Activist Archival Research, Environmental Intervention, and the Flint Water Crisis

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As activists from historically marginalized communities advocate for themselves when confronted with increasing environmental and social injustices, students and scholars are uniquely poised to collect examples of, learn from, and amplify activists' rhetorical efforts at intervention. This article argues for activist archival work in which researchers collect examples of activist interventions as a critical form of community engagement. The case study presented here, which focuses on local activist writing (broadly conceived) in response to the Flint water crisis, illustrates one possibility for how activist archival research might be undertaken. Specifically, it highlights the tactics of black and working-class community members who joined together to make apparent how water contamination was affecting their own bodies, families, and communities through complex, multimodal interventions online and in the Flint community. Furthermore, this article emphasizes why such research is necessary and important, particularly when the embodied, scientific, and cultural knowledges of marginalized community members are represented little, if at all, in mainstream media coverage and normative rhetorics of risk.

ina Luster was not an activist. She was a single mother who worked as a district manager for a retail chain in Flint, Michigan. But that all changed not long after officials in Flint prioritized saving money over ensuring residents received quality water by switching the city's water supply from the Detroit water system to the polluted Flint River. Almost immediately, Luster and her fellow Flint residents noticed the smell, taste, and color of the water changed dramatically. The water might be blue one day, green the next, and was often shades of brown or yellow. Sometimes it smelled a little like gasoline, at other times like a fish market (Sanburn 2016). The effects of the contaminated water were hard to ignore, so Luster called the state and water systems to complain and inquire into the safety of her water. She was repeatedly told there was nothing wrong with it, while at the same time, her daughter began experiencing hair loss and severe rashes, and Luster's own health concerns grew increasingly severe. "I started losing weight—I lost close to 60 pounds. My skin color changed. My hair was coming out. My bones ached. I felt like I was 95 years old. In July 2015, I collapsed at work," Luster wrote (Becktold 2018). Eventually, Luster lost her job because of the health issues she was experiencing. It was then she became an activist, one of the self-proclaimed "water warriors" for Flint.

Increasingly, concerned residents like Luster began gathering for protests outside of city buildings and attending meetings to voice their concerns. They even took plastic bottles of their water to a hearing with then-Flint emergency manager Jerry Ambrose, who said there was no way the water residents showed him came from Flint (Rodrick 2016). City officials continued to tell residents their water was safe and that city tests did not indicate problems—later, residents would learn those city tests were not conducted at the homes at highest risk for lead, and some of the numbers reported for those tests had been modified (see, for instance, Fonger 2015). So, community members, angry at city officials' response, decided they would prove what the evidence from their own tap water and their families' bodies already told them: that Flint water wasn't safe.

In Flint, a city that is 57 percent black and 36 percent white, with 42 percent of residents below the poverty line (U.S. Census Bureau

2015), levels of exposure to the water contamination were not equally distributed. Many of the more affluent, predominantly white neighborhoods in the city never had their water switched to the Flint River. Some community members whose water was switched learned about the contamination and so stopped using the water much sooner than others (consider, for instance, how many non-English-speaking residents did not know about the contamination for *months*). Furthermore, community members with higher income could purchase their own bottled water and water filters before free supplies were provided or when those free supplies ran out. Some had transportation available to pick up bottled water or to take their children to get lead testing before widespread lead testing efforts were initiated, some could afford necessary medical treatment to offset the effects of lead poisoning, and so on.

Yet despite all of these barriers, large numbers of community members of color and lower socioeconomic status joined together, building coalitions to advocate for themselves, including pastors like Bobby Jackson, retired auto workers like Claire McClinton, longtime community activists like Nayyirah Shariff, and concerned parents like Luster. The efforts of these activists in particular were there; they were important, they deserve to be recognized, and they are routinely omitted from press and other public accounts. Their work should be archived and preserved for the historical record. Specifically, black and working-class community activists joined together to test their own contaminated water, to protest, to distribute bottled water, and to fight for clean water for all Flint residents at a time when they were also experiencing the effects of the water contamination on their own bodies. Community activists drew on and integrated their own complex identities, often shaped by multiple forms of oppression related to race, gender, socioeconomic status, disability, and citizenship status to form political coalitions and advocate for themselves in the face of unequal power relations. The result of this coalition-building is what Anna Carastathis (2013) calls "creative acts" that enable the formation of political alliances and the pursuit of "liberatory politics of interconnection" (944). These creative acts were vital to bringing attention to the Flint water crisis. Yet in national mainstream media coverage of the crisis, it was mostly a group of white Americans-mothers like LeeAnne Walters and

Melissa Mays, researchers like Marc Edwards of Virginia Tech—who were identified as the "heroes" of the water crisis.

This pattern of racial bias is why I view activist archival work as a critical form of community engagement. Activist archival research is so named because it involves archiving activist interventions and positions the archival researcher in an activist role. In a special issue of Archival Science focused on "archiving activism and activist archiving," editors Andrew Flinn and Ben Alexander (2015) highlight projects where "archivists seek to creatively document political and social movement activism" as well as those where the archival process supports such activism (329). I believe my work on the Flint water crisis fits this characterization and that such archival research provides new avenues for community-engaged scholars, particularly as instances of environmental and broader social injustice like what occurred in Flint are happening with increasing frequency all over the United States (consider, for instance, the recent lead crisis in Newark, New Jersey). It is imperative that we make apparent the writing (broadly conceived) undertaken by often silenced and ignored communities, and that we learn from and value that work. Community activists intervening locally undertake complex, multimodal efforts at intervention that draw directly from their own embodied, cultural, and scientific knowledges. By collecting artifacts and examples of such instances of environmental intervention, we are able to expand our conception of what "counts" as valuable knowledge and writing at the same time we recognize and amplify the important work activists are undertaking in their communities. In this way, we can take up Cheryl Glenn and Jessica Enoch's (2010) call to identify "new places to look, new questions to ask, and new issues to consider" (12-13). By doing so, we can "enrich our rhetorical histories with artifacts that might be deemed unarchivable by a more traditional archive, or worse, considered unworthy of the historical record," as K.J. Rawson advocates for in the video essay "Rhetorical History 2.0: Toward a Digital Transgender Archive" (2013).

When I first heard about the Flint water crisis, I could not engage directly with the Flint community because of my own geographic location (I reside in central Illinois, which is a six-hour drive from Flint) as well as family, bodily, and employment constraints. Even if

I could have more easily engaged directly with the Flint community as the crisis first unfolded, I also was (and remain) leery of instances where outsiders (like academics, such as myself in this situation, who do not belong to the community facing the environmental risk) attempt to "help" but may actually impede the efforts of local activists. I recognize my own positionality as a white, middle-class, straight, cisgender, relatively able-bodied woman with a tenuretrack assistant professor position, particularly at a time when so many people in our country, our communities, and even our own fields do not have this same power and positionality. Systemic injustice and exploitation dehumanizes all of us, and I believe it is morally imperative to amplify the perspectives of people whose lived experiences are different from mine, whose daily realities differ from mine, who are most vulnerable and oppressed by the system, and who are marginalized by the intersections of race, gender, sexuality, socioeconomic status, disability, and citizenship status at which they reside. I care deeply about what was and still is happening in Flint and the broader environmental justice exigencies it represents, which are occurring right now throughout the United States. In the early months of the water crisis, I felt strongly that I needed to do something, so I honed in on the tactics of community activists like Gina Luster and began collecting examples of community activist interventions to learn from, to celebrate, to share with my students, to perhaps one day make available even more widely to other scholars, students, and activists.

I did this work because I believe activist archival research, in which we collect artifacts resulting from community activist efforts, archive them, analyze them, and share them, is one way to draw attention to what community activists are doing and to disseminate that knowledge so others (people in other communities facing similar challenges, students in our classrooms, our colleagues) can learn from them. Scholars and teachers can join forces with emerging social movements, "supporting their efforts to rebuild and retool for a more equitable, just, democratic, environmentally sustainable society," as Shannon Carter and Deborah Mutnick (2012, 7) put it. Here, I make the case for why an activist archival approach has broad benefits to our disciplines, our students, and the communities whose work we archive, and I present one possible method for archiving and

analyzing activist rhetorics as they are occurring, using a case study of the Flint water crisis.

ADVOCATING FOR ACTIVIST ARCHIVAL RESEARCH

Archival research is a valuable component of our disciplines that enables us to recover previously unrecognized stories and histories and to analyze and learn from the work of rhetors who have come before us. The archival "turn" and arguments for conducting archival research have been well-documented in rhetoric and composition studies. In particular, Gesa Kirsch and Liz Rohan's edited collection Beyond the Archives (2008) advocates for a broader conception of what "counts" as archival research and illustrates that archival research can tap into personal interests and exigencies, resulting in a complex, serendipitous process of knowledge-making.

Archival research need not only focus on the past; it also can be a useful method for recognizing, valuing, and preserving important activist work in the moment or soon after it occurs. Contemporary activist interventions often transpire at least in part online, which is why activist archival research involves engaging with what scholars call "Archives 2.0." Archives 2.0, Alexis Ramsey-Tobienne (2012) emphasizes, aren't just a digital archival collection—rather, such archives "invite participation in the formation and expansion of the sites" and highlight "various levels of connectivity" (6), such that we (and our students, as I will discuss later) can become both consumers and producers. Perhaps even more importantly, Archives 2.0 enable a broader conception of who is "qualified" or an "expert," which is vital if we focus our efforts on archiving the work of community activists whose own expertise might differ from "official," sanctioned sources, and if we encourage undergraduate students to engage with such archival efforts when they are, for the most part, not perceived as "qualified" archivists.

By its very nature, archival work involves making choices about where to look, what to include or exclude, when to keep searching, and when is enough (for now). In this way, all archival work is necessarily ongoing, necessarily incomplete. The goal of the archival work I have undertaken related to the Flint water crisis—and that I argue we need much more of—is not to tell a singular, linear story of

environmental intervention. Such a story is not possible. Rather, as Tarez Samra Graban, Alexis Ramsey-Tobienne, and Whitney Myers (2005) suggest, we must "look to archival aids for unstable narratives, not stable ones" (234). Furthermore, Achille Mbembe states, "the archive, therefore, is fundamentally a matter of discrimination and of selection, which, in the end, results in the granting of a privileged status to certain written documents, and the refusal of that same status to others, thereby judged 'unarchivable'. The archive is, therefore, not a piece of data, but a status" (quoted in Rawson 2013). I argue for granting status to those documents—and those activist efforts—that may otherwise be overlooked. The methodology I present in the next section is one way we can hone in on these underrepresented activist efforts so we can archive and learn from the savvy rhetorical tactics undertaken to intervene locally.

A METHODOLOGY FOR IDENTIFYING ACTIVIST INTERVENTIONS

A methodology that brings together Angela Haas and Erin Frost's (2017) apparent decolonial feministrhetoric of risk and Jeffrey Grabill's (2014) rhetoric in the common places enables us to hone in on specific instances of environmental intervention occurring in marginalized communities. Haas and Frost's (2017) apparent decolonial feminist methodology brings feminist, indigenous, and decolonial theories into conversation with Jeffrey Grabill and Michele Simmons' (1998) critical rhetoric for participatory risk communication. Risk communication generally occurs when scientists, policymakers, and other recognized "experts" convey information about environmental health risks to a seemingly unknowing public. However, Grabill & Simmons advocate for recognizing the knowledge and expertise of citizens and including them in meaningful ways in the "construction of risk itself" (420). An apparent decolonial feminist methodology studies connections between risk communication and power, global and local systems of oppression, and institutions in order to both intervene in existing and propose revised rhetorics of risk (171). In an apparent decolonial feminist methodology, rhetoricians strive to make their own "subject position explicit, to hail allies in redressing sexism, and to critique ethics of efficiency" (what they call apparent feminism) while also "interrogat[ing] and seek[ing] to redress the colonial effects of risk and its scientific and technical rhetorics on the land, communities, knowledges, and lifeways" (what they call a

decolonial rhetorical methodology) (Hass and Frost 2017, 170). Hass and Frost underscore the value of their methodology in making apparent those stakeholders who have been left out of or disempowered by uncritical or normative rhetorics. Additionally, they argue for their methodology's wide use value "in a variety of risky rhetorical situations" (178), particularly those in which environmental equity is threatened.

Using an apparent decolonial feminist methodology enables activist archival researchers to identify specific cases of environmental or health risk to study. Furthermore, its emphasis on valuing underrepresented knowledges and embodied experiences to redress social injustices ensures researchers hone in on the often-overlooked rhetorical work of community activists "for whom environmental equity is not an embodied reality" (Hass and Frost 2017, 181). In other words, employing an apparent decolonial feminist methodology necessitates listening to and learning from individuals' knowledge of their own bodies and the stories they tell about their experiences with environmental contamination, which often are not widely represented in mainstream media coverage or acknowledged by people in positions of power.

Whereas Haas and Frost's (2017) apparent decolonial feminist methodology helps activist archival researchers identify which cases of environmental risk to study, Grabill's (2014) rhetoric in the common places enables us to determine what point(s) in community activists' risk assessment and communication processes on which to focus. Grabill's methodology recognizes the "mundane labor" of knowledge work as being central to the practice of a rhetoric in the common places (252). Grabill proposes a series of devices, or ways of thinking about methods and practices, that enable the work of public rhetoric (257). These devices are detection, rendering, assembly, calculation, and communication. With detection, community members work to identify shared concerns, to research and inquire into an issue so that they might begin to collectively "identify the indicators of publicness and the concerns that motivate rhetoric" (Grabill 2014, 258). Once an issue has been detected, the work of rendering involves what Grabill calls "following indicators or pulling on threads"—or tracing specific activities and the people and things associated with

those activities (258). It is necessary to render accounts in order to begin the work of assembly, in which a public is built and maintained around a matter of concern. Next, calculation involves measuring and assessing the impact of this work—in other words, what the velocity, value, or "oomph" (as Grabill calls it) of this work is. Finally, communication involves thinking carefully about the messages that are made and delivered and the devices of messaging (257–258).

The first three devices Grabill identifies in his methodology detection, rendering, and assembly—are central to activist archival research because they focus attention on the ways citizens in affected communities begin to "make a thing" (Grabill 2014, 263) or start the important work of hailing others to join them in intervening in their communities. In taking up Grabill's (2014) point that a methodology must be a theory "of and for action" (259) that supports others' work, I argue that there is much we can learn by examining how community members initially identify a local environmental problem, inquire into the nature of that problem, and then hail others in their community to intervene with them. This work leading to assembly isn't just important to rhetoric, Grabill argues; it is the work of rhetoric. Yet often in studies of community activist work, the emphasis is on the actions of the already-assembled group fighting for environmental justice or on what happened long after a specific advocacy effort has concluded, rather than on the important work that was performed before a coalition of community members began their collective efforts at intervention. If this mundane work leading to assembly were more explicitly studied and discussed, people in other communities attempting to engage in similar work might have a better sense of how they can hail their fellow community members. Thus, combining the first three devices of Grabill's rhetoric in the common places with Haas and Frost's apparent decolonial feminist rhetoric of risk methodology enables researchers to recognize and value the important efforts of at-risk community members who rely on their lived, embodied experiences as they first begin to intervene locally.

ACTIVIST ARCHIVAL RESEARCH METHODS

Compiling a digital archive as an environmental crisis is unfolding is challenging, to say the least, and illustrates Elizabeth Yakel's (2010) contention that "searching is both an art and a science" that requires

"planning, patience, and persistence" (113). Such activist archival research requires creativity and critical thinking even to figure out where to find things, particularly as activist interventions include both online and on-the-ground efforts. The methods I employed to gather examples of community activist interventions that I discuss briefly here are not perfect, and what I gathered through my own research is but a tiny sliver of the materials related to the crisis. Yet I hope that by detailing how I curated artifacts from the Flint water crisis, other researchers will begin to envision how they might undertake their own activist archival work.

In my initial archival research on the Flint water crisis, I focused on examples of activist interventions that began with the switch to Flint River water in April 2014 and continued through May 2016. Although Flint activists continue to fight for access to clean, safe water even today, I initially constrained my search to those dates because of my focus on activist efforts at detection, rendering, and assembly, which mostly occurred during this timeframe. During my research, I collected news and magazine articles (from local and state media, particularly MLive and The Detroit Free Press, national media, and numerous alternative publications such as Grist and Mother Jones), technical documents I found online (including water quality reports and flyers about water safety distributed in the Flint community, among many other items), photographs, and social media posts (particularly from Facebook, Twitter, and Instagram, where I followed relevant social media tags including #FlintWaterCrisis and #HelpFlint). Because of my focus on an apparent decolonial feminist methodology, I was interested in finding what community activists were saying, writing, and posting themselves, particularly about their own embodied experiences with the water contamination, so in my initial research, whenever specific community activists or activist groups were mentioned, I would search for those activists online to find what other articles and videos they appeared in and to see if they had their own blogs, websites, or social media accounts. Additionally, I conducted Google image searches to find photos related to the crisis. I focused on collecting images that depicted community members struggling to live at home without access to clean water, showing evidence of how the contaminated water was affecting their bodies, handing out or obtaining bottled water, or attending rallies or other advocacy-focused events.

To analyze the data collected from these research methods, I used grounded theory and theoretical data sampling informed by decolonial feminist theory. This type of analysis, as Juliet Corbin and Anselm Strauss (2008) explain, is "fluid and generative" and requires opening up "the data to all potentials and possibilities contained within them" (159). It allowed me to identify concepts from an initial set of data I gathered and follow the lead of those concepts to see where they might take me, what additional data collection might result, and then what new concepts might emerge (and so on). This immersion, I believe, was important for identifying and learning from the ways Flint activists sought to intervene locally because I was guided by what the community activists did rather than by what I expected to find from studying their efforts.

I coded all artifacts I gathered based on form and genre (for instance, flyer, Tweet, photo of water, etc.), types of knowledges represented (cultural, embodied, scientific), and devices (detection, rendering, and assembly). After I completed coding, I identified themes and ideas that emerged from the artifacts I was studying, analyzed the data again grouped by code to see if anything else emerged, and continued with this process until it seemed as if I had identified the key themes or ideas related to Flint community activist efforts. In the course of this analysis, I identified a number of specific community members whose stories were important to the trajectory of activist work in Flint and whose contributions were represented in the artifacts I collected, and I spent additional time studying the artifacts about or produced by them.

From my research I recognized that Flint community activists were adept in their ongoing efforts to act and to engage their fellow community members in that action. A large number of community members attended protests and meetings, assisted with water testing, and spread the word about the water crisis via social media. Additionally, a number of organizations and coalitions formed in response. Yet, as Grabill (2010) points out, because rhetorical activity is coordinated and distributed and, thus, difficult to detect, communities or publics must be "assembled and continuously reassembled" (195). I envision that the creation of a larger Flint water crisis archive will require collecting more materials from the early years of the crisis as well as interviewing those activists who were involved to bring

their own perspectives and voices more fully to the project. Still, from the artifacts I did gather, I learned just how many different tactics activists undertook in the community and online—many of which

the artifacts I did gather, I learned just how many different tactics activists undertook in the community and online—many of which were represented little, if at all, in mainstream media coverage of the crisis. In the next section, I offer a brief discussion of some of these artifacts I collected online to underscore my contention that activist archival research is necessary and important.

DETECTION, RENDERING, AND ASSEMBLY IN FLINT: A CASE STUDY

As I began following and collecting artifacts online related to the Flint water crisis, I realized the activist efforts of Gina Luster and her fellow Flint community members followed a common storyline of environmental intervention in which community members take up activist work after detecting health problems or other concerns affecting their own bodies or the bodies of family members (for further discussion of this common approach, see Schwarze 2007). Particularly in marginalized communities, environmental issues often are dismissed by people in positions of power in elected office, businesses, media, and/or organizations until the effects are extreme and impossible to ignore. Many of these problems stem from lax regulation and deregulation; from decisions made by people who do not consider the real, material effects of their decisions on specific bodies and communities; by corporations with too much control and too little oversight for whom the bottom line trumps everything; and/or by narrow constructions of what is deemed evidence and who is authorized to collect such evidence. And so, in response, community members become activists, despite being burdened by the many challenges present at the intersections of race, socioeconomic status, gender, citizenship status, disability, and so on. They spend considerable time and effort fighting to communicate their concerns and make their voices heard in the hopes of stopping the destruction of their bodies and communities.

Many Flint residents were surprised when they heard that officials were considering a switch to the "notoriously polluted" Flint River (Pulido 2016, 4). Over the many decades in the mid-1900s when General Motors (GM) transformed Flint into an automotive manufacturing mecca, the river became a disposal site for all manner of toxic wastes from nearby factories responsible for supplying

the materials necessary for making cars (Rosner and Markowitz 2016). Polluters like GM were never held accountable for the river contamination, and city officials passed off the consequences to local residents rather than pressing for corporate responsibility. As was discussed earlier, residents' concerns about the switch seemed warranted when the quality and appearance of the water changed, and the effects of the water on their bodies was just as startling. Community members did not keep their concerns to themselves many, like Luster, "complained vociferously about the quality of the water" to city officials (Pulido 2016, 6). Yet city and state officials dismissed their complaints and kept insisting the water was safe to drink. Then-mayor Dayne Walling even went so far as to drink a glass of the water on local television to demonstrate his comfort with it ("Flint's Mayor" 2015). Such a move illustrates how city officials privileged their own knowledges (which, it was revealed later, were based on ignored and erroneous water testing data) over the embodied knowledges of Flint community members.

After community members initially detected the problems with their water and the effects the water was having on their bodies, they began the work of rendering by gathering evidence of the water contamination to build their case that the issue needed to be addressed immediately. Community activists were forced to do this work on their own after officials from the City of Flint, Michigan Department of Health and Human Services, Michigan Department of Environmental Quality, and Governor Rick Snyder's office repeatedly ignored Flint residents' concerns about the effects of the water switch on their bodies and continued to dismiss them by insisting the water was safe to drink.

Community member LeeAnne Walters sparked early efforts at rendering by requesting that someone from the city test her water after her children developed a number of severe health concerns she thought were linked to the water switch. Shortly after a city employee completed the test, Walters received a panicked voicemail from the employee, who told her not to let her kids drink the water in any form. No level of lead exposure is safe, but anything over 15 parts per billion is a serious problem. The water at the Walters home was nearly seven times that: 104 parts per billion (Smith 2015). A week

later, a follow-up test recorded lead levels at 397 parts per billion. Shortly thereafter, all four of the Walters children were diagnosed with lead poisoning. "I was hysterical," Walters told *Mother Jones*. "At first, it was self-blame. And then there's that anger: How are they letting them do this?" (Lurie 2016). The city claimed the problem was specific to lead pipes in the Walters house, though the Walters had the plumbing updated when they moved in, so there were no lead pipes. The city's solution involved shutting off the Walters' water and hooking their house up to a neighbor's garden hose.

Walters was certain the problem was not just with her water, so she began researching city water data herself and tried contacting anyone she could think of-from community activists to random people at the United States Environmental Protection Agency (EPA) regional office. Eventually, she reached Miguel Del Toral, an EPA water specialist who listened to the evidence she had gathered. Del Toral further investigated and learned just how corrosive the contaminated Flint River water was to the aging lead pipes in the city. Yet the memo Del Toral sent to his bosses was widely ignored and discredited. Eventually Del Toral put Walters in touch with Marc Edwards, a water treatment expert at Virginia Tech University, and Del Toral helped Walters collect thirty water samples from her house to send to the Virginia Tech lab for analysis (Hohn 2016). The Virginia Tech team, led by Edwards, found lead levels even higher than the previous tests (which had been done after first flushing the pipes) had detected. On average, the levels were 2,300 parts per billion, and one sample was more than 13,000 parts per billion, which is above the EPA standard for toxic waste (Rodrick 2016). Still, city officials continued to insist the lead levels at the Walters home were an anomaly.

Walters and Edwards became widely profiled, prominent figures connected to the Flint water crisis because of their initial efforts to prove just how toxic the Flint water was. Walters, a white woman, was a stay-at-home mom who spent countless hours researching the contaminants in the city water and their health effects and was relentless in contacting anyone she could think of to assist her. She did so at a time when many other residents were experiencing similar health effects but may have been limited in their ability to get

answers because they did not have the time or resources to engage in the rendering that Walters did. Edwards, a white researcher with the technical expertise to support the embodied knowledges of the Walters family, was similarly hailed early on in media coverage as a "hero" or "savior" of the water crisis. Yet as media coverage of the water crisis intensified, often focusing on the efforts of Walters and Edwards, a diverse coalition of community activists including local pastors, ex-felons, small business owners, and concerned parents—many of whom were black, low-income, or both—worked tirelessly behind the scenes to collect evidence of the water contamination and spread word about it online and in their community.

Even though I was not able to knock on doors in Flint to raise awareness of the water crisis or collect samples from homes in the community, I could engage in activist archival research to reveal the hidden stories and efforts of this diverse community coalition, which were documented much less frequently, particularly in the early months of the crisis, and often told only in local media, if at all. I could collect the coverage of these local activists' efforts that appeared in small online and indie publications, photos of their actions, and their own social media posts. These artifacts, when studied alongside or even in place of the common storylines of the contamination that appeared in the national press, portray a more complex picture of the local activist efforts of intervention. They help illustrate the ways Flint activists communicated to other affected community members through a variety of rhetorical forms (speech, writing, bodies, images), highlighting community members' complex identities and their cultural, embodied, and scientific knowledges. And they make visible and audible the people on the front lines who are often behind the scenes, without whose participation in such struggles real social change would not occur. It is far too easy to rely on common or obvious narratives of environmental intervention present in the media. I initially did it myself in spending too much time retelling the stories of Walters and Edwards at length in early drafts of this article rather than focusing on the activists who were not widely represented elsewhere. But clearly, the stories we most need to learn from and amplify are more than likely not the easiest ones to uncover or the most frequently told.

A diverse group of activists representing the organizations Coalition

for Clean Water, Flint Democracy Defense League, and Flint Rising came together in an important moment of rendering and assembly after the water tests of the Walters' home when Virginia Tech researchers sent 300 water testing kits to Flint to gather additional data about lead levels across the city. Navyirah Shariff, community organizer and director of Flint Rising, was among the community activists of color who were actively involved in water testing. In a local newspaper article that ran during the testing, Shariff said, "we're going to get these test kits out to the community, and we're going to find out the truth about what's in our water" (Guyette 2016). Within a month, the Flint community activists helped gather and analyze 861 water samples, more than twelve times the number of water samples city officials collected in six months (Rhoads, Martin, and Roy 2016). Based on the results of the completed water tests, the Virginia Tech researchers found that forty percent of Flint homes had lead levels exceeding the acceptable limit (Rodrick 2016). The MDEO argued the test results were not accurate, which prompted community members to develop quality control procedures. For instance, they taped kits closed and signed their names across the tape when they collected samples as protection against tampering (Rhoads, Martin, and Roy 2016).

Flint community members chose to collect their own data because they refused to accept information provided by the city and state. The approach community activists took as they worked with Virginia Tech researchers is an example of popular epidemiology, in which "laypersons gather scientific data and marshal the knowledge and resources of experts" (Brown 1993, 18) to identify environmental hazards and diseases. Popular epidemiology is commonly undertaken by community activists advocating for environmental justice because it integrates the "physiological, psychological, and social effects of environmental hazards" (Novotny 1998, 140) and recognizes the extent to which certain groups (particularly because of socioeconomic status, gender, race, ethnicity, age, and disability) are more affected than others by health threats. Di Chiro (1998) argues that such work is akin to the construction of a new scientific method that takes into account different perspectives, standpoints, and social justice arguments.

The research community activists conducted also served to create a local counterpublic that stood in stark contrast to the dominant "public" narratives of city officials. Counterpublics are groups "formed by their conflict with the norms and contexts of their cultural environment" and a "context of domination," according to Warner (2002, 63). Similar to the local publics discussed by Higgins, Long, and Flower (2006), which communicate via hybrid, alternative discourses that circulate both within and beyond the group and provide culturally appropriate ways to address key issues and acknowledge rival perspectives, the local counterpublic that formed in Flint was comprised of marginalized members of the community affected by the water contamination who recognized their subordinated status and assembled to respond and intervene. Activists came together to put a face on this local counterpublic and to circulate information about what they found in September 2015 when they joined Edwards at a press conference on the lawn outside Flint City Hall. During the press conference, Edwards announced the test results and asked Flint residents not to drink their water. MDEO officials again questioned the research, even calling Edwards and his team "magicians" who "pull that rabbit out of that hat everywhere they go" (Roy 2015). In response to the press conference, the city and state conducted their own testing of seventy-one samples, but they eliminated the two highest lead scores (one of which was from Walters' house) on technicalities, which dramatically brought down the results of lead levels in the city (Rodrick 2016). In refusing to acknowledge or take seriously the results of the water testing conducted by community members and Virginia Tech researchers, city and state officials perpetuated the long-time approach to risk communication in which people in positions of power (typically deemed "experts" or "officials") accuse the public of being "irrational," "ignorant," and incapable of understanding technical data (Fischer 2000, 122-123) and question community activists' own research findings, no matter how carefully their studies are designed and carried out.

At the same time many community members were testing their water, another community member and medical professional was conducting research of her own. After Dr. Mona Hanna-Attisha, the director of the pediatric residency program at Hurley Medical Center in Flint, heard local parents' complaints about their children's health problems and learned that the city did not have corrosion controls in

place, she began testing blood lead levels in Flint children. Through her research, Hanna-Attisha discovered that the incidence of lead contamination in children under five had doubled since 2013—and in Flint's worst-affected neighborhoods, children's lead levels tripled (Hurley Medical Center 2015). Hanna-Attisha checked the numbers repeatedly before presenting them publicly, within weeks of the press conference held by the group of community activists with Edwards. At first, officials denied the accuracy of Hanna-Attisha's tests, too. As with the residents' water testing results, MDEQ said her data did not match state testing results and accused community members of sparking hysteria. Officials once again ignored their constituents (primarily people of color) as well as another person of color (Hanna-Attisha is an Iraqi-American woman), despite her credentials.

Yet community activists continued to spread the word about the results of the water tests and Hanna-Attisha's study via websites they created, through social media, and by speaking with any news reporters who would listen to them. A few days later, the state finally acknowledged the issues raised by community member-driven testing, and Genesee County issued a public-health emergency and formally asked residents not to drink the water. In October 2015, the city switched back to the Detroit water system. However, the community's problems were not solved by the second switch because the lead pipes carrying water through the city were so corroded at that point that even the Detroit water became contaminated.

The examples presented here underscore the difficulty community members face in undertaking the work of rendering and assembling a local counterpublic when officials do not listen to or acknowledge the embodied and scientific knowledges community members possess. It also makes visible the inequality and injustice underlying the Flint water crisis. Even when community activists called on "authorized" researchers to assist them, the evidence they collected was not immediately taken seriously. As Hanna-Attisha told a reporter, "They [Flint residents] were being neglected. Moms were complaining. People were going to town-hall meetings and getting arrested. But nobody listened to them" (Sanburn 2016).

Yet community activists did not give up. As the evidence of lead contamination grew, activists including Luster and Shariff engaged more directly in tactics aimed at assembly, including going door-todoor to homes to warn residents their water was not safe (Le Melle 2016). Luster was motivated to speak directly with community members after she was told her apartment complex on the border of the city was not receiving Flint River water even though it was. "That was the fire under me to be an advocate for the forgotten folk, not only in the building where I live but for the undocumented immigrants. Nothing was in Spanish, so we started knocking on doors" Luster said (Becktold 2018). Activists also distributed 4,000 door hangers, which were printed by another white local activist, Melissa Mays, and her husband with their tax return money. The door hangers included a list of the signs of contaminated water along with the message "Your water is not safe" and phone numbers for local, state, and national officials (McDonough 2016).

From the early months of the crisis, groups of community members regularly assembled outside Flint City Hall and in other locations, staging protests. Protest participants often held up bottles of the colored water that came from their home faucets, along with large hand-written signs with messages including "Justice for Flint," "Flint Lives Matter," and "Water Is a Human Right." At many protests, children stood alongside their parents, often holding their own signs with messages such as "When will I have clean bath water?" and "Stop poisoning us."

One protest called a "die-in" was staged by a group of women activists who wanted to convey a different message about the health consequences of the water contamination. In May 2016, ten women wore white jumpsuits decorated with red-painted hearts that said "Flint." The paint from the hearts bled down their legs in a visual representation of the damage women across Flint were experiencing as a result of the water contamination. The women laid silently on the steps to the entrance of the water treatment plant. One of the black activists, Nakiya Wakes, stood and told the story of how she miscarried twins then came home from the hospital to a state notice saying not to drink the water. The video of her speaking was shared on social media (Figure 1). In it, she stated, "This area is a crime









7:37 AM · May 16, 2016 · Twitter for Android

Figure 1. Screen shots from two Tweets posted by Flint Rising. The Tweet on the left includes a video showing a coalition of women of various ages, races, and income levels laying on the steps of the Flint water treatment plant as activist Nakiya Wakes shares her story of miscarriage. The Tweet on the right shows participants in the die-in. Included in the photos are Melissa Mays (third from the left in the back row), Mona Hanna-Attisha (second from the right in the back row), Gina Luster (second from the left in the front row), Desiree Duell (center front), and Nakiya Wakes (second from the right in the front row), whose activist efforts are all discussed in this article.

scene. We have lost children. Our lives, our reproductive systems have been damaged," even as a plant supervisor tried to stop her, telling her repeatedly that she was trespassing.

The die-in received limited local news coverage, but images and videos of the protest were shared on social media, particularly Facebook, Twitter, and Instagram. This protest offers an example of the ways participation in an activist event is simultaneously a tactic for building assembly and evidence of assembly that has already occurred. In other words, the women who protested at the Flint water treatment plant had already come together around a shared matter of concern. In doing so, their actions also brought attention (via social media posts and local media coverage) to a consequence of the water contamination about which other community members may not have been aware. Thus, the women who participated in the protest

helped publicize the assembly that had already occurred while also potentially assisting in further efforts to sustain and build assembly by making apparent to a wider audience what was happening to local women's reproductive systems.

Community activists also engaged in performances and art installations to raise awareness and make arguments about the severity of the water contamination and its effect on community members' bodies. For instance, in 2015 white Flint artist and community activist Desiree Duell created a protest art installation called "A Body of Water." The project began when her son asked her if they could make art with all of the empty water bottles they had in their home since they, like so many Flint residents, no longer drank tap water. After Duell helped her son outline his silhouette in used water bottles, she decided to expand the project into the community (Atkinson 2015). For the installation, participants at community centers, churches, and festivals—many of whom were children—posed on the ground so their bodies could be outlined in chalk (as shown in Figure 2). Then the outlines were filled in with recycled water bottles with waterproof LED lights (Tyson 2016). The combination of the chalk outlines (reminiscent of the outline around a body at a crime scene) and the use of the recycled water bottles (so prevalent in day-to-day life, at least for those community members who had access to them) drew attention to the tangible effects of the water contamination on Flint residents' bodies. The art installation also served as a means of assembly as community members came together to participate in and view the project alongside other residents with similar embodied experiences.

Tweets like the one shown above about the die-in (Figure 1) and Instagram posts of the different "A Body of Water" installations are just some of the examples of ways Flint community activists used social media to share information and raise awareness. Another example is Shariff's Twitter feed. Shariff (@nayyirahshariff) Tweeted regularly—often multiple times per day—about the Flint water crisis beginning in January 2015. She frequently mentioned Governor Rick Snyder (@onetoughnerd) in her Tweets, often with the hashtag #arrestsnyder. Yet she also used her social media presence to help people in the community access safe water—for instance, in fall 2015



Figure 2. Community activist and artist Desiree Duell draws around the outline of Netiva Wilder in a 2015 performance of "A Body of Water." The outlines of residents' bodies were filled in with reused plastic water bottles lit with waterproof LED lights (photo courtesy of Desiree Duell).



Figure 3. A screen shot of a series of three Tweets posted by Nayyirah Shariff (@nayyirahshariff) in January 2016. Shariff and other Flint activists took to Twitter to raise awareness of and show outrage at requirements that Flint residents had to provide official identification to receive bottled water. Their efforts led to a rapid change in policy.

she Tweeted about water filter giveaways, and in early 2016 she posted messages letting people know where they could find bottled water in the community and soliciting help with unloading and distributing water. Shariff also was active in Tweeting information to community members interested in participating in the canvassing efforts to spread word about the lead contamination. Shariff further advocated for members of the community who were undocumented immigrants, homeless, or otherwise did not have official forms of identification when people attempting to get free water at fire stations were told they had to provide government-issued IDs (as shown in Figure 3).

Shariff's use of Twitter aligns with the findings of Rodrigo Sandoval-Almazan and J. Ramon Gil-Garcia (2014) on the use of social media tools for political activism, in that Twitter served as a venue for Shariff to manage and distribute information enabling community activists to organize in Flint. It also illustrates the ways people can mobilize their networks through the integration of online and inthe-community actions (a topic further discussed by Ryder 2010), as Shariff and other community activists used their social media posts to showcase what was happening to their bodies (by posting images of chemical burns, for instance) or activist efforts at intervention (by showing images of protest participants in action). In other words, both the online and in-the-community actions undertaken by Flint community activists work together as part of what Verzosa Hurley and Kimme Hea (2014) call a "larger complex of communication practices" (66) undertaken by community activists in response to local environmental risk.

LEARNING FROM ARCHIVING ACTIVIST INTERVENTIONS

The examples of community activist efforts at detection, rendering, and assembly discussed here are but a few of many I collected in the first few years of the Flint water crisis. These examples underscore how pivotal community activist efforts were in raising awareness of the water contamination and its effects on residents' bodies. Without community activists' persistence in sharing their stories, conducting their own research, and making their complaints heard, the already devastating effects of the water contamination likely would have been considerably worse. There is much we can learn from the ways that

community activists in Flint and other marginalized communities faced by environmental contamination detect, render, and assemble in order to intervene locally. But in order to learn *from* them, we first must learn *about* such efforts.

When community activists act to intervene in their communities, their success may be limited if their work is not authorized or recognized by people in positions of power or conveyed via mainstream media coverage. As Di Chiro (1997) found in researching the grassroots efforts of women environmentalists, the common assertion that "legitimate scientific knowledge about the environment is exclusively located within certain communities of credentialed experts" (210) prevails and often serves as a barrier to community activist efforts. In Flint, community activist interventions still involved credentialed experts such as Edwards and Hanna-Attisha, who were recognized as "authorized" to speak because of their technical expertise, despite the considerable local and embodied knowledges of Flint community activists. Yet Flint community activists are the "new species of 'expert" for whom Di Chiro (1997, 210) advocates, specifically women activists who use their own common sense and experiential knowledges in undertaking community-based research. As the artifacts from the Flint water crisis illustrate, these experts are doing important work—even though their efforts are not always widely recognized.

This is precisely why activist archival research matters. We can go backwards and archive social justice interventions that have already occurred. But we can also archive activism-in-the-moment, whether during an unfolding environmental crisis like the one that occurred in Flint or during an extreme weather event such as Hurricane Harvey, when community members took to Twitter to share and obtain information, seek and provide help, and more. We cannot, nor should we, always get directly involved in environmental interventions for, as Carter and Mutnick (2012) point out, "frequently we in the academy have more to learn from than to teach community members and social justice organizers" (6). But we can begin archiving artifacts related to such interventions to learn from and share with others, so activist work is valued and recognized beyond the moment of exigence when it occurs. Then we must work to make that archival work broadly

available—and not just to academic audiences. For me that means my next step is building an archive of Flint artifacts that is accessible online, sharing those artifacts with the Flint activists who initially created them, and engaging with them to collect additional artifacts. I also hope they will share their own stories in their own words about the water crisis and the activist organizing they did in response so that a broader audience might celebrate and learn from their efforts. In this way, activist archival research is the sort of "generative community literacy practice" and site of "collaborative rhetorical invention" that Whitney Douglas (2017, 31) calls for.

Activist archival research also has a place in our classrooms. As Pamela VanHaitsma (2015), Jim Purdy (2011), and others argue, students are already accustomed to and work with digital archives in their daily lives, and more formalized archival efforts in their classes provide another opportunity for students to participate directly with scholarly inquiry. Through digital archival projects, students can contribute to and create new archives, bring archives to more public audiences, and collaborate with communities directly. Such archival work in classrooms presents an opportunity for teaching research methods that expand beyond traditional library instruction and make apparent for students that, although scholarly research and "official" sources of information are valuable, they are only one type of available, legitimate knowledge. Students can begin to consider the ways conducting their own interviews or ethnographic work as well as archiving social media posts, videos, and other documents online are relevant, authoritative, useful research methods that can contribute to their own and others' knowledge about social justice issues and help them see more nuanced, layered perspectives on the topics they are writing about than what may be portrayed solely in mainstream media coverage.

We might begin by having students study existing archival work. As I mentioned earlier, I share artifacts from my own archival efforts in my classes. (Other scholar-teachers do the same. See, for instance, Nancy Welch's *Living Room: Teaching Public Writing in a Privatized World.*) There are also other existing archives available for students to learn from, such as the #NoDAPL archive (https://www.nodaplarchive.com/) or one of the many #BlackLivesMatter

archives (see, for instance, https://archive-it.org/collections/4783). Students can study, discuss, and write about these materials. Then they can engage in actual archiving of artifacts, particularly those found online. Why not have students identify a current social justice exigency and begin the work of compiling a digital archive? The entire class might work together to document an unfolding social justice issue, hashtag movement, or local concern. Or each student might individually identify a stakeholder involved in an issue whose work they wish to archive, and then the entire class can bring together their individual archival work and analyses to build a complex picture of a specific issue or crisis.

We can and should be curators for instances of intervention when they are occurring. This archival work is a vital way (though, of course, not the only way) of engaging with and learning from communities, whether in our own towns or halfway across the world. If done carefully, thoughtfully, and ethically, we can contribute by collecting the artifacts resulting from those efforts and by archiving, amplifying, and sharing them. This kind of research can reveal layers of activism, particularly among those marginalized community members, such as people of color, who are too often omitted from mainstream media coverage and the public record.

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