

## Preface and Acknowledgments

We're just not the type of people that's used to being walked on.

—Claire McClinton, “A Democracy Problem”

Long before its water crisis turned it into an international symbol of environmental injustice, Flint, Michigan, was a battered and bruised city. Once a proud General Motors company town whose residents enjoyed the highest standard of living in the United States, by the turn of the twenty-first century, Flint had lost tens of thousands of jobs and half of its population to deindustrialization and white flight. Its rate of violent crime consistently placed it at or near the top of the list of the most dangerous cities in the country. A higher proportion of its houses stood vacant than in any other American city.<sup>1</sup> More than 40 percent of its residents lived below the poverty line. Its underperforming public schools struggled to retain students, an astonishing 68 percent of whom left the district between 2006 and 2015.<sup>2</sup> And with an ever-shrinking tax base, it teetered perpetually on the brink of fiscal crisis, barely able to sustain basic city services.

When I moved with my wife and three-year-old son to Flint in the summer of 2015, I was well aware of the wounds the city had suffered and the uncertainty that lay in its future. But I saw another side to Flint as well. There were the thriving cultural institutions, propped up by the philanthropy of foundations started by former GM executives—an art museum, a performing arts center, a planetarium, a symphony orchestra. There was the reviving downtown, boasting a growing array of food, music, and entertainment offerings as well as one of the best farmers' markets in the state. There were the young families moving into my neighborhood—indeed, onto my street—who lived in Flint not by necessity but by choice, and who had every

reason to invest in the city's future. Although I gradually evolved a more nuanced perspective on these features of the city, coming to realize that they inspired mixed or even hostile feelings in residents who felt left out of Flint's development, they certainly helped make it possible to imagine calling Flint home.

What's more, Flint was a city with *character*. While many other Rust Belt cities have experienced similar rises and falls, Flint is not interchangeable with any of them: its place in American history is distinctive. Flint was the home of the sit-down strike of 1936 to 1937, which compelled GM to recognize the United Automobile Workers and helped to launch the organized labor movement in the United States.<sup>3</sup> For forty-four days and nights, thousands of auto workers holed up in three of GM's Flint factories in protest of arduous and dangerous working conditions, bringing production to a halt and forcing the company into negotiations.<sup>4</sup> In one famous episode, Chevrolet Avenue—the street I drive down to get to my office—became a battleground, as workers occupying the Fisher Body 2 plant hurled metal hinges and milk bottles from the rooftop at city policemen attempting to drive them from the building.

Flint was forward-looking on race and civil rights, too. It was one of the first major American cities to have a black mayor: World War II veteran and former Buick employee Floyd McCree. Elected by the City Commission in 1966, McCree temporarily resigned in protest the following year when the mostly white commissioners refused to support a proposed ordinance banning racial discrimination in housing. Other black officials also threatened to resign, and the city's black church community led a months-long mobilization in support of the law that included sleep-ins on the lawn of City Hall.<sup>5</sup> After the commission was pressured into passing a revised version of the bill, the John Birch Society and Ku Klux Klan led an effort to overturn it by popular referendum. The defeat of that effort by the narrow margin of thirty votes was historic: it was the first time in the country's history that an open housing ordinance was affirmed by a vote of the people.<sup>6</sup>

Flint was also the site of two of the more notable environmental justice struggles of the 1990s. In the first instance, a small group of residents fought the construction of an incinerator, the Genesee Power Station, that threatened to contaminate the air around a predominantly black neighborhood with lead particles generated by the burning of painted wood. Although the effort was unsuccessful—the facility was built and continues to operate

to this day—it was groundbreaking in its use of federal civil rights law to argue that the siting of the station constituted an unlawful act of racial discrimination. A similar complaint filed by the same group in 1998 against a permit for a steel recycling mill on the same side of town (the so-called Select Steel plant) is widely credited with exposing the thinness of the Environmental Protection Agency's commitment to environmental justice.<sup>7</sup>

For all its hard knocks, then, Flint was not the kind of city where people rolled over or gave up. It was progressive, pugnacious, and—as would be remarked again and again during the water crisis—resilient. It had a fighting spirit.

When I arrived in Flint I was only dimly aware that some of its residents were in the middle of yet another fight, one that would rival anything in the city's past. I'd heard that there had been some issues with the city's drinking water and been warned to expect fluctuations in the water's taste as the utility fine-tuned its treatment methods. But I was given no reason to believe that the water was a safety hazard. Within my social circle, as an assistant professor at a private university and a resident of a predominantly white and (by relative standards) affluent neighborhood, no one seemed particularly alarmed. When I turned on the bathtub faucet one evening to fill the bath for my son and brown, grainy water gushed out, I wrote it off as an anomaly, having been told that periodic fire hydrant flushing could dislodge sediment and cause temporary discoloration. The resident voices pleading that the water was not safe were, from my perspective at the time, faint, drowned out by the reassurances of neighbors and government authorities who said the water was fine and presumably knew what they were talking about.

Over the next few months, those voices were amplified and vindicated in dramatic fashion. In July, EPA drinking water expert Miguel del Toral leaked an internal memo he had written to his superiors outlining his suspicion that Flint's water supply was experiencing system-wide lead contamination. In August and September, a collaborative water sampling effort by Flint activists and Virginia Tech engineers confirmed that there were high levels of lead at the tap in homes across the city. Toward the end of September, a team of researchers led by Dr. Mona Hanna-Attisha of Flint's Hurley Hospital showed through a statistical analysis of blood lead levels that the lead in the water was finding its way into the bodies of the city's children, putting them at risk of a host of developmental deficits. Residents rushed to get their

water and their children's blood tested. Politicians declared states of emergency at the city, county, state, and federal levels. The national news media began to pay attention to what was happening in Flint. By early 2016, the "Flint water crisis" had become the subject of widespread public outrage and, in the heat of presidential primary season, a political *cause célèbre*.<sup>8</sup>

For Flint residents like myself, however, the water crisis was first and foremost a deeply personal affair. Our water test results came back at 6 parts per billion (ppb) lead and 70 ppb copper—both below the EPA's action levels of 15 ppb and 1,300 ppb, respectively, but hardly reassuring with a young child in the home. I found myself asking questions I had never fully confronted before: Did the fact that our levels were below federal thresholds mean our water was "safe"? Should the levels that trigger administrative action be the same ones that spur me as a parent to take steps to protect my family? Why had no one ever encouraged me to ponder that distinction or to be proactive about testing my water? It was disconcerting to think that neurotoxic heavy metals were entering my son's body in *any* quantity, and disilluminating to learn that regulatory agencies recognized and tolerated it. Furthermore, how much could one grab sample actually tell us about the quality of our water day by day?

Hoping to avoid bottled water, I purchased a lead-certified filter (in the days before they were widely available for free), only to conclude after two infuriating weeks of repeated trips to the hardware store and many torrents of profanity that it could not be made to fit my kitchen faucet. The whole faucet had to be replaced: an expenditure of time, effort, and resources that many Flint residents confronted by the same problem could ill afford. Then there was my son's blood test. Our family physician informed me that his level of blood lead was normal—"normal" defined as around two micrograms of lead per deciliter of blood (2  $\mu\text{g}/\text{dL}$ ). The catch was that we had delayed getting the test done until two months after switching to filtered water, a lag caused by our doctor's initial counsel that such a test was not necessary. Because lead leaves the bloodstream in roughly a month's time to roost in the bones, we will never know if, during our use of unfiltered tap water in the months prior, our son was lead poisoned. This is not just our predicament, but that of many, many other Flint parents for whom a "normal" test result did little to assuage their feelings of guilt and anxiety.

Personally, I felt guilty for another reason, too. As someone with a history of activism and an interest in political dissent and social movements, I was

ashamed at having written off the voices in the wilderness that had helped to expose the water crisis for what it was. I started paying close attention to the water activists, an easier task now that their activities were getting more coverage. I began to realize that the explosion of the lead issue into a national scandal owed much more to a groundswell of popular agitation than I had previously appreciated—in fact, to something that could legitimately be termed a water *movement*. In January 2016, as Flint activists shifted their focus from convincing the world of the harm being done by the water to fighting for accountability, remediation, and reparations, I decided I could no longer watch from the sidelines. Doing my best to silence the voice in my head reminding me of my already-existing research project and my many responsibilities as a newly minted assistant professor, I threw myself into the water struggle, attending every community meeting, rally, and march I could, collaborating with the water activists on a variety of actions, events, and initiatives, mobilizing students and faculty around door-to-door water canvassing, and—knowing I would have to publish *something* on the crisis to justify the expenditure of time and effort to my institution—conducting interviews whenever possible along the way. When, in April 2016, I was invited to join a multiuniversity, interdisciplinary team conducting a major new study of Flint’s water quality, I agreed, spending much of the next two years grappling with how to communicate the science of the water to the public and build bridges between residents, activists, local officials, and the scientific community.

For many reasons, I am glad I silenced that cautionary voice. By joining up with both the water activists and the scientists on the front lines in Flint, I not only had an opportunity to contribute—in admittedly modest ways—to the fight for water justice and the production of scientific knowledge about the water, I gained what I believe to be a unique vantage point on the crisis, conducive to capturing its complex and multifaceted character. I was an activist but also a researcher; a comrade in struggle but also a newcomer to the community and the movement; a resident but also a member of a privileged demographic, whose perspective did not always align—for better or worse—with that of other residents and activists. Although I did not get involved in the crisis response with the intention of writing a book, it didn’t take long to realize that I would have more than enough material for one.

It goes without saying that there is no Archimedean point that would allow one to capture the essence or totality of the water crisis (or if there is, I haven’t found it). There are already multiple accounts of what happened

in Flint, from different perspectives, and, undoubtedly, there are more to come.<sup>9</sup> I can only hope to offer one particular refraction, borne of extensive participant observation, hundreds of semistructured and informal conversations with the people involved, and a scholarly effort to relate the crisis and the community's response to it to broader conversations about environmental justice and democracy. I present it here as *Flint Fights Back*.

It would be impossible to tally all the debts I incurred in the course of writing this book. Nevertheless, I had no trouble deciding where to start in expressing my thanks. To my colleague and friend Laura Sullivan, Professor of Mechanical Engineering at Kettering University and tireless water warrior, I wish to convey my deepest gratitude. I am similarly grateful for the support of another leader in the struggle for justice in Flint, Dr. Lawrence Reynolds—a true moral exemplar and a fearless fighter for the well-being of Flint residents.

I also wish to thank a number of Kettering colleagues who, directly or indirectly, contributed to the success of this project: particularly, Laura Mebert, Karen Wilkinson, Laura Miller-Purrenhage, Michael Callahan, Jim Cohen, Veronica Moorman, and Eric Bumbalough. Thanks also to Pardeep Toor, Jack Stock, Don Rockwell, and especially Robert McMahan and Laura Vosejka. Outside my own institution, I was fortunate to have the support of other Flint-based academic friends—among them, Jason Kosnoski, Jacob Lederman, Rick Sadler, and Jan Worth-Nelson, to whom I am grateful for many neighborly kindnesses and useful introductions. I was also pleased that this project allowed me to connect with Kyle Powys White, David Pellow, Wendy Jepson, and Paul Mohai, from whom I took insights and heartening words of encouragement. From within the Rutgers family, I must give special thanks to Mark Bray and Joseph Dwyer for much-needed support as I was trying to get the project off the ground, and to Lincoln Addison, Christina Doonan, and Benjie Peters for their enduring friendship. Thank you also to Andy Murphy, Steve Bronner, and Michael Forman for helping me think through my publishing options, and to Temma Kaplan for her methodological reflections. Thanks to Kristy King, David Watkins, and the political theory workshoppers at the University of Michigan for feedback on draft chapters. Finally, thank you to David Meyer for helping to steer me toward the right publisher, and to the eight reviewers who provided valuable feedback on my book proposal.

This project brought me into conversation with a number of other academics, writers, and filmmakers doing work on Flint and water issues in southeastern Michigan. I owe a big thank you, first and foremost, to Andrew Highsmith for his generosity as a scholar and person. I am thankful as well for exchanges with Janice Beecher, Jevgeniy Bluwstein, Sherrema Bower, Jennifer Carrera, Anna Clark, Nadia Gaber, Stephen Gasteyer, Michael Mascarenhas, Mindy Myers, Ashley Nickels, Curtis Pomilia, Rebecca Rutt, Elena Sobrino, Jeanne Woods, and Cheng Zhang. Thanks also to Jason Stanley, to Liz Miller for sending me a copy of her excellent documentary *The Water Front*, and to Eve Mitchell for helping me to make connections within the Detroit activist scene.

Important parts of this book are informed by my work with the Flint Area Community Health and Environment Partnership (FACHEP). Thank you to Shawn McElmurry for bringing me onto the team and for his mostly unknown and unsung but truly inspiring efforts on behalf of Flint residents. While I cannot thank everyone on our large team here, in addition to Shawn I wish to single out Nancy Love, Susan Masten, Mark Zervos, Audrey Zarb, Jessica Robbins, and Tam Perry for their support. In a special category is Quincy Murphy: not only a FACHEP colleague but also a devoted community activist, a partner on projects in Dewey Park, and a good friend.

My involvement in water issues in Flint resulted in multiple spin-off collaborations related to environmental justice that helped, in turn, to shape my thinking about my research. For their assistance in these collaborations, I would like to thank Alan Walts, Michael Burns, and Michael Wenstrom of the EPA's College/Underserved Community Partnership Program, Vincent Slocum of Habitat for Humanity, City of Flint Chief Public Health Advisor Pamela Pugh, Sarah Wilkins of the American Geophysical Union, Maryum Rasool of the Sylvester Broome Empowerment Village, and Mona Munroe-Younis of the Environmental Transformation Movement of Flint. I also came to see another community initiative I was involved in—an effort (successful, I'm happy to say) to found a Montessori program within the Flint Community Schools—as falling within the orbit of my environmental justice work in the community. In that connection, I wish to thank Elizabeth Jordan, in particular, for her assiduous labors and Kathryn Dohrmann for her help in enumerating the advantages of Montessori education for children affected by lead poisoning.

While I was working on this book, I developed and taught a course at Kettering titled, simply, “The Flint Water Crisis.” The experience was enormously helpful in forcing me to gather, organize, and communicate my thoughts about the crisis, not least because of the excellent contributions of Kettering students. I thank them for their intelligent questions, their passion for the subject matter, and their original research into various aspects of the crisis, which was often highly illuminating. I thank them also for demonstrating their concern for the residents of Flint by coming out for water canvassing and, in some cases, rallies, protests, and City Council meetings. I am also grateful to the students who invited me to speak about the water crisis to the Kettering chapter of the National Society of Black Engineers, the Green Engineering Organization and on WKUF-LP 94.3 FM.

My thinking on the theme of research justice was honed through valuable exchanges with Max Liboiron, Randy Stoecker, and especially Yanna Lambrinidou, who I cannot thank enough for her moral support, keen insights, and passionate commitment to justice in Flint and beyond. In talking with Yanna and with Paul Schwartz of the Campaign for Lead Free Water, I came to appreciate just how critical an understanding of the 2001 to 2004 Washington, D.C., water crisis is to an understanding of Flint. While D.C. does appear in what follows, I was not able to do anything like full justice to the struggle there. Suffice to say (though it does *not* suffice, and I hope more will be written on the subject), Flint was not the first example of residents and activists leading the fight against lead-in-water contamination.

I conducted around seventy semistructured interviews for the sake of this book, but had there been more hours in the day, I would gladly have conducted many more. Given my own limitations as a single interviewer, I benefited greatly from interviews conducted by others—including those featured on GMO-Free News, the Tom Sumner Program, Hashtag Flint, 1470 WFNT, the Morning Gazette Radio Show, and a variety of other local radio programs. I also referred regularly to coverage of the crisis by *The Flint Journal* and *MLive*, Michigan Radio, the *Detroit Free Press*, *The Detroit News*, *Bridge Magazine*, *East Village Magazine*, The Young Turks, and Truth Against the Machine. There were many times I would have been lost without the videos made available by Paul Herring through Spectacle TV. Also, the Virginia Tech team’s Flintwater-study.org was at times a useful source of information.

In reflecting on my debts to members of the activist community, I wondered whether I should try to name everyone I interviewed, worked with, or

received assistance from during the two-and-a-half years it took me to research and write this book. I eventually concluded that any attempt to provide a comprehensive list would be doomed to failure, and I worried that the people I inevitably forgot to mention would feel slighted. I was also concerned to respect the privacy of people who did not sit down for an official interview and might not have wanted to be named. Rather than striving for completeness, then, I will limit my “thank yous” to a few people who went out of their way to offer me material they thought would be useful to my work: Paul Jordan, Florlisa Fowler, Nayyirah Shariff, Sue Whalen, and Bob and Melodee Mabbit (for their wonderful present of a neatly bound stack of back issues of *Broadside*). I also can’t resist offering a special thank you to Claire McClinton for her support during some of the rockiest patches on this journey.

This is, perhaps, as good a place as any to offer an apology I feel compelled to make. Not nearly all of the “water warriors” who left their individual marks on the water crisis get named or (directly) credited in this book. No doubt, some of them will feel they should have been characters in the story. I can only plead that *everyone* is, in some sense, a part of this story, even when not mentioned by name. I have put a great deal of effort into carefully considering the variety of perspectives on the crisis within the community and, to the best of my ability, all of the diverse contributions residents and activists made to the crisis response. Unfortunately, I have had to leave out many worthy people and noble acts, for simple reasons of space and composition. I can only hope that those not named explicitly see something of themselves in the book.

This book would not have been possible without a publisher taking a chance on it, and for that (and for their guidance throughout the writing and revision process), I am grateful to Beth Clevenger of the MIT Press, and Bob Gottlieb, editor of the Urban and Industrial Environments series and an inspiration for his scholarship on water and environmentalism. I also received critical assistance from Max Smith, who helped me compile the references for the book, and Jake May, who helped with image permissions.

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