injured themselves. We catch a glimpse of disability’s legal and bureaucratic meanings, and alternatively, its potential for solidarity building. In following these trails, we can identify the political and material consequences of disability on human and more-than-human life and entities. We can uncover how disability manifests rhetorically, politically, and materially among organisms in relationship to their environments.

Disability representation has long been ubiquitous to environmentalism. Yet it has most often been invoked simply as a potent symbol—a “cautionary

southside’s ability to seek forms of redress, as TCE alone had to be correlated with specific diseases through scientific studies for a claim of injury to be seen as valid.

But TCE did not exist in isolation—it was one of dozens of chemicals inappropriately disposed of. One of the central uses of TCE was as a solvent used to dissolve grease, plastics, and other coatings. Thus much of the TCE waste that was dumped was not pure; it was a toxic brew that could not be easily replicated in a lab. My point is not that the southside’s aquifer is filled with dangerous levels of toxic chemicals that are being ignored; that is not the case. The southside’s aquifer water, particularly that treated by Tucson Water, meets all state and federal guidelines and at times surpasses them (the treated water is also currently not served to the public).

My point is that TCE was in many ways simply the most abundant chemical, and in the 1980s, relatively easy to detect in comparison to others. Other chemicals since found in the groundwater expose this problem: 1,4-dioxane was first detected in 2002; USGS, “Concentration of 1,4-Dioxane in Wells Sampled during 2002–2009 in the Vicinity of the Tucson International Airport Area Superfund Site, Arizona,” March 17, 2010, https://www.usgs.gov/maps/concentration-14-dioxane-wells-sampled-during-2002-2009-vicinity-tucson-international-airport. Perfluoroalkyl and polyfluoroalkyl substances (PFAS) were first detected in 2009; Jeff Gardner, “Water Pressure: City of Tucson Inaugurates PFAS Groundwater Treatment Facility,” Tucson Weekly, January 20, 2022, https://www.tucsonweekly.com/tucson/water-pressure-city-of-tucson-inaugurates-pfas-groundwater-treatment-facility/Content?oid=31851662. As the technologies for testing for contaminants improve and become more sensitive, and as federal regulations and standards change, different contaminants become recognizable as concerns. The treated aquifer water is in essence as chemical-free as the federal government thinks water across the country needs to be.

Just as important is a historical perspective: it cannot be denied that dozens of chemicals were found at the contaminated sites, many of them in soil contamination. We know that in the decades in which the surface contamination was not contained, contaminants traveled with rains into arroyos and washes—washes community members came in contact with. Thus, even if many contaminants did not make it into the groundwater, that is not the same thing as saying that the only contaminant the southside community encountered during the decades before remediation began was TCE.
tale,” as disability scholar Eli Clare calls it—to expose the depth of a particular environmental or social crisis.7 As Jina B. Kim describes, in environmental justice sociological studies, “Disability is constituted as a feature of environmental racism, but it’s treated simply as a transparent measure of inequity.”8 Within this frame, disability and illness become ways of representing what Rob Nixon has termed slow violence,9 the severity of crises that may otherwise not be visible (like the toxic groundwater in Tucson).

While this analysis is critical, it is only part of the story. To better understand the role disability plays in shaping environmental racism and environmental violence more broadly, there are other questions that need to be asked and explored. For example, how does ableism lead to and perpetuate both the causes of environmental injustice and the myriad responses to it? Why is disability mentioned in passing but rarely taken up as a central category of social and political analysis within environmental disciplines? Environmentalists rarely stay with disability long enough to even ask how people and environments coexist with injury, let alone how this living—with generates particular values, politics, and modes of engagement.

To quote geographer Laura Pulido’s classic work on Chicano environmental movements in the Southwest, marginalized communities involved in environmental struggles “do not disaggregate their various identities and needs”—they do not, as Audre Lorde phrased it, “live single-issue lives.”10 In centering disability, I do not wish to suggest they do either. This book highlights critical disability perspectives as a lens through which to understand environmental injury, while recognizing that disability is inextricably entangled with the formation of other categories of difference. We can see these interconnections in the ways city officials’ responses to southsiders’

illnesses were, in every instance, interwoven with ableism, racism, and misogyny. Like other categories of difference, disability shapes our identities and worlds in ways that are pervasive and entangled, but also specific. This book highlights the role of disability and illness in shaping people’s multiple identities and the intersecting forms of oppression that impact them.

At the same time, this book follows disability scholars Jina B. Kim and Nirmala Erevelles in recognizing that in the context of capitalism, “disability operates less as a static category of identity—a descriptor of what someone is—and more as a process, an unfolding, an ongoing event that captures the ‘materiality of racialized violence’ under the demands of capital.” Disability is not just a noun, it is also a verb. It is both an identity and a phenomenon—something that describes us or happens to us. Disability can, and often does, emerge from profound injustice. Yet at times, disability can also help make the world anew.

PATHS OF CONNECTION

In the earliest days of my research, I noticed that themes of disability and environment often emerged together in the stories told about the southside pollution. Injury to the aquifer was referred to in the same breath as injury to people. Treatment and care were needed for human beings and groundwater. Southside organizers recognized that their health and well-being were connected to and dependent upon the well-being of their environment.

Disability is commonly understood as a complex relationship between a person’s embodiment and their environment, and nature is largely perceived

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11. Theoretical: Pulido does describe how communities may “engage in strategic essentialism,” which she defines as “the practice of reifying aspects of one’s identity for political purposes” (p. xv). In other words, while people do not live single-issue lives, community members and activists often know when it is politically expedient to center a particular aspect of their identities. Pulido, Environmentalism and Economic Justice.

as a delicate web of life vulnerable to human interference. The events in Tucson helped me understand that new and generative understandings of these concepts emerge when we think of injured environments and the people made ill or disabled by ecological damage together. While environmentalists and social justice organizers have at times passionately debated whether to emphasize human well-being or the protection of nonhuman nature, southside organizers exposed the serious limitations of fighting for humans or plants or aquifers as if they existed in isolated trenches. Human health is relational and enmeshed with the health of the environment and our fellow species.  

13. Theoretical: It is not uncommon for organizers and communities on the front lines to talk about their struggles as being for both people and the animals and ecosystems they live with, and against the systems of power that degrade them all. Yet in recent years it has become somewhat of a talking point for environmentalists and public officials to express their ambivalence toward animals and nature (making clear that they are not in it for the polar bears), to show they are concerned with the lives of marginalized human communities. Jason Mark, “Some Climate Activists Say We Should Worry Only about People, Not Polar Bears. Do We Have to Choose?,” Sierra, June 23, 2021, https://www.sierraclub.org/sierra/some-climate-activists-say-we-should-worry-only-about-people-not-polar-bears-do-we-have. On one hand, the sentiment can be understood as a vital corrective to traditional framings of environmental issues, which focused on the protection of wild spaces and species while ignoring communities most impacted by environmental harm—disproportionately Black and Brown communities and Tribal Nations. Yet the emphasis on conflict between caring for people and caring for nonhuman animals or “nature” overlooks the multitude of ways in which people harmed by environmental violence also recognize harm to animals and land as connected to their own. Indeed, the first principle of “The Principles of Environmental Justice” states, “Environmental Justice affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction.” “The Principles of Environmental Justice” (Washington, DC: First National People of Color Environmental Leadership Summit, 1991), https://www.nrdc.org/sites/default/files/ej-principles.pdf. The conflict also misses the important point that often the systems of exploitation that are harming marginalized communities are also harming the more-than-human world. Refer, for example, to Christopher Schell, Karen Dyson, et al., “The Ecological and Evolutionary Consequences of Systemic Racism in Urban Environments,” Science 369 (September 18, 2020), https://doi.org/10.1126/science.aaay497. Finally, the sentiment leaves little room for recognizing that kinship between marginalized communities and nonhuman animals can impact the choices people make when faced with environmental disasters. For example, a common reason people do not evacuate during extreme weather events is that they do not want to abandon their animals, decisions that disproportionately impact communities of color, the poor, disabled, and politically disenfranchised. During Hurricane Katrina, 44 percent of people who declined to evacuate did so at least in part due to fear of abandoning their pets. ReliefWeb, “USA: Fritz Institute–Harris Interactive Katrina Survey Reveals Inadequate Immediate Relief Provided to Those Most Vulnerable—Recommends Focus on Community Preparedness as 2006 Hurricane Season Approaches,” Fritz Institute, April 26, 2006, accessed March 7, 2023, https://reliefweb.int/report/united-states-america/usa-fritz-institute-harris-interactive-katrina-survey-reveals. My
Southsiders are not unique in this regard. Environmental justice organizers and many others on the front lines of ecological harm have long resisted dominant power arrangements for both their human community and their environment, rather than seeing these issues as separate. Their organizing shows us that we humans and our own health are bound up in relational networks with land and other species, which themselves are shaped by inequality and power structures. When one aspect of these relational networks is harmed, it can have a ripple effect, causing a cascade of injury to complex webs that include biotic and abiotic bodies: humans, birds, fish, insects, trees, cacti, moss, mountains, valleys, soil, air, water.

Today this damage is happening on an unprecedented scale. The climate crisis significantly affects social and environmental determinants of health, from clean air and safe drinking water to sufficient food and secure shelter. 

point is not that animals and nature should be emphasized in every environmental conversation, but rather that the perpetuation of conflict and competition between animals and nature on one side and marginalized communities on the other reinforces a false choice and misses the important theoretical and political work of showing that our fates are entangled.

Unsurprisingly, these impacts fall unevenly across all-too-familiar lines of race, gender, and nationality. Global resource extraction and ever-increasing amounts of waste create vast amounts of contaminants that affect whatever bodies come into contact with them. Extreme heat or cold pushes people to the brink of their physiological limits. And of course, environmental injury has long preceded the climate crisis. The disproportionate level

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15. Informational: The organizations and research studies that continue to monitor the past, present, and future consequences of climate change have repeatedly noted the inequitable distribution of these impacts. In the United States, people of color have repeatedly been demonstrated to face disproportionate exposure to air and water pollution. Christopher W. Tessum et al., “PM2.5 Polluters Disproportionately and Systemically Affect People of Color in the United States,” Science Advances 7, no. 18 (April 28, 2021), https://doi.org/10.1126/sciadv.abf4491; Kristi Pullen Fedinick, “Watered Down Justice,” NRDC, March 27, 2020, https://www.nrdc.org/resources/watered-down-justice. Internationally, the impacts of climate change have been even more pronounced, with 3.4 million climate change-related displacements occurring in sub-Saharan Africa in 2019 alone; by 2050 it is projected that over 50 percent of additional deaths caused by climate change will be in Africa, and these deaths will number over 250,000; by the end of the twenty-first century, conditions causing drought in Asia will occur 5–20 percent more frequently. IPCC, Climate Change 2022: Impacts, Adaptation and Vulnerability (2022), https://www.ipcc.ch/report/ar6/wg2. These impacts are gendered and especially harmful for children; the UN estimates 80 percent of the people displaced globally by climate change are women, and 90 percent of the people affected by climate change-induced diseases are children under five. Meanwhile, responsibility for the global effects of climate change is not equally distributed; while climate change will have the greatest impact on the world’s most vulnerable populations, the poorest 50 percent of the world’s population produces only 7 percent of the world’s total emissions. EJF, In Search of Justice: How the Climate Crisis Is Driving Inequality and Eroding Human Rights (June 2022), https://ejfoundation.org/resources/downloads/EJF-Climate-Inequality-report-2021.pdf.

16. Informational: Today the ubiquity of per- and polyfluoroalkyl substances (PFAS) in the environment is one standout example of the accumulating ecological impacts of manufactured waste. Known as “forever chemicals” for their inability to break down in nature, such is their pervasiveness that as much as 97 percent of all Americans are reported to have traces of them in their blood. According to the CDC, exposure to high levels of PFAS may result in a multitude of increased health risks, including a higher likelihood of cancer, decreases in infant birth weights, and decreased vaccine response in children, among others. National Institute of Environmental Health Sciences, “Perfluorooalkyl and Polyfluorooalkyl Substances (PFAS),” updated March 9, 2023, accessed March 21, 2023, https://www.niehs.nih.gov/health/topics/agents/pfc/index.cfm; CDC, “Per- and Polyfluorinated Substances (PFAS) Factsheet,” updated May 2, 2022, accessed January 10, 2023.