


1-1-2017

# Accumulating Risk: Environmental Justice And The History Of Capitalism In Detroit, 1880-2015

Josiah John Rector  
*Wayne State University,*

Follow this and additional works at: [https://digitalcommons.wayne.edu/oa\\_dissertations](https://digitalcommons.wayne.edu/oa_dissertations)

 Part of the [Environmental Health and Protection Commons](#), [Environmental Law Commons](#), and the [History Commons](#)

---

## Recommended Citation

Rector, Josiah John, "Accumulating Risk: Environmental Justice And The History Of Capitalism In Detroit, 1880-2015" (2017). *Wayne State University Dissertations*. 1738.  
[https://digitalcommons.wayne.edu/oa\\_dissertations/1738](https://digitalcommons.wayne.edu/oa_dissertations/1738)

This Open Access Dissertation is brought to you for free and open access by DigitalCommons@WayneState. It has been accepted for inclusion in Wayne State University Dissertations by an authorized administrator of DigitalCommons@WayneState.

**ACCUMULATING RISK: ENVIRONMENTAL JUSTICE AND THE  
HISTORY OF CAPITALISM IN DETROIT, 1880-2015**

by

**JOSIAH RECTOR**

**DISSERTATION**

Submitted to the Graduate School

of Wayne State University

Detroit, Michigan

in partial fulfillment of the requirements

for the degree of

**DOCTOR OF PHILOSOPHY**

2017

MAJOR: HISTORY

Approved By:

Advisor

Date

*Elizabeth Jane* 12-2-16

*Marcus L. Ralston*

*Tracy M.*

*Ch. Z.*

*Leel Steinberg*

© COPYRIGHT BY

JOSIAH RECTOR

2017

All Rights Reserved

## ACKNOWLEDGEMENTS

At the outset, I would like to thank my parents, Melinda Clarke and Dale Rector, for all they have done for me for over three decades. I would also like to thank my siblings Tessa, Gideon, Eli, and Noah, and my extended family, including Sue, Jim, Sari, Chris, and Andria. My family has been unfailingly supportive throughout this process.

My greatest professional and intellectual debt is to my advisor, Liz Faue. From the beginning, Liz encouraged me to pursue this sometimes-daunting project. When my commitment wavered early on, she talked me into sticking with it. This was the best advice I ever received in graduate school. Liz has commented on multiple drafts of every chapter, has offered me countless useful ideas, and has been exceptionally generous with her time and energy. She has provided an excellent model of an academic mentor and a committed scholar.

For their many incisive critiques and suggestions, I would also like to thank the rest of my committee: Tracy Neumann, Andrew Newman, Marsha Richmond, and Ted Steinberg. This project is much stronger for their editorial input. Tracy deserves extra thanks for organizing all of the reading groups.

I am eternally indebted to everyone who took time away from their busy schedules for interviews, including Roger Colton, William Copeland, Vanessa Fluker, Carol Izant, Alice Jennings, Lynna Kauchek, Laurie Kopack, Michelle Martinez, Ahmina Maxey, and Donele Wilkins. I would also like to thank Ann Rall for talking with me about the Michigan Welfare Rights Organization. Kate Levy and Tom Stephens have shared crucial documents and contacts, and have steered me in the right direction on more than one issue. I cannot thank you all enough.

Over the past five years, I have presented sections of most of this manuscript's chapters at conferences and other venues. For their invaluable feedback, I would like to thank Laurie Adkin,

Rohit Aggarwala, Jay Arena, Shannan Clark, Alan Derickson, Lisa Fine, Richard Fry, David Goldberg, Alison Hepler, Erik Loomis, Steve Meyer, Jeremy Milloy, Sam Mitrani, Chad Montrie, Chris Sellers, Victor Silverman, Jon Teaford, and Avis Vidal. I would also like to thank Jennifer Thomson for her astute critique of my final chapter. Brandon Ward, one of the few other environmental historians working on Detroit, has been both generous and collaborative. In thinking about the project, I have also benefited from conversations with Terrance Anderson, Amy Bromsen, Bart Elmore, Diane Feeley, Ken Jackson, Barry Johnson, Mike Leslie, Karen Marrero, Sean Marshall, Shanna Merola, Jaqueline Patterson, Andrés Romero, Jarett Schlaff, Michael Stauch, and Ian Tran. Sean, as a lifelong resident of Detroit's West Side, is the sharpest analyst of the city I know.

For their collegiality and solidarity, I would also like to thank fellow Wayne State grad students Miriam Borenstein, Tara Forbes, Beth Fowler, Sam Hogsette, Andrew Hnatow, Nate Kuehnl, Eboné Mclean, Tim Moran, Alexandra Sarkozy, and Amanda Walter. My thanks are also due to Louis Jones, William Lefevre, and the other archivists at the Reuther Library, and all the librarians at Purdy-Kresge, for countless hours of help tracking down documents.

Finally, my greatest thanks are due to my partner, Elizabeth Nakawesi Ssemenda. She has been a constant source of positivity, encouragement, and insight during this process. I am especially grateful for her toleration of my many late nights typing into a word processor. I am inexpressibly lucky to have her in my life.

## TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
LIST OF TABLES	v
LIST OF FIGURES	vi
DEDICATION	vii
INTRODUCTION	1
CHAPTER 1 — <i>Contesting the Commons: Business Elites, Environmental Conflict, and Progressive-Era Reform, 1880-1925</i>	20
CHAPTER 2 — <i>Bodies on the Line: Factory Hazards, Segregation, and the Struggle for Industrial Democracy, 1910-1945</i>	67
CHAPTER 3 — <i>Shifting the Burden: Industrial Pollution, Uneven Development, and the Regulatory State, 1945-1969</i>	117
CHAPTER 4 — <i>'A Sweet and Sour Victory': Environmental Protest, the Rank and File Rebellion, and the Problem of Capital Mobility, 1965-1972</i>	164
CHAPTER 5 — <i>'Working for Environmental and Economic Justice and Jobs': The Defeat of Full Employment and the Shifting Geography of Environmental Justice, 1970-1991</i>	211
CHAPTER 6 — <i>Toxic Debt: Neoliberalism, Urban Fiscal Crisis, and the Costs of Trash Incineration, 1980-2005</i>	259
CHAPTER 7 — <i>Detroit Under Siege: Privatization, Water Shut-Offs, and the Politics of Urban Triage, 2000-2015</i>	296
EPILOGUE	360
BIBLIOGRAPHY	373
ABSTRACT	444
AUTOBIOGRAPHICAL STATEMENT	446

## LIST OF TABLES

Table 1.1 Typhoid Death Rates in Detroit (1890-1900)	31
Table 1.2 Results of Referendum on the Provision of Free Water in Detroit (1897)	37
Table 1.3 Activities of the Smoke Inspector, City of Detroit (1903-1915)	51
Table 3.1 Industrial Wastes Discharged in the Detroit River Daily (1946-1948)	124
Table 4.1 Assessments of the Severity of Air Pollution by Downriver Residents (1970)	187
Table 5.1 Electricity Rate Structures in the Detroit Metro Area (1970)	222
Table 7.1 Metropolitan Areas Ranked by Number of Subprime Foreclosures (2005-2007)	313
Table 7.2 Airborne Toxic Releases from the Marathon Detroit Refinery (2006-2011)	323
Table 7.3 Detroit Water & Sewerage Dept. Shut Offs Per Month (July 2012-January 2015)	345

## LIST OF FIGURES

Fig. 1.1 Percy W. Cromwell, “Getting Together,” <i>The Detroit Times</i> (February 11, 1925)	57
Fig. 1.2 Children in an alley in Detroit’s recently annexed territory (1917)	63
Fig. 2.1 Airborne lead levels in Detroit factories (1935-37)	106
Fig. 3.1 “High” and “low” pollution areas in Detroit (1962)	138
Fig. 4.1 Members of the Concord Community Club (1967)	178
Fig. 4.2 African American foundry workers engulfed in dust and smoke (1968)	193
Fig. 4.3 Protesters outside the Huber Foundry on Earth Day (1971)	206
Fig. 4.4 Barbara Fedorko and Jordan Sims (1971)	208
Fig. 5.1 Working for Environmental and Economic Justice and Jobs Conference (1976)	231
Fig. 6.1 Greenpeace climbers with anti-incinerator banner (1988)	272
Fig. 6.2 Childhood lead poisoning prevalence in Detroit by zip code (2008)	282
Fig. 7.1 Detroit Water and Sewage Department service area (2015)	301
Fig. 7.2 Map of decommissioned areas under Detroit Future City Plan (2012)	343



*In memory of Charity Louise D. Hicks (1969-2014)*

## INTRODUCTION

*What you have here in Detroit is a man-made perfect storm.*

Leilani Farha, UN Special Rapporteur on Housing and Sanitation, Detroit, MI, October 20, 2014

*“Why are there forty million poor people in America?” When you ask that question, you begin to question the capitalistic economy... “Who owns the oil?” You begin to ask the question, “Who owns the iron ore?” You begin to ask the question, “Why is it that people have to pay water bills in a world that is two-thirds water?”*

Martin Luther King, Jr., “Where Do We Go From Here?” presidential address to the Southern Christian Leadership Conference, Atlanta, Georgia, August 16, 1967

On October 20, 2014, the United Nations (UN) Office of the High Commissioner of Human Rights released a statement on a humanitarian emergency in Detroit. According to some estimates, the Detroit Water and Sewerage Department (DWSD) disconnected water for over 100,000 Detroit residents between 2012 and 2015, over a third of them children. For the past two days, two UN Special Rapporteurs, Leilani Farha and Catarina de Albuquerque, had met with hundreds of activists and community residents in a series of bus tours and town hall meetings. During a press conference at the end of the trip, Farha described the shut-off crisis as a “man-made perfect storm.” The causes included Detroit's 39.3% poverty rate, water bills that had increased 120% in the past decade, and DWSD's draconian policy of disconnecting accounts past sixty days or over \$150 in arrears. DWSD billing errors, and an ineffective assistance program, also contributed to the problem. The shut-offs, the UN experts told the press, violated international human rights laws to which “the United States is bound,” both concerning the “right to water” and the “right to non-discrimination,” because of their disproportionate effect on African Americans.<sup>1</sup>

<sup>1</sup> United Nations Human Rights Council, “In Detroit, City-Backed Water Shut-offs ‘Contrary to Human Rights,’ Say UN experts,” October 20, 2014, <http://www.un.org/apps/news/story.asp?NewsID=49127#.VakLQvIViko> [accessed August 12, 2016]; Rose Hackman, “What Happens When Detroit Shuts off the Water of 100,000 People,” *The Atlantic*, July 17, 2014, <http://www.theatlantic.com/business/archive/2014/07/what-happens-when-detroit-shuts-off-the-water-of-100000-people/374548/> [accessed August 12, 2016].

The UN Special Rapporteurs called on the city to cease shut-offs for “people who cannot afford to pay their bills.” Without water, Farha reminded her audience, “people cannot live with dignity. They have no water to drink, to cook, to bathe, to flush toilets, and to keep their clothes and their houses clean.” She noted that the City of Detroit, run by Emergency Manager Kevyn Orr (appointed by Michigan Governor Rick Snyder in 2013), “doesn’t have data on how many people in the city are living without tap water [...] let alone information on age, disability, chronic illness, race, income level, of the affected population.” However, it was obvious that the shut-off victims were overwhelmingly low-income African Americans, and disproportionately women, children, and senior citizens. The mass shut-offs, Farha said, violated human rights under international law, not least the right to life itself.<sup>2</sup>

As several commentators observed, the very existence of a water crisis in Detroit seemed incongruous. The city, after all, bordered the Great Lakes, the largest body of freshwater lakes on the planet. As Larry Gabriel wrote in *Yes! Magazine*, while Detroit had a “host of problems,” given the city’s geographical location, “it seems that water should not be one of them.” Others noted that the UN typically addressed water scarcity issues in developing countries, not in wealthy ones like the United States. As De Albuquerque stated with incredulity, “I’ve been to rich countries like Japan and Slovenia where basically 99 percent of the population have access to water, and I’ve been to poor countries where half the population doesn’t have access to water...but this large-scale retrogression or backwards steps is new for me.” However, within the United States, this problem

---

For details on the 100,000 estimate, see below, 344-345. For maps of the water shut-offs, see We the People of Detroit Community Research Collective, *Mapping the Water Crisis: The Dismantling of African American Neighborhoods in Detroit: Volume One* (Detroit: We the People of Detroit Community Research Collective, 2016), 1-25.

<sup>2</sup> United Nations Human Rights Council, “In Detroit, City-Backed Water Shut-offs ‘Contrary to Human Rights,’ Say UN experts.” For a video of the press conference, see [https://www.youtube.com/watch?v=\\_UkUVjyF\\_XE](https://www.youtube.com/watch?v=_UkUVjyF_XE) [accessed August 12, 2016].

was far from unique to Detroit. In 2015, the City of Baltimore sent out shut-off notices to 25,000 customers, prompting fears that it could become “the next Detroit.”<sup>3</sup>

How can we explain the anomaly of over one in seven residents living without running water in a city bordering the Great Lakes? The situation in Detroit conforms to a larger pattern documented by scholars of the environmental justice movement: the disproportionate exposure of low-income people, especially people of color, to environmental health hazards.<sup>4</sup> These hazards do not only include toxic pollutants, such as lead and particulate matter, but also infectious diseases, which water shut-offs exacerbate. In metropolitan Detroit, as in other regions, racial and economic inequalities shape the distribution of these hazards. Within families, gender dynamics also influence environmental health outcomes. As Maureen Taylor of Michigan Welfare Rights

---

<sup>3</sup> Larry Gabriel, “When the City Turned Off Water, Detroit Residents and Groups Delivered Help,” *YES! Magazine*, November 24, 2014, <http://www.yesmagazine.org/issues/cities-are-now/when-detroit-s-citizens-fought-for-their-right-to-water> [accessed August 12, 2016]; Laura Gottesdeiner, “UN Officials ‘Shocked’ by Detroit’s Mass Water Shutoffs,” *Al-Jazeera*, October 20, 2014, <http://america.aljazeera.com/articles/2014/10/20/detroit-water-un.html> [accessed August 12, 2016]; Carl Gibson, “This City Could Become the Next Detroit,” *Think Progress*, April 4, 2015, <https://thinkprogress.org/this-city-could-become-the-next-detroit-dae211c02b0c#.1nr7ejwof> [accessed August 8, 2016].

<sup>4</sup> For surveys of major themes in this field, see United Church of Christ, Commission for Racial Justice, *Toxic Wastes and Race in the United States: A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites* (New York: United Church of Christ, 1987); Robert D. Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality*, 3<sup>rd</sup> ed. (Boulder: Westview Press, 2000); Kristin Shrader-Frechette, *Environmental Justice: Creating Equality, Reclaiming Democracy* (New York: Oxford University Press, 2002); Robert D. Bullard, Paul Mohai, Robin Saha, and Beverly Wright, “Toxic Wastes and Race at Twenty: Why Race Still Matters After All These Years,” *Environmental Law Review* Vol. 38 No. 2 (Spring 2008), 371-411; Steve Lerner, *Sacrifice Zones: The Front Lines of Toxic Chemical Exposure in the United States* (Cambridge: MIT Press, 2010), Dorceta Taylor, *Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility* (New York: New York University Press, 2014). On gender and environmental justice, see Shirley A. Rainey and Glenn S. Johnson, “Grassroots Activism: An Exploration of Women of Color’s Role in the Environmental Justice Movement,” *Race, Gender, and Class* Vol. 16 No. 3 (2009), 144-173; Shannon Elizabeth Bell, *Our Roots Run as Deep as Ironweed: Appalachian Women and the Fight for Environmental Justice* (Urbana: University of Illinois Press, 2013). For global perspectives on environmental inequality, see Filomina Chioma Steady, ed., *Environmental Justice in the New Millennium: Global Perspectives on Race, Ethnicity and Human Rights* (New York: Palgrave MacMillan, 2009); Francis O. Adeola, *Industrial Disasters, Toxic Waste, and Community Impact: Health Effects and Environmental Justice Struggles Around the Globe* (Lanham, MA: Lexington Books, 2012).

has written, in Detroit (as in other communities), “women-led households are often poor,” making them more vulnerable to water shut-offs. Moreover, asthma, lead poisoning, and lack of running water add to the labor of social reproduction that primarily falls on women. However, environmental justice studies in the United States often fail to incorporate gender analysis. They also generally focus on pollution exposure rather than issues of water access and affordability. Some scholars have applied the environmental justice framework to water rights in the Global South, but few have done so for the Global North.<sup>5</sup>

In the 21<sup>st</sup> century, the same Detroit residents that were the most vulnerable to water shut-offs also had the highest rates of illness from exposure to pollution. Detroit had the highest rate of childhood asthma among the 18 largest cities in the United States, and the city’s overall asthma rate was 29 percent higher than the Michigan average. Indeed, epidemiologists called Detroit the “epicenter of asthma burden” in Michigan. Lead poisoning was also a pervasive problem, with tragic developmental consequences for many children. Blood tests of 22,842 Detroit children in 2014 found that 8.2 percent had elevated blood lead levels. Moreover, in ten zip codes in Detroit,

---

<sup>5</sup> Maureen Taylor, “The United States: Refusing to Back Down,” in United Nations Development Programme, *Resource Guide: Mainstreaming Gender in Water Resource Management* (November 2006), 229-230, <http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/water-governance/resource-guide-mainstreaming-gender-in-water-management/TWRMGenderResourceGuide-English-200610.pdf> [accessed July 27, 2016]. Most scholars of environmental justice in the United States do not discuss water affordability issues. A notable recent exception is Amy Vanderwarker, “Water and Environmental Justice,” in Juliet Christian-Smith, Peter H. Glick, Heather Cooley, Lucy Allen, Amy Vanderwarker, and Kate A. Berry, *A Twenty-First Century U.S. Water Policy* (New York: Oxford University Press, 2012), 52-89. On water rights in the Global South, see Lyla Mehta, Jeremy Allouche, Alan Nicol and Anna Walnycki, “Global Environmental Justice and the Right to Water: The Case of Peri-Urban Cochabamba and Delhi,” *Geoforum* 54 (2014), 158-166; Deepa Joshi, “Like Water for Justice,” *Geoforum* Vol. 61 (May 2015), 111-121; Rose Francis, “Water Justice in South Africa: Natural Resources Policy at the Intersection of Human Rights, Economics, and Political Power,” *Georgetown International Environmental Law Review* Vol. 18 No. 1 (October 2005), 149-196. Between 1996 and 2005, 10 million people in South Africa had their water shut off for non-payment. In some townships, water privatization has exacerbated the problem by increasing the use of pre-paid water meters. See *Ibid.*, 174; Ginger Thompson, “Water Tap Often Shut to South Africa Poor,” *New York Times*, May 29, 2003, A10.

Highland Park, and Hamtramck, an average of 13.5 percent of children tested positive for lead poisoning.<sup>6</sup>

Existing literature on Detroit by urban historians provides essential, but in some ways limited, insights into the origins of these environmental inequalities. Historians have thoroughly documented how, beginning in the 1950s and intensifying in subsequent decades, deindustrialization deeply undermined Detroit's economic base. Simultaneously, housing and job discrimination against African Americans created enduring patterns of segregation, and racialized inequalities between Detroit and its relatively affluent suburbs.<sup>7</sup> However, with some important

---

<sup>6</sup> Zoe Shlanger, "Choking to Death in Detroit: Flint isn't Michigan's Only Disaster," *Newsweek*, March 30, 2016, <http://www.newsweek.com/2016/04/08/michigan-air-pollution-poison-southwest-detroit441914.html> [accessed October 29, 2016]; Karen Bouffard, "Hardships Boost Asthma Rate for Detroit Kids," *Detroit News*, March 9, 2016 [accessed October 29, 2016]; Elizabeth Milton, "Polluters to Blame for Detroit Asthma Rates," *Detroit News*, September 29, 2014 [accessed October 29, 2016]; Peter DeGuire, Binxin Liao, Lauren Wisnieski, Doug Strane, Robert Wahl, Sarah Lyon-Callo, and Erika Garcia, "Detroit: The Epicenter of Asthma Burden in Michigan," Michigan Department of Health and Human Services, March 2016 [http://caphedetroit.sph.umich.edu/wp-content/uploads/2016/03/Final\\_Detroit-The-Epicenter-of-Asthma-Burden\\_2-29-2016.pdf](http://caphedetroit.sph.umich.edu/wp-content/uploads/2016/03/Final_Detroit-The-Epicenter-of-Asthma-Burden_2-29-2016.pdf) [accessed October 29, 2016], 1-44; Mike Wilkinson, "Kids' Lead Levels High in Many Michigan Cities," *Detroit News*, January 28, 2016; Martha Stansbury, Robert Scott, and Jessica Cooper, "2014 Data Report on Childhood Lead Testing and Elevated Levels: Michigan," Michigan Department of Health and Human Services, March 14, 2016, 1-39, [http://www.michigan.gov/documents/mdhhs/2014\\_Child\\_Lead\\_Testing\\_and\\_Elevated\\_Levels\\_Report\\_515233\\_7.pdf](http://www.michigan.gov/documents/mdhhs/2014_Child_Lead_Testing_and_Elevated_Levels_Report_515233_7.pdf) [accessed October 29, 2016].

<sup>7</sup> Major studies of post-World War II Detroit by social scientists and historians include Joe T. Darden, Richard Child Hill, June Manning Thomas, and Richard Thomas, *Detroit: Race and Uneven Development* (Philadelphia: Temple University Press, 1987); B.J. Widick, *Detroit: City of Race and Class Violence*, 2nd Ed. (Detroit: Wayne State University Press, 1989); Sidney Fine, *Violence and the Model City: The Cavanaugh Administration, Race Relations, and the Detroit Riot of 1967* (Ann Arbor: University of Michigan Press, 1989); Thomas J. Sugrue, *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit* (Princeton: Princeton University Press, 1996); June Manning Thomas, *Redevelopment and Race: Planning a Finer City in Postwar Detroit* (Baltimore: Johns Hopkins University Press, 1997); Dan Georgakas and Marvin Surkin, *Detroit, I Do Mind Dying: A Study in Urban Revolution*, 2nd Ed. (Boston: South End Press, 1998); Reynolds Farley, Sheldon Danziger and Harry Holzer, *Detroit Divided* (New York: Russel Sage Foundation, 2000); Heather Ann Thompson, *Whose Detroit?: Politics, Labor, and Race in a Modern American City* (Ithaca: Cornell University Press, 2001); David Freund, *Colored Property: White Racial Politics in Suburban America* (Chicago: University of Chicago Press, 2007); Todd C. Shaw, *Now is the Time! Detroit Black Politics and Grassroots Activism* (Durham: Duke University Press, 2009); Joe T. Darden, *Detroit: Race Riots, Racial Conflicts, and Efforts to Bridge the Racial Divide* (East Lansing: Michigan State University Press, 2013). On the popularization of the term "urban crisis" in the 1970s, see Timothy Weaver, "Urban Crisis: The Genealogy of a Concept," *Urban Studies* (forthcoming), 1-17.

recent exceptions, existing historiography on Detroit ignores environmental issues.<sup>8</sup> Most histories of Detroit also focus on the period from World War II to the 1970s, with little material on the 19<sup>th</sup>, early 20<sup>th</sup>, or late 20<sup>th</sup> and early 21<sup>st</sup> centuries. To understand Detroit's contemporary water crisis, and its problems of air, water, and soil pollution, it is necessary to go further back in time, but also closer to the present, than the early- to mid- postwar period.

For example, while the mass shut-offs proceeded, Detroit's Emergency Manager, Kevyn Orr, began placing bids to privatize the Detroit water system, for the first time in 180 years. It is only possible to appreciate the gravity of such proposals in light of the long history of municipal water in the city. At the same time, Detroit's water crisis was closely related to recent events, including financial deregulation and the subprime mortgage meltdown. Between 2005 and 2007, Detroit had the highest rate of subprime mortgage foreclosures in the United States. The marketing of high-risk interest rate swaps to DWSD, and adjustable-rate subprime mortgages to low-income households, contributed to the water shut-off crisis. Similarly, the epidemic of childhood lead poisoning in Detroit had both deep and shallow historical roots. It was a legacy of Detroit's long industrial history, increasing leaded gasoline use from the 1920s through the 1970s, and decades of opposition to lead ordinances by the paint and real estate industries. However, the elimination of Detroit's lead abatement program in 2012, partly due to Governor Snyder's fiscal policies,

---

<sup>8</sup> Environmental historians have paid less attention to Detroit than comparable cities, such as Pittsburgh and St. Louis. However, several recent doctoral dissertations explore this topic, and overlap with some aspects of this study. See Barry Johnson, "Wastewater Treatment Comes to Detroit: Law, Politics, Technology and Funding" (Ph.D. Dissertation: Wayne State University, 2010); Brandon Ward, "Detroit Wild: Race, Labor, and Postwar Urban Environmentalism" (Ph.D. Dissertation: Purdue University, 2014); Joseph S. Cialdella, "Gardens in the Machine: Cultural and Environmental Change in Detroit, 1879-2010" (Ph.D. Dissertation, University of Michigan, 2015). On the environmental history of the River Rouge factory, also see Tom McCarthy, *Auto Mania: Cars, Consumers, and the Environment* (New Haven: Yale University Press, 2007), 55-76, 148-175. Several dissertations by social scientists also examine environmental inequalities in Detroit. See Sara Safransky, "Promised Land: The Politics of Abandonment and the Struggle for a New Detroit" (Ph.D. Dissertation: University of North Carolina, Chapel Hill, 2015); Chad Leighton Smith, "From Green to Red: The Intersection of Class and Race in Urban Environmental Inequality" (Ph.D. Dissertation: Washington State University, 2005).

exacerbated the problem. Whether in the case of water shut-offs or lead poisoning, then, it is necessary to place Detroit's environmental health problems in a historical perspective that extends before, across, and after the 20<sup>th</sup> century.<sup>9</sup>

This dissertation argues that Detroit's contemporary environmental inequalities can only be understood within the long-term history of capitalism. By emphasizing political economy, it challenges the common view that environmental issues are "non-economic," or that environmentalism is a "new social movement" that lacks the class-based concerns of "old social movements."<sup>10</sup> Instead, it shows that urban environmental politics are profoundly economic, because they concern the distribution of negative externalities from production and consumption, even as they involve less quantifiable moral and cultural issues. The title "Accumulating Risk"

---

<sup>9</sup> On proposals to privatize DWSD, see Matt Helms, "Water Department Board Approves Part of Overhaul: Some Critics Wary of Approved Changes," *Detroit Free Press*, November 17, 2012, A3; Brent Snively, "Detroit Seeking Offers for Private Management of Water and Sewerage Department," *Detroit Free Press*, March 15, 2014, A7. On environmental deregulation and cuts in lead programs, see Ted Roelofs, "Signs of Trouble at MDEQ, Years Before Flint Water Crisis," *Bridge Magazine*, February 10, 2016 [accessed July 27, 2016]; Keith Matheny, "Kids in Danger as Lead Programs Cut: Detroit's Budget Crisis Slices Aid for Residents," *Detroit Free Press*, April 28, 2013, 1A, 11A. For more details, see Chapter 7.

<sup>10</sup> The most influential statement of this view is Ronald Inglehart, *The Silent Revolution: Changing Values and Political Styles among Western Publics* (Princeton: Princeton University Press, 1977); also see Stephen F. Cotgrove, *Catastrophe or Cornucopia? The Environment, Politics, and the Future* (New York: Wiley, 1982); and Bruce Tranter, "The Environmental Movement: Where to From Here?" Robert White, ed., *Controversies in Environmental Sociology* (New York: Cambridge University Press, 2004), 185-203. Some historians also use the "post-material thesis" to interpret environmentalism. See, for example, Samuel P. Hays, *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985* (New York: Cambridge University Press, 1987), 26, 269, 297-307; Hal K. Rothman, *Saving the Planet: The American Response to the Environment in the Twentieth Century* (Chicago: Ivan R. Dee, 2000), 3-10, 108-57; Judith Stein, *Pivotal Decade: How the United States Traded Factories for Finance in the Seventies* (New Haven: Yale University Press, 2010), xi; idem., "Politics and Policies in the 1970s and Early Twenty-First Century: The Linked Recessions," in Leon Fink and Joan Sangster, eds., *Workers in Hard Times: A Long View of Economic Crises* (Urbana: University of Illinois Press, 2014), 141-160, esp. 147-148. For a critique, emphasizing the material interests at stake in environmental politics, see Lily Geismer, *Don't Blame Us: Suburban Liberals and the Transformation of the Democratic Party* (Princeton: Princeton University Press, 2015), 1-2, 97-122, 173-198. For reviews of the literature on working-class and poor people's environmentalism, see Joan Martinez-Alier, "The Environmentalism of the Poor: Its Origins and Spread," in J. R. McNeill and Erin Stewart Mauldin, eds., *A Companion to Global Environmental History*, ed. (Malden, MA: Wiley-Blackwell, 2012), 513-529; Stefania Barca, "Laboring the Earth: Transnational Reflections on the Environmental History of Work," *Environmental History*, 19 (January 2014), 3-27.



links two usually disconnected subjects: the accumulation of capital (including both financial assets and fixed assets) and environmental risk (including ecological degradation and damages to human health and property). The subtitle, “Environmental Justice and the History of Capitalism,” encapsulates the larger argument that race, class, and gender inequalities in environmental risk exposure cannot be understood separately from the history of capitalism, and the externalities it generates.

The history of capitalism is the subject of a rapidly growing field, which combines labor, business, and political history to analyze processes of political-economic change over time. In a 2014 interchange on the state of the field in the *Journal of American History*, Philip Scranton pointed out that capitalism has historically produced both “extensive appropriation of natural and human/social resources” and “material growth and nonmaterial claims to power and authority,” but also “moral bankruptcy, profound inequalities, accumulating environmental damage, plus an enshrinement of individualism and disgust for failure(s).” Yet, recent work by historians of capitalism has paid surprisingly little attention to the matter of “accumulating environmental damage,” despite its obvious importance in the context of global climate change, water scarcity, and other problems.<sup>11</sup>

---

<sup>11</sup> For the quote, see Philip Scranton, commentary in “Interchange: The History of Capitalism,” *Journal of American History* (September 2014), 503-536, esp. 524. The historian Bart Elmore has also noted the marginal presence of environmental history in the history of capitalism field. See Bart Elmore, “Author’s Response,” in *H-Environment Roundtable Reviews* Vol. 5 No. 6 (2015), 32, <https://networks.h-net.org/system/files/contributed-files/env-roundtable-5-6.pdf> [accessed August 13, 2016]. Jürgen Kocka, *Capitalism: A Short History* (Princeton: Princeton University Press, 2016), only devotes a few sentences to environmental issues (vii, 168, 179-180, n. 10). Sven Beckert, “History of American Capitalism,” in Eric Foner and Lisa McGirr, eds., *American History Now: Critical Perspectives on the Past* (Philadelphia: Temple University Press, 2011), 314-335, cites the work of environmental historians Richard White and William Cronon, but only briefly mentions the environment. Many of the works in this field focus on financial risk, but do not discuss environmental risk (although some consider the history of workplace accidents). See, for example, Jonathan Levy, *Freaks of Fortune: The Emerging World of Capitalism and Risk in America* (Cambridge: Harvard University Press, 2012); Elizabeth Blackmar, “Inheriting Property and Debt: From Family Security to Corporate Accumulation,” in Michael Zakim and Gary J. Kornblith, eds., *Capitalism Takes Command: The Social Transformation of Nineteenth-Century America*, (Chicago:

One of the obstacles to integrating these subjects is the notorious failure of market prices to capture externalized costs to the environment and human health. Much of the literature on the history of capitalism is concerned with the social construction of property, through processes of commodification and changing legal and political regimes. For example, studies of the relationship between slavery and capitalism show how the commodification of human beings of African descent, and the extraction of their unpaid labor, made the Industrial Revolution in Britain and the United States possible. Likewise, historians have explored how settlers' dispossession of indigenous peoples was fundamental to the creation of both exclusive private property and public lands in the United States.<sup>12</sup> Yet, as historian Rudi Batzell notes, histories of commodification are often silent about things that escape monetary valuation, such as women's unpaid labor of social

---

University of Chicago Press, 2012), 93-118; Dan Bouk, *How Our Days Became Numbered: Risk and the Rise of the Statistical Individual* (Chicago: University of Chicago Press, 2015); Julia C. Ott, *When Wall Street Met Main Street: The Quest for an Investors' Democracy* (Cambridge: Harvard University Press, 2011); Louis Hyman, *Debtor Nation: The History of America in Red Ink* (Princeton: Princeton University Press, 2011). Conversely, Steven Stoll has observed that environmental historians often treat capitalism "obliquely," focusing on its effects without explicitly theorizing it. See Steven Stoll, "A Metabolism for Society: Capitalism for Environmental Historians," in Andrew Isenberg, ed., *The Oxford Handbook of Environmental History* (New York: Oxford University Press, 2014), 369-397, esp. 369.

<sup>12</sup> On slavery and the transition to capitalism in the southern United States, see Barbara J. Fields, "The Advent of Capitalist Agriculture: The New South in a Bourgeois World," in Thavolia Glymph and John K. Kushma, eds., *Essays on the Post-Bellum Southern Economy* (College Station, TX: Texas A & M Press, 1985), 73-94; also see idem., *Slavery and Freedom on the Middle Ground: Maryland During the Nineteenth Century* (New Haven: Yale University Press, 1985). For works on capitalism and slavery that periodize this transition differently, see Sven Beckert, *Empire of Cotton: A Global History* (New York: Alfred A. Knopf, 2014); Edward E. Baptist, *The Half Has Never Been Told: Slavery and the Making of American Capitalism* (New York: Basic Books, 2014); Walter Johnson, *River of Dark Dreams: Slavery and Empire in the Cotton Kingdom* (Cambridge: Harvard University Press, 2013). For a critique of recent scholarship in this field, see Peter James Hudson, "The Racist Dawn of Capitalism: Unearthing the Economy of Bondage," *Boston Review*, March 14, 2016, <https://bostonreview.net/books-ideas/peter-james-hudson-slavery-capitalism> [accessed August 11, 2016]. On the role of expropriated indigenous land and resources in the growth of American capitalism, see Wilma Dunaway, *The First American Frontier: Transition to Capitalism in Southern Appalachia, 1700-1865* (Chapel Hill: University of North Carolina Press, 1996), 1-88; Maria E. Montoya, *Translating Property: The Maxwell Land Grant and the Conflict Over Land in the American West, 1840-1900* (Berkeley: University of California Press, 2002), 19-45; Donald Fixico, *The Invasion of Indian Country in the Twentieth Century: American Capitalism and Tribal Natural Resources* (Boulder: University Press of Colorado, 1998).

reproduction. The same is true of unpaid environmental costs, or externalities. Indeed, it is no coincidence that feminist theorists of women's unpaid labor, like Marilyn Waring and Hilikka Pietilä, have also produced the most innovative theoretical work on capitalism's undervaluation of nature.<sup>13</sup>

As heterodox economists have long argued, the neoclassical approach to externalities implies that nature can be reduced to market prices, and that "internalizing" unpaid costs is the best way to solve environmental problems. However, employing the concept of externalities does not necessarily require economic reductionism. On the one hand, it is possible to quantify externalized environmental costs, such as a family's increased medical bills due to lead poisoning and asthma, and depressed property values in neighborhoods bordering incinerators, oil refineries, and landfills. On the other hand, monetary values alone are a crudely simplistic, and radically insufficient, measure of the loss of a child due to a chemical spill, the extinction of species from habitat destruction, or the destabilization of the earth's climate. While hardly reducible to economics, environmental politics nevertheless involve distributional conflicts over externalized costs. Histories of capitalism that omit externalities (like ones that ignore unpaid labor) will conceal an important source of inequality.<sup>14</sup>

---

<sup>13</sup> Rudi Batzell, "The Labor of Social Reproduction: Household Work and Gendered Power in the History of Capitalism, 1870-1930," *Journal of the Gilded Age and Progressive Era* 15 (2016), 310-330, esp. 311-312; Marilyn Waring, *If Women Counted: A New Feminist Economics* (New York: Harper & Row, 1988), 144-164, 250-275; Hilikka Pietilä, "The Triangle of the Human Economy: Household—Cultivation—Industrial Production: An Attempt at Making Visible the Human Economy in Toto," *Ecological Economics* Vol. 20 No. 2 (1997), 113-128; Carolyn Merchant, *Radical Ecology: The Search for a Livable World*, 2nd Ed. (New York: Routledge, 2005), 193-222.

<sup>14</sup> For an early critique of neoclassical approaches to externalities, see Karl William Kapp, *The Social Costs of Private Enterprise* (New York: Shocken Books, 1975 [1950]). Kapp observed that most neoclassical economists focused on externalities at the micro-level of the firm, ignoring the costs that environmental pollution imposed on society as a whole. See *Ibid.*, 1-12, 47-145. For recent work in a similar vein, see Manuel Court Branco and Pedro Damiao Henriques, "The Social Costs of Water Commodification in Developing Countries," in Wolfram Elsner, Pietro Frigato and Paolo Ramazzotti, eds., *Social Costs and Public Action in Modern Capitalism: Essays Inspired by Karl William Kapp's Theory of Social Costs* (New

Urban environmental history can provide a helpful corrective to such omissions. As archeologists have shown, urban ecological degradation is nothing new. Cities have contributed to deforestation, soil erosion, and species extinction in their imperial hinterlands for millennia. However, the growth of industrial capitalist cities in the 18<sup>th</sup>, 19<sup>th</sup>, and 20<sup>th</sup> centuries accelerated this process exponentially.<sup>15</sup> The accumulation of capital by industrialists, bankers, and real estate developers required an ever-increasing extraction of fossil fuels, minerals, timber, meat, grains, and a virtually limitless list of other commodities from the earth. The rapid growth of Detroit automobile factories between 1900 and 1945, for example, would have been unthinkable without oil drilling, mining, rubber tapping, and timber felling in hinterlands that ranged from northern Minnesota to Venezuela and Brazil.<sup>16</sup>

---

York: Routledge, 2006); 183-202; Joan Martinez-Alier and Roldan Muradian, "Taking Stock: The Keystones of Ecological Economics," in idem., eds., *Handbook of Ecological Economics* (Northampton, MA: Edward Elgar Publishing, 2015), 1-25.

<sup>15</sup> Environmental histories that emphasize the discontinuity between pre-capitalist and capitalist property relations include Carolyn Merchant, *Ecological Revolutions: Nature, Gender, and Science in New England*, 2nd Ed. (Chapel Hill: University of North Carolina Press, 2010); Jason W. Moore, "Ecology and the Rise of Capitalism" (Ph.D Dissertation: University of California Berkeley, 2007); Ted Steinberg, *Slide Mountain, or, the Folly of Owning Nature* (Berkeley: University of Carolina Press, 1995); Donald Worster, "Transformations of the Earth: Toward an Agroecological Perspective in History," *Journal of American History* Vol. 76 No. 4 (March 1990), 1087-1106; and William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983).

<sup>16</sup> On ecological problems and the decline of early urban centers, see Joseph A. Tainter, *The Collapse of Complex Societies* (New York: Cambridge University Press, 1988). For urban environmental histories that focus on city-hinterland relations, see William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991); Grey Brechin, *Imperial San Francisco: Urban Power, Earthly Ruin* (Berkeley: University of California Press, 1999); Kathleen Brosnan, *Uniting Mountain and Plain: Cities, Law, and Environmental Change along the Front Range* (Albuquerque: University of New Mexico Press, 2002); David Soll, *Empire of Water: An Environmental and Political History of the New York City Water Supply* (Ithaca: Cornell University Press, 2013); Andrew Needham, *Power Lines: Phoenix and the Making of the Modern Southwest* (Princeton: Princeton University Press, 2014). For works that focus more on the ecological transformation of a metropolitan area, see Ted Steinberg, *Gotham Unbound: An Ecological History of Greater New York* (New York: Simon & Schuster, 2014); Richard Walker, *The Country in the City: The Greening of the San Francisco Bay Area* (Seattle: University of Washington Press, 2007); Matthew Klinge, *Emerald City: An Environmental History of Seattle* (New Haven: Yale University Press, 2007); Ari Kelman, *The River and its City: The Nature of Landscape in New Orleans* (Berkeley: University of California Press, 2003); Mike Davis, *Ecology of Fear: Los Angeles and the Imagination of Disaster*

The production systems that converted these raw materials into commodities generated private profits, but also public costs, in the form of unregulated air, water, and soil pollution and resource depletion. In the competitive drive to maximize profits, industrial capitalists externalized environmental costs onto workers and surrounding communities. Real estate development also created inequalities in exposure to pollution and other environmental hazards. Upper and middle class residents sought to attract investments that increased property values, while excluding those that lowered them. Real estate markets stratified by wealth, and segregated by race, allowed wealthier and more powerful whites to shift costs of pollution onto working class residents (especially African Americans) in the inner city and some industrial suburbs.<sup>17</sup>

The negative externalities of industrial capitalist cities were economic, in the form of quantifiable health and property damage, but also non-economic, in the form on non-quantifiable damage to ecosystems and human quality of life. As responses to these problems, environmental regulations played a central role in what the economic historian and anthropologist Karl Polanyi called a “double movement.” According to Polanyi, the expansion of capitalist markets generated a “counter movement” in the 19<sup>th</sup> and 20<sup>th</sup> centuries, which sought to constrain “the action of the market in respect to the factors of production, labor, and land.” Through new forms of social

---

(New York: Metropolitan Books, 1998). On the supply chains linking Ford’s River Rouge complex with far-flung regions, from Michigan’s Upper Peninsula to the Amazon rainforest, see Greg Grandin, *Fordlandia: The Rise and Fall of Henry Ford’s Jungle City* (New York: Metropolitan Books, 2009), 55-76, 123-146. Also see McCarthy, *Auto Mania*, 55-76, 148-175.

<sup>17</sup> On the history of urban environmental inequality, an excellent survey is Dorceta Taylor, *The Environment and the People in American Cities, 1600s-1900s: Disorder, Inequality, and Social Change* (Durham: Duke University Press, 2009). For local case studies, see Andrew Hurley, *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945-1980* (Chapel Hill: University of North Carolina Press, 1995); Sylvia Hood Washington, *Packing Them In: An Archaeology of Environmental Racism in Chicago, 1865-1954* (Lanham, MA: Lexington Books, 2005); Robert Gioielli, *Environmental Activism and the Urban Crisis: Baltimore, St. Louis, Chicago* (Philadelphia: Temple University Press, 2014); Ellen Griffith Spears, *Baptized in PCBs: Race, Pollution, and Justice in an All-American Town* (Chapel Hill: University of North Carolina Press, 2014). On environmental inequalities at the regional scale, see Needham, *Power Lines*, 184-245.

protection, reformers sought to limit “the exploitation of the physical strength of the worker, the destruction of family life, the devastation of neighborhoods, the denudation of forests, the pollution of rivers, the deterioration of craft standards, the disruption of folkways [...] as well as the innumerable forms of private and public life that do not affect profits.” The impetus for these reforms came from specific sectors of business, middle-class professionals, trade unions, and labor parties. Air and water pollution regulations, and the public ownership of water and parkland, addressed both economic and non-economic concerns about the externalities of industrial capitalist growth.<sup>18</sup>

Most urban environmental histories focus on the 19<sup>th</sup> century, or on a portion of the 20<sup>th</sup> century. William Cronon, perhaps the most influential urban environmental historian, pointed out in 2007 that “we have essentially no long-term histories of local environmental politics.”<sup>19</sup> The city of Detroit provides a particularly compelling case study for a more extended periodization. Apart from its iconic associations with Fordist auto manufacturing, Detroit’s recent bankruptcy and restructuring have made it the subject of voluminous social science research. Much of this work employs the concept of “neoliberalism” to theorize the city’s transformation since the 1970s. However, the term “neoliberalism” was originally an analogy to 19<sup>th</sup> century classical liberalism, with its enthusiasm (often more rhetorical than actual) for unfettered, self-regulating markets.<sup>20</sup>

---

<sup>18</sup> Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* (Boston: Beacon Press, 1957 [1944]), 130-133. On Polanyi’s concept of the double movement, see *Ibid.*, 130-220; and Fred Block and Margaret A. Somers, *The Power of Market Fundamentalism: Karl Polanyi’s Critique* (Cambridge: Harvard University Press, 2014), 44-97, 218-240.

<sup>19</sup> William Cronon, “Foreword,” in Walker, *The Country and the City*, x.

<sup>20</sup> On Detroit and urban neoliberalism, see Jamie Peck and Heather Whiteside, “Financializing Detroit,” *Economic Geography* Vol. 92 No. 3 (2016), 235-268; Joshua Akers, “Making Markets: Think Tank Legislation and Private Property in Detroit,” *Urban Geography* Vol. 34 No. 8 (2013), 1070-1095; Jason Hackworth, “Rightsizing as Spatial Austerity in the American Rust Belt,” *Environment and Planning A* Vol. 47 No. 4 (2015), 766-782; and the essays in Michael Peter Smith and Lucas Owen Kirkpatrick, eds., *Reinventing Detroit: The Politics of Possibility* (New Brunswick: Transaction Publishers, 2015). On the

To fully historicize Detroit in the neoliberal period, then, it is necessary to go back to the 19<sup>th</sup> century. Much of the reform activity of the Progressive and New Deal eras was a reaction to problems created by unregulated industrial capitalism. Later, in the 1960s and 1970s, activists challenged the exclusions and omissions of those reform traditions, pushing for the full inclusion of women and people of color in economic and civic life. Post-World War II environmental activism also addressed a major gap in New Deal liberalism, which did much to create water and sewer infrastructure and parks, but little to regulate industrial pollution. At the same time, postwar environmental law was an extension of the New Deal and Great Society regulatory state. By forcing corporations to internalize some of the costs of pollution, the regulatory state made clean air and clean water more accessible to blue-collar workers and inner-city residents. In this sense, environmental regulation was redistributive, and part of a larger expansion of the social wage.<sup>21</sup>

Precisely because it became stronger, however, environmental regulation (like union wages and taxes) provided a more powerful, albeit often exaggerated, justification for capital flight. As corporations increasingly shifted production to zones with cheaper labor, lower taxes, and weaker pollution laws, they found it easier to divide unions and environmental groups. Meanwhile, by reducing the urban tax base, plant closures left an environmental legacy that municipal governments could not afford to clean up.<sup>22</sup> From the 1980s through the 2000s, neoliberal

---

relationship between neoliberalism and classical liberalism, see Keith Tribe, "Liberalism and Neoliberalism in Britain, 1930-1980," in Philip Mirowski, ed., *The Road from Mont Pèlerin: The Making of the Neoliberal Thought Collective*, 2<sup>nd</sup> Ed, (Cambridge: Harvard University Press, 2015), 68-97.

<sup>21</sup> The legal historian Arthur McEvoy has recently argued that postwar environmental law was an extension of the New Deal's "welfare-regulatory regime." Viewed in this light, environmental deregulation from the late 1970s onward was part of a broader neoliberal project to undo the legacy of the New Deal. See Arthur McEvoy, "Environmental Law and the Collapse of New Deal Constitutionalism," *Akron Law Review* Vol. 46 No. 4 (2013), 881-908. On the social wage, see Alvin Finkel, "Workers' Social-Wage Struggles during the Great Depression and the Era of Neoliberalism: International Comparisons," in Fink and Sangster, eds., *Workers in Hard Times*, 113-140.

<sup>22</sup> In some communities, conflicts between middle-class environmentalists and blue-collar workers

restructuring did much to reverse the expansion of the regulatory state in the New Deal, Great Society, and Nixon eras. Through deregulation, privatization, and the dismantling of the welfare state, neoliberalism increased both economic and environmental risks for poor and working-class residents, ironically recreating some of the problems of the 19<sup>th</sup> century city.

In Detroit, as in much of urban America, these risks fell mostly heavily on working-class and poor people of color. While Detroit remained an auto manufacturing hub, working-class African American men bore the brunt of occupational hazards, especially in automobile foundries. After the factories closed, African American women and children suffered disproportionately from water shut-offs, asthma, and lead poisoning. These inequalities were inextricably linked to the racialized and gendered history of capitalism in the United States. Historically, the commodification of nature made access to environmental goods (such as clean water) dependent on access to capital. Lack of capital reduced options about where to live, where to work, what to eat and drink, how to cope with illness, and how to raise children. The cumulative historical legacies of slavery, housing and job discrimination, deindustrialization, and predatory lending left most African Americans in 21<sup>st</sup> century Detroit with few assets. The neoliberal privatization of the public sector, and the removal of income supports for the poor (including the Vendor Pay water

---

developed in the context of deindustrialization. See, for example, Tracy Neumann, *Remaking the Rust Belt: The Post-Industrial Transformation of North America* (Philadelphia: University of Pennsylvania Press, 2016), 150-156; James Longhurst, *Citizen Environmentalists* (Lebanon, NH: Tufts University Press, 2010), 57-84. However, blue-collar workers often engaged in environmental activism, even as corporations used the threat of plant closure to divide workers and environmentalists. On working-class environmentalism and deindustrialization, see Hurley, *Environmental Inequalities*, 136-153; Robert Gottlieb, *Forcing the Spring: The Transformation of the American Environmental Movement, 2nd Ed.* (Washington, D.C.: Island Press, 2005), 347-388; Daniel Hageman, “Deindustrialization and the Urban Landscape: Race, Space, and Memory in Back of the Yards, 1950-1980” (Ph.D. Dissertation: University of Illinois: Urbana Champaign, 2015), 93-140; Laura Mercier, *Anaconda: Labor, Community, and Culture in Montana’s Smelter City* (Urbana: University of Illinois Press, 2001), 194-197; Elizabeth Blum, *Love Canal Revisited: Race, Class, and Gender in Environmental Activism* (Topeka: University Press of Kansas, 2008), 57-61; Josiah Rector, “Environmental Justice at Work: The UAW, the War on Cancer, and the Right to Equal Protection from Toxic Hazards in Postwar America,” *Journal of American History* 101 (September 2014), 480-502.



bill assistance program), intensified these vulnerabilities. Increasingly, the market was the sole determinant of access to water and other survival necessities in Detroit.

This dissertation explores these themes in seven chapters and an epilogue. Chapter 1 shows how, in the 19<sup>th</sup> century, concerns about cholera and typhoid epidemics played an important role in the shift from a private to a public water system, and in reforms designed to make water more affordable. At the same time, Detroit manufacturers supported public water out of the desire for cheap and reliable water supplies. Similarly, real estate interests played a key role in efforts to mitigate air pollution, because of concerns about property values. As Detroit industrialized, environmental goods became scarce commodities, and access depended on income level. Patterns of segregation and discrimination restricted where African Americans could live and work, resulting in greater exposure to pollution.

Chapters 2 and 3 examine the environmental problems created by the growth of the automobile industry in Detroit and its industrial suburbs. Chapter 2 focuses on the factory itself, showing how Fordist mass production and deskilling created new risks for workers, which segregation compounded for African Americans. Although workers did not call these risks “environmental” before World War II, these early conflicts over factory air quality influenced the labor movement’s later approach to environmental issues. In response to fires, explosions, and occupational diseases in the interwar period and during World War II, trade unionists in Detroit demanded protection from indoor pollution and access to information about toxic chemicals. In the process, they challenged what auto industry officials called the “right to manage,” including employers’ authority to make decisions that threatened worker health and safety.

Chapter 3 shows how post-World War II suburban growth and urban decline, driven by industrial decentralization and increased automobile ownership, generated new environmental

problems for the city of Detroit. Air and water pollution from the city's industrial suburbs, as well as sewage from a rapidly growing metro area, generated costs for Detroit taxpayers, even as the city's tax base declined. The mismatch between local fiscal capacity and rising sewage treatment costs generated new pressures for federal environmental regulation. Chapters 4 and 5 shift attention from regulators, business leaders, and public officials to auto workers, union leaders, and community residents. Chapter 4 argues that "post-material" theories of environmental politics cannot explain the nature of anti-pollution protests in Detroit in the 1960s and 1970s. A key theme in anti-pollution activism was the corporate externalization of costs onto residents and workers. Spatial patterns of segregation between blacks and whites, and women and men, also shaped how Detroiters engaged in environmental politics. Pollution added to women's unpaid labor in the household, and disproportionately harmed African Americans segregated in the most hazardous jobs and housing. Industrial pollution, both in urban neighborhoods and in auto factories, undercut the real and social wage gains generated by New Deal and Great Society policies.

Chapter 5 explores the central dilemma of working-class environmental politics: while pollution made workers' lives shorter and more painful, their dependence on wages for survival made job losses more immediately threatening. As they had long done in reaction to union wage demands or municipal tax increases, corporations increasingly used the threat of capital flight to attack environmental regulations in the 1970s. In reaction to this, UAW leaders advocated legislation to compensate workers for pollution-related plant closures, supported full employment legislation, and formed new coalitions with environmental and civil rights groups. Although ultimately unsuccessful, the UAW's short-lived coalition for "environmental and economic justice and jobs" contributed to the emergence of the environmental justice movement in the United States.

Chapters 6 and 7 situate recent environmental politics in Detroit in the context of neoliberal restructuring. Chapter 6 focuses on a series of campaigns against municipal and medical incinerators in Detroit in the 1980s and 1990s. It shows how Reagan-era cuts in federal aid to cities, and financial disintermediation, made Detroit civic leaders more reliant on heavily leveraged public-private development projects. Environmental deregulation also complicated the politics of pollution control by generating conflicts between federal and state regulators (and between the U.S. and Canadian governments). At the same time, deindustrialization and hardening segregation between African Americans in Detroit and whites in the suburbs undercut the nascent labor-environmental-civil rights coalition that developed in the 1970s.

Chapter 7 shows how, in the early 21<sup>st</sup> century, life became increasingly hazardous and precarious for low-income communities of color in Detroit. Moves to privatize water, and to weaken air and water pollution regulations, posed health risks for Detroiters, particularly poor and working-class African Americans. The removal of income supports for the poor, and the deregulation of financial markets, increased economic instability and precarity for the same populations. The chapter also argues that welfare rights activists and public sector unionists, based in working-class and low-income constituencies, defined “environmental justice” differently from non-profits during this period. Whereas the former linked environmental justice to the defense of the public sector, many of the latter defined it in ways that conformed with the interests of private foundations. Rather than presuming the existence of a unitary environmental justice movement in Detroit, representing low-income communities of color, the chapter examines the conflicting material interests at work in urban environmental politics.

Finally, it is necessary to specify the limits of this study. While broadly surveying Detroit’s environmental history, this dissertation focuses primarily on risks to human health and property,

and ecological degradation. As such, it devotes more attention to environmental “goods” that are essential for human health (such as running water) than to those that are beneficial but less essential (such as urban parks). Although several chapters discuss parks, transportation planning, and urban agriculture in Detroit, they are not central to the narrative; other scholars have explored those topics in greater depth.<sup>23</sup> Similarly, because of the spatial concentration of environmental risks in Southeast Michigan, this dissertation concentrates on Detroit and its inner-ring suburbs. However, it also examines Detroit’s regional ecological footprint, including pollution in Lake Erie, southwest Ontario, and rural Wayne County, and the relationship between the water crises in 21<sup>st</sup> century Detroit and Flint.

---

<sup>23</sup> Ward, “Detroit Wild”; Cialdella, “Gardens in the Machine”; Safransky, “Promised Land”; McCarthy, *Auto Mania*.

**CHAPTER 1: CONTESTING THE COMMONS: BUSINESS ELITES,  
ENVIRONMENTAL CONFLICT, AND PROGRESSIVE-ERA REFORM IN DETROIT,  
1880-1925**

*If it is right for the city, for the sake of a better civilization, to furnish free schools, free libraries, free parks, it is right for the city to furnish free water for the promotion of cleanliness, comfort, and self-respect in the homes of its citizens.*

Hazen S. Pingree, "Detroit: A Municipal Study," *The Outlook*, January 2, 1897, 441.

During his annual address to the Detroit Common Council in January 1894, Detroit Mayor Hazen S. Pingree announced a plan to provide "free water" to all residents, and to replace water rates with a "general tax." Pingree's free water plan was part of a broader agenda, developed in response to the Panic of 1893, which included public works projects, potato patches for growing food, "dollar gas," and three-cent streetcar fares. Abolishing water rates, however, was perhaps Pingree's boldest proposal. Anticipating objections, he noted that Detroit's geography favored cheaper water delivery than in most cities. New York City had to build the 41-mile Croton Aqueduct to quench its urban thirst; even Chicago, located on Lake Michigan, had to reverse the flow of the Chicago River to "secure a supply of pure water" for its residents. In comparison, the Detroit River conveniently flowed to the southwest, delivering water from Lake Huron and Lake St. Claire en route to Lake Erie. Given this "prodigality of nature," Pingree proclaimed, water "ought to be here of all places, next to the air we breathe—free."<sup>1</sup>

Second, Pingree argued that the current system of water rates penalized the poor. Even the poor "widow who rents one room" paid higher water rates than his "luxurious friends on Woodward and Jefferson avenue." This contrast revealed "the inequality of the burden—the injustice of the assessment of cost."<sup>2</sup> In making these arguments, Pingree was participating in a

---

<sup>1</sup> *Annual Address of Hazen S. Pingree, Mayor of the City of Detroit, Delivered to the Detroit Common Council on January 9, 1894* (Lansing: Robert Smith Printing Co. 1897), 1-18.

larger movement of urban decommodification in the late 19<sup>th</sup> century. In the words of historian Daniel Rodgers, Progressive-era urban reformers in the United States and Europe aimed for “a diminution of the market, a transformation of goods from private to public.” Concerns about public health led urban reformers to advocate public ownership of utilities, transportation, and parks, and municipal regulation of water and smoke pollution. The expansion of public ownership and regulation made clean water and air more broadly accessible, and also advanced the political interests of reformers.<sup>3</sup>

In the case of free water, Pingree hoped to attract working-class voters away from his rival, Samuel Goldwater, a Polish Jew and trade unionist who had been a close associate of the executed Chicago anarchists Albert Parsons and August Spies. At the urging of Democratic Party boss Don M. Dickinson (who some believed had cynical motives), Goldwater had left the Socialist Labor Party to run on the Democratic ticket. While upstaging Goldwater with populist jabs at the Water Board and private gas, lighting, and streetcar companies, Pingree assured the Detroit Board of

---

<sup>2</sup> Ibid., 16-18. For a survey of municipal water systems in the 19<sup>th</sup> century, see Martin V. Melosi, *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present* (Baltimore: Johns Hopkins University Press, 2000), 58-204. For more detailed local case studies, see Ted Steinberg, *Gotham Unbound: An Ecological History of Greater New York* (New York: Simon & Schuster, 2014), 109-173; Mathew Gandy, *Concrete and Clay: Reworking Nature in New York City* (Cambridge: MIT Press, 2003), 19-31; Libby Hill, *The Chicago River: A Natural and Unnatural History* (Chicago: Lake Claremont Press, 2000), 61-138; William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991), 55-96; Martin V. Melosi, “Houston’s Public Sinks: Sanitary Services from Local Concerns to Regional Challenges,” in Martin V. Melosi and Joseph A. Pratt, eds., *Energy Metropolis: An Environmental History of Houston and the Gulf Coast* (Pittsburgh: University of Pittsburgh Press, 2007), 109-147; Gray Brechin, *Imperial San Francisco: Urban Power, Earthly Ruin* (Berkeley: University of California Press, 2006), 71-120; Blake Gumprecht, “Who Killed the Los Angeles River?” in William Deverell and Greg Hise, eds., *Land of Sunshine: An Environmental History of Metropolitan Los Angeles* (Pittsburgh: University of Pittsburgh Press, 2005), 115-134.

<sup>3</sup> Daniel Rodgers, *Atlantic Crossings: Social Politics in a Progressive Age* (Cambridge: Harvard University Press, 1998), 116. Municipal ownership initiatives in the Progressive era also provided an important precedent for larger public authorities during the New Deal. See Gail Radford, “From Municipal Socialism to Public Authorities: Institutional Factors in the Shaping of American Public Enterprise,” *Journal of American History* Vol. 89 No. 3 (December 2003), 863-890.

Commerce that free water would benefit manufacturers. Despite these efforts, Detroit business leaders generally opposed the plan, while working-class voters supported it overwhelmingly.<sup>4</sup>

Pingree's free water plan provides a useful introduction to this chapter's theme: the conflicting economic interests underlying environmental reform in Gilded Age and Progressive-era Detroit. Most histories of urban environmental reform in this period focus on middle-class reformers, including engineers, clubwomen, and physicians.<sup>5</sup> Urban environmental reform, however, also attracted support from other sectors of society. In the nineteenth century, utility rates, air and water pollution, and parks were often sources of class conflict. Many working-class city dwellers believed that water should be a public good, not a commodity. Some also demanded that municipal governments regulate air and water pollution, and provide public parks for recreation.<sup>6</sup>

---

<sup>4</sup> For background on Samuel Goldwater, see Carlotta R. Anderson, *All-American Anarchist: Joseph Labadie and the Labor Movement* (Detroit: Wayne State University Press, 1998), 162-163; Robert A. Rockaway, *The Jews of Detroit, 1792-1914* (Detroit: Wayne State University Press, 1986), 88-90; Melvin Holli, *Reform in Detroit: Hazen Pingree and Detroit Politics* (New York: Oxford University Press, 1969), 149-150; "The Red Flag Unfurled," *Detroit Free Press*, October 31, 1887, 4.

<sup>5</sup> On middle-class environmental reformers in the Progressive era, see David Stradling, *Smokestacks and Progressives: Environmentalists, Engineers, and Air Quality in America, 1881-1951* (Baltimore: Johns Hopkins University Press, 1999); Angela Gugliotta, "Hell with the Lid Taken Off: A Cultural History of Air Pollution—Pittsburgh" (Ph.D. Dissertation: University of Notre Dame, 2004), 176-326; Maureen A. Flanagan, "The City Profitable, the City Livable: Environmental Policy, Gender, and Power in Chicago in the 1910s," *Journal of Urban History* Vol. 22 No. 2 (January 1996), 163-190; Sylvia Hood Washington, *Packing Them in: An Archaeology of Environmental Racism in Chicago, 1865-1954* (Lanham, MD: Lexington Books, 2006), 75-99; Dorceta Taylor, *The Environment and the People in American Cities, 1600s-1900s: Disorder, Inequality, and Social Change* (Durham: Duke University Press, 2009), 163-220; Harold L. Platt, *Shock Cities: The Environmental Transformation of Manchester and Chicago* (Chicago: University of Chicago Press, 2005), 333-361.

<sup>6</sup> For a case study of working-class demands for urban water rights in the 19<sup>th</sup> century, see Michael Rawson, "The Nature of Water: Reform and the Antebellum Crusade for Municipal Water in Boston," *Environmental History* Vol. 9 No. 3 (July 2004), 411-435; also see idem., *Eden on the Charles: The Making of Boston* (Cambridge: Harvard University Press, 2010), 75-128. In some communities, working-class residents also protested pollution, especially where they owned property or engaged in subsistence fishing. See Daniel Johnson, "Pollution and Public Policy at the Turn of the Twentieth Century," in William Deverell and Greg Hise, eds., *Land of Sunshine: An Environmental History of Metropolitan Los Angeles* (Pittsburgh: University of Pittsburgh Press, 2006), 78-94; Wanda Balcers and Chloé Deligne,

Detroit's business elite, for its part, was divided over environmental reform. Prior to the Civil War, concerns about adequate water supplies for industry, as well as the desire to reduce infectious disease, led public officials to abandon private water suppliers in favor of municipal ownership. Local business leaders agreed, recognizing that their interests conflicted with those of private water companies.<sup>7</sup> For the most part, manufacturers opposed pollution regulations, while real estate developers and small business owners supported them, hoping that less soot and smoke would boost property values. Attempting to balance competing sectoral interests, local business associations often supported diluted versions of the pollution regulations favored by middle-class reformers.<sup>8</sup> In advocating cheap municipal water, public parks, and limited pollution regulations,

---

“Environmental Protest Movements Against Industrial Waste in Belgium, 1850-1940,” in Geneviève Massard-Guilbaud and Richard Rodger, eds., *Environmental and Social Justice in the City: Historical Perspectives* (Cambridge, UK: The White Horse Press, 2011), 233-247. Complaints about pollution also appeared in the 19<sup>th</sup> century labor press; see Angela Gugliotta, “Class, Gender, and Coal Smoke: Gender Ideology and Environmental Injustice in Pittsburgh, 1868-1914,” *Environmental History* Vol. 5 No. 2 (April 2000), 165-193, esp. 171-175. On the class politics of urban parks, see Catherine McNeur, *Taming Manhattan: Environmental Battles in the Antebellum City* (Cambridge: Harvard University Press, 2014), 54-94; Roy Rosenzweig, *Eight Hours for What We Will: Workers and Leisure in an Industrial City, 1870-1920* (New York: Cambridge University Press, 1983), 127-152.

<sup>7</sup> Although the move to municipalize water began before the Civil War, as late as 1870 over half of all municipal water systems in the United States remained privately owned. Public ownership only became the norm between 1890 and 1910. See Scott Masten, “Public Utility Ownership in 19<sup>th</sup>-Century America: The “Aberrant” Case of Water,” *Journal of Law, Economics, & Organization* Vol. 27 No. 3 (2010), 604-654. Along with demands for more reliable water supplies, concerns about infectious disease played a key role in water municipalization. See Werner Troesken, “Typhoid Rates and the Public Acquisition of Private Waterworks, 1880-1920,” *The Journal of Economic History* Vol. 59 No. 4 (December 1999), 927-948.

<sup>8</sup> A diverse array of local case studies find that, for the most part, manufacturers, utilities, and railroad companies opposed pollution regulations, while real estate developers supported them. See, for example, Ann-Marie Szymanski, “Regulatory Transformations in a Changing City: The Anti-Smoke Movement in Baltimore, 1895-1931,” *The Journal of the Gilded Age and Progressive Era* Vol. 13 No. 3 (July 2014), 336-376; Frank Uekötter, “Divergent Responses to Identical Problems: Businessmen and the Smoke Nuisance in Germany and the United States, 1880-1917,” *Business History Review* Vol. 73 No. 4 (Winter 1999), 641-676; Ted Moore, “Democratizing the Air: The Salt Lake Women’s Chamber of Commerce and Air Pollution, 1936-1945,” *Environmental History* 12 (January 2007), 80-106; Owen Temby, “Trouble in Smogville: The Politics of Toronto’s Air Pollution During the 1950s,” *Journal of Urban History* Vol. 39 No. 4 (2012), 669-689; Sarah S. Elkind, *How Local Politics Shape Federal Policy: Business, Power, and the Environment in Twentieth-Century Los Angeles* (Chapel Hill: University of North Carolina Press, 2011), 17-82; George Gonzalez, *The Politics of Air Pollution: Urban Growth, Ecological Modernization, and*



Detroit's reformers sought to reconcile contradictions within the local growth coalition, and to broaden their electoral constituencies.<sup>9</sup>

In the 1870s and 1880s, Detroit manufacturers faced challenges from a militant labor movement, which combined socialist and anarchist radicalism with demands for higher wages and the eight-hour day. The decline of unions and working-class political parties after the 1886 Haymarket bombing, however, created an opening for Republicans and Democrats to compete for labor's allegiance. Meanwhile, alongside the growth of the real estate market, the city's downtown business district employed increasing numbers of engineers, lawyers, and physicians. Rising property values, and the expansion of the professional middle classes, broadened the constituency for environmental reform. For Detroit's Republican leaders, reducing working-class unrest, while addressing the concerns of specific sectors of business and the middle classes, required forming new alliances.<sup>10</sup>

Pingree accomplished this by constructing a reform-oriented growth coalition, which

---

*Symbolic Inclusion* (Ithaca: State University of New York Press, 2005), 35-68. When local business associations supported regulation, they often supported weaker versions than middle-class reformers. See Elkind, *How Local Politics Shape Public Policy*, 178-184; R. Dale Grinder, "The Battle for Clean Air: The Smoke Problem in Post-Civil War America," in Martin Melosi, ed., *Pollution and Reform in American Cities, 1870-1930* (Austin: University of Texas Press, 1980), 83-103. Christine Meisner-Rosen argues that historians have exaggerated industrialists' opposition to pollution regulations, but agrees that real estate developers had greater incentives to support them. See Christine Meisner-Rosen, "Business Leadership in the Movement to Regulate Industrial Air Pollution in Late Nineteenth and Early Twentieth Century America," *Economic History Yearbook* Vol. 50 No. 2 (2009), 23-43.

<sup>9</sup> On growth coalitions, see Harvey L. Molotch, "The City as Growth Machine: Towards a Political Economy of Place," *American Journal of Sociology* Vol. 82 No. 2 (September 1976), 309-332; John R. Logan and Harvey L. Molotch, *Urban Fortunes: The Political Economy of Place, 2nd Ed.* (Berkeley: University of California Press, 2007), 62-74.

<sup>10</sup> On the decline of Detroit's labor movement between 1886 and 1900, see Richard Oestreicher, *Solidarity and Fragmentation: Working People and Class Consciousness in Detroit, 1875-1900* (Urbana: University of Illinois Press, 1986), 16-21, 234-37; Anderson, *All-American Anarchist*, 178-180, 187-189; and Steve Babson, Ron Alpern, Dave Elsila, and John Reville, *Working Detroit: The Making of a Union Town* (Detroit: Wayne State University Press, 1986), 5-16.

promised to reduce the filth, inequity, and corruption of the Gilded Age city. Ultimately, however, the fiscal constraints of municipal government, and opposition from manufacturers, limited the scope of environmental reform. Partly because of its weaker reform movement, both air and water pollution in Progressive-era Detroit was worse than in comparable industrial cities, such as Milwaukee and St. Louis. To understand the limits of reform in Detroit, then, it is necessary to weigh the contending economic interests involved in providing environmental goods and regulating environmental hazards.

### **From Private to Public Water**

Debates about public rights to municipal water in Detroit dated back well before the Civil War. The position of Detroit on a river connecting two of the Great Lakes, Lake Erie and Lake St. Clair, gave the city a reputation for proximity to abundant freshwater. Traditionally, the Huron people called the flat expanse of prairie and marshes between these lakes *Karantouan*, meaning “coast of the straits.” The Chippewa called it *Waweatonong*, or “crooked way,” and French settlers simply labeled the area “*Le Dé troit*,” or “the strait.” Despite Detroit’s favored geographical location, the politics of water quality, access, and affordability proved contentious throughout the city’s history. During the eighteenth century, residents of the settlement surrounding Fort Detroit relied on private wells. It was only after the fire of 1805, which destroyed all of the city’s wooden structures, that the Common Council ordered the digging of public wells. Citizens could access public well water for a fee of \$10 per year.<sup>11</sup>

But if well water could provide for the needs of a small village, it could not effectively

---

<sup>11</sup> On indigenous names for Detroit, see Karen Marrero, “Founding Families: Power and Authority of Mixed French and Native Lineages in Eighteenth-Century Detroit” (Ph.D. dissertation: Yale University, 2011), 134-135. On the early history of Detroit’s water system, see Clarence M. Burton, William K. Stocking, and Gordon K. Miller, *The History of Detroit Michigan, 1701-1922, Vol. 1* (Detroit: S.J. Clarke Publishing Company, 1922), 371-397.

supply a small town, let alone an industrial city. By 1810, Detroit was home to a population of 4,762 people. The census for that year, shortly before the city's occupation by the British during the War of 1812, described a growing industrial center that employed skilled artisans and wage laborers. Some Euro-American settlers also held African Americans as slaves, although Detroit had a small free black community. Slavery had existed in Detroit for over a century; as early as 1701, Antoine de la Mothe Cadillac had brought enslaved African and indigenous people to build Fort Pontchartrain. The 1810 census classified 120 residents as "free blacks," 24 as "slaves," and 4,618 as "whites," although the latter category included people of mixed indigenous and European ancestry. By this time, the fur trade was in decline, but Detroit had already become a small manufacturing center for leather, soap, whiskey, brandy, cider, hemp, and flax. The opening of the Erie Canal in 1825 accelerated the city's industrial and population growth, leading to demands for an urban water works.<sup>12</sup>

Anxious to meet these needs, Detroit's leaders launched an experiment in private municipal water delivery. In 1829, the Detroit Common Council granted the Detroit Hydraulic Company, a company formed by Bethuel Farrand and Rufus Wells, exclusive rights to supply water for the city of Detroit. By 1831, the Detroit Hydraulic Company had constructed two reservoirs, with a capacity of over 20,870 gallons, and laid wooden water pipes from the Detroit River to Jefferson

---

<sup>12</sup> For a description of Detroit during the War of 1812, see Jedediah Morse, *A Compendious and Complete System of Modern Geography: Or, A View of the Present State of the World* (Boston: Thomas and Andrews, 1814), 200-203. On slavery and Fort Pontchartrain, see Afua Cooper, *The Hanging of Angélique: The Untold Story of Canadian Slavery and the Burning of Old Montréal* (Athens, GA: University of Georgia Press, 2007), 74. In the half-century before the Civil War, thousands of African Americans fleeing slavery would pass through Detroit on the Underground Railroad to Canada. See Karolyn Smardz Frost, "Forging Transnational Networks of Freedom: From the War of 1812 to the Blackburn Riots of 1833," in Karolyn Smardz Frost and Veta Smith Tucker, eds., *A Fluid Frontier: Slavery, Resistance, and the Underground Railroad in the Detroit River Borderland* (Detroit: Wayne State University Press, 2016), 43-66. On people of mixed indigenous and settler ancestry in Detroit, see Lucy Eldersweld Murphy, *Great Lakes Creoles: A French-Indian Community on the Northern Borderlands, Prairie Du Chien, 1750-1860* (New York: Cambridge University Press, 2014), 65-107.

Avenue. Like private water companies in Boston, New York, and other cities, the Detroit Hydraulic Company quickly became a target for criticism. Advocates of municipal water ownership charged the Detroit Water Company with delivering unhealthy water, in unreliable quantities.<sup>13</sup>

These criticisms intensified in the aftermath of a series of deadly cholera epidemics. In July 1832, cholera reached Detroit aboard the U.S.S. *Henry Clay*, which was en route to Chicago with 370 soldiers, sent to wage war against the Sauk leader Black Hawk. By the end of the summer, 219 soldiers had died of typhoid, along with between 50 and 100 people in Detroit. In the summer of 1834, a far more devastating cholera epidemic struck, killing 320 Detroit residents, or 7-10 percent of the city's population. In the aftermath, critics accused the Detroit Hydraulic Company of contributing to the epidemic. In May 1836, the *Detroit Democratic Free Press* published an anonymous letter, signed 'Many Citizens,' criticizing "the neglect and mismanagement of the Hydraulic Company and their agents" and charging that the "miserable stuff that is placed on our tables" was "one of the strongest predisposing causes of cholera in '34, and this single cause may be attributed the peculiar virulence of that frightful disease in this city."<sup>14</sup>

<sup>13</sup> "The Detroit Water Works," *Detroit Post and Tribune*, December 15, 1877, reprinted in *Report of the Pioneer Society of the State of Michigan, Vol. IV* (Lansing: Wynkoop Hallenbeck Crawford Co., 1906), 468-470; *Manual of the Common Council, City of Detroit* (Detroit: Detroit Common Council, 1875), 37-39; Theodore Aldred Leisen, "The Detroit Water Works," *Journal of the American Water Works Association*, Vol. 4, No. 2 (June 1917), 206-213.

<sup>14</sup> On the Detroit Hydraulic Company, see "Pure Water Indispensable to Health," *Democratic Free Press*, May 4, 1836, 1; "The Water Works," *Democratic Free Press*, May 11, 1836, 2; "Important to Detroit," *Democratic Free Press*, May 25, 1836, 1. On cholera epidemics in 1830s Detroit, see Richard Adler, *Cholera in Detroit: A History* (Jefferson, NC: McFarland & Co., 2013), 54-100. According to Adler, the death toll for the 1832 epidemic "appears to have been fewer than 60, though estimates have proposed numbers approaching 100; likely these have included persons dying from other causes during this period." *Ibid.*, 83. On cholera and U.S. military campaigns against the Sauk nation, see Black Hawk and J. Gerald Kennedy, *Life of Black Hawk, or Ma-ka-tai-me-she-kia-kiak: Dictated by Himself* (New York: Penguin, 2008), 87-88; Charles E. Rosenberg, *The Cholera Years: The United States in 1832, 1849, and 1866*, 2nd Ed. (Chicago: University of Chicago Press, 1987), 36, 97.

Facing criticism for their handling of the epidemic, the Detroit Common Council and Mayor C.C. Trowbridge (a prominent banker and real estate developer) turned against the Detroit Hydraulic Company. In April, the Common Council had appointed Recorder A.D. Fraser and Alderman John Farrar to an investigative committee, which concluded that the Detroit Hydraulic Company had violated the terms of its charter. The charter required the corporation to supply Detroit's inhabitants "with a constant supply of water," and "pure, clean, and wholesome water, from the channel of the Detroit River." In its final report, the committee found the company negligent on both counts. It had "for years failed to furnish a constant supply of water to the inhabitants of the city." Moreover, the committee added, the "the irregular supply furnished has been far from being pure and wholesome; that it has endangered the health of our citizens; and that, from the present condition of the works, their location and circumstances, it is utterly impracticable for the Company to furnish pure and wholesome water."<sup>15</sup>

For these reasons, the committee declared that the Hydraulic Company had forfeited its charter, and "all rights and privileges thereby granted have become null and void," and reverted to the City of Detroit. The Common Council voted to revoke the charter on May 18, and bought out the private water works for \$25,500. As the city's water system became more extensive, however, public officials saw the need for a municipal water department. In 1852, the Common Council appointed a board of trustees for Detroit's water works, and the following year the Michigan legislature passed a bill creating the Detroit Board of Water Commissioners. The state legislature authorized the Water Commissioners to collect rates from water users, and to manage the

---

<sup>15</sup> Quoted in Jacob Houghton Jr., "History of the Detroit Water Works," in *Report of the Board of Trustees of the Detroit Water Works to the Common Council of the City of Detroit, December 20, 1852* (Detroit: George E. Pomeroy & Co., 1854), 34-35; Jack F. Kilfoil, *C.C. Trowbridge: Detroit Banker and Michigan Land Speculator, 1820-1845* (New York: Arno Press, 1979), 116-117.

expansion and maintenance of Detroit's water system, financed through municipal bonds.<sup>16</sup>

### **Public Water and the Urban Poor**

Despite the advantages of public ownership, providing clean water for all residents would remain an enormous challenge. By the eve of the Civil War, the population of Detroit had increased to 45,619, with an average daily water distribution of 2,142,774 gallons of water. The city's water system had grown to 84 miles of pipes, including 39 miles of iron pipes and 45 miles of older wooden logs. Still, residents of outlying districts continued to rely on wells. Even if they lived next to a water main, the poorest Detroiters could not afford to pay for water. In 1860, for example, the Director of the Poor issued certificates for 204 families to receive free water, on the grounds that they were unable to pay. The same year, the Board of Water Commissioners shut off 203 water takers for failure to pay. By 1870, of 12,700 families residing in the city of Detroit, 2,033 still had no water connections. The others obtained water from wells and private carriers, or "from the margin of the river, subject as it is to the shore washings and drainage of a populous city," including sewage and industrial waste.<sup>17</sup>

Even after the city laid water mains in outlying districts, residents were often slow to access public water. On September 17, 1888, the Detroit Common Council held a special session on this problem with the Detroit Board of Health and the Board of Water Commissioners. The council learned that, while city had laid \$180,000 in pipes in the recently annexed 14th and 16th wards, the city had recouped less than \$9,000 in water rates. In the 16th ward, 485 families still used wells; in the 14th ward, 170 families did. These families were largely poor German and Polish

<sup>16</sup> Leisen, "The Detroit Water Works," 206-213.

<sup>17</sup> *Annual Report of the Board of Water Commissioners to the Common Council of the City of Detroit, Together with the Reports of the Secretary, For the Year Ending December 31, 1860* (Detroit: Free Press Mammoth Book and Job Printing House, 1861), 41-46.

immigrants, who relied on wells contaminated by surface water, as well as human and animal waste from nearby privies, stables, and cowsheds. Landlords in these districts refused to pay for water connections, which cost between 22 and 24 cents per foot. The Board of Health proposed a resolution requiring owners of residences on streets supplied with water to “connect their premises with city water supply and fill up wells with clean earth, and as fast as water mains are extended parties [are] to connect with city water supply and fill up wells.” Despite the Board of Health’s concerns, the Common council never passed the resolution.<sup>18</sup>

Even those who could afford public water, meanwhile, faced risks from contamination. The build-out of Detroit’s sewer and water systems occurred in tandem, as water mains replaced wells, and toilets and sewers replaced backyard privies. By the early 20th century, more than 50 open sewers discharged untreated waste into the Detroit River, including several near the intake crib for the Detroit Water Works, built in 1873-1877, near the northeastern end of Belle Isle. However, public officials were slow to recognize the dangers of using the Detroit River both as a source of drinking water and as a sink for waste. For example, in 1881, Henry Starkey, the Secretary of the Detroit Water Works, complained in a report to the Detroit Board of Water Commissioners that the “water supplied to the city is essentially the same as that which forms the main current of the Detroit River,” which ranged from “moderately turbid” to “extremely turbid.” Detroit’s Health Officer, O.W. Wight, rejected Starkey’s report, asserting that Detroit’s water contained “no contamination at all to be compared to the excretal pollution that infects the water supply of Boston, New York, Philadelphia, Cincinnati or Chicago,” and came from “the greatest and purest reservoirs in the world.” Subsequent investigations of Detroit’s water supply, and

---

<sup>18</sup> *City of Detroit: Journal of the Common Council From January 10, 1888 to January 8, 1889* (Detroit: Wm. F. Moore, 1889), 625.

ongoing deaths from typhoid, would undermine such claims.<sup>19</sup>

**Table 1.1 Typhoid Death Rates in Detroit, 1890-1900**

Year	Population	No. Deaths.	Deaths Per 100,000
1890	205,876	39	19.0
1891	213,859	73	34.1
1892	221,842	208	93.8
1893	229,825	97	42.2
1894	237,808	67	28.2
1895	245,796	61	24.2
1896	253,773	57	22.5
1897	261,750	38	14.5
1898	269,739	58	21.5
1899	277,722	35	12.6
1900	285,704	50	17.5

Source: "Typhoid Fever in Detroit," *Journal of the American Medical Association* Vol. LV No. 15 (October 8, 1910), 1284.

Concerns about sewage pollution in the Detroit River intensified after an outbreak of typhoid fever in Detroit in 1892 killed 208 people. While typhoid was a persistent problem in Detroit in the late 19th and early 20th centuries, the 1892 outbreak was particularly deadly (Table 1.1). As the *Journal of the American Medical Association* reported in 1910, it was "one of the severest recorded in any American city during the past twenty-five years." In a paper presented at the December 1897 Detroit Sanitary Convention, Gardner S. Williams, a civil engineer at the Detroit Board of Water Commissioners, argued that sewage pollution was the likely cause of the 1892 calamity. That year, the U.S. Army Corps of Engineers had dumped scows loaded with

<sup>19</sup> "Our Water: What the Health Officer Thinks of Its Sanitary Value," *Detroit Free Press*, May 17, 1882. On the history of Water Works Park, see George E. Fenkell, "Report of Additional Water Supply for Detroit and Vicinity to the Board of Water Commissioners," September 1923, 1-7, Board of Water Commissioners Records, Burton Historical Collection, Detroit Public Library; 64-72; Leisen, "Detroit Water Works," 207.



dredged sewage from Port Huron into Lake St. Clair, directly upstream from the Detroit River.<sup>20</sup>

Although it was unusually severe, the 1892 outbreak occurred against a background of persistently high typhoid. Some local health experts pointed to local sources as the primary culprit. In response to Gardner's 1897 paper, Dr. Hal C. Wyman blamed Detroit's typhoid problem on "the pollution of our water supply with the flood drainage of the cemeteries, market garden compost heaps, stables and outhouses in the Connor's Creek basin, which is poured directly into the Detroit River not far from the water works." On days when heavy rains flooded Connor's Creek, contamination of city water with sewage waste increased noticeably. However, the problem resulted from the city's sewage system as a whole. W.I. Tibbals, a bacteriologist with the Detroit Board of Health, estimated that Detroit's sewers discharged between 20 and 30 million gallons of sewage into the Detroit River per day. This made it "extremely dangerous" to consume "water taken from the Detroit river, at any point between our city and Lake Erie."<sup>21</sup>

Detroit's sewage pollution also provoked complaints on the Canadian side of the river. While speaking to the Canadian Parliament in 1900, E.E. Prince of the Canadian Commission of Fisheries quoted from a petition by Canadian fishermen on the Detroit River, who complained about sewage pollution from the city of Detroit. "Since this garbage has been coming ashore," the petition charged, "the catch of fish in our nets has been materially diminishing and, if the same continues, the business will be ruined." Detroit's sewage pollution, they added, "drives away the fish and renders our fishing privileges useless." However, until the United States and Britain

---

<sup>20</sup> Gardner S. Williams, "Typhoid Fever and the Water Supply in Detroit," in Michigan State Board of Health, *Proceedings, Addresses and Discussions at the Sanitary Convention Held at Detroit, Michigan, December 9 and 10, 1897* (Lansing: Michigan State Board of Health, 1897), 90-100; "Typhoid Fever in Detroit," *Journal of the American Medical Association* Vol. LV No. 15 (October 8, 1910), 1284-86.

<sup>21</sup> "Discussion of the Subject," in Michigan State Board of Health, *Proceedings, Addresses and Discussions at the Sanitary Convention Held at Detroit*, 100-101.

signed the Boundary Waters Treaty (1909), creating the International Joint Commission (IJC), water pollution on the Detroit River remained unregulated. As late as 1910, Detroit's Board of Health continued to deny that sewage pollution from the Detroit River was contaminating the city's water supply. As later sections of this chapter will show, it was only when the IJC began to investigate Detroit's water system that local health officials acknowledged the contamination.<sup>22</sup>

### **The Free Water Campaign**

The most intense environmental conflicts in Detroit in the 1890s, however, pitted Mayor Hazen Pingree against the Detroit Board of Water Commissioners. Pingree, a Republican shoe manufacturer who had clashed with the Knights of Labor in 1885-1886, was elected mayor of Detroit in 1889 with the backing of the city's conservative business leaders. Pingree's ascendancy coincided with the decline of Detroit's organized labor movement, which fell from an estimated 13,000 union members in 1886 to under 8,000 throughout the 1890s. Despite his early resistance to unions, Pingree became popular with working-class voters by embracing labor arbitration, and by campaigning for public streetcars, gas, and lighting, and public works projects for the unemployed. By embracing economic populism, Pingree won re-election for four consecutive terms, before Michigan voters elected him governor in 1897. While historians have extensively documented Pingree's support for public utilities, they have paid almost no attention to his campaign for free water. Although forgotten today, the free water campaign played a significant role in the 1895 mayoral campaign, and revealed the limits of Progressive-era reform in Detroit.<sup>23</sup>

---

<sup>22</sup> *Sessional Papers Vol. 9: Fifth Session of the Eight Parliament of the Dominion of Canada LXCII* (Ottawa: Hunter, Rose, 1900), 366; International Joint Commission, *Rules of Procedure of the International Joint Commission* (Washington, D.C.: Government Printing Office, 1912).

<sup>23</sup> On Pingree and organized labor, see Arthur Edward DeMatteo, "Urban Reform Politics and the Working Class: Detroit, Toledo, and Cleveland, 1890-1922" (Ph.D. Dissertation: University of Akron, 1999), 26-87. On the decline in union membership, see Oestreicher, *Solidarity and Fragmentation*, 162. The most comprehensive work on Pingree's tenure in Detroit remains Holli, *Reform in Detroit*.

During public speeches in the early 1890s, Pingree frequently criticized the Detroit Board of Water Commissioners for charging excessive water rates, and for spending too much on water meters. As the economic depression of 1893-94 deepened, however, Pingree moved in an increasingly populist direction. During his annual address to the Common Council in 1894, Pingree called for abolishing water rates in the city of Detroit. Whereas it cost less than \$100,000 to pump all the water used in Detroit in 1893, customers paid \$400,000. Pingree claimed that the bulk of difference went to financing “improvements of high-priced real estate in the suburbs.” Eighty percent of the water rates paid by poor families, Pingree charged, went to laying “pipes in front of some one’s vacant land in the woods, so that it can be sold at fabulous prices.” Instead, he said, the owners of abutting property should pay for new water pipes. By paying for water from a general tax, the city could eliminate water rates altogether. In its annual report for that year, the Water Board duly struck back, calling Pingree’s proposal “so utterly impractical and chimerical that it does not merit discussion.” Some business elites supported the proposal, however. In a letter to Pingree on January 16, 1894, the Boston banker J.A. Woodson wrote, “I have read your official address with a great deal of interest, especially among other items refer to those in [sic] ‘Free Water’ and ‘Street Railways.’” Woodson promised to “pass it along” to Cambridge, Massachusetts mayor William A. Bancroft.<sup>24</sup>

The class tensions surrounding the Water Board’s extensions into outlying districts came to a head in 1894. That winter, Detroit’s unemployment rate had skyrocketed to 33 percent, and 25,000 people in the city were unemployed. The previous year, the owners of the Detroit Driving Club, a horse racetrack patronized by magnates like Daniel J. Campau, Jr., chose to relocate their

---

<sup>24</sup> J.A. Woodson to Hazen Pingree, January 16, 1894, Hazen Pingree Papers, Burton Historical Collection, Detroit Public Library; *Report of the Board of Water Commissioners of the City of Detroit* (Detroit: *Detroit Free Press* Publishing Company, 1894), 7; *Annual Address of Hazen S. Pingree, January 9, 1894*, 16-18.

facility from Detroit's Indian Village Neighborhood to the suburb of Grosse Pointe. Soon after, the Water Board began digging a series of trenches near Connor's Creek to supply water for the exclusive club. The laborers were primarily Polish immigrants, many of whom had been unemployed since the previous summer. On April 16, the Water Board announced that it was shifting from day wages to piecework wages, at which workers could earn only 75-80 cents per day. The following day, an estimated 500 Polish laborers were on strike, demanding \$1.50 per day. After the Detroit police arrived to protect strikebreakers, a confrontation ensued in which police shot and killed three strikers, while one striker hit Sheriff C.P. Collins in the head with a shovel.<sup>25</sup>

In reaction to these events, Pingree rejected calls to bring in the state militia, but agreed to dispatch 100 police armed with Winchester rifles to Connor's Creek. At the same time, Pingree publicly criticized the piecework policy, telling the Water Board, "I haven't heard that there was any cut in the office here." The conflict, meanwhile, had already become an issue in the 1895 mayoral race. The upcoming election pitted Pingree against Samuel Goldwater, a Polish Jew and representative of the Socialist Labor Party, now running as a Democrat. In a speech at the Detroit Trades and Labor Council, Goldwater argued that it was "the plain purpose of the capitalistic class, revealed in this action of the city authorities, to intimidate and terrorize the whole laboring class." The repression of the Connor's Creek strike, he said, revealed the weakness of the workers when they lacked powerful unions and allies in elected office. In May, the Water Board backed down, abandoning the piecework system. Under the new rates, some workers made between \$2.00 and \$2.50 per day.<sup>26</sup>

---

<sup>25</sup> "Shot Down: Riotous Polish Laborers Charge on the Sheriff," *Detroit Free Press*, April 19, 1894; "What the Poles Say: Divided Opinion on Whether There Will Be Trouble Monday," *Detroit Free Press*, April 21, 1894; David Lee Poremba, ed. *Detroit in its World Setting: A Three Hundred Year Chronology, 1701-2001* (Detroit: Wayne State University Press, 2001), 175.

<sup>26</sup> "Detroit City Water Works Strike," in *Twelfth Annual Report of the Bureau of Labor and Industrial*

Competing with Goldwater for working-class votes, Pingree escalated his attacks on the Water Board over the next year. In his 1895 Annual Address, Pingree said that under his free water plan “the Water Board, with its independent organization beyond control of the Common Council, should be wiped out.” All the hydraulic engineering in the city, he said, could be undertaken by the Board of Public Works. By no longer paying “more than ordinarily high salaries” to an “army of employees” at the Water Board, the city could save \$150,000 annually. Pingree repeated these arguments on the campaign trail in the summer and fall of 1895, making free water a centerpiece of his platform, alongside public works, equal taxation, and the abolition of toll roads. In the November election, Pingree beat Goldwater by a 2 to 1 margin, carrying every ward in the city. Pro-Pingree candidates also won 12 of 16 Common Council seats.<sup>27</sup>

Pingree attempted to pitch the free water plan as a cross-class issue, benefiting working-class families and big business alike. To working-class voters, Pingree said that free water would boost household incomes; to industrialists, he said that it would lower production costs. Speaking to the Detroit Chamber of Commerce on November 3, 1895, Pingree claimed that free water would help Detroit “hold her own with her sister cities in inducements to manufacturers to remain where they are and to extend their plants, and for others to locate here.” Some critics, like the editors of the *Detroit Free Press*, accused Pingree of promoting free water “to sell more shoes,” not to help the poor. Opponents attacked the plan from both the right and the left. Ex-Senator J.R. McLaughlin

---

*Statistics of Michigan, Year Ending February 1, 1895* (Lansing: Robert Smith & Co., 1895), 513; “Resume Work Monday: The Water Board Decided On That Course Yesterday,” *Detroit Free Press*, April 21, 1894; “May Call the Militia: Acting Sheriff Archer Has Power to Take Such a Step,” *Detroit Free Press*, April 22, 1894; “Labor Organizers Addressed Workmen Yesterday; Six Thousand Poles Now Pledged to Stand By One Another,” *Detroit Free Press*, May 21, 1894.

<sup>27</sup> *Sixth Annual Message of Hazen S. Pingree to the Common Council of the City of Detroit, January 7, 1895* (Thomas Smith Printing Co., 1895), 30; “With Full Arm Swing: Mayor Pingree Used the Lash on the Chamber of Commerce,” *Detroit Free Press*, November 3, 1895; Holli, *Reform in Detroit*, 150.

called it a move toward “state socialism,” while James Inglis said it was only “for the benefit of the manufacturer.”<sup>28</sup>

**Table 1.2. Results of Referendum on the Provision of Free Water in Detroit (1897)**

Ward	Yes	No
No. 1	660	667
No. 2	626	720
No. 3	712	441
No. 4	831	659
No. 5	702	530
No. 6	846	667
No. 7	451	411
No. 8	864	392
No. 9	660	565
No. 10	916	448
No. 11	437	117
No. 12	645	316
No. 13	545	235
No. 14	459	185
No. 15	725	315
No. 16	501	183
Total	10,589	6,851

Results from a referendum on “free water,” April 1897. Vote tallies found the strongest support in working-class wards, such as 8, 10, 12, 13, and 14. Source: “It Was Easy! Free Water Bill Passed in House Committee of the Whole,” *Detroit Free Press*, April 23, 1897.

The issue remained popular with working-class voters, however. On April 22, 1897, free water won in a popular referendum of Detroit. Pingree had been elected governor the previous

<sup>28</sup> “Emulating Altgeld: Mayor Hazen S. Pingree’s Colossal Egotism,” *Detroit Free Press*, November 1, 1896, 1; “Free Water discussed by the Chamber of Commerce last night; Ex-Senator McLaughlin took a turn at Gov. Pingree; Said the scheme was a step towards state socialism,” *Detroit Free Press*, March 2, 1897, 1.

November, and called the popular vote as one of his final acts as Mayor of Detroit. Asked whether they approved of a bill to abolish water rates, a majority of Detroit voters chose “Yes.” The highest “No” margins were in the city’s “silk stocking” wards: the First and Second. By contrast, voters in heavily working-class wards, like 8, 10, 12, 13, and 14, overwhelmingly supported free water (Table 1.3). On April 24, a free water bill passed the Michigan state legislature with only two “No” votes. Other politicians jumped eagerly aboard the free water bandwagon. As Senator C.W. Moore told a crowd of fifty African American Republicans at Cole’s Hall on Gratiot Avenue in October 1897, “If there is anything the people of Detroit want more than another it’s free water.”<sup>29</sup>

Fearful of losing votes, both Republicans and Democrats had become reluctant to publicly oppose free water. Pingree’s successor, the Democrat William Maybury, declared his support for free water, as did Toledo’s populist mayor, Tom Johnson. In the spring and summer of 1897, the Michigan legislature held hearings on a bill that would make water free for household purposes in Detroit, and abolish the Detroit Water Board. However, the Water Board still had one major advantage: its abolition would require amending the Detroit City Charter. The Michigan Supreme Court held that “piecemeal” amendment of city charters violated the Michigan state constitution, and would continue to do so until the constitutional amendments of 1911. Ultimately, in April 1903, Michigan legislators railroaded a stripped-down water bill, without a full reading, which lacked the free water provision and maintained the Water Board. Proposals for free water would surface occasionally in later years, but they never again received the support they enjoyed in 1897-1899.<sup>30</sup>

<sup>29</sup> “Vote On Free Water: It Was Very Light and the Yeas Were in the Majority,” *Detroit Free Press*, April 6, 1897; “It Was Easy! Free Water Bill Passed in House Committee of the Whole,” *Detroit Free Press*, April 23, 1897; “Out of the Ranks: Colored Voters Say They Have Had Enough Republicanism,” *Detroit Free Press*, October 28, 1897.

<sup>30</sup> “Against Free Water; Present Board Believes in a Laissez-Faire Policy; Three of the Commissioners

### Contesting Public Parks

Beginning in the 1870s, business elites in Detroit began to advocate large-scale public investments in urban parks. James McMillan, the chairman of the Michigan Republican Party and the largest industrialist in the state, led the campaign for Detroit to purchase Belle Isle, a 982-acre island in the Detroit River, from the Campau family for \$200,000 in 1879. Some wealthy Detroiters opposed the deal, including Chauncey Hurlbut, C.M. Davison, and others associated with the First and Second National Bank. Nevertheless, most sided with McMillan. As the chairman of Detroit's Board of Park Commissioners between 1881 and 1883, McMillan recruited Frederick Law Olmstead to draft a plan for a public park. In 1889, McMillan became the second-wealthiest member of the United States Senate, exceeded only by California railroad tycoon Leland Stanford. In an era when critics called the Senate a "Millionaire's Club," this was no small distinction. McMillan continued to support public parks in Washington, D.C., including in the vicinity of his palatial mansion on Vermont Avenue.<sup>31</sup>

Some Common Council members, however, balked at floating \$295,000 in additional

---

Don't Agree with the Mayor," *Detroit Free Press*, January 16, 1898; "Why Not Free Heat and Light? Only an Advance on Tom Johnson's Ideas," *Detroit Free Press*, April 22, 1899; "The Deal Went Through: Bill Abolishing Detroit Water Board Passed by the Senate," *Detroit Free Press*, May 19, 1899; E.R. Kranich, "Step Toward Free Water: Proposed Detroit Charter Amendment Entails It," *Detroit Free Press*, March 25, 1903. On constitutional amendments and the Detroit city charter, see Arthur E. DeMatteo, "Organized Labor Versus the Mayor: The Detroit Federation of Labor and the Revised City Charter of 1914," *Michigan Historical Review* Vol. 21 No. 2 (Fall 1995), 62-92, esp. 70.

<sup>31</sup> On McMillan's career, see Geoffrey G. Drutchas, "Gray Eminence in a Gilded Age: The Forgotten Career of Senator James McMillan of Michigan," *Michigan Historical Review* Vol. 28 No. 2 (Fall 2002), 78-113. For background on the purchase of Belle Isle, see D. Farrand Henry, *Address to the Public: The Advisability of Purchasing Belle Isle for a Park, Water Works and Basis for a Tunnel* (Detroit: Union Job Printing Company, 1874); Detroit Board of Estimates, "Official Special Session," June 30, 1879, Levi Lewis Barbour Papers, Burton Historical Collection, Detroit Public Library; "The Bank and the City: A Story of the Life of the First National Bank of Detroit and the People Who Lived With It," *Michigan Manufacturer and Financial Record*, Vol. 29 (April 15, 1922), 3-13, 36. On Olmstead and Belle Isle, see Joseph S. Cialdella, "A Landscape of Ruin and Repair: Parks, Potatoes, and Detroit's Environmental Past, 1879-1900," *Michigan Historical Review*, 1879-1900 Vol. 40 No. 1 (Spring 2014), 49-72, esp. 52-60.



bonds to construct a public bridge to Belle Isle. The bridge became a populist issue, since it would allow working-class Detroiters to reach the park for free, rather than paying to ride a ferry. E.W. Scripps' *Detroit Evening News*, a newspaper marketed to working-class readers, attacked opponents of the bonding as moneyed "boodlers." The wealthy, the editors observed, "do not need" a public park, because "[t]heir own dooryards are in many cases beautiful parks. In summer they go to the seaside, and if they wish an airing without going away, their fine horses can whirl them off to their villas at Grosse Pointe." By contrast, for the working masses, a public park provided "seaside, villa, air, water—everything in the way of rest and comfort—to which they can escape from the squalid and often unwholesome surroundings of their homes." If working people could not buy access to healthful environments through the real estate market, the state could provide them in the form of public spaces.<sup>32</sup>

Ultimately, the steel and wood bridge opened in June 1889, and lasted until it was destroyed by a fire in 1915, before being replaced by a concrete and steel bridge in 1923. Belle Isle proved immensely popular, attracting 61,000 visitors in 1894. Many of these visitors came to Belle Isle via ferry service. Mayor Hazen Pingree, who called Belle Isle the "People's Playground," publicly criticized ferry companies for charging high fares to access the park. Local unions, including the Detroit Federation of Labor, also promoted increased investments in public parks and playgrounds for the working class in Detroit. At the same time, they demanded minimum wages for workers

---

<sup>32</sup> "Boodlers Hate People's Park," *Detroit Evening News*, February 16, 1889, and "Shallow Politics," *Detroit Evening News*, February 18, 1889, both in Wilma Wood Henrickson, ed., *Detroit Perspectives: Crossroads and Turning Points* (Detroit: Wayne State University Press, 1991), 225-26. Such language was typical of the *Detroit Evening News*. According to Gerald J. Baldasty, the *Detroit Evening News* "pioneered the working-class newspaper formula" of James Scripps, which his brother E.W. Scripps would later extend on a national scale. See Gerald J. Baldasty, *E.W. Scripps and the Business of Newspapers* (Urbana: University of Illinois Press, 1999), 149.

employed on recreational projects, which the Board of Park Commissioners opposed.<sup>33</sup>

Struggles over Belle Isle would continue, not only over public versus private ownership, but between dispossessed indigenous people and white settlers. On April 7, 1906, Thomas Sands, a Chippewa man from Walpole Island in southwestern Ontario, wrote in a letter to the *Detroit Free Press* that “Walpole Island Chippewas are the right owners of Harsens and Belle Islands + c’.” Sands argued that, while these territories originally belonged to the Iroquois, a quadripartite treaty signed in 1801 granted these territories to the Chippewa of Walpole Island. However, during the War of 1812, “some greedy white people and other sharpers took and moved away the legal boundary line” of Chippewa territory “from off the north Channel and placed it on south Channel,” on the Canadian side of the river. Sands announced that “we intend by legal means to reoccupy those islands ourselves.” At that point, “the whole civilized world will know how shamefully we have been treated for many long years by people who call themselves Christians.”<sup>34</sup>

The *Detroit Free Press* editors published excerpts of the letter the following day, while dismissing indigenous land claims to Belle Isle. “How would Detroit’s pleasure-loving thousands,” the editors asked contemptuously, “like to see Belle Isle, the city’s brightest playground, revert to its primal state of savagery?” Parading stereotypes before their readers, they described a scenario in which the Belle Isle casino “would become the tepee of the chief”; the Detroit Boat Club and Yacht Club “would become but the wigwams of Chippewa braves”; “those

---

<sup>33</sup> On the Belle Isle Bridge, see Charles K. Hyde, *Detroit: An Industrial History Guide* (Detroit: Detroit Historical Society, 1980), 47. On Pingree’s criticisms of ferry rates, see Holli, *Reform in Detroit*, 30. On the number of visitors to Belle Isle, see Cialdella, “A Landscape of Ruin and Repair,” 59. On the Detroit Federation of Labor’s support for expanded recreational opportunities for the working class, and higher wages for park workers, see DeMatteo, “Organized Labor Versus the Mayor,” 62-92, esp. 78-79, 85-86.

<sup>34</sup> Thomas Sands, letter to the *Detroit Free Press*, April 7, 1906, document folder (not numbered), Thomas Sands Papers, Burton Historical Library, Detroit, Michigan; Walpole Chippewas Declare That Detroit’s Famous Playground Belongs to Them; Say U.S. Never Owned It,” *Detroit Free Press*, April 8, 1906, 1.

joyous band concerts would be replaced by the monotonous beating of the tom-tom and the wails and yells of the war-dance”; and the creatures at the Belle Isle menagerie and aquarium “would end their days ingloriously in pots tended by squaws [.]” Clarence M. Burton, a successful businessman and influential historian, endorsed the editors’ view that the Chippewa had no land rights to Belle Isle. “I know of this Mr. Sands,” he told the paper, “and I have no doubt he is perfectly sincere in his claim.” However, Burton asserted that “he has no legal rights, nor his people, in this matter,” citing a treaty between the British and “a number of chiefs, the Chippewa among them” in 1768. Burton ignored Sands’ argument about the 1801 treaty.<sup>35</sup>

Other Chippewa activists continued to make similar claims to Belle Isle. In 1912, according to historian Wilma Henrickson, two Chippewa men named Rising Sun and Oscar Beaver “tried to the have the property returned to their nation, stating that the original bargain was obviously unfair.” From their perspective, even if the City of Detroit owned Belle Isle, it remained stolen land. In these efforts, they did not meet with any more success than Thomas Sands. White journalists and historians continued to portray indigenous ownership over Belle Isle as a matter of quaint folklore, rather than an ongoing claim. However, the question of control over Belle Isle would remain a contentious issue throughout Detroit’s history.<sup>36</sup>

### **Real Estate and the Smoke Nuisance**

In contrast to water pollution, the Detroit Board of Health recognized the health threat of air pollution relatively early. The first annual report of the Detroit Board of Health, published in

---

<sup>35</sup> Ibid. On the historical development of anti-Indian racism, and its role in justifying genocide and expropriation in North America, see Richard Drinnon, *Facing West: The Metaphysics of Indian-Hating and Empire-Building*, 2nd Ed. (Norman: University of Oklahoma Press, 1997).

<sup>36</sup> Henrickson, *Detroit Perspectives*, 227, n. 2. On the history of First Nation peoples on Walpole Island, see David T. McNab, *Circles of Time: Aboriginal Land Rights and Resistance in Ontario* (Waterloo, ON: Wilfrid Laurier University Press, 1999), 147-186.

July 1882, recommended a smoke ordinance for the city of Detroit, modeled on the one adopted by Cincinnati in 1879. The report's authors noted that "pulmonary diseases lead all others in the death rate" in Detroit. "No one needs to be told," they observed, "that soot and smoke in the air add seriously to the irritation of diseased and weakened lungs." They also emphasized that the "smoke nuisance" was "largely destructive of property," since "unconsumed carbon" tended to "begrime everything upon which it falls." However, the City Attorney, F.G. Russell, opposed the ordinance, as did local manufacturers, and the Common Council was reluctant to act.<sup>37</sup>

As in other cities, Detroit's air quality problems largely resulted from coal combustion, which powered rapid industrialization after the Civil War. In 1886, Detroit produced 46,835 tons of pig iron, and 137,489 stoves. The city's coal-burning foundries and metal works produced a dazzling array of products, ranging from steamboat engines to church organs, architectural steel to vaults and safes. The nation's booming railroad industry, in particular, provided a burgeoning market for finished metal products. In the 1880s, Detroit became the leading producer of railroad wheels in the United States. The city was also a leading manufacturer of lead products, tobacco, cigars, and drug capsules. This rapid economic growth would have been impossible without the cheap energy that coal, particularly in its soft bituminous form, provided.<sup>38</sup>

The major downside of coal was the creation of dense clouds of black and grey smoke that blocked sunlight, caused respiratory problems, and blanketed streets and buildings with plant-killing acids and property-damaging soot. The heaviest concentrations of smoke were along the

---

<sup>37</sup> "Smoke Nuisance," *First Annual Report of the Board of Health of Detroit, July 1882* (Detroit: Post & Tribune, 1882), 210-213.

<sup>38</sup> J.W. Leonard, *The Industries of Detroit: Her Relations as a Centre of Trade, Manufacturing Establishments and Business Houses* (Detroit: J.M. Elstner & Co. Publishers, 1887), 51-56. On the social history of coal smoke in industrial cities, see Peter Thorsheim, *Inventing Pollution: Coal, Smoke and Culture in Britain Since 1800* (Athens: Ohio University Press, 2006); Gugliotta, "Hell With the Lid Taken Off"; Stradling, *Smokestacks and Progressives*.

Detroit River, where emissions from factories and steam ships darkened the sky at daytime. Workers suffered especially from the artificial darkness. “When the sun shines,” the *Detroit Free Press* reported in May 1883, “his rays are almost wholly shut out from the dwellers and workers near the river; and on dull days like the last two or three, dense masses of unconsumed coal and soot make work impossible except with the aid of gaslight.” The most vocal complaints about smoke pollution, however, came from the urban middle classes, who saw it as a threat to their property. For example, in September 1883, residents from Jefferson, Woodbridge, Franklin and Chene streets petitioned the Common Council to abate the “smoke nuisance” from a nearby foundry. The petitioners complained that soot stained the garments on their clotheslines, and “comes floating in at their windows, and gets into the piano and the butter.”<sup>39</sup>

The number of such complaints increased alongside local property values. In 1886 alone, home builders constructed 2,053 buildings in Detroit, of which 1,450 were private residences. As Mayor William G. Thompson boasted to the Common Council in 1884, “Detroit has well earned the title of the City of Homes.”<sup>40</sup> In an era before zoning regulations, the construction of residential real estate alongside factories provoked frequent conflicts. The city passed its first smoke ordinance in 1887, after 480 residents of newly constructed apartments on Third Avenue petitioned the Common Council about noxious emissions from the Detroit White Lead Works, located at Third and Jones streets. The area had been rapidly built up over the previous decade, with new rental units housing both middle- and working-class residents. According to the *Detroit Free Press*, the council chambers had been “jammed all evening with the petitioners, many of whom

---

<sup>39</sup> “The Smoke Nuisance,” *Detroit Free Press*, May 23, 1883; “Health Officer Wight Tells How People Can Get Rid of the Smoke Nuisance,” *Detroit Free Press*, September 5, 1883.

<sup>40</sup> Leonard, *The Industries of Detroit*, 58; *City of Detroit, Journal of the Board of Aldermen, January 9, 1883 to January 8, 1884* (Detroit: Post & Tribune Job Co., 1884), 632.

were ladies” from the buildings surrounding the lead works. In response to the flood of complaints, the city sued the Detroit White Lead Works under the common law of nuisance. The case ultimately went to the Michigan Supreme Court, which ruled in favor of the city in 1890.<sup>41</sup>

The *People v. Detroit White Lead Works* case set a significant legal precedent. Prior to the Civil War, courts routinely ruled against operators of slaughterhouses, soap works, and other noxious industries in nuisance lawsuits. However, during the Gilded Age, courts tended to rule against plaintiffs in smoke nuisance cases. Judges in the 1870s and 1880s frequently argued that property owners chose to incur any damages from smoke pollution, by living or investing in the neighborhood of industry. As Justice Agnew of the Philadelphia Supreme Court wrote in 1871, in a ruling against the plaintiff in a smoke nuisance case, the residents of Pittsburgh and its suburbs “voluntarily subject themselves to its peculiarities and its discomforts, for the greater benefit they think they derive from their residence or their business there.”<sup>42</sup> In *People v. Detroit White Lead Works*, the defendants’ counsel used similar arguments. When the lead works opened in 1880, they pointed out, the land surrounding it was uninhabited. The petitioners had voluntarily relocated to the vicinity of the lead works; any health or property damages resulted from their decision to live there.<sup>43</sup>

The Court rejected these laissez-faire arguments, however, on the grounds that the damages

---

<sup>41</sup> “The City Attorney Ordered to Proceed Against the Detroit White Lead Works; The Smoke Ordinance Passed—Other Doings of the Aldermen,” *Detroit Free Press*, June 8, 1887, 5; H.G. Wood, *A Practical Treatise on the Law of Nuisances in the Their Various Forms: Including Remedies Therefor at Law and in Equity* (San Francisco: Bancroft-Whitney Company, 1893), 1268-73; *Detroit v. White Lead Works* 82 Mich. 471 (1890).

<sup>42</sup> Quoted in Stradling, *Smokestacks and Progressives*, 39. This Gilded Age trend did not characterize the 19th century as a whole, however. Courts in the 1840s and 1850s routinely ruled against industrial polluters in nuisance cases. See Christine Meisner-Rosen, “‘Knowing’ Industrial Pollution: Nuisance Law and the Power of Tradition in a Time of Rapid Economic Change, 1840-1864,” *Environmental History* Vol. 8, No. 4 (October 2003), 565-597.

<sup>43</sup> Wood, *A Practical Treatise on the Law of Nuisances*, 1268-1270.

to residents were unusually great. The city attorney presented testimony from physicians and residents who described how “odors, smoke and soot” from the lead works caused “headache, nausea, vomiting and other pains injurious to health” while also damaging both outdoor and indoor property. Even though the business started when the neighborhood was uninhabited, the Court ruled that the defendants “cannot be protected in the enjoyment of their property and the carrying on of their business” if it becomes a nuisance to “people living upon the adjoining properties, and to those doing legitimate business with them.” However, they left the definition of “nuisance” ambiguous, admitting that “not everything that causes discomfort, inconvenience and annoyance, or which, perhaps, may lessen the value of surrounding property, will be condemned and abated as a nuisance.” The Court implied that pollution became a nuisance beyond a specific threshold of health or property damage, but did not specify the threshold.<sup>44</sup>

If *People v. Detroit White Lead Works* left an ambiguous precedent for future nuisance cases, it prompted the Detroit Common Council to pass a smoke ordinance in June 1887. The language of the ordinance was considerably weaker than that recommended in the Board of Health’s 1882 report. The earlier draft, modeled on Cincinnati’s smoke ordinance, called for hiring a smoke inspector, and stipulated that no industrial establishment in the city “shall so negligently use any such furnace as that the smoke arising therefrom shall not be effectually consumed or burnt, or shall carry on any trade or business which shall occasion anything obnoxious or offensive, or otherwise annoy the neighborhood or inhabitants [...]” By contrast, the 1887 ordinance defined only “dense smoke” as a nuisance, and did not require the hiring of any smoke inspectors. The ordinance also exempted private residential buildings and steamboats.<sup>45</sup>

---

<sup>44</sup> *Ibid.*; *People v. Detroit White Lead Works*, 82 Mich. 471.

<sup>45</sup> *First Annual Report of the Board of Health, July 1882*, 210-213; *The Revised Ordinances of the City of Detroit for the Year 1890* (Detroit: J.W. Morrison & Co., 1890), 164-165.

Nevertheless, leading industrialists claimed that the smoke ordinance would harm local manufacturing, and would cost workers their jobs. In July 1887, the *Detroit Free Press* published a debate over the new smoke ordinance. Speaking against it was Senator James McMillan; speaking in favor was the Democratic congressman Don M. Dickinson. In his exchange with Dickinson, McMillan prophesied that, if the city enforced its new smoke ordinance, “it will close up the manufacturing interests of Detroit.” This would require him to close his largest factories, including the Baugh Steam Forge, the Detroit Car Wheel Company, and the Michigan Car Works, throwing 3-4,000 employees out of work. Including workers’ families, he claimed that the smoke ordinance would deprive 1 in 12 Detroiters of their livelihoods.<sup>46</sup>

Ironically, given his claims about jobs, McMillan had helped to trigger a general strike in Detroit by laying off 125 factory workers the previous year. In May 1886, the layoff of these workers at McMillan’s Michigan Car Works—including several Knights of Labor organizers—sparked a factory-wide walkout. Over the next few weeks, this action expanded to a general strike involving over 5,000 workers. Several years later, McMillan again attracted criticism for laying off 5,000 Detroit workers during the 1893-94 depression, without providing any unemployment benefits. While such layoffs occurred persistently during economic depressions, their causes were not protective regulations. Dickinson observed that smoke ordinances had not “killed” cities such as Paris, London, Boston, and New York. Rather, they protected a common atmospheric resource that all city dwellers depended on. “What sophistry about killing Detroit,” Dickinson asked, “would make us yield up our pure water to the contamination of unwholesome factories? Why then should we yield the necessary element, pure air? It is all nonsense.” Nevertheless, opponents

---

<sup>46</sup> “It Doesn’t Soot: James McMillan Clears Away the Smoke from an Objectionable Ordinance; Don. M. Dickinson Thinks the Ordinance is Needed and Salutary,” *Detroit Free Press*, June 15, 1887, 2.



of regulation would repeat the arguments used by McMillan for over a century afterward.<sup>47</sup>

At the beginning of the 1890s, however, public officials in Detroit could do little more about air pollution than about water pollution. Although industrial water pollution caused significant problems, the primary source of contamination in the Detroit River was raw sewage from municipal sources. Addressing the problem would require large-scale public investments in sewage treatment, which would ultimately require intervention by the federal government in the New Deal era. By contrast, although residential buildings contributed to air pollution, the largest sources of smoke and soot in the city were factories like the Michigan Car Works. Despite complaints from residents, the opposition of McMillan and other local elites would block municipal action on air pollution until the 20th century. It was only when local real estate developers and small business owners began to lobby for a stronger smoke ordinance, in the interest of protecting property values, that the city would take action.<sup>48</sup>

### **The Anti-Smoke Movement in the Progressive Era**

Concerns about property remained central to the politics of smoke pollution in 1890s Detroit. The 1887 smoke ordinance had little impact on air quality, because it contained no provisions for enforcement. Soft, bituminous coal was cheaper than hard anthracite coal, and thus the fuel of choice for large industrialists and small homeowners alike, even though it produced more smoke. At the same time, unlike Cleveland, Cincinnati, St. Louis, Chicago, Pittsburgh, or

---

<sup>47</sup> "It Doesn't Soot," 2. On layoffs at the Michigan Car Works, see Oestreicher, *Solidarity and Fragmentation*, 151. On strike activity in Detroit in 1886, see *Ibid.*, 144-171. On the layoff of 5,000 workers at McMillan's factories in 1893-94, see Drutchas, "Gray Eminence in a Gilded Age," 103.

<sup>48</sup> In most urban areas by the late 19<sup>th</sup> century, municipal sewers had become a larger source of water pollution than factories. Progress in municipal sewage treatment would make industry the largest water polluter after World War II. See Jouni Paavola, "Interstate Water Pollution Problems and Elusive Federal Water Pollution Policy in the United States, 1900-1948," *Environment and History* Vol. 12 No. 4 (November 2006), 435-465.

New York, Detroit employed no smoke inspectors during the Pingree era. At times, Mayor Pingree acknowledged the criticism that Detroit's ordinance was toothless. "It is claimed," Pingree said in his annual address to the Common Council in 1896, "that the present smoke ordinance cannot be enforced," and would have to be replaced. However, Pingree only recommended vaguely that "an investigation be made into the matter [.]” The following year, he proposed a "special committee" to investigate the problem, but nothing came of it.<sup>49</sup>

Throughout the 1890s, Detroit residents continued to file nuisance lawsuits against specific smoke emitters for health and property damage. However, the city only took action when small business and real estate developers applied pressure. In 1901, the Detroit Board of Health created a Department of Smoke Inspection, and hired its first smoke inspector the following year. In a 1902 press conference, Board of Health president Steven T. Douglas said that "a petition was sent which included every merchant on Woodward avenue urging such an official." Business owners complained that unregulated coal smoke damaged their buildings, and sometimes the dry goods in their stores. Smaller interest groups, like photographers, also believed that smoky skies were bad for their business. The city's large manufacturers, unsurprisingly, were less enthusiastic. Douglas reassured them that the Department of Smoke Inspection would not "antagonize, in any ways, the manufacturing interests of the city."<sup>50</sup>

The following month, in response to the concerns of small business, the Common Council

---

<sup>49</sup> *Seventh Annual Message of Hazen S. Pingree to the Common Council, January 14, 1896* (Detroit: The Thos. Smith Press, City Printers, 1896), 29-30; *Eighth Annual Message of Hazen S. Pingree to the Common Council, January 12, 1897* (Detroit: The Thos. Smith Press, City Printers, 1897), 26.

<sup>50</sup> "Abate Smoke Nuisance: John Fairgreave Will Undertake the Duty," *Detroit Free Press*, July 27, 1902, 2; "Amateur Photographs Were Produced in Court in Alleged Smoke Nuisance Case," *Detroit Free Press*, November 21, 1899. For a comparison of smoke ordinances in major industries cities before World War I, see Samuel B. Flagg, "City Ordinances and Smoke Abatement," *United States Bureau of Mines Bulletin* No. 43 (1912), 7-55. Also see Stradling, *Smokestacks and Progressives*, 72-73, 155, 161, 187.

passed a new smoke ordinance, which required the Smoke Inspector to “personally inspect all chimneys” in the city of Detroit, and “to make complaint against any and all persons” emitting “dense smoke.” To charge a building owner or operator with violating the smoke ordinance, plaintiffs would have to file a complaint with the city Recorder’s Court, which could fine violators with up to \$100. However, the smoke ordinance exempted private residences, however, as well as steamboats. Even with these restrictions, the smoke inspector could only visit a small fraction of Detroit’s industrial establishments, providing a weak deterrent to violators. As Smoke Inspector, John L. Fairgreave noted in his first report to the Board of Health, “many property owners not only hold back themselves” in obeying the smoke ordinance, “but others hold back to see what their neighbors are going to do.” Fairgreave argued that “complaint ought to be made of a few stubborn cases, to as to convince all that we mean business.”<sup>51</sup>

By this time, anti-smoke campaigns had developed in industrial cities across the United States, creating a cottage industry in smoke abatement technology. For three days in June 1906, Detroit hosted the first convention of the International Association for the Prevention of Smoke, later renamed the Smoke Prevention Association. Fifty-five delegates attended the convention, including Fairgreave, who was elected the first President. Delegates included smoke inspectors from major cities across the United States and Canada, including Chicago, Toronto, Philadelphia, St. Louis, Denver, Cleveland, and Milwaukee, as well as sales representatives from boiler, furnace and utilities companies. On the opening night of the convention, at the Detroit Museum of Art, Board of Health President Douglas reiterated his message from four years before. “Clean, pure air,

---

<sup>51</sup> “Ordinances,” *Journal of the Common Council of the City of Detroit, January 14, 1902 to January 13, 1903* (Detroit: Thos. Smith Press, 1903), 928; “Report of the Smoke Inspector,” *22nd Annual Report, Board of Health, City of Detroit, 1902-3* (Detroit: Allied Printing, 1903), 74-76. On Detroit’s small smoke inspectorate relative to other cities, see “Smoke Nuisance Men Kept Busy: W.G. Hohan and J.S. Keating Make Manufacturers Spend Big Sum to Stop Nuisance,” *Detroit Free Press*, September 15, 1916, 24.

free from smoke,” he argued, “in a city is not incompatible with prosperity and the growth of the manufacturing interests.” Besides, Douglas added, the interests of large manufacturers were not the same as the business community as a whole, which included “merchants, clerks, professional men,” and others. Smoke pollution also caused “the destruction of thousands of dollars [’] worth of hangings and furnishings in homes” in the city, adding that “[h]ousewives have some rights.”<sup>52</sup>

**Table 1.3 Activities of the Smoke Inspector, City of Detroit, 1903-1915**

<i>Activities</i>	1903-4	1908-9	1909-1910	1914-15
Observations made	990	—	1,610	5,073
Notices sent out	210	57	77	325
Complaints in Recorder’s Court	—	41	42	12
Cases tried in Recorder’s Court	—	—	—	12
Convictions	—	27	26	12
Sentences suspended	—	15	14	8
Total fines imposed	—	\$80	\$875	\$105
Cost of devices installed	\$37,945	\$29,510	\$1,200	\$215,732.79

Sources: *Annual Report of Board of Health for the City of Detroit*, 1903, 1908, 1915, Library of Michigan (Lansing, Mich.).

However, local courts proved reluctant to enforce Detroit’s smoke ordinance against large manufacturers. In August 1911, Inspector Fairgreave and his assistant, Mark Patterson, swore out fifty complaints in Recorder’s Court against violators of the smoke ordinance, including large corporations like Standard Oil, the American Car & Foundry Company, the City Gas Company, and the Grand Trunk Railroad. The courts dismissed most of these cases, and the city only imposed fines in eighteen cases that entire year. In response to the upsurge in complaints, the Detroit Board of Commerce held a meeting to draft a new, weaker smoke ordinance, which would reduce penalties for violations and raise the bar for permissible emissions. It eliminated the words “or

<sup>52</sup> On the Detroit convention, see “An Association of Smoke Inspectors,” *The Engineers’ Review*, Vol. 17 (July 1906), 42; “Work for Pure Air: Civic Improvement Men Discuss Smoke Nuisance; Housewives Have Rights,” *Detroit Free Press* June 28, 1906, 6.

gray” from the definition of restricted smoke, limiting the ordinance to “black smoke” only. The Board of Commerce’s favored version also allowed the emission of black smoke for up to 10 minutes in any one hour, and reduced the penalty for violations. The Common Council did not pass this diluted version into law, however.<sup>53</sup>

Despite the Board of Commerce’s complaints, the Board of Health generally avoided lawsuits, opting for a cooperative strategy of education and consultation. Reports from the Board of Smoke Abatement show that few violators received fines between 1903 and 1915 (Table 1.3). While Detroit’s population more than doubled during this period, the number of smoke inspectors remained small in comparison with Pittsburgh, St. Louis, Cincinnati, Cleveland, or Chicago. In 1916, Detroit still only employed two smoke inspectors. During the same period, union density in Detroit was so low that some labor leaders called it “the most open shop big city in the United States.” Thus, in addition to running union-free shops, Detroit’s largest manufacturers operated with weaker environmental regulations than those in comparable industrial cities.<sup>54</sup>

During the same period, the rapid growth of private automobile ownership created a new potential target for regulation. When some cities attempted to regulate automobile smoke by passing municipal ordinances, auto industry officials expressed opposition. In a 1908 article in *Automotive Industries*, designer W.W. Kelley, of the Wayne Automobile Company in Detroit, denounced pending automobile smoke legislation in New York City. Such legislation, in his

---

<sup>53</sup> “Chapter 139,” *Compiled Ordinances of the City of Detroit, 1912* (Detroit: Houghton-Jacobsen Printing Co., 1912), 414-415; “Committee of Manufacturers Considers Ordinance Which Also Reduces Penalties for Guilty” *Detroit Free Press*, August 23, 1911, 6.

<sup>54</sup> See the smoke inspectors’ reports in *Annual Report of the Detroit Board of Health, 1903-1915*, Library of Michigan, Lansing, MI; “Smoke Nuisance Men Kept Busy: W.G. Hohan and J.S. Keating Make Manufacturers Spend Big Sum to Stop Nuisance,” *Detroit Free Press*, September 15, 1916, 24. On Detroit’s reputation as an “open shop town” before the 1930s, see “Building and Labor Conditions in Detroit,” *The American Contractor* (September 11, 1920), 19; Babson et al., *Working Detroit*, 18-51; Karen R. Miller, *Managing Inequality: Northern Racial Liberalism in Interwar Detroit* (New York: NYU Press, 2014), 169.

judgment, was “as foolish a move as can be imagined,” because “smoke coming from the exhaust pipes is not an evidence of carelessness or incompetence,” but of engineering necessity. Others conceded that pollution was a bad thing, but argued that engineers could solve the problem. W.C. Leland, general manager of the Cadillac Motor Car Company, told the *Detroit Free Press* in 1909, “the city authorities, no matter how vigilant they may be, nor how strongly backed by law and ordinance, cannot put an end to the nuisance” of automobile smoke. Only the auto manufacturers could do it, because it was an engineering problem, not a political one.<sup>55</sup>

In the 1900s, members of women’s clubs in Detroit took the lead in the anti-smoke movement, much as women’s clubs had in Pittsburgh, St. Louis, Cincinnati, and other cities. The reform activities of women in Detroit’s Twentieth Century Club, and similar organizations, closely resembled groups like the Ladies’ Health Protective Association in Pittsburgh and the Women’s Organization for Smoke Abatement in St. Louis. In addition to smoke abatement, Detroit’s clubwomen became involved in campaigns for improved sanitation, rat control, and traffic safety in the Progressive era. These “municipal housekeeping” campaigns provided spaces for civic engagement for upper- and middle-class, white (and a few African American) women that conformed to bourgeois, Victorian ideals of “separate spheres” for the sexes. At the same time, these reform campaigns required alliances with male political and business elites.<sup>56</sup>

---

<sup>55</sup> “One View of Auto Smoke Ordinances,” *Automotive Industries* Vol. XVIII (February 13, 1908), 218; “Enforcing the Non-Smoke Ordinance,” *Automobile Topics* Vol. 21, November 26, 1910, 487. On early automobile smoke ordinances, see Tom McCarthy, “The Coming Wonder? Foresight and Early Concerns about the Automobile,” *Environmental History* Vol. 6 No. 1 (January 2001), 46-74. On concerns about the environmental effects of automobiles before World War II, see Paul Sutter, *Driven Wild: How the Fight against Automobiles Launched the Modern Wilderness Movement* (Seattle: University of Washington Press, 2002).

<sup>56</sup> On Detroit women’s clubs and smoke abatement, see Jayne Morris-Crowther, “Municipal Housekeeping: The Political Activities of the Detroit Federation of Women’s Clubs in the 1920s,” *Michigan Historical Review* Vol. 30 No. 1 (Spring 2004), 47-49. On African American clubwomen in Detroit, see *Ibid.*, 30, 65, 84-85. Also see Victoria W. Wolcott, *Remaking Respectability: African American Women in Interwar Detroit* (Chapel Hill, 2001), 61-63. On middle-class and elite women and smoke abatement in other cities,

In the 1910s, Detroit clubwomen lobbied public officials and business leaders to address the smoke problem. On February 27, 1913, the Twentieth Century Club presented a talk on smoke abatement by Dr. Raymond C. Benner, a professor of electro-metallurgy at the University of Pittsburgh. Members of the Twentieth Century Club's civic committee, led by Jeanette Standart, urged Mayor Oscar Marx and his cabinet to attend, along with Board of Commerce President Homer Warren and Judson Bradway of the Real Estate Board. According to the *Detroit Free Press*, the civic committee had "protested" about the smoke nuisance to public officials earlier that month, and Benner's talk clarified the economic and health damage caused by weak enforcement of the existing ordinance.<sup>57</sup>

In February 1914, members of the Twentieth Century Club civic committee announced plans to form a Smoke Abatement League. "We expect to put forth a strong campaign for a smokeless city," Jeanette Standart announced, "and hope to have thousands of citizens enrolled in our league." On March 3, the civic committee called a mass meeting, with delegates from the federated women's clubs, to discuss smoke abatement. Along with many of the city's clubwomen, the meeting included male physicians, architects, merchants and engineers. Charles H. Benjamin, the Dean of Engineering at Purdue University, and who had previously worked for the Cleveland Smoke Department, gave a speech arguing that Detroit had too few smoke inspectors. "A city of Detroit needs twelve inspectors of sufficient ability to demand a yearly salary of \$4,000 or \$5,000

---

see Flanagan, "The City Profitable, the City Livable," esp. 174-176; Stradling, *Smokestacks and Progressives*, 41-45, 53-54; Gugliotta, "Class, Gender, and Coal Smoke," esp. 170-183.

<sup>57</sup> "Century Club Women Abhor Smoke Nuisance: Will Give Luncheon to Pittsburgh Expert on Subject," *Detroit Free Press*, January 28, 1913, 6; "Civic Committee of Twentieth Century Club Protests Against Smoke Nuisance," *Detroit Free Press*, February 18, 1913, 1; "Women to Discuss Smoke Nuisance: Twentieth Century Club to Hear Professor Benner After Luncheon," *Detroit Free Press*, February 24, 1913, 1; "Women Hear About Smoke Nuisance: Pittsburgh Expert Talks Before 20<sup>th</sup> Century Club," *Detroit Free Press* February 28, 1913, 7.

apiece,” he argued.<sup>58</sup>

Despite its rapid industrial and population growth, however, Detroit’s smoke department remained smaller than that of comparable cities by the beginning of World War I. For Detroit’s manufacturers, the city’s weak pollution regulations, like its low union density, made it an attractive site for investment. Meanwhile, the rise in anthracite coal prices in 1916-1917 made bituminous coal more economical. During those years, due to a shortage of coal trains, anthracite prices skyrocketed 300 percent. Labor strikes in eastern Pennsylvania’s anthracite mining region kept prices high in 1919-1920. Detroit’s business press also blamed other factors, such as coal theft from railcars by poor and working-class people desperate for fuel. At an October 1916 meeting with Smoke Inspector Walter Hogan, Detroit Kiwanis Club President Donald A. Johnson argued that, with “the present prices of anthracite coal and coal prices generally,” a “rigid enforcement” of the city smoke ordinance would “put many small manufacturers and apartment house owners out of business.” These pressures only increased in 1917-1918, as increasing war production and high coal prices caused dramatic increases in bituminous coal emissions. Detroit Building Safety Commissioner Frank Burton later noted that in these years “the [smoke] ordinance was not enforced because of inability on the part of some business concerns and private citizens to obtain good fuel.”<sup>59</sup>

By the early 1920s, pressure was mounting again for effective smoke abatement in Detroit. The city was now the fourth-largest in the United States. According to official estimates, the annual

---

<sup>58</sup> “Club Will Fight Smoke Nuisance: Purdue Lecturer to Speak March 3 on Methods of Abatement, Opening Campaign,” *Detroit Free Press*, February 24, 1914, 6; “Women’s Clubs,” *Detroit Free Press*, March 8, 1914.

<sup>59</sup> David E. Nye, *Consuming Power: A Social History of American Energies* (Cambridge: MIT Press, 1999), 197; “Smoke Abatement Will Be Discussed: Inspector Hogan Slated to Give Lecture Before Members of Kiwanis Club,” *Detroit Free Press*, October 29, 1916; Stradling, *Smokestacks and Progressives*, 147.



deposition of soot over the city was over six tons per acre, compared with only 1.4 tons per acre in St. Louis. Abysmal air quality belied the booster conceit that Detroit was the “Paris of the West.” Nevertheless, local judges remained reluctant to penalize violators of the smoke ordinance. Frank Burton, the Detroit Commissioner of Building Safety and Engineering, told the press that despite “scores of complaints” about property and health damage from smoke, judges dismissed nuisance cases against even repeat offenders. For example, in 1923, nineteen smoke complaints went to Recorder’s Court in Detroit. Of these, judges suspended sentences for fifteen, dismissed three, and found one not guilty. “Until the cooperation of the Recorder’s Court judges is obtained,” he said, “there is little remedy for the situation.”<sup>60</sup>

Finally, the city’s business leaders recognized the need for a new smoke ordinance. In December 1924, the Detroit Board of Commerce responded to the problem by forming a Smoke Abatement Committee. Its members included officials from Detroit’s largest smoke-emitting private utilities and manufacturers, including J.R. Wilde, chief engineer at the Detroit Edison Company, William B. Mayo, chief engineer at the Ford Motor Company, R.C. Pew, chief executive of the Sun Oil Company, and Harry D. Kline, Director of Publicity at the Continental Motors Corporation. Jeff Webb, the President of the committee, noted that the members were no strangers to the smoke problem. Rather than acknowledging any conflict of interest, Webb said that experience in industry made committee members “familiar with the subject to start the task before them.”<sup>61</sup>

---

<sup>60</sup> “City’s ‘Smoke’ Law Ignored: Recorder’s Court Judges Refuse to Convict Violators, Commissioner Complains” *Detroit Free Press*, January 30, 1924, 1; “How Your Coal Bills May Be Reduced,” *The Detroit*, January 26, 1925; “City’s Smoke Law Ignored”; “Smoke—Its Cost,” *The Detroit*, December 15, 1924, 7-8, Burton Historical Collection, Detroit Public Library.

<sup>61</sup> “Board Will Fight Smoke Nuisance: Smoke Abatement Committee is Appointed Under Chairmanship of J.B. Book, Jr., To Devise Methods of Eliminating Much of Present Evil,” *The Detroit*, December 8, 1924, 5-6, Burton Historical Collection, Detroit Public Library; “End of Smoke Evil Planned,” *Detroit Free Press*,



Fig. 1.1. Percy W. Cromwell, “Getting Together,” *The Detroit Times*, February 11, 1925, “Public Health and Safety” folder, Percy W. Cromwell Collection, Bentley Historical Library, Ann Arbor, Mich.

The formation of the Smoke Abatement Committee was characteristic of the Detroit Board of Commerce in the 1920s. Fixated on Detroit’s status in the inter-urban competition for cultural amenities and quality of life, the Board played a central role in the construction of parks, libraries, schools, museums, and a range of public health initiatives in Detroit. They also sought, and received, support from upper-middle-class reformers. The Board of Commerce smoke abatement campaign received a declaration of support from the Detroit Federation of Women’s Clubs. At the same time, the campaign received endorsements from the Business Property Association, the Woodward Avenue Improvement Association, and the Commercial Photographers Association of Detroit. These organizations represented the local businesses with the most to gain from effective

December 5, 1924, 1-2; “Smoke Abatement Campaign Planned: B. of C. Committee to Educate Citizens Against Evil,” *Detroit Free Press*, December 10, 1924, 5.

smoke abatement.<sup>62</sup>

While its publicity stressed popular education as the key to clean air, the Board of Commerce's major objective was to secure a new smoke ordinance. In February, the Board submitted a draft ordinance to the Common Council. Like the previous ordinance, passed in 1907, this one stipulated that emissions of "dense smoke" for over six minutes constituted a violation. Its chief innovation was in creating a Bureau of Smoke Abatement within the Department of Building Safety and Engineering, which would include engineers from the Detroit Edison Company, the Albert Kahn Company, and the W.E. Wood Company. The Common Council passed the Board of Commerce's smoke ordinance in September 1925. Some observers were skeptical of the Board of Commerce's role. In the *Detroit Times*, the cartoonist Percy Cromwell satirically depicted businessmen spewing cigar smoke into a lampshade labeled "smoke ordinance." By their side, Antoine de la Mothe Cadillac intoned, "I know you boys will help to keep my house clean and healthy" (Fig. 1.1). Local officials, meanwhile, reassured industrialists that the city would pursue a voluntarist enforcement policy, avoiding lawsuits if possible. In a radio broadcast from the *Detroit Free Press* offices, Detroit Mayor John W. Smith stressed that "no drastic measure should be applied to hold back industrial development." While Detroit should not be known as a "smoky city," the new ordinance could be "properly enacted without requesting the aid of the courts [.]"<sup>63</sup>

---

<sup>62</sup> "Civic Associations Endorse Board's Smoke Abatement Campaign: Woodward Avenue Improvement Association and Number of Women's Clubs Throughout Detroit Throw Support to Movement," *The Detroit*, January 12, 1925, 7-8; "Many Organizations Pledge Support to Board in Drive Against Detroit's Smoke Nuisance," *The Detroit*, January 26, 1925, 11-12, Burton Historical Collection, Detroit Public Library. On the civic agenda of Detroit business leaders in the 1920s, see Daniel Amsterdam, *The Roaring Metropolis: Businessmen's Campaign for a Civic Welfare State* (Philadelphia: University of Pennsylvania Press, 2016), 52-82.

<sup>63</sup> "Board Gives Council New Smoke Ordinance," *The Detroit*, February 16, 1925, 9-10; "Outlines City's Smoke Policy: Mayor Smith Promises Not to Cripple Detroit Industry by Drastic Action," *Detroit Free*

### The International Joint Commission and Water Pollution

In contrast to air pollution, the leading source of water pollution in Detroit in the Progressive era was municipal, not industrial. Specific manufacturers, like the rug producer J.H. Bishop of Wyandotte, earned public disapproval for dumping chemical and organic wastes in the Detroit River. However, industrial water pollution caused less property damage than its airborne equivalent, and as a result, industrial water pollution disputes were less common. Municipal water pollution posed a much larger problem, and by the early 20th century bacteriologists had linked it to recurrent typhoid epidemics. However, the only business sector to lobby against Detroit's sewage pollution was the Canadian fishing industry, whose operators complained that sewage drove away their catches. Until the creation of the International Joint Commission, after the Boundary Waters Treaty of 1909, Canadians had no institutional mechanism to resolve environmental disputes with Detroit.<sup>64</sup>

Statistical data on infectious disease in Detroit was also poor in quality. It was "plain," the *Journal of the American Medical Association* reported in a 1910 article on typhoid fever in Detroit, "that only a small proportion of typhoid fever cases are regularly reported to the authorities." Inadequate reporting resulting in radically different estimates for disease mortality. In 1907, the Michigan Board of Health reported only 87 typhoid deaths in all of Wayne County for the years 1891-1905. By contrast, the *Journal of the American Medical Association* estimated 1,036 typhoid deaths in Detroit alone during the same years, and a total death toll of 1,765 people in Detroit for the whole 1886-1910 period. "The typhoid death-rate for the city," the *Journal* suggested, "is

---

*Press*, September 24, 1925, 12; "Smoke Board Named by Mayor," *The Detroit*, October 19, 1925, 9.

<sup>64</sup> On the 1909 Boundary Waters Treaty and the International Joint Commission, see James R. Allum, "An Outcrop of Hell': History, Environment, and the Politics of the *Trail Smelter* Dispute," in Rebecca M. Bratspies and Russell A. Miller, eds., *Transboundary Harm in International Law: Lessons from the Trail Smelter Arbitration* (New York: Cambridge University Press, 2006), 13-26

higher than would reasonably be expected in a city situated as is Detroit, but with a pure water-supply.” Municipal officials, while reluctant to incriminate their own water department, knew they would face mounting criticism for untreated sewage. As Guy L. Kiefer observed in the Detroit Health Department’s 1907 report, Detroit was “reaching a death-rate which will soon cast suspicion on our water supply.”<sup>65</sup>

Yet, the Michigan Board of Health claimed that Detroit’s water supply was “comparatively pure,” and attributed “much of the typhoid fever in Detroit” to the city’s 30,000 common privies. In 1910, the Michigan Board of Health’s M.L. Holm reversed this judgment. On the basis of 200 bacteriological samples, he declared that all the water in the Detroit River, Lake St. Clair, and the St. Clair River was “unsafe” for drinking, and that polluted water was the primary cause of typhoid. Meanwhile, public health officials in Detroit continued to blame other causes. Herman Kiefer called Holms’ findings “unfair,” while E.H. Hayward, a bacteriologist at the Detroit Board of Health, blamed typhoid on the city’s milk supply, and on lax medical practices. Rather than sewage, Hayward claimed, any typhoid germs in Detroit’s water were “probably due, where they occur, to the neglect of proper precautions in caring for a typhoid patient.”<sup>66</sup>

Several years later, investigators for the Public Health Service and the International Joint Commission (IJC) forced Detroit Board of Health officials to face the problem. In a 1912 study, Allan J. McLaughlin of the Public Health Service found that typhoid fever in Detroit was going up, in contrast to the reductions in cities like Philadelphia, Pittsburgh, Cincinnati, and Columbus, “coincident with the furnishing of filtered water to the citizens of those cities.” Although the

---

<sup>65</sup> “Typhoid Fever in Detroit,” *Journal of the American Medical Association* Vol. LV No. 15 (October 8, 1910), 1284-1287. For the quote, see *Ibid.*, 1286.

<sup>66</sup> “Deny Water is Not Safe: Detroit Health Officer and City Chemist Refute Assertion Officially Issued by Dr. Holm, of State Health Board,” *Detroit Free Press*, September 24, 1910, 3.

Detroit Water Board began to chlorinate drinking in 1913, it would not begin to supervise a filtration system until 1923. McLaughlin's study was part of a larger International Joint Commission investigation of pollution in transboundary waters, stretching from Duluth, Minnesota to Niagara Falls, Ontario. From September 25 to October 2, 1914, the IJC held hearings in Detroit on the subject of sewage pollution in the Detroit River. Among those attending were Detroit Mayor Oscar Marx, McLaughlin of the Public Health Service, and officials from the Michigan Board of Health, the Detroit Board of Health, the Detroit Water Board, and the Detroit Board of Public Works.<sup>67</sup>

During the hearing, Fenkell testified that fifty public sewers, and an unknown number of private sewers, discharged raw sewage into the Detroit River, on both sides of the intake crib for the city's water supply. Meanwhile, the Water Board did nothing to treat water at the intake crib, except to add hypochlorite of lime. Two days before the hearings, William H. Price of the Board of Health had noted that "the bathing beach at Belle Isle is in an extremely bad position," and that "the only ultimate solution of the water supply would be a filtration plant." In 1915, the consulting engineer Clarence W. Hubbell published a follow-up investigation of sewage pollution in the Detroit River. Hubbell found that the American shore of the Detroit River was "grossly polluted" from Lake St. Clair to Lake Erie, with concentrations of B. Coli ranging from 500 to 100,000 B. per cubic centimeter. He recommended a sewage treatment plant, with a total cost of \$6,000,000.<sup>68</sup>

---

<sup>67</sup> Henry F. Vaughan, letter to Oscar Marx, August 20, 1914, 1-4, and "Meeting of the Committee on Public Health, Wednesday, September 23rd" (1914), both in "Pollution (Air and Water)" folder, box 3, Henry F. Vaughan Collection, Bentley Historical Library, University of Michigan-Ann Arbor; Allan J. McLaughlin, *Sewage Pollution of Interstate and International Waters, With Special Reference to the Spread of Typhoid Fever* (Washington: Government Printing Office, 1912), 260-270.

<sup>68</sup> "Meeting of the Committee on Public Health"; International Joint Commission, *Hearings of the International Joint Commission, Remedies for the Pollution of Boundary Waters Between the United States and Canada* (Washington, D.C.: Government Printing Office, 1915), 90-150; "Alumnus Investigates Detroit's Water Supply," *Michigan Technic*, No. 2 Vol. XXVIII (May 1915), 284-286.

The final IJC report, completed in 1916, described the Detroit River as “highly polluted,” and recommended that Detroit treat its sewage. The IJC estimated that sewage treatment would require an annual tax increase of 57 cents per capita. However, the city would not open its first sewage treatment for over two decades. The delay had multiple sources: the absence of federal water pollution regulations, limits on municipal bond debt, and inter-municipal political disputes. The IJC had the authority to regulate vessels in transboundary waters, but could do nothing to force municipalities, or industries, to reduce pollution. Meanwhile, the Michigan legislature had increased Detroit’s bond debt limit from 2 to 4 percent, but Detroit Water Board officials argued that it remained too low to finance sewage treatment. Instead, during the 1920s, Detroit devoted funds to constructing water mains and sewers for new areas annexed to the city.<sup>69</sup>

These annexations considerably increased the problem of sewage pollution. In less than a decade, the population of Detroit more than doubled, while the land area more than tripled. Detroit grew from 40.97 square miles in 1915 to 79.2 in 1918, and sprawled across 138 square miles by 1926. Within this area, 80 miles still had no water and sewage service. Residents outside of the urban core continued to rely on wells and outhouses. The city’s territorial expansion, meanwhile, compounded the sewage problem. To service outlying areas, Detroit built 315 miles of sewers between 1920 and 1930. As the sewer system expanded, it delivered higher and higher volumes of raw sewage into local waterways. By the end of World War I, leading industrialists like Henry Ford were complaining about the influx of Detroit sewage into the Rouge River. Dearborn installed

---

<sup>69</sup> International Joint Commission, *Pollution of Boundary Waters: Report of the Consulting Sanitary Engineer Upon Remedial Measures, March 8, 1916* (Washington, D.C.: Government Printing Office, 1918), 10-11; Head, Decker, Shoecraft and Drury, Consulting Engineers, “Report Upon Additional Water Supply from Lake St. Clair,” August 1922, 1-22, Detroit Board of Water Commissioners Records, Burton Historical Collection, Detroit Public Library.

its own wastewater treatment in 1923, but Detroit would not begin treating its waste until 1940.<sup>70</sup>



Fig. 1.2. Three children posing in an alley in Detroit’s newly annexed territories during World War I. The arrow points to an outhouse used by a typhoid patient hospitalized only days before. “An Alley in Detroit’s New Territory,” *Bulletin of the Detroit Board of Health*, Vo. IX No. 10 (April 1917), 5.

Reports from the period describe conditions in the new territories that replicated those of outlying wards in the 1880s. A 1917 report for the Detroit Board of Health, for example, referred to an area immediately east of the Ford Motor Company’s Highland Park plant as “Hell’s Half Acre.” The inhabitants, were “mostly Roumanians, with a few Poles, and mainly recent immigrants, as yet talking very little English.” They obtained water from wells dug in the sand and clay soils, or from water carted over from Highland Park. According to the report, the water in

<sup>70</sup> J.R. Hendry, “Detroit’s Intensive Sewer Construction Program: Relief Sewers in Old Part of City and Trunk and Lateral Extensions Being Built--\$31,570,000 of Bonds Authorized—Program and Methods Outlined,” *Engineering News-Record*, November 2, 1922, 745-748; Barry Johnson, “Wastewater Treatment Comes to Detroit: Law, Politics, Technology and Funding” (Ph.D. Dissertation: Wayne State University, 2010), 29-30, 257-262.



these wells was “little better than raw sewage.” The Board of Health estimated that “if such a condition were allowed to remain through the summer season and typhoid got started, it would spread rapidly in every direction.”<sup>71</sup>

Conditions for most African American migrants to Detroit were similar. The African American population of Detroit increased more than twenty-fold during this period, from 5,741 in 1910 to 40,838 in 1920 and 120,066 in 1930. In his 1920 survey for the Detroit Urban League, the African American sociologist Forrester Washington described the sanitary conditions facing black migrants. In River Rouge, out of 460 families who responded to a survey, only 50.5 percent had bathtubs. Many families had to obtain water from a village pump, where they would carry 2-3 days’ worth of water back to their homes. Segregation, meanwhile, restricted the ability of African Americans to escape unsanitary neighborhoods. According to Washington, while “the Negro would like to get away” from these conditions, “he is still compelled through race prejudice to live for the large part in ill-ventilated houses, houses out of repair and non-protective from the elements.” African Americans in Detroit and River Rouge were “forced to purchase homes where the most unsanitary conditions exist.” Nonetheless, although black death rates remained higher than those of whites, they had improved from 25.1 in 1900 (compared with 16.2 for whites) to 16.2 in 1919 (compared with 12 for whites).<sup>72</sup>

Public health surveys in the 1920s described dramatic differences in water and air quality in different sections of the urban core, as well as in outlying districts. In older parts of the city, University of Michigan sociologist W. Frank Walker found “extreme crowding of the dwellings,

---

<sup>71</sup> “Hell’s Half Acre,” *Bulletin of the Detroit Board of Health*, Vol. IX No. 10 (April 1917), 6-8, Library of Michigan, Lansing, Michigan.

<sup>72</sup> Forrester B. Washington, *The Negro in Detroit: A Survey of Conditions of a Negro Group in a Northern Industrial City During the War Prosperity Period, Vol. 1* (Detroit: United Charities of Detroit, 1920), 285-286, 360, Bentley Historical Library, University of Michigan-Ann Arbor.

lack of sanitary conditions, inadequate garbage and refuse collection, dark rooms, dwellings crowded close to factories, and subject to smoke, fumes, and noise from industry.” At the other end of the spectrum, only a mile away, wealthier residents enjoyed spacious yards, proximity to parks, and an air supply relatively “removed from unusual contamination of smoke and fumes from factories.”<sup>73</sup>

Ultimately, significant improvements in water and air quality in Detroit would require intervention by the federal government. The federal response to water pollution came first, during the New Deal era, in the form of large-scale investments in municipal sewage treatment. In 1931, during the Hoover administration, Public Act 316 lifted Detroit’s bond debt limit. However, construction of sewage treatment in Detroit only began with the New Deal. Under Section 203 (d) of the National Recovery Act, the federal government could approve municipal projects over the debt limits approved by state governments. Federal financing, through the Public Works Administration, made it possible for Detroit to treat its sewage, and to finally eliminate the threat of typhoid.<sup>74</sup>

### Conclusion

During the Progressive era, Detroit’s business leaders supported investments in public water, sewers, and parks, but opposed Pingree’s free water plan, despite its popularity with working-class voters. Although business leaders supported upgrading Detroit’s water infrastructure, the only local business lobby concerned with Detroit’s water pollution in this era

---

<sup>73</sup> W. Frank Walker, “A Study of the Prevalence of Disease in the City of Detroit with Special Reference to the Influence of the Type and Sanitation of Dwellings Upon Disease” (Ph.D. Dissertation: University of Michigan, 1922), 7-8, Bentley Historical Library, University of Michigan-Ann Arbor.

<sup>74</sup> Johnson, “Wastewater Treatment Comes to Detroit,” 155-158. On New Deal public works and sanitary improvement, see Melosi, *The Sanitary City*, 213-234. Federal funding for water pollution control also expanded during the New Deal; see Paavola, “Interstate Water Pollution Problems,” 446-455.

was the Canadian fishing industry. By contrast, although manufacturers opposed smoke abatement, other sectors of business supported it. The greater degree of business concern with air pollution than water pollution, due to concerns over property values, helps explain the Detroit Board of Health's divergent response to the two problems. To be sure, Progressive-era environmental reform in Detroit was not reducible to narrow economic interests. Reformers acted on a wide variety of motives, not least the desire to protect public health. However, economic interests created powerful incentives for public officials to address some urban environmental problems, while ignoring or delaying action on others. Intervention by the federal government, prodded by new pressure groups, would be required to deal with problems beyond the scope of Detroit's growth coalition.

## CHAPTER 2: BODIES ON THE LINE: FACTORY HAZARDS, SEGREGATION, AND THE STRUGGLE FOR INDUSTRIAL DEMOCRACY, 1910-1945

On a windy morning on April 23, 1927, Clinton Brown and William Sparlock were spraying Duco paint on an automobile body at the Briggs Manufacturing Company plant on Harper Avenue in Detroit. Brown was 47 years old, and Sparlock was 30 years old. Like most of the workers in their third-floor department, they were both African American men. At about 8:30 am, Brown discovered that something was very wrong: the Cooper-Hewitt mercury lamp above their heads was on fire. As Brown later recalled, “the tube containing the mercury had been punctured and the burning vapor was dripping out” onto tanks of paint containing a nitrocellulose compound called pyroloxylin. Brown began to run, but before he had made it a hundred feet, “the explosion came and knocked me down.” When the fire detonated the pyroloxylin, it caused an explosion that observers compared to “a clap of thunder.” Adolph Hassey, a driver for the soda manufacturer Scheu & Sons, witnessed a man “blown through the glass of one of the large windows” of the plant. Soon after, the plant erupted in flames, and began to collapse. Observers could see the billowing clouds of smoke, dust, and debris from miles away.<sup>1</sup>

Among the 28 severely burned workers brought to Detroit Receiving Hospital, the *Detroit News* listed 23 as “Negro.” The official death toll was 21 men, including “an unidentified Negro found in the ruins.” However, the actual death toll was much higher. Deputy Coroner Charles T. Earl estimated that there were another fifty bodies buried in the rubble. Earl told the *Detroit Free Press* that, according to a witness he interviewed, “on the floor of one building approximately 100 men were working and that not more than half a dozen could possibly have escaped.” Estimates

<sup>1</sup> “A Roar, A Flame; Survivors Grope Way Out,” *Detroit News*, April 23, 1927, 1; “List of Missing in ; Fire Mounts,” *Detroit News*, April 25, 1927, 1; “Partial List of the Injured in Explosion,” *Detroit News*, April 23, 1927, 1; “List of Known Casualties in Briggs Fire,” *Detroit News*, April 24, 1927, 1; “Dead and Injured,” *Detroit Free Press*, April 24, 1927, 1; “Revised List of Casualties in Plant Fire,” *Detroit News*, April 25, 1927, 1; “Fire Casualties,” *Detroit Free Press*, April 25, 1927, 1.

for the number of workers in the plant ranged from 21 to over 100, making the Briggs Fire of 1927 the worst industrial disaster in Detroit history. Indeed, if the higher mortality estimates were accurate, the Briggs Fire was comparable to the Triangle Shirtwaist Fire of 1911, which killed 146 workers in New York City.<sup>2</sup>

The Briggs Fire provides an extreme, but in some ways characteristic, example of the environmental hazards facing automobile workers in the 1920s, especially African Americans. The Briggs Manufacturing Company, like its competitors in the industry, restricted black workers to the most hazardous, least desirable departments. While scholars have widely documented this practice, they have paid less attention to the risks generated by changes in the labor process. Pyroloxylin, the triggering agent of the Briggs Fire, offers an instructive example. During World War I, Alice Hamilton and other toxicologists studied the risks pyroloxylin posed to munitions workers. After the war, DuPont introduced the chemical into Duco spray paint, which enabled speed-up in automobile body shops because it dried quickly. Now, one unskilled worker with a spray gun could paint more auto bodies per hour than a crew of skilled hand-painters. Yet, no regulations of pyroloxylin existed. If Briggs officials had fully informed their workers about the risks of this compound, they might not have consented to work at the Harper Avenue plant that morning.<sup>3</sup>

---

<sup>2</sup> For quotes from the deputy coroner and eyewitnesses (which bely the article headline), see “2 Are Dead; Blast Loss is \$3,000,000; Briggs Plant Employees Trapped in Paint Shop Fire; 29 Are Injured; Many May Die,” *Detroit Free Press*, April 24, 1927, 1. On black workers at Briggs paint shops, see Lloyd H. Bailer, “The Negro Automobile Worker,” *Journal of Political Economy* Vol. 51 (October 1943), 428. On the Triangle Fire, see Richard Greenwald, *The Triangle Fire and the Protocols of Peace, and Industrial Democracy in Progressive Era New York* (Philadelphia: Temple University Press, 2005), 127-213. For examples of industrial disasters which killed African Americans segregated in dangerous jobs, see Martin Cherniack, *The Hawk’s Nest Incident: America’s Worst Industrial Disaster* (New Haven: Yale University Press, 1986); Robert David Ward and William Warren Rogers, *Convicts, Coal and the Banner Mine Tragedy* (Tuscaloosa.: University of Alabama Press, 1987).

<sup>3</sup> See Alice Hamilton and George R. Minot, “Ether Poisoning in the Manufacture of Smokeless Powder,” *The Journal of Industrial Hygiene*, Vol. 2 No. 2 (June 1920), 42-49. Hamilton and Minot described

Within labor historiography, the transformation of work in auto plants between 1910 and 1925 remains the paradigmatic case of deskilling, or what Harry Braverman memorably called the “separation of mental from manual labor” in mass production factories. Few scholars, however, have examined the relationship between deskilling, managerial control, and environmental risks. In the 19<sup>th</sup> century, the common law doctrine of the “assumption of risk” shielded employers from liability for accidents and occupational diseases. According to this doctrine, workers voluntarily accepted health and safety risks as part of the labor contract. However, the erosion of worker control over the production process under Fordist scientific management altered this equation. As specialized engineers and research scientists played a greater role in designing the production process, the risk knowledge gap between workers and management increased. For black workers, segregation and exclusion from higher-paying jobs in the skilled trades compounded the risks generated by synthetic chemicals and fast-moving assembly lines. Gender segregation also shaped how women workers (primarily white but including some black women) experienced risk in Detroit factories. Many employers claimed that women were only fit for lower-paid “light work.” Yet, while they used health and safety arguments to justify segregation by sex, women performed both “light” and “heavy” work, and both kinds were often dangerous.<sup>4</sup>

---

pyroxylin, or “pyro powder,” as “guncotton dehydrated and reduced to a colloid condition by means of ethyl alcohol and then pressed and cut into appropriate shapes.” It was “intended for use in large or small ordinance.” Ibid, 42.

<sup>4</sup> For the quote, see Harry Braverman, *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century* (New York: Monthly Review Press, 1974), xvii. On the assumption of risk doctrine, see Jonathan Levy, *Freaks of Fortune: The Emerging World of Capitalism and Risk in America* (Cambridge: Harvard University Press, 2012), 7-20. On deskilling, mechanization, and the law of workplace accidents, see John Fabian Witt, “The Transformation of Work and the Law of Workplace Accidents,” *Yale Law Journal* Vol. 107 No. 5 (March 1998), 1467-1502. For an early account of black auto workers’ concentration in the most hazardous jobs, see Robert W. Dunn, *Labor and Automobiles* (New York: International Publishers, 1929), 69–70. More recent discussions include August Meier and Elliot Rudwick, *Black Detroit and the Rise of the UAW* (New York, 1979), 3–33; Babson, *Working Detroit*, 41–43, 46, 54; Thomas J. Sugrue, *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit* (Princeton: Princeton University Press, 1996), 91–123; Heather Ann Thompson, *Whose Detroit? Politics, Labor, and*

At the same time, company research about occupational health often served less to protect workers than to limit employer liability, and to determine worker “fitness” for specific jobs. Prior to unionization, workers had little recourse to challenge employers’ control of information about hazards and workers’ medical status. While radicals criticized automobile factory hazards in the 1910s and 1920s, Detroit remained an “open-shop town” until the United Auto Workers (UAW) organizing drives of 1935-1941. The second half of the chapter shows how, with the unionization of the major Detroit automakers, workers gained a vehicle for challenging dangerous production practices. They demanded access to information about toxic chemicals, and sought to participate in production decisions that affected their health. These efforts played an important role in the struggle for industrial democracy in Detroit, and laid the foundations for the UAW’s approach to pollution outside of the factory.<sup>5</sup>

---

*Race in a Modern American City* (Ithaca: Cornell University Press, 2001), 19, 59, 125; David M. Lewis-Colman, *Race against Liberalism: Black Workers and the UAW in Detroit* (Urbana: University of Illinois Press, 2008), 25–41; and Beth Tompkins Bates, *The Making of Black Detroit; in the Age of Henry Ford* (Chapel Hill: University of North Carolina Press, 2012), 40–68. On gender discrimination and health and safety in the auto industry, see Ruth Milkman, *Gender at Work: The Dynamics of Job Segregation by Sex during World War II* (Urbana: University of Illinois Press, 1987), 55, 71–73; Nancy F. Gabin, *Feminism in the Labor Movement: Women and the United Auto Workers, 1935–1975* (Ithaca: Cornell University Press, 1990), 11–12, 32, 25, 117.

<sup>5</sup> On medical examinations and assumptions about fitness for job tasks, see Angela Nugent, “Fit for Work: The Introduction of the Physical Examination in Industry,” *Bulletin of the History of Medicine* Vol. 57 No. 4 (Winter 1983), 578-95. On scientific management and deskilling, see Braverman, *Labor and Monopoly Capital*, 41–143; Ely Chinoy, “Manning the Machine: The Assembly Line Worker,” in *The Human Shape of Work: Studies in the Sociology of Occupations*, ed. Peter L. Berger (New York: Macmillan, 1964), 51–82; David Montgomery, *Workers’ Control in America: Studies in the History of Work, Technology, and Labor Struggles* (New York: Cambridge University Press, 1979), 117–19; Stephen Meyer, *The Five Dollar Day: Labor Management and Social Control in the Ford Motor Company, 1908–1921* (Albany: State University of New York Press, 1981), 67–121; Nelson Lichtenstein, “Life at the Rouge: A Cycle of Workers’ Control,” in *Life and Labor*, ed. Stephenson and Asher (New Brunswick: Rutgers University Press, 1991), 15–37; and Alfred D. Chandler Jr., *The Visible Hand: The Managerial Revolution in American Business* (Cambridge: Harvard University Press, 1977), 280, 457–63, 475–76.

### Mass Production and Industrial Hygiene

Between World War I and World War II, the United States auto industry produced 64 million new cars. In 1929, auto production consumed 84.2 percent of the rubber, 52 percent of the iron, 32 percent of the lead, 18 percent of the steel, and 17.7 percent of the hardwood lumber in the United States. The environmental effects of auto production are difficult to exaggerate, including the creation of unprecedented demands for raw materials from mines, oil wells, forests, and plantations; the emission of greenhouse gases, lead, mercury, and other pollutants; and the wholesale reorganization of land use patterns across the United States. In the Detroit area by the mid-1920s, the Ford Motor Company's River Rouge complex annually burned an average of 12 million tons of coal, releasing over 34 million tons of greenhouse gases into earth's atmosphere. While the effects of automobile pollution were both local and global, they were most heavily concentrated in the air that automobile workers breathed. No less than on air, water, and wildlife, the manufacturing of automobiles took a measurable toll on workers' bodies. The particles of mineral and metal dust, smoke, and chemical vapors generated in factories caused chronic, painful, and often deadly occupational diseases.<sup>6</sup>

These environmental hazards can only be understood within the legal and political context of the Progressive era. Between 1900 and 1920, most American states followed the precedent of Western European countries by instituting workers' compensation systems, which required employers to provide insurance for injured workers. Factory mechanization increased the risk of catastrophic accidents, from fast-moving assembly lines and potent chemical compounds. Mass

---

<sup>6</sup> For the statistics, see Christopher Wells, *Car Country: An Environmental History* (Seattle: University of Washington Press, 2012), 203. On auto manufacturing's environmental impacts more broadly, see *Ibid.*, 201-216; Thomas McCarthy, *Auto Mania: Cars, Consumers and the Environment* (New Haven: Yale University Press, 2007), 55-76; *idem.*, "The Road to Respect: Americans, Automobiles, and the Environment" (Ph.D. Dissertation: Yale University, 2001), 338.



production methods also transformed the politics of accident liability. As employers exercised more control over the production process, juries became more willing to hold them liable for accidents. As workers lost control over production, the old common-law doctrine of “assumption of risk,” which held workers responsible for accidents on the grounds that they “assumed” the risk of any job they accepted, held less sway in public opinion. Efforts to measure and quantify labor productivity also led to better accident statistics, which revealed a rising death toll in the nation’s mines and factories.<sup>7</sup>

However, occupational disease was an exception to this trend. In the 1910s and 1920s, worker’s compensation statutes typically excluded occupational disease from coverage. Unlike accidents, Michigan courts deemed occupational diseases a “normal” part of employment under the Michigan Workmen’s Compensation Act. This precedent emerged from the 1914 case of *Adams v. Acme White Lead and Color Works*, in which Sarah E. Adams filed a compensation claim for the death of her husband, an Ontario-born man named Augustus Adams, with the Industrial Accident Board of Michigan. Adams had died of lead poisoning after working at the Acme White Lead Works in Detroit from December 18, 1912 to May 29, 1913. Initially, the board granted Mrs. Adams \$7.50 for 300 weeks. However, after the defendant filed a writ of certiorari, the Michigan Supreme Court struck down the award, ruling that lead poisoning was “not an accident,” because “a fairly certain percentage of those working in industries where lead is used” become poisoned. Thus, although the Michigan Workmen’s Compensation Act overturned the assumption of risk doctrine in relation to accidents, the courts preserved it in cases of occupational disease.<sup>8</sup>

---

<sup>7</sup> On the relationship between statistics, actuarial principles, and accident compensation, see John Fabian Witt, *The Accidental Republic, Destitute Widows, and the Remaking of American Law* (Cambridge: Harvard University Press, 2004), 126-151.

<sup>8</sup> “Industrial Accident Board Proceedings,” *Michigan Manufacturer and Financial Record* Vo. 11 No. 8 (August 23, 1913), 10; *Adams v. Acme White Lead & Color Works*, 148 N.W. Rep., 485 (July 15, 1914);

At the same time, large employers in mining, manufacturing, retail and other sectors instituted company medical programs, or expanded existing ones. Following this general trend, Ford and General Motors (GM) opened company medical departments in 1913 and 1915, respectively. The Ford Safety and Health Department, established in 1914, published departmental accident reports for each production facility, which included the names of foremen to encourage accountability and reward circumspection. In 1914, the Highland Park Factory Hospital employed seven physicians and surgeons, and treated an average of 10,000 patients per month. By the late 1920s, Ford's largest factory hospital, located in Building B of the River Rouge complex, employed a staff of 180, including 23 nurses and 14 doctors.<sup>9</sup>

In the 1910s and 1920s, the introduction of automatic equipment, such as sprayers, sand-blasters, grinders, and pneumatic drills, increased the quantity of dust in factory air. New chemicals, including many invented for use in munitions during World War I, posed complex and poorly understood health risks for workers. In the 1920s, Detroit automakers joined large corporations in the oil, lead, and chemical industries in funding occupational and environmental health research in specialized laboratories, such as the Harvard School of Public Health's Industrial Hygiene Laboratory, GM's Kettering Laboratory at the University of Cincinnati, and Du Pont's

---

"Lead Poisoning," *The Indicator*, Vol. XL No. 15 (August 5, 1914), 312; "Occupational Diseases—Not Included Under the Michigan Workmen's Compensation Act," *Public Health Reports* Vol. 29 No. 45 (November 1914), 2999-3006; James M. Reasoner, *Michigan Reports: Cases Decided in the Michigan Supreme Court of Michigan from July 24 to October 3, 1914* Vol. 182 (Chicago: Callaghan and Company, 1915), 157-163.

<sup>9</sup> "Ford Factory Hospital Service," *Automobile Trade Journal* Vol. 18 No. 10 (April 1914), 160; Dunn, *Labor and Automobiles*, 134-135; Hartley W. Barclay, *Ford Production Methods* (New York: Harper & Brothers, 1936), 54; Henry B. Selleck, *Occupational Health in America* (Detroit: Wayne State University, 1962), 60. In 1910, the Detroit Employers' Association also created a Factory Inspection Department with a full-time inspector. See Allan Nevins, *Ford: The Times, The Man, The Company, Vol. 1* (New York, Charles Scribner's Sons, 1954), 521. On the spread of company medical programs in the 1910s, see Christopher Sellers, *Hazards of the Job: From Industrial Disease to Environmental Health Science* (Chapel Hill: University of North Carolina Press, 1997), 111.

Haskell Laboratory in Newark, Delaware. This new field of applied research promised to improve worker health and morale, while also making employers more competitive. Dr. Emory R. Hayhurst, a professor of medicine at Ohio State University, made this case at a meeting of the National Safety Council in Detroit in October 1916. The “most important” thing about occupational diseases, he argued, was that they “should not exist.” They could be prevented through the “science of industrial hygiene,” which would enable employers in the United States “to compete with the great efficiency and economy of the minutely organized systems abroad.” According to this view, the United States needed healthy workers to compete with Britain, France, and Germany.<sup>10</sup>

If industrial hygiene was at the cutting edge of the new welfare capitalism, it also widened the gap between expert and worker knowledge of occupational hazards. For auto workers, contact with this new professional layer of factory health experts began at the hiring gate with physical exams, and continued at periodic intervals throughout the duration of employment. The Ford Motor Company did not simply view its medical program as a device to protect worker health, but as a mechanism for maximizing labor productivity. By studying workers’ health, Ford health experts hoped to eliminate inefficiencies in the allocation of labor. Indeed, they consciously sought to complement Henry Ford’s view of the wise use of natural resources, which emphasized the importance of re-using waste materials, by “salvaging” workers with medical problems. As Ford’s Chief Surgeon, James E. Meade, told an audience at the International Conference on the

---

<sup>10</sup> Emory Hayhurst, “Fight for Control of Occupational Diseases,” *Hospital Management* Vol. 2 No. 1 (August 1916), 16-20. The Industrial Hygiene Laboratory at the Harvard School of Public Health was founded during World War I; the Kettering Laboratory in 1930; and the Haskell Laboratory in 1935. See Benjamin Ross and Steven Amter, *The Polluters: The Making of Our Chemically Altered Environment* (New York: Oxford University Press, 2010), 34, 62; David A. Hounshell, *Strategy and Structure: Du Pont R & D, 1902-1980* (New York: Cambridge University Press, 1988), 560-62; Christopher Sellers, *Hazards of the Job: From Industrial Hygiene to Environmental Health Science* (Chapel Hill: University of North Carolina Press, 1997), 143-53.

Rehabilitation of the Disabled in New York, City on March 21, 1919, finding employment for crippled and diseased workers would reduce the “waste of human material” endemic in American industry.<sup>11</sup>

Medical screenings could also reinforce discrimination by gender, “race,” and ethnicity. As Meade further explained, the Ford Employment Office maintained a detailed card index, one for each job assignment in its factories. Following a medical exam, Employment Office personnel consulted the index to find the job for which the worker was most “fit.” Each card listed a job’s operation number, the kinds of tools used, the air quality, level of noise, and other characteristics. Out of 7,882 jobs, 949 were classified as “heavy” work, designed for “able bodied and practically physically perfect men,” and 3,338 were classified as “medium” jobs, which “require men of ordinary physical development and strength.” The remaining 3,595 “light” jobs could be performed by “women or older children” or “men of the slightest build or physical development.”<sup>12</sup>

If medical examinations provided evidence of “fitness” for specific tasks, managerial assumptions about African Americans informed the practice of shopfloor segregation. Repeating earlier shibboleths about Slavs and Italians, automobile industry officials routinely claimed, according to political scientist Lloyd Bailer, “that Negroes can stand more heat and have better

---

<sup>11</sup> J.E. Mead, M.D., Chief Surgeon, Ford Motor Company, “Salvage of Men,” paper presented at the International Conference on the Rehabilitation of the Disabled, New York City, March 21, 1919, folder 3, box 6, Samuel P. Levin Collection, Reuther Library; Norman McLeod, *What Sick and Crippled Men are Doing for the Ford Motor Company* (Chicago: Modern Hospital, 1919), 1-3. On materials salvaging programs at Ford’s River Rouge complex, see Tom McCarthy, “Henry Ford, Industrial Ecologist or Industrial Conservationist? Waste Reduction and Recycling at the Rouge,” *Michigan Historical Review* Vol. 27 No. 2 (Fall 2001), 52-88.

<sup>12</sup> Meade, “The Salvage of Men”; idem., “Rehabilitating Cripples at Ford Plant: Full Efficiency Attained by 85 Per Cent—4032 Jobs for Disabled Listed—Light Handwork in Hospital Speeds Recovery,” *The Iron Age* Vol. 12, No. 13 (September 26, 1918), 739-42. On Ford’s policies toward disabled workers in the 1920s, see Sarah Frances Rose, “No Right to Be Idle: The Invention of Disability, 1850-1930” (Ph.D. Dissertation: University of Chicago, 2008), 120-156.

stamina on arduous jobs.”<sup>13</sup> In the routine assignment of black men to “heavy work,” or white women to “light work,” individual characteristics carried less weight than managerial assumptions about the fitness of entire groups for specific jobs.

The use of medical examinations to sort workers into occupational slots did not end at the hiring gate. In 1924, Ford established the Medical Transfer Division, which worked closely with the Compensation Division. Over the next five years, the Medical Transfer Division placed an estimated 50,000 workers in new jobs within the Rouge complex. Many of these transfers began with the periodic medical surveillance of workers in particularly hazardous departments. In his 1931 book *Ford Men and Methods*, Edwin P. Norwood described how this process worked at Ford’s River Rouge complex. In lead soldering and white lead painting departments, for example, “an entire crew frequently numbering upward of a hundred men will be sent to the plant hospital and examined for possible lead poisoning.”<sup>14</sup> This enabled plant physicians to obtain a cross-section of worker health in the entire department. Workers exhibiting symptoms of lead poisoning, tuberculosis and other ailments could be granted an “allotted time” performing outdoor work, or in departments with better indoor air quality. By transferring sick workers between departments, managers hoped to maintain desired production levels, even in departments with high turnover rates due to accidents and diseases. Company doctors also testified in workers’ compensation cases, and could manipulate medical records to reduce employer liability.<sup>15</sup>

---

<sup>13</sup> Robert “Buddy” Battle, Oral History Interview with Herbert Hill, March 19, 1969, 80-90, Blacks in the Labor Movement, Oral History Transcripts Collection, Reuther Library.

<sup>14</sup> Edwin P. Norwood, *Ford Men and Methods* (Garden City, N.Y.: Doubleday, Doran & Co., 1931), 60-82, esp. 71-6. For a typical description of “worker rotation” in departments with high lead exposure, see Louis T. de M. Sajous, “The Treatment of Lead Poisoning,” *Modern Treatment and Preventive Medicine* (February 10, 1917), 274-75. On “rotation,” see Christian Warren, *Brush With Death: A Social History of Lead Poisoning* (Baltimore: Johns Hopkins University Press, 2000), 50, 67-69, 87-88.

<sup>15</sup> On the exclusion of occupational disease from the Michigan Workmen’s Compensation Act between

As managers exercised greater control over all workers, changes in the production process made work in foundries, paint departments, and other branches of the automobile industry more hazardous. If workers could not control the pace or conditions of work, their only option to avoid hazards was to quit or seek job transfers. By restricting the job opportunities of African American workers, shopfloor segregation made these options less viable, and compounded the risks created by deskilling, speed-up, and synthetic chemicals. To demonstrate how this occurred, the following section examines two sectors, one at the beginning and one at the end of the auto manufacturing process: foundries and paint shops.

### **Foundries, Segregation, and Silicosis**

Like other sectors in the orbit of auto manufacturing, the foundry industry underwent momentous changes between the late 19<sup>th</sup> century and the interwar era. In the late 1880s and 1890s, Detroit foundries primarily employed skilled craft workers of German, English, and Irish descent. Members of the Iron Molders of North America, like many skilled craft unions, ran producers' cooperatives in Detroit, and succeeded in winning union work rules in many larger foundries. Between 1900 and 1910, the Detroit Employers' Association sought to replace members of the Iron Molders with semiskilled and unskilled immigrant workers, as part of a larger "Open Shop" campaign.<sup>16</sup>

---

1912 and 1937 (and its tightly restricted inclusion thereafter), see Albert E. Meder, "Workmen's Compensation and Employers' Liability insurance Law: The Effect of a Workmen's Compensation Act Upon Recovery in Tort for an Occupational Disease or Other Non-Compensable," *A.B.A. Sec. Ins. Negl. & Comp. L. Proc.* (1938), 329-337. On the role of company doctors in compensation cases, see Keith Sward, *The Legend of Henry Ford*, 2nd Ed. (New York: Athenaeum, 1968), 364-65.

<sup>16</sup> On the Iron Molders Union in late 19<sup>th</sup> century Detroit, see Richard Oestreicher, *Solidarity and Fragmentation: Working People and Class Consciousness in Detroit, 1875-1900* (Urbana: University of Illinois Press, 1986), 11, 191-197. On the Open Shop Campaign and the iron molders, see Steve Babson, Ron Alpern, Dave Elsila and John Revitte, *Working Detroit: The Making of a Union Town* (New York: Adama Books, 1984), 20. On deskilling at Ford Motor Company, see Meyer, *The Five Dollar Day*, 37-66.

As with other operations, Ford managers sought to progressively deskill foundry work at Highland Park. By the early 1910s, Lucien Arnold, an engineer and close associate of Henry Ford, estimated that a mere 55 of the 1,450 foundry workers in the plant were highly skilled, including molders and core setters. The other 95 percent were unskilled, foreign-born immigrant workers performing tasks they could learn in a mere two days. Arnold claimed that “not one single man in the Ford foundries, working in any capacity whatever, knows how or where he could better his pay check.” At the same time, Arnold acknowledged that foundry work was dangerous and unhealthy. The major reason was that “the air during work hours cannot be endured by any workmen save those possessing respiratory organs of the most robust description [.]” The mineral and metal dust in the air was so thick that plant visitors were often “unable” to walk through the foundry while in operation because “they cannot breathe the air.” But aside from “the matter of ventilation,” Arnold argued, “all working conditions are the very best.” As evidence, he pointed to eight-hour work days, access to “cold pure water” and the supply of goggles and leather leggings to protect against molten metal.<sup>17</sup>

While foundries had always had dusty air, the introduction of moving assembly lines and automatic equipment into the industry worsened the respiratory hazards workers faced. The use of conveyor belts in sand conditioning areas, where pit workers mixed sand with additives for iron-molding, generated increased quantities of fine silica dust. Similarly, the use of automatic grinders and sandblasters in shake-out and chipping operations, where workers cleaned metal castings, created more dust than hand tools. While mechanization added to the dust problem, and the

---

<sup>17</sup> Arnold and Faurote, *Ford Methods and Ford Shops*, 330. For a description of the ventilation systems at Highland Park, see *Ibid.*, 411-15. On production methods at Highland Park and the Rouge, see Lindy Biggs, *The Rational Factory: Architecture, Technology, and Work in America's Age of Mass Production* (Baltimore: Johns Hopkins University Press, 1996), 95-160; David Hounshell, *From the American System to Mass Production, 1800-1932: The Development of Manufacturing Technology in the United States* (Baltimore: Johns Hopkins University Press, 1984), 217-302.

corollary threat of silicosis and other occupational diseases, speed-up made the safe handling of heavy equipment and molten metal castings more difficult. Even without considering the disease problem, the foundry industry had among the highest accident rates of any sector in American manufacturing in the 1920s.<sup>18</sup>

In the 1920s, Ford began transferring operations from Highland Park to its massive River Rouge complex, located in an eponymous industrial suburb bordering Dearborn and southwest Detroit. As the world's largest foundry, the Dearborn Iron Foundry stood as a monumental symbol of Ford's vertical integration methods, transforming hot metal from blast furnaces into engine blocks for hundreds of thousands (and eventually millions) of Ford cars and trucks. Most workers hated foundry assignments, a fact that Ford managers used to their advantage. As early as 1920, Ford officials used transfer to the foundry as a disciplinary measure for disobedient workers. Along with health hazards, the stigmatization of foundry work became increasingly linked to patterns of segregation in the 1920s.<sup>19</sup>

Before the war, Eastern and Southern European immigrant men predominated in Detroit foundries. As one Ford executive recalled of the company's foundry workforce at Highland Park, "[i]n the beginning it was a lot of Russian, Polish, Croatian, Austrian, people of that type. We didn't have many Negroes before World War I."<sup>20</sup> This situation quickly changed during World

---

<sup>18</sup> On the health hazards facing workers in sand-pit, shake-out, and cleaning operations, see W.J. McConnell and J. Fehnel, "Health Hazards of the Foundry Industry," *The Journal of Industrial Hygiene* Vol. 16 No. 4 (1934), 227-251.

<sup>19</sup> On the construction of the Rouge, see Allan Nevins, *Ford: Volume II, Expansion and Challenge, 1915-1933* (New York: Arno Press, 1976), 200-216; Biggs, *The Rational Factory*, 137-160; Joseph B. Cabadas, *River Rouge: Ford's Industrial Colossus* (St. Paul, MN: Motor Books, 2004), 26-27. On foundry job assignments as a punishment, see Georgios Paris Loizides, "Making Men" at Ford: Ethnicity, Race, and Americanization during the Progressive Period," *Michigan Sociological Review* Vol. 21 (Fall 2007), 109-148, esp. 132.

<sup>20</sup> John C. Teaford, *Cities of the Heartland: The Rise and Fall of the Industrial Midwest* (Bloomington: Indiana University Press, 1993), 62; Babson et al., *Working Detroit*, 20. For the Ford executive quote, see



War I, however, as European immigration slowed and the first Great Migration of African Americans to the urban North commenced. In an investigation of wartime Detroit, Forrester B. Washington of the Urban League wrote that “[t]he Negro entered the foundries first as a common laborer, performing the crudest and least desirable work. He was deliberately excluded from the semi-skilled and skilled jobs.”<sup>21</sup>

Some women worked in Detroit foundries during World War I, both black and white. In 1919, Detroit Urban League Director Forrester B. Washington wrote that during the war, “colored women” in Detroit worked as “assemblers, inspectors and shippers in auto plants, as core makers and chippers in foundries, as shell makers in munition factories, as plate makers in dental laboratories, as garment makers, and as armature winders in insulated wire factories.” Conditions for black and white women in Detroit factories, according to Washington, were comparable. He found that “[t]he health of the colored woman worker was not subjected in any instance to greater peril than that to which the health of the white woman was subjected.” On the other hand, he saw “room for great improvement along the lines of sanitation and safety” in women’s workplaces, “especially in the laundries and in certain foundries.”<sup>22</sup>

During the 1920s, black male workers replaced white male immigrants as the primary labor force in Detroit-area foundries. In part, this shift reflected political and demographic factors outside the industry itself. The restriction of immigration, beginning with the Emergency Quota

---

Loizides, “Making Men,” 133.

<sup>21</sup> Forrester B. Washington, *The Negro in Detroit: A Survey of Conditions of a Negro Group in a Northern Industrial City during the War Prosperity Period, Vol. 1* (Detroit: United Charities of Detroit, 1920), 72, Bentley Historical Library, University of Michigan-Ann Arbor.

<sup>22</sup> Forrester B. Washington, “Reconstruction and the Colored Woman,” *Life and Labor* Vol. IX No. 1 (January 1919), 3-7; idem, *The Negro in Detroit*, 67. The ratio of black women to black men remained much lower than white women to white men in Detroit factories before World War II. See Bailer, “The Negro Automobile Worker,” 426-7.

Act of 1921 and increasing with the Johnson-Reed Act of 1924, coincided with an uptick in the migration of African Americans to Detroit and other northern cities. Detroit's African American population increased from 5,741 in 1910 to 40,838 in 1920, and 120,066 in 1930. At the same time, discrimination played a large role. Prior to World War II, Studebaker, GM, Chrysler, Midland Steel, the U.S. Aluminum Company, and Detroit Steel Casting all employed virtually all their black employees in foundries.<sup>23</sup>

The Ford Motor Company employed roughly half of all African American workers in the auto industry before World War II, the bulk at River Rouge. According to one estimate, Ford's Employment Office assigned 46 percent of all black workers hired between 1918 and 1947 to foundries, compared with only 5 percent of white workers. Black workers comprised between 20 percent and 50 percent of the Dearborn Iron Foundry workforce between 1920 and 1932. Then, beginning in 1932, black employment spiked sharply, and by the eve of World War II the workforce was virtually all black.<sup>24</sup> Robert "Buddy" Battle, who began work in the Rouge foundry in 1936, estimated that "87 and a half to 93 percent were all black" when he began. The whites who remained were almost all foreign-born immigrants. According to Battle, in the late 1930s "you had the combination of what was termed the bohunk and the Negro as the only ones who would work in the foundry at that time; and the Negro was scratching for jobs and any jobs that

---

<sup>23</sup> On the increase in Detroit's black population between 1910 and 1930, see Nsenga Lee Johannson, "Viewing African American History Through the Lens of Health: The Great Migration and African Americans in Detroit, 1916-1940" (Ph.D. Dissertation.: University of Michigan, 2004), 79-80. On black workers' segregation into both auto and steel foundries in Detroit, see Bates, *The Making of Black Detroit*, 105. Across the Detroit River, auto makers in Windsor also restricted most black workers to foundries before World War II. See Pamela Sugiman, "Privilege and Oppression: The Configuration of Race, Gender, and Class in Southern Ontario Auto Plants, 1939 to 1949," *Labour/Le Travail* (Spring 2001), 83-113.

<sup>24</sup> For the estimate about black versus white worker foundry job assignments, see Christopher L. Foote, Warren C. Whatley, and Gavin Wright, "Arbitrating a Discriminatory Labor Market," *Journal of Labor Economics*, 21 (July 2003), 493-532, esp. 507 n. 12, 524. On the transformation of the Rouge foundry into a "virtually all-black" department in the 1930s, see Bates, *Making of Black Detroit*, 167.

was open they had to take.” Within the Dearborn Iron Foundry, black workers were concentrated in the jobs with the highest exposure to mineral and metal dusts, including shake-out, molding, reels, melting and chipping.<sup>25</sup>

Epidemiological data from Detroit hospitals suggest that foundry conditions shortened workers’ lives. A five-year study of 131 patients at the Herman Kiefer Hospital in Detroit, diagnosed with “silico-tuberculosis” (or comorbid silicosis and tuberculosis) between October 1, 1933 and September 30, 1938, found that over half of the patients (73) were foundry workers. The vast majority of these patients (87.1 percent) died within five years of admission to the hospital. While the study did not classify these ailing foundry workers by “race,” some physicians observed that they were disproportionately African American. The physician I.W. Ruskin, who investigated Detroit hospitals for the Detroit Board of Health and Wayne County Board of Auditors, recalled in 1936 that tuberculosis rates were the highest for the “young adult negro [sic] who found employment in the foundries and other hazardous occupations.” Ruskin estimated that death rates from tuberculosis among such workers were “about four or five times as high as in the rest of the population.” During the same period, tuberculosis was the leading cause of death among Detroit’s African American population as a whole. While black death rates from tuberculosis increased steadily during the 1920s, from 303 per 100,000 in 1920 to 441 in 1928, white death rates from tuberculosis declined from 93 to 65 per 100,000. The occupational contribution is impossible to quantify precisely, but the concentration of black workers in dusty and noxious jobs clearly played a role in this disparity.<sup>26</sup>

---

<sup>25</sup> Robert “Buddy” Battle, Oral History Interview with Herbert Hill, March 19, 1969, 80-90, Blacks in the Labor Movement, Oral History Transcripts Collection, Reuther Library.

<sup>26</sup> For the Herman Kiefer Hospital study, see Bruce H. Douglas and Edmund Tompkins, “Silico-Tuberculosis as Seen in a Large Industrial Center,” *Radiology* Vol. 34 No. 4 (1940), 405-410. For the Ruskin speech, see I.W. Ruskin, “Occupational Diseases,” speech transcript, address before the 2nd Annual

### Paint Spraying and Occupational Disease

Automobile industry paint shops followed similar patterns. Like other components of the auto manufacturing process, the introduction of new technologies and production methods in the 1910s and 1920s revolutionized the painting of auto bodies. These changes dramatically boosted productivity while exposing workers to a more hazardous environment. Paint shops had long constituted a “bottleneck” in the Fordist drive to rationalize and deskill auto manufacturing. One problem was that the hand painting methods inherited from the carriage and wagon industry, involving teams of skilled painters, remained standard in auto production as late as 1910. Another was that existing paints and finishes required several days to dry, slowing the throughput from factory assembly lines. During World War I, the combination of government demand, corporate consolidation, and technological advances occasioned by military production generated the necessary innovations to break the “bottleneck.”<sup>27</sup>

The first significant innovation was the automatic paint spray-gun. Although the technology of spraying paint using compressed air had existed since the late 19<sup>th</sup> century, it was not until 1917 that commercially viable models entered the market. Using a spray gun, a single

---

Convention of the UAW-CIO, South Bend, Indiana, March 27–April 2, 1936, esp. 1-2, 5, “Hygiene—Industrial” folder, box 11, Joe Brown Collection, Reuther Library. On black and white tuberculosis death rates in 1920s Detroit, see Henry D. Chadwick, “The Tuberculosis Situation in Detroit,” *City Health* Vol. 14 No. 7 (October 1930), 3-4. Historian Clarence Hooker observes that “[i]t is significant that from 1915 to 1941 tuberculosis, a disease associated with unsanitary conditions often found in overcrowded housing, and in the polluted air in foundries and paint departments in the auto industry, was the leading cause of death among blacks in Detroit.” Clarence Hooker, *Life in the Shadows of the Crystal Palace, 1910-1927: Ford Workers in the Model T Era* (Bowling Green, OH: Bowling Green State University Popular Press, 1997), 100.

<sup>27</sup> On the bottleneck problem in auto paint shops, see Alfred Chandler and Takashi Hitino, *Scale and Scope: The Dynamics of Industrial Capitalism* (Cambridge, MA: Belknap Press, 1990), 186; McCarthy, *Auto Mania*, 80. On the role of weapons production in expansion and technological innovation at Du Pont and other chemical corporations, see Edmund Russell, *War and Nature: Fighting Humans and Insects with Chemicals from World War I to Silent Spring* (New York: Cambridge University Press, 2001), 18-19, 82. On Du Pont’s controlling interest in General Motors in the 1920s, see Ed Cray, *Chrome Colossus: General Motors and its Times* (New York: McGraw-Hill Book Company, 1980), 153-4.

worker could match the output of 3-5 hand painters. However, like other forms of mechanization, paint spraying worsened factory air quality. Spray guns filled the air with thick fogs of paints and lacquers. Similarly, the introduction of automatic sandblasters, which allowed workers to sandpaper the primary coat of white lead paint on an auto chassis more quickly, increased the concentration of airborne lead dust in body shops. As a result, workers in spraying and finishing departments suffered from the highest rates of lead poisoning in the industry. In 1922 alone, Detroit hospitals treated over a hundred auto workers for lead poisoning. In one factory, according to the Detroit Department of Health, a sandpapering department had to hire 2,000 workers to fill 200 positions every year, due to the high turnover rate among poisoned workers.<sup>28</sup>

Evidence of pervasive lead poisoning in auto factories surfaced in a multitude of studies in the 1920s and 1930s. In 1926, the Chemical Section of the National Safety Council sponsored one such study in Detroit and Toledo, led by Dr. H.F. Smyth. The study examined twelve factories, including six auto factories in Detroit and one auto factory in Toledo. Among workers spraying lead-based paints, they found “a large percentage of suggestive symptoms” of lead poisoning, “such as digestive disturbances, loss of weight, constipation, loss of appetite, and gastric pain, and 5 per cent showed a lead line on the gums.” One in four of the lead-exposed paint workers had an abnormally low red blood cell count, and the percentage increased with length of employment. Among workers spraying benzol-based lacquers, 19 of the 91 examined had a low white blood cell count, “the earliest index of chronic benzol poisoning.” Moreover, the number of “subjective complaints” of benzol poisoning symptoms, “especially constipation, dizziness, and dyspnea,” were over twice as high among benzol-exposed workers as in other departments. They also

---

<sup>28</sup> On early patents for automatic paint sprayers, see Bureau of Labor Statistics, *Handbook of Labor Statistics: 1929 Edition* (Washington, D.C.: U.S. Government Printing Office, 1929), 342. On the health risks of paint spraying, see Francis V. Murphy, “New Hazards of Industry,” *Monthly Labor Review* Vol. 21 No. 4 (1925), 4-6.

performed X-rays on workers in the spraying booths of vitreous-enamel plants, and found high rates of silicosis. This result was also unsurprising, since dust counts in the booths were very high, averaging 5 million to 24 million silica particles per square foot. Occupational disease was thus the norm, not the exception, in spraying booths due to chronically poor air quality.<sup>29</sup>

During the 1920s, the lead, oil, and automobile industries used the funding of laboratory research on lead exposure to influence government regulators. The most famous instance of this occurred in 1924, when GM and Standard Oil funded a federal Bureau of Mines study on the health effects of tetraethyl lead (TEL) in gasoline. Conveniently for its funders, the study found that TEL did not pose a public health hazard, and thus could be added to gasoline. The Bureau of Mines TEL study became a notorious case of “regulatory capture,” with industry acting through the federal government to clear a product’s path to market. This outcome reflected the lax regulatory climate of the Coolidge administration and, in the words of business historian Ed Cray, the “complaisant” attitude of Surgeon General Hugh Cumming.<sup>30</sup>

If the PHS provided little oversight of industry in the 1920s, state and local officials in Michigan were no different. In the PHS hearings on TEL’s safety in August 1925, Worker’s Health Bureau activist Grace Burnham called for an investigation “made entirely out of public funds [.]”

---

<sup>29</sup> For a summary of the report, see Bureau of Labor Statistics, *Handbook of Labor Statistics: 1929 Edition*, 342-3.

<sup>30</sup> Ed Cray, *Chrome Colossus: The Life and Times of General Motors* (New York: McGraw Hill, 1980), 242. There is now a substantial historical literature on TEL’s invention, spurious exoneration as a public health hazard, and growing contribution to environmental lead contamination for the next half-century. See David Rosner and Gerald Markowitz, “‘A Gift from God’? The Public Health Controversy over Leaded Gasoline during the 1920s,” in *Worker’s Safety and Health in Twentieth-Century America*, ed. David Rosner and Gerald Markowitz (Bloomington: Indiana University Press, 1987), 121-139; Alan P. Loeb, “The Birth of the Kettering Doctrine: Fordism, Sloanism, and the Discovery of Tetraethyl Lead,” *Business and Economic History* Vol. 24 No. 1 (1995), 72-87; Warren, *Brush with Death*, 116-133; David Rosner and Gerald Markowitz, *Deceit and Denial: The Deadly Politics of Industrial Pollution* (Berkeley: University of California Press, 2002), 12-35; Colleen F. Moore, *Silent Scourge: Children, Pollution, and Why Scientists Disagree* (New York: Oxford University Press, 2003), 13-48; Ross and Amter, *The Polluters*, 31-34.

Dr. Alice Hamilton of Harvard, one of the world's leading authorities on lead poisoning, stated that she was "utterly unwilling to believe that the only substance which can be used to take the knock out of a gasoline engine is tetraethyl lead." In contrast, the head of the city of Detroit's Department of Public Health, Dr. Henry Vaughan, claimed that TEL posed only a minor risk, proudly noting that Detroit's automobile fleet consumed between 60,000 and 1,250,000 gallons of the product per month. Acknowledging that Detroit had experienced problems in the past with lead poisoning in auto factories, he told the Public Health Service that the problem "fortunately has been eliminated." Although the city employed no industrial hygienists, Vaughan assured his audience that lead poisoning was no longer a problem for automobile workers, and that this success would be translated to gasoline.<sup>31</sup>

While compensation law and government regulation did little to protect lead-exposed workers, industry-sponsored research served to normalize the presence of lead in their blood. Much of this research occurred at the Kettering Laboratory, founded by Dr. Robert Kehoe at the University of Cincinnati in 1930, with funds from Du Pont and Ethyl Corporation (formed in 1923 by GM and Standard Oil to manufacture TEL). Kehoe based his lead research on the theory that "lead is a virtually constant constituent of the tissues of modern man," and should be considered "normal" below a specific level of exposure. For the next three decades, Kehoe's research played a key role in legitimating low-level lead exposure, both in the workplace and from automobile exhaust.<sup>32</sup> Whatever the long-term risks of subclinical lead poisoning, however, many factory workers in Detroit faced more immediate hazards.

---

<sup>31</sup> For the testimony by Vaughan, Burnham and Hamilton, see United States Public Health Service, *Public Health Bulletin No. 158* (August 1925), "Proceedings of a Conference to Determine Whether or Not There is a Public Health Question in the Manufacture, Distribution, or Use of Tetraethyl Lead Gasoline," 85-87, 93-95, 97-98, folder 1, box 23, Robert A. Kehoe Papers, Henry R. Winkler Center for the Study of the Health Professions, University of Cincinnati.

### Pyroloxylin and the Briggs Fire of 1927

Innovation in paints and lacquers also created new risks for workers. In 1924, the Du Pont Company, which then had a controlling interest in GM, introduced its Duco brand lacquer on the market. Du Pont had long viewed shares in GM as a way of edging out its competitors in the chemical industry. As Du Pont Treasurer John Jacob Raskob had noted in an internal memo in 1917, “[o]ur interest in the General Motors Company will undoubtedly secure for us the entire Fabrikoid, Pyralin, paint and varnish business of those companies.” To complement GM’s annual model change, designed to differentiate its cars from the cheap but generic Model T, Du Pont manufactured Duco in more and brighter shades than rival paint brands. As GM executive Alfred P. Sloan, Jr. later recalled, Duco “made possible the modern era of color and styling.” The annual model change was part of a program of planned obsolescence, intended to maximize sales by speeding up the product’s life cycle. New GM cars were colorful and stylish, but not built to last.<sup>33</sup>

Because Duco dried in less than 24 hours, it allowed GM to increase the speed of production lines, leading to its rapid adoption by Ford, Chrysler and other automakers. The increasingly pervasive use of Duco created new problems for workers, however. Duco was based on a combustible nitrocellulose compound called pyroloxylin, invented for munitions production during World War I. Pyroloxylin-based paints increased the risk of fires and explosions. Industrial

---

<sup>32</sup> On the role of corporations in the chemical, oil, lead, asbestos, and other industries in shaping TLVs, see Barry Castleman and G.E. Ziem, “Corporate Influence on Threshold Limit Values,” *American Journal of Industrial Medicine* Vol. 13 (1988), 531-559. On TLVs for lead (including TEL), see *Ibid.*, 551-553. On the use of TLVs as a basis for Ambient Air Quality Guidelines (AAQGs) for dozens of atmospheric pollutants, especially at the state level, see James C. Robinson and D.G. Paxman, “The Role of Threshold Limit Values in U.S. Air Pollution Policy,” *American Journal of Industrial Medicine* 21 (1992), 383-396.

<sup>33</sup> For the Raskob quote, see Cray, *Chrome Colossus*, 386. For the Sloan quote, see McCarthy, *Auto Mania*, 80. On the annual model change and planned obsolescence, see Joel W. Eastman, *Styling Versus Safety: The American Automobile Industry and the Development of Automotive Safety, 1900-1966* (Boston: University Press of America, 1984), 23-50.



hygienists, including Alice Hamilton, extensively documented the risks of pyroloxylin manufacture during the war, including the problem “ether poisoning” among exposed workers.<sup>34</sup>

The Briggs Fire of 1927 demonstrated the lethal risks that pyroloxylin posed to automobile workers in Detroit. At the same time, it provides a stark example of how segregation heightened those risks for African Americans. Like most automakers before World War II, Briggs management assigned black workers almost exclusively to menial, unskilled work, especially in its paint shops. There, they worked as sprayers and sanders, under foremen who pushed them to work ever harder and faster. Because the explosion occurred in Briggs’ Mack Avenue paint shop, where black workers were concentrated, it was no surprise that they made up 21 of the first 28 burn victims identified. However, if Deputy Coroner Charles T. Earl was correct, the disaster killed at least another fifty workers, whose backgrounds are unknown.<sup>35</sup>

Even before the flames were extinguished, the cause of the disaster became a matter of intense controversy. John M. Blachoff, the City Commissioner of Buildings and Safety Engineering, admitted to reporters that his department had recently proposed an ordinance to regulate Duco spray paint, which contained the compound pyroloxylin. He nonetheless maintained that “I do not think...if the ordinance had been in effect, this tragedy could have been averted.” In his final report to the Michigan Department of Labor, John C. McCabe, the state’s Chief Boiler Inspector, pointed to divine intervention. The Briggs Fire, McCabe claimed, was an “act of Providence.” Meanwhile, some Briggs representatives blamed the workers. Briggs Manufacturing Company President John H. French insisted that, when his company had constructed the plant in 1924, they took all necessary precautions to avoid “fire and explosion.” Since pyroloxylin was

---

<sup>34</sup> Hamilton and Minot, “Ether Poisoning in the Manufacture of Smokeless Powder,” 42-49.

<sup>35</sup> Bailer, “The Negro Automobile Worker,” 428.

"highly inflammable," workers in spraying operations were "instructed to exercise every care." The only problem, French implied, was that workers had failed to follow instructions.<sup>36</sup>

However, the former Detroit City Building Commissioner Frank V. Burton challenged French's version of events. He told the *Detroit Free Press* that, when inspecting the Briggs Harper Avenue plant in 1923, he had "demanded that the structures be remodeled to guard against fire." While Briggs officials claimed they met this demand, Burton said they had failed to institute safety measures adequate to the "dangerous nature of the materials used in the paint process." However, Detroit Mayor John W. Smith later had Burton removed from office, and Burton claimed in press interviews that the reason was his unfavorable findings about the Briggs Harper Avenue plant. Burton did not merely claim that he fulfilled his duties in a competent fashion, but that he was fired for doing so.<sup>37</sup>

### **The Communist Party, the AWU, and Factory Hazards**

The *Ford Worker*, published by the Ford cells of the Communist Party-led Auto Workers Union (AWU), blamed the "present capitalist system" for the Briggs disaster. Similarly, in its June issue, the AWU's *Auto Worker News* criticized the McCabe report. For the editors, it was not God or chemical laws that killed the workers at Harper Avenue, but Briggs executives and management. To underline their insistence on the company's criminal negligence, in the same issue they included a poem entitled "Bodies by Briggs," in a grim reference to the factory's products:

*Bodies by Briggs, this cinder heap  
of things that once were men,  
Bone of our bone, our brothers, they  
slain in that flaming den;  
Such is the tally of wealth and greed thru  
All of mortal ken,  
Death marks the score in the worker's*

<sup>36</sup> "2 Are Dead; Blast Loss is \$3,000,000."

<sup>37</sup> Ibid.

*Blood using a golden pen.*<sup>38</sup>

Similarly, the *Ford Worker* claimed that the "loss of life and anguish" from industrial accidents was a built-in feature of the "present capitalist system." Only the "communist system" would "accomplish the absolute elimination of all avoidable accidents," since it was "based not on the profit motive but on the principle of the wealth of the world for the workers."<sup>39</sup>

Later that year, the Workers Health Conference issued a report stating that the Briggs Fire was "conclusive proof that systems of ventilation are not removing poisonous fumes" in the spraying booths of factories. The report also decried the Michigan compensation laws which limited pensions for widows and orphans of Briggs workers to \$4,200 per body. In the AWU's house organ, the *Auto Worker News*, members argued that Briggs had factored worker deaths into its business plan. While the deaths of workers "could have been avoided by an adequate ventilating system," Company officials were determined not "to spend very much money for the mere safety of workers." Instead, their policy was "to pay high premium rates for insurance," although "several insurance companies" had refused to do business with Briggs due to high accident rates. They further claimed that, in an organizing campaign outside the Harper Avenue plant in 1925, AWU speakers had pointed out the "injury that was being done" to worker health due to the lack of a ventilation system, and "the danger of just such a disaster as did occur" in the Briggs Fire. The disaster might have been avoided if "the workers had heeded our call and joined the Auto Workers Union," since the organization "would been in a position to force the company to make their plants safe for those who do the work."<sup>40</sup>

---

<sup>38</sup> Quoted in Keeran, *The Communist Party and the Auto Workers' Unions*, 52.

<sup>39</sup> *Ford Worker*, June 1, 1927, clipping in "Health and Accidents" folder, box 1, Robert W. Dunn Collection, Reuther Library. Robert W. Dunn critiqued McCabe's report using similar language in his 1929 book *Labor and Automobiles*. See Dunn, *Labor and Automobiles*, 139.

Such articles typified how AWU shop papers covered factory hazards in Detroit. The union, taken over by Communist Party (CP) members in 1925, had a long history in the industry, predating the automobile itself. It was a descendant of the Union of Carriage and Wagon Workers, which joined the American Federation of Labor (AFL) in 1891, and became the Union of Carriage, Wagon and Automobile Workers in 1912. The AFL suspended the union in 1918 for refusing to drop "automobile" (an industrial category that irked craft unionists) from its title. In reaction to the suspension, union members, most of whom were in the Socialist Party, formed an independent Auto Workers Union (AWU). The union lost many of its members in the early 1920s, however, due to economic recession and the Palmer Raids. This provided an opening for CP members to take over the union, and with it the papers published by AWU nuclei, including *The Ford Worker*, *The Hudson Worker*, and *The Chrysler Worker*. The *Auto Worker News* became the house organ of the newly radicalized AWU in 1927.<sup>41</sup>

AWU organizers maintained that manufacturers and workers had fundamentally conflicting interests regarding health and safety. For example, an article in the October 1926 *Fisher Body* complained of "the dangerous and sickening gases which we must inhale all day." The reason for poor air quality was that "ventilation costs money" and GM "needs millions of profits to pay the stockholders."<sup>42</sup> Similarly, the December issue of the same paper described a worker who "died in the Duco department on the second floor," due to the "poisonous fumes" from Duco spraying.

---

<sup>40</sup> "Workers Warned of Briggs Disaster," *Auto Worker News* Vol. 1, No. 1, May 1926, Auto Worker News folder, box 34, Joe Brown Collection, Reuther Library.

<sup>41</sup> On the AWU's transition from SP to CP control in the mid-1920s, see Roger Keeran, *The Communist Party and the Auto Workers' Unions* (New York: International Publishers, 1980), 32-40; Joyce Shaw Peterson, *American Automobile Workers, 1900-1933* (Albany: SUNY Press, 1987), 124-5; James J. Lorence, *Organizing the Unemployed: Community and Union Activists in the Industrial Heartland* (Albany: SUNY Press, 1996), 21.

<sup>42</sup> *Fisher Body*, October 1926, clipping in "Health and Accidents" folder, box 1, Dunn Collection.

The anonymous writer argued that better ventilation could prevent such tragedies, but “ventilation requires considerable expense while the workers’ lives are as cheap as dirt.” The March 1928 *Packard Worker* complained that, in addition to cutting paint sprayers’ wages from 86 cents to 45 cents per hour, the company “shows the utmost disregard of the workers [sic] welfare.” The lacquer workers sprayed was “just as bad as Duco ever was,” and three recently hired workers “all have had to leave because their health couldn’t stand the job.”<sup>43</sup>

The AWU shop papers also presented conditions for women auto workers as poorly paid and dangerous. The April 1928 *Auto Worker News* described an unnamed “firm manufacturing small parts for automobiles” where there were young women in the spraying booths make 25 cents an hour. “Nearly all the girls complain of suffering from excessive fatigue,” the paper reported. More dramatically, the March 1928 *Dodge Worker* described the plight of women workers cleaning glue from cardboard panels at the Hudson factory. The fluid made workers “vomit so hard they vomit blood, and some of them faint and have to be carried out.” On one occasion, “52 girls were sick. The bosses advised them to drink buttermilk, they will be alright the next day.”<sup>44</sup>

AWU coverage of women and African American workers, however, revealed limitations in their conception of working class politics. AWU writers argued that bosses used women to lower male wages, but they did not call for equal wages and job opportunities for women. The AWU did have some African American members, including the Mississippi-born former IWW member Joseph Billups, who (like so many African American migrants to Detroit) worked in the Rouge Foundry. Billups would go on to run for Governor of Michigan on the CP ticket, and to fight

---

<sup>43</sup> *Ford Worker*, September 1926; “The Grave-Digger of Highland Park,” *Ford Worker*, November 1926; “Death Trap in Plant 21,” *Fisher Body*, December 1926; “Painters Lose Health for Packard Profits,” *Packard Worker*, March 1928, all clippings in “Health and Accidents” folder, Dunn Collection.

<sup>44</sup> *Dodge Worker*, March 10, 1928; *Auto Worker News*, May 1928, clippings in “Health and Accidents” folder, Dunn Collection.

evictions with the CP-led Unemployed Councils in Depression-era Detroit. However, the AWU did not focus on the issue of segregation for black workers, and some of their shop papers used blackface cartoons and other degrading representations of African Americans to characterize the “slavery” in auto plants. Despite these biases, the AWU shop papers did expose real dangers in auto factories which the mainstream press and industry publications ignored.<sup>45</sup>

While sometimes exaggerated, the papers’ descriptions of health and safety conditions in the industry largely matched the findings of industrial hygiene investigations, such as the National Safety Council’s 1926 report on the paint and enamel industries in Detroit and Toledo. But were the views expressed in AWU shop papers “representative” of the average auto worker? The papers also had wide circulation; in 1927, the *Auto Worker News* alone had a monthly circulation between 12,000 and 18,000. As an organization, however, the AWU’s claim to represent Detroit auto workers became increasingly untenable under CP leadership. Between 1926 and 1929, the union’s membership plummeted from 3,000 to 1,500, and by 1930 it was as low as 100.<sup>46</sup>

Despite this dramatic decline, the AWU did play a key role in the Briggs Strike of 1933. As historian Joyce Shaw Peterson notes, the Briggs Strike was the “first shot in the battle that won unionization” in Detroit auto factories. The strike began with a series of walk-outs by tool and die makers over wage cuts and what strike leaflets called “rotten working conditions.” By January 23, the strike had spread to Briggs plants across Detroit. By the time the strike ended in March, it had affected an estimated 100,000 workers at companies that used Briggs auto bodies, including Ford, Chrysler and Hudson. The effects were thus widely felt in Detroit and its industrial suburbs. The

---

<sup>45</sup> On AWU attitudes toward women and African Americans, see Gregory Wood, “The Paralysis of the Labor Movement’: Men, Masculinity, and Unions in 1920s Detroit,” *Michigan Historical Review* Vol. 30 No. 1 (Spring 2004), 59-91.

<sup>46</sup> For the circulation figure, see Keeran, *The Communist Party and the Auto Workers Unions*, 55. For AWU membership figures, see Wood, “The Paralysis of the Labor Movement’,” 68.

strike clearly demonstrated rank-and-file workers' concerns about health and safety issues. The "rotten working conditions" strikers complained of included many things, including speed-ups, equipment fees, and the practice of "dead time," which required workers to wait on the premises, unpaid, until work was available.<sup>47</sup>

Dangerous production practices were high on the list, however. In the first weeks of the strike, Detroit Mayor Frank Murphy organized a fact-finding committee, called the Non-Partisan Committee on Industrial Disputes. It included Rabbi Leon Fram, Reverend E.J. Hickey, Professor E.W. McFarland, and other individuals with "neither a professional nor a personal interest in either side of the dispute." On February 21, the Committee released its report, based on tours of the Mack Avenue and Highland Park Briggs plants, and interviews with striking workers and company officials. The report listed eight "causes of the strike," which included "unhealthy working conditions," "dangerous working conditions," and "sanitary conditions." The Committee observed that "although inspections were made from time to time by state officials," they were "too superficial to detect legal violations." When the Committee asked Briggs Safety Department officials about these complaints, they responded with "complete denial." Safety Department staff noted that Briggs had won "several awards" for safety in recent years, and claimed that the company's plants could "bear comparison with industrial plants anywhere." According to them, any serious accidents at Briggs were products of workers' carelessness, malice or imagination.<sup>48</sup>

In an unpublished interview with the *Detroit News*, AWU Secretary Philip Raymond

---

<sup>47</sup> For accounts of the Briggs strike, see Keeran, *The Communist Party and the Auto Workers Unions*, 77-95; Peterson, *American Automobile Workers*, 139-149; Sidney Fine, *Frank Murphy: The Detroit Years* (Ann Arbor: University of Michigan Press, 1975), 412-424. For the quote, see Peterson, *American Automobile Workers*, 149.

<sup>48</sup> "Report of the Detroit Mayor's Non-Partisan Committee on Industrial Disputes (The Fact-Finding Committee) In the Matter of the Strike of the Workers at the Briggs Manufacturing Company, Detroit, Michigan, February 21, 1933," box 4, Joe Brown Collection, Reuther Library.

claimed that "the origins of the Briggs strike" was "about 1926," when his organization began receiving "numerous" letters of complaint from Briggs workers. Alluding to the Briggs Fire, he said that one of the "chief complaints" in these letters was "about faulty ventilation in the paint-spray and metal-finishing departments." Raymond predicted that the Mack Avenue Plant could see a disaster similar to the one at Harper Avenue.<sup>49</sup> Yet, while some workers saw the AWU as a vehicle for advancing their interests, for others it was a liability. During the strike, Briggs officials rejected rank-and-file strikers' demands by labeling them dupes of the CP. On February 8, the strike committee responded with a press release announcing that "[w]e have definitely eliminated the Communists and their allied organizations in general and Philip Raymond, secretary of the Auto Workers Union, in particular, from among us." The same day, the *Detroit News* reported that inspectors with the Detroit and Highland Park health departments "never found insanitary [sic] conditions" at Briggs plants prior to the strike, "such as complained by the strikers, a search of the records disclosed today." While Briggs defeated the strike, the dangerous conditions in its plants would soon make the headlines again.<sup>50</sup>

### **Lead Poisoning and Medical Surveillance in Depression-Era Detroit**

Of the largest industrial cities in the United States, the Great Depression hit Detroit the hardest. Car and truck sales in the United States plummeted 75 percent between 1929 and 1932, and by 1933 45 percent of Detroit auto workers were unemployed. Among those who had kept their jobs, moreover, real incomes had fallen 43 percent. The depression forced the city to cut

---

<sup>49</sup> "Auto Workers Union Documents," n.d., Box 1, Folder 29, Henry Kraus Collection. Raymond had run for Mayor of Detroit on the CP ticket in 1930. See Sidney Fine, *The Automobile Under the Blue Eagle: Labor, Management, and the Automobile Manufacturing Code* (Ann Arbor: The University of Michigan Press, 1963), 28.

<sup>50</sup> "What Caused the Briggs Fire!," 1; "Briggs Men Vote to Oust Communists," *Detroit News*, February 8, 1933, 1; "Briggs Plants Given a Good Health Rating," *Detroit News*, February 8, 1933, 1.



municipal services, including the enforcement of environmental regulations. In 1932, the Detroit City Council cut the number of smoke inspectors from 10 to 1 as a budget-saving measure. At a meeting of the Civic Association of Detroit in May 1935, smoke inspector Charles McCabe, claimed that the budget cuts had led to a tripling of smoke and soot fall. Later investigations corroborated these claims. Whereas soot fall decreased from 106 to 52 tons per square mile between 1927 and 1931, it increased to 128 tons by 1937. In 1940, a report by the Detroit Department of Buildings and Safety Engineering found that Detroit, despite burning 10,000,000 tons of coal per year, had the lowest number of smoke inspectors per mile of any large American city. A 1941 *Detroit Free Press* poll found that 75 percent of respondents wanted the city to act aggressively on smoke pollution.<sup>51</sup>

For automobile workers who retained their jobs, air quality also deteriorated inside factories. For workers in the metal trades, atmospheric lead dust was particularly pernicious. Between 1933 and 1935, lead poisoning sent thousands of Detroit auto workers to hospitals. The cause of the epidemic was a combination of line speed-ups and efforts to cut production costs. Between 1931 and 1933, Detroit automakers sought to replace wooden auto bodies with steel. Steel auto bodies were more durable, but they required the use of solder to fill in joints and surface irregularities, which workers smoothed down with grinding tools. Manufacturers found that the lead-tin alloys were the most cost-effective solder material, and because lead was cheaper than tin,

---

<sup>51</sup> On worsening air quality in Depression-era Detroit, see “Quiet, But Dirty,” *Detroit Free Press*, April 27, 1935, 5; Leo Donovan, “Municipal Services Inadequate?” *Detroit Free Press*, July 14, 1940, 43; James S. Haskins, “75 Pct. In Detroit Demand Action by City to Further Abate ‘Smoke Nuisance’ Losses,” *Detroit Free Press*, May 4, 1941, 30. On the upsurge in poverty during the Great Depression in Detroit, see Darwyn Lumley, *Breaking the Banks in Motor City: The 1933 Detroit Banking Crisis and the Start of the New Deal* (Jefferson, N.C.: McFarland & Co., 2009), 11-26; Lorence, *Organizing the Unemployed*, 1-14; J. Norton, “The Relief Crisis in Detroit,” *Social Service Review* Vol. 7 No. 1 (March 1933), 1-10. On unemployment and wage declines among Detroit auto workers, see Peterson, *American Automobile Workers*, 130-148; Martin Halpern, *UAW Politics in the Cold War Era* (Albany: SUNY Press, 1988), 15.

most factories used alloys with a lead content as high as 80 percent. As the sheet metal worker and AWU member Joe Brown wrote in a letter to Cleveland-based novelist Robert Cruden in 1936, “a manufacturer buys solder that contains the most lead consistent with rapid production.” Briggs workers, for instance, applied 7.5 pounds of lead solder per car in the 1933-34 production season. The drive to boost productivity also dictated the replacement of hand tools with electric ones in grinding operations. As in mines, metal foundries and paint shops, mechanization significantly increased the respiratory hazard for workers.<sup>52</sup>

The lead poisoning epidemic struck all the major auto manufacturers in Detroit: The Ford Motor Company, the Chrysler Corporation, GM, the Hudson Motor Car Company, the Packard Motor Car Company, the Budd Company, the Lincoln Motor Company, the Murray Corporation, and the Briggs Manufacturing Corporation. It was worst at Briggs, which had successfully defeated the AWU-led strike in 1933. The response to the epidemic by Briggs officials testifies to what historian Christian Warren has called the “divided loyalties” of company doctors and industrial hygienists. While such experts sought to improve the health of workers, they recognized that their greatest value to employers was in minimizing production costs and legal liability. When the goals of protecting workers and protecting their employers’ bottom line conflicted, they generally prioritized the latter.<sup>53</sup>

In the spring of 1935, Brown interviewed numerous nurses and physicians in Detroit who were treating lead-poisoned workers, usually with pints of milk and calcium injections. By summer, the national labor press had picked up the story. On June 21, *The Camden Citizen* reported

---

<sup>52</sup> Joe Brown to Robert Cruden, March 17, 1936, “Hygiene—Industrial” folder, box 11, Brown Collection. On the speed-up in Depression-era auto plants, see Peterson, *American Automobile Workers*, 132-33.

<sup>53</sup> Carey P. McCord, “A Study of the Automobile Body Industry in Detroit, Circa 1936,” box 3, Carey McCord Papers, Bentley Historical Library, University of Michigan-Ann Arbor; Warren, *Brush With Death*, 107-108.

“1500 stricken” by lead poisoning in Detroit auto factories, including 226 cases at Briggs, 276 at Chrysler, 36 at Hudson, 80 at Ford, and an unspecified number at Packard. Workers’ access to health care varied according to company insurance plans. Thus, Ford workers had no group insurance, and pay stopped with hospitalization. At Briggs, workers received \$10 per week for 3 weeks and a final check for \$8 from the company’s “special insurance fund.” The companies did not publicly release information about the number of workers affected, however.<sup>54</sup>

The research conducted by Dr. Carey McCord in the city’s auto factories between 1935 and 1938 provides a useful example of the conflicts of interest that limited the effectiveness of industrial hygiene. At fifty, McCord had worked as a consultant and company physician for lead-using industries for decades when he came to Detroit in 1935. That year, he became the director of Chrysler’s Medical Department, and in 1936 he also became director of the Detroit Bureau of Industrial Hygiene, a new division in the Detroit Department of Health, while remaining in his position at Chrysler. As the inventor of the Basophilic Aggregation Test, a blood test which detected the stippling of red blood cells—a symptom of lead poisoning —McCord enabled companies to transfer or discharge lead-poisoned workers more easily. In the process, many auto workers came to mistrust McCord and the company health experts.<sup>55</sup>

From July 1 to August 1, 1935, with the cooperation of six Briggs officials, five industrial hygienists from the Industrial Health Conservatory Laboratories in Cincinnati, Ohio, led by McCord, carried out an investigation of the lead poisoning epidemic at Briggs. McCord visited the

---

<sup>54</sup> Joe Brown, “Interview with Mrs. Calkins and Mrs. Henry, Detroit, Michigan, 1/1/35,” Joe Brown, “Interview with Pody, 5/1/35; both in “Hygiene—Industrial” folder, box 11, Brown Collection; “Poisoned by Lead, Auto Workers Sell Lives for a Pittance: 1500 Stricken in Detroit Face Death or Hopeless Future in Cheap Car War,” *The Camden Citizen*, June 21, 1935.

<sup>55</sup> For an overview of McCord’s career, see Warren, *Brush with Death*, 106-110. On his position at Chrysler, see *Ibid.*, 108. Apart from a brief mention in the work just cited, historians have paid no attention to McCord’s career in Detroit (both public and private).

Mack Avenue Plant for ten days, with help from a ventilation engineer, a chemist and a laboratory technician. The final report, which Briggs officials filed as “confidential,” found that if all cases of lead absorption and clinical lead poisoning at Briggs were “grouped together,” the total number “may approximate four thousand.” It concluded that the situation was “rated as a major epidemic of lead poisoning,” and the rate of illness was “distressingly high.” In some areas, workers were breathing lead dust in concentrations one hundred times the amount “necessary to produce lead poisoning.” Plant managers had “no feeling that the situation is under control,” indicating that the number of cases might rise, despite recent signs of a “downward” trend.<sup>56</sup>

The report provided recommendations for addressing the epidemic in three crucial areas: engineering controls, medical surveillance, and legal strategy. In all three cases, the imperative to protect workers conflicted with cost concerns. First, the authors recognized that “obvious remedies are not compatible with the technical or economic requirements of production.” Two such remedies were 1) replacing lead with other, costlier materials and 2) replacing dust-generating electric grinders with hand tools. Because “no other metal thoroughly meets the requirements of body manufacture under practical conditions,” while “elimination of power grinding is economically expensive,” large quantities of lead dust would thus still have to be generated in Briggs plants. With improved ventilation and the use of respirators, however, the amount of lead inhaled by workers could be reduced to a level McCord deemed safe: 1.5 milligrams per 10 cubic meters of air per average workday. The authors recognized, however, that even with reduced

---

<sup>56</sup> Industrial Health Conservancy Laboratories and Briggs Manufacturing Company, “A Special and Limited Investigation of the Lead Hazards in Connection With Body Finishing at the Mack Avenue Plant of the Briggs Manufacturing Company, July 1 to August 1, 1935,” 1-5, box 3, McCord Collection. The participants in the study included five members of the Industrial Health Conservancy Laboratories and six Briggs officials. The IHCL members were Carey McCord, M.I. Dorfan, F.R. Holden, Jan Johnston, and Helen Sue Eyster. The Briggs officials were General Manager W.P. Brown, Treasurer R. Pierce, Director of Industrial Relations H.J. Roesch, Consulting Engineer C.R. Wiley, Medical Director Miss V.E. Filiatrault, and Plant Physician J. Glees.

atmospheric lead levels, “[a] fair number of new cases may be expected to arise month by month.”<sup>57</sup>

The most controversial aspects of the corporate strategy the authors recommended concerned limiting legal liability through the use of medical surveillance and the strict control of information. Workers whose blood tests showed stippling should be transferred to other departments, and replaced by new workers, properly screened in order “to prevent the employment of workers already leaded.” But plant physicians should be careful about the paper trail they created. Because medical records could be subpoenaed as legal evidence, they should not contain any “extravagant terms,” and “whenever doubt is tenable, the reason for this doubt should be recorded.” Above all, there should be a “painstaking effort” to “keep every lead poisoning case within the control of the plant’s medical personnel” rather than letting them “fall into the hands of divers [sic] physicians over the city and county.” Without maintaining such control, such physicians might support workers’ legal claims “without any proportional regard for the interests of the manufacturer.”<sup>58</sup>

Although Briggs had a reputation for unusually poor conditions, the problems McCord’s team discovered were present throughout the city. Over the next two years, McCord played a major role in investigating the problem. In 1936, he became the Director of the Detroit Bureau of Industrial Hygiene (DBIH), a newly formed department within the Detroit Department of Health. The creation of the DBIH was part of a more general expansion of state and local industrial hygiene activities in the mid-1930s, enabled by funding from the PHS under Title VI of the Social Security

---

<sup>57</sup> “A Special and Limited Investigation,” 1-5.

<sup>58</sup> *Ibid.*, 74-82. Although the report’s authorship is unlisted, McCord was almost certainly the main or sole author. McCord frequently used the word “divers” and similarly archaic terms in his writings in the 1930s; see, for example, Carey P. McCord, “Benzol (Benzene) poisoning: A new investigation of the toxicity of Benzene and Benzene impurities, 1931,” 5, 54, 59, box 3, McCord Collection.

Act of 1935. In addition to the PHS, the Works Progress Administration (WPA) paid the salaries of several DBIH staff members in the late 1930s. By the late 1930s, a complex regulatory apparatus had developed, linking local and state industrial hygiene programs to federal agencies. The expansion of the New Deal state into the field of occupational disease prevention marked a turn away from the virtual self-regulation by industry that characterized the 1920s and early 1930s. At the same time, McCord's concurrent position at Chrysler and in the DBIH underscored the prominence of industry officials within the regulatory system.<sup>59</sup>

In 1936, the DBIH carried out a comprehensive survey of lead exposure levels in all the city's 24 automobile body plants. Bureau staff, including McCord, Herbert T. Walworth, William Fredrick, Philip E. Fisher and Stanley E. Stelz, tested an average of 30-35 air samples per plant. In many plants, they found atmospheric lead levels dozens of times higher than 1.5 milligrams of lead per 10 cubic meters of air, the minimum above which even most lead industry studies agreed was dangerous. As a result, the study report understatedly concluded that "conditions in many plants are such that occurrence of lead poisoning is a reasonable expectancy." Going further than he had in the Briggs study, McCord recommended the elimination of "all powered grinding, buffing, sanding, etc." of lead solder and lead paint.<sup>60</sup>

### **Countering Industry Science: The Union Response**

Almost immediately, the lead poisoning epidemic—and McCord's role in it—inspired heated controversy in Detroit. Articles in the Detroit labor press personally attacked McCord,

---

<sup>59</sup> On increased funding for state and local industrial hygiene programs under the Social Security Act, through the Public Health Service and Department of Labor, see Gerald Markowitz and David Rosner, "More than Economism: The Politics of Workers' Safety and Health, 1932-1947," *The Milbank Quarterly* Vol. 64 No. 3 (1986), 331-354, esp. 335-36.

<sup>60</sup> Carey P. McCord, "A Study of the Automobile Body Industry in Detroit, Circa 1936," Tables I-II, box 3, McCord Collection.

accusing him of helping companies lay off lead-poisoned workers. George Morris, editor of the CPUSA organ *The Daily Worker*, claimed in a February 1936 article that “lead poisoning has caused frequent layoffs of lead exposed workers and their ACTUAL BLACKLISTING” and that “Dr. McCord’s findings have contributed very much to this end.” The reason, Morris charged, was that employers used McCord’s Basophilic Aggregation Test—a blood test designed to measure cell stippling, a symptom of lead poisoning—to insulated themselves from lawsuits. As lead poisoning cases mounted, the likelihood of Michigan legislators making compensation coverage for the condition mandatory increased. Rather than eliminate lead from factories, employers were eliminating lead-poisoned workers, while subjecting new batches of healthy recruits to the same danger. This was “a case of the employers buying science and turning it against the workers.” But if companies could “buy science” to use against workers, could unions do the opposite? Members of the newly formed United Auto Workers (UAW) sought to answer that question over the next several years.<sup>61</sup>

Concerns about occupational disease attracted interest from UAW organizers early on. I.W. Ruskin, who had been treating Detroit auto workers since 1921, believed that workers could not entrust their health to company doctors. In a speech to the 2<sup>nd</sup> Annual UAW Convention in April 1936, Ruskin described how employers’ “perfecting of laboratory and medical technic” allowed them to practice “discrimination” against lead-poisoned workers. As an alternative, he proposed establishing union-run medical and laboratory facilities to counter the company’s experts. These facilities would “serve to aid the workers in proving their claims and in many cases, of disproving the false claims of the employer.” Many workers were afraid to challenge employers on such questions, however, in case they might lose the slender benefits they had. At a hearing on worker’s

<sup>61</sup> George Morris, “Lead Poison Plague Hits Detroit: Bosses Hide Facts,” *Daily Worker*, February 23, 1936, “Hygiene—Industrial” folder, box 11, Brown Collection.

compensation in the Michigan Legislature in December, Michigan Federation of Labor Secretary John Reid testified that he had promised to produce witnesses with lead poisoning, but they “declined to appear for fear of jeopardizing help they were receiving.”<sup>62</sup>

In January 1937, the UAW published a pamphlet on occupational disease and worker’s compensation, written by Ruskin and other members of the union’s Medical Advisory Board. In exclamatory language, the authors warned workers that “employers are preparing a BLACK LIST OF LEAD POISON VICTIMS WHO WILL BE BARRED FROM INDUSTRY IF AND WHEN AN OCCUPATIONAL DISEASE LAW IS PASSED.” If such a blacklist existed, however, it was quite long. The authors estimated that there were 13,000 lead-poisoned workers in Detroit, a figure four times the one McCord had arrived at two years before, “with 4,000-5,000 new cases diseased every year.” The problem would continue “until an awakened and organized working class demand the enactment of an all-inclusive occupational disease law.”<sup>63</sup>

These debates occurred against the backdrop of dramatic strikes and factory occupations in Detroit, Flint, Akron, and other major industrial centers. Many industrial hygienists argued that health-destroying factory air contributed to labor militancy. In a speech at the Midwest Occupational Health Conference, held at the Hotel Statler in downtown Detroit in May 1937, Emory Hayhurst of the Ohio Department of Health stated that work which caused disease also caused “industrial unrest.” In another speech, Dr. William McNally of Chicago’s Rush Medical College argued that lead poisoning was the “chief hazard” among industrial workers. (He also claimed, without evidence, that “Negroes are more susceptible to lead poisoning than white

---

<sup>62</sup> Ruskin, “Occupational Diseases,” 13; “Hearings Open On Factory Ills: Michigan Employers Meeting Problems,” *Detroit Free Press*, December 4, 1936.

<sup>63</sup> Morris, “Lead Poison Plague Hits Detroit”; United Automobile Workers Medical Advisory Board and Education Department, “Occupational Disease and Workmen’s Compensation,” January 1937, 11-12, folder 7, box 1, Eugene Shafarman Collection, Reuther Library.



people.”) But lead poisoning was only one of a wide array of occupational health threats. By the mid-1930s, the exclusion of occupational disease from worker’s compensation had led to a torrent of lawsuits against employers across the country, by victims of dozens of varieties of chemical poisonings and dust diseases.<sup>64</sup>

The Detroit Department of Health’s Annual Report for 1937, noting the increase in the number of industrial hygienists in Detroit since 1935—from approximately six to sixty—attributed the change to legislation, educational programs, “activities of insurance companies, activities of labor unions, and in large measure [...] the national quickening of concern in the health aspects of industry.” Increasing numbers of worker’s compensation claims were provoking greater involvement from both unions and insurance companies. The combination of reform agitation and concerns about insurance costs led the Michigan legislature to include a “schedule” of specific occupational diseases to the Michigan Workmen’s Compensation Act in 1937.<sup>65</sup>

However, unionists, labor lawyers and some industrial hygienists argued that the legislation was inadequate. The UAW Medical Advisory Board demanded an all-inclusive bill, which would cover all occupational diseases, calling a scheduled bill “comparable to saying that the law should compensate for injured left eyes but not for right eyes.” Some industrial hygienists objected to scheduled legislation on other grounds. Alice Hamilton, then working in the Division of Labor

---

<sup>64</sup> “Lead Poisoning Rates Worst as a Hazard to Workers; Carbon Monoxide and other Fumes also Constitute a Serious Health Danger,” *The Science News-Letter* Vol. 31 No. 840 (May 15, 1937), 310; “Industrial Unrest and Poor Health Linked,” *The Science News-Letter* Vol. 31 No. 840 (May 15, 1937), 314; “Discuss Ills of Industry: Joint Conference Opens 3-Day Session,” *Detroit News*, May 4, 1937. On the compensation crisis in the late 1930s, see David Rosner and Gerald Markowitz, *Deadly Dust: Silicosis and the Politics of Occupational Disease in Twentieth Century America* (Princeton: Princeton University Press, 1992), 91-96; Alan Derickson, *Black Lung: Anatomy of a Public Health Disaster* (Ithaca: Cornell University Press, 1998), 82-85, 104-107.

<sup>65</sup> Detroit Department of Health, “Annual Report: 1937,” *City Health: A Bulletin* Vol. XXII No. 1 (January-July, 1938), 27-28.

Standards at the Department of Labor, argued that a restricted list of compensable diseases would prevent the law from keeping up with technological change. In a speech before the Wayne County Medical Society in January 1937, Hamilton observed that the problem with covering only certain “industrial poisons” was that “the chemists are always ahead of us in discovering and inventing new compounds useful in the manufacturing arts.”<sup>66</sup>

For workers seeking compensation, however, a more fundamental problem was industry’s control of scientific and medical knowledge and resources. To redress this imbalance, in 1937 the members of the UAW Medical Advisory Board established the UAW Medical Research Institute, including a clinic and industrial hygiene laboratory. UAW Treasury Secretary George Addes later recalled that the Institute handled over 3,000 cases in its first year, “mostly concerned with accidents and lead poisoning.” One of the key functions of the Institute was to challenge employers’ control of information about factory conditions. As the Institute’s new director, F.C. Lendrum, explained in an interview with McCord and other DBIH staff, the auto manufacturers “have had pretty thorough surveys done upon lead poisoning for example, and for obvious reasons such material is not accessible to the Union, either for the protection of the individual men or for the purpose of attempting to get appropriate legislation in Lansing.” If union doctors could test workers for lead poisoning, they could produce evidence which public officials and compensation boards could not ignore.<sup>67</sup>

---

<sup>66</sup> United Automobile Workers Medical Advisory Board and Education Department, “Occupational Disease and Workmen’s Compensation,” January 1937, 11-12, folder 7, box 1, Shafarman Collection; Alice Hamilton, “New Developments in the Field of Common Industrial Poisons,” address delivered before the Wayne County Medical Society, January 11, 1937, “Hygiene—Industrial” folder, box 11, Brown Collection; “Occupational Ills Change: Toxicologist Says Law is Hard to Frame,” *Detroit News*, January 12, 1937.

<sup>67</sup> “Discussion Record: Industrial Hygiene Lab for UAW,” n.d., folder 6, box 1, Shafarman Collection. This interview is undated, but probably occurred between the fall of 1936 and the summer of 1937.

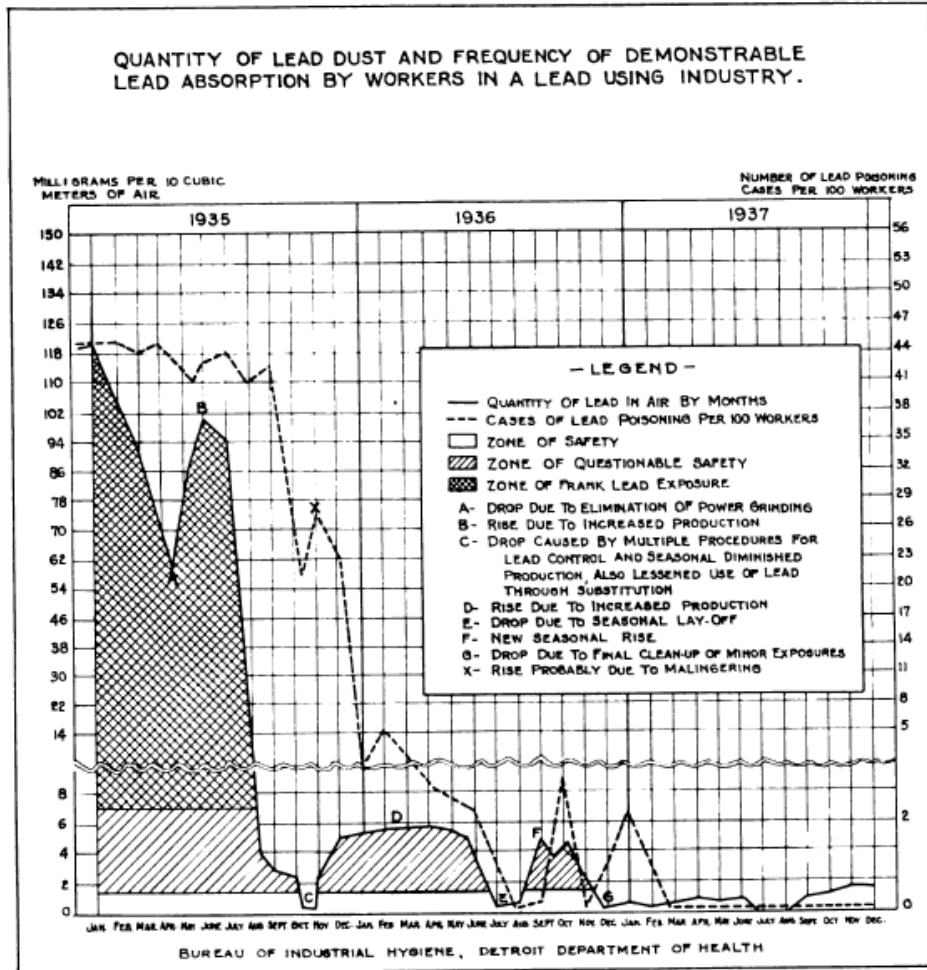


Fig. 2.1. Airborne lead levels in Detroit factories, 1935-37. Source: Detroit Bureau of Industrial Hygiene, *The Detroit Industrial Worker and His Health*, 47. During the same period, UAW physicians contested the DBIH's claim that lead exposures had been virtually eliminated in Detroit auto factories.

Such a case came up in 1938. Over the previous two years, DBIH publications had presented the lead poisoning problem as solved. In a 1939 pamphlet entitled *The Detroit Industrial Worker and His Health*, the DBIH claimed "there is essentially no acute lead poisoning among the automobile workers in this city." The reason was that improved ventilation, the reduction in power grinding, and the replacement of dry sanding with wet sanding had reduced levels of dust (Fig. 2.1). However, in 1938, physicians at the UAW-CIO Health Institute discovered 30 lead poisoning cases among workers at just one factory: the Packard Motor Car Company plant on Detroit's east side. McCord had noted in the 1936 DBIH report that air tests in the Packard plant revealed "the

highest lead exposures [...] found during this survey.” In response to inaction by Packard, UAW physicians sent laboratory reports of blood tests for 10 lead-poisoned Packard workers to the State Department of Labor in Lansing. In response, Michigan Labor and Industry Commissioner Lionel Heap wrote in a letter to UAW Health Institute Director F.C. Lendrum that the situation at Packard appeared “menacing” and promised “immediate action” from state factory inspectors. The problems continued, however. A Health Institute newsletter from 1940 estimated that there were still as many as 13,000 lead-poisoned workers in Detroit. Conditions, UAW physicians argued, had improved little.<sup>68</sup>

### **The Right to Manage Versus the Right to Know**

The conversion of the auto industry to defense production, beginning in 1940-1941, did not improve safety conditions in Detroit factories. During the first three years of World War II, more Americans died from industrial accidents in defense production than in battle overseas. As before in World War I, and again later during the Vietnam War, the conflict did not only claim the lives of soldiers and civilians, but of the workers who made munitions and military vehicles. For this reason, advocates for factory worker health and safety viewed their cause as integral to the larger military effort. “Maximum production for war,” U.S. Secretary of Labor Frances Perkins argued in a 1942 article, required attention to “such things as safety and industrial hygiene standards, good lighting and ventilation of work places,” as well as “smoothly functioning

---

<sup>68</sup> McCord, “A Study of the Automobile Body Industry in Detroit, Circa 1936,” “Packard Motor Car Co.”; “Lead Poisoning Cases Increase at Packard,” *UAW*, February 12, 1938; Publicity Bureau, United Auto Workers of America, “Immediate Release,” February 16, 1938; “Lead Poisoning at Plants Rare: Epidemic Wiped Out by Industry,” *Detroit Times*, December 7, 1938, all in folder 6, box 1, Shafarman Collection; Detroit Bureau of Industrial Hygiene, *The Detroit Industrial Worker and His Health*, 49; William Stachiw, “Workers’ Health Invested in Automobile Industry,” *UAW: Local # 3 Edition*, April 3, 1940, clipping in , “Hygiene—Industrial” folder, box 11, Brown Collection.

collective bargaining and grievance procedures, proper hours schedules, and one day of rest in seven.”<sup>69</sup>

Beginning in 1941, the Department of Labor Standards recruited a volunteer force of safety engineers to investigate defense plant safety for the Committee for Conservation of Manpower in Defense Industries to reduce accidents. Meanwhile, the Industrial Hygiene division of the PHS focused on the occupational disease problem, entering a cooperative program with the National Institute of Health and the Office of Defense and Welfare Service to train industrial hygienists for defense industries. The program was small, however, due to a freeze on federal employment imposed by the Bureau of the Budget. As PHS sanitary engineer J.J. Bloomfield noted in a 1943 speech, the agency could only supply a mere 60 industrial hygienists “on a lend-lease basis in 27 states.” In Michigan, the Division’s activities were largely educational, sponsoring training efforts through the Michigan Department of Health. However, industry—not the federal government—funded most investigations of factory air quality and disease during World War II. The most important private organization in this field (despite its quasi-public name) was the National Conference of Governmental Industrial Hygienists (NCGIH), later renamed the American Conference of Governmental Industrial Hygienists (ACGIH). Organized in 1938, the NCGIH had developed 35 research units in 29 states by 1942, including Michigan. In the first two years of the war, NCGIH units investigated 5,688 workplaces employing 2,600,000 workers, out of an estimated 12,000,000.<sup>70</sup>

---

<sup>69</sup> Frances Perkins, “Labor Standards and War Production,” *Annals of the American Academy of Political and Social Science* Vol. 224 (November 1942), 54. On the estimate of worker versus soldier deaths between 1941 and 1944, see Rosner and Markowitz, “More Than Economism,” 343.

<sup>70</sup> J.J. Bloomfield, “Governmental Industrial Hygiene Practice in 1942,” paper presented at the Sixth Annual Meeting of the National Conference of Governmental Industrial Hygienists, Rochester, New York, May 24, 1943, box 4, William Fredrick Collection, Reuther Library.

For the UAW-CIO, whose members had swelled to over 1 million with the unionization of the Ford Motor Company only months before Pearl Harbor, the challenge of protecting workers from accidents, and dust and chemical diseases, was a large one. During the war, the union sought to expand the Health Institute in Detroit, while also seeking to secure health protections for workers through collective bargaining. In 1943, with a \$75,000 grant from the War Chest of Metropolitan Detroit, the Health Institute provided diagnostic services to 2,800 workers. Of the first 2,350 cases, union doctors classified 621 as “industrial disease cases.” As George Addes explained in a 1944 UAW Executive Board meeting, “[t]he outstanding problem is inadequate ventilation, both intake and exhaust.”<sup>71</sup>

The union had difficulty accessing the information produced by industry investigations of indoor pollution and occupational disease. In a report to the UAW’s 8<sup>th</sup> Annual Constitutional Convention in Buffalo, New York in October 1943, Health Institute staff members noted the “[h]esitancy of the companies to reveal to workers the toxic and dangerous nature of the materials they handle” and the problem of “company medical and personnel departments withholding medical information from examined workers.” Institute members argued for equal access to such information by union, company and government representatives. The Institute Director, James E. Davis, proposed the creation of health and safety committees “representing labor and management” which would share the results of investigations. This was important, he argued, because “[k]nowledge of substances used in manufacturing activities will facilitate diagnosis of

---

<sup>71</sup> Report of George F. Addes, International Secretary-Treasurer and Director of Medical-Research Health and Accident Department, UAW-CIO, Executive Board Meeting, February 7, 1944, box 60, United Community Services Central Files, Reuther Library.

chemical poisonings and prevent continued health destruction.” Such cooperation would facilitate the success of “total planning programs” for worker health.<sup>72</sup>

These views ran directly counter to those of many public officials and NCGIH members. In the 7<sup>th</sup> Annual NCGIH meeting in May 1944, Dr. Kenneth E. Markuson, Director of the Michigan Bureau of Industrial Hygiene at the Michigan Department of Health, noted that workers and union officials were increasingly making “requests and at times almost demands” for information about factory health hazards. This included “findings in engineering, on chemistry, and on medical information involving the worker and the plant.” Markuson said that members of the NCGIH should refuse such requests. Although they should not give certain kinds of information to plant management, such as workers’ positive serology reports (as some NCGIH members had done), the organization should not view management and labor as equal partners in the enterprise of factory inspectors. He was opposed to the idea that the results of NCGIH investigations “should be turned over to the individual worker, to the union, or to the attorney.” Ultimately, “plant management and only plant management [...] must rectify the conditions that we find.”<sup>73</sup>

A similar divergence in views developed over the Threshold Limit Values (TLVs) that companies used to set air quality standards in factories. At the 1943 Buffalo convention, UAW physicians argued that the standards favored by industry were often far too high to protect worker health. In one paper presented to the conference, James E. Davis, Morris Raskin, and Leonard

---

<sup>72</sup> UAW-CIO Medical Research Institute, “To the Officers and Delegates: International Convention, UAW-CIO,” October 1943, Buffalo, N.Y., folder 8, box 60, United Community Services Central Files, Reuther Library.

<sup>73</sup> “Plant Conditions: To What Extent Should Official Findings Regarding Them Be Made Available to Workers?” Roundtable Discussion, National Conference of Governmental Industrial Hygienists, 7<sup>th</sup> Annual Meeting Transactions, May 9, 1944, 22, folder 3, box 4, William Fredrick Collection, Reuther Library.

Gilbert noted that corporations “allow poisonous materials to exist in a worker’s environment at levels just below that which produces evidence of disease.” If workers breathed in 1.5 micrograms of lead per 10 cubic meters of air, they might not develop immediate symptoms of lead poisoning, but their bodies and brains would be damaged over time. Yet, unlike an immediate accident, companies could easily escape liability for conditions that slowly eroded workers’ health. Unless pollution levels were high enough to kill or totally incapacitate workers, the employer would not “recognize responsibility” for damage, and even then “fights in court to deny liability.”<sup>74</sup>

Members of the NCGIH, which changed its name to the American Conference of Governmental Industrial Hygienists (ACGIH) in 1946, took a different view. The ACGIH developed standards for lead, asbestos, vinyl chloride, and dozens of other chemical and dust hazards based on research at Kettering, Haskell, and other industrial research laboratories. In the decades preceding active federal air pollution regulation in the 1970s, and continuing afterward at the state level, these TLVs acted as de facto industrial pollution standards in the United States and even internationally. The government of West Germany, for example, adopted the ACGIH TLV standards in 1955, using them as a basis for workplace exposure limits and air quality standards.<sup>75</sup>

William Fredrick, a research chemist in the Detroit Bureau of Industrial Hygiene who went on to serve as the Director of the Detroit Department of Health from 1945 to 1970, was one of the founding members of the NCGIH TLV committee in 1941. The committee included the Manfred Bowditch, Phil Drinker, Lawrence Fairhall and Al Dooley, industrial hygienists who had variously served as consultants for lead, asbestos, and chemical manufacturers. (Bowditch, for example, was

---

<sup>74</sup> James E. Davis, Morris Raskin and Leonard Gilbert, “Industrial Health and Safety,” Report to 8<sup>th</sup> Annual Convention, UAW-CIO, October 1943, Buffalo, N.Y., folder 8, box 60, United Community Services Central Files, Reuther Library.

<sup>75</sup> Castleman and Ziem, “Corporate Influence on Threshold Limit Values,” 531.



the Health and Safety Director of the Lead Industries Association.) The “philosophy of the TLV,” Fredrick later recalled, “remained substantially unchanged” after 1941. Reflecting on their history, he noted that TLVs had been the source of much “carping, criticisms, misunderstandings and abuse,” but added that “for better or for worse, they are accepted on an international basis as the best available guides for providing healthful occupational environments for workers.”<sup>76</sup>

Following World War II, the UAW-CIO Health Institute became part of what historians have called a “private welfare state.” While most industrialized nations created national health care systems and generous welfare states after World War II, in the United States only a segment of the working class (disproportionately white males in core industrial firms) gained similar benefits through collective bargaining. Not all UAW leaders, however, supported obtaining such benefits through employers rather than the state. During World War II, George Addes and others in the Health Institute hoped that it would become part of a national health care system, possibly linked to tripartite industrial planning. However, in the conservative political climate following the 1946 Congressional elections, Walter Reuther and his followers moved to purge Communists and “fellow travelers” like Addes and Richard Frankenstein, and to decertify UAW Local 600 and other “red locals.” In the reactionary atmosphere of the early Cold War, the UAW and other large CIO unions also lowered their sights from the goal of national health care. Focusing on the realm of collective bargaining, they secured enviable wages and health care, unemployment and pension benefits for millions of industrial workers, exemplified by the 1946 and 1950 UAW-GM contracts. The latter, dubbed “The Treaty of Detroit” by labor journalist Daniel Bell, won wage and benefit gains in exchange for dropping challenges to GM’s “right to manage.” Writing in *Fortune*, Bell celebrated it as “one of the very few union contracts that expressly recognize both the importance

---

<sup>76</sup> William Fredrick, “The Influence of the ACGIH TLV Committee on the Development of Industrial Hygiene,” folder 2, box 1, Fredrick Collection.

of the management function and the fact that management operates directly in the interest of labor.”<sup>77</sup>

The UAW Social Security Department, established in 1948, helped administer the new fringe benefit plans. One of the Social Security Department’s more exceptional features was its Industrial Health and Safety Division, which employed Lloyd Utter, a safety engineer and former chief Michigan Department of Health factory inspector, and the industrial hygienist F.A. Van Atta. While other unions employed physicians (as the United Mine Workers of America did through its Health and Retirement Funds), the UAW appears to have been the first with a full-time industrial hygienist on staff. In addition to inspecting plants in response to local grievances, Utter and Van Atta participated in contract negotiations and acted as consultants in worker’s compensation cases. While these initiatives put the UAW ahead of most unions on health and safety matters, the union’s resources were small in comparison to the corporations that funded the ACGIH, and in proportion to the million-plus rank and file.<sup>78</sup>

---

<sup>77</sup> Daniel Bell, “The Treaty of Detroit,” *Fortune* (July 1950), 53-55; Howell John Harris, *The Right to Manage: Industrial Relations Policies of American Business in the 1940s* (Madison: University of Wisconsin Press, 1982), 151-152. On the “private welfare state,” see Nelson Lichtenstein, *The Most Dangerous Man in Detroit: Walter Reuther and the Fate of American Labor* (New York: Basic Books, 1995), 271-98; Jack Stieber, *Governing the UAW* (New York: Wiley, 1962), 115-17; Alan Derickson, “Health Security for All? Social Unionism and Universal Health Insurance, 1935-1958,” *Journal of American History*, 80 (March 1994), 1333-56; Marie Gottschalk, *The Shadow Welfare State: Labor, Business, and the Politics of Health Care in the United States* (Ithaca: Cornell University Press, 2000), 39-64; Jennifer Klein, *For All These Rights: Business, Labor, and the Shaping of America’s Public-Private Welfare State* (Princeton: Princeton University Press, 2003), 204-57; David Rosner and Gerald Markowitz, “The Struggle Over Employee Benefits: The Role of Labor in Influencing Modern Health Policy,” *The Milbank Quarterly*, 18 (March, 2003), 45-73.

<sup>78</sup> On the operations of the UAW Health and Safety Division, see “What Do the Unions Want in Safety? An Exclusive Interview with Walter Reuther,” *Occupational Hazards: Industrial Safety and Housekeeping* (February 1955), 21-23, 65-69; Walter Reuther to Officers, Board Members and International Representatives, January 29, 1962, folder 1, box 55, Walter Reuther Collection, Reuther Library.

No less significant for the problem of factory pollution, while the Big Three granted significant concessions on wages and benefits in postwar collective bargaining, they aggressively challenged union efforts to participate in production decisions. One of the most famous examples of this occurred during the 1946-47 GM strike, when—in response to the elimination of overtime—newly elected UAW President Walter Reuther demanded that GM “open its books” to prove it could not afford a wage increase. While historians have frequently described GM’s refusal to open its accounting books, they have neglected the corresponding refusal to open the industrial research laboratory or worker medical file. Both rested on the same managerial prerogatives, however. The exclusion of unions from even token participation in production decisions would limit labor’s efforts to challenge in-plant pollution, which harmed African American workers the most.<sup>79</sup>

In subsequent decades, this would prove even more true of efforts to challenge out-plant pollution, which in the case of the UAW comprised both emissions from automobile factories and from automobiles themselves. These limits would become increasingly clear over the course of the postwar era. ACGIH members, including state officials like Markuson, remained committed to sharing information with plant management, but not with unions or workers. If Reuther’s demand that GM open its books was, in the words of one GM executive, a “direct invasion of managerial responsibility,” union access to the research at Kettering and similar labs would have

---

<sup>79</sup> Harris, *The Right to Manage*, 150-151; Maurice Zeitlin and Judith Stepan-Norris, “Red Unions and ‘Bourgeois’ Contracts?” *American Journal of Sociology* Vol. 96 No. 5 (March 1991), 1151-1200; Barry Bluestone and Irving Bluestone, *Negotiating the Future: A Labor Perspective on American Business* (New York: Basic Books, 1992), 53-55.

opened up a second, no less threatening, front. Industry had largely routed both by the time of the Treaty of Detroit.<sup>80</sup>

### Conclusion

In her 1943 memoir *Exploring the Dangerous Trades*, Alice Hamilton described witnessing an experiment in industrial democracy in England in 1928. There, the Home Office had established corporatist arrangements for preventing lead poisoning in storage-battery plants. “Representatives of the manufacturers and of the trade-union,” she recalled, “sat in with the factory inspection experts and had equal voting power.” Nothing of the kind existed in the United States, she lamented, where the “feudalistic spirit” was ironically stronger than in parts of the Old World, because “democracy has never really penetrated our greatest industries.” For Hamilton, the end of “industrial feudalism” in the United States would involve tripartite production planning, which would eliminate or at least minimize preventable illnesses like lead poisoning.<sup>81</sup>

In the late 1930s and during World War II, trade unionists in Detroit sought to do what Hamilton witnessed in England. In their efforts to democratize the study and regulation of factory health hazards, auto unionists brought union-funded medical and legal expertise to contract negotiations and worker’s compensation cases. Employers and most public health officials, however, shared the view that management should control information about the materials workers used. The exclusion of unions from access to industry-funded research on lead, asbestos, and synthetic chemicals reinforced corporate control of information about environmental risks. In Kettering’s 1949 agreement with Du Pont, for example, Kehoe and his colleagues agreed to

<sup>80</sup> For the GM executive quote, see Colleen Doody, *Detroit’s Cold War: The Origins of Postwar Conservatism* (Urbana: University of Illinois Press, 2012), 97.

<sup>81</sup> Alice Hamilton, *Exploring the Dangerous Trades: The Autobiography of Alice Hamilton, M.D.* (Boston: Little, Brown and Company, 1943), 14, 240.

“furnish the manuscripts of all public reports and scientific publications of investigative work under this agreement to Du Pont for criticism and suggestion prior to their issuance.”<sup>82</sup>

In the case of lead, industry control of toxicological research delayed protective public health measures from the 1920s until the 1970s, enabling an exponential increase in atmospheric lead pollution. The combination of lead in gasoline, paint, and dust from industrial sites left a legacy of pervasive lead contamination in Detroit, which would map closely onto neighborhoods inhabited by poor and working-class African Americans after World War II. Subsequent chapters will trace the politics of lead and other pollutants in Detroit in more detail, showing how contending groups sought to limit environmental risks, and make the regulatory state more accountable to community residents and workers.

---

<sup>82</sup> Robert Kehoe, letter to Dr. S Lenher, July 26, 1949, folder 1, box 11, Robert A. Kehoe Collection, Henry R. Winkler Center for the Study of the Health Professions, University of Cincinnati; “Agreement made this day of September, 1949, between E.I. Du Pont De Nemours and Company [...] and the University of Cincinnati, Cincinnati, Ohio, hereinafter called ‘the University,’” Ibid.

### CHAPTER 3: SHIFTING THE BURDEN: INDUSTRIAL POLLUTION, UNEVEN DEVELOPMENT, AND THE REGULATORY STATE, 1945-1969

In the history of Detroit, the 1950s marked a turning point from expansion to contraction. Despite severe economic downturns during the 1870s, 1880s, 1890s, and 1930s, Detroit experienced a nearly continuous process of population growth and industrialization from the Civil War until the end of World War II. Then, between 1945 and 1965, an inverse trend of suburbanization and deindustrialization began, which would continue for another half-century. Between 1955 and 1970, large manufacturers only opened one new factory—Chrysler’s Huber Foundry—in Detroit. In the 1950s, 840 factories closed in Detroit, while 124 new factories opened in the suburbs. Historians have extensively documented how public policy encouraged the flight of capital and white residents from older cities, and how discrimination by federal housing officials, the real estate industry, and white homeowners barred African Americans from joining the suburban exodus. They have written much less about the relationship between these trends and environmental regulation. Yet, far from being a marginal issue, environmental regulation played a critical role in the politics of capital flight and suburbanization in postwar Detroit.<sup>1</sup>

At the end of World War II, the regulation of air and water pollution was almost solely the responsibility of municipal and state governments. In Detroit, the only air pollution regulation that existed was a smoke ordinance inherited from the Progressive era, with minor alterations. The

---

<sup>1</sup> For the factory closure statistics, see Charles Hyde, *Detroit: An Industrial History Guide* (Detroit: Detroit Historical Society, 1980), 21-27. On segregation, industrial decentralization, and urban decline in postwar Detroit, see Joe T. Darden, Richard Child Hill, June Manning Thomas, and Richard Thomas, *Detroit: Race and Uneven Development* (Philadelphia: Temple University Press, 1987), 150-200; B.J. Widick, *Detroit: City of Race and Class Violence, 2nd Ed.* (Detroit: Wayne State University Press, 1989), 137-208; June Manning Thomas, *Redevelopment and Race: Planning a Finer City in Postwar Detroit* (Baltimore: Johns Hopkins University Press, 1997), 55-126; Thomas J. Sugrue, *Origins of the Urban Crisis: Race and Inequality in Postwar Detroit*, 2nd Ed. (Princeton: Princeton University Press 2005), 33-88, 125-176; David Freund, *Colored Property: White Racial Politics in Suburban America* (Chicago: University of Chicago Press, 2007), 243-281.

primary purpose of the ordinance, enforced by a crew of 17 smoke inspectors, was to restrict coal smoke emissions in residential areas. Regulations for subtler pollutants, such as sulfur dioxide and particulate matter, did not yet exist. No federal or state standards existed for municipal or industrial water pollution, although both had increased exponentially since the turn of the century. Detroit had only begun to treat its sewage in 1940, and while primary sewage treatment made drinking water safe, it did not reduce the quantity of raw sewage entering the Detroit River. Adding to the waste stream, local industries discharged increasing quantities of hazardous chemicals and oils into local waterways. Yet, the only entity that regulated industrial water pollution was the five-member Michigan Stream Control Commission, created in 1929, succeeded by the seven-member Michigan Water Resources Commission (MWRC) in 1949. Like its predecessor, the MWRC pursued a voluntarist approach to environmental regulation before the 1960s. Rather than setting water quality standards, its members only sought assurances from plant managers that they diluted their effluents prior to discharge.<sup>2</sup>

Corporations also funded scientific studies that downplayed the risks of lead and other pollutants, and threatened to relocate factories if environmental laws increased production costs. In combination, these factors—weak regulation, industry-funded research, and the need for local officials to prevent capital flight—inhibited progress on pollution control in Detroit. In the early

---

<sup>2</sup> On the creation of the MWRC, see U.S. Department of Health, Education, and Welfare and Public Health Service, *Transcript of Conference in the Matter of Pollution of the Navigable Waters of the Detroit River and Lake Erie and Their Tributaries within the State of Michigan, First Session, March 27-28, 1962* (Washington, D.C.: U.S. Government Printing Office, 1962), 192-193. On the history of federal environmental regulations in the early postwar decades, see Karl Boyd Brooks, *Before Earth Day: The Origins of American Environmental Law, 1945-1970* (Lawrence: University Press of Kansas, 2009); Craig E. Colten and Peter N. Skinner, *The Road to Love Canal: Managing Industrial Waste Before the EPA* (Austin: University of Texas Press, 1996). On pollution from the River Rouge plant, see Tom McCarthy, *Auto Mania: Cars, Consumers, and the Environment* (New Haven: Yale University Press, 2007), 55-76; also see the more detailed account in idem., “The Road to Respect: Americans, Automobiles, and the Environment” (Ph.D. Dissertation: Yale University, 2001), 272-341. For an overview of post-World War II water pollution abatement in Michigan, see Dave Dempsey, *Michigan's Rise as a Conservation Leader* (Ann Arbor: University of Michigan Press, 2001), 139-161.

1960s, this situation began to change, as pressure increased for federal air and water pollution regulations. The shift had two major sources. First, publicly funded environmental health research, including a series of studies by the International Joint Commission (IJC) and the U.S. Public Health Service (PHS), produced compelling evidence that unregulated air and water pollution threatened public health in southeast Michigan.<sup>3</sup>

Second, rapid metropolitan development imposed environmental costs on Detroit's municipal government and taxpayers. By the 1960s, the booming industrial suburbs southwest of Detroit generated an estimated 40 percent of the air pollution in the city, and more than 75 percent of the industrial waste in the Detroit River. Meanwhile, lawn fertilizers, septic discharges, and other runoff from new subdivisions in Bloomfield Hills, Birmingham, Livonia, and other suburbs also added to the waste stream. While suburban growth reduced Detroit's tax base, it generated externalities from air and water pollution, which lowered property values and increased sewage treatment costs in the city. Yet, if municipal officials raised taxes and strengthened regulations, they risked provoking further capital flight. As a result, they required greater assistance from the federal government. This chapter, then, shows how the uneven development of metropolitan Detroit, and the shifting of environmental costs onto urban residents, created new demands for federal pollution regulation after World War II.<sup>4</sup>

---

<sup>3</sup> On controversies over industry-funded research on environmental and occupational health, see Devra Lee Davis and Richard A. Stein, "Conflicts of Interest: Manipulating Public Health," *The American Biology Teacher* Vol. 76 No. 3 (2014), 173-177; Jock McCulloch and Geoffrey Tweedale, "Anthony J. Lanza, Silicosis and the Gauley Bridge Nine," *Social History of Medicine* Vol. 27 No. 3 (August 2014), 1-18; Thomas O. McGarity and Wendy E. Wagner, *Bending Science: How Special Interests Corrupt Public Health Research* (Cambridge: Harvard University Press, 2008).

<sup>4</sup> For the 40% estimate, see "Remarks by Morton Sterling, Director, Detroit—Wayne County Air Pollution Control Agencies, Detroit—Wayne County Departments of Health before the National Association of Counties Great Lakes Region Clean Air Conference for Public Officials, Chicago Marriott Motor Hotel, May 12-14, 1968: The Evolution and Establishment of a Regional Approach to Air Pollution Control in the Detroit Metropolitan Area," Air Pollution (Health Subfile) 1969 folder, Box 474, Jerome Cavanaugh Collection, Reuther Library. For the 75% estimate, see Richard D. Vaughan and George L. Harlow, *Report*



### **The International Joint Commission and Water Pollution**

In the late 1940s and 1950s, the International Joint Commission (IJC) carried out a series of studies of water and air pollution in the Detroit River region, encompassing the metropolitan areas of Detroit and Windsor, Ontario. In 1948, the waters connecting Lake Huron and Lake Erie carried the heaviest freight tonnage of any waterway in the world, including hundreds of millions of tons of iron ores, coal, and grain. By 1955, Windsor, Ontario was a small city of 30,000 people with an estimated 450 industrial establishments, including automobile factories operated by Detroit's Big Three, as well as smaller firms, such as Bendix Automotive. Detroit and its suburbs, by contrast, comprised a sprawling metropolitan area of over 3 million people, over half of whom resided within the city limits. The metropolitan area included over 6,000 industrial establishments, with the largest number clustered near the intersection of the Detroit and Rouge Rivers. This strip of heavy industry included one of the world's largest factories, Ford's River Rouge complex, as well as numerous steel plants, including Great Lakes Steel's blast furnace on Zug Island, which produced 50,000 tons of pig iron per month.<sup>5</sup>

Detroit's unprecedented growth between 1910 and 1950 produced radical changes in the waterways, soil, and atmosphere of southeast Michigan and southwest Ontario. By the end of World War II, local officials in both Detroit and Windsor recognized the need for greater involvement by their respective federal governments in the pollution problem. George F. Emery,

---

*on Pollution of the Detroit River, Michigan Waters of Lake Erie, and Their Tributaries* (Washington, D.C.: U.S. Department of Health, Education, and Welfare, Public Health Service, Division of Water Supply and Pollution Control, April 1965), 1-13.

<sup>5</sup> International Joint Commission, *Report of the International Joint Commission on the Pollution of the Atmosphere in the Detroit River Area* (Washington, D.C. and Ottawa: International Joint Commission, 1962), 1-10, Box 1, Record Group 59, Records of the State Department, National Archives, College Park, MD.

the director of the Detroit City Plan Commission, wrote in a July 1945 letter to J.J. Mansfield, chair of the House Rivers and Harbors Committee, that “abatement of river pollution is necessary and important if our natural resources are to be fully reclaimed for the use and enjoyment of the public.” He asked for the committee to approve an amended version of the 1938 Barkley-Vinson bill, which created the first water pollution control division in the PHS. The new amendments provided matching federal grants-in-aid for local and state abatement. Supporters of the amended bill, called the Water Pollution Act, argued that it was good for business in Michigan. In a March 1947 hearing on the bill, Michigan Senator Frank Heath cited the toll of water pollution on tourism and resorts, the state’s second-largest industry, as well as on commercial fisheries. He noted that heavy industry also required public waters for “cooling, processing, and other manufacturing purposes,” not just as a sink for wastes. The Water Pollution Act would modestly increase oversight of state waters, adding two members to the Michigan Stream Control Commission and renaming it the Michigan Water Resources Commission (MWRC).<sup>6</sup>

Yet, many corporate leaders opposed the bill, claiming that it would drive industries out of Michigan. John L. Lovett, General Manager of the Detroit-based Michigan Manufacturers Association, said that “[t]here as always been a battle whether or not we are going to have fish or whether we are going to have industry.” He noted that GM had laid off 75,000 workers in the past year while opening new branch plants outside of the state. This was part of a larger trend: “roughly half a billion dollars has been spent by Michigan industries in other states.” In this context, he told the legislators, “you have got to decide whether you are going to drive those industries out of the state or whether you are going to say that certain areas are industrial, not playgrounds or fishing

---

<sup>6</sup> George F. Emery, letter to J.J. Mansfield, July 30, 1945, in U.S. Congress, House, Committee on Rivers and Harbors, *Hearings on H.R. 519, H.R. 587, and H.R. 4070*, 79th Cong., 1st sess., November 13, 14, 15, and 20, 1945, 328; *Record of Hearing Before Governor Sigler’s Special Committee on Water Pollution Control Legislation and its Administration*, March 26, 1947, 1-3, Library of Michigan, Lansing, MI.

streams.” Similarly, in an official statement, the Ford Motor Company said that the Water Pollution Act was unnecessary, because Act 245 of 1929 “is entirely adequate to cope with stream pollution in Michigan.” The control of industrial wastes, Ford officials insisted, was a technical matter best solved by industry. “The problems involved,” they claimed, “are much too complicated to be settled by legislative fiat.” The bill that passed in 1948 was modest, restricting the PHS to an advisory and funding role in state water pollution control programs. It did not establish water quality standards, either for industry or for municipalities. As historian Paul Milazzo has observed, federal legislators viewed the 1948 bill as “too feeble to take seriously.”<sup>7</sup>

Because of its position on a U.S.-Canadian waterway, Detroit was also subject to oversight from the International Joint Commission (IJC). As in the World War I era, the IJC played a central role in the study of Detroit River pollution after World War II. The stimulus for renewed involvement by the IJC initially came from Canadian public health officials. In June 1945, G.H. Ferguson, the director of Public Health Engineering at the Canadian Department of Nation Health and Welfare, wrote to the PHS to propose an IJC study of Detroit River pollution. The IJC was uniquely suited to coordinate such an effort. Article IX of the Boundary Waters Treaty of 1909 authorized the IJC to survey pollution in transboundary waters, and to regulate pollution from river vessels in those waters.<sup>8</sup>

The IJC did not have the authority to regulate land-based forms of pollution. Since the

---

<sup>7</sup> John L. Lovett, testimony, *Record of Hearing Before Governor Sigler’s Special Committee on Water Pollution Control Legislation and its Administration*, March 26, 1947, 9-11; Statement by Ford Motor Company on Michigan Stream Pollution Control Law, March 26, 1947, in *Ibid.*, Appendix A, 2; Paul Charles Milazzo, *Unlikely Environmentalists: Congress and Clean Water, 1945-1972* (Topeka: University Press of Kansas, 2006), 19.

<sup>8</sup> See International Joint Commission, “Trail Smelter Reference: Statement on behalf of the government of the United States before the International joint commission, based upon the testimony, given at the hearing beginning January 22, 1930, Washington, D.C., with the applicable law” (Washington, D.C.: U.S. Government Printing Office, 1930), 1-65.

1920s, however, the IJC had investigated land-based sources of pollution that crossed international waters. For example, during the “Trail Smelter Dispute” of 1927-1937, the IJC recommended a settlement from the Consolidated Mining Company to farmers in Washington state, to remediate property damage caused by the firm’s zinc smelter in Trail, British Columbia. While the IJC’s regulatory authority was limited to river vessel pollution, it served an advisory role in land-based nuisance cases. The history of the IJC in the Detroit River region underscored the limitations of this approach. The 1913-1916 IJC study had found that the Detroit River was “highly polluted” from raw municipal sewage. However, the IJC could only recommend sewage treatment, not force it. Moreover, the study did not recommend remedial measures for industrial wastes. “The immensity of the boundary waters,” the authors wrote optimistically, “and their consequent capacity for dilution, will probably for some time to come prevent pollution from this source other than saw mill and pulp mill wastes becoming an international question.” By the late 1940s, the capacity of the Great Lakes to absorb industrial waste no longer seemed limitless.<sup>9</sup>

The second IJC study occurred in two phases: a study of water pollution, carried out in 1948-1951, and a study of air pollution, carried out in 1949-1962. Unlike the 1913-1916 study, the new one devoted equal attention to industrial and municipal sources of pollution. In 1949, John M. Hepler, the director of the Bureau of Engineering at the Michigan Department of Health, observed that in the previous study “typhoid fever morbidity and mortality rates were the best indices of pollution,” and surveyors did not measure “chemical pollution.” The final report on

---

<sup>9</sup> On the role of the IJC in the Trail Smelter dispute, see James R. Allum, “‘An Outcrop of Hell’: History, Environment, and the Politics of the *Trail Smelter* Dispute,” in Rebecca M. Bratspies and Russell A. Miller (Eds.), *Transboundary Harm in International Law: Lessons from the Trail Smelter Arbitration* (New York: Cambridge University Press, 2006), 13-26. For the quote, see International Joint Commission, *Pollution of Boundary Waters: Report of the Consulting Sanitary Engineer Upon Remedial Measures, March 8, 1916* (Washington, D.C.: Government Printing Office, 1918), 46. In their brief discussion of industrial waste, the authors conceded that “[h]aving regard for the future, however, it is well to provide for its regulation.” Ibid.

water pollution, published in 1951, found dramatic increases in both municipal and industrial discharges since the World War I period. The bacterial load in the Detroit River was “three to four times greater than in the 1913,” when it was already “highly polluted.” Although sewage treatment had made Detroit drinking water safe, finally eliminating the threat of typhoid, Detroit sewage still did not undergo “secondary treatment” before entering the Detroit River. Windsor, Ontario, moreover, did not treat its municipal sewage at all.<sup>10</sup>

**Table 3.1. Industrial Wastes Discharged Daily, 1946-1948 (pounds)**

<u>Area</u>	<u>Phenols</u>	<u>Cyanides</u>	<u>Ammonium</u>	<u>Oils</u>
St. Clair River	0	0	15	40
Lake St. Clair	1,230	0	40	0
Detroit River	4,890	3,690	11,010	16,240
Total	6,120	3,690	11,065	16,280

Source: International Joint Commission, *Report of the International Joint Commission, United States and Canada, on the Pollution of Boundary Waters* (Washington, D.C.: International Joint Commission, 1951), 62.

Industrial water pollution was more worrisome still. In 1946-1948, industrial plants discharged 1.1 billion gallons of waste into the Detroit River per day on average. This daily waste stream included 3,690 pounds of cyanide, 4,890 pounds of phenols, 11,010 pounds of ammonium, and 16,240 pounds of oils and oil byproducts (Table 3.1). Over seventy percent of the cyanides came from Ford’s River Rouge complex. Other firms that discharged cyanide included the Allied Chemical & Dye Corporation, Mueller Limited, Sydenham Trading Company, Wallaceburg Brass, Ltd., and the Canadian Steel Corporation. Factories also discharged thousands of gallons of steel

<sup>10</sup> John M. Hepler, “Detroit River Study: A Discussion,” *Sewage Works Journal* Vol. 21 No. 3 (May 1949), 531-532; International Joint Commission, *Report of the International Joint Commission, United States and Canada, on the Pollution of Boundary Waters* (Washington, D.C.: International Joint Commission, 1951), 153.

pickling liquors (diluted sulfuric acid) into the Detroit River every day. By the late 1940s, these acids had given the Rouge River an orange color, and its waters had become deadly to fish, ducks, and other aquatic life.<sup>11</sup>

The IJC report recommended expanding regional sewage treatment, both primary (for purifying drinking water) and secondary (for treating waste discharged into the Detroit River). The estimated cost for primary treatment was \$43.5 million on the United States side, and \$21 million on the Canadian side. Secondary treatment would cost another \$33 million for the United States, and \$4 million for Canada. These estimates far exceeded the funds available to municipalities at that time. The most recent amendments to the Water Pollution Act, in 1956, provided a maximum of \$250,000 in federal grants for sewage treatment facilities. Moreover, the 1956 bill favored small-scale projects in suburban and rural areas, while falling far short of the needs of large cities. In 1961, Congress raised the grant ceiling to \$600,000, still a small fraction of the cost of secondary treatment in Detroit. Of the \$1.2 billion in federal grants for sewage treatment between 1957 and 1969, the majority went to communities with a population of under 25,000. In relation to water pollution, as in other areas, federal policy favored suburbs over older cities.<sup>12</sup>

To control industrial wastes, the IJC proposed standards for specific discharges, as part of its “Objectives for Boundary Waters Quality Control”. The IJC estimated that the cost of industrial waste treatment would be \$13 million on the Detroit side and \$3 million on the Canadian side of the river. The IJC also recommended that industry pay for the costs of treating its own waste. Correcting and preventing pollution from industrial waste, the IJC report concluded, “is the

---

<sup>11</sup> Ibid., 328.

<sup>12</sup> For the cost estimate for secondary treatment, see “Pollution of Boundary Waters,” *Canadian Journal of Public Health* (Vol. 42 No. 4 (April 1951), 152-154. On federal funding for sewage treatment in this period, see Martin Melosi, *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present* (Baltimore: Johns Hopkins University Press, 2000), 334-336.

responsibility of industry.” Whatever its recommendations, the IJC did not have the authority to regulate industrial waste. The only agency with such authority, the MWRC, did not establish or enforce water quality standards. The MWRC did recommend that local industries develop waste treatment programs, but this primarily consisted of diluting waste prior to discharge.<sup>13</sup>

The relationship between the Ford Motor Company and the MWRC provides an illustrative example of this ongoing commitment to dilution as a form of pollution control. Between 1945 and 1947, Ford established a Water and Wastes Control Laboratory to supervise the treatment of waterborne wastes from the Rouge between 1945 and 1947. The Rouge factory, which derived its water from the Zug Island channel of the Detroit River, dumped thousands of pounds of cyanides, diluted sulphuric acid (known as “steel pickling liquor”), metal salts, and other wastes into the Rouge every day. J.E. Cooper, the supervisor of the laboratory, wrote in 1947 that Ford planned to “solve the waste problem” through a series of “planned progressive measures” based on a careful evaluation of “each individual waste material.” To illustrate these measures, Cooper described an oil skimmer, used to dilute the oil dumped into Roulo Creek, which flowed into the Rouge River. These “progressive measures” were little different from longstanding practices.<sup>14</sup>

In a series of meetings with the MWRC, Ford officials promoted dilution as the primary solution to the industrial waste problem. In 1951, Frank Kallin of the Rouge Plant Engineering Office told the MWRC that Ford was disposing of 3,000 gallons of diluted sulphuric acids to the Detroit sewage system, and 2,500 to Ford’s waste treatment plant. Kallin said that Ford was “trying

---

<sup>13</sup> International Joint Commission, *Report of the International Joint Commission*, 33-34. On the impact of the IJC study on the Canadian side, see Jennifer Read, “Managing Water Quality in the Great Lakes Basin: Sewage Pollution Control, 1951-1960,” in Edgar-André Montigny and Anne Lorene Chambers, eds., *Ontario Since Federation: A Reader* (Toronto: University of Toronto Press, 2000), 339-361.

<sup>14</sup> J.E. Cooper, “An Industry Initiates a Waste Program,” *Sewage Works Journal* Vol. 19 No. 5 (September 1947), 817-826.

to dispose of the residual amount by controlled dilution.” However, in a follow-up meeting in 1953, MWRC officials reported that Ford engineers had found “no satisfactory method of treatment” for sulphuric acids. Kallin believed that, with further dilution, direct discharge of this material into the river “would be more satisfactory than neutralization.” Although the MWRC found that Ford had not met its commitments for its waste treatment program, state regulators did not levy any penalties. Loring F. Oeming, the Chief Engineer at the MWRC, said that “the fact that the program is continuing and that solutions for the problems are actively being sought justifies [...] approval of the progress being made.” Thus, even if water pollution from the Rouge continued to increase, the fact that Ford was diluting its waste was enough to satisfy the MWRC. In short, no regulatory mechanisms existed to prevent the continued degradation of the Detroit River and Lake Erie.<sup>15</sup>

### **The IJC and Air Pollution**

The second component of the IJC survey involved air pollution. On January 12, 1949, IJC officials signed an agreement requiring the governments of the U.S. and Canada to “study air pollution and its effects on communities in the Detroit River area.” IJC publications avoided assigning blame to either side, describing the initiative as a response to citizen complaints in both Windsor and Detroit about smoke pollution from river vessels. As the meteorologist H.W. Baynton explained in a 1953 presentation to the Canadian branch of the Royal Meteorological Society, “when smoke abatement officials of the two cities attempted to enforce their smoke codes on the vessels, they were advised that they had no jurisdiction over vessels plying the international

---

<sup>15</sup> Michigan Water Resources Commission, “Conference Progress Report of Ford Motor Company (Rouge Plant) before the Water Resources Commission, February 20, 1951, Dearborn, MI,” 1-23; Michigan Water Resources Commission, “Summary of Conference, Ford Motor Company, Dearborn, before the Water Resources Commission, Milford, MI, October 29, 1953,” 1-4, both in Official Collection, Michigan Documents, Library of Michigan, Lansing, MI.



boundary waters.” The vast majority of air pollution crossing the Detroit River, however, originated from land-based industrial sources on the Detroit side. The prevailing winds in the regional air shed blew from the west and north, which carried pollutants from the United States to Canada. Winds traveling in the opposite direction occurred less frequently.<sup>16</sup>

The year before, a widely publicized air pollution disaster had occurred in Donora, Pennsylvania, in which a “killer smog” generated by emissions from the U.S. Steel-owned Donora Zinc Works killed 20 people and injured an estimated 6,000 more. Facing a torrent of lawsuits, U.S. Steel had hired Robert Kehoe and his staff at the Kettering Laboratories to study the air pollution problem in the air shed surrounding Donora, based on the industrial hygiene methods used to study pollution inside factories. Kettering’s Donora study became the template for the Detroit-Windsor air pollution study, although Kehoe’s staff was only peripherally involved in the latter. The Donora disaster, followed by the London Smog of 1952, raised concerns among public health officials and industrial hygienists about the possibility of similar events occurring in other cities, including Detroit. The industrial hygienist Helmuth Schrenk, the lead author of the PHS’s final report on the Donora disaster, joined the IJC’s Technical Advisory Board for the Detroit-Windsor study in 1949. Another member of the board who also worked on the Donora study was Louis C. McCabe, a former Bureau of Mines official who now served as director of the Los Angeles Air Pollution Control District. In the 1950s, McCabe would collaborate with the Dutch chemist Arie Haagen-Smit at the California Institute of Technology in establishing the link

---

<sup>16</sup> International Joint Commission, *Report of the International Joint Commission on the Pollution of the Atmosphere in the Detroit River Area* (Washington, D.C. and Ottawa: International Joint Commission, 1962), 1-5, Box 1, Record Group 59, Records of the State Department, National Archives, College Park, MD; H.W. Baynton, “The Role of Meteorology in the Detroit-Windsor Air Pollution Study,” paper presented to the monthly meeting of the Royal Meteorological Society, Canadian Branch, Toronto, Ontario, May 7, 1953, <http://www.cmos.ca/RMS/r040401.pdf> [accessed August 7, 2016], 1-11.

between automobile exhaust and photochemical smog in a series of influential studies.<sup>17</sup>

Between 1949 and 1950, the IJC Technical Advisory Board established a division of labor for the Detroit-Windsor study. The Windsor-based team, including members of the Royal Meteorological Society's Canadian branch, focused primarily on smoke pollution from vessels. In Detroit, the Bureau of Industrial Hygiene and the Bureau of Air Pollution Control (based in the Department of Health and the Department of Building Safety and Engineering, respectively) collaborated with industry scientists to gather data on pollution from land-based sources. To coordinate training in air sampling from industrial smokestacks, officials in the Department of Health and the University of Michigan School of Public Health established an Air Pollution Institute. The planning board for the Institute included numerous industrial hygienists: Helmuth Schrenk of the PHS Industrial Hygiene Division, F.A. Patty of the GM Industrial Hygiene Service, and William G. Fredrick of the Detroit Bureau of Industrial Hygiene.<sup>18</sup>

The IJC released its final report on air pollution in the Detroit river region in 1962. The study found that, in 1956, total industrial emissions into the atmosphere per day included 1,980

---

<sup>17</sup> "Appointment of the Technical Advisory Board," International Joint Commission, *Report of the International Joint Commission*, 3. On Haagen-Smit's discovery of the photochemical smog reaction, see John Bachmann, "Will the Circle Be Unbroken: A History of U.S. National Ambient Air Quality Standards," *Journal of the Air & Waste Management Association* Vol. 56 No. 6 (2007), 652-697, esp. 660-662; Joshua William Dunsby, "Clarifying Smog: Expert Knowledge, Health, and the Politics of Air Pollution" (Ph.D. Dissertation: University of California—San Diego, 2001), 109-123; Dewey, *Don't Breathe the Air*, 48-49. On McCabe, see *Ibid.*, 44-46. On the role of Kehoe in the Donora air pollution studies, see Lynn Page Snyder, "'The Death-Dealing Smog Over Donora, Pennsylvania': Industrial Air Pollution, Public Health, and Federal Policy, 1915-1963" (Ph.D. Dissertation: University of Pennsylvania, 1994), 192-271; *idem.*, "Revisiting Donora, Pennsylvania's 1948 Air Pollution Disaster," in Joel Tarr, ed., *Devastation and Renewal: An Environmental History of Pittsburgh and its Region* (Pittsburgh: University of Pittsburgh Press, 2004), 126-144; Benjamin Ross and Steven Amter, *The Polluters: The Making of Our Chemically Altered Environment* (New York: Oxford University Press, 2010), 86-97.

<sup>18</sup> George D. Clayton, H.P. Brinton, W.M. Gafafer, Morris Katz, J.C. Radcliffe, Harold W. Baynton, Joseph G. Molner and William G. Frederick, "The Detroit-Windsor Air Pollution Study," *Public Health Reports (1896-1970)*, Vol. 67, No. 7 (July 1952), 658-671; Baynton, "The Role of Meteorology in the Detroit-Windsor Air Pollution Study," 5-8.

“gaseous and vapor contaminants” and 1,040 tons of solids. Another 2,000 tons per day came from other sources, primarily motor vehicles and backyard incinerators. Levels of dust deposition were two to three times higher in urban-industrial districts than in urban-residential ones, and as much as six times higher than in Harrow, Ontario, a small town 25 miles from the Detroit River. Unsurprisingly, given the greater concentration of industry, the air in Detroit was more polluted than in Windsor. Levels of sulfur dioxide—a cause of acid rain, and one of the triggers of the Donora “killer smog”—were roughly twice as high in Detroit as in the most polluted area of Windsor. Levels of dustfall in Detroit were comparable to other large cities, including New York and Chicago.<sup>19</sup>

One of the objectives of the Detroit-Windsor Air Pollution study was to gauge the health effects of pollution in both Detroit and Windsor. In an analysis of mortality from respiratory tract cancer between 1946 and 1949, the study found “a higher rate in areas of high pollution than in areas of low pollution,” and that the difference was “statistically significant,” even if the cause was unknown. Investigators also found that infant and cancer mortality rates in Detroit and Windsor more than doubled during a smog event in September 1952, caused by a temperature inversion. As in the London Smog of 1952, mortality increases correlated closely with increases in particulate matter concentrations in the atmosphere. Air pollution in Detroit, as in other cities, took its greatest toll on infants, the elderly, and those in ill health. The study demonstrated that smog was not only a problem limited to cities like Donora or Los Angeles, where geography made inversion events more likely.<sup>20</sup>

---

<sup>19</sup> International Joint Commission, *Report of the International Joint Commission on the Pollution of the Atmosphere in the Detroit River Area*, 1-10, 70, 135.

<sup>20</sup> *Ibid.*, 153-154. On the developing science of temperature inversions in the 1950s, see Joshua Dunsby, “Localizing Smog: Transgressions in the Therapeutic Landscape,” in Melanie Du Puis, ed., *Smoke and Mirrors: The Politics and Culture of Air Pollution* (New York: New York University Press, 2004), 170-

In the keynote address to the Air Pollution Institute in 1950, Carey P. McCord—now a professor at the University of Michigan—argued that corporate and government industrial hygienists should take the lead in combating air pollution. Airborne contaminants in cities were an extension of those in workplaces, and “little Donoras” frequently occurred in the communities surrounding “mines, smelters, refineries, brickyards, rendering plants, burning city dumps, etc.” For McCord, the fact that industry was the largest source of pollution meant that industry should play the largest role in remediation. The corporate industrial hygienist and ventilating engineer possessed the “skills, techniques, apparatus and procedures” which “helpfully may be turned to the solution of related situations beyond the walls of industry.” For McCord, no conflicts of interest necessarily arose from industry officials taking charge in the study, or regulation, of air pollution. Industrial hygienists’ methods of protecting workers from factory pollutants, he argued, provided a useful template for efforts to protect the community more generally.<sup>21</sup>

The role of industry officials in the Detroit-Windsor study reflected both political and financial realities. In the late 1940s and early 1950s, the federal government’s role in air pollution control remained largely advisory. The Industrial Hygiene Division of the PHS and the Fuel and Explosives Division of the Bureau of Mines supplied technical assistance and grant funding for local and state pollution control bureaus, but legislation consisted largely of municipal smoke ordinances. While local smoke inspectors could threaten violators with fines, the political power of large industries combined with limited municipal budgets to discourage aggressive enforcement. As Detroit’s Chief Smoke Inspector, Benjamin Linsky, explained in a 1952 article

---

202; 67-105; Snyder, “Revisiting Donora,” 86-97.

<sup>21</sup> Carey P. McCord, “The Physiologic Aspects of Air Pollution,” University of Michigan School of Public Health, *Lectures Presented at the Inservice Training Course in Air Pollution, February 6,7,9, 1950* (Ann Arbor: University of Michigan, 1950), 8, Library of Michigan, Lansing, MI.

in the PHS journal *Public Health Reports*, the Detroit Bureau of Smoke Inspection and Abatement preferred cooperation over coercion. The city's 17 inspectors enforced the municipal smoke ordinance "primarily by obtaining compliance"; if a case reached the courts, "the bureau believes it has failed to 'sell' the requirements of the community to the violator."<sup>22</sup>

Moreover, the bureau's methodology of monitoring air pollution had changed little since the 1920s. Rather than gathering data at specific point sources, Linsky and his fellow inspectors watched for visibly "excessive" air pollution from "any one of the several high buildings in different parts of the city." Using telescopes, they scanned the horizon for dense, dark smoke, dispatching inspectors to troublesome point sources if necessary. Such antiquated methods could not detect the forms of pollution that caused the smog disasters in Donora in 1948 or London in 1952. As Rachel Carson would point out a decade later in *Silent Spring*, the forms of pollution proliferating after World War II—such as radioactive fallout and carcinogenic chemicals—were increasingly "unseen and invisible." This invisibility, however, did not only reflect the difficulty of perceiving microscopic threats, or chronic diseases with long latency periods. It also reflected the methodologies and assumptions of regulators and scientists.<sup>23</sup>

Air pollution regulation in Detroit thus remained highly localized, voluntarist, and focused on the most visible forms of air pollution in the 1950s. The IJC Technical Advisory Board, moreover, did not recommend any changes in local air quality standards during the study's investigative phase (1950-1960). At a meeting of the Industrial Health Conference in Cincinnati, Ohio in April 1952, the IJC's Technical Advisory Board determined that "no attempt will be made

---

<sup>22</sup> Benjamin Linsky, "Air Pollution and Man's Health: In Detroit," *Public Health Reports* Vol. 68 No. 9 (Sep. 1953), 870-872.

<sup>23</sup> Linsky, "Air Pollution and Man's Health," 871; Rachel Carson, *Silent Spring* (New York: Houghton Mifflin, 1962), 41.

to establish definite limits for the emission of toxic materials into the atmosphere surrounding industrial plants.” Ford Motor Company industrial hygienist Jack Radcliffe argued that the IJC study should identify “potential sulfur sources” in the Detroit-Windsor area, given the role of sulfur dioxide in the Donora smog disaster. However, collecting data on the whole range of industrial emissions was a task “which could become never-ending.” Nevertheless, Radcliffe said that such data could help industry design pollution control devices for future plant construction and upgrades.<sup>24</sup>

The primary obstacle to installing such devices was that industry lacked an economic incentive or legal obligation to do so. Because the IJC could only regulate vessel pollution, its gathering of industrial emissions data had no immediate legislative or enforcement consequences. During a July 1952 meeting with business leaders at GM’s Detroit headquarters, G.J. Clayton of the PHS stressed that the IJC’s authority was limited. Although most transboundary air pollution was land-based, non-vessel pollution was a strictly “local problem” from a regulatory standpoint. The Technical Advisory Board was also well aware that municipal government resources were insignificant in comparison with a firm like GM, the largest and wealthiest corporation in the world at the time. L.A. Danse of GM’s Production Engineering section, who chaired the meeting, observed that Detroit had done “very little” on air pollution control due to its small budget, and that industry would have to play a leading role in collecting data for the IJC study.<sup>25</sup>

The technical expertise of industrial research laboratories, in particular, would be crucial

---

<sup>24</sup> Jack C. Radcliffe, “Industry’s Part in the Study,” in Clayton et al., “The Detroit-Windsor Air Pollution Study,” 666-68.

<sup>25</sup> Ethyl Corporation Inter-Office Memorandum, J.B. Macauley to A.G. Gassmann, “Subject: Joint Industry Conference on Atmospheric Pollution,” August 6, 1952, Box 46, File 2, “Ethyl Corporation—Air Pollution Problem (General),” Robert A. Kehoe Papers, Henry R. Winkler Center for the Study of the Health Professions, University of Cincinnati. On GM as the “largest and richest” corporation in the world in the 1950s, see David Halberstam, *The Fifties* (New York: Random House, 1993), 118-130.

to the study's success. Government and industry officials determined that the IJC study required 4 air sampling stations and 20 dust collecting stations in metropolitan Detroit. Chemists and engineers from Kettering and Ethyl Corporation's Detroit Laboratory, in the suburb of Ferndale, assisted with running the stations and installing instruments such as the Thomas Autometer (for measuring sulfur dioxide). As with the PHS Donora study, these stations measured concentrations of air pollutants at the street level across the city as a whole, rather than focusing on specific industrial sources. In a letter to J.B. Macauley of the Ethyl's Detroit Laboratory, Kettering's Robert Kehoe observed that "if your observations [for the IJC] were directed too pointedly at a local offender, you would be on the spot." Rather than focusing on specific industrial sources, Kehoe said that the Detroit Laboratory should only assist with "the collection of general information" about air pollution. Having recently served as an expert witness for U.S. Steel, which sought to defeat millions of dollars in damage claims over the Donora disaster, Kehoe was acutely aware of the economic stakes involved in such studies.<sup>26</sup>

Air pollution control officials in Detroit, for their part, recognized the need for federal pollution laws. Smoke Inspector Linsky made this point in the testimony before Congress in April 1954, on the subject of a proposed "Air Pollution Prevention Amendment" to the 1954 Omnibus Housing Act. The amendment, which passed the Senate before being dropped in Conference, was modest. Rather than expanding federal regulatory power, it would have provided funding for air pollution research, and tax incentives and FHA loans for property owners who installed pollution control devices. Linsky testified that the amendment would not be "a strong enough incentive." While it would reduce the cost of pollution control devices, using no devices at all would remain

---

<sup>26</sup> J.B. Macauley to Dr. Robert Kehoe, August 15, 1952, Box 46, File 2, "Ethyl Corporation—Air Pollution Problem (General)," Kehoe Collection. On Kehoe's role as an expert witness in post-Donora litigation, see Robert Kehoe et al., "Investigations, Data and Calculations Regarding the 'Donora Disaster,'" Folder 1, Box 5, Kehoe Collection; Snyder, "'The Death-Dealing Smog Over Donora,'" 215-229.

the cheapest option for industry. Pollution control, Linsky said, needed to be “set down in law or threatened to be, before a manufacturer can justify to his board of directors making that kind of expenditure.” In the absence of such a law, concerns about the bottom line would make corporations prefer unrestricted emissions.<sup>27</sup>

### **Segregation, Pollution, and Uneven Development**

The Omnibus Housing Act of 1954, which created the Urban Renewal Administration, accelerated a process of clearance and eviction that would displace nearly a million families across the United States. In his testimony in April 1954, Linsky claimed that urban renewal projects would reduce air pollution. During his testimony, he displayed a chart labeled “Neighborhood Conservation,” which ranked areas according to their level of “blight and air pollution,” based on research by the Detroit City Plan Commission (DCPC). Linsky testified that inner-city Detroit had a “history of blight and air pollution” from coal smoke. Many families moving to the suburbs, according to Linsky, stated reasons such as, “I wanted to get out in the fresh country air, or the fresh city air, or the fresh suburban air for my kids.” While an Air Pollution Prevention Amendment would do little, Linsky predicted, urban renewal would help solve the “air pollution blight problem.”<sup>28</sup>

Contrary to Linsky’s claims, urban renewal and highway construction did not reduce air pollution in Detroit, which primarily resulted from industrial and automotive emissions. Federal housing and transportation policies further separated the heaviest concentrations of air pollution

---

<sup>27</sup> U.S. Congress, House, *Hearings Before the Committee on Banking and Currency, Housing Act of 1954: Air Pollution Prevention Amendment*, 83rd Congress, 2nd Sess., April 13-15, 1954 (Washington, D.C.: Government Printing Office, 1954), 1253-1259. On the failed air pollution prevention amendment to the 1954 Housing Act, see Christopher J. Bailey, *Congress and Air Pollution: Environmental Policies in the USA* (New York: St. Martin’s Press, 1998), 94.

<sup>28</sup> U.S. Congress, House, *Hearings Before the Committee on Banking and Currency*, 1258-59.



from wealthy and middle-class suburban whites. As Linsky noted, access to healthful, “fresh suburban air” added to the appeal of leaving Detroit after World War II. He neglected to mention, however, that housing discrimination and poverty created obstacles for African Americans to access “fresh suburban air.” In the aftermath of the Supreme Court’s 1948 *Shelley v. Kraemer* ruling, which made restrictive covenants illegal, the FHA and HOLC removed explicitly discriminatory directives (such as that “properties shall continue to be occupied by the same social and racial classes”) from their loan appraisal guidelines. However, as historian David Freund notes, FHA officials “did not consider alterations to the Underwriting Manual as indicative of a fundamental change in FHA policy.” Federal housing officials continued to redline neighborhoods where African Americans lived, and to subsidize the growth of segregated suburbs around Detroit.<sup>29</sup>

The DCPC, by targeting redlined neighborhoods for urban renewal, only furthered the ghettoization of African Americans in postwar Detroit. In the city’s outlying neighborhoods, as well as in suburbs such as Dearborn, Warren and Royal Oak, white realtors, public officials and homeowners frequently claimed that African Americans brought “blight” and lowered property values. Racist ideologies linked white, middle-class homogeneity with the defense of material interests in the housing market. In a self-fulfilling prophecy, housing discrimination made it more difficult for African Americans to leave neighborhoods plagued with the DCPC’s “nuisance

---

<sup>29</sup> Freund, *Colored Property*, 210. On the role of “nuisance elements” in the DCPC’s Blight Rating System, see Detroit City Plan Commission, *Renewal and Revenue: an Evaluation of the Urban Renewal Program in Detroit* (Detroit: Detroit City Plan Commission, 1962), 85-86. Also see Rosina K. Mohaupt, *Social and Economic Rating of Detroit Census Tracts* (Detroit: Detroit Bureau of Government Research, 1945), 1-47. On the persistence of housing discrimination in Detroit in the 1950s and 1960s, see Thomas, *Redevelopment and Race*, 83-102; Freund, *Colored Property*, 176-242; Sugrue, *Origins of the Urban Crisis*, 231-258. On urban renewal in Detroit, see Joe T. Darden, *Detroit: Race Riots, Racial Conflict, and Efforts to Bridge the Racial Divide* (East Lansing: Michigan State University, 2013), 1-27; Thomas, *Redevelopment and Race*, 55-82; Sugrue, *Origins of the Urban Crisis*, 33-56; George B. Nesbitt, “Relocating Negroes from Urban Slum Clearance Sites,” *Land Economics* Vol. 25 No. 3 (August 1949), 275-288, esp. 283-4 n. 17.

factors,” such as dilapidated housing and “smoke, odor, dust and/or dirt.” Simultaneously, class stratification among both black and white Detroiters shaped environmental exposures, as poor and working-class people of all backgrounds lived and worked in more polluted spaces than middle-class professionals and business owners.<sup>30</sup>

Assumptions about African Americans, however, prevented public health officials from recognizing either intra- or inter-group inequalities in pollution exposure. During the IJC air pollution survey, William Fredrick of the Detroit Bureau of Industrial Hygiene led a comparative study of morbidity in “high pollution” and “low pollution” census tracts in Detroit. Fredricks and his assistants divided both high- and low-pollution tracts into areas of “white population” and “nonwhite population.” For whites, Fredericks and his staff compared high- and low-pollution areas, both of which contained an “almost exclusively middle socio-economic class white population.” Then, they compared high- and a low-pollution areas “having nonwhite population,” but the only low-pollution area in Detroit “having nonwhite population” was census tract 305, located at the border of Livernois and 8 Mile Road on the city’s northwest side. They compared this to tracts 554, 555, and 556, which were “high pollution” tracts in the Paradise Valley neighborhood east of Woodward Avenue (Fig. 3.1). Further detracting from the comparability of these samples, during the period of the study Paradise Valley experienced high population turnover

---

<sup>30</sup> Amy Maria Kenyon argues that many whites in Detroit’s postwar suburbs “prided themselves on having escaped the city for green spaces and clean air,” rather than for exclusionary reasons. See Amy Maria Kenyon, *Dreaming Suburbia: Detroit and the Production of Postwar Space and Culture* (Detroit: Wayne State University Press, 2004), 17. However, concerns about environmental quality also infused the politics of housing discrimination. See Freund, *Colored Property*, 249, 264, 278, 294-95, 303-5, 350-51, 362, 381, 391, 396. On environmental racism and segregation, see Dorceta Taylor, *Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility* (New York: NYU Press, 2014), 228-261; Charles W. Mills, “Black Trash,” in Laura Westra and Bill E. Lawson, eds., *Faces of Environmental Racism: Confronting Issues of Global Justice* (New York: Rowman & Littlefield, 2001), 73-94; Carl Nightingale, *Segregation: A Global History* (Chicago: University of Chicago Press, 2012), 159-190.

due to urban renewal projects and the construction of the I-75 freeway.<sup>31</sup>

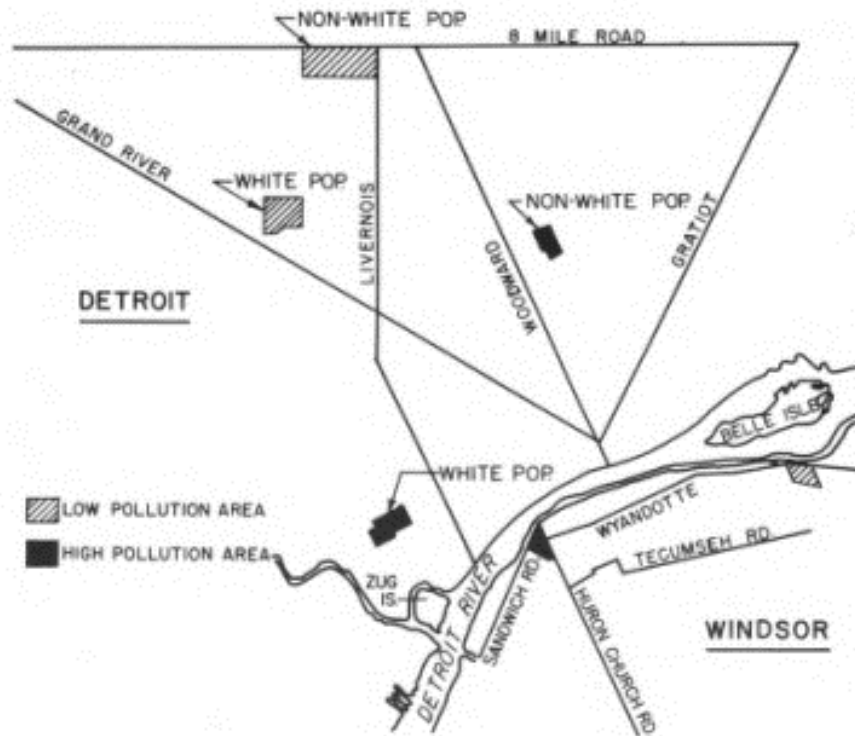


Fig. 3.1. Map of “nonwhite” and “white” areas with high and low pollution levels for the IJC’s 1962 Detroit River air pollution study. Source: International Joint Commission, *Report of the International Joint Commission on the Pollution of the Atmosphere in the Detroit River Area* (Washington, D.C. and Ottawa: International Joint Commission, 1962), 138.

Fredricks and his team, however, did not seek to explain why all of Detroit’s “nonwhite” residents—except those in tract 305—lived in “high-pollution” areas. Assuming innate differences in susceptibility, they sought to compare the “racial response to pollution” among their chosen sample populations. Similar ideas had long informed the Detroit Bureau of Industrial Hygiene’s

<sup>31</sup> International Joint Commission, *Report of the International Joint Commission on the Pollution of the Atmosphere of the Detroit River Area* (Washington, D.C.: International Joint Commission, 1962), 137-153; The 1950 U.S. Census only recognized three “racial” categories in Detroit: Black (16.2%), White (83.6%), and Asian (0.1%); it did not record “Hispanic” as an independent category. Thus, “nonwhite” clearly referred to African Americans. U.S. Census, “Michigan—Race and Hispanic Origin for Selected Large Cities and Other Places: Earliest Census to 1990,” 1, <http://www.census.gov/population/www/documentation/twps0076/MItab.pdf> [accessed August 2, 2016].

studies of industrial workers.<sup>32</sup> Yet, their study design frustrated these comparative ambitions. The difference in pollution levels between the “white” areas was greater than for the “nonwhite” areas: sulfur dioxide levels were 1.8 times higher in the former and only 1.3 times as high in the latter. During the study, Fredrick privately lamented that “[u]nder-reporting is evident for the non-white survey participants; marked over-reporting is seen for white participants.” The very concept of a “racial response to pollution,” however, obfuscated the role of residential and occupational segregation in causing disproportionate exposures among African Americans.<sup>33</sup>

### **Environmental Regulation and Corporate Strategy in Detroit**

The IJC study added to a growing scientific literature that pinpointed industrial and motor vehicle pollution as health threats, particularly in large urban areas. In the 1950s and 1960s, automobiles—and their manufacturers—became central to the politics of air pollution in the United States. Initially, automobile industry officials maintained that backyard trash incinerators and oil refineries were the cause of the smog problem in American cities, not automobiles. Later, they acknowledged that automobiles played a leading role in smog, but argued that the problem was only serious in Los Angeles. In some cases, industry officials encouraged Detroit’s air pollution control officials to focus on non-automotive sources.<sup>34</sup>

---

<sup>32</sup> For example, the Bureau’s 1939 pamphlet *The Detroit Industrial Worker and His Health* (co-written by Carey McCord, William G. Fredrick and other staff members) claimed that “Negroes are little susceptible to skin diseases. Blond workers are particularly prone to skin infections. [...] Some races respond more readily to emotional stresses than do members of other races.” Detroit Bureau of Industrial Hygiene, *The Detroit Industrial Worker and His Health*, 31. Such ideas remained common among industrial hygienists in the 1950s. Linda Nash describes how industrial hygienists in 1950s California initially focused on Mexican farm workers’ “racial susceptibility” to pesticide poisonings. See Linda Nash, *Inescapable Ecologies: A History of Landscape, Disease, and Knowledge* (Berkeley: University of California Press, 2005), 139-51. On the persistence of confusion between differential exposure and differential susceptibility to pollution, see Barbara J. Fields and Karen E. Fields, *Racecraft: The Soul of Inequality in American Life* (New York: Verso, 2012), 44-45.

<sup>33</sup> International Joint Commission, *Report of the International Joint Commission on the Pollution of the Atmosphere in the Detroit River Area*, 151-52.

For example, in September 1953, after Louis McCabe of the Los Angeles Pollution Control District sent a letter to Benjamin Linsky asking for help with public education about air pollution, Linsky forwarded the letter to Earl Bartholomew of Ethyl's Detroit Laboratory. Bartholomew advised Linsky to put McCabe in touch with his associates at the New Jersey-based Opinion Research Corporation, a public relations and polling firm which was involved in designing anti-Communist "economic education" programs for the National Association of Manufacturers. In a letter to the Opinion Research Corporation's Claude Robinson, Bartholomew wrote that McCabe was interested in "conducting an educational program designed to minimize the smoke generated in residential areas." Bartholomew stated the industry position that "one of the principle sources of "smog" in Los Angeles is the smoke from hundreds of thousands of outdoor incinerators installed in backyards." Bartholomew hoped that the Opinion Research Corporation could design an educational program which would properly instruct Los Angelinos of the role of incinerators, rather than automobiles, in generating smog.<sup>35</sup>

By the mid-1950s, however, a consensus had emerged among atmospheric chemists that hydrocarbons from automobile exhaust were the primary factor in smog, due to photochemical reactions with sunlight. The most influential proponent of the hydrocarbon theory of smog formation was Arie Haagen-Smit, a Dutch chemist working at the California Institute of Technology. As a 1959 Auto Manufacturers Association report on smog noted, by 1954 public officials in Los Angeles had fully accepted the Haagen-Smit theory. They "suspected that the new

---

<sup>34</sup> Dewey, *Don't Breathe the Air*, 57-82; Jack Doyle, *Taken for a Ride: Detroit's Big Three and the Politics of Air Pollution* (New York: Four Walls Eight Windows, 2000), 17-28.

<sup>35</sup> Earl Bartholomew to Claude Robinson, September 28, 1953, Box 46, File 2, "Ethyl Corporation—Air Pollution Problem (General)," Kehoe Collection. On the OPR and economic education, see Elizabeth Fones-Wolf, *Selling Free Enterprise: The Business Assault on Labor and Liberalism, 1945-1960* (Urbana: University of Illinois Press, 1995), 39, 128 n. 10.

public enemy No. 1 was automobile exhaust and that enemy No. 2 was backyard incinerators.”<sup>36</sup>

Detroit’s political leaders responded defensively to criticisms of the auto industry role in smog. During a press conference in January 1959, in response to a threat by Los Angeles mayor Norris Poulson to boycott large automobiles until Detroit fixed the pollution problem, Detroit mayor Louis Miriani threatened to boycott Hollywood movies. In a boorish aside, Miriani said that Los Angeles depended on “bigness” as well, mentioning Jimmy Durante’s nose, Joe E. Brown’s mouth and “other physical phenomena shared by many of your top female movie stars.” Rather than regulation, the mayor claimed that “technological advances” and “self-help remedies” were the only answers to L.A.’s smog problem.<sup>37</sup> Miriani had little to lose politically from such grandstanding. Detroit auto executives, however, understood that smog was tarnishing their public image. Whether they would take action to address it, however, was another matter.

Publicly, Detroit auto executives pledged that they were making steady progress on pollution control devices. In an interview with the *Los Angeles Examiner* published only weeks after Miriani’s threat to boycott Hollywood, Chrysler Vice President James C. Zeder stated that he had been working on the smog problem since 1953, “when it first became recognized as having something to do with automobiles.” Chrysler and other members of the Auto Manufacturers Association, representing 99 percent of domestic car and truck manufacturers, were pursuing a “cooperative” approach to developing pollution control technology. He insisted that there had been “absolutely no clock-watching” on the pollution control issue, but warned that “we still may have

---

<sup>36</sup> Air Pollution & Smog History and Development: Report on Literature Search Performed by A. Binn,” 1959, “A.M.A. Literature Research” folder, box 1, Air Pollution Study Subseries Collection, Benson Ford Research Center, Dearborn, MI.

<sup>37</sup> Frank Beckman, “Humorless Smogland,” *Detroit Free Press*, January 4, 1959, in “Clippings” folder, box 1, Air Pollution Study Subseries Collection, Benson Ford Research Library, Dearborn, MI.

a long, hard road ahead of us.”<sup>38</sup>

Privately, however, Detroit auto executives viewed pollution control for cars in the same way that they viewed pollution control for factories. As Linsky had noted in the 1954 Housing Act hearings, unless pollution control was “set down in law,” corporate leaders had no economic incentive to pursue it, because it increased production costs. As early as 1936, Floyd Withrow, the head of GM’s Fuels and Lubricants Department, noted in a letter to Lawrence R. Hafsted, director of GM’s Research Staff, “development of exhaust control devices cannot be justified on a business basis; the only hope for a return on such an investment is possible legislation requiring their use.” Without a law to force up production costs across the board, adopting pollution control would amount to a voluntary loss in profits. In the mid-1950s, moreover, Detroit automakers had little to fear from domestic or foreign competitors. This was a decade when, in the words of historian James J. Flink, the industry “further solidified into a joint-profit-maximizing oligopoly dominated by General Motors.” The organizational expression of this oligopoly, the Auto Manufacturers Association (AMA), shaped the Big Three approach to pollution control.<sup>39</sup>

In 1953, the AMA Board of Directors agreed on a cross-licensing agreement which prevented member firms from competing over automobile pollution control devices. Following a trip to Detroit in January 1960, J.D. Ullman of Du Pont clearly explained the reasoning behind the cross-licensing agreement. “Basically,” he wrote, “the automotive manufacturers would seek to avoid installing a reactor of any sort on a car because it adds cost, but provides no customer benefits

---

<sup>38</sup> Magner White, “Auto Smog Study Told: Progress Reported by Executive from Detroit,” *Los Angeles Examiner*, in “Clippings” folder, box 1, Air Pollution Study Subseries Collection.

<sup>39</sup> For the Withrow quote, see “Smog Control Antitrust Case,” in U.S. Congress, Senate, Select Committee on Small Business, Subcommittee on Monopoly, *Hearing on The Role of Giant Corporations in the American and World Economies, Part 2A—Appendixes, Corporate Secrecy: Overviews* 92<sup>nd</sup> Cong., 1<sup>st</sup> Sess., November 9-12, 1971, 1662-1692, esp. 1664; James J. Flink, *The Automobile Age* (Cambridge: MIT Press, 1988), 277.

such as improved engine performance or styling advances.” By the mid-1960s, Detroit executives were contemplating making an exception for the California market, but only if state law required it. An AMA internal memorandum from January 15, 1965 explained that “the industry is not convinced that exhaust emissions are necessary for nationwide application for motor vehicles but believes instead that they will be an economic and maintenance burden for motorists.” Fundamentally, the reason was the same expressed by Withrow in 1936, or Linsky in 1952: absent changes in state or federal law, pollution control was “one-way money.” Detroit executives believed that pursuing pollution control was good public relations, but bad business.<sup>40</sup>

The same logic that led Detroit’s automakers to delay introducing pollution control devices led the manufacturers of tetraethyl lead (TEL) to push for the expanded use of their additives. Between 1923 and 1947, the Ethyl Corporation made \$1 billion from TEL, of which GM received \$82.6 million in sales and \$43 million in patent royalties; Du Pont made \$86 million. In 1947, Ethyl’s TEL patent expired, and advances in engineering technology threatened to reduce TEL sales to oil companies and airlines. In response, Ethyl began a program of research designed to bolster its case to the Public Health Service (PHS) for increasing the legally permissible limit for lead in gasoline from 3cc to 4cc per gallon. In a January 1954 inter-office memo, W.G. Lovell of the Detroit Laboratory explained the research program envisioned by Robert Kehoe, consisting of three phases. The first two phases, to be carried out by the Detroit Laboratory staff, would involve

---

<sup>40</sup> All quotes from “Smog Control Antitrust Case,” 1965. Lawyers for the U.S. Justice Department used the documents quoted here, along with the records of the AMA cross-licensing agreement, in an anti-trust lawsuit entitled *United States v. Automobile Manufacturers Association* (1969). While a consent decree approved by U.S. District Judge Jess W. Curtis sealed the grand jury records, fragments emerged in Congressional hearings and in local news media. See Scott Dewey, “‘The Antitrust Case of the Century’: Kenneth Hahn and the Fight Against Smog,” *Southern California Quarterly* Vol. LXXXI No. 3 (1999), 341-376; Doyle, *Taken for a Ride*, 29-50; “Auto Smog Probe: U.S. Charges Control Device Delayed,” *Los Angeles Times*, June 22, 1966; “Out-of-Court Accord in Smog Suit Opposed: Rep. Rees, City of B.H. Move to Fight Consent Decree Sought by Justice Dept.,” *Washington Post*, October 19, 1969; “Smog Decree OK’d: Court Finds Pact in Public Interest,” *Los Angeles Times*, October 29, 1969.



a survey of TEL consumption in U.S. cities, and a study of atmospheric lead discharges from vehicles running on gasoline with different TEL levels. The third phase, carried out at Kettering, would involve atmospheric lead surveys “in Los Angeles and elsewhere,” and health studies of human subjects in a respiratory chamber at Kettering.<sup>41</sup>

In subsequent visits to Detroit, Kehoe stressed that loosening regulations on TEL was economically vital, but that Ethyl would have to proceed carefully on the public relations front. In a March 1958 letter to E.M. Smith, of Ethyl’s Mexico City branch office, J.S. Wintringham of the Detroit Laboratory explained Kehoe’s concerns. During a recent visit, Wintringham wrote, Kehoe insisted that “a single policy guide our utterances in both countries.” Kehoe wanted “to emphasize that the question is a moral one rather than a legal one,” and that the results of the research were “tied up with public relations aspects, especially in areas like Los Angeles where a finger might unreasonably be pointed at TEL.” While increasing the PHS TEL standard would boost sales, it might also incite a public backlash over atmospheric lead pollution. Wintringham warned Smith that it would be “unwise” for him to discuss these matters with anyone outside of the Ethyl “in a manner which implies that we condone more TEL in Mexico. We can’t do that here.”<sup>42</sup>

Following a lobbying campaign by Ethyl and other lead, oil and automobile lead industry firms, Surgeon General Leroy H. Burney approved an increase in the legal limit for TEL from 3cc to 4cc in 1959. The decision followed an investigation by a research group called the Lead Liaison Committee. The members included public health officials (from the National Air Pollution Control

---

<sup>41</sup> W.G. Lovell to E.B. Rifkin, “Estimate of the effort required to obtain data on the public health aspects of the 4th ml of TEL,” January 29, 1954, Box 46, File 2, “Ethyl Corporation—Air Pollution Problem (General),” Kehoe Collection. On profits from TEL from 1923 to 1947, see Ed Cray, *Chrome Colossus: The Life and Times of General Motors* (New York: McGraw Hill, 1980), 242.

<sup>42</sup> J.S. Wintringham to E.M. Smith, “Use of Avgas in Motor Vehicles,” March 27, 1958, file 2, box 46, “Ethyl Corporation—Air Pollution Problem (General),” Kehoe Collection.

Administration, the Department of Health, Education and Welfare, and the California Department of Health) and industry representatives (from Ethyl, Du Pont, the Lead Zinc Research Organization, the American Petroleum Institute, and the AMA). Kettering staff argued that increasing TEL levels posed no threat to public health, while staff from Ethyl's Detroit Laboratory focused on their benefits for engine performance.<sup>43</sup>

Kehoe testified that the contribution of TEL to atmospheric lead levels since its invention in 1923 was minor, because there were “many sources” of lead other than TEL. With more than a hint of self-contradiction, he said that although TEL's contribution to lead pollution was “difficult to determine or even approximate,” it was “remarkably small,” as well as “minute physiologically and insignificant hygienically, despite the tremendous increase in the use of TEL.” However, the persuasiveness of Kehoe's testimony was less important than the aggressiveness of industry lobbying in pushing Burney to approve the TEL limit increase. As Dr. Richard Prindle of the PHS later recalled, when questioned about the agency's decision in a 1966 congressional hearing, “I think the situation was one of tremendous pressure, frankly, to move forward in what amounts to an economic problem as far as the industry was concerned.” Also in 1959, similar pressure from the tobacco industry led Burney to back away from his own earlier, outspoken comments about tobacco smoke's role in lung cancer.<sup>44</sup>

---

<sup>43</sup> Advisory Committee on Tetraethyl Lead to the Surgeon General of the Public Health Service, *Public Health Aspects of Increasing Tetraethyl Lead Content in Motor Fuel: A Report* (Washington, D.C.: U.S. Government Printing Office, 1959). For the evidence presented by staff from Ethyl's research laboratories, see *Ibid.*, 24-29. For Kehoe's testimony, see *Ibid.*, 30-37. On the PHS decision to raise the TEL limit, see Herbert L. Needleman, “The Removal of Lead from Gasoline: Historical and Personal Reflections,” *Environmental Research A* 84 (2000), 20-35, esp. 24.

<sup>44</sup> For the Prindle quote, see *Ibid.*, 24. On Burney and tobacco industry pressure, see Mike Stobbe, *Surgeon General's Warning; How Politics Crippled the Nation's Doctor* (Berkeley: University of California Press, 2014) 112-116; Allan M. Brandt, *The Cigarette Century: The Rise, Fall, and Deadly Persistence of the Product that Defined America* (New York: Basic Books, 2007), 214-215.

Yet, while the PHS decision on TEL exhibited backpedaling on automobile pollution control, the agency was simultaneously funding regional studies that would bolster the case for federal regulations. In January 1959, Dr. Arthur J. Vorwald, the director the Wayne State University Department of Occupational and Environmental Medicine, successfully applied for a PHS grant to conduct an experimental study of the health effects of automobile exhaust in Detroit. The five-year study (1959-1964) was an elaborate undertaking. It involved building a truss structure adjacent to the university's newly constructed, \$700,000 Occupational and Environmental Health Laboratory Building near the intersection of St. Antoine and Gratiot Avenue on Detroit's East Side. The truss structure contained a duct which transmitted ambient air from the street to the laboratory building. The air then moved through pipes into a respiratory chamber containing rabbits, mice, rats, and guinea pigs. Meanwhile, a control group of test animals breathed "clean filtered air."<sup>45</sup>

In 1962, Vorwald's team performed spectrographic analyses of the animals. In the lungs of rabbits exposed to Detroit ambient air for 14 months, they found—in the words of the 1962 Surgeon General's Report to Congress—"a much higher content of cobalt, lead, manganese, and titanium than the lungs of the clean-air animals." The mortality rate of rabbits exposed to ambient air was twice as high as in the control group. The mice "appeared to live longer" in clean air, although the guinea pigs had a "slightly" higher mortality rate in clean air. Vorwald's findings accorded with those of other studies showing that the components of automobile exhaust could bioaccumulate in animal tissues due to long-term, low-level exposures.<sup>46</sup>

---

<sup>45</sup> Arthur J. Vorwald, Professor and Chairman, Department of Industrial Medicine and Hygiene, Wayne State University, "Research Proposal: A Study Concerning the Effects of Automotive Exhaust Products on Health" to United States Public Health Service, January 7, 1959, Detroit, Michigan," "Wayne State University—Reports" folder, box 33, Public Health Service Records, National Archives; "Urban Air Pollution Studies, 1961," Folder 16, Box 10, Winfred A. Harbison Collection, Reuther Library.

At the federal level, President Kennedy's Surgeon General, Luther Terry, continued to endorse the position of Royd R. Sayers and Robert Kehoe that TEL was harmless. Beginning in 1965, research generated by Clair Patterson, a geochemist at Caltech, would begin to fatally undermine this position. While researching lead deposition in arctic ice cores, Patterson became convinced that, contrary to Kehoe, current levels of atmospheric lead were not "natural," but were the result of human activities.<sup>47</sup> In a series of groundbreaking studies, Patterson showed that lead levels in the northern hemisphere had increased 1,000 times since the Industrial Revolution, with the bulk of the increase since the 1920s, when TEL came on the market. Patterson's research—along with decades of evidence that subclinical lead poisoning caused brain damage—played an important role in the campaign to remove lead from gasoline. These efforts culminated a decade later, when the EPA banned (and began to phase out) lead from gasoline. In Detroit, conflicts over the role of leaded gasoline in childhood lead poisoning intensified over the next decade.

### **Occupational Health and Indoor Pollution**

As in the case of outdoor pollution, the federal government played little role in regulating indoor pollution in factories before 1970. In the absence of federal regulations, plant engineers used the Threshold Limit Values (TLVs) developed by the American Council of Governmental Industrial Hygienists (ACGIH) to set air quality standards in factories. However, these standards

---

<sup>46</sup> Public Health Service, Division of Air Pollution, *Motor Vehicles, Air Pollution, and Health: A Report of the Surgeon General to the U.S. Congress in Compliance with Public Law 86—493: The Schenck Act (June 1962)* (Washington, D.C.: Government Printing Office, 1962), 112; "Urban Air Pollution Studies, 1961," folder 16, box 10, Winfred A. Harbison Collection, Reuther Library; "Progress Report: Urban Air Pollution Studies," Department of Industrial Medicine and Hygiene, Wayne State University College of Medicine to United States Public Health Service, June, 1960, "Wayne State University Reports" folder, box 33, Air Pollution Medical Files, Public Health Service Records, National Archives.

<sup>47</sup> Needleman, "The Removal of Lead from Gasoline," 22-35; Herbert L. Needleman, "Clair Patterson and Robert Kehoe: Two Views of Lead Toxicity," *Environmental Research* 78 (August 1998), 79-85; Colleen F. Moore, *Silent Scourge: Children, Pollution, and Why Scientists Disagree* (New York: Oxford University Press, 2003), 13-48; Sharon Bertsch McGrayne, *Prometheans in the Lab: Chemistry and the Making of the Modern World* (New York: McGraw Hill, 2002), 168-197.

often did little to protect worker health. In the 1940s, for example, the ACGIH established the same TLVs for silica and asbestos: 5 million particles per cubic centimeter. The basis for both TLVs was research carried out at the Saranac Laboratory, with funding from Johns-Manville, Raybestos-Manhattan, and other asbestos manufacturers. Similarly, the ACGIH established a TLV for lead of .15 micrograms per cubic meter of air, on the basis of studies at the Kettering Laboratory, funded by the lead and oil industries. Despite ample evidence that these TLVs did not protect workers from silicosis, asbestosis, lead poisoning, and other diseases, these standards remained in place in the 1960s.<sup>48</sup>

Another problem concerned access to information by workers and their unions. The careers of both Arthur J. Vorwald and Robert Kehoe illustrate how industry control over occupational health research limited the ability of unions to protect workers. Vorwald had come to Wayne State University in Detroit in 1955, in large part, because of controversies involving disclosure of research findings. After earning a Ph.D. at the University of Chicago in the early 1930s, Vorwald had interned at Henry Ford Hospital in Detroit, then became a staff member at the Saranac Laboratory in Saranac, New York. In the 1940s, asbestos manufacturers commissioned a series of studies of asbestos and its health effects at the Saranac Laboratory. In 1946, Vorwald replaced Dr. Leroy Gardner as the director of Saranac, and continued to pursue studies of asbestos, beryllium, and other hazards, in collaboration with the South African industrial hygienist Gerrit Schepers. However, Saranac's industrial sponsors opposed publication of Vorwald and Schepers' asbestos research, including an epidemiological study of workers at a Quebec asbestos mine owned and

---

<sup>48</sup> David Egilman, Tess Bird, and Caroline Lee, "Dust Diseases and the Legacy of Corporate Manipulation of Science and Law," *International Journal of Occupational and Environmental Health* Vol. 20 No. 2 (April 2014), 115-125; David Rosner and Gerald Markowitz, "Industry Challenges to the Principle of Prevention in Public Health: The Precautionary Principle in Historical Perspective," *Public Health Reports* Vol. 117 (November-December 2002), 501-512; Barry Castleman and G.E. Ziem, "Corporate Influence on Threshold Limit Values," *American Journal of Industrial Medicine* Vol. 13 (1988), 531-559.

operated by the U.S.-based Johns-Manville corporation. The study found alarmingly high death rates from lung cancer among the workers.<sup>49</sup>

Anthony J. Lanza, a Saranac board member who directed New York University's Institute for Industrial Medicine, and was a medical consultant for Johns-Manville, personally pressured Vorwald to discontinue his asbestos research. When Vorwald refused to do so, Lanza had Vorwald fired from Saranac in 1953. Vorwald sought work elsewhere, and found employment as the director of the Wayne State University Department of Occupational and Environmental Medicine in 1955. The same year, Saranac closed its doors. During a speech to AFL-CIO leaders in 1959, Wilhelm Hueper of the National Cancer Institute alluded to these events, which had implications for union members exposed to asbestos. Explaining that industry tightly controlled access to research on environmental cancer, he described how officials in the chrome, chemical and asbestos industries had opposed publication of research unfavorable to sponsors' products. Citing Lanza's actions as an example, Hueper said, "[o]ne may inquire from Dr. Lanza what kind of influences have prompted the long overdue publication of the 34 cases of asbestos cancer of the lung in asbestos miners and drillers observed by Vorwald and Shepers [sic] at the now defunct Saranac Laboratory." Hueper went on to criticize the American Petroleum Institute and other research sponsors for opposing publication of environmental cancer studies directed by Robert Kehoe at Kettering.<sup>50</sup>

---

<sup>49</sup> On Vorwald's career at Saranac, see Andrew L. Reeves, "Evaluation of Beryllium Data," Department of Occupational and Environmental Health, Wayne State University, August 1987, 2-4, [http://beryllium.eu/resources/Health & Safety Studies & Literature/Cancer/Reeves-Evaluation of Beryllium Animal Data.pdf](http://beryllium.eu/resources/Health%20&%20Safety%20Studies%20&%20Literature/Cancer/Reeves-Evaluation%20of%20Beryllium%20Animal%20Data.pdf) [accessed August 7, 2016]; Barry Castleman, *Asbestos: Medical and Legal Aspects* (New York: Law & Business, Inc., 1984), 60-61, 65, 75-76, 136-37, 170-71, 212-13, 216, 219, 287, 410-16, 433, 511-14; Lorraine Mallinder, "Deadly Secret: A 1940s Whistleblower Uncovers Evidence Linking Asbestos to Cancer," *Canada's History* (April-May 2011), 33-38.

<sup>50</sup> For Hueper's reference to Vorwald and Lanza, see W.C. Hueper, "Organized Labor and Occupational Cancer Hazards," in address to the AFL-CIO Executive Council, Summer 1959, esp. 20-21, "Organized

At Wayne State, Vorwald continued his program of research on environmental cancer, including supervising a Ph.D. dissertation by Andrew L. Reeves on the carcinogenic properties of beryllium between 1955 and 1959. During the same time period, staff members in the United Auto Workers (UAW) Health and Safety Division, located at the union's Solidarity House in Detroit, began to explore the issue. In 1960, the UAW supported three workers at the Detroit Brass Company in a lawsuit against Mobil Oil, who believed they contracted skin cancer from contact with the company's Rubrex 200 machine oil brand. During the trial, Robert Kehoe spoke as an expert witness for the defense. However, the UAW won the case, in large part because the district judge subpoenaed relevant sections of the Kettering cancer studies, which showed that Rubrex 200 produced tumors in mice. As the Kettering scientist A. Wesley Horton wrote to James E. Haggerty, a lawyer on Socony's legal team in April 1959, "there is no question at the present time that Rubrex 200 is carcinogenic in the skin of mice." The product was not unique in this respect; another brand used at Commonwealth Brass, 200 Coastal Sun lubricant, produced tumors twice as fast as Rubrex 200. With the help of these studies, two of the defendants won \$10,000 and \$20,000, respectively.<sup>51</sup>

However, winning compensation for two workers was one thing; protecting the UAW's 1.1 million members from toxic chemicals was something else. Because the sponsors of Saranac and Kettering refused publication of the laboratories' cancer studies, most scientific evidence of such hazards available to labor unions existed in British and German medical journals. As UAW industrial hygienist F.A. Van Atta wrote to Walter Reuther in February 1959, "We have relatively

---

Labor and Occupational Cancer Hazards—Unpublished" File, box 3, Wilhelm C. Hueper Collection, National Library of Medicine, Bethesda, MD. On Lanza's role in Vorwald's firing, see Amter and Ross, *The Polluters*, 65, 190-91, no. 10; Mallinder, "Deadly Secret," 37-38. For further background on Lanza's history at Saranac, see McCulloch and Tweedale, "Anthony J. Lanza, Silicosis and the Gauley Bridge Nine," 1-18.

<sup>51</sup> A. Wesley Horton to James E. Haggerty, April 13, 1959, Box 15, Folder 6, "Socony Mobil oil Company, Inc., 903 West Grand Boulevard, Detroit 32, Michigan" Kehoe Collection.

little information about the incidents of skin cancer among mechanics in this Country and very much less information about the possible relation between the inhalation of the sprays of compounds and lung cancer.”<sup>52</sup> Well after the Socony lawsuit was over, during a 1962 hearing on state-level health and safety laws, Van Atta told New Jersey Congressman Charles S. Joelson that his union had successfully won compensation for workers suffering from skin diseases, lead poisoning, and silicosis. When questioned about “lung cancer with regard to industrial and occupational disease,” he said that studies on the topic “are generally small and scattered.” The withholding of the Saranac studies delayed government action to regulate asbestos, resulting in heightened cancer risks for many workers, including UAW members.<sup>53</sup>

Occupational health threats in Detroit were most acute for African American auto workers. While housing discrimination increased African Americans’ exposure to outdoor pollution, employment discrimination increased their exposure to indoor pollution. In 1950, 1 in 4 white workers in the Detroit metropolitan area worked in a skilled occupation. By contrast, only 1 in 8 black workers was in a skilled occupation. A decade later, this picture remained virtually unchanged. In 1960, black workers made up 45 percent of the production workers at Dodge Main in Hamtramck, but 0 percent of the 1,500 skilled workers. On the other side of the metropolitan area, black workers made up 65 percent of production workers at the Rouge, but only 3.5 percent of the skilled workers. As they had since the 1920s, black workers remained concentrated in dangerous jobs, especially in the foundries, at both the Rouge and Dodge Main. Horace Sheffield, an African American foundry worker at the Rouge from the 1920s until the 1960s, recalled of the

---

<sup>52</sup> F.A. Van Atta, letter to Walter Reuther, February 10, 1959; Clayton E. Johnson, letter to Walter Reuther, December 18, 1959, both in file 1, box 55, Walter P. Reuther Collection, Reuther Library.

<sup>53</sup> U.S. Congress, House, *Hearings on H.R. 12306 Before the Committee on Education and Labor*, 87th Congress, 2nd sess., January 10, 1962, 110.



conditions inside, “[i]t looked like hellfire and damnation. I saw plenty of men burn and die, killed and never known, worked to death, sweated to death.”<sup>54</sup>

In the course of their shifts, foundry workers spent hours engulfed in clouds of silica particles, as well as dusts from various powdered minerals, including carbon, graphite, and clay. As F.A. Van Atta, an industrial hygienist in the UAW’s Social Security Department, noted in a 1961 letter to Foundry Department director William Humphreys, foundry workers suffered from “the absorption of a variety of toxic metals,” “more or less continuous exposure to irritating organic materials,” burns and heat stress from “furnaces, hot metal and hot castings,” as well as high levels of noise. “In view of all of these conditions,” Van Atta concluded, “it seems quite inevitable that foundrymen will normally have substantially shorter life expectancy than will most members of the working community.” As in the case of outdoor pollution, however, auto manufacturers did virtually nothing to reduce indoor pollution in foundries until forced to do so by the federal government.<sup>55</sup>

### **The Shift to Federal Environmental Regulation**

By 1962, the Detroit Water Department served 45 municipalities, including 3,000,667 people spread across 600 square miles. A decade earlier, the system had served a population of 2,642,000. To accommodate the expanding service area, the department made additions to the

---

<sup>54</sup> Horace L. Sheffield, “Brief on Civil Rights and Job Discrimination,” in United States Commission on Civil Rights, *Hearings before the United States Commission on Civil Rights: hearings held in Detroit, Michigan, December 14, 1960 and December 15, 1960* (Washington, D.C: U.S. Government Printing Office, 1961), 87-88; Kevin Boyle, *The UAW and the Heyday of American Liberalism, 1945-1968* (Ithaca: Cornell University Press, 1995), 164; Steve Jeffreys, *Management and Managed: Fifty Years of Crisis at Chrysler* (New York: Cambridge University Press, 1986), 36-37. For the Battle quote, see Shelley Eichenhorn, “A Return to the ‘Fires of Hell’: Workers Revisit Abandoned Ford Foundry,” *Detroit News* October 19, 1977, 1-A, 6-A.

<sup>55</sup> F.A. Van Atta, letter to Bill Humphreys, February 27, 1961, box 1, file 12, UAW Foundry and Forge Departments Records.

municipal treatment plant in 1958, 1959, 1960, and 1961 worth a total of \$10 million. Under the 1956 Water Pollution Act, Detroit received 30 percent federal funding for these upgrades. In 1961, Congress increased the grant ceiling for such projects from \$250,000 to \$600,000. While municipal officials lobbied for these grants, they resisted federal environmental regulations, which would require shifting budgetary priorities from regional expansion to improving water quality. However, increased federal funding also gave the Public Health Service and other agencies more regulatory authority in Detroit.<sup>56</sup>

Following a water shortage in the Detroit suburbs in 1954, Wayne County officials had lobbied for a separate water system for the Detroit suburbs. However, the General Manager of the Detroit sewage treatment plant, Gerald J. Remus, led the opposition to a separate county system. After becoming Mayor Albert Cobo's water department director in 1955, Remus pursued an agenda of regional expansion, with the financial and political backing of the Greater Detroit Board of Commerce and suburban real estate developers.<sup>57</sup> The introduction of federal environmental regulations in Detroit in the 1960s occurred in the context of negotiations with neighboring municipalities over connecting to the Detroit system. Municipal officials feared that, if cleaning up the Detroit River required increasing water rates, it could interfere with their regional agenda.

Federal water regulators originally came to Detroit at the request of the state government.

---

<sup>56</sup> On the regional water pollution policies of the U.S. and Canadian governments, see Hubert R. Slack, "Study of the Governmental Agencies Responsible for the Control of Water Pollution of the Detroit River" (M.A. Thesis: Wayne State University, 1962), esp. 65-67; Michigan Department of Health, *Some Significant Accomplishments and Trends in Pollution Control in the Greater Detroit Metropolitan Area During the Period 1956-1962* (Detroit: Michigan Department of Health 1962), 1-26. On the expansion of the Detroit Water and Sewerage Department service area, see Philip J.D. Anieri, "Regional Reform in Historic Perspective: Metropolitan Planning Institutions in Detroit, 1950-1990" (Ph.D. Dissertation: University of Michigan, 2007), 63-100. On federal appropriations for water infrastructure in the 1950s and 1960s, see Martin Melosi, *The Sanitary City: Environmental Services in Urban America from Colonial Times to the Present*, 2<sup>nd</sup> Ed (Pittsburgh: University of Pittsburgh Press, 2008), 334-335.

<sup>57</sup> Anieri, "Regional Reform in Historic Perspective," 68-73.

In December 1961, Michigan Governor John B. Swainson wrote to Abraham Ribicoff, the Secretary of the Department of Health, Education, and Welfare to request federal assistance with water pollution control. Swainson, a liberal Democrat elected with support from the UAW, asked for federal agencies to “identify and recommend methods for correcting the sources of pollution going into the Detroit River and Lake Erie.” Although the Michigan Water Resources Commission had an “exemplary record of pollution abatement,” addressing the region’s “critical pollution problems” required going “above and beyond the normal pollution control activities.” Gerald Remus resented Swainson’s request. As he later wrote to Detroit Mayor Jerome Cavanaugh, “[t]he Public Health Service was asked to come in here by Governor Swainson. We felt this was unjustified.”<sup>58</sup>

In March 1962, the PHS and HEW held a conference in Detroit on the pollution of the Detroit River and Lake Erie. At the time, the PHS operated a single laboratory in Detroit, where scientists tested water samples from the Detroit River, Lake St. Clair, and the St. Clair River. At the conference, PHS scientists estimated that 2.1 billion gallons of raw sewage entered the Detroit River annually. Detroit’s sewage treatment plant at 9300 W. Jefferson made drinking water safe, but it did not subject sewage to secondary treatment before discharging it into the Detroit River. The worst offender was the Dearborn sewage treatment plant (68.8 percent of the total), followed by Detroit (23.5 percent). Private companies also dumped 625 million gallons of industrial waste per day into local waterways, including 300 million gallons in the Rouge River. This waste primarily consisted of “oxygen demanding materials, suspended solids, oils, waste pickle liquor,

---

<sup>58</sup> U.S. Department of Health, Education, and Welfare and Public Health Service, *Transcript of Conference in the Matter of Pollution of the Navigable Waters of the Detroit River and Lake Erie and Their Tributaries Within the State of Michigan, First Session, March 27-28, 1962* (Washington, D.C.: U.S. Government Printing Office, 1962), 19-20; Gerald Remus to Jerome Cavanaugh, November 13, 1962, Folder 11, Box 92, Jerome P. Cavanaugh Collection, Reuther Library.

phenols and ammonia.” This brew of compounds was deadly to most forms of aquatic life. In one day alone in June 1962, 1,500 lbs. of dead fish washed up on the shores of Sterling State Park, immediately downstream of the Detroit River on Lake Erie.<sup>59</sup>

Based on these preliminary findings, the PHS began a comprehensive study of Detroit River pollution, to be released in 1965. In the meantime, Gerald Remus expressed outrage over the federal government’s meddling. In a November 1962 letter to Mayor Cavanaugh, Remus wrote that the study would likely conclude that “a terrible situation exists,” but insisted that the Detroit River was “in better shape than any comparable river in the world.” Denouncing the “arbitrary police attitude” of federal regulators, he predicted that they would demand “the complete purification of the Detroit River,” which would be “murderous” for the city’s finances.<sup>60</sup>

In a June 1963 Congressional hearing on Bill S. 649 (which would pass in 1965 as the Water Pollution Act), Remus reiterated these criticisms. He objected most strenuously to Sec. 4 (i) of the bill, which would shift regulatory authority from state agencies to the Public Health Service and HEW. Rejecting “efforts by Uncle Sam to force pollution control,” Remus told Senator Edmund Muskie that “[i]t is not necessary for the Federal Government to lay on the lash as far as we are concerned, admitting that we have not got the job done and that we need help doing it.” Similarly, Michigan Water Resources Commission officials appealed to states’ rights and federalism in arguing against the new bill. MWRC Secretary Loring F. Oeming complained that, under the bill, “there would be no limits to the extent of discretion exercised by the Federal

---

<sup>59</sup> U.S. Department of Health, Education, and Welfare and Public Health Service, *Transcript of Conference in the Matter of Pollution of the Navigable Waters*, 19-20, 38, 48-49; Glenna McWhirter, “We’ve Created a Water Wasteland: Our Rivers Are Open Sewers,” *Detroit Free Press*, July 24, 1966, 1C, 4C.

<sup>60</sup> Gerald Remus to Jerome Cavanaugh, November 13, 1962, Folder 11, Box 92, Cavanaugh Collection.

administrative authorities in determining just how clean they would require the waters to be.”<sup>61</sup>

While the PHS investigation proceeded, Detroit water officials were negotiating with their counterparts in other municipalities about expanding the Detroit system. In August 1963, Pontiac became the 56<sup>th</sup> municipality in southeast Michigan to join the system. Meanwhile, negotiations with Flint and Ann Arbor continued. An internal memo, sent from Remus’ department to the Mayor’s office during the negotiations with Flint, reveals a long-term strategic vision. “This not only captures the Flint market,” the memo noted, “but it puts Detroit water 30 miles closer to Lansing,” placing the state capitol in Detroit’s orbit. Moreover, “it will eliminate Flint as a potential competitive water merchant and Flint is the only remaining threat to DWB as a supplier of water to the central state cities (Lansing, East Lansing, Jackson, Battle Creek and Ann-Arbor Ypsi on the “loop”).” As a regional empire-builder, Remus believed that the Detroit water system needed to expand to prevent other municipalities from capturing its potential market share.<sup>62</sup>

To undercut competitors, Remus took advantage of divisions between other regional cities and their suburbs, including in metropolitan Flint. In a July 1963 letter, Remus told Cavanaugh that Detroit had a “50/50” chance of absorbing the Flint water market. In November 1963, the Flint Commission voted 6-3 to reject Remus’ proposal for joining the Detroit water system. Seeking to reassure Cavanaugh, Remus wrote that “we have requests from the suburban districts to deal with them, and after I meet with Flint officials and apprise them of our intentions, we will start negotiations with their suburbs to determine the practicality of their approach.” In the late 1950s,

---

<sup>61</sup> Gerald Remus, Testimony Presented Before the Special Subcommittee on Air and Water Pollution of the Public Works Committee, United States Senate, on S-649, Washington, D.C., June 18, 1963, folder 8, box 92, Cavanaugh Collection; U.S. Congress, Senate, Subcommittee on Air and Water Pollution of the Committee on Public Works, *Hearings on S. 649, S.737, S.1118 and S.1183*, 88<sup>th</sup> Cong., 1<sup>st</sup> sess., June 17-26, 1963, 416-417.

<sup>62</sup> “Flint Water,” n.d. (probably 1963), folder 13, box 92, Cavanaugh Collection.

pro-incorporation forces had defeated the New Flint plan, a proposal for a unified regional government. This made separate negotiations between Flint and its suburbs possible. Remus told Flint officials that Detroit could offer 41 percent lower water rates, an offer their suburbs were unlikely to refuse.<sup>63</sup>

While it is unclear whether such tactics swayed Flint officials, Remus got his way in the end. On December 23, the Flint Commission reversed its decision, and Flint moved to join the Detroit water system. “The Flint area’s inclusion in the Detroit system,” Mayor Cavanaugh said in a public statement, “will mean lower per capita construction costs for present Detroit system members when work is started at the Lake Huron facility,” a planned intake and filtration plant north of Port Huron. Detroit was proceeding with a \$98 million, 56.7 mile pipeline from the North Service Center in Troy to the outer suburbs of Flint. With plans to construct a vast system, ultimately extending from Flint to Lansing, Detroit officials did not welcome reallocating funds from expansion to pollution control.<sup>64</sup>

This situation would begin to change in the mid-1960s. In 1965, the PHS released its three-year study of pollution in the Detroit River and Lake Erie. For the study, PHS scientists gathered 25,000 water samples, and conducted 135,000 tests. They found that discharges of industrial waste into the Detroit River had increased from 625 million gallons per day in 1962 to 1.1 billion gallons

---

<sup>63</sup> Gerald Remus to Jerome Cavanaugh, November 27, 1963, folder 10, box 92, Cavanaugh Collection. On the defeat of the New Flint plan, see Andrew Highsmith, *Demolition Means Progress: Flint, Michigan, and the Fate of the American Metropolis* (Chicago: University of Chicago Press, 2015), 120-144. As Highsmith notes, General Motors consumed more than half of the water in Flint at the time, and benefited from a stratified rate structure that subsidized industrial users. General Motors supported the Flint Plan, in part because it would rationalize municipal service delivery to suburban factories. However, suburban homeowners believed that incorporation would result in improved services, including water. See *Ibid.*, 130, 135, 144.

<sup>64</sup> Gerald Remus, letter to Jerome Cavanaugh, December 11, 1963; “Hold for Release (December 23, 1963),” both in folder 10, box 92, Cavanaugh Collection.

per day in 1965, including 200,000 lbs. of acids, 800,000 lbs. of suspended solids, and 2 million lbs. of chloride. Municipal discharges of raw sewage had decreased significantly, from 2.1 billion to 540 million gallons per day, of which 95 percent came from Detroit's sewage treatment plant. (The Dearborn sewage plant had since been closed down.) Nevertheless, the sewage pollution remained hazardous to aquatic life. During stormwater overflows, bacteria concentrations reach 7,000 organisms per 100 ml in the Upper Detroit River, and 80,000 per 100 ml in the Lower Detroit River. Municipal sewage also contained additional industrial waste, including over 16,000 gallons of oil, over 34,000 lbs. of ammonia, and over 500,000 lbs. of chlorides per day.<sup>65</sup>

The PHS report coincided with increased federal funding for air pollution control. In January 1965, Wayne County received a \$90,000 federal grant to expand its pollution control program from 1 to 14 employees. The grant was part of the Federal Clean Air Act's matching funds program; Wayne County paid another \$90,000. Growing concerns among scientists about the negative health and ecological effects of air pollution influenced the Johnson administration's support for federal air pollution legislation. That year, President Johnson's Science Advisory Committee released a report, entitled *Restoring the Quality of Our Environment*, which concluded that uncontrolled carbon dioxide emissions from automobiles and other sources could alter the planetary climate. Among other problems, they projected, this "may result in a catastrophically rapid melting of the Antarctic ice cap, with an accompanying rise in sea levels."<sup>66</sup>

---

<sup>65</sup> Richard D. Vaughan and George L. Harlow, *Report on Pollution of the Detroit River, Michigan Waters of Lake Erie, and Their Tributaries* (Washington, D.C.: U.S. Department of Health, Education, and Welfare, Public Health Service, Division of Water Supply and Pollution Control, April 1965), 1-13; McWhirter, "We've Created a Water Wasteland," 1C, 4C.

<sup>66</sup> President's Science Advisory Committee, *Restoring the Quality of Our Environment: Report of the Environmental Pollution Panel* (Washington, D.C.: The White House, 1965), 123. Also see Joshua Howe, *Behind the Curve: The Science and Politics of Global Warming* (Seattle: University of Washington Press, 2014), 37-38.

Meanwhile, the PHS report indicated that water pollution, particularly from the Detroit River, was destroying the ecosystems of Lake Erie. On June 15, representatives of HEW and the PHS convened a conference in Detroit, chaired by HEW secretary Anthony J. Celebrezze. PHS representatives presented their report to municipal and state officials, which concluded that the waters of the Detroit River were “polluted bacteriologically, chemically, physically, and biologically, and contain excessive coliform densities as well as excessive quantities of phenols, iron, oil, ammonia, suspended solids, settleable solids, chlorides, nitrogen compounds and phosphates.” It warned that the pollution of the Detroit River, and thus of Lake Erie, “will become progressively worse unless effective action is taken immediately.” The PHS recommended that Detroit install secondary treatment, which would reduce sewage pollution by up to 90 percent, and that local industries install waste treatment facilities. The PHS projected the total cost of cleaning up the river at \$200 million.<sup>67</sup>

Gerald Remus attempted to discredit the report, publicly calling the demand for secondary treatment “foolish.” He asked of the PHS, “[w]hy don’t they start with the Potomac River which is one of the dirtiest in the nation rather than the Detroit River which is one of the cleanest?” Remus estimated that secondary treatment would cost Detroit \$129 million, which would require a 380 percent increase in sewage rates and a 100 percent increase in overall water rates. Remus’ claims about water rates turned out to be exaggerated, if less than those about water quality. Water rates did increase by over 50 percent in 1969, in part because Mayor Cavanaugh and the Detroit City Council rejected a property tax increase. However, Detroit would not fully install secondary

---

<sup>67</sup> Vaughan and Harlow, *Report on the Pollution of the Detroit River*; James Robinson, “Pollution War Urged by U.S.: City Told River a \$200 Million Mess,” *Detroit Free Press*, May 8, 1965, A3; idem., “Industries Must Check River Waste: Court Could Act if Firms Don’t,” *Detroit Free Press*, May 10, 1965, 3A, 4A



treatment until 1981 (see Chapter 5). Even then, Detroit's water rates remained less than two-thirds of the national average.<sup>68</sup>

On August 25, 1965, the MWRC held a meeting in Detroit with municipal officials to discuss the implementation of the PHS recommendations. After a follow-up meeting in East Lansing on January 6, 1966, Detroit officials agreed to a timetable for municipal water pollution control by November 1, 1970. By that date, they pledged, municipal discharges into the Detroit River could only contain up to 206,000 lbs. per day of oxygen-consuming substances, 50 milligrams per day of suspended solids, 93 lbs. per day of phenols, and similar limits on coliform bacteria, oil, and phosphates. The enforcement mechanisms behind this timetable, however, remained unclear. The Water Quality Act, signed by President Johnson on September 21, 1965, did not establish federal water quality standards. Instead, the final bill contained a vague requirement for states to establish their own "water quality criteria" for interstate waterways by June 30, 1967. The law stipulated that HEW could intervene if states failed to develop such criteria.<sup>69</sup>

Secondary treatment also received endorsements from UAW leaders, including Olga Madar, the director of the union's Conservation and Recreation Department, and UAW president

---

<sup>68</sup> "Water Bills Going Up," *Detroit Free Press*, July 9, 1969, 1A; Bob Campbell, "Water Cheap in Detroit, But Not for Its Suburbs," *Detroit Free Press*, June 11, 1984 1A, 17A. As Philip J. D'Anieri has shown, while many suburban ratepayers believed that Detroit was overcharging them, this was a myth. The City of Plymouth sued Detroit on these grounds in 1976, and after 9 years of litigation the Michigan Supreme Court ruled that Detroit's rates were fair in relation to operating costs. Moreover, in 1981, the Michigan legislature passed a water pricing law (House Bill No. 4029) which prohibited Detroit from earning a profit on suburban water sales, forcing the city to increase rates for Detroit residents. See D'Anieri, "Regional Reform in Historic Perspective," 93-94.

<sup>69</sup> "Stipulation Between the Water Resources Commission, an Agency of the State of Michigan and the City of Detroit, a Municipal Corporation—To Restrict the Content of Sewage and Industrial Wastes Discharged to the Waters of the State by the State of Detroit, Mich.," in U.S. Congress, House, Committee on Government Operations, *Hearings on Water Pollution—Great Lakes (Part 3—Western Lake Erie, Detroit River, Lake St. Clair, and Tributaries)*, 89<sup>th</sup> Cong., 2<sup>nd</sup> sess., September 9, 1966, 527-529. On the Water Quality Act of 1965, see Milazzo, *Unlikely Environmentalists*, 61-88.

Walter Reuther. On November 6, 1965, the UAW held the United Action for Clear Water at Cobo Hall in downtown Detroit. Over 1,000 UAW members, public officials, scientists and environmentalists attended. In a speech, Reuther argued that uniform, federal environmental regulations were as necessary as a federal minimum wage. “If you have only state regulations,” he noted, “a plant can move across the state line where state regulations permit them to pollute the water. You need to deal with this problem in national terms.” While acknowledging that secondary treatment would cost Detroit “a lot of money,” Reuther argued that “the people of Detroit ought to be willing to spend it.” Water pollution was “not a political issue—it’s a matter of national survival.”<sup>70</sup>

In the spring of 1966, Remus wrote to the MWRC requesting a slower timetable, pointing to the mismatch between Detroit’s declining tax base and rising regulatory compliance costs. “Our revenue base cannot support this type of expenditure,” he said. He added that “unless we get both State and Federal help the area program will fail.” On March 3, the MWRC rejected Remus’ request. Meanwhile, industry officials were no more enthusiastic about MWRC’s water quality criteria for the Detroit River. After the MWRC called a hearing in Detroit on March 29, representatives of Great Lakes Steel, Scott Paper Company, Ford Motor Company, and Allied Chemical Corporation refused to participate. By May 11, however, 11 industries and 24 municipalities had agreed to a \$200 million pollution control program for the Detroit River. The City of Detroit and the Scott Paper Company were not part of this agreement, but remained in negotiations with the MWRC. In June 1966, Detroit and Wayne County agreed to install secondary sewage treatment by November 1, 1970. However, Detroit did not fully install secondary treatment

<sup>70</sup> “Remarks of Walter P. Reuther,” *United Action for Clear Water: Report of Papers Presented at Conference Held at Cobo Hall, Nov. 6, 1965* (Detroit, MI: UAW Recreation Department, 1965), 1-10, Library of Michigan, Lansing, MI; George Walker, “Reuther, Udall, Join in Call for Drive Against Pollution,” *Detroit Free Press*, November 7, 1965, 14A.

until 1981.<sup>71</sup>

Under this agreement, the heaviest burden fell on municipalities, and their taxpayers and ratepayers, rather than industry. To meet the MWRC timetable, the Ford Motor Company agreed to spend \$1.6 million on treating waste from its Rouge and Monroe plants by April 1969, only a small fraction of the cost discharges (both directly into waterways and into sewer systems) added to municipal treatment. As it had twenty years before, Ford's pollution control program for the Rouge consisted largely of diluting discharges and using an "oil skimmer" to absorb waste oil from the surface of the river. The limits of such methods became clear on October 9, 1969, when the Rouge River caught fire, as the Cuyahoga River had in Cleveland the previous June. The river fire occurred along the boundary between River Rouge and southwest Detroit, near the I-75 freeway bridge, after sparks from an acetylene torch ignited oil spilled from a Shell Oil storage tank. As the fire spread across the oil-soaked river, Detroit firefighters estimated that flames shot over fifty feet high. A *Detroit Free Press* editorial asked, "will even a fire on the river not awaken the social consciences of those whose complicity or acquiescence has permitted this abominable situation to evolve?" In the end, what forced industry to change was not awakened consciences, but a combination of popular pressure and federal regulation.<sup>72</sup>

### Conclusion

Whether in the case of automobile tailpipes, factory smokestacks or inside factories,

---

<sup>71</sup> "Lake Erie Pollution May Stop by 1970," *Detroit Free Press*, June 23, 1966, 15A; Joe Oppedahl, "Clean Up Water, U.S. Tells City," *Detroit Free Press*, December 11, 3A, 8A; Gary Blonston, "Pollution Aid Cut by \$123 Million," *Detroit Free Press*, 3A, 10A; Patricia Chargot, "Talented Texan Leaving Detroit with a Shaped-Up Sewage Plant," *Detroit Free Press*, April 6, 1982, 1B.

<sup>72</sup> John H. Hartig, *Burning Rivers: Revival of Four Urban-Industrial Rivers That Caught on Fire* (Ecovision: Burlington, ON, 2010), 11-21; Tim Holland, "Rouge River Fire Flares Near Bridge Over I-75," *Detroit Free Press*, October 10, 1969, 11C; "The Burning Rivers," *Detroit Free Press*, October 12, 1969, 2B. On the Cuyahoga River Fire, see David Stradling and Richard Stradling, *Where the River Burned: Carl Stokes and the Struggle to Save Cleveland* (Ithaca: Cornell University Press, 2015), 144-172.

business leaders in metropolitan Detroit had powerful economic incentives to resist pollution control in the absence of federal regulation. While municipal officials in Detroit welcomed federal funding for pollution control, they were also wary of federal air and water quality standards, in part because they hoped to avoid antagonizing local industry. In the case of Detroit's water department, municipal officials also believed that complying with federal regulations—precisely because they were more effective than local and state laws—would interfere with their long-term plans for regional expansion.

Despite opposition, the locus of regulatory authority in Detroit began to shift from City Hall and Lansing to Washington, D.C. in the 1960s. Publicly funded scientific research, first by the IJC and then by the PHS, demonstrated that water and air pollution posed serious threats to both humans and non-human organisms. These studies also demonstrated that, as Detroit began to hemorrhage residents and manufacturing jobs, pollution—much of it from the industrial downriver suburbs—continued to increase. In the case of water pollution, the growing mismatch between the cost of sewage treatment and Detroit's fiscal base generated demands for more federal funding. This, in turn, gave federal regulators more power over the Detroit Water and Sewerage Department. The tensions between Detroit water officials and federal regulators would only increase in the 1970s and 1980s, when the administration of Coleman Young clashed with the EPA over secondary sewage treatment. Finally, escalating protests from community residents and industrial workers in the late 1960s and early 1970s would put further pressure on industrial polluters and regulatory authorities. These protests are the subject of the next chapter.

**CHAPTER 4: ‘A SWEET AND SOUR VICTORY’: ENVIRONMENTAL PROTEST,  
THE RANK AND FILE REBELLION, AND THE PROBLEM OF CAPITAL MOBILITY,  
1965-1972**

Chrysler’s Huber Foundry was supposed to “sparkle.” The 1,114,000-square-foot facility, opened in Detroit’s Harper-Avenue neighborhood in 1966, employed an estimated 3,000 workers by 1972. It was the first large factory built by any of the Big Three in Detroit since 1955. While the plant created jobs and boosted Detroit’s tax base, Chrysler officials promised it would not lower the quality of life for residents in Harper-Van Dyke. In a press tour, Chrysler Vice President Alan G. Leofburrow said that its pollution control technology was so good that “[y]ou can count plants like this on one finger on one hand.” In May 1967, *Factory Magazine* named the Huber Foundry one of its “Top Ten Plants of the Year.” At a banquet in New York City, three Chrysler executives accepted the magazine’s Maintenance Merit Award for the foundry’s start-of-the-art pollution control technology.<sup>1</sup>

Yet, within months of its opening, the foundry became a target for protest, both from Harper-Van Dyke residents and from auto workers. Residents, including some UAW members, launched street demonstrations and a lawsuit over foundry pollution, charging that it impaired their health and damaged their property. While the lawsuit proceeded, members of the Dodge Revolutionary Union Movement (DRUM) leafleted the plant, protesting the exclusion of African Americans from the skilled trades, and their concentration in dusty, hazardous jobs in the foundry’s melting and cleaning rooms. Facing pressure from their rank and file, UAW leaders encouraged municipal and county authorities to enforce existing air pollution laws at the plant. Chrysler management responded by threatening to close the plant and open an alternative one in the Detroit

---

<sup>1</sup> Fred Olmstead, “Chrysler Foundry Sparkles,” *Detroit Free Press*, October 7, 1966, 9B; James Wargo, “The Saga of Chrysler’s “Clean” Foundry,” 10-12, Environmental Protection Agency Region V Public Report, December, 1972, folder 22, box 5, United Auto Workers Conservation and Recreation Department Collection (hereafter UAW-CRD), Reuther Library.

suburbs, or possibly further afield.

The case of the Huber foundry illustrates the complexity of working-class engagement in environmental politics in the late 1960s and early 1970s. In exploring that complexity, this chapter challenges the claim, associated with social science literature on “new social movements” (and recently revived by some historians) that environmentalism in this era was a “post-material” or “post-economic” politics.<sup>2</sup> Americans engaged in environmental politics in very different ways, depending on their social and class positions, and local political contexts. Working-class environmentalists sought protection from hazards which middle-class professionals and the wealthy could afford spatial distance from in their homes and workplaces. In doing so, they challenged the corporate externalization of costs onto workers and community residents. Polluted air and water, far from being only “quality of life” issues, directly affected the material interests of auto workers in Detroit.<sup>3</sup>

---

<sup>2</sup> In her recent book *Pivotal Decade: How the United States Traded Factories for Finance in the Seventies*, historian Judith Stein links the growth of environmentalism in the 1970s to the politics of New Democrats from “suburban, affluent districts” who scorned unions and the New Deal labor-liberal coalition. Stein argues that “they believed that posteconomic issues—foreign policy, race, gender, political process, and environment—were the important ones.” See Judith Stein, *Pivotal Decade: How the United States Traded Factories for Finance in the Seventies* (New Haven: Yale University Press, 2010), xi. In a useful corrective, Lily Geismer has shown that such issues were never “posteconomic,” even for the suburban liberals Stein refers to. Rather, their specific economic interests shaped their engagement with environmental, civil rights, feminist, and anti-war causes. Geismer’s analysis becomes problematic, however, when she argues that “in supporting these issues, liberalism and the national Democratic party increasingly came to reflect the materialist concerns of suburban knowledge workers rather than autoworkers.” See Lily Geismer, *Don’t Blame Us: Suburban Liberals and the Transformation of the Democratic Party* (Princeton: Princeton University Press, 2015), 1-2, 97-122, 173-198. As the next two chapters show, many auto workers embraced environmentalism, but of a different kind than suburban knowledge workers. In “supporting these issues,” the New Democrats elite and middle-class strains within environmentalism, which had little to do with working-class environmentalism or environmental justice.

<sup>3</sup> For case studies of working class activism around each of these issues, see Geismer, *Don’t Blame Us*, 77-140; Premilla Nadasen, *Household Workers United: The Untold Story of African American Women Who Built a Movement* (Boston: Beacon Press, 2015); Dorothy Sue Cobble, *The Other Women’s Movement: Workplace Justice and Social Rights in Modern America* (Princeton: Princeton University Press, 2004); Paul F. Clark, *The Miners’ Fight for Democracy: Arthur Miller and the Reform of the United Mine Workers* (Ithaca: New York State School of Industrial and Labor Relations, 1981); Robert Gordon, “Environmental

Spatial patterns of segregation also shaped how Detroiters experienced pollution. While housing discrimination resulted in higher levels of pollution exposure for African Americans in general, black auto workers at Dodge Main or the Rouge breathed very different air from black lawyers and school teachers. Likewise, the gendered division of household labor ensured that women experienced environmental hazards (such as lead paint or soot from smokestacks) differently from men, even as income level and segregation created vast differences in exposure among women. Despite these intersecting inequalities, the perception that pollution was getting worse in Detroit cut across demographic categories in this period.<sup>4</sup>

The politics of real estate and home ownership played an important role in environmental concerns. Real wages for auto workers doubled between 1947 and 1960, placing home ownership within reach for many UAW members. Although restricted by housing discrimination, rates of African American home ownership in Detroit increased from 15 percent in 1940 to 39 percent in 1960 (compared with 71 percent for the city as a whole). In the 1960s and 1970s, some African Americans protested the effects of industrial pollution on their homes, as well as the decay and dilapidation caused by redlining and disinvestment. During the same period, African American auto workers rebelled against ghettoization in unskilled jobs that exposed them to higher levels of

---

Blues: Working-Class Environmentalism and the Labor-Environmental Alliance, 1968-1985” (Ph.D. Dissertation: Wayne State University, 2004). On the relationship between conservative politics, environmentalism, and the white working class, see Jennifer Thomson, “Toxic Residents: Health and Citizenship at Love Canal,” *The Journal of Social History* Vol. 50 No. 1 (Fall 2016), 204-223; Arlie Hochschild, *Strangers in Their Own Land: Anger and Mourning on the American Right* (New York: New Press, 2016).

<sup>4</sup> For environmental histories that grapple with these intersecting inequalities, see Dorceta Taylor, *The Rise of the American Conservation Movement: Power, Privilege, and Environmental Protection* (Durham: Duke University Press, 2016); idem., *The Environment and the People in American Cities, 1600s-1900s: Disorder, Inequality, and Social Change* (Durham: Duke University Press, 2009); Elizabeth D. Blum, *Love Canal Revisited: Race, Class, and Gender in Environmental Activism* (Lawrence: University Press of Kansas, 2008); Robert Gottlieb, *Forcing the Spring: The Transformation of the American Environmental Movement*, 2nd Ed. (Washington, D.C.: Island Press, 2005).

factory pollution.<sup>5</sup>

Finally, the role of the UAW in environmental politics in Detroit belies the stereotype of environmentalists as New Democrats who rejected New Deal labor-liberalism. For UAW leaders, environmental law and regulation was not a repudiation of labor-liberalism, but an extension of it. They believed that the federal government had a responsibility to protect all citizens from air and water pollution, just as it had to provide education, health care, retirement, and unemployment benefits. They believed that access to clean air and clean water should be public rights, not private commodities available only to middle-class and wealthy suburbanites and white-collar professionals. Both union leaders and rank-and-file workers rejected the view that workers had to choose between jobs and protection from sickening and deadly pollutants. However, as Detroit's unemployment rate increased in the 1970s, and capital mobility intensified, UAW leaders looked for political solutions to the "jobs versus the environment" dilemma.

### **Deindustrialization and Pollution Control in Detroit**

The politics of pollution in Detroit in the 1960s and 1970s shared many similarities with cities such as Gary, Indiana and Camden, New Jersey, which depended heavily on factory employment in one or two major industries. As in those cities, deindustrialization in Detroit began in the early post-World War II decades, driven by interregional differences in wages, tax rates and land prices, union density and right-to-work laws, and subsidized by federal military, transportation, and housing policies. Before 1965, environmental regulation was weak at the local

---

<sup>5</sup> On rising auto worker wages, see John Barnard, *American Vanguard: The United Auto Workers during the Reuther Years, 1935-1970* (Detroit: Wayne State University Press, 2004), 260. On African American rates of home ownership in Detroit and other cities, see Andrew Wiese, *Places of Their Own: African American Suburbanization in the Twentieth Century* (Chicago: University of Chicago Press, 2004), 123. For overall Detroit home ownership rates, see George Galster, *Driving Detroit: The Quest for Respect in the Motor City* (Philadelphia: University of Pennsylvania Press, 2012), 60-61.



and state levels, and virtually non-existent at the federal level. In the first two decades after World War II, when Detroit lost over 100,000 manufacturing jobs, industries operated with virtually no pollution regulations, apart from occasional municipal fines for smoke ordinance violations, and non-binding “orders of notice” from the Michigan Water Resources Commission (MWRC). For this reason, such regulations did not play a significant role in corporate decisions to relocate production in the early postwar era.<sup>6</sup>

Between 1965 and 1975, by contrast, the first effective federal environmental regulations coincided with an intensification of the postwar deindustrialization trend. Plant closures in industries targeted by the Clean Air and Clean Water Acts cast a long shadow over pollution debates. The fear that pollution control would kill jobs was hardly new. As early as 1887, manufacturers like James McMillan had claimed that a municipal smoke ordinance would destroy the city’s economy (see Chapter 1). For the first two-thirds of the twentieth century, however, the weakness of such ordinances gave manufacturers little to complain about. The expansion of federal environmental law altered the terms of debate over jobs and capital flight. In Detroit, pollution controls had unusually far-reaching implications for the city’s economy. There, unlike cities based on steel, textiles, or electronics, pollution control for vehicles as well as factories threatened to increase production costs for local employers.<sup>7</sup>

---

<sup>6</sup> The plant closures and downsizing of post-World War II Detroit had some precedent in auto manufacturers’ relocation to inner-ring industrial suburbs in the 1910s and 1920s. See Jacob Hall, “Created for Destruction: The Rise of the Automobile Industry and the Decline of Municipal Welfare in Detroit” (Unpublished Ph.D. Dissertation: University of Iowa, 2014). On capital mobility in other industries, see Daniel Sidorick, *Condensed Capitalism: Campbell’s Soup and the Pursuit of Cheap Production in the Twentieth Century* (Ithaca: Cornell University Press, 2009); Aviva Chomsky, *Linked Labor Histories: New England, Columbia, and the Making of a Global Working Class* (Durham: Duke University Press, 2008); Chad Broughton, *Boom, Bust, Exodus: The Rust Belt, the Maquilas, and a Tale of Two Cities* (New York: Oxford University Press, 2015); William D. Adler, *Molly’s Job: A Study of Life and Work on the Global Assembly Line* (New York: Touchstone, 2001); Jefferson Cowie, *Capital Moves: RCA’s 70-Year Quest for Cheap Labor* (Ithaca: Cornell University Press, 1999).

Attitudes toward the automobile industry contributed to the changing regulatory atmosphere. Beginning in the 1957-58 recession, and slowly gathering steam in the early 1960s, critics launched a series of assaults on Detroit automobile manufacturers' business practices and products. While advertisements extolled the benefits of automobiles, critics blamed them for smog-choked cities, gridlocked freeways, traffic accidents, and generic landscapes of subdivisions and strip malls. They also attacked auto manufacturers for shoddy engineering and monopolistic business practices. Like Rachel Carson's *Silent Spring*, Ralph Nader's *Unsafe at Any Speed: The Designed-In Dangers of the American Automobile* (1965) synthesized decades of grievances against a powerful industry in a single, best-selling book. Along with chapters on traffic fatalities, programmed obsolescence, and collusion with oil companies, Nader's book included a chapter on air pollution. Detailing the AMA's cross-licensing agreement on pollution control devices, Nader argued that auto manufacturers "see no reason to spend money to produce a [pollution control] device which allows them neither to increase profits nor to effect any economies." The same year, the Department of Justice issued its first subpoenas to AMA and the Big Three, in an anti-trust investigation into the AMA's cross-licensing agreement on pollution control devices.<sup>8</sup>

In Detroit, protests against air pollution also began to ramp up after 1965. In earlier years, complaints about outdoor air quality in the city largely took the form of letters and phone calls to the Department of Health and the Department of Building & Safety Engineering. In the absence

---

<sup>7</sup> For critiques of the "environmental regulation kills jobs" argument, see Richard Kazis and Richard L. Grossman, *Fear at Work: Job Blackmail, Labor and the Environment* (New York: Pilgrim Press, 1982); Eban Goodstein, *The Trade-Off Myth: Fact and Fiction about Jobs and the Environment* (San Francisco: Island Press, 1999). Both Kazis and Grossman and Goodstein show that environmental regulations have played a minor role in most plant closure decisions. The facilities least able to meet air and water quality standards were often older and in danger of closure for other reasons, such as technological obsolescence.

<sup>8</sup> Ralph Nader, *Unsafe at Any Speed: The Designed-In Dangers of the American Automobile* (New York: Grossman Publishers, 1965), 152; also see *Ibid.*, 147-169.

of state or federal air quality standards, public officials had no power to regulate pollutants not covered by municipal smoke ordinances. The decentralized regulatory structure created further obstacles to pollution control efforts. As Morton Sterling, the Director of the Wayne County Air Pollution Control Division (WCAPCD), noted in a 1968 speech in Chicago, municipal regulations were a poor match for the inherently boundary-crossing nature of air pollution. Before 1965, Sterling recalled, “there existed a checkerboard of activity, which because it was divided, was ineffectual.” Both local and state officials recognized that the problem required intervention at higher levels of government.<sup>9</sup>

In 1965, the Michigan legislature passed the Michigan Air Pollution Act, which created a 9-member Michigan Air Pollution Control Commission (MAPCC), based in the Michigan Department of Public Health in Lansing. The law passed over strong opposition from industry, particularly smaller manufacturers for whom pollution control would eat up a larger proportion of their capital costs. During a speech at the 1967 Michigan AFL-CIO convention, John Soet of the Michigan Department of Public Health recalled that his department “fought 12 years” to pass the law, which industry “vigorously opposed[.]” In addition to granting the MAPCC the authority to pass rules and regulations for the “prevention and control of air pollution” in Michigan, the Act also transferred municipal regulatory authority to county government. In the case of Detroit, the city’s Bureau of Air Pollution Control became part of the Wayne County Air Pollution Control Division, based in the Wayne County Department of Health, and tasked with control activities for

---

<sup>9</sup> Remarks by Morton Sterling, Director, Detroit—Wayne County Air Pollution Control Agencies, Detroit—Wayne County Departments of Health before the National Association of Counties Great Lakes Region Clean Air Conference for Public Officials, Chicago Marriott Motor Hotel, May 12-14, 1968, “The Evolution and Establishment of a Regional Approach to Air Pollution Control in the Detroit Metropolitan Area,” “Air Pollution (Health Subfile) 1969” folder, box 474, Jerome Cavanaugh Collection, Reuther Library.

Detroit and its southwestern industrial suburbs.<sup>10</sup>

The foundry industry exemplified the political tensions involved in pollution control. In a 1967 study of the MAPCC regulations, William Fredrick of the Detroit Department of Health estimated the cost of pollution control equipment in different sectors. In highly capital-intensive industries, the cost of pollution control equipment averaged 10 percent of capital invested. This was not an “insurmountable financial problem” for large corporations like GM and Ford, but could be for smaller operators. In high-emissions sectors, such as the foundry industry, the ratio of capital invested to pollution control costs could reach 1:1. At the time, over 200 grey iron foundries in Michigan—many of them small operations built before World War II—operated 325 cupolas. The cost of pollution control for each cupola could range from \$400,000 to \$1,000,000. Air pollution control advocates argued that cost estimates for pollution control should be weighed against the property damage and increased health care costs from unregulated emissions. However, because of the spatial and temporal dispersal of externalized costs, they were more difficult to quantify than the costs of pollution control.<sup>11</sup>

### **Protests in Downwind Communities**

In many cases, industry officials succeeded in persuading local officials not to enforce pollution control laws by raising the specter of job losses and plant closure. One such case began in Detroit in 1964, after Detroit Mayor Jerome Cavanaugh learned that the Chrysler Corporation was planning to close the aging Dodge Main Hamtramck Foundry. Chrysler was considering

---

<sup>10</sup> “Fight for Clean Air, Water Wins Full Backing at State Convention,” *Michigan AFL-CIO News*, June 28, 1967, clipping in folder 18, box 6, UAW-CRD. On the Michigan Air Pollution Act of 1965, see Sterling, “The Evolution and Establishment of a Regional Approach to Air Pollution Control in the Detroit Metropolitan Area”; Michael Strugar, “Air Pollution,” in Kevin T. Smith, ed., *Environmental Law in Michigan* (Ann Arbor: Institute of Continuing Legal Education, 1982), 333-334.

<sup>11</sup> William Fredrick, “Air Pollution in Michigan,” Michigan Department of Public Health, November 15, 1967, 1-12, folder 12, box 6, William Fredrick Collection, Reuther Library.

closing the foundry, which employed roughly 2,500 workers, and opening a new one in suburban Ohio. Cavanaugh also learned that Chrysler officials were reluctant to rebuild the foundry in Detroit because of a Michigan state tax on “jigs, dies, tools and fixtures.” Chrysler officials told the mayor that, even if the tax were removed, they might build the foundry in the Detroit suburb of Warren. It was only after the Detroit bloc in the Michigan Legislature successfully lobbied for the repeal of the tax, and Cavanaugh personally met with Chrysler officials, that they agreed to build the foundry in Detroit.<sup>12</sup>

During planning sessions in 1964, Chrysler officials chose to construct it on an athletic field on Huber Avenue, wedged between two existing Chrysler plants: Eldon Gear & Axle to the north and Plymouth to the west. Directly to the south was a dense neighborhood of small, working-class bungalows, known as Harper-Van Dyke. The residents were largely first- and second-generation Southern, Central, and Eastern European immigrants. Many of them were Chrysler retirees, including former foundry workers. From the beginning, Detroit city officials and engineers expressed concern about the impact of pollution on the neighborhood. Mayor Cavanaugh suggested that Mort Sterling of the WCAPCD sit in on Chrysler’s planning sessions. Chrysler officials assured Sterling that the foundry would be “clean,” with technologically cutting-edge pollution control systems, including 33 dust collectors connected to 105-inch fans.<sup>13</sup>

Within a month of the facility’s opening on July 20, 1966, neighbors began complaining about an “odorous, orange smoke” that left gritty metal dust on the exteriors of homes, yards and cars. Ruth and Glennis Jones, who lived in a two-bedroom house a block and a half away from the

<sup>12</sup> Wargo, “The Saga of Chrysler’s “Clean” Foundry,” 10-12.

<sup>13</sup> Julia Morris, *The Huber Avenue story: what pollution has cost a community; a four-year record of a 'clean' foundry* (Detroit, MI: United Auto Workers, 1970), folder 22, Box 5, UAW-CRD; Wargo, “The Saga of Chrysler’s “Clean” Foundry,” 10-12.

foundry, discovered that the dust ruined their new aluminum siding, for which they were in the process of paying off a \$2,600 loan. Lorraine and Conrad Crusinski, a couple living four doors down from the foundry, noticed that their one-year-old daughter, Darlene, developed an eye infection in late August. A local pediatrician discovered that she had a piece of black soot lodged in her eye. Another local resident, 53-year-old Viola Slusher, who lived 2 blocks away, began experiencing breathing problems the following fall. After she began taking medication for asthma, she started to get headaches and nosebleeds. As she later told EPA official James Wargo, “I have blown my nose and what came out would be as dark as my black slacks here.”<sup>14</sup>

These damages to health and property resulted from the failure of the plant’s dust collection system. Facing cost overruns during the construction process, Chrysler engineers removed one of the spare dust collector fans included in preliminary designs for the foundry. Then, between July 1966 and October 1966, Chrysler ordered five replacement fans, each of which malfunctioned before breaking down. Faced with a choice between halting foundry operations and continuing without pollution controls, Chrysler officials opted for the latter. As plant manager J.M. Bruce explained in a letter to Morton Sterling, the foundry was the “sole casting source” of eight-cylinder heads, six-cylinder blocks and crankshafts for all Chrysler production. Even a temporary halt in operations, he claimed, “would result in termination of all automotive production” at Chrysler.<sup>15</sup>

Wayne County pollution control officials were sympathetic to Chrysler’s argument. Under the Michigan Air Pollution Act, if Michigan Department of Natural Resources Air Quality

---

<sup>14</sup> Ibid. Slusher echoed a common respiratory complaint among foundry workers. Edward Saxton, who retired from Ford’s River Rouge foundry in 1975, recalled that “when you get home at night and blow your nose, you get nothing but black dust all over your handkerchief.” Douglas Ilka, “Foundry findings withheld,” *Detroit News*, November 29, 1979, A1, A9.

<sup>15</sup> Morris, *The Huber Avenue Story*; Wargo, “The Saga of Chrysler’s “Clean” Foundry.”

Division granted Chrysler a permit to operate with pollution controls, Wayne County officials could order Chrysler to suspend plant operations if those controls were not working. Sterling circumvented this rule, however, by simply allowing Chrysler to operate the Huber Foundry without a permit. As he later told *Detroit Free Press* reporter Julia Morris, he did not grant a permit for the plant “because I did not want it to be put on an operating basis with a clean bill of health when citizens were claiming all these problems.” The reason for allowing them to operate without pollution controls, he insisted, was that Chrysler officials “couldn’t shut down the plant until it was fixed, that just wasn’t possible.”<sup>16</sup> As a result, for the next six years, clouds of metal dust, dirt, and smoke from the foundry regularly blanketed the neighborhood. By the spring of 1967, Chrysler was negotiating legal settlements with over two dozen residents who had sued under the common law of nuisance. As a result of such inaction by industry and regulatory officials, local residents increasingly turned to protest over air pollution.<sup>17</sup>

On the other side of the metropolitan area, similar conflicts were developing in communities adjacent to Ford’s River Rouge complex. In southeast Dearborn, the section of the suburb directly downwind of River Rouge, air pollution became an increasingly contentious issue in the mid-1960s. Some critics included current and retired Rouge workers. In a letter to the *Dearborn Press* in November 1966, Vincent Bruno, a foundry electrician at the Rouge, and the president of the Southeast Dearborn Community Council, accused Dearborn Mayor Orville Hubbard of ignoring air pollution. He called for a “massive crash program” to “eliminate the smoke and poisonous gases” emitted from the Rouge into the air over southeast Dearborn. Public officials in Dearborn, however, argued that pollution control would threaten the suburb’s tax base. In a

---

<sup>16</sup> Ibid.

<sup>17</sup> Wargo, “The Saga of Chrysler’s ‘Clean’ Foundry,” 10-12.

February 1967 interview, Harry Berry, a Lebanese travel agent and father of seven children, said that air pollution from the Rouge caused health problems for himself and his family. However, Mayor Hubbard's administration had rebuffed his complaints. "Some of Hubbard's boys came out and said, 'we can't pressure them too much or we'll lose our tax dollar,'" he recalled. "That's not helping my health any. I'm willing to pay double the taxes and have less smoke."<sup>18</sup>

Ford officials recognized the need to respond to such criticisms. In August, Ford Vice President Charles H. Patterson took SDCC members on a bus tour of the Rouge complex. According to the *Dearborn Press*, Patterson wanted them to "see with their own eyes what it is that Ford has been doing to clean up the air." During a subsequent meeting, SDCC members charged that air pollution had actually become worse since Ford had announced its voluntary pollution control program. Morton Sterling estimated that the Rouge continued to emit 28 tons of dust per day. However, he said that Ford officials were "doing the best they can within the framework of the knowledge they have." SDCC members questioned Wayne County officials' reluctance to enforce existing laws against Ford. "Why should we have to beg," Lombardi asked Sterling, "when you have the law?" In response, Sterling said that the county would only do so if Ford ceased to practice "diligence" in voluntary pollution control.<sup>19</sup>

### **The 1967 Rebellion and Environmental Decay**

Such frustration with public officials' response to environmental hazards was building in

---

<sup>18</sup> Vincent Bruno, "Where is the Mayor's Concern?" *Dearborn Press*, November 23, 1966; Bill Ross, "New Dust Collectors Installed at Rouge: South End Residents Charge Ford Efforts Are Not on 'Massive Scale,'" *The Dearborn Guide*, November 1966, 1-2; Robert Selwa, "Berry Family Stays Inside to Avoid Steel Dust in Eyes," *The Dearborn Guide*, February 2, 1967, all clippings in Box 18, Folder 6, IIMCD. Air pollution also caused health problems at the Salinas School, where Berry's children were students. See Thomas McCarthy, "The Road to Respect: Americans, Automobiles, and the Environment" (Ph.D. Dissertation: Yale University, 2001), 320.

<sup>19</sup> "Ford aids Note Progress in Abating Pollution," *Dearborn Guide*, June 22, 1967, clipping, Box 18, Folder 6, IIMDC.



Detroit as well as in the suburbs. This frustration developed in the context of a larger urban crisis embroiling Detroit and dozens of other cities during the “long, hot summers” of the mid- to late-1960s. From July 23-28, 1967, the city suffered America’s deadliest urban uprising of the decade, resulting in 43 deaths, 7,200 arrests, and the destruction of over 2,000 buildings. In the aftermath, the media typically described the participants as solely African American, although the unrest was actually multiracial, and included some whites. Some social scientists, searching for causes of looting and property destruction in working-class African American neighborhoods, discovered widespread anger about poverty and entrenched racism in policing, housing, and labor markets. They also heard complaints about pervasive environmental decay, including dilapidated housing, poor trash collection, rodent and roach infestation, and the dearth of recreational facilities in inner-city neighborhoods.<sup>20</sup>

The Mack-Concord neighborhood provides an instructive example of the relationship between environmental degradation, segregation, and real estate in Detroit. Under Detroit’s urban renewal program in the 1950s, planners divided Detroit neighborhoods into “clearance” areas and “conservation” areas. Whereas the former involved the wholesale razing of neighborhoods, which displaced an estimated 43,000 people, of whom 70 percent were African American. The latter emphasized rehabilitating housing in a small number of existing neighborhoods. One of the two neighborhoods that received federal funds for conservation was Mack-Concord; the other was Eight Mile-Wyoming. Planner Maurice Parkins wrote in 1958, Mack-Concord had been “laid out without the benefits of a zoning ordinance with no thought for outdoor living space and recreation

---

<sup>20</sup> On environmental factors contributing to the Detroit Riot of 1967, see *Report of the National Advisory Commission on Civil Disorders* (Washington, D.C.: The Commission on Civil Disorders, 1968), 49–51; Sidney Fine, *Violence and the Model City: The Cavanaugh Administration, Race Relations, and the Detroit Riot of 1967* (Ann Arbor: University of Michigan Press, 1989), 11, 32, 36, 39–40, 57, 70, 74, 88, 154. On Detroiters’ degree of concern over air pollution versus other environmental problems, see below, 24-25.

facilities.” The heavy traffic and proximity to heavy industry made it unpleasant to live in. As a result, “young [white] parents moved to the suburbs as soon as they were financially able.” At the same time, the neighborhood had become “a haven for many Negro families who were moving outward from the slum-ridden inner core of the city [...]” As part of the Conservation Program, the DCPC encouraged the formation of block clubs, like the one led by Mrs. Young. It also devoted \$7.5 million to improving dilapidated structures, two-thirds from federal funds and one-third from the city.<sup>21</sup>

Yet, the FHA and private mortgage lenders continued to redline neighborhood residents, including recently arrived families displaced by urban renewal. As the *Detroit Free Press* reported in June 1960, the results of the Conservation Program in Mack-Concord had been “far from heartening.” The main reason was that “[m]ortgage credit is difficult to come by in the case of low-income families seeking Federal loans for home improvements.” The FHA froze working class African Americans out of federal mortgage subsidies at a time when Mack-Concord was experiencing rapid demographic turnover, as whites left for the suburbs and African Americans moved in. Two years into the Conservation Program, an estimated half of the residents in Mack-Concord were “new to the area,” and the neighborhood had become majority African American. The housing stock consisted of 26 percent single-family homes, 26 percent apartments and 48 percent two-family buildings. In 1965, sociologists at the University Detroit-Mercy declared in a report for the Detroit Community Renewal Program that “Mack-Concord is an area in transition and continuing deterioration—physically, socially, and economically.” Overall, they called the Detroit Conservation Program an “extremely limited success.”<sup>22</sup>

---

<sup>21</sup> Maurice F. Parkins, “Neighborhood Conservation: A Pilot Study” (Detroit: DCPC, 1958), 18, quoted in Thomas, *Redevelopment and Race*, 92-93.



Fig. 4.1. Members of the Concord Community Club (CCC) in Detroit's Mack-Concord neighborhood. In fall 1967, these women waged an unsuccessful campaign to stop the Crest Plating Company from opening a factory in their neighborhood. "Mack-Concord Residents Fear Pollution, Noise If Factory Moves In," *Michigan Chronicle*, December 2, 1967, A5.

The combination of redlining, disinvestment, and rising poverty in Mack-Concord caused physical deterioration over the course of the 1960s. The erosion of the neighborhood's tax base caused the quality of schools and public services to decline. In this context, proposals for expanding industrial land use provoked anger among African American homeowners. One such conflict began in the fall of 1967, in response to the Crest Plating Company's proposal for a new factory in Mack-Concord. On December 2, the *Michigan Chronicle* published an interview with a member of the Concord Community Club, who the newspaper identified only as "Mrs. Isaac

<sup>22</sup> "Mayor to Get Mack-Concord Report: City to Probe Lag in War on Blight," *Detroit Free Press*, May 24, 1960, A3; "Demonstration Home is Sold," *Detroit Free Press*, December 9, 1960, 46; David Golden, Jr., "Report Cites Mack-Concord Project: War on Blight Fails, City is Told," *Detroit Free Press*, May 29, 1965, A3.

Young,” about the proposal. She complained that “with this plating business it will be incessant noise and smoke” in Mack-Concord. Noting that “there have been threats to burn the place down if they are allowed to move in,” Young insisted that her group was “alarmed at this kind of talk.” Instead, they had presented a petition to the Detroit Zoning Board of Appeals, and filed a preemptive nuisance lawsuit against the Crest Plating Company.<sup>23</sup>

Young questioned whether the factory would benefit her neighborhood, which was suffering from high rates of youth unemployment, a lack of recreational facilities, and overcrowded schools. Rather than a plating factory, she said, CCC members believed “that the building can best be used as a recreation and skills center where men could be taught automotive skills and women could learn about home management and other techniques.” While imbued with the conservative, middle-class values of many block club members, these comments also reflected Young’s concerns about growing unemployment in her neighborhood. Addressing that problem, she argued, did not require increasing air and noise pollution in Mack-Concord.<sup>24</sup>

### **The UAW, Great Society Liberalism, and the Environment**

In the mid-1960s, UAW President Walter Reuther was a close confidante of President Johnson, and was the most prominent labor representative in the Great Society Coalition. To reach this peak of influence, Reuther had compromised his own professed ideals. While Reuther had

---

<sup>23</sup> Members of the Concord Community Club in Detroit’s Mack-Concord neighborhood. “Mack-Concord Residents Fear Pollution, Noise If Factory Moves In,” *Michigan Chronicle*, December 2, 1967, A5, clipping in Box 7, Folder 1, CRDC. On residential patterns in Mack-Concord, see Detroit Community Renewal Program, *Detroit: The New City* (Detroit: Detroit Community Renewal Program, 1966), 24-25. On residents’ concerns with decline in Mack-Concord in the previous decade, see June Manning Thomas, *Redevelopment and Race: Planning a Finer City in Postwar Detroit* (Baltimore: Johns Hopkins University Press, 1997), 92-93. The Detroit Board of Zoning Appeals at the time consisted of six members appointed by the Detroit Common Council, typically with strong ties to the real estate industry. See Citizens Research Council of Michigan, *Detroit Board of Zoning Appeals* (Detroit: Citizens Research Council of Michigan, 1969), 42-43.

<sup>24</sup> “Mack-Concord Residents Fear Pollution, Noise if Factory Moves In,” A5.

participated in the 1963 March on Washington, he had acted to suppress the Mississippi Freedom Democratic Party at the 1964 Democratic Convention in Atlantic City, and supported Johnson's escalation of the Vietnam War. Within only a few years, the UAW's identification with mainstream liberalism would discredit it in the eyes of younger African Americans and the New Left, while deteriorating working conditions sparked a rank-and-file rebellion. However, in the mid-1960s, Reuther still believed it was possible to push the War on Poverty in a more social-democratic direction, including government planning for full employment.<sup>25</sup>

These ideas influenced Reuther's approach to environmental politics. At the United Action for Clear Water conference in 1965, Reuther linked water and air pollution control to a broader social-democratic agenda, which included ending unemployment and poverty. Invoking the goals of the Citizen's Crusade Against Poverty, launched in 1963, Reuther urged his audience to "go back to your respective communities as missionaries in helping us generate and mobilize and organize a great citizen's crusade for clean and pure water." He argued that the United States could "afford a full effort" to clean up the environment while also tapping the "unused economic potential" of millions of unemployed Americans. Such ideas were hardly unique to Reuther; they were common among labor-liberals in the mid-1960s. "Air and waters remain polluted," the A. Philip Randolph Institute's *Freedom Budget* pointed out in 1967. "Recreation facilities remain unavailable for those who need them most." As part of a broader agenda of federal programs to achieve "full employment at decent wages," they proposed measures to address "outmoded public

---

<sup>25</sup> "Remarks of Walter P. Reuther," *United Action for Clear Water: Report of Papers Presented at Conference Held at Cobo Hall, Nov. 6, 1965* (Detroit, MI: UAW Recreation Department, 1965), 9-10, Library of Michigan, Lansing, MI. On Reuther and the Johnson administration, see Kevin Boyle, *The UAW and the Heyday of American Liberalism* (Ithaca: Cornell University Press, 1995), 185-256, esp. 192-196.

transit, air and water pollution, inadequate schools and hospitals.”<sup>26</sup>

Similarly, UAW leaders believed that the federal government could address the nation’s environmental, economic, and social problems at the same time. Rather than voluntary action by the private sector, they advocated the expansion of the regulatory state. On February 2, 1967, UAW President Walter Reuther wrote to President Johnson to pledge UAW support for the federal Air Pollution Act. “The urgency of the air pollution problem,” Reuther wrote, “necessitates immediate legislative action,” including “the establishment and enforcement of industry-wide limits on pollutants and regional standards and enforcement procedures.” Moreover, UAW environmental efforts went far beyond high-level entreaties. The union also collaborated with environmental organizations, and mobilized rank-and-file members, to pressure local officials for more effective enforcement of existing laws.<sup>27</sup>

In addition to the inadequacy of existing legislation, environmentalists in the UAW recognized that local, county and state government lacked the personnel to enforce pollution laws. In the spring of 1967, the UAW, the Michigan AFL-CIO and a coalition of 30 conservation groups formed an organization called the United Action for Clean Water and Air Committee. The purpose of the organization was to encourage local communities to report air and water pollution violations to public officials. Olga Madar, the director of the UAW’s Conservation and Recreation Department, told the press that there was a large gap between the proposed MAPCC standards and existing enforcement capacity. “It doesn’t do any good to talk about legislation to control pollution,” she said, “without producing the evidence for a crackdown on violators.” The goal of

---

<sup>26</sup> A. Philip Randolph, Martin Luther King, Jr., and Bayard Rustin, *A “Freedom Budget” for All Americans: A Summary* (New York: A Philip Randolph Institute, 1967), 13, 18; “Remarks of Walter P. Reuther,” 9-10.

<sup>27</sup> Walter P. Reuther to President Lyndon B. Johnson, February 2, 1967, Folder 3, Box 393, UAW President’s Office: Walter P. Reuther Records, Reuther Library.

the organization was to “get the citizen involved” while “detecting pollution violations and effectively enforcing our laws.” In June, the UAW renamed the group Pollution Action Line (PAL).<sup>28</sup>

That summer, delegates at the Michigan AFL-CIO convention passed a resolution endorsing stronger pollution control laws in Michigan. The resolution called for higher minimum air and water quality standards, harsher penalties against violators, and increased state appropriations for enforcement. In a speech, UAW Conservation and Creation Department staff member Ted Pankowski noted that strong regulations were meaningless without strong enforcement. “We just don’t have enough enforcement agencies to track down violators of Michigan’s anti-pollution laws,” he said, echoing Madar’s argument in favor of the PAL. He called on delegates to join the PAL in local efforts to monitor industry compliance with state anti-pollution laws.<sup>29</sup>

Yet, corporations could respond to such pressure by threatening to close factories and relocate to laxer regulatory climates. While often inflated, such threats placed union leaders in a bind, as the case of the Huber Foundry illustrates. In a July 1968 memo to Doug Fraser, the Director of the UAW Chrysler Department, Olga Madar explained that the foundry’s uncontrolled emissions harmed both workers and union retirees in the neighborhood. The air quality was worsening inside the foundry, since “to alleviate some of the stack emissions, the company has reversed some of its blowers to dispurse [sic] the smoke throughout the plant, thereby jeopardizing the workers’ health. When Madar personally asked Morton Sterling to enforce the law against

---

<sup>28</sup> James L. Kerwin, “Citizen ‘Watchdogs’ to Fight Pollution,” *Detroit News*, May 18, 1967; “Launch Group to Detect Pollution Violations,” *News from the UAW*, June 4, 1967, both in Box 6, Folder 18, UAW-CRD.

<sup>29</sup> “Fight for Clean Air, Water Wins Full Backing at State Convention,” *Michigan AFL-CIO News*, June 28, 1967, clipping in Box 6, Folder 18, CRDC.

Chrysler, company officials demanded that Madar’s office “ease this UAW pressure,” and warned that they could have to close the plant. “Neither Mort Sterling nor the UAW,” Madar wrote, “wants to see the Huber Foundry shut down.”<sup>30</sup>

Over the next decade, UAW leaders pursued a multifaceted strategy to resolve such tensions. Olga Madar and other UAW members argued that the union could address both the job security and pollution concerns of their members. Industry officials, in contrast, frequently cast the relationship between such concerns in zero-sum terms. UAW leaders would later dub this position “environmental blackmail,” a variant of the term “job blackmail,” which had historically referred to company threats to fire workers who joined unions and demanded better wages and working conditions. In the 1970s, the UAW lobbied for federal legislation that would both strengthen pollution regulations and prevent environmental blackmail. At the same time, the union began to raise pollution issues in collective bargaining negotiations, and participated in local community organizing. Ultimately, the union’s efforts in the third category, including the mobilization of working-class constituencies to pressure pollution control officials, were more successful than the first two.

In the fall of 1969, Olga Madar and staff members at the UAW Conservation and Recreation Department selected the downriver suburbs of Detroit as a target area for mobilizing working-class communities against industrial pollution. For their campaign, UAW members collaborated with local unions, including the United Steelworkers of America (USWA) in mobilizing their members in support of pollution control. For example, at a December 9, 1969 meeting at USWA Local 2659 in Southgate, Michigan, Olga Madar spoke alongside two UAW Regional Directors, Bard Young and Marcellus Ivory, on the need for environmental regulation.

---

<sup>30</sup> Olga Madar memo to Doug Fraser, July 30, 1968, quoted in Olga Madar letter to Nat Weinberg, “Request for Information on UAW Role—Huber Foundry,” May 5, 1971, Box 5, Folder 22, CRDC.



These efforts coalesced on March 3, 1970, when a coalition of several hundred UAW members and environmentalists from Detroit's southwestern suburbs formed the Downriver Anti-Pollution League (DAPL).<sup>31</sup>

DAPL held its first mass meeting at UAW Region 1E Headquarters in Taylor, Michigan, on March 25, 1970. Local DAPL divisions soon formed in River Rouge, Ecorse, Wyandotte, Melvindale, Southgate, and neighboring parts of Ontario. At a meeting on June 16, representatives from the regional DAPL divisions formed a steering committee to coordinate their efforts. The purpose of DAPL was primarily to lobby for improved pollution control legislation and more aggressive enforcement of existing laws. In addition to protests, DAPL sent busloads of members to attend MAPCC hearings, citizen workshops on pollution, city council meetings and zoning board hearings.<sup>32</sup>

The organizers of DAPL believed that citizens needed to pressure regulators to protect them from corporate polluters. They recognized that, in the absence of public participation, industry would dominate the regulatory process. Further, they argued that state and federal environmental law did not simply mandate technocratic solutions to environmental problems; it opened the door to more democratic land-use planning. As a reporter for the *River Rouge Herald* wrote in August 1970, the goal of DAPL was “to help all citizens more effectively use their democratic institutions” to “make their voices heard” in all levels of government. DAPL members aspired to “make government and other institutions and organizations more responsive to the public,” rather than just industry, and “to obtain equitable distribution of the [costs] and

---

<sup>31</sup> “Meeting for Citizens Concerned About Air And Water Pollution,” December 9, 1969, United Steel Workers Local 2659, Southgate, MI, flier in Box 2, Folder 8, CRDC.

<sup>32</sup> “Citizens Plan Anti-Pollution Mass Meeting,” *River Rouge Herald*, March 25, 1970; “Downriver Group Fights Pollution,” *River Rouge Herald*, August 12, 1970, both clippings in Box 2, File 11, CRDC.

consequences of pollution prevention and clean up.”<sup>33</sup>

On April 20, 1970, a group of 40 women held a protest on Zug Island, located at the border between southwest Detroit and River Rouge, Michigan. The protestors, who *Detroit News* reporter Louis J. Sugo labeled “irate housewives,” picketed the Great Lakes Steel Corporation’s blast furnaces, holding signs with slogans such as, “We Suffer While Industry Reaps the Profits,” and “Michigan Get Tough, Make Industry Clean Up.” Some represented the Ontario-based group Pollution Probe, but most were members of DAPL. During the Zug Island protest, participants linked their opposition to pollution to their duty as mothers to protect their children. “We’re concerned mothers,” DAPL member Joyce Vermillion explained to reporters, “who want our children and grandchildren to live at least as long as we have.” She also emphasized that they were not simply protesting Great Lakes Steel, but inaction by male public officials. “We’re sick and tired of the do-nothing attitude of our so-called enforcement officials,” she said, “men like Mort Sterling and Wayne Denniston, who are supposed to enforce the county and state pollution laws.”<sup>34</sup>

The DAPL Zug Island protest occurred two days before the first Earth Day, on April 22, 1970. It was only small a ripple within a historic upsurge of environmental organizing and protest across the United States, including over 20 million participants in dozens of cities. This coast-to-coast mobilization, combined with bipartisan Congressional support and a string of headline-grabbing environmental disasters, altered the strategic calculus of President Nixon on environmental policy. Hoping to capture a portion of the “Earth Day vote” from the Democratic Party in the 1970 midterm elections, and eyeing the 1972 presidential race, Nixon signed a series

---

<sup>33</sup> Ibid.

<sup>34</sup> Louis J. Sugo, “Women Charge Pollution: Zug Island is Invaded,” *The Detroit News*, April 21, 1970, clipping in Box 2, Folder 5, United Auto Workers Conservation and Recreation Department Collection, Reuther Library.

of far-reaching federal environmental bills in 1969 and 1970. The National Environmental Policy Act (NEPA), and far-reaching amendments to the Clean Air Act (CAA), granted the federal government expansive authority to regulate industrial and vehicular pollution. Together, this new body of legislation revolutionized environmental policy in the United States. For the first time, federal agencies had a regulatory mandate to force industry to control pollution, rather than leaving the problem to local officials who lacked the resources or legal authority to address it.<sup>35</sup>

### **Public Attitudes about Air Pollution in Metro Detroit**

The upsurge in anti-pollution protests in metropolitan Detroit did not express a marginal viewpoint, but an emerging popular consensus in favor of government action to clean up the environment. These concerns became clear in an October 1970 survey of public attitudes toward air pollution in River Rouge, Ecorse, and Wyandotte, conducted by members of DAPL, the UAW, and the University of Michigan School of Natural Resources. On October 23, 70 interviewing teams, including University of Michigan students and community residents, distributed questionnaires to 610 households. Asked to state the most serious problems facing their communities, the largest number (51.2 percent) named environmental problems. 69.8 percent of respondents believed that air pollution was a “very serious problem,” including 84.4 percent of respondents in River Rouge (Table 4.1). 82.8 percent of respondents noticed “large quantities of dirt in their homes” when they left the windows open; a resounding 83 percent “blamed air

---

<sup>35</sup> On the impact of Earth Day and other mobilizations on Nixon’s political strategy, see Robert Gottlieb, “The Next Environmentalism: How Movements Respond to the Changes That Elections Bring from Nixon to Obama,” *Environmental History* Vol. 14 No. 2 (April 2009), 298-308, esp. 300-303; Robert Paehlke, “Cycles of Closure in Environmental Politics and Policy,” in Ben A. Minteer and Bob Pepperman Taylor, eds., *Democracy and the Claims of Nature: Critical Perspectives for a New Century* (Lanham, MD: Rowman and Littlefield, 2002), 279-300. On the role of federalism in the evolution of air quality standards, see Karl Boyd Brooks, *Before Earth Day: The Origins of American Environmental Law, 1945-1970* (Lawrence, KS: Kansas University Press, 2009), 61-92, 194-210; Douglas S. Eisinger, *Smog Check: Science, Federalism, and the Politics of Clean Air* (New York: Earthscan, 2010).

pollution on industries.”<sup>36</sup>

**Table 4.1 Assessments of the Severity of Air Pollution by Downriver Residents (1970)**

<u>Rating</u>	<u>Total</u>	<u>Ecorse</u>	<u>River Rouge</u>	<u>Wyandotte</u>
Very serious	69.8%	71.3%	84.4%	62.9%
Somewhat serious	18%	14.7%	8.2%	23.7%
Small problem	8.7%	8.5%	3.4%	10.2%
No problem	1.8%	2.3%	1.4%	1.8%
Don't know/unsure	1.6%	3.1%	0.7%	1.5%

Source: University of Michigan School of Natural Resources, United Auto Workers, Downriver Anti-Pollution League, and ENACT, “Results of the Environmental Inventory: Wyandotte, Ecorse, River Rouge,” October 1970, file 5, box 2, United Auto Workers Conservation and Recreation Department Collection, Reuther Library.

The survey also found that concerns about air pollution cut across demographic lines. Using education as a proxy for class, the survey found evidence of weaker concern with air pollution among the least educated residents: only 5 percent of those with an 8th grade education or lower thought air pollution was a “very serious” problem. However, respondents with slightly more education responded almost identically to high school and college graduates. 73 percent of respondents with “some high school” thought air pollution was “very serious,” only 1 percent less than high school graduates and college graduates, and 2 percent less than “post-graduates.” And whereas 69 percent of all respondents thought that air pollution was “very serious,” almost as many “minority group members” (66 percent) chose this answer. 51 percent of the women surveyed

<sup>36</sup> University of Michigan School of Natural Resources, United Auto Workers, Downriver Anti-Pollution League, and ENACT, “Results of the Environmental Inventory: Wyandotte, Ecorse, River Rouge,” October 1970, Box 2, File 5, UAW-CRDC; Tom Nugent, “Most Fret Over Pollution But Few Take Any Action,” *Detroit Free Press*, n.d. [1970], clipping in Box 2, File 5, CRDC. The second-largest number (47.8%) named “crime and morality,” while only a few (11.9%) named “economic” issues. The survey’s separation of “economic” and “environmental” issues was misleading, however, given the externalized costs of pollution on community residents and industrial workers.

thought that air pollution was worse than “a few years ago,” compared with 41 percent of men. The survey authors hypothesized that more women thought air pollution was worse because “they spend more time at home.” However, they provided no evidence that women who worked outside the home were less concerned than those who did not.<sup>37</sup>

Concerns about pollution were not only widespread in Downriver communities. They were also high on the list of community concerns in the city of Detroit itself, although inner-city residents faced different economic and environmental problems than those in the suburbs. In 1970, the journal *Environment and Behavior* published a study of black and white high school student perceptions of air pollution in Detroit, by James E. Swan of the University of Michigan School of Natural Resources. Swan determined the socioeconomic status of the students (who were 75 percent black and 25 percent white) by the occupation of their fathers. 20 percent listed their fathers as “laborers, household worker, and unemployed,” 53 percent as “skilled and semi-skilled” workers, and 28 percent as “business, professional, and technical” workers. The students ranked air pollution as the third “highest priority” from a list of issues facing their community. While air pollution ranked below “increasing job opportunities” and “improving police-community relations,” it ranked above “building low-cost housing,” “rat control,” “riot control,” “litter and trash disposal,” “water pollution control,” “urban renewal,” “increasing teacher salaries,” “building better transportation systems” and “building more parks.” The study did not find any difference in awareness or concern about air pollution between black and white students, or on the basis of socioeconomic status.<sup>38</sup>

---

<sup>37</sup> University of Michigan School of Natural Resources et al., “Results of the Environmental Inventory,” 1-10.

<sup>38</sup> James A. Swan, “Response to Air Pollution: A Study of Attitudes and Coping Strategies of High School Youth,” *Environment and Behavior* No. 2 (1970), 127-152.

A more wide-ranging study, conducted by Louis Jacoby of the University of Michigan Geography Department in 1970-71, produced similar findings. Interviewing 506 adults residing in neighborhoods across the city, ranked according to pollution level, Jacoby found a “positive relationship between pollutant level and level of concern held for both blacks and whites at all income levels [.]” Jacoby also found that “Blacks in general, whether or not they use waterways for recreation seem to be slightly more concerned about water pollution” than whites. He concluded that “there is no overall relationship between concern about air pollution and income [...] or between concern about air pollution and race.” In short, studies of public opinion in metro Detroit suggested that the demands for pollution control by DAPL and other environmental groups did not represent the position of a fringe group, or of affluent, white middle class professionals. Rather, they reflected a broad and deepening concern about air pollution in the general population.<sup>39</sup>

### **Pollution and the Rank-and-File Rebellion**

This trend included auto workers, many of whom suffered from occupational diseases due to poor factory air quality. In 1970, the UAW Conservation and Recreation Department distributed a “Health and Safety Questionnaire,” based on a survey developed by the Oil, Chemical and Atomic Workers (OCAW), to 430 UAW locals across the United States and Canada, including 152 in Michigan. Asked whether “your members know if their plant is contributing to pollution” of the surrounding air, water, and land, 59 percent said yes; at locals with over 1,000 members, 78 percent said yes. Only 43 percent said that their plants had pollution controls, defined as “devices that purify wastes before they are discharged into the air and water.” Many respondents complained of poor indoor air quality, and 31 percent listed “better ventilation” as necessary for

---

<sup>39</sup> Louis R. Jacoby, “Perception of Noise, Air, and Water Pollution in Detroit” (Ph.D. Dissertation: Department of Geography, University of Michigan—Ann Arbor, 1972), 190-192.

dealing with “harmful substances” in the plant. Over 40 percent of the respondents said that the “poor safety attitude of their companies” was their main difficulty in resolving these problems.<sup>40</sup>

The attitudes captured in the 1970 UAW Health and Safety Questionnaire results contributed to an upsurge in rank-and-file militancy around health and safety issues in the late 1960s and early 1970s. Between 1965 and 1973, wildcat strikes over health and safety issues skyrocketed in auto plants, as General Motors (GM), Ford, and Chrysler sped up production to maintain profits in the face of rising inflation and European and Japanese competition. These problems were most intense in the deteriorating auto plants of inner city Detroit. At Chrysler, the largest employer of auto workers in the city, wildcat strikes more than quadrupled, from fifteen per year in 1960-1965 to sixty-seven per year in 1970-1973. Conditions which might have provoked a grievance filing, in earlier years, often became the basis for stopping production.<sup>41</sup>

Statistics bore out the perception of many workers that factories had become deadlier. In 1969, the U.S. Department of Labor reported to Congress that the rate of workplace accidents had increased since 1965, and were killing roughly 14,000 Americans per year on average. Occupational diseases claimed even more workers’ lives, but because they did so slowly (often during retirement), they attracted less attention than immediate injuries. For the 1965-1969 period, the Bureau of Labor Statistics estimated that roughly 100,000 current and retired U.S. workers died every year from occupational diseases, such as black lung, byssinosis, and occupational

---

<sup>40</sup> For the questionnaire, see “Environmental, Occupational Health and Safety Questionnaire,” 1970, File 24, Box 2, Olga Madar Collection, Reuther Library. For an analysis of the results, see James C. Oldham, “Organized Labor, the Environment, and the Taft-Hartley Act,” *Michigan Law Review* Vol. 71 No. 5 (April 1973), 935-1040, esp. 936, 939 n. 10, 951-952.

<sup>41</sup> On the upsurge in grievances and wildcat strikes, see A.C. Jones, “Rank-and-file opposition in the UAW During the Long 1970s,” in Aaron Brenner, Robert Brenner and Cal Winslow, eds., *Rebel Rank and File: Labor Militancy and Revolt from Below During the Long 1970s* (New York: Verso, 2010), 281-310, esp. 286-287.

cancers. Every year, industrial pollution thus killed nearly twice as many American workers as the total number of American soldiers killed in the Vietnam War (58,220). Rank-and-file organizing around dust and chemical exposures among coal miners, farm workers, auto workers, steel workers and other groups, combined with growing public awareness of the problem, led to the first federal workplace safety legislation in the United States, the Occupational Safety and Health Act (OSHA).<sup>42</sup>

Many rank-and-file auto workers began to use the language of environmentalism to critique their working conditions in this period, particularly in foundries. On August 31, 1967, Robert J. Delproposto, an Italian American skilled tradesman in the Dearborn Iron Foundry, wrote a letter to company, union, and government officials protesting the lack of ventilation in his workplace. “There is much talk today about the polluting of our air and water,” he observed, “and much controversy regarding the extent of the pollution and the degree of harm and damage to humans and other life forms.” While he supported efforts to clean up the environment, he questioned why they failed to include the “working environment,” noting that “the environment I work in is far from clean.” The problem was not lack of technology, since it was “not imperative to the operations of the foundry that the atmosphere the workers breathe be laden with obnoxious dust particles and fumes.” Recommending the simple installation of exhaust blowers, he added that “my sentiments

---

<sup>42</sup> On the BLS mortality estimates for occupational disease and accidents in 1965-1969, see Karl Mantyla, “American Tragedy: Factory Accidents Claim More Lives Than the Vietnam War,” *UAW Solidarity*, February 1970; Maureen Smith, Pamela Yates, John Froines and Robert Gottlieb, “Disassociating Toxics Policies: Occupational Risk and Product Hazards,” in Robert Gottlieb, ed., *Reducing Toxics: A New Approach to Industrial Policymaking* (Washington, D.C.: Island Press, 1995), 95-123, esp. 98-99; and Nicholas Ashford, *Crisis in the Workplace: Occupational Disease and Injury: A Report to the Ford Foundation* (Cambridge: MIT Press, 1976), 93. On the role of unions in the passage of OSHA, see Charles Noble, *Liberalism as Work: The Rise and Fall of OSHA* (Philadelphia: Temple University Press, 1986), 68-98.



are echoed by many of the workers.”<sup>43</sup>

Delproposto’s letter exemplified a larger shift in how rank-and-file UAW members conceptualized indoor air quality in the 1960s. Like their counterparts in other unions—including the United Steelworkers, the United Farm Workers, the United Rubber Workers, and the Oil, Chemical and Atomic Workers—members of the UAW recognized that changes in environmental law had implications for labor rights. Officially, the Michigan Air Pollution Act of 1965 did nothing to protect workers. The bill explicitly excluded “all aspects of employer-employee relationships as to health and safety hazards.” However, many workers argued that environmental regulations should include the workplace.<sup>44</sup> Delproposto also demonstrated a willingness on the part of some workers to both utilize and go beyond union channels in seeking relief from indoor pollution. In addition to Walter Reuther, and officials in the UAW Ford and Foundry and Forge departments, he sent copies of his letter to Channel Two News, the editorial pages of the *Detroit News* and *Detroit Free Press*, and the offices of Henry Ford II, Governor George Romney, and

---

<sup>43</sup> Letter from Robert J. Delproposto, August 31, 1967, to Henry Ford II, Chief Executive, Ford Motor Company, Walter P. Reuther, President, United Auto Workers, Michigan Governor George Romney, Senator Philip A. Hart, Senator Robert P. Griffin, Congressman John Dingell, Congresswoman Marsha W. Griffiths, Senator Raymond Dzendzel, Congressman Jack Saxon, Jack Radcliffe, Ford Motor Company Department of Industrial Hygiene, Ken Bannon, UAW Ford Department, William Humphreys, UAW Foundry and Forge Department, Channel Two News, Editor, *Detroit News*, Editor, *Detroit Free Press*, August 31, 1967, 1-3, Box 7, “Health and Safety” Folder, UAW Foundry and Forge Departments Collection, Reuther Library.

<sup>44</sup> On the divergence between regulatory definitions of air pollution and public attitudes, see Karen Bickerstaff and Gordon Walker, “The Place(s) of Matter: Matter Out of Place—Public Understandings of Air Pollution,” *Progress in Human Geography* Vol. 27 No. 1 (2003), 45-67. Bickerstaff and Walker observe that although “air pollution has an ontologically objective existence” (in the form of measurable atmospheric concentrations of matter), whether such matter is “out of place” is always “socially contingent.” *Ibid.*, 46. Thus, conflicts between auto workers, employers, and regulatory officials did not center on whether specific compounds were present in factory air. Rather, they centered on whether they constituted “pollution” (and were thus “out of place”).

four Congressional representatives.<sup>45</sup>



Fig. 4.2. African American foundry workers engulfed in dust and smoke. Michigan Department of Public Health, *Michigan's Occupational Health* Vol. 13, No. 2 (Winter 1968).

During the fall 1967 UAW-Ford contract talks, in a speech in the “Glass House” at Ford headquarters in Dearborn, UAW Foundry Department director William Humphreys laid out the cost-benefit calculations behind employer inaction. He told the audience that “we have made absolutely no progress in this country in the control of silicosis in foundries.” Yet, engineers had understood the ventilation measures that could prevent silicosis “for at least 40 years.” The problem, Humphreys said, was that “it is cheaper to pay the silicosis compensation claims than it is to carry on the dust control, which would prevent their arising.” This was particularly true because only 1 in 25-30 silicosis victims ever filed a claim. Through higher costs of medical care,

<sup>45</sup> On the difficulties of addressing industrial pollution within the NLRB arbitration system after Taft-Hartley, see Oldham, “Organized Labor, the Environment, and the Taft-Hartley Act,” 935-1040, esp. 981-1019.

and lost wages due to forced early retirement, employers were externalizing the cost of foundry pollution onto workers.<sup>46</sup>

Because of their concentration in dangerous, unskilled jobs, African American workers had historically borne the brunt of these costs. As late as 1970, white males in the auto industry were over four times as likely as black males to have a white-collar occupation, and more than twice as likely to be skilled tradesmen. In foundries, white men dominated the skilled trades, while black men predominated in the cleaning and melting rooms. The River Rouge complex provided a stark example of the link between segregation patterns and workplace pollution exposure. In 1968, Dearborn lacked a single black homeowner, and the mayor, Orville Hubbard, was an obstinate white supremacist. Yet, even as Dearborn remained segregated, thousands of black workers entered the suburb every day to work at the Ford Rouge complex. While excluded from the skilled trades, they remained concentrated in the most polluted areas of the plant, particularly in the Dearborn Iron Foundry and the Dearborn Specialty Foundry.<sup>47</sup>

As Tom Dennis, a black Communist Party, U.S.A. member and longtime Rouge worker, said at an April 1968 meeting in New York City, black workers constituted “nearly 100 percent” of the workers in the “most unhealthy and lowest paid” jobs in the Dearborn Iron Foundry. As a result, they suffered from a “high incidence of silicosis, injuries, shortened life span, [and] broken

---

<sup>46</sup> William Humphreys, “Foundry Problems and Health Hazards,” speech transcript, Fall 1967, Box 7, File 1, “Health and Safety,” FFDC.

<sup>47</sup> In this respect, Dearborn was hardly unique. “In 1968,” one study notes, “blacks owned no homes in Royal Oak Township, Troy, East Detroit, the Gross Pointes, Dearborn, Hazel Park, Ferndale, Madison Heights, Sterling Heights, Southfield, Redford Township, Westland, Farmington, Allen Park, Melvindale, or Lincoln Park. There was one black family each in Birmingham, Livonia, and Fraser, and there were four each in Warren (one family was there before World War II, when Warren was a rural township) and Oak Park.” See Joe T. Darden, Richard Child Hill, June Manning Thomas and Richard Thomas, *Detroit: Race and Uneven Development* (Philadelphia: Temple University Press, 1987), 138. Also see Freund, *Colored Property*, 347-348.

bodies [.]” Similarly, the third newsletter of the Ford Revolutionary Union Movement (FRUM), a spinoff of the Dodge Revolutionary Union Movement (DRUM) founded at Dodge Main, charged that “[a]t racist Ford Motor Co. when a black brother is hired he’s either sent to the coal mine (Dearborn Iron Foundry) where life’s expectancy is 20 years and no more” or to Dearborn Stamping, Dearborn Engine, which it called “the auction block.”<sup>48</sup>

Similar patterns prevailed in Chrysler and GM plants. In a May 1969 interview with the anarchist journal *The Fifth Estate*, John Watson of the League of Revolutionary Black Workers (LRBW), a RUM umbrella group, said that the Big Three automakers had “negated all considerations of the welfare and safety of workers in the plant, especially the black workers.” He estimated that in the foundries “almost 95 percent” of workers had “some sort of industrial illness, usually silicosis or some sort of other lung disease.” In November, LRBW members distributed fliers charging that foundries, like Chrysler’s Huber and Winfield facilities, were places where racism “shows its head most abusively,” because “Black workers constitute the bulk of the labor force which is no accident.” In the Huber Foundry, the flier charged, “[t]he melting area is almost 100 percent Black, the cleaning room is 95 percent, the core room 90 percent and the skilled trades areas are just the reverse 95 percent white.”<sup>49</sup>

Beginning in 1967-68, black labor radicals in Detroit mounted an organized challenge to

---

<sup>48</sup> Tom Dennis, “The Need for Black Caucuses in Unions,” *Party Affairs*, Vol. 2, No. 6 (June 1968), 1-3. Cited as Committee Exhibit No. 69 in “The Theory and Practice of Communism in 1971, Part 2,” hearings before the Committee on Internal Security, House of Representatives, 92nd Congress, 1st Session, March 30, April 1, May 10-12, and August 4 and 5, 1971, 4964-4966. On Dennis, see Steve Babson, David Riddle and David Elsila, *The Color of Law: Ernie Goodman, Detroit, and the Struggle for Labor and Civil Rights* (Detroit: Wayne State University Press, 2010), 248. For the FRUM quote, see “Hiring Policy at FoMoCo,” in *FRUM. Detroit* No. 3 (1968), Box 1, Underground Newspapers Collection, Bentley Historical Library, University of Michigan-Ann Arbor.

<sup>49</sup> “BLACK WORKERS RADICALISM (Huber & Winfield Foundries Nov ’69),” folder 28, box 1, Detroit Revolutionary Movements Records, Reuther Library.

these conditions, but they differed substantially over tactics. Some called for the creation of dissident caucuses within UAW locals. Tom Dennis of the Communist Party, U.S.A., for example, argued that a radical “Black Caucus” should form within UAW Local 600 to challenge the “discrimination and super-exploitation” that characterized black workers’ experience at the Rouge. But he also believed that these efforts needed to be part of a union-wide struggle. “The fight to make the company clean up the foundry and eliminate the unhealthy working conditions,” Dennis stated at the CPUSA conference, “must be taken up by the whole union.”<sup>50</sup>

In contrast, members of the RUMs and the LRBW rejected the UAW as a vehicle for improving black workers’ conditions. In 1968 and 1969, LRBW members initiated wildcat strikes, and picketed auto plants with leaflets attacking the company, the union, and older black labor leaders. They joked that the UAW stood for “U Ain’t White” and accused members of the Trade Union Leadership Council (TULC) of being “uncle Toms” and “sell-outs.” For their part, TULC members viewed the RUMs as misguided, while also conceding that they had legitimate grievances. In a 1969 interview with TULC member Buddy Battle, NAACP Labor Secretary Herbert Hill asked him about the questions “DRUM and the other groups are raising” about the “bad working conditions inside the plants.” Battle agreed that “the working conditions are terrible.” In the foundries, a worker had to “reconcile himself, when he walks in, that he’s taking ten years off his life whenever he walks in the foundry to start to work.” Asked why UAW leaders had not taken more action on these issues, Battle complained that they had “placed the high value on the dollar, rather than working conditions and health and safety.”<sup>51</sup>

---

<sup>50</sup> Dennis, “The Need for Black Caucuses in Unions,” 3.

<sup>51</sup> Robert “Buddy” Battle, Oral History Interview with Herbert Hill, March 19, 1969, Blacks in the Labor Movement, Oral History Transcripts Collection, Reuther Library. On the RUMs, see Dan Georgakas and Marvin Surkin, *Detroit: I Do Mind Dying, A Study in Urban Revolution, 2nd Ed.* (Boston: South End Press, 1998), 23-150; Ernie Allen, “Dying from the Inside: The Decline of the League of Revolutionary Black

Battle's comments echoed a longstanding left-wing critique of the Reuther leadership. According to this view, since the Treaty of Detroit, UAW leaders had exchanged influence over production and investment decisions for the guarantee of steady, albeit incremental, wage and benefit gains. In hazardous occupations, such gains constituted an implicit trade-off for long-term health. However, they were often small in relation to the costs of disease and accidents, particularly for unskilled workers in the most dangerous departments. Thus, during the 1967 contract talks with the Big Three, the UAW did not obtain contracts stipulating improved ventilation in foundries. Instead, the union won the so-called "dirty nickel," a 5-cent-per-hour wage premium for the dustiest foundry jobs. While workers welcomed such gains, they represented a questionable trade-off for an early death from silicosis or heart disease. They did not restrict the ability of management to slowly sicken workers, or to practice job discrimination.<sup>52</sup>

### **OSHA and the Concept of Environmental Justice**

During testimony before a congressional subcommittee on OSHA on November 13, 1969, UAW Washington Representative Franklin Wallick argued that the final bill should contain a workers' "bill of health rights," which he called an "occupational magna carta." The bill of health rights he referred to was part of the so-called Daniels Bill, one of several competing versions of OSHA co-written by Gary B. Sellers, an assistant to Congressman Phil Burton (D-CA) with help from members of Ralph Nader's Health Research Group (HRG). In 1970, the *Kentucky Law Review* published an article by Sellers and Joseph A. Page of the HRG, entitled "Occupational Safety and Health: Environmental Justice for the Forgotten American." In the article, Sellers and

---

Workers," in Dick Custer, ed., *They Should Have Served That Cup of Coffee: Seven Radicals Remember the Sixties* (Boston: South End Press, 1979), 71-109; and Heather Ann Thompson, *Whose Detroit? Politics, Labor, and Race in a Modern American City* (Ithaca: Cornell University Press, 2001), 103-127, 159-191; Jones, "Rank-and-file opposition in the UAW During the Long 1970s," 281-310.

<sup>52</sup> Battle, Oral History Interview with Herbert Hill.

Page defined “environmental justice” as “an environment that will satisfy contemporary demands for justice in the workplace.” Itemized as a bill of health rights, this early conceptualization of environmental justice included the right to protection from pollution, the right to medical records, the right to data on hazardous materials, and the right to all-inclusive occupational disease compensation. Wallick included this “bill of health rights” in his 1972 worker education handbook *The American Worker: An Endangered Species*, written with help from Sellers and the Health Research Group. In the handbook, Wallick argued that millions of workers, not only iconic species like bald eagles, faced existential threats from DDT and other chemicals, and needed to be covered by strong environmental regulations.<sup>53</sup>

In the early 1970s, many UAW members hoped that OSHA would finally compel employers to properly ventilate factories and install safety equipment. However, UAW leaders were divided on the question of labor rights in the context of environmental regulation. Some worried that health and safety activists would derail contract negotiations, and circumvent the NLRB grievance process, by directly contacting OSHA or EPA offices. In a 1971 administration letter, UAW President Leonard Woodcock discouraged local leaders and workers from contacting OSHA officials about such concerns at the plant level. In response, in the 1972 book *Bitter Wages*, HRG members Mary O’Brien and Joseph A. Page accused UAW leaders of adopting an undemocratic “chain of command” approach to OSHA filings. In response to this charge, UAW Health and Safety Department head Lloyd Utter told HRG members that “[w]ithout this chain of command, we would run the risk of having self-appointed experts in hundreds of plants operating

---

<sup>53</sup> U.S. Congress, House, *Hearings on H.R. 843, H.R. 3809, H.R. 4294, H.R. 13373 Before the Select Subcommittee on Labor of the Committee on Education and Labor*, 91st Congress, 1st sess., 1969, 113-114; Joseph A. Page and Gary B. Sellers, “Occupational Safety and Health: Environmental Justice for the Forgotten American,” *Kentucky Law Review*, 79 (Fall 1970), 114-44; Franklin Wallick, *The American Worker: An Endangered Species* (New York: Bantam Books, 1972), 109-114.

singly, on the one hand, or of being inundated with requests here at headquarters in Detroit, on the other.” Utter’s arguments echoed similar fears among USWA and UMWA leaders that rank-and-file health and safety activists would undermine contract negotiations and bureaucratic authority.<sup>54</sup>

### **Fatal Trade-Offs**

During the 1970 contract talks, Leonard Woodcock, Ken Bannon, UAW officials and Ford representatives agreed to conduct a mortality study of Rouge foundry workers. The union contacted the Detroit-based Michigan Health and Social Security Research Institute (MHSSRI) to conduct the study, based on 14,000 Ford workers. They included six Ford plants in the study: three foundries (Dearborn Iron Foundry, Dearborn Specialty Foundry, and Cleveland Castings), and three non-foundry plants (Wayne Assembly, Sterling Axle, and Ypsilanti Parts). The study found that black workers in the Dearborn Iron Foundry had a death rate 79.37 percent higher than all workers (16.21 per 100), whereas white workers in the foundry had a death rate 34.78 percent higher (12.86 per hundred). Similarly, in the Dearborn Specialty Foundry, blacks had a death rate 48.61 percent higher (14.18), while whites had one 25.96 percent higher (12.02). Among workers with 25 or more years in the plant, black foundry workers had a death rate of 19.39 per 100, three times that of black non-foundry workers, while white foundry workers had a death rate 1.75 times as great as white non-foundry workers.<sup>55</sup>

---

<sup>54</sup> Quoted in Mary O’Brien and Joseph A. Page, *Bitter Wages: Ralph Nader’s Study Group Report on Disease and Injury on the Job* (New York: Grossman Publishers, 1973), 223. On similar controversies involving in the UMWA and USWA, see Derickson, *Black Lung*, 143-182; Hurley, *Environmental Inequalities*, 99-100.

<sup>55</sup> For the study, see Michigan Health and Social Security Research Institute, “A Morbidity and Mortality Study of a Group of Ford Motor Company Foundry and Non-Foundry UAW Employees,” July 10, 1973, 1-22, File 3, Box 97, UAW Social Security Department Records, Reuther Library. For similar issues facing black workers in other sectors of manufacturing, see Joanna Brown and Ronni Scheier, “Growing Cancer Rates: Workplace May Be Hazardous to Health of Blue Collar Minorities,” *Chicago Reporter* Vol. 10 No. 3 (March 1981), 28-33; David Michaels, “Occupational Cancer in the Black Population: The Health Effects of Job Discrimination,” *Journal of the National Medical Association* Vol. 75 No. 10 (1983), 1014-1018.



The highest cancer death rates were among black foundry workers, although by a small margin: 25.1 percent of them died of cancer, compared with 21 percent of black non-foundry workers, 17.59 percent of white foundry workers, and 19.7 percent of white non-foundry workers. Alongside chronic disease, foundry workers faced much more immediate hazards. A staggering 86.1 percent of all foundry workers sought medical treatment for “serious” injuries, such as “deep lacerations, fractures, embedded foreign bodies in eyes” and “serious burns,” compared with 24 percent of non-foundry workers. This percentage was higher than that of American soldiers wounded nonfatally in the Vietnam War. Company officials argued that making the Dearborn Iron Foundry safe would be cost-prohibitive. In 1974, Ford closed the old facility. As Shelley Eichenhorn of the *Detroit News* reported, “[b]ecause the old foundry required endless improvements to bring it up to modern health standards, Ford Motor built a new facility, the Michigan Casting Co. in Flat Rock.” Some workers who transferred, like the 58-year-old Angelo Guerriero, told the press that working conditions in the new foundry were little better.<sup>56</sup>

During contract talks with Ford in fall 1973, UAW negotiators introduced the mortality study as evidence in favor of an early retirement provision (“25-and-out”) for foundry workers. The 1973 talks occurred in the wake of a series of wildcat strikes triggered by health and safety issues, led by members of the RUMs, the United National Caucus (UNC), the Motor City Labor League (MCLL) and other radical groups. The combination of rank-and-file pressure, national publicity, and new OSHA regulations put unprecedented pressure on UAW leaders to address working conditions in the 1973 talks. In the fall, the UAW won its first-ever national contracts

---

<sup>56</sup> Michigan Health and Social Security Research Institute, “A Morbidity and Mortality Study,” 1-22; Shelley Eichenhorn, “A Return to the ‘Fires of Hell’: Workers Revisit Abandoned Ford Foundry,” *Detroit News*, October 19, 1977, 1A, 6A. On the percentage of American soldiers wounded in the Vietnam War, see Morris Janowitz, *Social Change and Politics, 1920–1976* (New York: Transaction Publishers, 2010), 195.

with health and safety clauses, including the appointment of full-time health and safety representatives. Ford granted 25-and-out on the condition that the international union would not release the results of the mortality study to local unions. And while workers were able to retire earlier, they did not win increased compensation benefits for lung diseases, let alone the “clean” working environment that the rank-and-file rebels had demanded.<sup>57</sup>

In 1973, the Center for Health Statistics at the University of Michigan Public Health reported that life expectancy for black men in Michigan had fallen from 64 years in 1960 to 61.4 years in 1970, even as it rose for all other groups. The director of the Center, Dr. Kurt Gorwitz, singled out black men’s concentration in hazardous “lower-level occupations” as a factor, along with rising rates of drug addiction, alcoholism, and homicide. In an interview with the *Detroit Free Press*, Philip C. Sims of the TULC, noted that some foundry workers made \$8 per hour. However, “a lot of them go out with kidney disease at 42 or 43. They go on pension for the rest of their lives with less than half what they would have got if they continued working.” When accounting for the externalized costs of pollution, even relatively high wages appeared to be a devil’s bargain. Even if workers made it to 25 years in the foundry, their pension would remain below their wage package, and they were likely to die before receiving their benefits for long.<sup>58</sup>

### **The Gap Between Law and Political Practice**

Like federal civil rights legislation, federal environmental legislation could not

---

<sup>57</sup> Ralph Orr, “UAW to Push Ford on Foundry Retirements,” *Detroit Free Press*, October 10, 1973; “25 and OUT: Ford Foundry Pensions,” n.d., box 1, file 12, FFDC; Douglas Ilka, “Foundry findings withheld,” *Detroit News*, November 29, 1979. On the 1973 wildcat strikes, see Jones, “Rank-and-file opposition in the UAW,” 298-308; Allen, “Dying from the Inside,” 105-106; Kim Moody, *An Injury to All: The Decline of American Unionism* (New York: Verso, 1988), 92-93. On UAW health and safety gains in the 1973 talks, see Lawrence S. Bacow, *Bargaining for Job Safety and Health* (Cambridge: MIT Press, 1980), 61-63.

<sup>58</sup> For the Gorwitz and Sims quotes, see Betty DeRamus, “Is Hard Living Killing Off Black Men at an Early Age?” *Detroit Free Press*, February 5, 1973, 1A, 2A.

immediately solve the problems it existed to remediate. Rather, laws expanded the range of rights social movements could demand from the state. As Madar and other UAW environmentalists recognized in 1967, legislative reforms meant little unless mobilized constituencies forced public officials to implement them. In the years following the passage of NEPA and the Clean Air Act amendments, communities downwind of industrial stacks continued to express frustration with the failure of local officials to enforce existing pollution laws. In the process, they articulated specific demands for democratic accountability in regulatory policy. Similarly, even after the passage of OSHA, workers in auto factories often complained that employers had done little to address indoor pollution. In part, these problems resulted from the federalist structure of the EPA and OSHA, which granted states wide latitude to determine implementation of federal environmental and health and safety standards, respectively. This uneven landscape of state-level regulations reinforced what historian Tami J. Friedman has called the “North-South differential” in union density, wages, and tax rates that attracted capital from the Rust Belt to the Sun Belt.<sup>59</sup>

Another problem was that the emphasis on pollution *control* over *prevention* necessitated determining “safe” levels of exposure to individual substances, followed by monitoring of emission levels and punishment for violators. This process provided ample opportunities for industry to lobby against specific EPA and OSHA standards. Thus, an embattled EPA issued only six federal air quality standards in its first decade, leaving the regulation of all other air pollutants to the states. Of the thousands of hazardous chemicals in U.S. workplaces, OSHA had only issued

---

<sup>59</sup> In later decades, environmental deregulation would result in a leveling downward of pollution law enforcement within the United States. Nevertheless, laxer regulations in Southern states conferred real advantages to industrial polluters, if not as great as those available in the Global South. See Ellen Griffith Spears, *Baptized in PCBs: Race, Pollution, and Justice in an All-American Town* (Chapel Hill: University of North Carolina Press, 2014), 12-13, 232-233; David Rosner and Gerald Markowitz, *Deceit and Denial: The Deadly Political of Industrial Pollution, 2nd Ed.* (Berkeley: University of California Press, 2013), 263-286.

standards for 11 by 1984. Furthermore, once standards became codified into law, effective monitoring and enforcement remained contingent on funding from often unsympathetic federal and state legislators.<sup>60</sup>

Another problem, in many communities, was the failure of pollution control authorities to enforce the new federal laws. A 1971 study by students of Joseph L. Sax, a law professor at the University of Michigan who had drafted the Michigan Environmental Protection Act (MEPA), revealed a pattern of stalling and reluctance to challenge industry by WCAPCD officials. The study, based on three months of fieldwork, found that Morton Sterling's office continued to pursue a policy of voluntary compliance with firms that violated air and water pollution laws. The study criticized a statement by Sterling's office, released on April 22, that the concentration of dust particles in Detroit in 1970-71 was 21 percent lower than in 1969-70. Sterling based this claim on air samples taken from the WCAPCD's downtown office, rather than the downwind neighborhoods of East and Southwest Detroit. The most pointed criticism, however, concerned the failure of the WCAPCD to represent citizen interests. As William Bryan, Jr., one of Sax's students, told the *Detroit News*, "[t]he agency views its role as being a buffer between citizens and polluters, instead of as a defender of the public interest."<sup>61</sup>

Based on interviews with citizens and community organizations who had interacted with

---

<sup>60</sup> On EPA standards, see Bachmann, "Will the Circle Be Unbroken," 652-697. On OSHA standards, see U.S. Congress, Office of Technology Assessment, *Preventing Illness and Injury in the Workplace* (Washington, D.C.: U.S. Congress, Office of Technology Assessment, 1985), 13. For critiques of the pollution control approach, see Linda Nash, "Purity and Danger: Historical Reflections on the Regulation of Environmental Pollutants," *Environmental History* Vol. 13 No. 4 (2008), 651-658; Cynthia Hamilton, "Toward a New Industrial Policy," in Bunyan Bryant, ed., *Environmental Justice: Issues, Policies, and Solutions* (Washington, D.C.: Island Press, 1995), 107-114; Barry Commoner, *Making Peace with the Planet* (New York: New Press, 1992), 191-243.

<sup>61</sup> Julie Morris, "Students Say Pollution Unit Drags Its Feet," *Detroit News*, April 23, 1971; James Kerwin, "Anti-Pollution Agency is Charged with Laxity," *Detroit News*, April 23, 1971; "County Needs to Step Up Effort Against Pollution," *Detroit Free Press*, April 26, 1971; all clippings in Box 4, Folder 1, CRDC.

the WCAPCD, the study found that the agency was unresponsive. As the *Detroit News* reported, the study found five instances of citizens being “put off by, lied to or merely placated by Sterling’s office while the pollution problems continued.” The study recommended the formation of a “citizen-scientists” committee and “volunteer smoke-watchers” to hold the agency accountable. Speaking to the press, Joseph Sax called for “more surveillance monitoring of agencies by citizens,” and criticized the agency for being “too much of a one-man show.” The criticisms echoed those of DAPL and the UAW. At the same time, however, the UAW was facing mounting rank-and-file discontent over workplace pollution.<sup>62</sup>

### **Pollution and Plant Closures**

That year, the Huber Foundry became a flashpoint for conflicts over the economic impacts of pollution control. On the one hand, neighborhood residents, including UAW members, were suing Chrysler for health and property damage. On the other, Chrysler was continuing to threaten the union and local officials with plant closure to ward off regulatory pressure. In response to these threats, and similar ones in other communities, UAW leaders argued that federal regulations could resolve the “jobs versus environment” conflict. UAW President Leonard Woodcock supported legislation that would grant workers the right to sue employers if their plants were closed due to “pollution of the environment by their employers.” Such a bill, Woodcock argued, would “smoke out the environmental blackmailers.”<sup>63</sup>

During testimony before the U.S. Senate Committee on Public Works and Environmental Control Requirements in Washington, D.C. on May 18, 1971, Woodcock used the Huber Foundry

---

<sup>62</sup> Morris, “Students Say Pollution Unit Drags Its Feet”; Kerwin, “Anti-Pollution Agency is Charged with Laxity”; *Detroit Free Press* Editors, “County Needs to Step Up Effort Against Pollution.”

<sup>63</sup> Leonard Woodcock, “Testimony before the U.S. Senate Committee on Public Works and Environmental Control, Hearings on Economic Impact of Environmental Control Requirements,” May 18, 1971, Box 239, Folder 1, UAW President’s Office: Leonard Woodcock Files, Series I, Reuther Library.

controversy to illustrate the need for such legislation, in the form of an amendment to the Public Works and Economic Development Bill (H.R. 16071). In Detroit, he told the Committee, pollution of a “workers’ neighborhood” by the Huber Foundry “has persisted for five years” despite “pressure from the UAW and the Wayne County pollution control authorities.” Chrysler had done so by threatening to lay off the plant’s workers and move elsewhere. This strategy, Woodcock said, was part of the new “game plan” of employers: to fight pollution controls with the threat of layoffs and plant closures. In 1972, however, President Nixon vetoed H.R. 16071, arguing in a public statement that the employer liability provisions “would be highly inequitable and almost impossible to administer.” Despite this defeat, the concept of fighting environmental blackmail with compensatory legislation remained on the UAW political agenda.<sup>64</sup>

Meanwhile, the union continued to face rank-and-file charges of inaction over plant air quality, including at the Huber Foundry. In December 1971, Jordan Sims, an African American Chrysler worker and co-chair of the United National Caucus (UNC), expressed this view in an interview with the Motor City Labor League (MCLL) newsletter *Changeover*. Addressing the complaints of community residents about pollution from the Huber Foundry, he recognized them as valid, but said that “workers feel that a person outside definitely has better conditions than those inside the plant.” Sims was critical of both Chrysler and UAW responses to the problem. Company officials, he said, took for granted that “these people have worked in this kind of atmosphere under these kinds of conditions and have made production anyway.” As for the UAW, he claimed that its leaders had the power “to represent their people inside the plant in the areas of ecology and air pollution,” but had failed to do so. He also cast doubt on the UAW’s larger environmental

---

<sup>64</sup> For Nixon’s public statement on the veto, see Richard M. Nixon, *Public Papers of the President of the United States: Richard M. Nixon, 1972* (Ann Arbor: University of Michigan Library, 2005), 376.

commitments. If they would not force employers to clean up factory air, why would they exercise “political leverage” to solve environmental problems “outside that particular area?”<sup>65</sup>



Fig. 4.3. Protesters outside the Huber Foundry on Earth Day. “Earth Day Marchers,” *Detroit Free Press*, April 22, 1971, 10D.

Another interview from the same issue of *Changeover*, with community activist Barbara Fedorko, provided a suggestive glimpse of both Chrysler workers’ and Chrysler officials’ response to air pollution protests. Fedorko, who had lived within a block of the Huber Foundry site since 1934, was the chair of the Harper-Van Dyke Property Owners Association Pollution Committee. Since 1966, she had become a leader in local protests against foundry pollution. Countering arguments that such protests might harm workers in the foundry, she claimed that workers in the plant supported her group. Fedorko described a protest involving “something like 200 people” outside the foundry gates on Earth Day (April 22), 1971. A group of workers, she recalled, “waved to us from the foundry.” The previous year, Fedorko’s organization had made bumper stickers

<sup>65</sup> “Two Detroiters Take a Look at Chrysler,” Motor City Labor League, *Changeover* (December 1971), clipping in Box 5, Folder 4, DRMR.

reading “Chrysler Pollutes Our Homes, Don’t Buy Chrysler.” During the protest, Fedorko claimed, some foundry workers had asked for stickers of their own. “They said, ‘You’re suffering outside and we’re suffering inside,’” she recalled, “and we could use those too.’ I actually saw the bumper stickers in their parking lot on the employees’ cars.”<sup>66</sup>

In addition to citing worker complaints about pollution, Fedorko countered the charge, made by some Chrysler officials, that her group was motivated by a racist desire to move away from African Americans. The previous summer, the Federal Housing Administration (FHA) had announced that it would only insure homes in the Harper-Van Dyke area if both buyer and seller signed a statement saying they knew about industrial pollution in the area. Many residents took this as a de facto form of redlining, which made leaving the neighborhood more difficult—a major source of contention for the growing number of families hoping to sell their homes. In a 1972 report, EPA official James Wargo noted that “protests against the foundry took on a new stridency” in the aftermath of the FHA decision. As a result, the FHA “denied to the residents of the Huber area any hope of selling their homes for anywhere near the value they themselves put on them.”<sup>67</sup>

At the same time, industrial pollution contributed to FHA redlining of Detroit neighborhoods, even as it gave families more reason to leave for the suburbs. The history of housing and job discrimination against African Americans, of course, profoundly shaped both the politics of pollution and redlining in Detroit. Indeed, according to Fedorko, Chrysler tried to exploit this fact in arguing against residents’ health and property damage claims. “Chrysler is trying to say we just want to get enough out of the corporation to be able to move away from the

---

<sup>66</sup> Ibid.

<sup>67</sup> Wargo, “The Saga of Chrysler’s “Clean” Foundry,” 10-12.



black neighbors,” she said. “This is not correct, because the black neighbors can’t take this kind of living in this area either. They keep moving out; maybe they will live here for a year and go.” Fedorko’s comments highlighted the complexity of pollution’s intersection with housing discrimination issues. Even in the absence of racist intent, and facing FHA redlining themselves, working-class whites retained more options than African Americans in seeking to relocate away from noxious land uses. Thus, Fedorko mentioned that her family was hoping to move to Warren, where African American homebuyers faced white hostility for years after the passage of the Michigan Fair Housing Act of 1968.<sup>68</sup>



Fig. 4.4. Detroiters concerned about pollution outside and inside of the Huber Foundry. On left: Barbara Fedorko. On right: Eldon Revolutionary Union Movement (ELRUM) members and Jordan Sims (third from left). “Two Detroiters Take a Look at Chrysler,” Motor City Labor League, *Changeover* (December 1971).

The Huber Foundry controversy came to a head in the summer of 1972, when residents won a partial settlement from Chrysler. On Monday, June 26, 1972, a jury in the Wayne Circuit Court decided that Huber Foundry emissions could have caused property and health damages between 1966 and June 1970, when the latest pollution-control equipment was installed. Mrs. Leo

<sup>68</sup> “Two Detroiters Take a Look at Chrysler.”

Ozug commented that the jury decision was “a sort of sweet and sour victory. It’s good to know we won, but we still have December ahead of us. And if this dust and dirt continues, we’ll have to just keep suing them.” On July 24, the jury decided that Chrysler must pay awards for property and health damages, now expected to exceed \$2 million. Chrysler attorneys still claimed victory, though, because the ruling limited awards to 500 families, with assessed damages limited to those incurred before June 1970. Meanwhile, Chrysler executives told the EPA that they would construct similar facilities far outside of Detroit in the future. According to James Wargo, one executive said that, if anyone asked him where to build a foundry, “I’d tell him to get in his car and drive, and drive, and drive.”<sup>69</sup>

### **Conclusion**

UAW leaders supported environmental protection in the context of two deepening crises in the 1960s and 1970s. First, they faced a rank-and-file rebellion over poor working conditions, which was most intense in the older, deteriorating auto plants of inner-city Detroit. Second, corporations responded to environmental and health and safety regulations by intensifying capital flight, which had begun in the 1950s as a search for cheaper labor, lower taxes, and proximity to new markets. This turn of events did not prove the inherent incompatibility of environmental regulations with working-class economic interests. Rather, it demonstrated the unequal power of capital and labor in the shaping of employment and regulatory policy.

In the form of MEPA, granting citizens the right to sue industry for violating environmental laws proved politically feasible in 1970. But granting workers the right to compensation for job losses due to environmental regulations—an attempt to call industry’s

---

<sup>69</sup> Julie Morris, “Pay for Pollution, Chrysler Told: Jury Ruling to Bring Homeowners Millions,” *Detroit Free Press*, July 27, 1972, clipping in Box 5, Folder 22, CRDDC.

bluff—did not in 1972. The defeat of the environmental blackmail legislation advocated by the UAW augured future difficulties in countering industry arguments about jobs and pollution. The following chapter will show how, in response to these challenges from employers and from the rank and file, UAW leaders advocated full-employment policies that would protect working-class incomes while also protecting working-class people from pollution. In the process, they helped forge a political coalition of labor, environmental, civil rights, and feminist groups that popularized the concept of “environmental justice” for the first time in the United States. These efforts unfolded in the context of an epochal restructuring of the American political economy, which would devastate the city of Detroit.

**CHAPTER 5: ‘ENVIRONMENTAL AND ECONOMIC JUSTICE AND JOBS’: THE  
DEFEAT OF FULL EMPLOYMENT AND THE SHIFTING GEOGRAPHY OF  
ENVIRONMENTAL JUSTICE, 1970-1991**

On May 2, 1976, Lillian Benbow, Director of the Housing Program at the Michigan Civil Rights Commission, delivered a speech at the UAW’s Working for Environmental and Economic Justice and Jobs conference in Black Lake, Michigan. Benbow said she was “happy to come and see some people who are concerned about the environment and working on it, concerned about jobs, and urban ills.” However, unemployment in the city of Detroit had increased from 11.5 percent in 1973 to 23.6 percent in 1975. Social distress was mounting, especially among African Americans. Meanwhile, amidst a national energy crisis, auto manufacturers were publicly blaming environmental regulations for job losses. In this context, Benbow questioned whether existing environmental policies helped African Americans. “Is the lack of a job any more devastating,” she asked, “because it is eliminated by ecological guidelines than because of racism?” Turning to housing, she asked, “is planned land use any more restrictive because of environmental standards than exclusionary zoning designed to prevent minorities from living in suburbia?” Benbow recognized that, on average, African Americans in Detroit suffered more from pollution than whites in the suburbs. However, in her view, unless environmental policies addressed joblessness, segregation, and discrimination, they would reinforce inequality.<sup>1</sup>

Similarly, William B. Ratliff of the Greenville, South Carolina Urban League argued that environmentalism should be linked to a full employment and civil rights agenda. “The basic causes of environmental and economic injustice,” he said during a panel on “The Environment and the Poor,” were “discrimination, over-concentration of wealth and a shortage of economic

---

<sup>1</sup> Lillian Benbow, Michigan Civil Rights Commission, speech at “Working for Environmental and Economic Justice and Jobs” conference, Black Lake, Michigan, May 2, 1976, 1-4, folder 12, box 10, UAW-CRD.

democracy.” In order to “overcome these conditions,” he said, “we as environmentalists, community people, and workers support the economic goals of full employment, income maintenance and a more equitable redistribution of wealth.” Other conference participants echoed these sentiments. Many, including the Black Caucus and the Women’s Caucus, endorsed the Humphrey-Hawkins Full Employment bill, on the grounds that guaranteed employment would make it unnecessary for workers and inner-city residents to choose between jobs and protection from pollution. These ideas built on the social-democratic approach to environmental problems articulated in the A. Philip Randolph Institute’s *Freedom Budget for All Americans* (1967).<sup>2</sup>

Most scholarly and popular narratives of the “origins” of the environmental justice movement do not discuss the 1976 Black Lake conference. With the partial exception of the United Farm Workers (UFW) anti-pesticide campaigns of 1965-1971, most books about environmental justice only discuss labor unions briefly, if at all.<sup>3</sup> This elision reflects organized labor’s

---

<sup>2</sup> William B. Ratliff, “Preamble,” to “Environment and the Poor” workshop, May 6, 1976, “Working for Environmental and Economic Justice and Jobs” conference, proceedings, folder 12, box 10, UAW-CRD; A. Philip Randolph, Bayard Rustin, and Martin Luther King, Jr. *A “Freedom Budget” for All Americans: A Summary* (New York: A Philip Randolph Institute, 1967).

<sup>3</sup> See, for example, Eileen McGurty, *Transforming Environmentalism: Warren County, PCBs, and the Origins of Environmental Justice* (New Brunswick: Rutgers University Press, 2009), 17; Melissa Checker, *Polluted Promises: Environmental Racism and the Search for Justice in a Southern Town* (New York: New York University Press, 2005), 21; Julian Agyeman, *Sustainable Communities and the Challenge of Environmental Justice* (New York: New York University Press, 2005), 165–66; Andrew Szasz, *Ecopopulism: Toxic Waste and the Movement for Environmental Justice* (Minneapolis, 2003), 77, 123, 180n38–39; Luke Cole and Sheila Foster, *From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement* (New York: New York University Press, 2001), 27–28. For an early use of the term “environmental justice,” see Joseph A. Page and Gary B. Sellers, “Occupational Safety and Health: Environmental Justice for the Forgotten American,” *Kentucky Law Review* Vol. 79 No. 1 (Fall 1970), 114–144. Among the only published accounts of the UAW’s labor-environmental coalition-building in the 1970s are Margaret Allen and Philip Perkins, “Working for Environmental and Economic Justice and Jobs,” in *Thunder at Michigan and in the Heartland: Working for Student Empowerment and Action*, ed. Bunyan Bryant (New York, 2009), 33–40; and Chad Montrie, *Making a Living: Work and the Environment in the United States* (Chapel Hill: University of North Carolina Press, 2008), 103–6. Also see Robert Gordon, “Environmental Blues: Working-Class Environmentalism and the Labor-Environmental Alliance, 1968-1985” (Ph.D. dissertation: Wayne State University, 2004), 214–229.

diminished role in the movement by the 1980s, as well as the regional focus of most environmental justice scholarship on the South and West rather than the Rust Belt. As this chapter will demonstrate, however, examining the early role of unions in the movement is essential to understanding its historical contingency, and how it changed over time. Although the Warren County struggle popularized the concept of “environmental racism,” occupational health and safety activists had used the concept of “environmental justice” as early as 1970, and the term only entered common usage after the Black Lake conference. However, this chapter does not claim that Black Lake was the “origin” of the environment justice movement. Rather, Black Lake was one of many places where civil rights, environmental, and labor activists converged in the 1970s. Instead of positing a fixed genealogy, this chapter stresses the discontinuity between how activists framed “environmental justice” in the mid-1970s and at the 1991 People of Color Environmental Leadership Summit. It argues that the weakening of labor-environmental coalition politics, in the context of deindustrialization and neoliberal restructuring, altered the movement’s geography, strategic focus, and institutional foundations.

While later advocates of environmental justice focused on inequalities in pollution exposure, they operated in a less propitious environment for advancing redistributive social policies. Working in impoverished communities of color, facing environmental health emergencies amidst economic distress, they applied the direct action and legal tactics of the civil rights movement to battles with corporate and state polluters. Rather than downplaying the historical significance of the Warren County protests, and other events highlighted in conventional environmental justice narratives, this chapter aims to better contextualize them. It argues that, in the late 1970s and 1980s, social-democratic ideas, including the demand for full employment, became marginalized within debates about environmental inequality. In contrast to teleological

narratives of the movement's rise, this chapter emphasizes how it changed over time, and situates it within the larger restructuring of American capitalism in the late 20<sup>th</sup> century.

### **Economic Restructuring and the Business Offensive**

Between 1970 and 1982, the city of Detroit underwent a wrenching process of economic restructuring. During this period, over 100,000 auto workers in the city and its industrial suburbs lost their jobs. Over 100 factories shut down, and hundreds of thousands of white residents left for the suburbs, which remained hostile to African Americans. In the process, the proportion of Detroit's population classified as "white" declined from 55.5 percent to 34.4 percent. New suburban shopping malls, such as Fairlane in Dearborn, attracted commercial investment away from Detroit's downtown and inner-city neighborhood business districts. Racialized metropolitan inequalities increased, as poverty rates in Detroit increased from three times the suburban level in 1970 to four times in 1980.<sup>4</sup>

Meanwhile, as the postwar boom began to slow, the UAW was under increasing pressure to abandon support for environmental regulations. During the OPEC oil embargo of 1973-74, UAW leaders reluctantly joined the Big Three in lobbying Congress for delays on EPA emissions standards. Business opposition to environmental regulations long predated the 1970s, but its

---

<sup>4</sup> On the 1973-1974 OPEC oil embargo and the auto industry, see Tom McCarthy, *Auto Mania: Cars, Consumers, and the Environment* (New Haven: Yale University Press, 2007), 213-18; Jack Doyle, *Taken for a Ride: Detroit's Big Three and the Politics of Pollution* (New York: Four Walls Eight Windows, 2000), 100-110; Meg Jacobs, "The Politics of Environmental Regulation: Business-Government Relations in the 1970s and Beyond," in Kim Philips-Fein and Julian Zelizer, eds., *What's Good for Business: Business and American Politics Since World War II* (New York: Oxford University Press, 2012), 212-232. On Detroit's economic transformation in this period, see Steve Babson, Ron Alpern, Dave Elsila and John Revitte, *Working Detroit: The Making of a Union Town* (Detroit: Wayne State University Press, 1986), 210-221. On the movement of department stores from downtown shopping districts to suburban malls, see Allison Eisenberg, *Downtown America: A History of the Place and the People Who Made It* (Chicago: University of Chicago Press, 2004), 166-202; Lizabeth Cohen, "From Town Center to Shopping Center: The Reconfiguration of Community Marketplaces in Postwar America," *American Historical Review* Vol. 101 No. 4 (October 1996), 1050-1081. On growing inequality between Detroit and its suburbs, see Philip J.D. Anieri, "Regional Reform in Historic Perspective: Metropolitan Planning Institutions in Detroit, 1950-1990" (Ph.D. Dissertation: University of Michigan, 2007), 81-84.

breadth and depth changed in important ways during the decade. The new federal environmental laws passed during the Nixon administration were far more ambitious, and better-enforced, than the state and local laws that preceded them. Between 1970 and 1975, the workforce of federal regulatory agencies increased from 9,707 to 52,098, and regulatory spending quintupled. To counter this growth, corporations increased investment in lobbying activity. Between 1974 and 1978, the number of corporate Political Action Committees (PACs) increased from 89 to 784, in addition to an estimated 500 trade associations and other pro-business PACs. Along with well-known organizations such as the Business Roundtable, corporations pooled their resources to fund specific anti-regulatory entities, such as the National Industrial Pollution Council, which lobbied politicians in Washington, D.C. and state governments for the repeal or weakening of EPA and OSHA standards. Automobile manufacturers lobbied against regulations at the local and state as well as federal levels, claiming that relaxing pollution laws would put more people back to work.<sup>5</sup>

Public officials often found these arguments persuasive. In the fall of 1971, UAW Conservation and Recreation Department director Olga Madar wrote to Congressman E.D. O'Brien, requesting that he vote for H.B. 4260. The bill would allow the Michigan Air Pollution Control Commission (MAPCC) to set mandatory emissions standards for industry. O'Brien spurned the request, on the grounds that the bill would cause job losses in his district on the east side of Detroit. In response, Madar argued that H.B. 4260 would not cause unemployment, any

---

<sup>5</sup> On business lobbying against environmental regulations in the 1970s, see Judith A. Layzer, *Open for Business: Conservatives' Opposition to Environmental Regulation* (Cambridge: MIT Press, 2012), 31-82; Jacobs, "The Politics of Environmental Regulation"; Benjamin Waterhouse, *Lobbying America: The Politics of Business in America from Nixon to NAFTA* (Princeton: Princeton University Press, 2014), 174-200; Joe Greene Conley, "Environmentalism Contained: A History of Corporate Responses to the New Environmentalism" (Ph.D. Dissertation: Princeton University, 2006), 144-202. On the growth of regulatory agencies and corporate PACs, see Patrick J. Ackard, "Corporate Mobilization and Political Power: The Transformation of Economic Policy in the 1970s," *American Sociological Review* Vol. 57 No. 5 (October 1992), 597-615, esp. 601-602.



more than “demands for payment of a fair share of taxes, or for union recognition, collective bargaining, better wages, benefits and working conditions” would do so. By voting against the bill, Madar wrote, O’Brien was doing a disservice to UAW retirees who “desire to live out their lives in a clean and healthy environment.”<sup>6</sup>

At a conference at the University of California-Berkeley on November 28, 1972, UAW President Leonard Woodcock pointed out that H.R. 16071 (vetoed by President Nixon) would have given “workers, individually or as a class, the right to sue their employers in Federal and state courts for damage” caused by “plant shutdowns or layoffs resulting from pollution of the environment by their employers.” While arguing for the benefits of the bill, Woodcock also noted the limitations of a litigation-focused strategy. In the long term, avoiding “jobs versus the environment” dilemmas would require increasing the power of working class people in relation to employers. Rather than leaving decisions about plant closures or pollution up to “the large, socially indifferent and intransigent corporation,” Woodcock told the attendees, workers and their communities should demand a say through “democratic national planning.”<sup>7</sup>

This phrase was nothing new; in the 1960s, Walter Reuther had argued that “democratic national planning” was necessary to achieve full employment. However, the political context had changed radically in the intervening years. In 1965, Reuther believed that the War on Poverty could be linked to planning for full employment. In response to African American urban rebellions and white conservative victories in the 1966 congressional elections, President Johnson shifted to

---

<sup>6</sup> Olga Madar, letter to E.D. O’Brien, September 10, 1971, Folder 1, Box 2, UAW-CRD.

<sup>7</sup> Leonard Woodcock, “Labor and the Economic Impact of Environmental Control Requirements,” paper presented at “Jobs and the Environment—Whose Jobs? Whose Environment?” conference, Institute of Industrial Relations, University of California—Berkeley, November 28, 1972, 1-13, esp. 10, Online Archive of California, <http://www.oac.cdlib.org/ark:/28722/bk0003s9447/FID1> [accessed December 6, 2016].

the right politically. Johnson's concessions to an implicitly (and often explicitly) racist "law and order" politics, combined with Vietnam War spending, led to a scaling back of the War on Poverty, and increased funding for prisons and police. In 1968, the assassination of Martin Luther King, Jr., state repression of the Poor People's Campaign, and the election of Richard Nixon signified the marginalization of King's vision of social justice. The UAW, having split from the AFL-CIO and facing an increasingly rebellious rank and file, lost political influence in Washington, D.C., as well as on the shop floor. By 1972, while UAW leaders supported the McGovern campaign, the AFL-CIO backed Nixon. That year, George Wallace won the Michigan Democratic primary on a segregationist platform, winning support from the majority of whites in Detroit and its Macomb County suburbs. The same voters helped Nixon defeat McGovern in a landslide in November. In this context, Woodcock's invocation of "democratic national planning" seemed more utopian than a decade earlier. Nevertheless, activists in the UAW continued to believe that a left-liberal coalition could shift the terms of national political debate.<sup>8</sup>

### **The Defeat of Lead Abatement in Detroit**

Alongside the reactionary politics of the New Right, industry lobbying against environmental regulation increased at the local as well as state and federal levels in the 1970s. The case of lead paint in homes provides an instructive example. By the early 1970s, a scientific consensus that lead products posed serious public health risks created renewed pressure for blood lead screenings, bans on lead paint sales, and residential lead abatement. The Childhood Lead-Based Paint Poisoning Prevention Act, passed in 1971, provided federal funding for municipal

---

<sup>8</sup> Naomi Murakawa, *The First Civil Right: How Liberals Built Prison America* (New York: Oxford University Press, 2014), 67-102; Elizabeth Hinton, *From the War on Poverty to the War on Crime: The Making of Mass Incarceration in America* (Cambridge: Harvard University Press, 2016), 63-95; Boyle, *The UAW and the Heyday of American Liberalism*, 257-261. On George Wallace's victory in the 1972 Michigan Democratic primary, see Sugrue, *Origins of the Urban Crisis*, 267.

lead screening and treatment programs. Using 75 percent federal funds and 25 percent municipal funds, the Detroit Health Department established a childhood lead screening program on June 1, 1972, known as the Evidence for Health Community Organization (ECHO). The early results of the ECHO screenings produced alarming results. According to a 1973 report, blood tests revealed that 10 percent of Detroit children had “abnormal levels of lead in their blood,” and an estimated 80,000 Detroit children between the ages of 1 and 5 faced “a high risk of being lead poisoned.” As a result, these children faced elevated risks of “retardation, neurological damage, learning disabilities, abnormal behavior problems, epilepsy, palsy, paralysis and blindness.”<sup>9</sup>

According to most public health studies, the two major sources of lead in children’s environment were lead-based paint and exhaust from leaded gasoline. Removing these sources through regulatory action would directly impact several economic sectors: the paint industry, the real estate industry, and the gasoline additive industry. Historically, as the ECHO report noted, the paint industry had opposed anything but “voluntary self-regulation.” Where regulations were a *fait accompli*, however, industry lobbyists sought to weaken rather than oppose them outright. In February 1973, the Detroit City Council introduced an ordinance banning the sale of lead paint for household use. On February 19, Larry L. Thomas, a lawyer for the National Paint and Coatings Association (NPCA), asked the Council to increase the maximum level of lead allowed in paint more than eightfold, from 0.06 percent to 0.5 percent. He stressed that 35 paint manufacturing operations existed in metro Detroit, and over half the private homes in the city contained lead paint. A higher threshold would mean lower compliance costs for manufacturers. In this case, paint

---

<sup>9</sup> “Childhood Lead Poisoning in Detroit: An Overview,” Detroit Health Department, Lead Poisoning Control Program, Herman Kiefer Hospital Complex, n.d. [1973], 1, Library of Michigan, Lansing, MI; Dolores Kate, “Lead Poison Perils Inner City Children: 10 Victims Sent to Hospitals,” *Detroit Free Press*, February 19, 1972, A1; clipping in Folder 40, Box 32, DCHR.

industry lobbying paid off. The following day, the Council passed a lead paint ordinance with Thomas' suggested modifications.<sup>10</sup>

The real estate industry, for its part, objected to an additional ordinance, requiring lead abatement for Detroit homes purchased through the Federal Housing Administration (FHA). Bruce Roy, chairman of the civic and legislative committee of the United Northwest Realty Association, asked Mayor Roman Gribbs to veto the ordinance. He claimed that mandatory lead abatement would “stifle real estate sales,” thereby “driving another nail in Detroit’s coffin.” Daniel Williamson, president of the Detroit Real Estate Board, argued that the ordinance would make home repairs unaffordable, leading to more abandoned homes. Following the realtors’ lobbying campaign, including letters to the mayor, Gribbs agreed to veto the lead paint ordinance, removing the requirements for home sales, and rescinding the Health Department’s authority to order lead abatement. In a joint memorandum, counsels for the Departments of Health and Buildings and Safety noted that Gribbs’ veto made Detroit’s lead poisoning control program “entirely treatment-oriented.”<sup>11</sup>

However, not all business interests opposed banning lead paint. Out of their own self-interest, manufacturers of leaded gasoline had long argued that lead paint, not leaded gasoline, was

---

<sup>10</sup> “Childhood Lead Poisoning in Detroit,” 1-3; “Statement of Larry L. Thomas, Counsel, National Paint and Coatings Association for the City of Detroit Common Council on Proposed Ordinances Relating to Lead-Based Paints and Childhood Lead Poisoning,” February 19, 1973, Folder 40, Box 32, DCHR; “City Bans Sale and Use of Paint Containing Lead,” *Detroit Free Press*, February 21, 1973; David L. Good, “Home ordinance aimed at lead poisoning: Sellers may have to remove paint,” *Detroit News*, February 21, 1973; all clippings in Folder 40, Box 32, DCHR.

<sup>11</sup> Gary Baumgarten, “Ordinance Veto Sought: Paint law is called threat to home sales,” *Detroit News*, February 27, 1973; “City will Go Easy on Lead Paint Law,” *Detroit News*, February 27, 1973; Jay Brandt to Detroit City Council Members, “Departmental Recommendations re: Changes in Lead-Based Paint Ordinances Vetoed by Mayor,” March 8, 1973, Folder 40, Box 32, DCHR; Don Lenhausen, “Lead Poison Tests Crippled By Apathy,” *Detroit Free Press*, January 3, 1974; Don Tschirhart, “Hazards of Paint Poisoning Continue,” *Detroit News*, January 29, 1975; all clippings in Folder 40, Box 32, DCHR.

the source of childhood lead poisoning. In May 1974, the journal *Environmental Health Perspectives* published a study by Gary Ter Haar of the Ethyl Corporation and Regine Aronow, Director of the Poison Control Center at Detroit Children's Hospital, which compared lead levels around 36 homes in Detroit and in a rural area. The study emphasized the dangers of lead paint chips, while claiming that "antiknock additives are not a significant contributor to the lead content of dirt around houses where children usually play." At the federal level, Ethyl officials used this Detroit-based study to aid their ongoing campaign against an EPA ban on lead in gasoline.<sup>12</sup>

As a result of Gribbs' veto, Detroit's childhood lead poisoning control program remained focused on the symptoms rather than the causes of the problem. It did nothing to mitigate the threat of lead paint in dilapidated homes, or the accumulated dust from a half-century of leaded gasoline combustion from an ever-larger fleet of cars and trucks. Rather than the lead or real estate industries, the severe health costs of childhood lead poisoning in the city would be borne by low-income residents and taxpayers. The defeat of remedial measures by industry lobbying, moreover, exacerbated the metropolitan inequalities created by segregation and discrimination in real estate markets. Most African Americans in Detroit lived in older homes, built before 1950, when residential lead paint was ubiquitous. Mortgage redlining, by restricting African American homeowners' access to capital for home improvements, exacerbated structural dilapidation. Suburban whites, by contrast, lived in newer subdivisions where lead paint was less common, and had easier access to credit. As a result, the number of children with blood lead levels over 10

---

<sup>12</sup> For the Ethyl-funded study, see Gary Ter Haar and Regine Aronow, "New Information on Lead in Dirt and Dust as Related to the Childhood Lead Problem," *Environmental Health Perspectives* 7 (May 1974), 83-89; also see David Rosner and Gerald Markowitz, *Lead Wars: The Politics of Science and the Fate of America's Children* (Berkeley: University of California Press, 2013), 66-67. For evidence that, pace Terr Harr and Aronow, leaded gasoline was a major contributor to childhood lead poisoning, see Needleman, "The Removal of Lead from Gasoline," 20-35.

micrograms per deciliter (mcg/dl) would remain as high as 10 percent in many Detroit zip codes, but negligible in the suburbs.<sup>13</sup>

### **Energy, Air Pollution, and Inequality**

Similarly, the energy policies of private utilities exacerbated metropolitan inequalities. In the early 1970s, under Section 104 of the Demonstration Cities and Metropolitan Development Act of 1966, the Detroit City Planning Commission (DCPC) received a HUD grant to investigate utility rates. In June 1972, the Social Planning Division of the DCPC presented its findings at the Michigan Public Service Commission (MPSC) Energy Hearings. The Consumers Alliance of Michigan and the UAW had sponsored a report, entitled “Public Utilities and Price Discrimination: The Need for Non-Promotional Electric Rates,” with the goal of influencing a pending MSPC rate case, U-3910. The report critiqued Detroit Edison’s promotional rate structures, which resulted in lower per unit costs of electricity for corporations and affluent, white suburban consumers. An average family in Detroit paid 39 percent more than an average family in Bloomfield Hills, where the median income was over four times as high (Table 5.1). As Pepper Jacques, chair of the Detroit Model Neighborhood Social Services Committee, put it, “[f]or the privilege of helping out the good suburban people, who have zoned poor people out of their neighborhoods, we are allowed to pay much higher prices than anyone else.”<sup>14</sup>

---

<sup>13</sup> See below, Chapters 6 and 7. For estimates of childhood lead poisoning in Detroit since the 1970s, see Detroit Department of Health and Wellness Promotion, *Combined Data Book 2007 & 2008* (Detroit: Detroit Department of Health and Wellness Promotion, 2008), 115; Angela S. Hill, “Lead Poisoning in Detroit Children” (M.A. Thesis: Eastern Michigan University, 2004), 8-9; Wendy Wendland-Bowyer, “Hazards lurking in soil as children play: High lead levels abound in Detroit and metro area,” *Detroit Free Press*, January 23, 2003, A10. In 2002, an estimated 8.9% of Detroit children under the age of 5 had “elevated blood lead levels,” defined as over 10 mcg/dl. Epidemiologists believed that blood lead levels this high caused brain damage. See Hill, “Lead Poisoning in Detroit Children,” 8-9.

<sup>14</sup> Detroit City Plan Commission, Social Planning Division, *Promotion at What Cost? Pollution, Power Blackouts, and Detroit Edison’s Promotional Electricity Rates: Presentations at the Michigan Public Service Commission Energy Hearings, June 1972* (Detroit: Detroit Social Planning Division, 1972), 73-77, Library of Michigan, Lansing, MI.

**Table 5.1. Electricity Rate Structures in the Detroit Metro Area, 1970**

<u>Community</u>	<u>Avg. Cost Per Unit of Electricity</u>	<u>Median Family Income</u>	<u>Cost/Income Ratio*</u>
Detroit inner city	3.64 cents	\$3,710	.098
Detroit	3.10	\$10,710	.031
Dearborn	2.96	\$13,257	.022
Warren	2.86	\$13,452	.021
Grosse Pointe	2.78	\$19,020	.015
Livonia	2.74	\$15,216	.018
Bloomfield Hills	2.44	\$46,715	.005

\*Cost per 10,000 kilowatt hours divided by median family income

Source: Social Planning Division, Detroit City Plan Commission, *Promotion at What Cost? Pollution, Power Blackouts, and Detroit Edison's Promotional Electricity Rates: Presentations at the Michigan Public Service Commission Energy Hearings, June 1972* (Detroit: Detroit Social Planning Division, 1972), 19, Library of Michigan, Lansing, MI.

Promotional rate structures also incentivized wasteful electricity consumption, which increased pollution from Detroit Edison's power plants, as well as the likelihood of black-outs during peak load seasons. Power plant pollution harmed low-income people in Detroit and its working class, downriver suburbs more than those in affluent suburbs. Detroit Edison power plants contributed 75.3 percent of the sulfur dioxide in Wayne County's atmosphere, and 26.4 percent of the particulate matter. JoAnn Caccavale, President of the Consumers Alliance of Michigan, pointed out that suspended particulate pollution levels in Detroit were "twice as high as the primary standard under the Clean Air Act." Meanwhile, outlying urban neighborhoods "have the best of the bad air in Detroit." She added that "except in the immediate vicinity of a Detroit Edison Plant (at Monroe, or Port Huron)," averages did not exceed the primary standards outside of Wayne County. As Pepper Jacques observed, "[w]e help keep suburban and outstate air clean and fresh, so that suburban children can grow up strong and healthy. Meanwhile, we are dying." The life expectancy of "low-income, inner-city males" was "about 63 years," in contrast to the national average for males of 70 years. Although inadequate health care and other factors contributed to

this disparity, she told the MPSC, “you must recognize that pollution by Edison plants has cost us some lives in the inner city.”<sup>15</sup>

The UAW also opposed Detroit Edison’s inequitable rate structures. Dan Dozier, a representative of the UAW Community Action Program, told the MPSC that the UAW supported a “uniform pricing policy for electric utilities.” The current system, Dozier said, “encourages excessive and wasteful electricity usage by the affluent” while making the poor subsidize Detroit Edison’s plant expansion projects. The existing rate structure was “discriminatory” as well as “socially and environmentally destructive.” The energy crisis of 1973-74 also increased political pressure on private utilities to curb excessive electricity consumption. In October 1974, the MPSC ruled in favor of the Consumers Alliance and the UAW, recommending that Detroit Edison and other utilities adopt “inverted” rate structures, which would charge higher rates for residential customers using over 500 kilowatt hours per month. The highest rate would be for those using 1,000 kilowatt hours per month or more. These recommendations would be implemented in law in March 1976. Detroit Edison chair William G. Meese condemned the ruling as “grossly unfair and contrary to law.” However, of 1.5 million Detroit Edison users, only an estimated 250,000 would pay more, whereas the rest (including low-income, inner-city residents) would pay less.<sup>16</sup>

### **The Energy Crisis and the Auto Industry**

The OPEC oil embargo of 1973-1974, provoked by the Nixon administration’s support for Israel in the Yom Kippur War, led to a tripling of oil prices, and increased demand for more fuel-efficient Japanese and European cars. In Congressional hearings and in meetings with the Nixon

---

<sup>15</sup> Ibid., 61-72, 73-77.

<sup>16</sup> Ibid., 87-90; Alan Sloan, “PSC Dealing Cheap Power a New Blow,” *Detroit Free Press*, October 27, 1974, 1B; Hugh McDairmid, “PSC Tempers Edison Hike: Rule Carries Conditions to Save Energy,” *Detroit Free Press*, March 31, 1976, 1A, 2A; Alan Sloan, “Rate Hike Fails to Quell Dispute,” *Detroit Free Press*, April 4, 1976, 2A.



administration, auto executives blamed environmental regulations for the industry's downturn. In December 1973, GM paid for full-page advertisements in the *New York Times*, asserting that lowering EPA air quality standards to 1969 levels would "save billions of gallons of gas." That month, the Senate passed a bill delaying the 1975 Clean Air Act standards until 1977. These delays would allow cars produced in 1975-77 to produce emissions four times higher than permitted until the 1970 Clean Air Act. Meanwhile, as auto sales fell to their lowest levels since the 1958 recession, the Big Three laid off over 300,000 UAW members. In November 1974, Chrysler announced plans to temporarily close all of its North American assembly plants from the day before Thanksgiving until January 6, 1975. In 1968, the unemployment rate in Detroit was only 4 percent. During the first "oil shock," it began a steep climb, from 11.5 percent in 1973 to 14 percent in 1974 to a staggering 23.6 percent in 1975.<sup>17</sup>

These developments increased pressure on UAW leaders to side with auto manufacturers on environmental questions. At the federal level, they aided the Big Three in a second round of lobbying to delay the 1977 Clean Air Act emissions standards. In Senate hearings in May 1975, Leonard Woodcock argued that these delays would put UAW members back to work without "endangering public health." The energy crisis, Woodcock said, had caught the Detroit automakers by surprise. When Senator John C. Culver of Iowa asked whether this raised doubts about auto executives' business sense, Woodcock stressed, "I worry not about the General Motors corp. and Ford and Chrysler. I worry about the city of Detroit where I live and the 23.6 percent

---

<sup>17</sup> "Chrysler to Close Five Plants," *The Washington Post*, November 20, 1974; McCarthy, *Auto Mania*, 213-18; Doyle, *Taken for a Ride*, 100-110; Jacobs, "The Politics of Environmental Regulation," 223. "What happens to this industry in Detroit," Mayor Coleman Young told reporters, "is going to happen to the rest of the economy if it is not stopped." Quoted in Austin Scott, "Detroit on the Brink of Depression," *The Washington Post*, November 25, 1974.

unemployment rate.” As the *Wall Street Journal* noted in August, these UAW efforts were instrumental in winning over liberals in Congress to the emissions delays.<sup>18</sup>

In this worsening economic context, labor and civil rights leaders were becoming more critical of the environment movement. This trend included Bayard Rustin, a co-author of the A. Philip Randolph Institute’s 1967 *Freedom Budget*, which had called on the federal government to eliminate both poverty and pollution. In a widely cited *New York Times* editorial in 1975, Rustin called environmentalists “selfish” and elitist for opposing economic growth amidst the suffering of unemployed people of color and working-class whites. AFL-CIO President George Meany publicly denounced the “back-to-the-cave philosophy of the no-growth advocates.” Some critics noted that mainstream environmentalists were disproportionately white, middle-class professionals who had nothing to lose from the closure of factories, mines, or power plants. Neo-Malthusian environmentalists, such as Garret Hardin and Paul Ehrlich, furthered associations between environmentalism and elitism, blaming ecological degradation on “too many people” in the “underdeveloped world.” They typically downplayed or ignored the inequities of global capitalism, the oppression of women, Cold War militarism, and the legacies of colonialism. To people with insecure livelihoods, whether in the United States or elsewhere, a white, middle-class discourse of limits on consumption, production, and reproduction could easily smack of hypocrisy.<sup>19</sup>

---

<sup>18</sup> Leonard Woodcock, testimony before U.S. Congress, Senate, *Hearings Before the Subcommittee on Environmental Pollution of the Committee on Public Works*, 94<sup>th</sup> Congress, 1<sup>st</sup> Session, May 17, 1975, 271-299, esp. 288; “UAW Position Paper on Federal Standards for Auto Emissions and Fuel Efficiency,” May 6, 1975, *Ibid.*, 300-321; Walter Mossberg and Charles Camp, “Power Drain: UAW, Hurt by Drop in Auto Employment, Faces Loss of Influence,” *Wall Street Journal*, March 12, 1975; James P. Gannon, “Business Blitz: Aided By Lobbyists, Corporations Avert ‘Disaster’ in Congress,” *Wall Street Journal*, August 5, 1975.

<sup>19</sup> For Rustin’s critique, see Bayard Rustin, “No Growth Has to Mean Less is Less,” *New York Times Magazine* May 2, 1976; also see the rejoinder in *Environmental Action*, May 22, 1976, 11. For the Meany

At the same time, UAW leaders and rank-and-file activists recognized that industry claims about pollution were self-interested in their own right, and frequently misleading or exaggerated. Moreover, people of color and working-class whites were the primary victims of pollution. They lived shorter lives, and paid higher medical bills, as a result of exposure to carcinogens, particulate matter, lead, and other pollutants in their workplaces and communities. For these reasons, in the mid-1970s, the UAW continued to support environmental initiatives, and to participate in coalitions with environmental organizations. In 1974, with funds from the Office of Environmental Education, in the Department of Health, Education, and Welfare, the UAW Conservation and Recreation Department (UAW-CRD) developed a project called “United Community Action for Environmental Education of Workers and Citizens.” The project was a worker education program for UAW members, focused on environmental problems facing workers and urban residents. As department staffers noted, the 1973-74 layoffs had “provided a new twist” on the longstanding practice of “environmental blackmail.” With over 300,000 UAW members laid off, the International Union was losing \$300,000 per month in revenues; UAW locals were losing \$400,000. UAW-CRD staffers recognized that “the union must necessarily be guarded about its

---

quote, see American Federation of Labor-Congress of Industrial Organizations, *Report of the Executive Council* Vol. 12 (1977), 4. On tensions between civil rights and environmental activists in the 1960s and 1970s, see Eileen McGurty, “From NIMBY to Civil Rights: The Origins of the Environmental Justice Movement,” *Environmental History* Vol. 2 No. 3 (July 1997), 301-323. On the elitist assumptions underpinning neo-Malthusian discourse, see Betsy Hartmann, *Reproductive Rights and Wrongs: The Global Politics of Population Control* (Boston: South End Press, 1995), 93-172; Laura Briggs, *Reproducing Empire: Race, Sex, Science, and U.S. Imperialism in Puerto Rico* (Berkeley: University of California Press, 2002), 142-161; Matthew Connelly, *Fatal Misconception: The Struggle to Control World Population* (Cambridge: Harvard University Press, 2008), 237-275. For a critique of narratives that attribute environmental degradation to a generalized “humanity,” while ignoring intra-species inequalities, see Andreas Malm and Alf Hornborg, “The Geology of Mankind? A Critique of the Anthropocene Narrative,” *The Anthropocene Review* Vol. 1 No. 1 (April 2014), 62-69.

commitment of funds to new projects in the light of possible further layoffs and reduced union income.”<sup>20</sup>

As UAW-CRD staff recognized, union members remained concerned about environmental and occupational health threats, while also fearing job loss. Following Earth Day, numerous UAW locals had had established Conservation Committees. Through these committees, many UAW members expressed anger about pollution problems, even as they experienced “increasing anxiety due to job blackmail threats.” Some auto workers also believed that urban environmental problems, particularly those facing African Americans, deserved greater emphasis. At one meeting at a local in Detroit, an African American auto worker complained to a UAW-CRD staff member, ‘We got big problems—we got rats, we got lead poisoning, we got garbage piled up, and you’re talking about us getting excited about clean air in Escanaba.’” When environmental campaigns prioritized these urban hazards, staffers noted, “resisters” could become “ardent environmental activists.”<sup>21</sup>

In their efforts to reconcile environmentalism with working-class and inner-city economic concerns, UAW-CRD staff members engaged in innovative coalition-building. Between 1974 and 1976, they brought together members of union Conservation Committees, along with members of Detroit’s Community Action Program (CAP), to plan a series of conferences at the UAW’s Black Lake Family Education Center, in Onaway, Michigan. Beginning in September 1975, they began planning the most ambitious of these events, entitled “Working for Environmental and Economic

---

<sup>20</sup> UAW Conservation and Recreation Department, “United Community Action for Environmental Education of Workers and Citizens,” March 1974, 1-54, Box 2, File 29, Olga Madar Collection, Reuther Library; *Ibid.*, 19.

<sup>21</sup> *Ibid.*, 23.

Justice and Jobs: A National Action Conference,” to be held from May 2-7, 1976. The conference brought together over 350 participants, from 140 different organizations.<sup>22</sup>

According to a report by the Urban Environment Conference (UEC), it included representatives “from labor, industry, native Americans, southern mountaineers, blacks, chicanos, welfare rights activists, League of Women Voters leaders, and many more [...] to discuss the great issues of ‘environmental and economic justice and jobs.’” Numerous civil rights activists participated, including Norman Hill of the A. Philip Randolph Institute, who had marched for voting rights at Selma, and who helped organize the 1968 Memphis Sanitation Workers’ strike; Norman Harris, Jr. and Hiawatha Davis of Denver, Colorado’s Eastside Action Movement; Norman Daniels and Walter Tytus of the Urban League; Lillian Benbow of the Michigan Civil Rights Commission; and Gerald Wilkinson of the National Indian Youth Council. Prominent feminists attended the conference, including Jean Mager Stellman of the Boston Women’s Health Book Collective, and Mimi Booker and Pauline Alexanderson of the League of Women Voters. There were also representatives of the United Mine Workers of America (UMWA), the United Steelworkers of America (USWA), the Oil, Chemical and Atomic Workers (OCAW), and the Communication Workers of America (CWA). Representatives from numerous environmental organizations also participated, including the Sierra Club, the Wilderness Society, Friends of the Earth, and the Isaak Walton League.<sup>23</sup>

---

<sup>22</sup> On the UAW and the Community Action Program in Detroit, see Thompson, *Whose Detroit?*, 32; John Barnard, *American Vanguard*, 405. On the Black Lake conference, see Allen and Perkins, “Working for Environmental and Economic Justice and Jobs,” 33–40; Gordon, “Environmental Blues,” 214–229; Josiah Rector, “Environmental Justice at Work: the UAW, the War on Cancer, and the Right to Equal Protection from Toxic Hazards in Postwar America,” *Journal of American History* Vol. 101 No. 2 (September 2014), 480–502, esp. 493–494.

<sup>23</sup> “Summary of Conference Proceedings: Working for Environmental and Economic Justice and Jobs: A National Action Conference” (May 2-7, 1976), i-ix, folder 12, box 10, UAW Conservation and Recreation Departments Collection (Reuther Library, Detroit, Mich.); “Labor, Environmentalists, Community Action Groups Work Together—Phil Hart’s Inspiration,” *Congressional Record*, July 1, 1976, 22215–16; Gladwyn

Many of the conference participants argued that economic, environmental, and civil rights issues could not be successfully addressed separately. Rather, environmental policy needed to be linked to redistributive social policies at the federal level. As Gladwyn Hill of the *New York Times* reported, among the “main topics of interest” at the conference were “the Humphrey Hawkins bill, designed to reduce unemployment, by Federal measures, to 3 percent”; “the Mondale-Ford bill for Federal assistance to workers and communities in cases of industrial plant closings”; and Comprehensive Employment and Training Act (CETA) funds for solar energy and other environmental projects. As Deborah Baldwin wrote in *Environmental Action*, participants in the conference core groups “devoted much time and energy to the Humphrey-Hawkins bill,” which would mandate a full-employment economy and would set up guidelines to achieve it.” Unions supported Humphrey-Hawkins because it would improve working-class bargaining power and job opportunities; community organizations believed it would “break the cycle of poverty” that trapped millions of poor people. Many environmentalists, Baldwin explained, supported Humphrey-Hawkins because “it might remove the threat of environmental blackmail from the corporations’ arsenal.”<sup>24</sup>

The need to reconcile environmental and labor policies was a central theme of the conference. On May 7, the conference Women’s Caucus issued a statement, read by Ginny Collette, calling for supporting Humphrey-Hawkins, which “should specifically address the

---

Hill, “Labor Seeks Ties to Ecology Bloc,” *New York Times*, May 9, 1976; “New Alliance Will Unite Labor and Environmentalists,” *UAW Washington Report*, May 10, 1976; John H. Sheridan, “Must an Environmental Push Threaten Blue-Collar Jobs?” May 10, 1976; “Jobs, Conservation Seen as Compatible,” *AFL-CIO News*, May 16, 1976; Frances d’Hondt, “Jobs Versus Environment: Must There Be a Conflict?” *UAW Solidarity*, June 1976.

<sup>24</sup> Hill, “Labor Seeks Ties to Ecology Bloc”; Deborah Baldwin, “They Said it Couldn’t Be Done,” *Environmental Action*, May 22, 1976.

employment problems of women and minorities.” Norman Harris, Jr., speaking for the Black Caucus, also endorsed Humphrey-Hawkins, while expressing the concern that unions with a history of job discrimination would oppose “retraining of minorities in the emerging environmental/energy industries.” Harris argued that environmental campaigns against polluting facilities should include economic support for displaced industrial workers. At the same time, conference participants challenged industry claims about the employment effects of pollution regulations. In the conference keynote address, UAW President Leonard Woodcock argued that there was an inextricable “relationship between environmental and economic justice [.]” Urging support for Humphrey-Hawkins, Woodcock said that full employment would give “corporate polluters [...] a far more difficult time with environmental blackmail.”<sup>25</sup>

Woodcock pointed out that there had been “few plant closings” because of EPA and OSHA enforcement. According to the EPA, firms in the United States had cited pollution control as a “significant factor” in 75 plant closings since 1971, involving an estimated 16,500 jobs. Even in such cases, involving fewer than 1 percent of total plant closings, employers often exaggerated the impact of regulations. A 1976 study by the OCAW, which helped organize the conference, found that “[e]nvironmental considerations are generally not the overriding factor in the decision to close a plant facility.” At most, gutting EPA and OSHA regulations, as business leaders and conservative

---

<sup>25</sup> Hill, “Labor Seeks Ties to Ecology Bloc”; Norman Harris, Jr., “A List of Black Concerns,” May 4, 1976 proceedings, Working for Environmental and Economic Justice and Jobs Conference, Thursday—18; Lillian Benbow, speech transcript, May 2, 1976 proceedings, Working for Environmental and Economic Justice and Jobs Conference, Tuesday Night—2, all in folder 12, box 10, UAW Conservation and Recreation Departments Collection.

politicians called for, would have “delayed the inevitable” for the oldest, most technologically obsolescent facilities.<sup>26</sup>



Fig. 5.1. Picture from the closing plenary of “Working for Environmental and Economic Justice and Jobs: A National Action Conference,” May 6, 1976. “Summary of Conference Proceedings: Working for Environmental and Economic Justice and Jobs: A National Action Conference,” folder 12, box 10, UAW-CRD.

However, even where plant closure was a slim possibility, employers frequently invoked it to fight regulations, and to intimidate workers who allied with environmental groups. Woodcock cited the case of two General Electric (G.E.) plants in upstate New York. In the previous two

<sup>26</sup> Leonard Woodcock, speech transcript, Working for Environmental and Economic Justice and Jobs Conference, May 2, 1976 proceedings, Sunday—2-7, folder 12, box 10, UAW Conservation and Recreation Departments Collection; Oil, Chemical, and Atomic Workers, *Health, Safety, and Environmental Considerations as Factors in OCAW Plant Closings, 1970-1975* (Denver: Oil, Chemical, and Atomic Workers International Union Research Department, 1976), 10, cited in Robert Gordon, “‘Shell No!’: OCAW and the Labor-Environmental Alliance,” *Environmental History* Vol. 3 No. 4 (October 1998), 460-487, esp. 476-477.



decades, G.E. had dumped over 100,000 pounds of polychlorinated biphenyls (PCBs), produced by the Monsanto company, into the Hudson River. Industrial hygienists had known that PCBs could kill workers since the 1930s, and workers at the plant were concerned about occupational cancer and other illnesses. However, GE's threats to close the plants in response to EPA enforcement of the Clean Water Act had made the workers fearful of collaborating with environmentalists. Woodcock called on environmentalists to join union members in campaigning for the Toxic Substances Control Act (TSCA), which would ban PCBs and strengthen regulations for other chemicals. Finally, Woodcock argued that, if Democrats occupied the White House and both houses of Congress in 1976-1980, this reform agenda stood a chance of passing.<sup>27</sup>

As Woodcock had acknowledged at the 1972 Berkeley conference, the problems of pollution and unemployment could not easily be solved within the existing economic order. Other participants in the conference, including Hazel Henderson and Richard Grossman of Environmentalists for Full Employment (EFFE), and the biologist Barry Commoner, discussed the systemic causes of these problems. In a speech on May 3, Commoner argued that "the conflict between resources, environment, jobs" resulted from "a deep inherent fault in the operation of the capitalist system." Both pollution and unemployment, in his view, were products of the competitive drive to maximize profits, which required constantly raising productivity while lowering production costs. For employers, productivity growth meant "more output, more profit, per man-hour," whereas "to the worker it often means unemployment." For employers, this was not a problem. They had powerful incentives to oppose full employment policies, because they would increase worker bargaining power, leading to higher wages and lower profits. Employers

---

<sup>27</sup> Ibid., 3-7. These plants ultimately discharged over a million pounds of PCBs into the Hudson River. See Theodore Michael Dracos, *Biocidal: Confronting the Poisonous Legacy of PCBs* (Boston: Beacon Press, 2010), 156-71.

had similar reasons for opposing environmental regulations, because they increased production costs. For them, higher levels of unemployment and pollution often meant higher rates of profit.<sup>28</sup>

Likewise, Commoner argued, capitalist market imperatives explained the role of General Motors (GM) and Standard Oil in buying up and dismantling streetcar systems, and Henry Ford II's quip that "small cars mean small profits." In many cases, investment decisions that were rational from the standpoint of corporate executives were irrational from the standpoint of society as a whole. "In its drive to maximize profit," Commoner observed, "U.S. industry has drastically changed the means of production in such a way as to make unemployment, the waste of energy, and environmental pollution inevitable." While acknowledging the authoritarianism and inefficiency of the Soviet and Maoist development models, Commoner argued that solving the "jobs versus environment" dilemma would require "a socialist economic system" in which "the design and functioning of the production system are under public control; the wages, what's produced, how it's distributed, and so on." In his view, it was necessary to "invent new political forms that combine the economic democracy of socialism with the political freedom that is such an important part of the American heritage."<sup>29</sup>

In debating the possibilities for a coalition between the civil rights, feminist, labor, and environmental movements, participants in the Black Lake conference articulated many of the demands and strategies that would guide later environmental justice activism. At the end of the conference, participants joined hands to sing the union song "Solidarity Forever, Solidarity Forever." This spirit, however, would not last for long. While some of the organizations present at

---

<sup>28</sup> Barry Commoner, speech transcript, Working for Environmental and Economic Justice and Jobs Conference, May 2, 1976 proceedings, Monday Afternoon—1-10, folder 12, box 10, UAW-CRD.

<sup>29</sup> Ibid., 1-10.

Black Lake (particularly the United Church of Christ) would later play a prominent role in the movement, the late 1970s and early 1980s saw inter-movement tensions increase. Most of the political reforms discussed in the conference's speeches and workshops would be defeated, while unions and environmental groups adopted an increasingly defensive posture, in the context of mounting attacks from organized business and the political right. Still, some of the networks developed in and around the conference would deepen, including those between civil rights and environmental activists.

### **Fiscal Austerity and Urban Abandonment**

Like many cities in the Midwest and Northeast, Detroit entered the nation's bicentennial under a heavy fiscal cloud. The draining of jobs, commerce, and population from Detroit resulted in a contracting tax base to fund public services. Total tax valuations in the city fell 1.8 percent in 1974, 2.2 percent in 1975, and 2.4 percent in 1976. Faced with a \$35 million budget deficit in January 1975, the city's first African American mayor, Coleman Young, pursued a program of fiscal austerity. In 1975 and 1976, the Young administration laid off 4,116 city workers. Initially, Young turned to the federal government to ease public sector layoffs through the Civilian Employment Training Act (CETA). Testifying before Congress in 1975, Young said that "there are 123,000 men and women out of work in Detroit" and "the city administration is making hard decisions about laying off even more city employees to meet a rising budget deficit." He announced that Detroit was planning "city wide programs to brighten our parks and to plant vegetable gardens in the 3,000 vacant lots that blight, but could bloom, across our city." Detroit was not asking for "WPA-type make-work projects," he said, but for "meaningful work for our people," in a time of unemployment unparalleled since the Great Depression.<sup>30</sup>

<sup>30</sup> U.S. Congress, House, Committee on Education and Labor, Subcommittee on Equal Opportunities, *Hearings on H.R. 50: A Bill to Establish a National Policy and Nationwide Machinery for Guaranteeing*

Some public officials also hoped that renewable energy could bring jobs to Detroit. In 1976, Young lobbied for the EPA to site a planned \$50 million Solar Energy Research Institute in Detroit. In July, the Detroit City Council voted unanimously to offer over 300 acres in Detroit's Rouge Park for only \$1 to construct the facility. However, this site was only one of five in Michigan, and over fifty across the United States, competing for the investment. In March 1976, Golden, Colorado won the competition. Later that month, Standard & Poor's downgraded Detroit's municipal bond rating from AAA to B. The lowered bond rating resulted in higher interest rates, and ratcheted up the pressure for fiscal austerity. In the sanitation department, the administration switched to "one-man" garbage trucks, and reduced vehicle maintenance. Similar changes occurred in the police department. Between 1977 and 1981, the city laid off 27 percent of its police force.<sup>31</sup>

Meanwhile, a zero-sum relationship between urban contraction and suburban expansion characterized the regional housing market. By the late 1970s, demolition crews were tearing down 6,000 abandoned homes per year in Detroit, while developers were building 30,000 new homes per year in the suburbs. In a 1978 report on metropolitan housing, James A. Bush of the Detroit Human Rights Department attributed the physical decay of Detroit neighborhoods to a combination of urban redlining and suburban "greenlining." In between the two, a "filtering"

---

*All Adult Americans Able and Willing to Work the Availability of Equal Opportunities for Useful and Rewarding Employment*, Detroit, Michigan, March 24, 1975, 42-49, esp. 44; David Riddle, "Capital Migration, Urban Fiscal Crisis and Unemployment in Detroit," *The Peninsular Papers (Michigan Sociological Association)*, Vol. 2 No. 2 (Spring 1977), 50-61.

<sup>31</sup> On budget cuts, see Wilbur Rich, *Coleman Young and Detroit Politics: From Social Activist to Power Broker* (Detroit: Wayne State University Press, 1989), 242-46; Riddle, "Capital Migration," 50-61. On the Solar Energy Research Institute grant application, see *Ibid.*, 56; Ellen Grzech, "State Bids for Solar Energy Lab," *Detroit Free Press*, May 3, 1976, 3A; "Michigan Loses Battle for Solar Energy Center," *Ludington Daily News*, March 25, 1977, 1A. On Detroit and municipal bond markets, see Jason Hackworth, *The Neoliberal City: Governance, Ideology, and American Urbanism* (Ithaca: Cornell University Press, 2007), 37-38.

process was at work. For each new house built in the region, an estimated 4-5 exchanges of existing houses occurred: someone sold their home to someone else, typically of lower income, in a chain that ended with redlining by the FHA and private lenders. Unable to finance repairs or sell their homes, many families resorted to abandonment. Meanwhile, the federal government continued to subsidize the buildout of new subdivisions along the M-53, I-75, I-94, and I-96 corridors leading out of Detroit.<sup>32</sup>

Bush also noted that these developments had environmental implications. Although land use restrictions could contribute to housing segregation, by blocking the construction of apartment buildings and low-cost housing in the suburbs, Bush argued that environmental and civil rights advocates also had common interests. The Fairlane shopping mall provided one such example. In 1976, alongside the opening of the Renaissance Center, Ford was pursuing plans to build Fairlane on a site in Dearborn. Ford officials were concerned about flooding from the Rouge River, however. The U.S. Army Corps of Engineers addressed these concerns by channelizing a 5.8 mile section of the Rouge River, in order to increase its stormwater drainage capacity. Environmental groups objected to the project on the grounds that it would destroy wildlife habitat. At the same time, civil rights groups were suing the Automobile Club of Michigan for moving its headquarters from downtown Detroit to Fairlane, charging that the move was designed to avoid hiring African Americans. Sears was also closing a store on Detroit's west side, while opening a new one at Fairlane, further contributing to unemployment in Detroit. Bush observed that, in this case, both environmental and civil rights groups had a common interest in preventing disinvestment from Detroit.<sup>33</sup>

---

<sup>32</sup> James A. Bush, "Redlining, Disinvestment, and Overbuilding in the Suburbs," Detroit Human Rights Department (1978), 1-21, Box 24, Folder 12, Urban Environment Conference (UEC), Reuther Library.

At the same time, tensions between the City of Detroit and federal regulators, as well between the city and the suburbs, increasingly characterized metropolitan environmental politics in the late 1970s. The Clean Water Act, passed in 1972, mandated that municipalities install secondary treatment in sewage treatment plants. In May 1977, the EPA filed a lawsuit against the City of Detroit for violating its wastewater discharge permit under the Clean Water Act. Lawyers for the EPA and Detroit negotiated a consent agreement, according to which Detroit would achieve secondary treatment by December 31, 1979, and phosphorous removal by April 1, 1982. In October 1978, the EPA and the state of Michigan filed a motion charging that Detroit had violated the consent agreement. In March 1979, John Feikens, the senior judge on the Federal District Court in Detroit, found Detroit in non-compliance, and placed the DWSD treatment plant under consent order.<sup>34</sup>

Feikens, the former chair of the Michigan Republican Party, clashed with Mayor Young early on. Feikens had opposed school busing, and Young viewed him as a conservative white segregationist. At the same time, Young believed that the consent decree bolstered suburban efforts to regionalize DWSD. In 1976, the city of Plymouth had sued Detroit over a water rate increase, charging DWSD with overcharging its suburban customers. The case would remain in litigation until 1985, when the Michigan Supreme Court ruled in favor of Detroit. As the case unfolded, suburban legislators repeatedly introduced bills in the state legislature to regionalize DWSD, and

---

<sup>33</sup> Ibid., 6-8. For the lawsuit, see *Bell v. Automotive Club of Michigan*, 80 F.R.D. 228, 232 (1978). On land use restrictions and housing segregation, see Lily Geismer, *Don't Blame Us: Suburban Liberals and the Transformation of the Democratic Party* (Princeton: Princeton University Press, 2015), 173-198.

<sup>34</sup> "Dedicated Judge Presides Over Detroit Sewage Cleanup," in Environmental Protection Agency Region V, *Water Quality (August 1984)* (Chicago: EPA Region V, 1984), 5-6; U.S. Congress, House, Committee on Public Works and Transportation, *Hearings on Implementation of the Federal Water Pollution Act*, 97 Cong., 1 sess., July 14-23, 1981, 2369-70; Carey English, "Judge Rejects City Sewage Cleanup Plan," *Detroit Free Press*, January 13, 1979, 1A.

Young believed that Feikens supported them. In a 1979 interview, Feikens recalled Young telling him, “I’ll be for a regional sewer system when you’re ready to go for a regional school system.”<sup>35</sup>

### **The City Care Conference and “Self-Help”**

Despite this context, cooperation between civil rights and environmental groups did not disappear in Detroit and other cities in the late 1970s. The Urban Environment Conference (UEC), founded by staffers in Michigan Senator Phil Hart’s office in 1971, took the lead in these efforts. In 1978, the UEC, the Urban League, and the Sierra Club began planning a new conference, called City Care, which took place at the Radisson Cadillac Hotel in Detroit in April 1979. According to one retrospective account, “City Care took a profound step forward in building a coalition between the environmental and civil rights movements.” At the same time, although the UAW and USWA sent representatives, organized labor played a much less significant role than at Black Lake. Moreover, in contrast to the earlier conference, City Care reflected a diminished faith in large-scale, public sector solutions to social problems. In this sense, it was in keeping with larger shifts in urban policy under the Carter administration.<sup>36</sup>

In some respects, City Care was a larger and more impressive event than Black Lake. Mayor Coleman Young and Michigan Governor William Milliken spoke at the conference, as well as high-ranking officials from federal agencies. The steering committee received grants from

---

<sup>35</sup> For Feikens’ attribution of the quote to Young, see “Dedicated Judge Presides Over Detroit Sewage Cleanup,” 5-6. On the water rate lawsuit and Michigan Supreme Court ruling, see Philip J.D. Anieri, “Regional Reform in Historic Perspective: Metropolitan Planning Institutions in Detroit, 1950-1990” (Ph.D. Dissertation: University of Michigan, 2007), 87-97.

<sup>36</sup> “City Care Proceedings,” Box 24, Folder 15, Urban Environment Conference Records, Reuther Library. On the neoliberal turn in urban policy under Carter, see Tracy Neumann, “Privatization, Devolution, and Jimmy’s Carter’s Urban Policy,” *Journal of Urban History* Vol. 40 No. 2 (2014), 283-300; Roger Biles, *The Fate of the Cities: Urban America and the Federal Government, 1945-2000* (Lawrence: University Press of Kansas, 2011), 229-249. On cuts in federal aid to cities, see *Ibid.*, 250-286; Demetrios Caraley, “Washington Abandons the Cities,” *Political Science Quarterly* Vol. 107 No. 1 (Spring 1992), 1-30.

HUD, the EPA, the Department of the Interior, the Department of Agriculture, the Department of Energy, and the Department of Transportation. In other respects, the goals of the conference were less ambitious. Many of the conference participants advocated neighborhood-level “self-help,” and small public-private projects as solutions to urban environmental problems. In the keynote address, Carter’s Assistant Secretary for Neighborhoods, Monsignor Geno C. Baroni, framed an urban environmental agenda that broke decisively with New Deal liberalism and faith in the regulatory state. He declared that “big government, big business, big private sector, big public sector, has created a dependency that has to be shattered.” Rather than “dependency,” he called for embracing “a third sector, the voluntary sector, the non-governmental sector, the new neighborhood sector.” Rather than full employment or labor law reform, he touted the benefits of the Neighborhood Self-Help Development Bill, and the Livable Cities program.<sup>37</sup>

Corporate leaders also promoted voluntarism and philanthropy as the solutions to urban environmental problems. Howard W. Blaunell, Director of the Continental Oil Company (CONOCO), argued that “philanthropic giving” and the “financial contributions of business” were essential to cleaning up Detroit and other cities. Vernon Jordon, the president of the National Urban League, said that “Black citizens understand that we need to forge alliances with our colleagues in business, labor, and the environmental movement, among others.” Jordan noted that urban pollution played a role in the disproportionate rates of cancer and other diseases among African Americans. Like many conference participants, Jordan called for increased federal aid to cities, and for better pollution regulations. In concrete terms, however, the Urban League’s policy agenda aligned with the administration in emphasizing public-private partnerships and small-scale revitalization projects. Although several of the workshops at City Care endorsed full employment,

---

<sup>37</sup> “City Care Proceedings,” 6-7.



the marginal presence of organized labor guaranteed that employment policy would receive less attention. Many of the participants endorsed the Neighborhood Self-Help Act, and echoed the urban policy goals of the New Partnership for the Cities.<sup>38</sup>

### **Deregulation, Deindustrialization, and the Volcker Shock**

This period also saw deep shifts in federal employment, regulatory, and fiscal policy that would weaken the UAW and Detroit's economic base. Initially, the election of Jimmy Carter in 1976 raised hopes that organized labor would find an ally in the White House. UAW leaders hoped that Carter would support labor law reform, efforts to establish national health insurance, and a full employment bill. However, by 1978, UAW leaders had broken with Carter politically. The primary cause of the fissure was the defeat of the Labor Law Reform Act. Between 1967 and 1977, the number of NLRB complaints of unfair labor practices doubled, as employers adopted an increasingly aggressive, anti-union stance. The LLRA bill promised to increase penalties for unfair labor practices, expedite NLRB rulings, and legalize in situs picketing, among other reforms. The bill passed the House 257-163, and the Senate Human Resources Committee approved it by 13-2. However, Republicans and conservative Democrats, with support from the Chamber of Commerce, the Business Roundtable, and other corporate lobbying groups, moved to derail the

---

<sup>38</sup> Ibid., 8-9. Over the next two years, Jordan and the Urban League played a key role in lobbying for Urban Enterprise Zone legislation. Pioneered in the United Kingdom under Prime Minister Margaret Thatcher, Urban Enterprise Zones included the relaxation of minimum wage laws and tax cuts for investment in urban areas. See U.S. Congress, House, Subcommittee on Economic Stabilization of the Committee on Banking, Finance, and Urban Affairs, *Hearing on the Urban Jobs and Enterprise Zone Act of 1981*, 97 Cong., 1<sup>st</sup> sess., July 8, 1981, 174, 191; Timothy P. R. Weaver, *Blazing the Neoliberal Trail: Urban Political Development in the United States and the United Kingdom* (Philadelphia: University of Pennsylvania Press, 2015), 25-71.

bill by filibuster. President Carter, focused on the Panama Canal Treaty, made little effort to unify his party in favor of the legislation.<sup>39</sup>

Although the Humphrey Hawkins bill passed in October 1978, the fate of full employment was similar to labor law reform. During the 1976 campaign, Carter publicly endorsed the goal of the bill, but not the bill itself. The AFL-CIO also did not initially support the bill, although the UAW, UE, and other progressive unions did. Like the LLRA, Humphrey-Hawkins faced a well-funded opposition campaign by the Business Roundtable, the National Association of Manufacturers, and similar organizations. Through personal visits, letter-writing campaigns, and public criticisms in the media, lobbyists convinced legislators to remove key provisions from the bill. The original bill had called for reducing unemployment to 3.8 percent in four years, and proposed a \$28 billion program of economic planning to achieve this goal. The final bill contained no federal commitment to create jobs. Instead, it only called for the federal government “to use all practicable programs and policies to promote full employment, production and real income, balanced growth, adequate productivity growth, proper attention to national priorities, and reasonable price stability.” It also contained an array of anti-inflation provisions, introduced by Orrin Hatch and other conservative Republicans, including the goal of reducing inflation to 0 percent by 1988.<sup>40</sup>

---

<sup>39</sup> David Vogel, *Fluctuating Fortunes: The Political Power of Business in America* (New York: Basic Books, 1989) 148-192; Ackard, “Corporate Mobilization and Political Power”; Robert H. Zieger, Timothy J. Minchin, and Gilbert J. Gall, *American Workers, American Unions: The 20<sup>th</sup> & 21<sup>st</sup> Centuries* (Baltimore: Johns Hopkins University Press, 2014), 248-252.

<sup>40</sup> Margaret Weir, *Politics and Jobs: The Boundaries of Employment Policy in the United States* (Princeton: Princeton University Press, 1992), 130-162; Jefferson Cowie, *Stayin’ Alive: The 1970s and the Last Days of the Working Class* (New York: The New Press, 2010), 261-312; Waterhouse, *Lobbying America*, 130-132; Judith Stein, *Pivotal Decade: How the United States Traded Factories for Finance in the Seventies* (New Haven: Yale University Press, 2010), 149, 190-192.

Similar events occurred in health care policy. At a UAW convention in May 1977, President Carter endorsed the goal of national health care, and UAW leaders continued to lobby the administration and Democratic congressional representatives to develop a single-payer bill. However, by July 1978, UAW President Douglas Fraser had concluded that “the administration is unwilling or unable to make the necessary commitment to the major elements of a national health insurance program.” Instead, Carter supported phased-in measures to control hospital costs. Frustrated over the defeats on labor law reform and national health care, Fraser resigned from Carter’s Labor-Management group that month. In his resignation letter, Fraser accused its business members of helping “to bankroll (through the Roundtable and other organizations) the dishonest and ugly multimillion dollar campaign against labor law reform,” and argued that “[w]here industry once yearned for subservient unions, it now wants no unions at all.” Turning to the administration, Fraser argued that “[t]he Republican Party remains controlled by and the Democratic Party heavily influenced by business interests.” In his view, “both are weak and ineffective as parties, with no visible, clear-cut ideological differences between them, because of business domination.” Breaking with Carter, Fraser chose to back Ted Kennedy, a traditional New Deal liberal, in his primary challenge in the upcoming presidential election.<sup>41</sup>

Environmental policy followed a broader trend of deregulation, evident in sectors ranging from trucking and airlines to railroads. The lobbying organizations that fought the LLRA, and

---

<sup>41</sup> Douglas Fraser, letter to Labor-Management Group, July 17, 1978, folder 28, box 15, Douglas Fraser Collection, Reuther Library. For background on the Carter-UAW split, see Jefferson Cowie, “‘A One-Sided Class War’: Rethinking Doug Fraser’s 1978 Resignation from the Labor-Management Group,” *Labor History* Vol. 44 No. 3 (2003), 307-314; Martin Halpern, *Unions, Radicals, and Democratic Presidents: Seeking Social Change in the Twentieth Century* (Westport, CT: Praeger, 2003), 117-146; idem., “Jimmy Carter and the UAW: Failure of an Alliance,” *Presidential Studies Quarterly* Vol. 26 No. 3 (Summer 1996), 755-777; Marie Gottschalk, *The Shadow Welfare State: Labor, Business, and the Politics of Health Care in the United States* (Ithaca: Cornell University Press, 2000), 65-85; Andrew Battista, *The Revival of Labor Liberalism* (Urbana: University of Illinois Press, 2008), 60-102.

worked to hollow out the Humphrey-Hawkins bill, also sought to block or dilute EPA and OSHA standards. The ranks of these organizations now included former EPA director William Ruckelshaus, now a registered lobbyist for the chemical industry. In 1978, Carter required federal agencies to prepare a “Regulatory Analysis” of rules with a projected cost of \$100 million or more, to be reviewed by a Regulatory Analysis Review Group. This group, headed by the Chairman of the Council of Economic Advisors, included economists from the Council on Wage and Price Stability (CAWPS) with close ties to corporate lobbyists. According to EPA administrator Douglas Costle, “three out of every four CAWPS comments on our rule making were cribbed right from industry brief [...]” By delaying EPA and OSHA rule-making on asbestos, lead, and other hazards, regulatory reform reinforced industry efforts to block and dilute environmental standards.<sup>42</sup>

For the city of Detroit and the UAW, the most significant change during the Carter administration was the shift from Keynesian to monetarist macro-economic policies. The politics of inflation were central to this shift. In 1978, the United States inflation rate hovered in the range of 6 percent, the lowest in the OECD. However, between December 1978 and December 1979, the Iranian Revolution triggered a 150 percent increase in oil prices, and inflation rose to 13.4 percent. The pollster Pat Caddell advised President Carter that working class voters, more than upper middle class and wealthy ones, prioritized reducing unemployment over inflation. However, as the

---

<sup>42</sup> On the post-EPA career of Ruckelshaus, see David Burnham, “Ruckelshaus Hired by Chemical Group,” *New York Times*, July 6, 1975, A25. On environmental deregulation under Carter and Reagan, see E.G. Vallianatos, *Poison Spring: The Secret History of Pollution and the EPA* (New York: Bloomsbury Press, 2014), 121-140, 177-188; Meg Jacobs, *Panic at the Pump: The Energy Crisis and the Transformation of American Politics in the 1970s* (New York: Hill and Wang, 2016), 162-171, 271-292; William F. Grover, *President as Prisoner: A Structural Critique of the Carter and Reagan Years* (Albany: State University of New York Press, 1989), 89-126; Charles Noble, *Liberalism at Work: The Rise and Fall of OSHA* (Philadelphia: Temple University Press, 1986), 99-120, 145-175; Conley, “Environmentalism Contained,” 144-202. For the Costle quote, see *Ibid.*, 167.

Dow Jones fell, Carter faced intense pressure from business leaders, including international holders of U.S. Treasury securities, to take aggressive action against inflation. In August 1979, Carter appointed Paul Volcker to chair the Federal Reserve. He did so despite warnings from critics, such as Federal Reserve Board member Nancy Teeters, who said Volcker would “pay no attention to domestic economic needs.” Similarly, former Johnson advisor Arthur Okun called him “very right wing” and “dominated by international concerns.” Volcker was committed to a version of economist Milton Friedman’s philosophy, which he called “practical monetarism.” This philosophy postulated a “natural” rate of unemployment, and prioritized controlling the money supply over reducing unemployment or continuing wage growth. David Rockefeller, Chair of Chase Manhattan Bank, personally urged Carter to appoint Volcker. Carter adviser Stuart Eizenstat recalled that “Volcker was selected because he was the candidate of Wall Street.”<sup>43</sup>

Following monetarist prescriptions, Volcker restricted the money supply by increasing capital reserve requirements for banks. Volcker also proceeded to radically hike interest rates, from 11.2 percent in 1979 to 20 percent in March 1980. While these policies brought inflation under control, they triggered the deepest recession in the United States since the Great Depression. By increasing the value of the dollar, the Fed’s policies made American exports less competitive, increasing the trade deficit by \$87 billion between 1980 and 1984. The failure of Detroit’s Big Three to invest adequately in fuel-efficient cars, combined with high oil prices and a strong dollar, allowed Japanese automakers to increase their market share in the United States from 9.3 percent

---

<sup>43</sup> Allan H. Meltzer, *A History of the Federal Reserve, Vol. II, Book Two, 1970-1986* (Chicago: University of Chicago Press, 2003), 1008-1070; Iwan Morgan, “Monetary Metamorphosis: The Volcker Fed and Inflation,” *The Journal of Policy History* Vol. 24 No. 4 (2012), 545-571; W. Carl Biven, *Jimmy Carter’s Economy: Policy in an Age of Limits* (Chapel Hill: University of North Carolina Press, 2002), 237-252. For the Teeters and Okun quotes, see Stein, *Pivotal Decade*, 227. For the Eizenstat quote, see William Greider, *Secrets of the Temple: How the Federal Reserve Runs the Country* (New York: Simon & Schuster, 1987), 47.

in 1976 to 20.9 percent in 1980. Rapidly losing sales and market share, the Big Three closed forty plants and fifteen hundred dealerships in 1980 alone, and 40 percent of UAW members faced indefinite lay-offs. As factories closed across the Northeast and Midwest, 1 in 3 workers in auto and steel lost their jobs. In the United States as a whole, 3 million workers lost their jobs in 1979-1980, over two-thirds of them in manufacturing.<sup>44</sup>

By this time, Chrysler Corporation, the largest employer of auto workers in the city of Detroit, was facing bankruptcy. Chrysler employed 37,000 Detroit residents, amounting to 7 percent of the total employment in the city. While campaigning for a federal bailout, Chrysler CEO Lee Iacocca blamed federal environmental, safety, and fuel efficiency regulations for the firm's difficulties. During the bailout negotiations in 1979, Chrysler officials requested a two-year grace period for compliance with EPA regulations. Some congressional Democrats, such as Rep. Henry Reuss of Wisconsin, proposed the opposite, requiring Chrysler to increase fuel efficiency and build parts for public transit vehicles. The Republican Party, meanwhile, planned to hold its 1980 National Convention in Detroit, a symbol of the crisis that Ronald Reagan blamed on Carter and the regulatory state. In July 1980, a week before the convention, Carter attempted to pre-empt such criticisms. The President flew to Detroit and presented auto industry officials with a billion-dollar rescue package. As part of the deal, the EPA reduced automobile emission requirements, and OSHA relaxed standards on arsenic and lead levels in automobile factories.<sup>45</sup>

---

<sup>44</sup> On Volcker's monetary policy and the trade deficit, see Donald D. Hester, *The Evolution of Monetary Policy and Banking in the U.S.* (Heidelberg: Springer-Verlag, 2010), 70. On the auto industry during the 1979–1982 recession and its aftermath, see Babson et al., *Working Detroit*, 210–21; Kathryn Marie Dudley, *The End of the Line: Lost Jobs, New Lives in Postindustrial America* (Chicago: University of Chicago Press, 1994), 32–38; Stein, *Pivotal Decade*, 252–59. On the failure of the Big Three to invest adequately in fuel-efficient cars, see McCarthy, *Auto Mania*, 207-230.

<sup>45</sup> U.S. Congress, Senate, Committee on Banking, Housing, and Urban Affairs, 96 Cong., 1<sup>st</sup> sess., *Hearings on the Chrysler Corporation Loan Guarantee Act of 1979*, November 16-21, 1979, 1036-1052, 1236-1243. On the weakening of lead and arsenic standards, see Stan Luger, *Corporate Power, American Democracy*,

At the same time, a rank-and-file movement against toxic chemical exposure was developing in the UAW. Workers at UAW locals, like residents in communities such as Love Canal, were beginning to alert public officials and local media of abnormal disease rates in their plants. In October 1979, a group of widows and former co-workers of wood model patternmakers at GM's tech center in Warren, Michigan, sent a list of cancer victims at the plant to the *Detroit News*. This triggered a Michigan Cancer Foundation study, released in February 1980, which found that patternmakers were dying of cancer of the lower intestine at rates three times the national average. In March 1980, a local UAW leader in Flint, Michael Bennett, submitted a study of cancer at the Coldwater Road plant to the UAW, GM, and local newspapers in Flint and Detroit. The study found that lung cancer death rates among Coldwater Road workers were twice the national average, and over three times the national average for female plant workers in particular.<sup>46</sup>

Subsequent studies by GM, the UAW, and state public health officials confirmed these findings, concluding that "excess" cigarette smoking could not explain the high cancer rates. Instead, the studies implicated long-term worker exposures to chromic acid mists from die-casting machines, among other carcinogens. These revelations, beginning in the spring of 1980, forced the UAW to mount a serious response. At a time when nearly half the union's members faced lay-offs, many who remained employed feared early deaths from cancer. In an April 1980 speech in Detroit, Douglas Fraser declared what the UAW newsletter *Solidarity* called a "war on workplace cancer,"

---

*and the Automobile Industry* (New York: Cambridge University Press, 2000), 102-106; "Carter Tells Plan to Aid Auto Industry," *The San Bernardino County Sun*, July 9, 1980, A1, A3.

<sup>46</sup> Michael E. Bennett, "Epidemiological Study and Report on Fisher Body-Coldwater Rd. Employees, January 1, 1974 to December 31, 1978," folder 8, box 18, UAW Health and Safety Department Records (Reuther Library); Michael Howard, "One Man Scoops the Experts," *In These Times*, March 18-31, 1981, 7; Michael Bennett, interview with author, Jan. 22, 2011; Douglas Ilka, "Cancer Rate is 50% Greater in GM's Wood Model Shops," *Detroit News*, Feb. 13, 1980, A1.

which included lobbying OSHA and the automakers for stronger controls on carcinogens. In November 1980, the UAW published *The Case of the Workplace Killers: A Manual for Cancer Detectives on the Job*, a manual for workers to conduct their own epidemiological studies.<sup>47</sup>

However, as the scientific understanding of occupational health threats improved, the economic situation worsened. Over the next decade, the UAW hemorrhaged members—from an estimated 1.5 million in 1979 to 867,564 in 1990. (The numbers continued to fall over the next two decades, down to 728,510 by 2000 and to 468,096 by 2008.) In many plants, workers feared being fired, or even triggering a plant closure, by demanding protection from toxic chemicals. In Detroit, the terms of the 1979 Chrysler bailout did little to protect auto workers' jobs. As part of its federal loan conditionalities, Chrysler closed five Detroit-area plants between 1979 and 1981. By 1982, unemployment in Detroit had reached 37.3 percent for African Americans, and 26 percent for whites. If the 1980s were a “boom” period in some parts of the United States, in Detroit they marked a return to Depression-era levels of poverty and unemployment.<sup>48</sup>

---

<sup>47</sup> Douglas A. Fraser, “Problems and Challenges Facing Occupational Medicine in the New Decade from Labor’s Viewpoint,” address delivered at the American Occupational Health Conference, Detroit, April 22, 1980, file 18, box 50, Douglas A. Fraser Collection, Reuther Library; Jeffrey Stansbury, “Tracking Down the Time-Bomb Killers: UAW Opens a New War on Cancer in the Workplace,” *UAW Solidarity*, May 16–31, 1980, 11–14; Michael Silverstein, *The Case of the Workplace Killers: A Manual for Cancer Detectives on the Job* (Detroit: United Auto Workers, 1980); Michael Silverstein, Franklin Mirer, David Kotelchuck, Barbara Silverstein, and Michael Bennett, “Mortality among workers in a die-casting and electroplating plant,” *Scandinavian Journal of Work, Environment and Health* Vol. 7 (1981): supplement 4, 156-165.; David Schottenfeld et al., “A Cohort Study of Cancer Mortality and Incidence among the Coldwater Road Plant Employees,” Dec. 1983, 1–17, folder 13, box 18, UAW Health and Safety Department Records, Reuther Library.

<sup>48</sup> United Auto Workers Research Library, “UAW Membership Figures: 1936 through 2008” (in author’s possession); William Lefevre, correspondence with author, June 22, 2014. For a union health and safety representative’s perspective on these issues, see “Jim Vernatter,” in Richard Feldman and Michael Betzold, eds., *End of the Line: Autoworkers and the American Dream. An Oral History* (Urbana: University of Illinois Press, 1988), 169–80. On cancer fears in other industries, see Dorothy Nelkin and Michael S. Brown, eds., *Workers at Risk: Voices from the Workplace* (Chicago: University of Chicago Press, 1984), 32–35, 39–40, 44–47, 49, 88–89, 92–93, 152, 164–65, 174–75. For a comparative perspective on unemployment in Detroit and other deindustrializing cities, see John D. Kasarda, Jürgen Friedrichs and Kay Ehlers, “Urban Industrial Restructuring and Minority Problems in the U.S. and Germany,” in Malcolm



In August 1980, Moody's Bond Rating Service downgraded Detroit's municipal bond rating to below investment grade, from "Baa" to "Ba." In response, Mayor Young appointed a "blue-ribbon commission," consisting of local and national business and financial leaders. One of them was the banker Felix Rohatyn, who played a central role in the economic restructuring of New York City after the 1976 fiscal crisis. Rohatyn was a strong advocate of extending this model of public sector austerity to Detroit. The commission's "survival package" focused on union wage concessions, cuts in public services, and increasing the city income tax. This plan fell hardest on Detroit's low-income and working-class residents, particularly African Americans.<sup>49</sup>

### **Land Use, Sewage Treatment, and Environmental Law**

In relation to environmental issues, the economic and political restructuring of the 1978-1982 period created new tensions between Coleman Young and neighborhood activists. In 1979, GM announced plans to close the Cadillac Assembly and Fisher Body plants in Detroit, which would eliminate another 6,000 jobs. However, GM executives informed Mayor Young that they would construct a new plant in Detroit if the city could prepare a site by May 1, 1981. Detroit city planners selected a site in the Poletown neighborhood, on the southern Hamtramck-Detroit border between I-75 and Conant Street. On September 10, 1980, the City of Detroit applied to President

---

Cross, ed., *Ethnic Minorities and Industrial Change in Europe and North America* (New York: Cambridge University Press, 1992), 250-275, esp. 268.

<sup>49</sup> Moody's Investor Service, "Municipal Credit Report," August 1, 1980, 1-3; "City of Detroit, Michigan: Rating Reduction," August 6, 1980, both in folder 4, box 105, Coleman Young Collection, Reuther Library. On Young's austerity program, see Jean Wylie, *Poletown: Community Betrayed* (Chicago: University of Illinois Press, 1989), 29-47; Bryan D. Jones, Lynn W. Bachelor and Carter Wilson, *The Sustaining Hand: Community Leadership and Corporate Power* (Topeka: University Press of Kansas, 1986), 3-158; Wilbur Rich, "From Motor City to Service Hub," in H.V. Savitch and John Clayton Thomas, eds., *Big City Politics in Transition* (New York: Sage Publications, 1991), 64-85. On the role of Rohatyn in Detroit, see Felix Rohatyn, "Back from Bankruptcy: New York's Lessons for Detroit," *Detroit Free Press*, June 4, 1981; Wylie, *Poletown*, 37, 43, 47. On his role in the restructuring of New York City, see Miriam Greenberg, *Branding New York: How a City in Crisis Was Sold to the World* (New York: Routledge, 2008), 127, 142, 180, 183.

Carter's Council on Environmental Quality for an emergency exemption from the NEPA requirement for an Environmental Impact Statement (EIS) for the project. The EIS would not be ready until January 30, 1981, only a few months before GM's deadline to make the site available. The exemption request cited Detroit's unemployment and fiscal crisis, and said that "bold and far-reaching initiatives, beginning with the City's Central Industrial Park Project, must be undertaken immediately to deal with the foundations of the crisis."<sup>50</sup>

HUD granted the exemption, loaning the City of Detroit \$100 million in matching funds for the project. In order to raze the neighborhood, Detroit used a "quick-take" statute, passed by the Michigan state legislature the previous year, which eliminated procedural barriers to the municipal condemnation of properties. In December 1980, the Wayne County Circuit Court struck down a lawsuit by the Poletown Neighborhood Council (PNC), ruling that the City of Detroit had not violated eminent domain law. The final challenge came on March 17, 1981, when seven Poletown residents, with support from Ralph Nader, sued the city of Detroit in U.S. District Court. The lawsuit charged that Detroit had violated NEPA by failing to prepare an EIS for the project. In his 1992 autobiography *Hard Stuff*, Coleman Young argued that Nader "drummed up" the lawsuit to attack GM and attract media attention. The conservative *New York Times* columnist William Safire scoffed at Nader for "working the environmental-regulatory side of the street, hollering about historic preservation and abuse of the Clean Air Act, and pronouncing other liberal shibboleths."<sup>51</sup>

---

<sup>50</sup> "Emergency Request for Alternative Arrangements Under Section 1506.11 of NEPA by the City of Detroit," 1-11, folder 4, box 105, Young Collection.

<sup>51</sup> "United States District Court for the Eastern District of Michigan, Southern Division, Louise Crosby, Carol Dockery, Elisha Hearn, Richard Hodas, Bernice and Harry Kaczynski, and Ann Locklear, Plaintiffs, v. Coleman A. Young, Mayor of the City of Detroit, Detroit Economic Development Corporation, Corinne Gilb, City Planning Commission, City of Detroit, City of Hamtramck, Samuel R. Pierce, Jr., Secretary of Housing and Urban Development, and General Motors Corporation, Defendants," folder 2, box 106, Young

On April 24, Judge Feikens dismissed the complaint, citing Detroit's high unemployment rate and lowered municipal credit rating. In his judgement, the environmental consequences of the project were "nowhere near as adverse to the environment as the loss of the plant." After a final stand-off in which police arrested dozens of protesters at the Immaculate Conception Catholic Church, the project moved ahead. Paid for with \$300 million in taxpayer funds, the project displaced an estimated 3,500 people and destroyed 1,400 homes, 144 business, 16 churches, and 2 schools. After paying \$8 million for the site, GM received a 50 percent property tax abatement for 12 years, worth \$60 million. The project did create jobs, although fewer than initially promised. In his autobiography, Young noted that the Poletown plant employed "half as many" people as he had hoped (3,000 versus 6,000). More generally, the Poletown conflict illustrated how deindustrialization strengthened the cost-benefit arguments of opponents of environmental regulation.<sup>52</sup>

While his Poletown ruling gratified Young, Judge Feikens also exemplified how racism could poison local environmental politics. At the time of his ruling in the Poletown case, Feikens continued to oversee DWSD's consent decree with the EPA. After Detroit achieved secondary sewage treatment in 1982, Feikens combined continuing support for DWSD's regionalization with bigoted statements about African Americans. In 1984, in response to a corruption scandal involving DWSD contractor Vista Disposal Inc., the 63-year-old Feikens told the *Detroit Free*

---

Collection; Coleman Young, *Hard Stuff: The Autobiography of Coleman Young* (New York: Viking, 1992); William Safire, "Poletown Wrecker's Ball," *New York Times*, April 30, 1981, A31.

<sup>52</sup> Crosby v. Young, 512 F. Supp. 1363 - Dist. Court, ED Michigan 1981, esp. 1390-91; Leda McIntyre Hall and Melvin F. Hall, "Detroit's Urban Regime: Composition and Consequence," *Mid-American Review of Sociology* Vol. 17 No. 2 (Spring 1993), 19-37, esp. 28; Young, *Hard Stuff*, 251; Poletown, 304 N.W.2d at 469 (Ryan, J., dissenting), cited in Catherine E. Beideman, "Eminent Domain and Environmental Justice: A New Standard of Review in Discrimination Cases," *Boston College Environmental Affairs Law Review* Vol. 34 No. 2 (January 2007), 277 n. 41.

*Press* that “[o]ne of the things we have to give black people the time to learn to do is to learn how to run city governments.” He further opined that “[t]hey’re still in an era of development, many of them, in which they think all you have to do is talk about this thing.” Feikens’ racist views further embittered the regionalization debate over DWSD. More generally, the battles over Poletown and DWSD laid the groundwork for an antagonistic relationship between Mayor Young and environmental activists, as the next chapter will show.<sup>53</sup>

### **The Shifting Geography of Environmental Justice**

The election of Ronald Reagan in 1980 deepened the trends of fiscal devolution, urban austerity, and deregulation that began under Carter. Under Reagan, federal aid to cities fell by \$26 billion, a reduction of 46 percent. Reagan slashed CETA funding by a third, and eliminated its public works program in 1981. Reagan also reduced the EPA’s budget by 12 percent, and that of OSHA by 9 percent, while appointing industry officials and lobbyists to high-ranking positions at both agencies. The administration made similar changes at dozens of other agencies, ranging from the Mine Safety and Health Administration to the Equal Employment Opportunity Commission. Meanwhile, at Solidarity House, UAW leaders faced intensified pressures for concessionary bargaining and fewer resources for coalition-building. In 1982, the UAW executive board cut staff in the Conservation and Recreation Department in half, from 12 to 6. The union’s distance from environmental groups would increase over the next decade, both at the local level and at the national level.<sup>54</sup>

---

<sup>53</sup> For the Feikens quote, see James Barron, “Judge is Critical of Detroit Mayor,” *New York Times*, September 2, 1984. For an overview of this history, see Russ Bellant, Lila Cabbil, Sarah Coffey, Melissa Damaschke, Shea Howell, Kate Levy, and Sylvia Orduno, “Detroit Water and Sewage Department: A Public Timeline,” *Michigan Citizen*, August 31, 2014, A8, A12.

<sup>54</sup> On the downsizing of the UAW Conservation and Recreation Department, see Andy Feeney, “Empty factories, quiet voices: Can the unions fight job losses and still take strong stands on the environment?” *Environmental Action* Vol. 14 No. 4 (October/November 1982), 21-24. On cuts in CETA, see Ronald

The same year, civil rights and environmental activists led a series of mass protests against polychlorinated biphenyl (PCB) dumping in Warren County, North Carolina, an impoverished community that was 81 percent African American. In September, police arrested over 400 protestors, many of them veterans of the civil rights movement, who attempted to block trucks loaded with toxic waste with their bodies. Some of the organizations involved, including the United Church of Christ, had sent representatives to Black Lake six years before and worked with the UEC. Although labor unions (including the OCAW and the UAW) had lobbied to ban PCBs under the Toxic Substances Control Act (TSCA), unions played only a marginal role in the Warren County struggle. Indeed, when the struggle began in the late 1970s, North Carolina had the lowest union density—and the lowest wages—in the United States. The Warren County dumping, which violated the TSCA, was characteristic of the shifting geography of industrial hazard, both within the United States and on a global scale. Along with polluting industries and toxic waste dumps, the center of gravity of the environmental justice movement also moved southward in the 1980s.<sup>55</sup>

While unemployment soared in the Rust Belt, plant closures left cities with tens of thousands of brownfield sites that they could not afford to clean up. Detroit's shuttered factories no longer emitted smoke, but industrial sites contained unknown quantities of toxic heavy metals,

---

Smothers, "CETA Cutbacks Leaving Thousands Unemployed," *New York Times*, April 11, 1981. On cuts at the EPA and OSHA, see James Worsham, "Budget Slashing to Curtail Rules," *Chicago Tribune*, March 15, 1981, 11B; Noble, *Liberalism at Work*, 145-175; Philip J. Cooper, *The War Against Regulation: From Jimmy Carter to George W. Bush* (Topeka: University Press of Kansas, 2009), 34-42; PBS, "Timeline: The Modern Environmental Movement," <http://www.pbs.org/wgbh/americanexperience/features/time-line/earthdays/2/> [accessed July 30, 2016], 1-2.

<sup>55</sup> McGurty, *Transforming Environmentalism*, 81-110; Robert Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality*, 3<sup>rd</sup> ed. (Boulder: Westview Press, 2000), Chapter 2. On the growth of the environmental justice movement in the 1980s, also see Ellen Griffith Spears, *Baptized in PCBs: Race, Pollution, and Justice in an All-American Town* (Chapel Hill: University of North Carolina Press, 2014), 147-173; Robert D. Bullard and Beverly Wright, "Environmentalism and the Politics of Equity: Emergent Trends in the Black Community," *Mid-American Review of Sociology* 12 (1987), 21-38; Erik Loomis, *Out of Sight: The Long and Disturbing Story of Corporations Outsourcing Catastrophe* (New York: New Press, 2015), 57-106.

asbestos, drums of chemical waste, and other dangerous materials. As UAW industrial hygienist Michael Silverstein noted in a 1985 letter to the *Detroit Free Press*, the demolition of factories caused the “crushing and crumbling of asbestos,” which could increase the risk of lung cancer and mesothelioma for workers and neighborhood residents who breathed the airborne fibers. Myriad other risks existed as well. In 1986, EPA officials found chemical spills from 200 drums and 50 vats leaking cyanide, lead, and other compounds at an abandoned Plating Equipment, Inc. factory in northeast Detroit. In 1989, the removal of lead-, zinc-, cadmium- and petroleum-contaminated soils from a single abandoned Chrysler factory on Jefferson Avenue cost the City of Detroit over \$264 million. Brownfield site clean-ups thus became another cost that industry externalized onto the public.<sup>56</sup>

During the 1980s and 1990s, Detroit’s Big Three offshored the most labor-intensive production processes, primarily to maquiladora zones in northern Mexico. However, automakers did not simply relocate production outside of the United States. They simultaneously increased investments in the rural and suburban Midwest, and across the South. Automation and the spread of non-union plants, operated both by domestic and foreign automakers, were more responsible for declining UAW membership than offshoring. Nevertheless, the threat of plant closures continued to provide employers with a potent weapon against environmental and occupational health and safety activists. In maquiladora zones, multinational corporations could increase profits by externalizing the costs of unregulated pollution onto low-wage, predominantly female workers and surrounding communities. According to one estimate, environmental damage from

---

<sup>56</sup> “Demolition Can Be Deadly,” *Detroit Free Press*, April 8, 1985, 12A; Bob Campbell, “EPA Stops Toxic Leaks at Abandoned Factory,” *Detroit Free Press*, August 11, 1987, 4A; Constance Prater, “Taxpayers Face Higher Price for Chrysler Site and Cleanup,” *Detroit Free Press*, July 12, 1989, 1A, 12A; Emily Askari and Dan Gilmor, “City Airport Cleanup Costs Could Escalate,” *Detroit Free Press*, June 1, 1990, 1B, 8B; “City Aims to Calm Fear of Toxic Land,” *Detroit Free Press*, March 30, 1994, 1A, 12A.

maquiladora pollution cost Mexico \$36 billion per year between 1989 and 1999. Similar patterns prevailed in low-wage “Special Economic Zones” in Honduras, El Salvador, China, Vietnam, Cambodia, and Bangladesh.<sup>57</sup>

Despite the effects of deindustrialization, offshoring, and deregulation in the United States, organized labor continued to play an important role in the environmental justice movement in the 1980s. In many local communities, union health and safety activism provided a bridge for wider organizing against chemical poisons. Organizers in the Santa Clara Coalition for Occupational Safety and Health (SCCOSH) played leading roles in the local environmental justice movement in the Silicon Valley, representing largely Asian and Latina female plant workers as well as communities polluted by those plants. In Geismar, Louisiana in the 1980s, members of the OCAW collaborated with local environmental justice groups and helped to organize the Gulf Toxics March in 1988. In Ciudad Juárez, Mexico, organizers in the Center for the Orientation of Women Workers (COMO) who had fought for the health and safety of maquiladora workers went on to participate in the Southwest Organizing Project (SWOP). The Southwest Network for Environmental and Economic Justice included Native American and Latina/Latino workers exposed to pollution in the uranium mining and electronics industries.<sup>58</sup>

---

<sup>57</sup> On the changing geography of auto manufacturing, see Nicole Aschoff, “Globalization and Capital Mobility in the Auto Industry” (Ph.D. Dissertation: Johns Hopkins University, 2008), 46-78. On unregulated pollution and hazardous working conditions in maquiladora zones, see Devon G. Peña, *The Terror of the Machine: Technology, Work, Gender, and Ecology on the U.S.-Mexico Border* (Austin: University of Texas Press, 1997), 279–334; Chad Broughton, *Boom, Bust, Exodus: The Rust Belt, the Maquilas, and a Tale of Two Cities* (New York: Oxford University Press, 2015), 188-207. For the pollution cost estimate, see Sierra Club, “NAFTA’s Impact on Mexico,” <http://vault.sierraclub.org/trade/downloads/nafta-and-mexico.pdf> [accessed August 7, 2016].

<sup>58</sup> David Naguib Pellow and Lisa Sun-Hee Park, *The Silicon Valley of Dreams: Environmental Injustice, Immigrant Workers, and the High-Tech Global Economy* (New York: NYU Press, 2002); Timothy Minchin, *Forging a Common Bond: Labor and Environmental Activism During the BASF Lockout* (Gainesville: University Press of Florida, 2003); Peña, *The Terror of the Machine*, 137-8, 303-304.

Some participants in the Black Lake conference remained involved in the emerging movement. Between October 24 and October 27, 1991, the First National People of Color Environmental Leadership Summit took place in Washington, D.C. The purpose of the event, sponsored by the United Church of Christ's Commission for Racial Justice, was to bring together activists challenging the concentration of environmental burdens in low-income communities of color. More than 1,000 people attended the conference, hailing from a diverse range of locales: from Puerto Rico to Hawaii, New Mexico to South Dakota, and Mississippi to the Bronx. Some in attendance, like Bunyan Bryant of the University of Michigan School of Natural Resources, participated in the UAW's Black Lake conference in 1976. Another delegate, Michelle Tingling-Clemmons of the Alice Hamilton Occupational Health Center, had helped organize the City Care conference in Detroit in 1979.<sup>59</sup>

Numerous Detroit residents attended the conference, some of whom were affiliated with the labor movement. These included Donele Wilkins, director of the Minority Occupational Health Project at the Southeast Michigan Committee for Occupational Safety and Health (SEMCOSH); Andrea Kidd-Taylor of the UAW; and Mary Hollens of Labor Notes. Other Detroiters included Akua Budu-Watkins of the Detroit Black Women's Health Project; Lawton Jackson of Clean Water Action; and William Thompson III of the Michigan Association of Minority Environmentalists.<sup>60</sup> Wilkins was one of several COSH representatives from across the United States who foregrounded labor concerns at the conference. One of the major outcomes of the conference was the drafting of "17 Principles of Environmental Justice." According to Wilkins,

---

<sup>59</sup> On the First National People of Color Environmental Leadership Summit, see Charles Lee, ed., *Proceedings of the First National People of Color Environmental Leadership Summit* (New York: United Church of Christ Commission on Racial Justice, 1992).

<sup>60</sup> On Detroit residents at the conference, see the list of delegates and participants in *Ibid.*, 215-222.



during the conference, “I was the one who went up and added” occupational health and safety to the list.<sup>61</sup>

At the same time, merging the concerns of the labor and environmental justice movements was no easy task, particularly in communities suffering mass unemployment as a result of deindustrialization. During a Regional Group Workshop on the Midwest, Andrea Kidd-Taylor of the UAW noted that “[t]hreats of job cutbacks and plant closures have been very effective in preventing poor communities from joining together to confront occupational and environmental issues.” Some of the demands made at Black Lake—above all, full employment—were absent from the “17 Principles of Environmental Justice.” In part, this reflected the diminished role of labor unions in the movement and the defeat of the social-democratic agenda associated with the A. Philip Randolph Institute. That new reality would also influence how scholars wrote about the environmental justice movement. Understandably, the first generation of social scientists to write about the movement, including scholar-activists like Dr. Robert Bullard who had been intimately involved since the 1970s, told a story that focused on the American South and Southwest. With some exceptions, unions and labor issues received little attention in that story.<sup>62</sup>

### Conclusion

In the 1970s, some urban environmentalists in Detroit and other cities sought to fashion an environmental politics that would prioritize the needs of those most exposed to pollution in their

---

<sup>61</sup> Donele Wilkins, interview with author, July 14, 2015. This principle, number 8, “affirms the right of all workers to a safe and healthy work environment, without being forced to choose between an unsafe livelihood and unemployment. It also affirms the right of those who work at home to be free from environmental hazards.” See Lee, ed., *Proceedings of the First National People of Color Environmental Leadership Summit*, xiv.

<sup>62</sup> For Kidd-Taylor’s comments, see “Regional Workshops: Midwest,” in *Ibid.*, 142-143. For early narratives of the environmental justice movement’s origins, see Bullard, *Dumping in Dixie*; also see Robert D. Bullard, “Environmental Justice for All,” in *idem.*, ed., *Unequal Protection: Environmental Justice and Communities of Color* (San Francisco: Sierra Club Books, 1994), 3-7.

neighborhoods and workplaces. These populations did not only suffer disproportionately from toxic exposures, but also from industrial disinvestment in the regions that came to be called the Rust Belt. Early advocates of “environmental justice” recognized that—depending on their design and implementation—environmental policies could challenge economic inequality, segregation, and discrimination, or they could reinforce them. The form that these policies took was not a given, but contingent on the balance of political forces. The weakening of unions in the 1980s and 1990s increased the marginalization of working-class people within environmental debates, reinforcing the claim—often repeated by industry spokespersons and conservative commentators—that environmental issues were middle-class concerns.

In the 1970s, in response to corporate threats to close plants rather than comply with environmental regulations, labor-environmental activists called for federal full employment policies and assistance for displaced workers. They called for combining affirmative action and other anti-discrimination policies with jobs programs in renewable energy, residential energy efficiency, the construction of mass transit, and the restoration of contaminated soils and watersheds. Rejecting neoliberal critiques of the regulatory state, unions, welfare, and federal aid to cities, they demanded stronger federal government intervention to protect workers and inner-city residents from both pollution and unemployment. In demanding “environmental and economic justice and jobs,” they incorporated environmental politics into a broad spectrum of social democratic demands on the public sector.

Neoliberal restructuring, beginning in the 1978-1982 period, resulted in the defeat of this agenda. The environmental justice movement, as it expanded and diversified in the 1980s and 1990s, was not unaffected by these developments. In Detroit, the reduced role of unions in urban environmental politics would coincide with the increasingly prominent role of non-profits. In many

cases, these non-profits would rely on private foundation funding, and would favor small-scale projects over large-scale, public sector solutions to environmental problems. At the same time, some community activists in Detroit continued to link environmental justice to union campaigns and the defense of the welfare state. The city's environmental politics would thus become divided between those advocating private-sector solutions to environmental problems, and those who regarded "the commons" as including public services as well as clean air, water, and land.

## CHAPTER 6: TOXIC DEBT: NEOLIBERALISM, URBAN FISCAL CRISIS, AND THE COSTS OF TRASH INCINERATION, 1985-2005

Detroit found an unlikely savior in the spring of 1991. In May, the City of Detroit announced plans to sell the Greater Detroit Resource Recovery Facility (GDRRF), the nation's largest municipal trash incinerator, to Philip Morris, USA and General Electric for \$54 million. Under the deal, concluded in October, Philip Morris would own 70 percent of the facility, while General Electric would own 30 percent. The deal allowed Detroit to meet an immediate deficit shortfall. Philip Morris, by acquiring the incinerator for 17 years, received \$200 million in federal tax credits, earmarked for waste-to-energy facilities under the Reagan administration's 1986 Tax Reform Act (TRA). While slashing upper-income tax rates from 50 percent to 28 percent, and raising lower-income rates from 11 percent to 15 percent, the TRA contained lucrative tax breaks for specific industries. As the Detroit deal illustrates, these tax breaks could exceed the budget of a large city by orders of magnitude.<sup>1</sup>

The Detroit incinerator deal provides an illuminating window into the relationship between Detroit, multinational corporations, and Wall Street banks in the late 20<sup>th</sup> century. As the largest cigarette company in the world in 1991, Philip Morris had a market capitalization of \$68 billion, larger than the GDP of many developing countries in the same year, including Malaysia, Egypt, and Bolivia. By contrast, in 1989, out of 555 towns and cities with a population over 50,000, Detroit ranked 538 in median income, with the average resident only earning \$18,742. In 1991,

---

<sup>1</sup> On the deal with Philip Morris and General Electric, see Goldman Sachs & Co. and Milbank, Tweed, Hadley & McCloy, letter to Bella Marshall, March 1, 1991, folder 17, box 4, Thomas Stephens Collection (hereafter TSC), Reuther Library; Bella Marshall, letter to Detroit City Council, "Proposed Greater Detroit Resource Recovery Authority Equity Financing," April 12, 1990, folder 17, box 4, TSC; Dori J. Maynard, "Detroit Incinerator Deal Completed," *Detroit Free Press*, October 24, 1991, 2B. On the 1986 Tax Reform Act, see Marc Allen Eisner, *The American Political Economy: Institutional Evolution of Market and State* (New York: Taylor and Francis, 2013), 252-253; Benjamin Waterhouse, *Lobbying America: The Politics of Business in America from Nixon to NAFTA* (Princeton: Princeton University Press, 2014), 229-232.

Detroit was the poorest large city in the United States. As the *Detroit Free Press* noted, the incinerator deal—which financial consultants called a “Cinderella arrangement”—was “risky for the city but not for Philip Morris.” Under the deal, if the incinerator was shut down, the city would have to buy it back by levying a user fee of \$300 on every Detroit household, and by using distributable aid from the state of Michigan. The deal’s senior underwriter, Frank Ingrassia of the Goldman Sachs Municipal Finance department, told the press that he was “very comfortable” with the deal, since it was safe for Philip Morris.<sup>2</sup>

As this chapter will demonstrate, the incinerator was “risky for the city” on multiple levels. The facility, located in a low-income African American neighborhood on Detroit’s East Side, burned enough garbage every year to fill Tiger Stadium, which had a seating capacity of 52,416. As a magnet for waste from across Southeast Michigan and Southwest Ontario, Detroit’s incinerator emitted tens of thousands of pounds of fine particulate matter per year, along with hundreds of pounds of lead and mercury and unknown quantities of dioxins. By the early 2000s, the incinerator stood in the center of a cluster of zip codes with the highest rates of lead poisoning and asthma in the city. Meanwhile, municipal bond debt for the incinerator ultimately reached \$1.4 billion, making it the largest source of Detroit’s bond debt during the 1990s. While the incinerator

---

<sup>2</sup> On the size of Philip Morris in 1991, see Thomas Easton, “Acquisitive Philip Morris may be on the prowl,” *Baltimore Sun*, September 22, 1991. On the global expansion of Philip Morris during this period, see Alan Brandt, *The Cigarette Century: The Rise, Fall, and Deadly Persistence of the Product That Defined America* (New York: Basic Books, 2009), 450-475. On national GDP figures for the same year, see World Bank, “GDP (current US\$),” <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?page=4> [accessed August 12, 2016]. On the “Cinderella arrangement,” see Constance C. Prater, “Troubles smolder at Detroit’s trash plant,” *Detroit Free Press*, May 20, 1991, 1A, 8A; Karen Pierog, “Detroit to Price \$166.4 Million Limited-Tax GOs for Incinerator,” *The Bond Buyer*, October 16, 1991, 1; Monica Wilson, “Public Funds Up in Flames: The Incineration Industry Seeks Renewable Energy Subsidies,” *Multinational Monitor* (September/October 2006), 31-33.

contributed to illness in low-income African American communities, it transferred wealth from Detroit taxpayers to wealthy bondholders and multinational corporations.<sup>3</sup>

Using incineration as a case study, this chapter examines how the restructuring of the American political economy in the late 20<sup>th</sup> century transformed environmental politics in Detroit. The 1991 Philip Morris deal occurred in the aftermath of a five-year battle between a coalition of environmental groups, called the Evergreen Alliance, and the Coleman Young administration over the incinerator. Despite years of marches, teach-ins, civil disobedience, and lawsuits against the facility, the Evergreen Alliance was not successful. The two primary reasons, this chapter argues, were changes in Detroit's relationship with financial markets in the Reagan-Bush years, and the breakdown of coalition politics between unions, civil rights groups, and environmentalists. First, losses in tax revenues from capital flight and population loss, combined with the Reagan administration's cuts in aid to cities, made the Young administration increasingly reliant on public-private mega-projects, financed through the municipal bond market. Environmental deregulation also made it possible to build the facility without pollution controls, provoking lawsuits from the Canadian government and environmental organizations. These circumstances raised the stakes of the conflict, as bond rating agencies threatened Detroit with a lowered bond rating if it did not sell the incinerator to Philip Morris and GE.<sup>4</sup>

---

<sup>3</sup> On the quantity of trash burned, see Bob Campbell and David Everett, "Trash, Cash & Ash: Officials Like Detroit Incinerator Bet, But it's No Sure Thing," *Detroit Free Press*, May 7, 1989, B1, Folder 15, Box 5, TSC. On the GDRRF and Detroit's municipal bond debt, see Elizabeth Karvlin, "We Didn't Screw it Up," *Bond Buyer*, September 29, 2001, 1.

<sup>4</sup> On the influence of bondholders and rating agencies over Detroit's municipal government, see Jason Hackworth, *The Neoliberal City: Governance, Ideology and Development in American Urbanism* (Ithaca: Cornell University Press, 2007), 37-38; Timothy Sinclair, *The New Masters of Capital: American Bond Rating Agencies and the Politics of Creditworthiness* (Ithaca: Cornell University Press, 2005), 104-108. On the growing share of the financial sector in the United States economy since the 1980s, see Greta Krippner, *Capitalizing on Crisis: The Political Origins of the Rise of Finance* (Cambridge: Harvard University Press, 2011), 27-57. On the impact of Reagan's budget cuts on the urban poor in Michigan, see Barbara Klein and Charles Press, "The Political Response in Michigan to Reaganomics and the New Federalism," *Publius*

Second, in its push for the project, the Young administration took advantage of divisions within social movement politics in Detroit. Between 1979 and 1990, the UAW lost over a third of its members to plant closures and lay-offs. These catastrophic losses, combined with the political ascendancy of conservatism in Washington, D.C., led UAW leaders to move away from alliances with environmental groups. In 1987, they came out in support of the incinerator, in a move that was characteristic of the union's environmental stance during this period. Meanwhile, although some African Americans opposed the project from the beginning, the Evergreen Alliance had difficulty attracting African American support in the 1980s. After 1991, the environmental movement in Detroit became more diverse, and won several victories against smaller incinerators. However, in the 1980s, Mayor Young could portray the movement as white, suburban, and non-representative of public opinion. This chapter thus shows how neoliberal restructuring, and metropolitan segregation and inequality, fragmented Detroit's environmental justice movement in the 1980s, to the long-term detriment of city residents.

### **Garbage and the Energy Crisis in 1970s Detroit**

The GDRRF project originated in the energy crisis of the 1970s, at a time when the incineration industry began to market "waste-to-energy" technology as a solution to the problem of rising fuel and landfilling costs. Prior to the Clean Air Act amendments of 1970, urban trash incineration was only regulated by municipal smoke ordinances, which sought to decrease smoke density rather than specific pollutants. Most incinerators built between 1945 and 1965 could not meet the 1970 Clean Air Act standards, and closed as a result. However, the incineration industry resumed its expansion in the 1970s, as rising energy costs and landfill saturation made burning

---

Vol. 12 (1983), 139-149, esp. 144. On downtown redevelopment in Detroit in the 1980s, see Wilbur Rich, "Detroit: From Motor City to Service Hub," in H.V. Savitch and John Clayton Thomas, eds., *Big City Politics in Transition* (New York: Sage Publications, 1991), 64-85.

trash a more attractive option. In Detroit, a 1972 EPA study estimated that dumping costs had increased 45 percent in the past five years. During the 1973-74 OPEC oil embargo, Detroit Edison began talks with the city to construct a waste-to-energy incinerator, which would sell steam to the utility for electrical generation.<sup>5</sup>

This plan was consistent with a larger embrace of waste-to-energy technology by utilities in the 1970s. Excess capacity in the electrical sector, along with growing opposition to nuclear reactors, led to declining power plant orders. Nuclear power firms, such as Bechtel, Westinghouse, and Combustion Engineering, sought to diversify into new markets, including the construction of boilers for trash incinerators. The incinerator industry formed a new organization, called the National Resource Recovery Association, to lobby municipal governments to build waste-to-energy incinerators. Such projects were particularly attractive in cities facing losses in population and manufacturing investment. The result was a wave of incinerator projects built in deindustrializing cities, close to low-income communities of color. Christopher Miele's description of an incinerator in Chester, Pennsylvania as "a testament to the rampant fiscal desperation of the 1980s and 1990s" applies equally well to incinerators in South Central, Los Angeles; Camden, New Jersey; Philadelphia, Pennsylvania; Brooklyn, New York; and in Detroit.<sup>6</sup>

---

<sup>5</sup> U.S. Environmental Protection Agency Office of Solid Waste Management Programs, *Detroit's Municipal Solid Waste Management System: a Case Study* (Silver Spring, MD: National Technical Management Service, U.S. Department of Commerce, 1973), 1-94. On Detroit Edison's embrace of waste-to-energy technology, see Bob Campbell and David Everett, "Trash, Cash & Ash: Officials Like Detroit Incinerator Bet, But it's No Sure Thing," *Detroit Free Press*, May 7, 1989. On overcapacity in the nuclear industry, see Barry Commoner, *Making Peace with the Planet* (New York: The New Press, 1992), 109; Constance Dowd Burton and Joseph P. Tomain, "Nuclear Transition: From Three Mile Island to Chernobyl," *William & Mary Law Review* Vol. 28 No. 3 (1987), 363-437, esp. 367-393.

<sup>6</sup> Christopher Mele, "Casinos, Prisons, Incinerators, and Other Fragments of Neoliberal Urban Development," *Social Science History* Vol. 35 No. 3 (Fall 2011), 423-452, esp. 426. For a comparative study of anti-incinerator campaigns in the United States from this period, see Edward J. Walsh, Rex Warland and D. Clayton, *Don't Burn it Here: Grassroots Challenges to Trash Incinerators* (University Park, PA: University of Pennsylvania Press, 1997). For local case studies, see Walsh et al., *Don't Burn It Here*, 139-82 (on South Philadelphia); Melissa Checker, "'Like Nixon Coming to China': Finding Common



### Incineration and the Politics of Risk Assessment

Another important factor in the politics of incinerators in the 1980s was the role of cost-benefit analysis in regulatory risk assessment. As historian Richard Andrews has written, the 1970 Clean Air Act amendments required the newly created EPA to set National Ambient Air Quality Standards (NAAQS) “based on medical science alone, rather than on balancing health against compliance costs.”<sup>7</sup> In theory, these standards were supposed to eliminate, rather than merely reduce, public health risks from air pollution. However, by the late 1970s, corporate lobbying pressure, with the acquiescence of President Carter, had forced regulators to incorporate cost-benefit analysis into regulatory risk assessment. On February 17, 1981, President Reagan furthered this trend by issuing Executive Order 12291, which proclaimed that regulatory action “shall not be undertaken unless the potential benefits to society from the regulation outweigh the potential costs to society [.]” It defined “potential costs to society” as including “adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.”<sup>8</sup>

These new risk assessment policies would play a significant role in the permitting process for Detroit’s incinerator, particularly in the case of dioxin. In 1983, the City of Detroit granted

---

Ground in a Multi-Ethnic Coalition for Environmental Justice,” *Anthropological Quarterly* Vol. 74 No. 3 (July 2003), 135-146 (on Brooklyn, New York); and Louis Blumberg and Robert Gottlieb, *War On Waste: Can America Win Its Battle With Garbage?* (Washington, D.C.: Island Press, 1989), 160-188 (on South Central, Los Angeles).

<sup>7</sup> Richard Andrews, *Managing the Environment, Managing Ourselves: A History of American Environmental Policy* (New Haven: Yale University Press, 1999), 234; quoted in Joe Greene Conley III, “Environmentalism Contained: A History of Corporate Responses to the New Environmentalism” (Ph.D. Dissertation: Princeton University, 2009), 148.

<sup>8</sup> For the full text, see Ronald Reagan, “Executive Order 12291-Federal Regulation, February 17, 1981,” in John Woolley and Gerhard Peters, eds., *The American Presidency Project*, available at <http://www.presidency.ucsb.edu/ws/?pid=43424> [accessed August 31, 2015]. On cost-benefit analysis and risk assessment at Reagan’s EPA, see Ton Bührs, *Environmental Integration: Our Common Challenge* (Albany: State University of New York Press, 2009), 63-64; Conley, “Environmentalism Contained,” 199-201.

Combustion Engineering a contract to build the GDRR at Russell and Ferry, near the junction of I-94 and I-75, on Detroit's East Side. In 1984, the Michigan Air Pollution Control Commission (MAPCC) granted a permit for the facility. The permit allowed the city to build the incinerator without the "Best Available Control Technology" (BACT), a baghouse and acid scrubbers. Rather, the incinerator would only be equipped with electrostatic precipitators, thereby saving on construction costs. The MAPCC permit was based on a calculation by scientists at the Michigan Department of Natural Resources (MDNR), who had calculated increased cancer risk from the incinerator's dioxin emissions at 0.7 per 1 million residents.<sup>9</sup>

The MDNR had based this calculation on the EPA's own dioxin risk assessment at the time, which originated in the office of Rita Lavelle, appointed by Reagan as Assistant Administrator for Solid Wastes and Emergency Response. Lavelle stepped down in 1983 (and spent 3 months in prison) after conviction of perjury to Congress in a scandal involving conflicts of interest with her former employer, Aerojet-General, and a Superfund site, the Stringfellow Acid Pits. The year before, in 1982, Lavelle's office determined that dioxin in soil under 1 p.p.b. (parts per billion) was below the "level of concern" for regulators. This risk assessment reduced the legal obligations of corporations and the federal government to clean up contaminated industrial sites. In 1983, Reagan's Centers for Disease Control (CDC) conducted a risk assessment, published in 1984, that endorsed the 1 p.p.b. level of concern. However, environmental scientists, both inside and outside the EPA, called for lowering the "acceptable" level of dioxin in soil to 2-4 p.p.t (parts per trillion). Likewise, environmental scientists called for lowering the "acceptable risk" of bodily

---

<sup>9</sup> Evergreen Alliance, "A History of the Incinerator," folder 15, box 4, TSC; Michael Bociurkiw, "Detroit's giant incinerator continues to frustrate Ontario," *Toronto Globe and Mail*, April 6, 1988; Barry Commoner and Thomas Webster, "Comments on the Health Risk Assessment for the Resource Recovery Facility for the City of Detroit, Michigan," by Combustion Engineering, Inc." (April 30, 1986), Center for the Biology of Natural Systems, Queens College, Flushing, NY, 1-11, folder 9, box 3, TSC.

concentrations of dioxin from 1-10 picograms per kilogram of body weight to 0.0006.<sup>10</sup>

In the midst of this regulatory seesawing, the MDNR changed its risk assessment for dioxin emissions from the incinerator. In 1985, Gerald Avery, the Director of the MDNR's Permit Section, discovered a "calculation error" in the 1983 permit's dioxin risk assessment. While the permit put the risk at 0.7 cancer deaths per 1 million, the actual risk was closer to 36 per 1 million. On 1986, the MDNR informed Detroit officials of the error, and asked the city to add pollution controls to the facility. In April, at a hearing in Lansing, the MAPCC voted to reaffirm the original permit, citing a cancer risk assessment of 0.7 per 1 million produced by Roy F. Weston, a consulting firm hired by Combustion Engineering. On April 30, Barry Commoner and Thomas Webster of the Center for Biology and Natural Systems entered the fray, releasing a report that critiqued Roy F. Weston's methodology. They arrived at a cancer risk assessment for the facility of 30-32 per 1 million.<sup>11</sup>

Despite the MDNR's admission of error, the MAPCC decision enabled the city to build the facility without pollution controls, except for electrostatic precipitators, which were not the "Best Available Technology" (BACT). In 1986, the Greater Detroit Resource Recovery Authority, a special authority chaired by Detroit Finance Director Bella Marshall, sold \$438 million in municipal bonds to Merrill Lynch, Citigroup, and other investment banks to finance the facility. Commenting on the deal in 1989, Marshall recalled, "It was a lot of money, that's right. But you

---

<sup>10</sup> On the politics of dioxin risk assessment, see Conley, "Environmentalism Contained," 217-241; Joel S. Hirschhorn, "Cleanup Levels for Dioxin-Contaminated Soils," *Remediation Journal* Vol. 7 No. 3 (Summer 1997), 63-80. For a well-documented exposé of corporate influence at the EPA, and the related corruption of risk assessment practices, see E.G. Vallianatos, *Poison Spring: The Secret History of Pollution and the EPA* (New York: Bloomsbury, 2014).

<sup>11</sup> Commoner and Webster, "Comments on the Health Risk Assessment," 1-11. On the MDNR's miscalculation, see Bunyan Bryant and Elaine Hockman, "The Greater Detroit Resource Recovery Facility (the Incinerator)," in Bunyan Bryant, ed., *Michigan: A State of Environmental Justice?* (New York: Morgan James Publishing, 2011), 127-140, esp. 131.

don't want to be penny-wise and pound foolish...This facility will handle the city's anticipated needs into the next century." Crucially, the deal was based on the assumption—encouraged by the MAPCC—that the incinerator would not require pollution controls. Between 1986 and 1991, the city became embroiled in a legal battle with the EPA, the Canadian government, and environmental groups, which ended with the city installing pollution controls, financed through \$175 million in additional municipal bond sales.<sup>12</sup>

In 1986, the EPA filed a lawsuit in a Michigan District Court to revoke the incinerator's permit, on the grounds that it did not meet EPA standards for pollution control. However, U.S. District Court Judge Barbara Hackett rejected the suit, ruling that the new EPA standards did not invalidate the 1983 MDNR permit. Then, in 1987, the Ontario Government filed a similar lawsuit, in an attempt to force Detroit to install BACT. Judge Hackett also rejected the Ontario Government suit. In the worlds of the *Toronto Globe and Mail*, Hackett "ruled that Ontario has no authority to challenge the incinerator under Michigan laws and that it waited too long to file its suit against Detroit." As a result of the conflict, Windsor administrator Hilary Payne stated publicly that Detroit and Windsor had developed a "non-relationship." In a press conference, Coleman Young stated that the deteriorating relationship between the two cities was a "damned shame." Ultimately, the MAPCC would force the city to install pollution controls, but only after years of pressure from local environmentalists.<sup>13</sup>

### **Ban the Burn: The Evergreen Alliance and Detroit Politics**

Between the fall of 1985 and the spring of 1986, a group of Detroit and Windsor residents,

---

<sup>12</sup> For the Marshall quote, see Bob Campbell and David Everett, "Trash, Cash & Ash," *Detroit Free Press*, May 7, 1989, clipping in folder 15, box 4, TSC.

<sup>13</sup> Michael Bociurkiw, "Detroit's giant incinerator continues to frustrate Ontario," *Toronto Globe and Mail*, April 6, 1988, clipping in folder 15, box 4, TSC.

calling themselves People for Clean Air, formed in opposition to the incinerator. The group later adopted the name Evergreen Alliance, a name that echoed that of the Clamshell Alliance, the Abalone Alliance, the Catfish Alliance, and other anti-nuclear groups from the late 1970s and 1980s.<sup>14</sup> One of the founders of the Evergreen Alliance, Laurie Kopack, recalled that “there was a little tiny article [on the incinerator] in the back of one of the Detroit newspapers that I happened to read, and I started making phone calls right away to all my friends.” According to Carol Izant, another founding member, the core of the group consisted of residents of Detroit’s Cass Corridor neighborhood, located two miles from the incinerator site. They were “artists and musicians and writers and political activists who were all kind of living in this neighborhood, who had known each other as neighbors and partied together.” In addition to 10-12 full-time organizers, there was a “ring around that of, I don’t know, fifty” moderately active members, and hundreds of others who participated in various demonstrations.<sup>15</sup>

Evergreen Alliance members scored an early victory when, during the April 1986 MAPCC hearing in Lansing, they won a commitment from the MAPCC to hold a hearing before the Detroit City Council. After this, Izant recalled, over 500 people “flooded the city council chambers downtown.” However, although the hearing began at 6:00 p.m., “it wasn’t until 10:00 p.m. that they started to allow the public to weigh in, in any way, shape, or form on this.” According to Kopack, “Coleman Young at the time made sure that the staff was all on overtime for those

---

<sup>14</sup> On anti-nuclear alliances, see Gary L. Downey, “Ideology and the Clamshell Identity: Organizational Dilemmas in the Anti-Nuclear Power Movement,” *Social Problems* Vol. 33 No. 5 (June 1986), 357-373. For an early account of the Evergreen Alliance, see Laurie Adkin and Catherine Alpaugh, “Labour, Ecology and the Politics of Convergence,” in Frank Cunningham, Sue Findlay, Marlene Kadar, Alan Lennon and Ed Silva, eds., *Social Movements/Social Change: The Politics and Practice of Organizing* (Toronto: Between the Lines, 1988), 57-73.

<sup>15</sup>Laurie Kopack, interview with author, June 26, 2015; Carol Izant, interview with author, June 25, 2015.

meetings, to pack that hall so that there wasn't room for us." Izant recalled that, when Evergreen Alliance members questioned the MAPCC about the MDNR's risk assessment error, "They said, 'Well, if we go back to the drawing board, we're going to get sued. The city's going to sue us, because we've already issued the permit.'"<sup>16</sup>

Over the next five years, Izant recalled, Evergreen Alliance members engaged in "non-stop organizing" against the incinerator. They held regular rallies at the incinerator site on Russell & Ferry, as well as outside city hall, the GDRRA offices, and Detroit Edison headquarters in downtown Detroit. They practiced civil disobedience, including sit-ins and "die-ins." They also hosted teach-ins on the risks of incineration, and brought national environmental activists to Detroit, including Lois Gibbs and Barry Commoner. In addition to scores of leaflets and posters, they published 22,000 copies of a pamphlet called *Detroit's Incinerator: We Say No!* Several members also helped to litigate a suit with the Sierra Club, the Audubon Society, and the Environmental Defense Fund, charging that the facility violated the Michigan Air Pollution Control Act of 1965.<sup>17</sup>

Ideologically, the Evergreen Alliance brought together a blend of anarchist, ecofeminist, and bioregionalist approaches to environmental problems. Several of the members were affiliated with *The Fifth Estate*, a radical newspaper founded by Harvey Ovshinsky in Detroit in 1965, which had moved in an increasingly anarchist direction in the 1970s. By the 1980s, according to *Fifth Estate* staffer Peter Werbe, the newspaper's writers had embraced "positions often characterized as anti-technology and anti-civilization," which influenced their critique of the Detroit incinerator

---

<sup>16</sup> Izant, interview with author; Kopack, interview with author.

<sup>17</sup> For a collection of Evergreen Alliance materials from this period, see "Detroit trash incinerator, community opposition," folders 9-10, box 3, TSC. On the Sierra Club et al. lawsuit, see "Detroit Incinerator: Court Cases, 1989-1994," box 8, Sierra Club Mackinac Chapter Collection, Bentley Historical Library, University of Michigan-Ann Arbor.

and nuclear power.<sup>18</sup> In keeping with anarchist traditions, the Evergreen Alliance encouraged dissensus and the formation of affinity groups. As Evergreen Alliance member Beth C. Miller wrote to Thomas Stephens (one of the founders of the group) in December 1987, “I envision the work getting done in small, affinity groups that do such things as publish tabloids, hold recycling drives, stage demonstrations or whatever. I believe that anyone who looks to the Evergreen Alliance to accomplish “practical” activities will find themselves struggling unnecessarily for consensus.”<sup>19</sup>

Despite its loose structure, the power dynamics within the Evergreen Alliance gave rise to tensions. In 1987-1988, a contingent of women in the Evergreen Alliance formed an ecofeminist group called WEAVE (Womyn Empowered Against Violence to the Environment). According to Kopack, WEAVE was “basically a product of group dynamics and feminist politics.” In a familiar pattern in left-wing social movements, some women believed that men “would pretty much dominate a lot of the conversations.” Meanwhile, “a lot of us were reading stuff on eco-feminism at the time.” One of their intellectual influences was the ecofeminist and anti-nuclear activist Rosalie Bertell, who Izant met at a conference on Women, Peace, and the Environment at Wayne State University in 1987. In a June 1989 “Women’s Call to Action,” WEAVE members demanded “control over our health, our children’s health, and the integrity of our environment, all of which are threatened every day that the incinerator burns.” A WEAVE newsletter from October of the same year declared that “we see a correlation between our fight for reproductive health and the need for reproductive freedoms.” The newsletter went on to describe how, at a conference held by

---

<sup>18</sup> Peter Werbe, “History of the Fifth Estate: The Early Years,” *Fifth Estate* No. 368-369 (Spring-Summer 2005), <http://www.fifthestate.org/archive/368-369-spring-summer-2005/history-fifth-estate-early-years/> [accessed August 31, 2015].

<sup>19</sup> Beth C. Miller, letter to Thomas Stephens, December 17, 1987, folder 9, box 3, TSC.

the Southeast Michigan Coalition for Reproductive Rights (SEMCCR), WEAVE members “brought information on ecofeminism to share with other wimmin attending the day’s workshops.” WEAVE members also organized direct action protests against the Detroit incinerator. On June 3, 1989, WEAVE held a civil disobedience action outside the gates at Russell and Ferry, which Izant described as “very successful,” during which 24 members were arrested. Kopack recalled that WEAVE members “carried a rope and weaved themselves to the gate,” after which the police “really roughed them up.”<sup>20</sup>

The use of direct action tactics by WEAVE members was characteristic of the Evergreen Alliance as a whole, which staged numerous sit-ins and “die-ins” at the incinerator site, and in downtown Detroit. The willingness to use direct action created tensions between the Evergreen Alliance and mainstream environmental groups. For this reason, according to Izant, the Sierra Club and the Audubon Society “wanted nothing to do with us”; rather than “no burn,” they advocated “clean burn,” meaning incineration with pollution controls. However, Greenpeace, which was not opposed to direct action, lent its support. In June 1988, Greenpeace “climbers” unfurled a banner from the Renaissance Center downtown, reading “STOP DETROIT’S INCINERATOR.” They also unfurled similar banners from the Ambassador Bridge, and from cranes at the incinerator site.<sup>21</sup>

---

<sup>20</sup> “Women Empowered Against Violence to the Environment: A Women’s Call to Action: June 3, 1989,” flier in box 3, folder 9, TSC “W.E.A.V.E. (Womyn Empowered Against Violence to the Environment) Newsletter,” October 1989, 1-7, esp. 2, box 3, folder 9, TSC; interview with Kopack. On Bertell’s career, see Mary-Louise Engels, *Rosalie Bertell: Scientist, Eco-Feminist, Visionary* (Toronto: Women’s Press, 2005).

<sup>21</sup> Interview with Izant; *Metro Times*, June 29-July 5, 1988; Curt Guyette, “Fired Up: Detroit’s Incinerator’s Long-Simmering Opposition,” *Metro Times*, April 30<sup>th</sup>, 2008.





Fig. 6.1. Greenpeace climbers hang a protest banner from the Renaissance Center, June 1988.  
Photo courtesy of Laurie Kopack.

### **Labor and the Evergreen Alliance**

The relationship between the Evergreen Alliance and organized labor, meanwhile, was complex. As Donele Wilkins of the Southeast Michigan Coalition for Occupational Safety and Health (SEMCOOSH) recalled, “the labor movement was divided” on the question of the incinerator. The UAW took a middle ground position on the issue, advocating “clean burn,” meaning installation of BACT, rather than “no burn.” In July 1987, the UAW Conservation and Recreation Department staff wrote a letter to Michigan Governor James Blanchard, stating that “we have been repeatedly urged to intervene with Mayor Young” to stop the incinerator’s construction. Rather than adopting this position, UAW representatives asked Blanchard to secure state and federal subsidies for pollution control, on the grounds that the city should not be forced to pay for it. In a May 1988 interview with political scientist Laurie Adkin, Evergreen Alliance

member Julie Beard accused the UAW of acting “mainly out of self-interest,” and denounced the union as “not a reliable ally [.]” The 1988 Evergreen Alliance publication *Detroit Incinerator: We Say No!* also criticized the UAW position.<sup>22</sup>

However, divisions among auto unionists also opened up space for criticism. In 1985, members of the Canadian Region of the UAW voted to separate and form an independent union, resulting in the formation of the Canadian Auto Workers (CAW). In 1986, the CAW Canada Council began a push to establish environmental councils in its union locals. Over the next several years, the environmental committees of Windsor-area CAW locals 444 and 1973 held environmental education workshops, educating members about the health dangers of pollution from the Detroit incinerator and Detroit Edison’s Fermi II nuclear plant in Monroe County. While these activities reflected the independence afforded by the UAW-CAW split, they also aligned with the position of the Mayor of Windsor, the Windsor City Council, and the Ontario Ministry of the Environment.<sup>23</sup>

Divisions also existed among the unions representing incinerator workers. The building trades, including carpenters, masons, and others, supported the project as a generator of construction jobs. Within AFSCME, IBEW local leaders supported the project, but a contingent of rank-and-file electrical workers turned against it on occupational health and safety grounds. On January 10, 1989, an estimated 50 construction workers at the incinerator site staged a walkout

---

<sup>22</sup> Interview with Donele Wilkins, July 14, 2015; “Better Technology Is Not the Answer,” in *Detroit Incinerator: We Say No!*, 7, folder 3, box 9, TSC; United Auto Workers Department of Conservation and Resource Development, letter to Governor James Blanchard, July 9, 1987, quoted in Adkin and Alpaugh, “Labour and Ecology,” 63; Laurie E. Adkin, *The Politics of Sustainable Development: Citizens, Unions and the Corporations*. (Montreal: Black Rose Books, 1998), 259.

<sup>23</sup> On the origins of the UAW-CAW split, see Sam Gindin, *The Canadian Auto Workers: The Birth and Transformation of a Union* (Toronto: James Lorimer and Company, 1995), 199-228. On Windsor CAW locals’ opposition to the Detroit incinerator, see Adkin, *The Politics of Sustainable Development*, 259.

over complaints of dizziness, nausea, nosebleeds, rashes and uncontrollable coughing from incinerator ash exposure. On January 18, 30-40 electrical workers staged another walkout over ash concerns, and Evergreen Alliance members supported the workers' cause in statements to the press. Rank-and-file electrical workers shared ash samples with SEMCOSH, which had the ash tested by the firm Midwest Analytical. After the test found high levels of lead, cadmium, nickel and mercury in the ash, SEMCOSH shared the results with the Evergreen Alliance, which presented it at public hearings on incinerator ash disposal. This controversy resulted in the MDNR declaring the ash "hazardous waste," resulting in a more expensive landfilling method.<sup>24</sup>

Donele Wilkins, who directed the Minority Occupational Health Project for SEMCOSH at the time, recalled that the incinerator battle was underway during the October 1991 People of Color Environmental Leadership Summit. According to Wilkins, she realized during the conference, that as a SEMCOSH representative she "had a role" in the incinerator fight, but "it wasn't on the side of environmental justice." The reason was that "there was a divide within the labor movement between the construction workers and the public workers, you know, AFSCME workers" over the incinerator. The building trades supported it because "they saw jobs [...] AFSCME workers, who were likely to be working in the facilities, did not."<sup>25</sup>

### **The Politics of Environmental Racism**

Along with union concerns, the ash controversy intersected with questions of civil rights and racial discrimination. The dump site for the ash, Sumpter Township, was one of the poorest

---

<sup>24</sup> Dennis Pfaff, "Incinerator Blamed for Illnesses: 50 workers walk off Detroit job," *Detroit News*, January 12, 1989; Frank Provenzano, "Battle Over Ash Disposal Continues," *Metro Times*, February 1-7, 1989; "Incinerator ash found to be hazardous," *Detroit Free Press*, March 7, 1989; Bob Campbell and Constance Prater, "Boiler, safety concerns dog incinerator's start," *Detroit Free Press*, April 15, 1989.

<sup>25</sup> Interview with Donele Wilkins, July 14, 2015.

parts of Wayne County. According to a 1991 study by the University of Michigan School of Natural Resources, Sumpter Township had a per capita income close to \$7,000, and the southern part, where the hazardous waste dump was located, was more “rural and African American” than the rest of the township. Soon after the incinerator ash dumping began in 1989, residents began complaining. One resident, a disabled African American Korean War veteran named Freddie, said of the landfill in 1991, “the smell has gotten progressively worse in the four years I’ve been living here. Sometimes it smells like chemicals, and then at other times it smells like rotting garbage.” Like many of the African American residents, Freddie believed that racism was a factor in the siting of the incinerator ash dump in their community.<sup>26</sup>

As with the siting of the Detroit incinerator itself, the ash dumping fit into a larger pattern, documented in studies such as the United Church of Christ Commission for Racial Justice’s *Toxic Wastes and Race in the United States* (1987), whereby Locally Unwanted Land Uses (LULUs) clustered in low-income communities of color. At the same time, charges of racism played a contradictory role in the incinerator controversy. While the incinerator’s pollution disproportionately harmed poor African Americans, both in Detroit and in Sumpter Township, the struggle over the facility pitted an African American mayor and City Council majority against a predominantly white environmental coalition. Although several of the core members were Arab American, and some African Americans and Native Americans participated in Evergreen Alliance actions, the group had few active members of color. Evergreen Alliance members did attempt to broaden the base of the anti-incinerator campaign, but encountered difficulties.<sup>27</sup>

---

<sup>26</sup> For the quote, see Bryant and Hockman, “The Greater Detroit Resource Recovery Facility,” 139-40. According to Bryant and Hockman, Freddie “felt that racial factors have a lot to do with the siting of a hazardous waste facility and that a black community would be chosen before a white one.” They add that “Wanda, a black woman, stated that if it came down to a choice between a white community and a black one, the black one would be chosen before the white one.” Ibid., 23.

One reason was that community organizations were reluctant to criticize the mayor and his administration. According to Izant, “a lot of the neighborhood groups in Detroit [...] were told point blank, ‘We’re gonna take your funding away from you if we see that you’re aligned with this outside agitator group.’” For this reason, block clubs and community organizations in Detroit “were willing to talk to us, but they weren’t necessarily going to get behind us in any kind of official way.” For his part, Mayor Young attempted to portray Evergreen Alliance members as non-Detroiters who did not represent the general public. Izant recalled that “the city administration tried to just paint us as outside agitators, which we were not.” In the political context of the time, the words “insiders” and “outsiders” functioned as code words for urban and suburban, black and white. Laurie Kopack, for example, was born in Detroit, but left with her family at age 11 as what she called “part of white flight after the riots.” After attending high school in the suburbs, she returned to the city as a young adult. Because she considered herself “born and bred Detroit,” she resented the “outside agitator” label.<sup>28</sup>

These racialized city-suburb tensions resurfaced in the fall of 1989, after inspectors from the Wayne County Air Pollution Control Division found that mercury emissions from the incinerator exceeded the state permit by four times. In a letter to Wayne County officials, GDRRA director Michael Brinker claimed that “the Facility’s mercury emissions do not pose a public health risk,” and that installing pollution controls would be “financially disruptive not only to the project, but also to the City of Detroit.” Brinker promised to institute a battery collection program to reduce

---

<sup>27</sup> United Church of Christ, Commission for Racial Justice, *Toxic Waste and Race in the United States: A National Report on the Racial and Socioeconomic Characteristics of Communities Surrounding Hazardous Waste Sites* (New York: United Church of Christ, 1987). Following the report’s publication, an extensive debate ensued among social scientists about the report’s methodology. For a discussion of this literature, see Eileen McGurty, “From NIMBY to Civil Rights: The Origins of the Environmental Justice Movement,” *Environmental History* Vol. 2 No. 3 (July 1997), 301-323, esp. 322-23.

<sup>28</sup> Interview with Izant; Interview with Kopack.

the mercury content in the trash being burned. The Evergreen Alliance and other groups continued to push for the MAPCC to shut down the facility. At a hearing in Allen Park on April 16, according to MAPCC records, opponents expressed “concerns regarding the health effects of toxic emissions, odors, environmental racism, and disposal of the toxic ash.” In addition to mercury, opponents presented evidence of permit violations on dioxin. The *Windsor Star* reported that the MAPCC “heard evidence that the incinerator has dioxin emissions about 1,000 times higher than what the U.S. Environmental Protection Agency regards as acceptable.”<sup>29</sup>

Following the April 16 hearings, the MAPCC voted 6-2 to shut down the incinerator until the city installed pollution controls. In a press conference, Coleman Young agreed to this ultimatum, but complained that the MAPCC had violated an “agreement” he had with Governor Blanchard. “I was led to believe there was an agreement and the vote would be 6-4 the other way,” he said. “Somebody double-crossed somebody and we want to know who it was... We had talked to the governor’s staff about an agreement that would allow us to continue.” Young turned the “environmental racism” argument on its head, arguing that the MAPCC and suburban white environmentalists were unfairly singling out Detroit. “Detroit bashing is a popular indoor sport in the state of Michigan,” he told the press. “You could describe Detroit bashing also as racism.” Ironically, some white suburban leaders endorsed this view. SEMCOG chairman Milton Mack, who also spoke at the press conference, asked why the state was holding Detroit’s incinerator to a higher standard than smaller facilities in Kent and Jackson counties.<sup>30</sup>

---

<sup>29</sup> Violation Notice, Wayne County Department of Health, Air Pollution Control Division, to Combustion Engineering and Resource Recovery Systems, September 22, 1989, folder 4, box, TSC; Michael Brinker, Greater Detroit Resource Recovery Authority, letter to Alan Greenberg, Wayne County Department of Health Air Pollution Control Division, folder 4, box 3, TSC; Minutes of Meeting, Air Pollution Control Commission, April 16, 1990, Allen Park, Michigan, folder 10, box 3, TSC; Ellen van Wageningen, “Incinerator Foes Fold Mock Funeral,” *Windsor Star*, April 23, 1990, folder 16, box 4, TSC.

<sup>30</sup> Bill McGraw, Chris Christoff and Dawson Hill, “Incinerator Vote Was a Betrayal, Mayor Says,” *Detroit*

Young's comments exemplified a dynamic analyzed by political scientist Adolph L. Reed, Jr., in the context of African American mayoral politics in the 1970s and 1980s. In an attempt to maintain support from white business elites without alienating black voters, who often suffered the downsides of development projects, African American mayors faced a difficult task. According to Reed, mayors like Maynard Jackson in Atlanta, and Coleman Young in Detroit, did so by "reinventing development agendas that had potentially disadvantageous outcomes for black constituents as campaigns for the defense of racial self-respect as embodied in black officials." Young's defense of the incinerator project fit into this pattern. By accusing incinerator critics of racist "Detroit bashing," Young equated support for the project with respect for African American Detroiters, despite the fact that it harmed them the most both fiscally and environmentally.<sup>31</sup>

Moreover, Young's characterization of incinerator critics as "outside agitators" implied that African American Detroiters supported the facility. However, little evidence of African American support for the incinerator exists. Several black commentators at the time criticized the mayor's stance, and the attitude toward democracy that his criticism of the MAPCC revealed. In response to Young's claim that MAPCC members "double-crossed" him, African American *Free Press* columnist Susan Watson wrote caustically, "Golly gee. If you can't count on someone to deliver the votes before the question is called, whom can you trust?" The editors of the *Michigan Citizen*, a newspaper whose byline targeted "the state's African American and progressive

---

*Free Press*, April 17, 1990; Constance C. Prater and Dawson Bell, "Young Asks State to Restart Incinerator: Suburban Leaders Back Mayor's Effort," *Detroit Free Press*, April 20, 1990; Emily Askari, "State Panel Allows Detroit to Restart Incinerator," *Detroit Free Press*, May 3, 1990; Gary Rennie, "Incinerator Re-Lit," *Windsor Star*, May 3, 1990; all in box 4, folder 16, TSC.

<sup>31</sup> Adolph Reed, Jr., "A Critique of Neoprogessivism in Theorizing About Local Development Policy," in idem., *Stirring in the Jug: Black Politics in the Post-Segregation Era* (Minneapolis: University of Minnesota Press, 1999), 164-177, esp. 177. On African American mayors and downtown business elites, also see idem., "The Black Urban Regime: Structural Origins and Constraints," in *Ibid.*, 79-116.

community,” criticized the way in which Young “berated the board who shut down the city’s incinerator because it is spewing mercury poisoning into the air.” “Politicians’ concern for their constituents’ welfare,” the editors wrote, “is symbolized by the toxins pouring forth from the incinerator fouling the brains of the children living in its wake.”<sup>32</sup>

And while neither opponents nor supporters of the incinerator polled Detroit residents, there is at least anecdotal evidence of early opposition to the facility among African Americans in Detroit. In 2002, the *Michigan Citizen* reported the views of twelve African American residents about the incinerator, several of whom recalled opposing the facility from the beginning. Jeff Nichols, a 44-year-old counselor, recalled, “I opposed it at that time because there were other alternatives that were not explored when it comes to the disposal of industrial wastes.” In his opinion, “that incinerator on the eastside should never have been there.” Several respondents called for it be shut down. Karen Robinson, a 41-year-old teacher’s assistant, said, “I have known people who grew up on the eastside on Russell and died of cancer.” She argued that, “if we are looking at improving the quality of life and not taking life away, then the incinerator should be shut down.” 37-year-old Lena Willis, also a teacher’s assistant, said that “I want the incinerator shut down because I have relatives on the eastside. It is in the wrong place being right in the middle of the community.”<sup>33</sup>

### **‘Money Out of Thin Air’**

The city’s agreement to install pollution controls contained a major caveat: the city would have seven years to install the new equipment. Ed Piche, director of the Air Resources Branch at

---

<sup>32</sup> Susan Watson, “Young Blows Stack, Lets Public In on Back-Room Deal,” *Detroit Free Press*, April 22, 1990, box 4, folder 16, TSC; *Michigan Citizen* editors, “The Census, the Incinerator and Politicians,” *Michigan Citizen*, April 28, 1990, A4.

<sup>33</sup> Bankole Thompson, “Citizens’ Views on Environmental Pollution,” *Michigan Citizen*, February 16, 2002, A8, folder 8, box 3, TSC.



the Ontario Ministry of the Environment, told MAPCC officials that they should keep the incinerator closed until the installation was complete, but they rejected this argument. In June 1991, stack emissions tests found mercury levels twice as high as in April 1990, when the MAPCC closed the incinerator. However, the *Detroit News* reported that pollution controls “won’t be completed installed until 1996.” Governor Blanchard’s successor, the conservative Republican John Engler, proved a stubborn foe of environmentalists. In 1991, Engler abolished the MAPCC by executive order, removing one of the few forums whereby citizens could participate in the permitting process. The MDNR, under Engler’s appointee Russell Harding, also proved reluctant to investigate permit violations, or to publicly release the results of site inspections. In Carol Izant’s view, “this series of events is kind of what ended the Evergreen Alliance.” Now that the MAPCC was no more, “everything was behind closed doors.”<sup>34</sup>

On March 26, 1991, the Detroit City Council approved a \$175 million bond sale to finance pollution control equipment for the incinerator. Including interest, the total municipal bond debt for the facility amounted to \$1.4 billion. At the same time, the city faced an \$88 million budget deficit in 1991. Unable to meet its debt repayment schedule, the city began negotiating with outside investors to sell the incinerator. In the summer, city officials announced plans to permanently sell the facility for \$54 million to Philip Morris Capital Corp., a subsidiary of Philip Morris, USA, and Aviation Services, a subsidiary of General Electric. Under the terms of the deal, Philip Morris would acquire 70 percent of the facility, while General Electric would acquire 30 percent. By

---

<sup>34</sup> Emilia Askari, “Incinerators spew new worries: Detroit trash burner gives off higher mercury levels in new test,” *Detroit News*, August 10, 1991, folder 16, box 4, TSC; Anna Holden, e-mail to David Holtz, “Status of Det. Incinerator Files,” January 22, 2002; Alma Lowry, e-mail to Michigan Environmental Justice Coalition Members, “Re: Environmental Justice Fact Sheet/Argument Outline,” January 28, 2002, folder 8, box 3, TSC. On Engler’s abolition of the MAPCC, see Michigan Legislature, “Executive Reorganization Order E.R.O. 1991-22,” Sec. III-A-2, [https://www.legislature.mi.gov/\(S\(wh3ly155pn34q155q515k1rr\)\)/documents/mcl/pdf/mcl-E-R-O-No-1991-22.pdf](https://www.legislature.mi.gov/(S(wh3ly155pn34q155q515k1rr))/documents/mcl/pdf/mcl-E-R-O-No-1991-22.pdf) [accessed August 12, 2016]; Interview with Izant.

adding the incinerator to its asset portfolio, Philip Morris would receive \$200 million in tax credits earmarked for waste-to-energy facilities under the 1986 Tax Reform Act. While its interest in the facility was purely financial, Philip Morris was not a disinterested party in the politics of incineration. In the 1990s, the firm sponsored organizations, such as the Coalition for Uniform Risk Evaluation (CURE), which lobbied Congress to weaken EPA standards on dioxin and other components of secondhand cigarette smoke.<sup>35</sup>

Initially, some city council members balked at the deal with Philip Morris. As *Detroit Free Press* reporter Constance C. Prater noted at the time, the “complex sale and lease-back deal baffles even the most experienced financial analysts.” One such analyst said that “only a handful of tax lawyers and investment brokers knew enough to put such a deal together.” Young pushed back aggressively against critics, encouraged by financial consultants who warned that the city’s bond rating would fall if the deal failed, doubling the budget deficit by 1992. Young called the deal an “innovative but sound transaction,” which “literally allowed us to create money out of thin air.” Ultimately, however, the incinerator constituted a long-term drain on the city’s finances. By 1999, the incinerator was the largest single source of the city’s municipal bond debt, amounting to \$1.4 billion. According to one estimate, without the city’s debt service payments to bondholders, the city’s waste disposal costs would have been \$46 per ton. With the debt service, they averaged \$150 per ton, over three times the national average.<sup>36</sup>

---

<sup>35</sup> On the pollution control bond sales, see Marilyn Mahaffey, “Memorandum: Concerns Re: Sale of \$175 Million Incinerator Bonds,” folder 17, box 4, TSC; Vivian S. Toy, “Incinerator Scrubber Costs Stun Council,” *Detroit News*, March 27, 1991. On the deal with Philip Morris and GE, see Goldman Sachs & Co. and Milbank, Tweed, Hadley & McCloy, letter to Bella Marshall, March 1, 1991, folder 17, box 4, TSC; Bella Marshall, letter to Detroit City Council, “Proposed Greater Detroit Resource Recovery Authority Equity Financing,” April 12, 1990, folder 17, box 4, TSC. On Philip Morris and dioxin, see Conley, “Environmentalism Contained,” 265-266.

<sup>36</sup> Constance C. Prater, “Troubles smolder at Detroit’s trash plant,” *Detroit Free Press*, May 20, 1991; Angie Cannon, “Wall Street tells city: sell incinerator or lose credit rating,” *Detroit News*, August 16, 1991; Dori

Meanwhile, the facility continued to burn over 700,000 tons of garbage per year. As the *Detroit Free Press* reported in 1989, the facility burned enough garbage to fill Tiger Stadium annually. Such a massive throughput of burned trash contributed significantly to the air pollution burden in Detroit, particularly on the city's East Side. By the year 2000, according to the MDEQ, the facility was annually emitting 24,280 pounds of fine particulate matter, a known contributor to asthma. Between 1998 and 2001, the facility emitted 396 pounds of lead, and in 1999 alone it emitted 320 pounds of mercury. While epidemiological studies could not prove the incinerator's health effects, they demonstrated that the facility was located in the epicenter of the city's asthma and lead poisoning epidemics. In 1999, Dr. Khanta Bhambani of the Children's Hospital of Michigan estimated that 17-20 percent of Detroit children under the age of 6 had lead poisoning. According to a 2001 study by the Harvard School of Public Health, the zip code around the incinerator (48211) had the highest rate of childhood lead poisoning and asthma-related hospitalizations in the city. In 2007-2008, zip code 48211 remained in the top three zip for childhood lead poisoning in Detroit (Fig. 6.2).<sup>37</sup>

---

J. Maynard, "Incinerator deal OK'd in council switch," *Detroit Free Press*, September 5, 1991; "Detroit Completes Sale of Tax Credits to Private Investors for Trash-to-Energy Facility," *PR Newswire*, October 23, 1991; Mary Beth Doyle and Brad Van Guilder, "For a Clean and Safe Detroit: Close the Country's Largest Incinerator," *From the Ground Up*, The Ecology Center, Ann Arbor, MI, March 2002 (Volume 34, No. 2), in folder 9, box 5, TSC.; Lisa M. Collins, "The Choke's On You: Detroit's Incinerator Burns Trash and Money as Residents Cough and Steam," *Metro Times*, March 20-26, 2002; Eric T. Campbell, "City opts out of incinerator lease, for now," *Michigan Citizen*, June 8, 2008, A1, A4.

<sup>37</sup> Jennifer Dixon, "Removing Lead-Based Perils Has Second Shot: Housing Agency Will Run Failing Program," *Detroit Free Press*, January 29, 1999, 1B, 2B; Wendy Wendland-Bowyer, "Hazards lurking in soil as children play: High lead levels abound in Detroit and metro area," *Detroit Free Press*, January 23, 2003, A10.

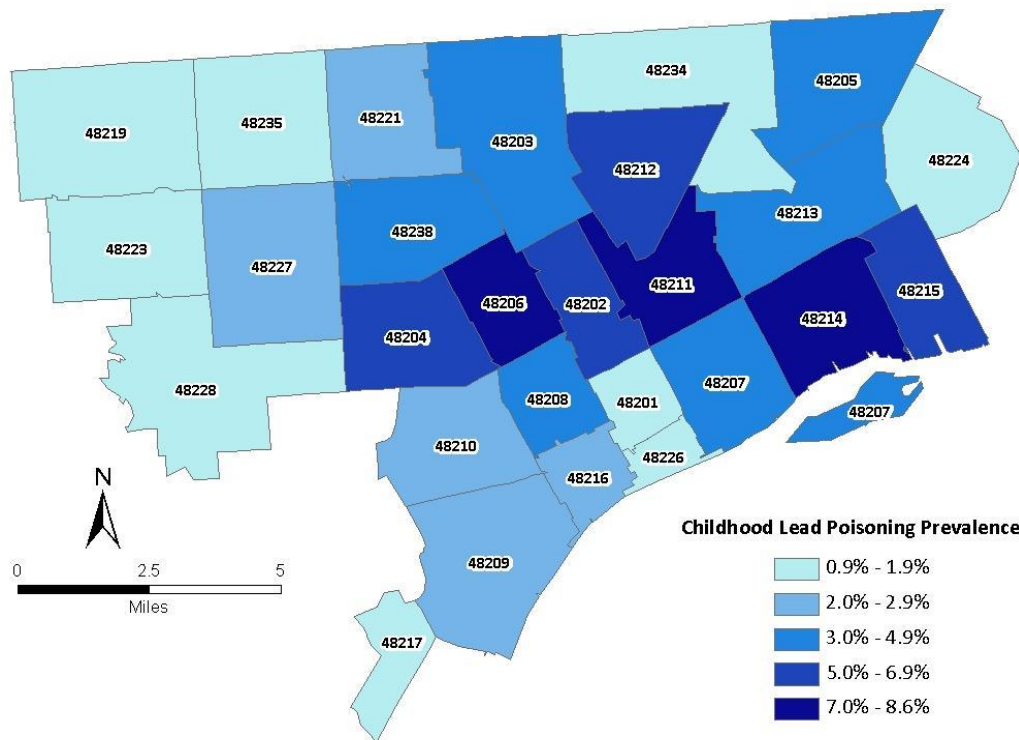


Fig 6.2. Childhood Lead Poisoning Prevalence in Detroit by Zip Code. Source: Detroit Department of Health and Wellness Promotion, *Combined Data Book 2007 & 2008* (Detroit: Detroit Department of Health and Wellness, 2008), 115.

The incinerator was only one among many pollution sources in zip code 48211, which included dozens of abandoned industrial sites, homes with peeling lead paint, and residues from historic leaded gasoline emissions. However, the incinerator's emissions unquestionably added to the environmental health burden in the East Side's hardest-hit neighborhoods. Moreover, the incinerator's dioxin emissions posed a threat to Detroit residents as well. During the five-year period in which the incinerator burned without pollution controls, its dioxin emissions at times reached 1,000 times the recommended EPA limit. According to the MDEQ's own cancer risk assessment, releasing dioxin without pollution controls could cause up to 36 excess cancer deaths in metropolitan Detroit. While a precise enumeration is impossible, the incinerator almost certainly added to the local burden of cancer (although less than the tobacco products manufactured by its

majority owner, Philip Morris).<sup>38</sup>

### **Fighting Incinerators in the 1990s**

Although the Evergreen Alliance was unable to shut down the GDRRF, environmental and community organizations in Detroit did score several victories against incinerators between 1992 and 2005. In 1992, the Sugar Law Center in Detroit initiated a lawsuit, along with the Flint chapter of the NAACP, on behalf of citizens in a low-income African American community in North Flint against CMS Energy, the MDEQ, and Genesee Township. The goal of the lawsuit was to repeal the state's permit for a wood-burning incinerator, the Genesee Power Station, which allowed it to operate without any pollution controls, despite being across the street from an elementary school. The facility would burn wood containing lead-based paint from demolished homes, adding to contamination of an area where over half of all children between 6 months and 5 years old already had "elevated" blood lead levels. Among those litigating the case were Alice Jennings, a lawyer with experience in civil rights cases in Detroit, and Thomas Stephens, a co-founder of the Evergreen Alliance. According to Alice Jennings, "there was a group of community activists," including "very active church members and community folks who brought us in." The plaintiffs argued that the permit granted by Governor Engler's MDEQ violated the Michigan Environmental Protection Act, as well as Title VI of the Civil Rights Act.<sup>39</sup>

---

<sup>38</sup> Environmental Protection Agency, "Facts About East Side Issues That May Affect Your Health," [http://www.epa.gov/ncer/childrenscenenters/factsheets/factsheet\\_eastside.html](http://www.epa.gov/ncer/childrenscenenters/factsheets/factsheet_eastside.html) [accessed August 12, 2016]; Michigan Department of Community Health, *2012 Annual Data Report on Blood Lead Levels of Children in Michigan*, [https://www.michigan.gov/documents/mdch/2012\\_AnnualDataReportOnBloodLeadLevels\\_419508\\_7.pdf](https://www.michigan.gov/documents/mdch/2012_AnnualDataReportOnBloodLeadLevels_419508_7.pdf) [accessed August 12, 2016]; Elizabeth Wasilevich, Sarah Lyon-Callo, Ann Rafferty, and Kevin Dombkowski, "Detroit—Epicenter of the Asthma Burden," Michigan Department of Community Health, 1-28, [https://www.michigan.gov/documents/mdch/14\\_Ch12\\_Detroit\\_Epicenter\\_of\\_Asthma\\_276687\\_7.pdf](https://www.michigan.gov/documents/mdch/14_Ch12_Detroit_Epicenter_of_Asthma_276687_7.pdf) [accessed August 12, 2016].

<sup>39</sup> Alice Jennings, interview with author, September 2, 2015; *NAACP-Flint Chapter et al. v. Engler et al.*, correspondence and reports, folder 14, box 8, TSC; Emily L. Dawson, "Lessons Learned from Flint, Michigan: Managing Multiple Source Pollution in Urban Communities," *William and Mary Environmental Law and Policy Review* Vol. 26 No. 2 (2001), 367-405, esp. 381-86.

In 1995, the defendants settled out of court, agreeing to reduce the volume of demolition waste, install electrostatic precipitators, and hire an air pollution monitor. Alice Jennings recalled that “this was a major victory for the people.” The case later moved to Genesee Circuit Court, where Judge Archie L. Hayman issued a permanent injunction against MDEQ for failing to protect citizens in accordance with the Michigan Environmental Protection Act. Significantly, Hayman ruled that MDEQ should factor the cumulative pollution burden in a given area into permitting decisions. An appeals court later reversed Hayman’s decision by 2-1, but it provided an important precedent in environmental law. The case had also spurred greater collaboration among environmental justice activists across the region. In 1994, Donele Wilkins and several other participants in the 1991 UCC-CRJ Summit founded a new organization, Detroiters Working for Environmental Justice (DWEJ). DWEJ collaborated with the Sugar Law Center in the Genesee Power Station case, including petitioning the Detroit City Council to keep demolition debris from Detroit out of the waste stream entering the Flint incinerator.<sup>40</sup>

While the Genesee Power Station case unfolded, a series of campaigns against medical waste incinerators began in metro Detroit. The first occurred in Highland Park, where a firm called Highland Co-Gen announced plans to build a medical incinerator in February 1994, which would burn “red bag” waste from regional hospitals. The incinerator’s permit application to the MDEQ called for annually emitting 156,200 pounds of nitrogen oxides and 8,200 pounds of sulfur dioxides (both considered contributors to asthma by the EPA), along with smaller quantities of mercury, dioxin, and furans. A Highland Park-based organization called Citizen Empowerment for a Clean Environment (CECE), which included former Evergreen Alliance member Tanya Sharon, and the Black Summit joined forces to fight the project. In July, the Highland Park City

<sup>40</sup> Interview with Alice Jennings; Interview with Donele Wilkins; Dawson, “Lessons Learned from Flint,” 385-86.

Council unanimously passed a resolution, drafted by CECE members, to ban the construction of new incinerators in Highland Park.<sup>41</sup>

After Highland Park Mayor Lindsey Porter delayed taking a stand, CECE members protested outside his residence in September, carrying a coffin and funeral wreath to symbolize the incinerator's potential victims. In response, Porter promised to declare his opposition to the project, and did so at a public hearing on October 17. Several Highland Park City Council members, former Highland Park mayor Martha Scott, and Senator Virgil Smith also joined the opposition. Nevertheless, Highland Co-Gen remained publicly committed to the project. On November 22, CECE members blocked traffic on Woodward Avenue during rush hour, holding a banner that read 'No Incinerator'. Highland Park police arrested six protesters, including Vallory Johnson, Jimmie McClean, Tonya Sharon, Helen Howe, Doris Johnson, and Highland Park City Council member Greta Johnson. Finally, on December 14, Highland Co-Gen officially withdrew its permit application to MDEQ.<sup>42</sup>

### **Dennis Archer and the Backlash Against Environmental Justice**

Over the next several years, local environmental justice organizations entered into conflict with Detroit Mayor Dennis Archer, the successor to Coleman Young, over EPA guidelines on civil rights. In 1994, in response to pressure from environmental justice organizations, President Clinton

---

<sup>41</sup> Ron Seigel, "Medical Waste Burner for HP: Citizens Charge Environmental Racism," *Michigan Citizen*, February 26, 1994, A1; Ron Seigel, "HP Environmental Group Asks City Ban On Incinerators," *Michigan Citizen*, July 2, 1994, A1; Ron Seigel, "HP City Council Bans Incinerators," *Michigan Citizen*, July 16, 1994, A1.

<sup>42</sup> Mary Hollens, "Protesters Face Arrest at Mayor's Residence," *Michigan Citizen*, October 2, 1994, A1; Ron Seigel, "State Ignores Citizens: Okays HP Burner," *Michigan Citizen*, October 2, 1994, A1; Ron Seigel, "Virgil Smith: Engler Law Furthers Environmental Racism," *Michigan Citizen*, October 23, 1994, A4; Mary Hollens, "Detroiters Seek HP Help in Fighting New Incinerator," *Michigan Citizen*, November 26, 1994, A1; Mary Hollens, "H.P. Arrests Activists Protesting Incinerator," *Michigan Citizen*, December 10, 1994, A1; Mary Hollens, "Highland Park Wins Struggle Against Burner," *Michigan Citizen*, January 14, 1995, A1.

issued Executive Order 12898, which directed federal agencies “to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law.” Four years later, the EPA’s Office of Civil Rights released interim guidelines for implementing E.O. 12898, which would allow petitioners to file complaints about environmental racism, including for projects that had already received permits. The guidelines quickly came under attack from the U.S. Chamber of Commerce, industry lobbying groups, and conservative politicians and pundits. William Kovacs, Vice President of Environment at the Chamber of Commerce, declared that the guidelines allowed the EPA to “act like a zoning board,” with wider latitude to act against industry.<sup>43</sup>

Opponents of the EPA environmental racism guidelines won an unexpected ally in Mayor Archer. Donele Wilkins, then the chair of DWEJ, recalled that “Dennis Archer was so anti-environmental justice. He was one of those enemies that we encountered, on many levels.” In June 1998, Archer introduced a resolution to the U.S. Conference of Mayors opposing the guidelines, which subsequently passed. Archer’s press secretary, Michelle Zdorowski, told the press that the guidelines “have the potential to discourage business from coming into the city of Detroit.” For his efforts, Archer won plaudits from the political right, including Governor Engler, the *National Review*, and conservative think tanks such as the Heartland Institute and the Mackinac Center for Public Policy. Wilkins recalled arguing with Archer during an EPA conference in Detroit, taking the position that “if it’s true that we have to accept the poor environmental quality

---

<sup>43</sup> On the history and implementation of EO 12898, see Michael B. Gerrard and Sheila Foster, eds., *The Law of Environmental Justice: Theories and Procedures to Address Disproportionate Risks* (Chicago: American Bar Association, 2008), 101-156. On industry opposition to the interim guidelines, see David Mastio, “Michigan in Forefront of Fight Over EPA Rules: ‘Environmental Racism’ Debate Rages On,” *Detroit News*, June 28, 1998; Cindy Skryzcki, “Up Against the Environmental Justice System,” *Washington Post*, October 23, 1998.



from industry to bring jobs, to have jobs, then why is it that Detroit has the highest unemployment?” And among the unemployed, “why is it they’re living in the shadows of these facilities and they’re not the ones working in these facilities?”<sup>44</sup>

### **Fighting Medical Waste Incinerators**

While industry opponents were able to slow the EPA’s progress during the Clinton administration, the incoming Bush administration inaugurated what Wilkins referred to as a “horrible period” of regulatory inaction. Lisa J. Fisher, a former lobbyist for Monsanto, became George W. Bush’s deputy EPA administrator. Jeffrey Holmstead, who had fought power plant regulations with the Alliance for Constructive Air Policy, became the Assistant Administrator for Air and Radiation. While rulemaking stalled at the federal level, battles continued to rage over air pollution in Detroit, including medical waste incinerators in Virginia Park and Hamtramck. In these cases, environmental justice organizations were able to score some successes, although Detroit’s municipal incinerator would continue to burn.<sup>45</sup>

Beginning in 1996, members of the Virginia Park Citizens Council began to demand that Henry Ford Hospital close a medical incinerator in Virginia Park. In 1999, the Sierra Club, DWEJ, and the Ann Arbor Ecology Center joined with local residents to form the Coalition to Shut Down

---

<sup>44</sup> Interview with Wilkins. For examples of the praise Archer received from conservatives, see Henry Payne, “Green Nonsense, Black Losses,” *Weekly Standard*, August 3, 1998; Daniel L. Fort, “The Injustice of Environmental Justice,” Mackinac Center for Public Policy, August 3, 1998 [www.mackinac.org/488](http://www.mackinac.org/488) [accessed August 12, 2016]; Eugene E. Smary, “Environmental Justice: More Than “NIMBY” or “LULU,” *Heartland Institute Newsletter* (February 1999), 7-13.

<sup>45</sup> Interview with Wilkins. On George W. Bush’s environmental policies, see Judith A. Layzer, *Open for Business: Conservatives’ Opposition to Environmental Regulation* (Cambridge: MIT Press, 2012), 257-332. Although less flagrant, the “revolving door” between industrial polluters and the EPA was also operative during the Clinton administration. As historian and longtime EPA employee E.G. Vallianatos has observed, “the Clinton presidency did little to reverse the capture of government by industry.” See Vallianatos, *Poison Spring*, 150. For a chilling example, involving Union Carbide in South Africa, see Marsha Coleman-Adebayo, *No Fear: A Whistleblower’s Triumph Over Corruption and Retaliation at the EPA* (Chicago: Chicago Review Press, 2011).

the Henry Ford Incinerator. According to Wilkins, no one on the Detroit City Council “wanted to touch” the issue, and Mayor Archer was “mute on the Henry Ford thing.” The Sierra Club hired Rhonda Anderson, a local activist, to organize Virginia Park residents. In December 1999, they received support from Wayne County Commissioner Jewel Ware, who sponsored a Wayne County Commission resolution asking Henry Ford Hospital to shut down the incinerator. In June 2001, the hospital administration announced plans to close the incinerator.<sup>46</sup>

Another successful campaign from this period concerned a Midwest Waste Services, Inc. incinerator, which had operated in Hamtramck since 1992, primarily burning waste from the Detroit Medical Center. In the mid-1990s, a group of residents, led by Hamtramck City Council member Robert Cedar, organized a group called the Hamtramck Environmental Action Team (HEAT) to close the incinerator. In 1998, MDEQ air quality tests found that the Hamtramck incinerator was emitting mercury at 60 times the level allowed in its permit. The Hamtramck City Council passed a resolution calling for MDEQ to close the facility until it met its permit obligations. HEAT also received support from former Highland Park mayor Martha G. Scott, and Hamtramck mayor Gary Zych. After several years of protests and public hearings, MDEQ ordered the facility closed in 2005. At the time, MDEQ Air Quality Division chief G. Vinson Hellwig said that “Michigan Waste Services’ history of operating far outside the boundaries of environmental regulations played a large role in the decision to deny the application.” The following year, Michigan Attorney General Mike Cox filed charges against the incinerator’s owner, Norman Aardema, for falsifying air monitoring reports to the MDEQ. Incinerator opponents had thus won

---

<sup>46</sup> Interview with Wilkins; Sara M. Aldridge, “The Muted Group Gains a Voice: A Case Study of the Henry Ford Hospital Medical Waste Incinerator” (M.A. Thesis: Central Michigan University, 2011), 32-47; Leslie Lott, “Health Care With Harm: A Study of the Initiative to Shut Down Henry Ford Hospital in Detroit, Michigan,” University of Michigan, <http://umich.edu/~snre492/Jones/henryford.htm> [accessed August 12, 2016].

three out of four battles in Detroit since the mid-1980s.<sup>47</sup>

### **Placing Detroit's Incinerator Battles in Context**

According to one estimate, at least 280 trash incinerator projects failed in the United States between 1985 and 1994, in most cases due to community opposition.<sup>48</sup> Why was Detroit's municipal incinerator not one of these canceled projects? Comparing the Evergreen Alliance campaign to successful anti-incinerator campaigns in other cities, as well as in Highland Park, Virginia Park, and Hamtramck between 1994 and 2005 provides important clues. The following section will compare these campaigns, emphasizing two factors: the breadth of political coalitions, and support from public officials. In Philadelphia, New York City, and Los Angeles, activist groups successfully defeated incinerator projects between 1985 and 1995. In all of these cities, building broad and diverse coalitions, and winning support from public officials, was essential to the campaigns' success.

Philadelphia, New York City, and Detroit shared something else in common: in each city, the first African American mayor occupied city hall at the time of an anti-incinerator campaign. The mayor of Philadelphia, Wilson Goode, supported a naval yard incinerator in South Philadelphia in the 1980s. Initially, white environmentalists in South Philadelphia had difficulty building a diverse coalition. Early on, for example, they failed to enlist support from a local African

---

<sup>47</sup> Ron Seigel, "Environmentalists Claim Hamtramck Incinerator is Poisoning Area Children," *Michigan Citizen*, October 24, 1998, A1; "Hamtown Hotspot," *Metro Times*, October 4, 2000; Rob Cedar, "Incinerators Cost Detroit Money & Clean Air," *Detroit News*, August 28, 2002; Anu Prakash, "Incinerator Protest," *Hamtramck Star*, December 21, 2004; Bruce Geiselman, "Michigan May Close Incinerator," *Waste News*, February 14, 2005; Michigan Department of Attorney General, "Cox Files Charges Against Medical Waste Facility Owner and Consultant for Falsifying Air Quality Documents," August 20, 2006, <http://www.michigan.gov/ag/0,1607,7-164--141392--,00.html> [accessed August 12, 2016].

<sup>48</sup> Neil Seldman, "Recycling—History in the United States," in Attilio Bisio and Sharon Boots, eds., *Encyclopedia of Energy Technology and the Environment* (New York: John Wiley and Sons, 1995), 2354-5.

American Muslim group. However, with help from African American community activist Julius Curry, they successfully mobilized black residents to join the campaign. Support on City Council was also key. According to one account, a white Jewish councilman, David Cohen, used his “influence with certain black members of City Council” to broaden support for the campaign, preventing the issue from being “framed as black mayor versus white NIMBYs.”<sup>49</sup> This, of course, was precisely how Mayor Young attempted to frame his conflict with the Evergreen Alliance.

Similarly, in Williamsburg, Brooklyn, Hasidic Jews and Puerto Ricans joined forces in the Community Alliance for the Environment (CAFE) to oppose the Brooklyn Navy Yard incinerator, supported by New York City mayor David Dinkins. According to Julie Sze, CAFE “mobilized thousands to the city hall hearings to protest and give public testimony” against the incinerator. In a detailed analysis, anthropologist Melissa Checker argues that by “framing their struggle for environmental justice as one fought on behalf of all minorities and by recognizing that they were all-together discriminated against, CAFE members set aside some of the issues that previously factionalized them.” They also received support from unlikely quarters. For example, Rudy Giuliani, who would later clash with environmental justice groups, used the incinerator issue against Dinkins in the 1993 mayoral race.<sup>50</sup>

In contrast to Philadelphia and New York City, Evergreen Alliance members faced a more challenging political environment. Detroit had an at-large city council with a strong mayor. As Izant recalled, in the absence of a ward system, “it was very easy for city council people to just throw their hands up [and say], ‘That’s not my responsibility.’” At the same time, the anarchist philosophy of many Evergreen Alliance members encouraged a focus on direct action. Regarding

---

<sup>49</sup> Walsh et al., *Don’t Burn It Here*, 165-178.

<sup>50</sup> Julie Sze, *Noxious New York: The Racial Politics of Urban Health and Environmental Justice* (Cambridge: MIT Press, 2007), 77-79; Checker, “Like Nixon Coming to China,” 135-46, esp.142.

electoral politics, Izant commented, “that was sort of something that the Evergreen Alliance never wanted to have anything to do with. They had a much more strident sort of anarchist position.”<sup>51</sup>

Furthermore, Detroit’s incinerator project was significantly larger and more expensive than those in other cities, while its economy was less diversified, and consequently more severely affected by deindustrialization. Detroit was also more segregated than either Philadelphia or New York City, which made the building of diverse coalitions more difficult. In 1990, the U.S. Census Bureau classified the Detroit metropolitan area as the most segregated in the United States. African Americans comprised a minimal percentage of the population in most Detroit suburbs: 0.6 percent in Dearborn, 0.5 percent in Royal Oak, 0.3 percent in the 5 Grosse Pointes, and 0.3 percent in Livonia. Attitudes, as recorded in polls, reflected these divisions. In the epilogue to his 1989 book *Violence and the Model City*, historian Sidney Fine argued that suburban whites and inner-city African Americans in Detroit were even more “polarized” in the late 1980s than they had been after the Detroit Riot of 1967. To illustrate his point, Fine contrasted poll data from 1968 and 1987. In 1968, asked whether most whites wanted “to keep blacks down,” fewer than a quarter of black respondents in Detroit agreed with the statement (21 percent). Almost two decades later, in 1987, a majority of black respondents agreed with the statement (59 percent), as did over a third of white respondents (39 percent). Similarly, in the epilogue to the 1989 edition of his book *Detroit: City of Race and Class Violence*, B.J. Widick described a mood of pessimism among black Detroiters about the prospects for achieving equality with whites.<sup>52</sup>

---

<sup>51</sup> Interview with Izant.

<sup>52</sup> Sidney Fine, *Violence in the Model City: The Cavanaugh Administration, Race Relations, and the Detroit Riot of 1967* (Ann Arbor: University of Michigan Press, 1989), 462; B.J. Widick, *Detroit: City of Race and Class Violence*, 2nd Ed. (Detroit: Wayne State University Press, 1989), 231-68. In a 1992 poll, 78% of African American respondents said that Dearborn was an undesirable place to live due to the “racial prejudice of its residents.” 59% said the same of Warren, 36% of Troy, and 32% of Taylor. Respondents expressed the most favorable attitudes towards the relatively integrated suburbs of Southfield and Oak Park.

Reflecting on community responses to the Evergreen Alliance campaign, Carol Izant recalled that it was “not an easy sell with the African American community here in Detroit to try to educate and organize around the subject of environmental justice.” The reason, in her view, was that “a lot of people of color sort of traditionally viewed the environmental movement as a white movement, all we’re concerned about is tree-hugging, and concerned about nature, and spotted owls, and not concerned about people.”<sup>53</sup> While such criticisms were certainly in evidence in the 1970s, the situation in the late 1980s was quite different from that of a decade earlier. In 1979, Michelle Tingling wrote that the City Care conference in Detroit “took a profound step forward in building a coalition between the environmental and civil rights movements” and “symbolized the growing concern of black groups for environmentally-caused health hazards as well as the shifting focus of environmentalists to urban problems.”<sup>54</sup> From a national perspective, this statement was prescient. In Detroit, however, such a coalition only began to reemerge after 1991.

The successes of anti-incinerator campaigns in Highland Park, Virginia Park, and Hamtramck between 1994 and 2005 further underscore the significance of broad coalitions and support from public officials. In each of those cases, a diverse coalition succeeded in winning support from public officials, although in the case of Virginia Park only Jewel Ware played an active role (in contrast to city council members in Highland Park and Hamtramck). The contrast in the breadth of political coalitions, however, did not result from a lack of sustained effort by

---

See Reynolds Farley, Sheldon Danziger and Harry Holzer, *Detroit Divided* (New York: Russel Sage Foundation, 2000), 193.

<sup>53</sup> Interview with Izant; United Church of Christ Commission on Racial Justice, *Toxic Wastes and Race in the United States: A National Report on the Racial and Socioeconomic Characteristics of Communities Surrounding Hazardous Waste Sites* (New York: United Church of Christ, 1987).

<sup>54</sup> Michelle Tingling, Overview (or Summation), August 27, 1979, 2, folder 50, “City care conference,” box 4, Urban Environment Conference Records, Reuther Library.

Evergreen Alliance members, but from the different political situations in Detroit in the 1980s and the 1990s. The collapse of the labor-based environmental justice coalition that developed in the 1970s did not have a local replacement until after the 1991 UCC-CRJ conference.

### Conclusion

In his 1986 book *Solidarity and Fragmentation*, historian Richard Oestreicher argued that industrialization and urbanization created “intertwining tendencies” toward both “solidarity and fragmentation” in Detroit’s working class in the 1880s and 1890s.<sup>55</sup> A century later, the inverse processes of deindustrialization and suburbanization produced new forms of both solidarity and fragmentation in Detroit. As Christopher Mele has argued, neoliberal fiscal devolution, and financial disintermediation, made “fragments” of development, like casinos, prisons, and trash incinerators, viable amid the overall impoverishment of Rust Belt cities.<sup>56</sup> In this sense, Detroit’s municipal incinerator shared much in common with the Renaissance Center, Joe Louis arena, Millender Center, Poletown, and the Motor City and Greektown casinos. However, the GDRRF was the largest municipal project in Detroit’s history, outpacing all of those projects.

On the one hand, solidarity became possible at larger scales than ever before during this period. In part, this occurred because of growing international concern over global environmental problems, such as global warming, ozone depletion, and acid rain. Incinerators played a significant role in this new landscape; by 2000, according to the United Nations, incinerators accounted for 69 percent of the dioxin in the global environment.<sup>57</sup> As the world’s largest municipal incinerator,

---

<sup>55</sup> Richard Oestreicher, *Solidarity and Fragmentation: Working People and Class Consciousness in Detroit, 1875-1900* (Chicago: University of Illinois Press, 1986), xviii.

<sup>56</sup> Mele, “Casinos, Prisons, Incinerators,.” 425.

<sup>57</sup> Neil Seidman and Brenda Platt, “Counterpoint: The Realities of Waste-to-Energy,” *Waste News*, December 3, 2001.

the GDRRF attracted opposition from across the region, including in neighboring Ontario. By the early 2000s, the GDRRF became a target of opposition from international organizations, such as the Global Anti-Incinerator Alliance (GAIA).

On the other hand, the ongoing loss of manufacturing jobs, and the racialized polarization between Detroit and its suburbs, fragmented the coalition-building efforts that emerged from the Black Lake and City Care conferences. In Washington, D.C., the Reagan administration's "new federalism," and cuts in federal aid to cities, encouraged financial disintermediation. By increasing the reliance of cities on the municipal bond market, economic power shifted from the public sector to a multiplicity of private bondholders. And while regional divisions made it more difficult to build a broad-based movement against the incinerator, its linkage to the city's municipal bond debt strengthened Mayor Young's commitment to the project. After 1991, participants in the UCC-CRJ conference tried to build a new environmental justice movement in Detroit, but this time through community non-profits rather than unions. The following chapter will weigh the significance of these changes for urban environmental politics in Detroit.



**CHAPTER 7: DETROIT UNDER SIEGE: PRIVATIZATION, WATER SHUT-OFFS,  
AND THE POLITICS OF URBAN TRIAGE, 2000-2015**

*“Yes, you’ll hear the ‘they’re stealing our jewels.’ [...] The big challenge is political. Politicians tend not to gather around big ideas. Is there going to be a bankruptcy? Will there be an emergency manager? In the next year or so, there may be an interest in selling non-strategic assets.”*

Hal Sperlich, quoted in Tom Henderson, “Motown’s Monaco: Developer Envisions Independent Commonwealth,” *Crain’s Detroit Business*, January 12, 2013

*I think right now is a time where folks are seeing Detroit as just this big grab bag of resources, and they’re just pillaging and plundering the resources.*

Ahmina Maxey, interview with author, July 28, 2015

On January 12, 2013, *Crain’s Detroit Business* published an interview with Rodney Lockwood, a board member for the Mackinac Center for Public Policy and former chair of the Detroit Chamber of Commerce. The subject was Lockwood’s plan for the future of Belle Isle, described in his 2012 novel *Belle Isle: Detroit’s Game Changer*. Lockwood’s plan, based on a 2000 proposal from the Mackinac Center, was to form an investor group to purchase the 5.5-mile, 982-acre island park from the City of Detroit for \$1 billion. The next step was to found the Commonwealth of Belle Isle, an offshore tax haven and “independent commonwealth” with 35,000 citizens. The island’s official currency would be the Rand, named after the philosopher Ayn Rand. Disavowing references to apartheid, *Crain’s* assured readers that this was “not in imitation of the South African currency of the same name.” However, Lockwood explicitly favored some nationalities over others, proposing to recruit half of the new residents “through advertising campaigns targeting countries in northern climates whose residents are not deterred by cold winters.”<sup>1</sup>

<sup>1</sup> Rodney Lockwood, *Belle Isle: Detroit’s Game Changer* (Lexington, KY: self-published, 2012), 39-40, 55. For the announcement, see Tom Henderson, “Motown’s Monaco: Developer Envisions Independent Commonwealth,” *Crain’s Detroit Business*, January 12, 2013, <https://www.mackinac.org/archives/2013/011213CDB-belle.pdf> [accessed July 27, 2016]. For the Mackinac Center proposal, see Michael D.

Lockwood's novel and promotional web site elaborated this scheme further. They described the Commonwealth of Belle Isle 44 years in the future, as a free-market utopia with no minimum wage, a street named after Friedrich Von Hayek, and a Four Seasons Hotel with a penthouse called the Von Mises Suite. Applicants for citizenship would have to pay a fee, according to the web site, "which will probably be in the \$300,000 range." In the novel, Lockwood qualified this proviso, explaining that 20 percent of the slots would be open for "exceptions" with "some other attribute that we think will benefit Belle Isle." This elite enclave would not be a democracy, instead following Hayek's motto that "[i]t is always from a minority acting in ways different from what the majority would prescribe that the majority in the end learns to do better." In a presentation at the Detroit Athletic Club, Lockwood boasted that the Commonwealth of Belle Isle would have no "welfare or other government entitlement programs," because "you don't need those in a self-reliant society."<sup>2</sup>

Lockwood's novel laid out an equally extreme vision for the future of Detroit. In the mid-21<sup>st</sup> century, he wrote, Detroit would have only "about 45,000 people," and it would only include "the downtown area with the sports stadiums, theaters, restaurants, office and some residential." The residents would be "mostly younger professionals who live in lofts and rehabbed buildings." The old city, now called Greater Detroit, would be broken up into micro-municipalities with "their own city governments, police forces, and taxation rates" including "Palmer Woods, East Village, Jefferson, Corktown, Wayne State, Mexican Village, among others." In between, there would be "green zones," which would be "turned into farms, forests and parks." As for those currently

---

LaFaive, "For Whom the Private "Belle" Tolls: Is it Time to Privatize Belle Isle?" *Michigan Privatization Report*, December 1, 2000, <http://www.mackinac.org/3156> [accessed July 27, 2016].

<sup>2</sup> Lockwood, *Belle Isle*, 20, 119, 151; Henderson, "Motown's Monaco"; John Gallagher, "Utopian Belle Isle Vision Meets Skepticism: How Enclave Would Aid Detroit Isn't Clear," *Detroit Free Press*, January 22, 2013, C1.

living on that land, they would not have the option of staying put. According to Darin, one of the novel's protagonists, "[t]he billion dollars which was received from the sale of Belle Isle helped fund the relocation of residents from green zones to the new cities." Some would also work on urban farms established by the wealthy "freedom advocates" on Belle Isle. Lockwood described one Greater Detroit farm, owned by a Belle Isle citizen named Andrew, where the workers were "former prisoners who are re-entering society and developing work skills."<sup>3</sup>

Most local business leaders scoffed at Lockwood's proposal; like the imagined community of Atlantis in *Atlas Shrugged*, it was likely to remain fictional.<sup>4</sup> However, as this chapter will demonstrate, the neoliberal logic behind Lockwood's vision also permeated the dominant redevelopment plans for 21<sup>st</sup> century Detroit. Between 2000 and 2015, Emergency Managers, empowered by legislation the Mackinac Center helped to draft, implemented many of the think tank's recommendations.<sup>5</sup> As the Mackinac Center had long recommended, Emergency Managers

---

<sup>3</sup> Lockwood, *Belle Isle*, 65-68.

<sup>4</sup> Gallagher, "Utopian Belle Isle Vision Meets Skepticism." The Commonwealth of Belle Isle belonged to a genre that historian Raymond Craib calls "libertarian enclaves," including the failed Republic of Minerva, planned by Ludwig von Mises disciple Michael Oliver, and the Seasteading Institute, established by billionaire PayPal founder Peter Thiel. Historically, such enclaves have appealed to libertarians as what Craib calls "escape geographies," creating special zones for capital accumulation outside the bounds of political democracy, and the related threat of redistribution. See Raymond Craib, "Escape Geographies and Libertarian Enclosures," Yale Program in Agrarian Studies Colloquium, February 2015, <http://agrarianstudies.macmillan.yale.edu/sites/default/files/files/CraibAgrarianStudies.pdf> [accessed July 27, 2016]. Also see Philip E. Steinberg, Elizabeth Nyman, and Mauro J. Caraccioli, "Atlas Swam: Freedom, Capital, and Floating Sovereignities in the Seasteading Vision," *Antipode*, Vol. 44 No. 4 (September 2012), 1532-1550.

<sup>5</sup> See James H. Hohman, "Mackinac Center Recommendations Found in New Financial Emergency Legislation," March 17, 2011, <http://www.mackinac.org/14756> [accessed July 31, 2016]. The Mackinac Center's funders in 2001-2013 included (among others) the Walton Family Foundation, the ExxonMobil Foundation, the Dow Foundation, the Charles G. Koch Charitable Foundation, the Dick and Betsy DeVos Foundation, and the Sarah Scaife Foundation. For documentation, based on IRS forms and other public data, see Greg Steimel, "The Truth About the Mackinac Center," Michigan Education Association, August 2015, <http://www.mea.org/sites/default/files/images/MEAMatters.pdf> [accessed July 31, 2016], 1-20; "Mackinac Center for Public Policy," *Sourcewatch*, [http://www.sourcewatch.org/index.php/Mackinac\\_Center\\_for\\_Public\\_Policy](http://www.sourcewatch.org/index.php/Mackinac_Center_for_Public_Policy) [accessed July 31, 2016].

moved to privatize Detroit's public water, schools, lighting, and waste collection systems; dissolve public sector union contracts; and lease Belle Isle to the state of Michigan. Emergency Managers also ramped up a policy of shutting off water for "delinquent accounts," resulting in a humanitarian crisis for over 100,000 residents, provoking condemnations from the United Nations Human Rights Council.<sup>6</sup>

In 2013, the same year that Detroit entered Emergency Management, the city adopted a "rightsizing" plan, called Detroit Future City (DFC). The plan, funded by Kresge, Erb, Kellogg, and other local foundations, would reduce or decommission services (including water, sewers and streetlights) in nearly half the city. It called for concentrating resources in a downtown-centered "digital/creative" zone for "new professionals and young entrepreneurs," while replacing dozens of miles of decommissioned neighborhoods with urban forests, prairies, stormwater retention ponds, and commercial farms. In its vision of downtown gentrification, combined with green spaces created through urban triage, the twenty-year DFC plan shared fundamental assumptions with Lockwood and the Mackinac Center.<sup>7</sup>

This chapter examines how environmental justice activists in Detroit responded to this

---

<sup>6</sup> For examples of Mackinac Center proposals which later became policy, see "Competition Teaches Detroit Schools about Privatization," *Michigan Privatization Report*, August 1, 2000, <https://www.mackinac.org/3007>; Gary Wolfram, "Don't Waste Water Treatment Privatization Opportunities," *Michigan Privatization Report*, December 1, 2000, <http://www.mackinac.org/3162>; Ronald D. Utt, "Time to Privatize Detroit's Public Lighting Department," *Michigan Privatization Report*, April 9, 2002, <http://www.mackinac.org/4149>; Paul Kersey and Joseph P. Overton, "Right-to-Work Laws Accelerate Economic Development," June 5, 2002, <https://www.mackinac.org/4399>; "From the Mackinac Vault: Motown's Emergency Manager Recommendations," July 1, 2013 [all articles accessed July 31, 2016]. For other examples of conservative think tank influence in Detroit, see Joshua Akers, "Making Markets: Think Tank Legislation and Private Property in Detroit," *Urban Geography* Vol. 34 No. 8 (2013), 1070-1095.

<sup>7</sup> For critiques of Detroit Future City, see Sarah Safransky, "Greening the Urban Frontier: Race, Property, and Resettlement in Detroit," *Geoforum* 56 (2014), 236-248; Jason Hackworth, "Rightsizing as Spatial Austerity in the American Rust Belt," *Environment and Planning A* Vol. 47 No. 4 (2015), 766-782; Lucas Owen Kirkpatrick, "Urban Triage, City Systems, and the Remnants of Community: Some "Sticky" Complications in the Greening of Detroit," *Journal of Urban History* Vol. 41 No. 2 (2015), 261-278.

agenda of urban triage, advocated by think tanks, local foundations, and real estate developers alike. The most militant response to this agenda, the chapter shows, came from welfare rights activists and public sector unionists, who joined environmental organizations in a coalition called the People’s Water Board in 2009. These activists defined “environmental justice” as a defense of the commons against privatization, and of low-income urban residents’ rights to water, housing, and the city itself. At the same time, the chapter documents how some environmental justice non-profits, because of their funding base, had difficulty challenging the DFC plan. Anthropologist Melissa Checker has recently argued that environmental justice non-profits “might be inadvertently co-opted to facilitate gentrification” in certain contexts. This chapter goes further, arguing that environmental justice non-profits in Detroit were not “inadvertently co-opted.” While some non-profits maintained an oppositional stance, others became active participants in the DFC plan, received funding from polluting industries, and even became dominated by financial consultants and real estate developers. The meaning of “environmental justice” thus became contested territory in 21<sup>st</sup> century Detroit.<sup>8</sup>

---

<sup>8</sup> Melissa Checker, “‘Wiped Out by the Greenwave’: Environmental Gentrification and the Paradoxical Politics of Urban Sustainability,” *City & Society* Vol. 23 No. 2 (December 2011), 210-229. On the structural power of funders over non-profits, also see Karen Ferguson, *Top Down: The Ford Foundation, Black Power, and the Reinvention of Racial Liberalism* (Philadelphia: University of Pennsylvania Press, 2013); John Arena, *Driven from New Orleans: How Non-Profits Betray Public Housing and Promote Privatization* (Minneapolis: University of Minnesota Press, 2012); Ruth Wilson Gilmore, “In the Shadow of the Shadow State,” in INCITE! Women of Color Against Violence, eds., *The Revolution Will Not Be Funded: Beyond the Non-Profit Industrial Complex* (Boston: South End Press, 2009), 41-52; Tammy Lewis, *Ecuador’s Environmental Revolutions: Ecoimperialists, Ecodependents, and Ecoresisters* (Cambridge: MIT Press, 2015); Peter Dauvergne and Genevieve LeBaron, *Protest, Inc.: The Corporatization of Activism* (Somerset, MA: Wiley, 2014).

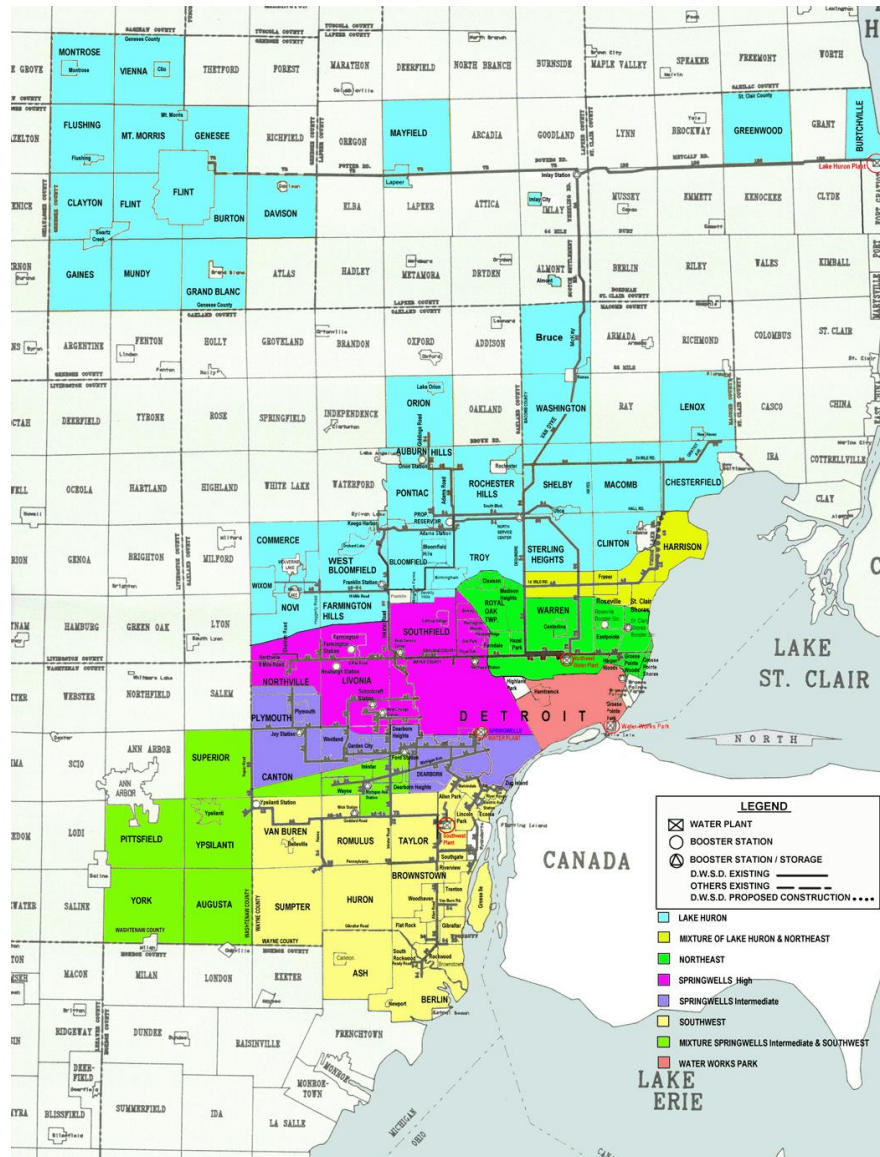


Fig. 7.1. Detroit Water and Sewerage Department Service area. Source: Detroit Water and Sewerage Department, 2015. Source: [http://www.dwsd.org/images\\_n/map\\_water\\_regular.gif](http://www.dwsd.org/images_n/map_water_regular.gif) [accessed July 27, 2016].

### ‘Privatization Through the Back Door’

On the campaign trail in 1992, Dennis Archer had won endorsement from the American Federation of State, County, and Municipal Employees (AFSCME) by pledging not to privatize city jobs. However, while in office, City Workers for Justice accused him of pursuing “privatization through the back door” by subcontracting out city work. Against objections from

public sector unions, Archer increased the use of private contractors in municipal lighting, water and sewage, snow removal, and other services. By the early 21<sup>st</sup> century, the city had laid off almost half of its public employees, who were disproportionately middle- and working-class African Americans. Despite this radical downsizing, Detroit retained considerable public assets. By far the most valuable of these assets was the Detroit Water and Sewerage Department (DWSD). By the year 2000, DWSD serviced a 1,079-square-mile area, providing water to four million customers in Wayne, Oakland, Macomb, Genesee, Washtenaw, St. Claire, and Lapeer counties. Using water from Lake Huron, Lake St. Clair, and the Detroit River, the system encompassed a vast, 3,880-mile network of water and sewer lines, and four wastewater treatment plants (Fig. 7.1).<sup>9</sup>

Between 1977 and 2010, Federal District Court Judge John Feikens oversaw a DWSD consent decree with the EPA. While DWSD remained in violation of the Clean Water Act, Feikens retained considerable authority over DWSD's operations. In 2002, Feikens authorized Detroit mayor Kwame Kilpatrick to hire the Infrastructure Management Group (IMG), a pro-privatization consulting firm, to advise the city on "potential cost containment strategies related to the operation and maintenance of DWSD[.]" Kilpatrick's DWSD director, Victor Mercado, chosen on the recommendation of Judge Feikens, had been personally involved in the privatization of several municipal water systems. Mercado had previously worked for United Water, a subsidiary of the French multinational Suez, the world's largest private water company at the time. He served as Vice President and General Manager of United Water of Bethel, Pennsylvania and West Virginia, and as General Manager of Thames Water Puerto Rico from 1999 to 2002. In 1999, the city of

---

<sup>9</sup> Jesse Long-Bey, "Unions, Groups March Against Privatization," *Michigan Citizen*, April 10, 1999, A1; Diane Bukowski, "Archer Slashes City Services," *Michigan Citizen*, December 15, 2001, A1; "Agenda After Archer: Here's Our To-Do List." *Crain's Detroit Business* 23 Apr. 2001, 8; "Motor City Meltdown," *The Nation*, August 16-26, 2013; Detroit Water and Sewerage Department, "DWSD Fact Sheet," June 10, 2014, [http://www.dwsd.org/downloads\\_n/about\\_dwsd/fact\\_sheet/dwsd\\_fact\\_sheet.pdf](http://www.dwsd.org/downloads_n/about_dwsd/fact_sheet/dwsd_fact_sheet.pdf) [accessed July 27, 2016].

Atlanta had hired United Water to privatize its water system, before cancelling the contract in 2003 amid widespread complaints of rate increases, billing irregularities, and poor infrastructure maintenance. In Detroit, complaints about water service during Mercado's tenure closely resembled those of Atlanta residents after the takeover by United Water. Working with the Infrastructure Management Group, Mercado expanded hiring of private contractors, while cutting DWSD's maintenance and repair staff by 13 percent.<sup>10</sup>

At the same time, DWSD began an aggressive shut-off policy for delinquent accounts. Between July 2001 and July 2002, according to the Michigan Welfare Rights Organization, DWSD shut off water to 40,752 households in the city of Detroit. The Kilpatrick administration used the threat of privatization to secure municipal workers' consent for the shut-off program. Kilpatrick's Finance Director, Sean Werdlow, warned DWSD workers that the city would replace them with private contractors if they did not shut off delinquent accounts. While the union grudgingly acquiesced, the privatization program continued alongside the shut-offs. As John Riehl, President of AFSCME Local 207, told the *Michigan Citizen* in 2004, "[a]s workers are fired, quit, promoted or retire they are not replaced. The resources DWSD could put into workers' wages are now being given to outside contractors." City workers also complained that private contractors, hired on the advice of IMG, performed substandard work, and cut corners with unsafe practices. The contracting process itself was notoriously corrupt, as subsequent litigation would prove. A decade

---

<sup>10</sup> On the hiring of IMG, see United States Bankruptcy Court, Eastern District of Michigan, Southern Division, Case No. 13-53846, <http://www.mieb.uscourts.gov/sites/default/files/detroit/docket7885.pdf> [accessed July 26, 2016], 10. On Mercado's selection, see M.L. Elrick, "Victor Mercado, Vice President of Thames Water North America, Tapped as Water Chief for Detroit," *Detroit Free Press*, June 13, 2002; Bukowski, "Hands Off our Water!" On United Water in Atlanta, see Douglas Jehl, "As Cities Move to Privatize Water, Atlanta Steps Back," *New York Times*, February 10, 2003. Thames Water was a public utility until it was privatized by Prime Minister Margaret Thatcher in 1989. See Karen Piper, *Global Water Inequality and the Coming Chaos* (Minneapolis: University of Minnesota Press, 2014), 18. On problems resulting from water privatization around the world, see *Ibid.*, 103-204; Maude Barlow, *Blue Future: Protecting Water for People and the Planet Forever* (New York: New Press, 2013), 67-117.



after Riehl's interview, Mercado admitted to federal prosecutors that he illegally rigged \$70 million in DWSD contracts for a single individual, Bobby Ferguson. The amount siphoned from DWSD's budget to other private contractors, however, remained unknown.<sup>11</sup>

While DWSD outsourced its operations to private contractors, complaints of billing irregularities mounted. To make up for lay-offs of meter readers, DWSD began to institute an "estimated" billing policy, whereby residents paid for an average amount of water, rather than the precise quantity they used. Billing errors became rampant, much as they had in Atlanta under United Water. Some residents reported receiving bills for nearby businesses, rather than the homes they occupied. Many complained of DWSD's failure to repair water leaks in thousands of abandoned properties, while shutting off delinquent accounts for occupied homes. During the same period, water rates doubled in the city of Detroit. The city's loss of population and tax base, coupled with the fixed capital costs of a regional service area, produced upward pressure on rates. DWSD's debt to municipal bondholders also factored into rate increases. In response to a 2003 proposal by Detroit City Council President Maryann Mahaffey to limit water rates to 10 percent of poor residents' income, Mercado countered that such a policy "would certainly have a serious impact on our bond ratings by the financial community if implemented."<sup>12</sup>

<sup>11</sup> On the shut offs in 2001-2002, see Michigan Welfare Rights Organization, "Recent History of Utility Shut-offs for Detroit's Poor, Disabled, and Seniors (2002)," [http://mwro.org/past\\_actions.htm](http://mwro.org/past_actions.htm) [accessed July 31, 2016]; Diane Bukowski, "40,000 Homes, No Water," *Michigan Citizen*, February 1, 2003, A1. On service cuts, see idem., "Water Dept. Cuts, Icy Streets Linked," *Michigan Citizen*, February 21, 2004, A1; idem., "Mayor Appoints Privatization Wiz," *Michigan Citizen*, June 27, 2004, A1. On corruption under Mercado, see Gus Burns, "Ex-Detroit Water Boss Victor Mercado Learns Sentence for Involvement in Kwame Kilpatrick Corruption Wednesday," *Mlive.com*, May 20, 2014, [www.mlive.com/news/detroit/index.ssf/2014/05/ex-detroit\\_water\\_boss\\_victor\\_m.htm](http://www.mlive.com/news/detroit/index.ssf/2014/05/ex-detroit_water_boss_victor_m.htm) [accessed August 12, 2016].

<sup>12</sup> On the effects of deindustrialization and population decline on urban water systems, see Kasey M. Faust, Dulcy M. Abraham, and Shawn P. McElmurry, "Water and Wastewater Infrastructure Management in Shrinking Cities," *Public Works Management & Policy* Vol. 21 No. 2 (2016), 128-156. On billing errors and shoddy maintenance work under Mercado, see Jennifer Suzanne Carrera, "Sanitation and Social Power in the United States" (Ph.D. Dissertation: University of Illinois-Urbain-Champaign, 2014), 163-66. On early rate increases under Mercado, see Diane Bukowski, "Water dept. backs down on promise," *Michigan*

The doubling of water rates under Mercado coincided with the removal of income supports for poor Detroiters. Following President Clinton's signing of the Personal Responsibility and Work Opportunity Reconciliation Act ("welfare reform"), the number of recipients of cash assistance in Wayne County fell from an estimated 198,000 in 1995-1996 to 32,613 by 2003, dropping to 15,238, by 2013. In addition to replacing Aid to Families with Dependent Children (AFDC) with Temporary Assistance for Needy Families (TANF), the bill devolved control over welfare spending to the states, which also cut indirect income supports.<sup>13</sup>

In October 2002, as part of welfare reform, Michigan Governor John Engler eliminated the Vendor Pay Program, whereby the Family Independence Agency assisted TANF recipients with utility bills to prevent shut-offs. Overnight, nearly 30,000 low-income people in Wayne County became vulnerable to shut-offs. As the Michigan Welfare Rights Organization (MWRO) February 2003 newsletter noted, "[t]his is when our telephones at MWRO began to ring off the hook," as thousands of impoverished families faced gas, electricity, and water shut-offs. In response, MWRO launched a campaign for utility affordability, and against shutoffs and privatization, while announcing that "we are contacting the United Nations and have begun to formulate formal requests for foreign aid." This struggle, beginning in the city of Highland Park, would later play out on a larger scale in the city of Detroit.<sup>14</sup>

---

*Citizen*, March 15, 2003, A1.

<sup>13</sup> Wayne County Metro Community Action Agency, "2013 Community Assessment" (2013), 42-43, <https://www.waynemetro.org/file/207/download%3Ftoken%3D8f3QoYvw+&cd=3&hl=en&ct=clnk&gl=us> [accessed July 28, 2016]; Scott W. Allard, "Place, Race and Work: The Dynamics of Welfare Reform in Metropolitan Detroit," Brookings Institution (September 2001), <https://www.brookings.edu/wp-content/uploads/2016/06/allard.pdf> [accessed July 31, 2016], 1-11.

<sup>14</sup> On the elimination of the Vendor Pay Program and water shut-offs in Detroit and Highland Park, see Michigan Welfare Rights Organization, "Recent History of Utility Shut-offs for Detroit's Poor, Disabled, and Seniors" (2002), [http://mwro.org/past\\_actions.htm](http://mwro.org/past_actions.htm) [accessed July 31, 2016]; Carrera, "Sanitation and Social Power," 159-162; "DTE Turns on Gas & Electricity," *People's Bulletin* (February 2003) No. 1, [http://mwro.org/bulletin\\_203\\_n1.htm](http://mwro.org/bulletin_203_n1.htm) [accessed July 28, 2016]; Jesse Long-Bay, "FIA Decision Puts Many

### “Water is Life!”

In the decades after 1914, when Henry Ford introduced the \$5 day at his Model T factory, Highland Park came to symbolize what Frederick Winslow Taylor called “Fordism” (a term later popularized by Antonio Gramsci). This new regime linked mass production with mass consumption, as rising wages accompanied rising labor productivity, enabling workers to purchase an expanding array of consumer goods. For the first half of the 20<sup>th</sup> century, Highland Park roughly conformed to this model of growth. A mere village in 1910, Highland Park’s population rose to 46,500 in 1920, and remained at roughly the same level in 1950. In 1950, 44.7 percent of Highland Park residents worked in manufacturing, and the median income was \$3,395, higher than the Michigan average of \$3,195. In 1973, Ford transferred its final remaining operations from Highland Park, and between 1991 and 1993 Chrysler relocated its corporate headquarters from Highland Park to the Detroit suburb of Auburn Hills. The closure of Chrysler’s headquarters in 1992 removed the last vestiges of auto industry employment from Highland Park. In 1990, the city’s population was less than half its 1950 level, at 20,121. By 2000, its population was 16,746, and in 2010 it was only 10,375, of whom 93.5 percent were African American. The city’s per capita income was only \$13,539, and 51.1 percent of the residents lived below the federal poverty line. A century after Ford introduced the \$5 day, Highland Park symbolized a different economic regime, characterized by a shrinking formal economy and downward mobility for working class Americans (particularly African Americans).<sup>15</sup>

---

in Jeopardy,” *Michigan Citizen*, December 14, 2002, A1.

<sup>15</sup> United States Census Bureau, “Population and Housing: 1950,” “General Characteristics: Michigan,” Table 10, 22-43, available at <http://www2.census.gov/prod2/decennial/documents/37779850v2p22.zip> [Accessed July 28, 2016]; United States Census Bureau, “Highland Park (city), Michigan,” <http://quickfacts.census.gov/qfd/states/26/2638180.html> [accessed July 28, 2016]. On the shrinkage of the formal economy under neoliberalism, see Saskia Sassen, *Expulsions: Brutality and Complexity in the Global Economy* (Cambridge: Harvard University Press, 2014), 12-79. Also see Peter Temin, “The American Dual

No issue better illustrated this dynamic than water. As Highland Park's tax and employment base disappeared, the city began to face the prospect of state receivership, a fate that befell the city of Ecorse in 1986, and Hamtramck in the year 2000. In 2001, Governor Engler appointed Ramona Pearson as the Emergency Financial Manager for Highland Park. Under Pearson, Highland Park began adding delinquent water bills to Highland Park residents' property tax bills. While closing schools and libraries, and downsizing the Highland Park Water Plant staff to four employees, Pearson dramatically increased water rates. By 2003, Highland Park's water rates were over three times the national average (close to \$1,500 versus \$475 per year). Meanwhile, Pearson began negotiations with the Rothschild-Wright Group, LLC about privatizing the Highland Park Water Plant. According to the city's proposed contract, the Rothschild-Wright Group could sell water from Highland Park's private reservoir for the sale of bottled water.<sup>16</sup>

In response, local activists in the MWRO, the Highland Park Human Rights Coalition, and the Sweetwater Alliance organized daily protests to fight the shut-offs and privatization. Others had long been involved in Detroit social movement politics. The Highland Park Human Rights Coalition, for example, included Michigan Welfare Rights veteran Marian Kramer and her husband, DRUM co-founder General Baker, as well as Vallory Johnson and other life-long Highland Park residents. Environmental activists also played a role. One member of the

---

Economy: Race, Globalization and the Politics of Exclusion," November 30, 2015, Institute for New Economic Thinking Working Paper No. 26, <https://www.ineteconomics.org/uploads/papers/The-American-Dual-Economy-Race-Globalization-and-the-Politics-of-Exclusion.pdf> [accessed July 28, 2016].

<sup>16</sup> Veronica Lake, "Privatizing Water, the New World War," *Against the Current* No. 108 (January-February 2004); "Pension Attack," *OSARC Newsletter* Vol. 13 No. 5 (December 2005), 7-11; Highland Park Human Rights Coalition, "Highland Park Water Crisis: Information Sheet" (2003), [www.mwro.org/HPHRC%20water%20crisis%20info.doc](http://www.mwro.org/HPHRC%20water%20crisis%20info.doc) [accessed August 3, 2016], 1-2. For a narrative of these events, including interviews with the main participants, see the documentary *The Water Front*, directed by Elizabeth Miller (Bullfrog Films, 2007). Also see Elizabeth Miller, "Building Participation in the Outreach for the Documentary *The Water Front*," *Journal of Canadian Studies* Vol. 43 No. 1 (Winter 2009), 59-87.

Sweetwater Alliance, Marie Mason, had previously been a member of WEAVE and the Evergreen Alliance. In one protest in July 2003, the Sweetwater Alliance and Earth First! occupied Highland Park's city hall, hanging a banner from the roof that read, "Stop the Cut-Offs! Water is Life!" In 2004, in the face of popular outrage, the Highland Park City Council voted down the privatization proposal, and Pearson abandoned the plan. Soon after, Governor Jennifer Granholm asked Pearson to resign.<sup>17</sup>

The majority of the activists in the Detroit and Highland Park water struggles were women, and many had been involved in the welfare rights movement in Detroit for decades. As Maureen Taylor of the MWRO wrote in a 2003 essay, "it was fitting that in the case of Detroit, organizations led by women (and the many individual women who joined them) were those who stepped up to oppose human rights violations in Detroit." Taylor noted that, in Detroit (like elsewhere), "women-led households are often poor." As a result, women and their children figured disproportionately among the "obscene number of people without water." In these respects, Taylor's observations dovetailed those of many activists and academics who have found that water privatization, and the rate increases and access restrictions it typically involves, disproportionately harm poor women and children.<sup>18</sup>

---

<sup>17</sup> Massauga Earth First! Press Release, "Activists Occupy and Hang a Banner from the Highland Park Municipal Building in Protest of Water Shut-Offs," July 28, 2003, <http://www.great-lakes.net/lists/enviro-mich/2003-07/msg00138.html> [accessed July 28, 2016]; "Sweetwater Alliance Condemns Water Privatization Scheme in Highland Park," *Michigan Citizen*, July 25, 2004, A6; Rachel Parsons, "Smart Bombs and Coca Cola: Capitalism's Big Plans for Highland Park," *Critical Moment* No. 10 (May-June 2005), 14-15; "Soak It In," *Metro Times*, November 11, 2009.

<sup>18</sup> Maureen Taylor, "The United States: Refusing to Back Down," in United Nations Development Programme, *Resource Guide: Mainstreaming Gender in Water Resource Management* (November 2006), 229-230, <http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/water-governance/resource-guide-mainstreaming-gender-in-water-management/TWRMGenderResourceGuide-English-200610.pdf> [accessed July 27, 2016]. Numerous case studies document how water privatization exacerbates gender inequality. See, example, Rebecca Brown, "Unequal Burden: Water Privatisation and Women's Human Rights in Tanzania," *Gender and Development* Vol. 18 No. 1 (March 2010), 59-68; Farhana Sultana, Chandra Talpade Mohanty and Sarah Miraglia, "Gender Justice and Public

More broadly, these activists viewed the mass water shut-offs as a crisis of democracy. As Maureen Taylor wrote in 2007, “[a]ccess to water, access to means of survival is one of the tenets that democracy is built on. When you have a class of people that are denied the ability to live, that is a straight-up democratic fight.”<sup>19</sup> Indeed, the connections between democracy, citizenship rights, and water were manifold. In both Detroit and Highland Park, water shut-offs escalated in the context of privatization and emergency management, both of which placed basic decisions about water supplies in the hands of unelected, unaccountable officials and institutions. In reversing the 19th century trend toward the de-commodification of water, these trends constricted the scope of urban democracy and citizenship rights.<sup>20</sup>

### **The Struggle for Water Affordability**

MWRO leaders recognized that, for low-income households to maintain access to water, a change in existing rate structures was necessary. With help from economist Roger Colton, an expert on utility rate structures, MWRO developed an income-based Water Affordability Plan (WAP). The plan would cap water bills at 2 percent of household income for residents with incomes below 50 percent of the federal poverty line. For residents at 50-100 percent of the federal poverty line, the cap would rise to 2.5 percent; for those at 50-100 percent, the cap would rise to 3

---

Water for All: Insights from Dhaka, Bangladesh,” *Municipal Service Project Occasional Paper* No. 17 (April 2013), [http://municipalservicesproject.org/sites/municipal\\_servicesproject.org/files/event/Sultana-Mohanty-Miraglia\\_Gender\\_justice\\_and\\_public\\_water\\_for\\_all\\_Insights\\_from\\_Dhaka\\_Bangladesh\\_Apr\\_2013.pdf](http://municipalservicesproject.org/sites/municipal_servicesproject.org/files/event/Sultana-Mohanty-Miraglia_Gender_justice_and_public_water_for_all_Insights_from_Dhaka_Bangladesh_Apr_2013.pdf) [accessed July 27, 2016], 2-23.

<sup>19</sup> On the welfare rights movement in Detroit, see Premilla Nadasen, *Welfare Warriors: The Welfare Rights Movement in the United States* (New York: Routledge, 2005), 125-127, 146-155. For the Taylor quote, see Chris Caruso, “A Case Study in Organizing: The Struggle for Water in Post-Industrial Detroit,” in Willie Baptist and Jan Rehman, eds., *Pedagogy of the Poor: Building a Movement to End Poverty* (New York: Columbia University Teachers College Press, 2011), 84-100, esp. 92; also see Maureen Taylor, “United States: Refusing to Back Down,” in Grossman et al., *Diverting the Flow*, 1-2.

<sup>20</sup> On the historical relationship between decommodification and democracy, see Gøsta Esping-Andersen, *The Three Worlds of Welfare Capitalism* (Cambridge: Polity Press, 1990), 35-54, 128-9.

percent. As Alice Jennings of the Edward & Jennings law firm recalled, Colten told City Council and DWSD, “Look, if you implement this, you’re actually going to get more money, people can afford...they will stay plugged in, and you’ll be fine.” In June 2006, the Detroit City Council passed a resolution calling for DWSD to implement WAP. However, the Kilpatrick administration and DWSD never acted on the resolution. Between January and July 2007, DWSD shut off another 6,300 delinquent accounts. In September, DWSD announced an alternative plan, called the Detroit Residence Water Assistance Program (DWRAP). As Jennings put it, “they implemented a watered-down, non-effective plan of assistance, not affordability.”<sup>21</sup>

Rather than implementing Council’s resolution, DWRAP provided up to \$1,500 in assistance in back balances for qualified ratepayers, but only as a one-time payment. Moreover, rate increases continued. In 2007, Council approved a 7.3 percent rate increase. Then, in February 2008, DWSD proposed another 8.8 percent rate increase. Local unions, and some DWSD workers, argued that DWSD’s rising bond debt played a role in the rate increases. In an interview with the *Michigan Citizen*, DWSD chemist Saulus Simolaunus estimated that, for every dollar that ratepayers gave to DWSD, 53 cents went to service bond debt. Indeed, the shut-off crisis was directly linked to both municipal and household debt, which had increased due to the marketing of high-risk loans in deregulated financial markets. In 2001, 2003, 2004, and 2005, DWSD made a series of interest rate swap deals with creditors, which constituted bets that interest rates would rise. If they fell, the city would be forced to pay “swap termination payments.” In a July 2006 *Bond Buyer* interview, Moody’s analyst Jonathan North said that DWSD “will be able to meet any termination requirements, given its liquidity profile.” However, as former Goldman Sachs

<sup>21</sup> Alice Jennings, interview with author, September 2, 2015; Carrera, “Sanitation and Social Power,” 166-67; Diane Bukowski, “Council Douses Water Rate Increases,” *Michigan Citizen*, March 4, 2007, A1, A4; idem., “Unions Sue, Suspect Water Takeover,” *Michigan Citizen*, May 6, 2007, A1, A4; idem., “Detroiters Face 9% Water, Sewer Rate Hike,” *Michigan Citizen*, February 17, 2008, A1, A4.

economist Wallace C. Turbeville noted in a 2013 analysis of Detroit’s municipal debt, these swap deals “were particularly ill-suited for a city like Detroit,” which faced a high risk of a lowered credit rating.<sup>22</sup>

In 2005, the city entered a particularly risky \$1.44 billion deal with UBS AG and Merrill Lynch Capital Services (later acquired by Bank of America). As Nathan Bomey of the *Detroit Free Press* reported in 2013, the deal “involved two layers of speculative financial instruments,” including variable-rate debt to fund city worker pensions, and an interest-rate swap to fund DWSD. The deal was personally beneficial for Detroit Finance Director Sean Werdlow, who took a position at Siebert Brandford Shank & Co., the firm that handled the deal, in November 2005. Werdlow later became the CEO of the firm. However, the deal was disastrous for the city. The deal constituted a bet that interest rates would rise rather than fall, a Federal Reserve policy that the banks were in a better position to predict than Detroit. After interest rates plummeted in 2007-2008, as a result of the Fed’s quantitative easing policy, Detroit lost the bet, increasing its pension debt to \$770 million. The banks also charged DWSD \$537 million in “swap termination fees,” necessitating further water rate increases to meet the debt service.<sup>23</sup>

During the same period, the increase in household debt in Detroit contributed to delinquent water bills. The proliferation of adjustable-rate subprime mortgages in Detroit between 2000 and

---

<sup>22</sup> Diane Bukowski, “Commission: Shutoffs Are Illegal,” *Michigan Citizen*, May 11, 2008, A1, A4; idem., “City to Hike Water Rates,” *Michigan Citizen*, March 22, 2009, A1, A4; Elizabeth Carvlin, “Detroit Sets \$616M Water Deal; More in Pipeline,” *Bond Buyer*, July 12, 2006, 1; Caitlin Devitt, “Detroit in Focus: Detroit to Restructure \$800 Million; Sewer, Water Deal to Use BHAC Backing,” *Bond Buyer*, April 30, 2008, 1; Wallace C. Turbeville, “The Detroit Bankruptcy,” *Demos*, November 2013, <http://www.demos.org/publication/detroit-bankruptcy> [accessed July 28, 2016], 1-56, esp. 5; Curt Guyette, “Bad Interest Rate Swaps Contribute to Detroit Water Crisis and Financial Crisis,” *Metro Times*, August 6, 2014.

<sup>23</sup> “Budget Holes,” *Metro Times*, October 5, 2005; John Gallagher, “Ex-Detroit Official Defends 2005 Pension Deal Blamed in City’s Downfall,” *Detroit Free Press*, November 21, 2013; Nathan Bomey, “Detroit Seeks Kwame Kilpatrick Records in Bankruptcy Fight,” *Detroit Free Press*, July 2, 2014.



2007 led to runaway mortgage debt for low-income households. Facing the prospect of losing their homes, many residents chose to risk losing their water by ceasing to pay their water bills. Yet, because unpaid water bills went onto homeowners' tax liens, they contributed to tax foreclosures. More broadly, Detroit's fiscal crisis—exacerbated by predatory lending to Detroit households and the city government—accelerated the process of regionalizing and privatizing DWSD. This process, in turn, contributed to rising water rates.

### **Water and the Subprime Foreclosure Crisis**

Neither the Kilpatrick administration's swap deals, nor the proliferation of subprime mortgages in Detroit, would have been possible without financial deregulation. In 1994, President Clinton signed the Riegle-Neal Interstate Banking and Branching Efficiency Act, which removed restrictions on interstate consolidation in the banking industry, leading to a near-halving of the number of regional and local banks in the United States, from 15,000 in 1990 to 8,000 in 2009. Then, Clinton signed the Gramm-Leach-Bliley Act (also known as the Financial Services Modernization Act) in 1999, and the Commodity Futures Modernization Act (CFMA) in 2000. Whereas the first bill repealed the Glass-Steagall Act, removing the New Deal-era firewall between commercial banks, investment banks, securities firms, and insurance companies, the second deregulated the swaps market. As the authors of a 2011 Senate investigative report noted, the CFMA "allowed U.S. banks, broker-dealers, and other financial institutions to develop, market, and trade unregulated financial products, including credit default swaps, foreign currency swaps, interest rate swaps, energy swaps, total return swaps, and more." As a direct result of deregulation, the market for credit default swaps grew rapidly, from \$180 billion in 1998 to \$6 trillion in 2004 and \$57 trillion by the summer of 2008. The aggressive marketing of high-risk swap deals to

municipalities, from Detroit to Chicago to San Francisco, facilitated the growth of this market.<sup>24</sup>

**Table 7.1. Metropolitan Areas Ranked by Number of Subprime Foreclosures, 2005-2007**

1. Detroit, MI
2. Cleveland, OH
3. Stockton, CA
4. Sacramento, CA
5. Riverside/San Bernardino, CA
6. Memphis, TN
7. Miami/Fort Lauderdale, FL
8. Bakersfield, CA
9. Denver, CO
10. Las Vegas, NV

Source: U.S. Senate, Majority and Minority Staff Report, Permanent Subcommittee on Investigations, “Wall Street and the Financial Crisis: Anatomy of a Financial Collapse,” April 13, 2011, 86.

Financial deregulation also enabled the mass marketing of high-risk, adjustable-rate “subprime loans” in metropolitan areas across the United States. Low-income African American communities, historically redlined by mortgage lenders, became a lucrative market for subprime loans. In this respect, Detroit stood at the forefront of a national trend. In 2005, 68 percent of the mortgages in Detroit were subprime, compared with 27 percent in Michigan as a whole, and 21 percent in the United States. Between 2005 and 2007, Detroit had the highest rate of foreclosure

<sup>24</sup> U.S. Congress, Senate, Majority and Minority Staff Report, Permanent Subcommittee on Investigations, “Wall Street and the Financial Crisis: Anatomy of a Financial Collapse,” April 13, 2011, [http://www.hsgac.senate.gov//imo/media/doc/Financial\\_Crisis/FinancialCrisisReport.pdf?attempt=2](http://www.hsgac.senate.gov//imo/media/doc/Financial_Crisis/FinancialCrisisReport.pdf?attempt=2) [accessed July 28, 2016], 15-46, esp. 16. On the deregulation of the swaps market, see William K. Tabb, *The Restructuring of Capitalism in Our Time* (New York: Columbia University Press, 2012), 93-131.

from subprime mortgages in the United States (Table 7.1). Typically, subprime adjustable rate mortgages (ARMs) featured a “teaser” interest rate as low as 1 percent, which lenders would later adjust to a “floating” rate as high as 10 percent, or even 17.75 percent.<sup>25</sup>

The story of Detroit attorney Vanessa G. Fluker provides a useful illustration of how these dynamics played out in low-income Detroit neighborhoods. In a 2015 interview, Fluker recalled learning about “the wonderful world of predatory lending” in 2006, when she met a grandmother living in the Dexter-Davison neighborhood, on Detroit’s West Side, whose adjustable-rate mortgage payments had skyrocketed to \$2,000 per month. Although she was able to save the woman from foreclosure, “that’s when we found out that the predatory brokers had literally gone through the neighborhood, placing seniors who were unaware of what they were getting into, into these predatory adjustable-rate subprime loans despite them being on fixed income.” In 2010, Fluker testified before the House Judiciary Committee about the foreclosure crisis in Detroit. She described how her clients, the “vast majority” of whom were “working class, poor, minorities, and senior citizens over the age of 75 years old,” were “steered into ARMs, despite the fact they were on a fixed income, and now face foreclosure and homelessness.”<sup>26</sup>

Dealers of subprime loans in Detroit included many of the post-deregulation “too-big-to-fail” banks, such as Bank of America, Morgan Stanley, J.P. Morgan Chase, and Wells Fargo.

---

<sup>25</sup> Christine MacDonald and Joel Kurth, “A Look at the Lenders and Foreclosing Companies with Most Troubled Homes from 2005-14,” *Detroit News*, May 14, 2015. For detailed documentation of these abuses, including subpoenaed internal correspondence, see U.S. Senate, “Wall Street and the Financial Crisis,” 1-160, 318-635.

<sup>26</sup> Vanessa G. Fluker, interview with author, August 19, 2015; Vanessa G. Fluker, testimony before the U.S. House of Representatives Judiciary Committee, December 2, 2010, [https://judiciary.house.gov/\\_files/hearings/pdf/Fluker101202.pdf](https://judiciary.house.gov/_files/hearings/pdf/Fluker101202.pdf) [accessed July 27, 2016], 1-6; John Conyers, testimony in U.S. Congress, House Judiciary Committee, Subcommittee on Commercial and Administrative Law, *Hearings on the Role of the Lending Industry in the Home Foreclosure Crisis*, in 111th Cong., 1st sess., September 9, 2009, 5-6.

Investigations by federal prosecutors later revealed that high-ranking officials within these banks were aware that many Detroit homeowners could not repay these loans. For example, in an internal memo in April 2006, Steven Shapiro, head of the trading desk at Morgan Stanley, wrote of the firm's subprime loans in Detroit, "We should expect... a good percentage of the borrowers going into extended delinquency/liquidation." In e-mails sent between 2004 and 2007, Morgan Stanley staffers referred to subprime loans issued to Detroit residents as "a bunch of scaaaarrrryyyy loans!!!!!!," "crap," and "like a trash novel."<sup>27</sup>

Subprime loans played a central role in an epidemic of home foreclosures in 21<sup>st</sup> century Detroit. Between 2005 and 2015, over a third of the properties in Detroit (139,699 out of 384,672) entered into foreclosure. According to the *Detroit News*, the "vast majority" of these properties were private homes; of those, the majority of foreclosures originated in subprime loans. Under the terms of the federal government's 2008 takeover of Fannie Mae and Freddie Mac, which underwrote most subprime mortgages, banks often found it more profitable to foreclose rather than modify loans. As Fluker observed, "obviously it's more lucrative for the financial institution to foreclose and get 80, 90, 95 percent of the mortgage balance than it is to work with the homeowner to work out a reasonable payment, lower interest rate, things of that nature to keep them in the home."<sup>28</sup>

---

<sup>27</sup> John Gallagher, "Insider E-mails: Wall Street Pushed Bad Detroit Mortgage Loans," *Detroit Free Press*, January 26, 2015.

<sup>28</sup> Vanessa Fluker, interview with author, August 19, 2015; Joel Kurth and Christine MacDonald, "Volume of Abandoned Homes 'Absolutely Terrifying': Since 2005, More Than 1-in-3 Detroit Properties Have Been Foreclosed Because of Mortgage Defaults or Unpaid Taxes," *Detroit News*, May 14, 2015; Judy Fox, "The Future of Foreclosure Law in the Wake of the Great Housing Crisis of 2007-2014," *Washburn Law Journal* Vol. 54 (2015), 489-526; National Consumer Law Center, Inc., "Why Servicers Foreclose When They Should Modify and Other Puzzles of Servicer Behavior," October 2009, <https://www.nclc.org/images/pdf/pr-reports/report-servicers-modify.pdf> [accessed July 31, 2016], 1-60.

The water and subprime foreclosure crises among low-income African Americans in Detroit were closely intertwined. Fluker pointed out that “the water crisis is allegedly because of the significant debt that’s out there to the banks.” However, “we wouldn’t have that significant debt if in fact the economic infrastructure wasn’t destroyed, in large part, from the predatory lending.” Many low-income residents, unable to make usurious payments on adjustable-rate mortgages, chose to risk losing their water in order to keep their homes. However, because Wayne County placed unpaid water bills on homeowners’ tax liens, they could also cause tax foreclosures. According to Lynna Kauchek of the People’s Water Board, of the “tens of thousands” of Detroit homes entering tax foreclosure by April 2016, “roughly 7,000 were because of water bills that had been put on their tax lien.” Once Wayne County added a homeowner’s water bill to their back taxes, the bill was “zeroed out,” making them ineligible for assistance making water payments. Water shut-offs also authorized the city to condemn houses, and increased the likelihood of parents losing their children to Child Protective Services.<sup>29</sup>

While the federal government did little to prevent low-income African Americans from losing their homes, it insulated many of the banks engaged in subprime lending from risk through trillions of dollars in taxpayer-funded bailouts.<sup>30</sup> In Detroit, moreover, the largest local subprime lenders benefited from the financial crisis. Leading the pack was Quicken Loans, whose CEO, Dan Gilbert, was worth an estimated \$4.5 billion in 2014. In 2015, the *Detroit News* reported that, out

---

<sup>29</sup> Vanessa Fluker, interview with author, August 19, 2015; Lynna Kauchek, interview with author, May 18, 2016.

<sup>30</sup> Harold C. Barnett, “And Some With a Fountain Pen: Mortgage Fraud, Securitization, and the Subprime Bubble,” in Susan Will, Stephen Handelman, and David C. Brotherton, eds., *How They Got Away With It: White Collar Criminals and the Financial Meltdown* (New York: Columbia University Press, 2013), 104-129; Carmen M. Reinhart and Kenneth Rogoff, *This Time is Different: Eight Centuries of Financial Folly* (Princeton: Princeton University Press, 2009), 203-222; Daniel Immergluck, *Foreclosed: High-Risk Lending, Deregulation, and the Undermining of America’s Mortgage Market* (Ithaca: Cornell University Press, 2009), 41-46, 68-98.

of all lenders operating in Detroit, Quicken Loans had the fifth-highest number of mortgages ending in foreclosure since 2005. Quicken had sold loans for 1,058 homes that ended in foreclosure, of which 52 percent became “blighted.” According to a 2015 civil lawsuit by the Justice Department, Quicken submitted hundreds of fraudulent sub-prime FHA loans between 2007 and 2011. The *Detroit News* reported that these loans “involved inflated appraisals, poor credit risks and borrowers with insufficient income.” According to the *Detroit News*, the Justice Department found that “Quicken had a culture of encouraging approvals rather than following the rules, in part because the U.S. government, and not Quicken, would pay if borrowers defaulted.” Responding to the lawsuit, Gilbert claimed that “[i]t’s very hard to make any causation between these loans and the fact that [homeowners] walked away or could not afford the payments and some eventually became ‘blighted.’”<sup>31</sup>

Indeed, Gilbert was arguably the single largest individual beneficiary of the housing market collapse in Detroit. Between 2010 and 2013, Gilbert spent \$1 billion buying up downtown properties, whose value had plummeted since 2008. As he exulted to the *Detroit News* in 2010, after the 2008-2009 crash, real estate values in downtown Detroit “were so low it was what I’d call a skyscraper sale.” Thus, if the period of 2005 and 2015 was one of large-scale loss for low-income African Americans, it was one of large-scale gain for developers like Gilbert, as well as largely white, upper-income professionals moving into their properties. A 2013 *Fast Company* article encapsulated how differently Detroit looked for the former, in neighborhoods like Dexter-Davison, and the latter, in a rapidly gentrifying downtown and midtown Detroit. The article described the “commanding views” from a glass-enclosed basketball court on the 10th floor of

<sup>31</sup> David Shepardson, “U.S. Sues Quicken for Improper Mortgage Lending,” *Detroit News*, April 23, 2015; Christine MacDonald and Joel Kurth, “Gilbert, Quicken Loans Entwined in Detroit Blight,” *Detroit News*, July 1, 2015; Daniel Howes, “Quicken to Move to Detroit,” *Detroit News*, November 13, 2007; Chuck Salter, “How a Young Community of Entrepreneurs is Rebuilding Detroit,” *Fast Company*, April 15, 2013.

Quicken Loans headquarters, which reporter Chuck Salter dubbed “Gilbert’s imagination station.” Noting the recent opening of a Whole Foods and other upscale amenities, Salter wrote that Gilbert’s new hires were flocking to “the creative corridor between downtown and Midtown, joining the hipsters and entrepreneurs, the hipsters who’d be at home in Brooklyn and Austin, the other pioneers who see the opportunity in this broken and complicated city.” The article said nothing about “opportunities” for residents who lost their homes, or access to running water.<sup>32</sup>

### **Environmental Justice for Sale?**

Between 2005 and 2015, developers began to use the language of “greening” and “sustainability” to market large-scale land acquisitions as solutions to Detroit’s problems. In some cases, the funding of environmental justice non-profits became a way of blunting opposition to land acquisitions, even when linked to heavily polluting projects. The following section shows how non-profits, because of their funding base, sometimes supported projects that harmed low-income communities of color. Marathon Oil’s expansion of its Southwest Detroit refinery, carried out between 2007 and 2011, provides a revealing example. On August 9, 2007, the Houston-based firm Marathon Oil announced plans for the Detroit Heavy Oil Upgrade Project (HOUP), a \$1 billion expansion of its refinery in Detroit’s 48217 zip code. According to Marathon representatives, the firm was considering expanding its Detroit refinery, in order to accommodate heavy crude oil from Alberta’s Athabasca tar sands. If HOUP went through, it would involve annexing 17 acres of land adjacent to the refinery, enabling growth in refining capacity. HOUP was part of a larger process of expansion in pipelines and refineries across the United States and Canada, in order to transport and process thick, highly corrosive tar sands oil. Similar refinery expansions were underway across the Great Lakes region, along the Gulf coast, and in Richmond,

---

<sup>32</sup> Salter, “How a Young Community of Entrepreneurs is Rebuilding Detroit.”

California. While pipelines often cut across indigenous nations' land, many refineries bordered low-income and African American or Latino communities.<sup>33</sup>

Tar sands oil development was highly controversial, both in the United States and Canada. In a 2012 op-ed in the *New York Times*, NASA climate scientist James Hansen pointed out that the tar sands contained 240 gigatons of carbon dioxide, enough to add 120 additional parts per million to Earth's atmosphere. This, Hansen said, would be "game over" for efforts to halt climate change.<sup>34</sup> Tar sands extraction and pipeline development also provoked protests in both Canada and the United States, led by First Nations activists in the Idle No More movement.<sup>35</sup> Marathon had extensive experience with community opposition to refinery projects, and launched a sophisticated public relations campaign in favor of HOUP. In addition to promising jobs for Detroit residents, Marathon developed what Detroiters Working for Environmental Justice (DWEJ) founder Donele Wilkin called an "environmental justice strategy," which involved cultivating support from non-profits identified with the environmental justice movement.<sup>36</sup>

Initially, Marathon representatives announced that the refinery expansion would either occur in Detroit or in Minnesota. To pursue the project in Detroit, Marathon wanted the Kilpatrick administration to sweeten the deal, by granting \$176 million in tax credits over the next twenty

---

<sup>33</sup> Eric Morath, "Marathon Plans \$1 Billion Expansion of Refinery," *Bloomberg*, August 10, 2007. For examples of struggles against oil refinery pollution, see Revathi I. Hines, "The Price of Pollution: The Struggle for Environmental Justice in Mossville, Louisiana," *The Western Journal of Black Studies* Vol. 39 No. 3 (Fall 2015), 198-208; Steve Lerner, *Diamond: A Struggle for Environmental Justice in Louisiana's Chemical Corridor* (Cambridge: MIT Press, 2006).

<sup>34</sup> See James Hansen, "Game Over for the Climate," *New York Times*, May 9, 2012, A29.

<sup>35</sup> On resistance to tar sands development by First Nations, see Sâkîhitowin Awâsis, "Pipelines and Resistance Across Turtle Island," in Tony Weis, Toban Black, Stephen D'Arcy, and Joshua Kahn Russell, eds., *A Line in the Tar Sands: Struggles for Environmental Justice* (Toronto: Between the Lines, 2014), 253-266; Stephanie J. Fitzgerald, "'Idle No More': First Nations Women and Environmental Struggles," in idem., ed., *Native Women and Land: Narratives of Dispossession and Resurgence* (Albuquerque: University of New Mexico Press, 2015), 111-122.

<sup>36</sup> Interview with Donele Wilkins, July 14, 2015.



years. While asking for tax credits, Marathon representatives told the press that the firm would hire Detroiters for at least half of the project's new construction jobs. The firm also promised to spend \$260 million on pollution controls. During debates over City Council approval, residents from the surrounding neighborhood, in zip code 48217, countered these arguments. Several testified that existing refinery pollution harmed their health. Theresa Landrum, a lifelong neighborhood resident and community activist, wore a headscarf to cover a head left bald by ongoing chemotherapy treatments. She believed that industrial pollution was a factor in her own cancer, as well as that of family members and neighbors.<sup>37</sup>

Supporters of HOUP, however, argued that the project would benefit the residents of 48217. In a September 12 editorial, the editors of the *Michigan Chronicle* argued that “the state and environmental groups are right to insist on assurance that the community is safe and that there is environmental justice,” but insisted that HOUP did not conflict with those goals. The editors cited the fact that Marathon had won a Community Builder Award from the non-profit Southwest Detroit Environmental Vision (SDEV). They neglected to mention that SDEV's board of directors included Marathon representative Tabatha Daum (who later joined Detroit Renewable Power, a firm that purchased the Detroit incinerator in 2010), and that SDEV had received money from Marathon. Nevertheless, lobbying by SDEV contributed to the project's approval. On October 16, the Detroit City Council voted 7-2 to approve HOUP and the \$175 million in tax credits. The lone dissenters, council members Monica Conyers and Kwame Kenyatta, cited the concerns raised by Landrum and other residents. As Kenyatta said of 48217, “They definitely don't need any more

---

<sup>37</sup> “City Split on Refinery Expansion,” *Detroit News*, September 7, 2007; “Council Quizzes Marathon on Hiring for Project,” *Detroit News*, September 19, 2007; “Marathon to Hire Detroiters at Refinery, Curb Emissions,” *Detroit News*, October 4, 2007; Eric T. Campbell, “Public Debates Marathon Refinery Expansion,” *Michigan Citizen*, October 7, 2007; Tina Lam, “48217: Life in Michigan's Most Polluted Zip Code,” *Detroit Free Press*, June 20, 2010.

environmental impact there.” Mayor Kilpatrick, and Council President Kenneth Cockrel, Jr. defended the pro-HOUP resolution by citing Marathon’s promises to hire Detroiters for half of the jobs, and to install \$260 million in pollution controls.<sup>38</sup>

For Marathon, a potentially more difficult task was getting an MDEQ permit for HOUP. Earlier that year, Michigan Governor Jennifer Granholm had issued Executive Directive (ED) No. 2007-23, “Promoting Environmental Justice,” which required MDEQ to develop a plan for addressing disproportionate pollution impacts on low-income and minority populations. Anticipating potential concerns, Marathon hired consultants with experience in environmental justice conflicts. At this point, a conflict developed over HOUP within Detroiters Working for Environmental Justice (DWEJ). On the surface, HOUP seemed a natural target for opposition by DWEJ. The population of 48217 was 84.46 percent African American, with poverty rates twice the Michigan average. However, Donele Wilkins recalled that Guy Williams, the chair of the DWEJ board, “was a private contractor by this time, and he was approached, or he landed some kind of contract with Marathon Oil.” In this capacity, Williams “helped them create an environmental justice strategy” that “said basically, ‘Look, we’re going to buy some street sweepers and sweep up all of the fallout of the pollution that landed on the streets, and we’ll also invest in some retrofitting in schoolbuses.’” Wilkins added that she “had to tell him that he had to make sure that no one mistakes him for being...that this was a DWEJ thing, you know?”<sup>39</sup>

---

<sup>38</sup> “Detroit Should Support Refinery Expansion,” *Michigan Chronicle*, September 12, 2007; “Detroit City Council Gives Green Light for Refinery Expansion,” *Detroit News*, October 10, 2007; Patrick Keating, “Council Approves Marathon Refinery Expansion,” *Michigan Chronicle*, October 17, 2007. On Marathon’s funding and personnel ties to SDEV, see “Detroit Refinery,” [https://www.marathonpetroleum.com/content/documents/fact\\_sheets/2015\\_Detroit\\_RFS.pdf](https://www.marathonpetroleum.com/content/documents/fact_sheets/2015_Detroit_RFS.pdf); “About Us,” <http://www.sdevweb.org/about-sdev/board-of-directors/> [both accessed August 12, 2016]; “Sponsors and Funders,” <http://www.sdevweb.org/sponsorsfunders> [accessed December 8, 2012; link no longer active].

<sup>39</sup> Donele Wilkins, interview with author, July 14, 2015. On Granholm’s directive, see Katherine Annise Maguire, “Permitting Under the Clean Air Act: How Current Standards Impose Obstacles to Achieving

Marathon's permit application for HOUP included an "Environmental Justice Analysis." This analysis conceded that low-income people of color made up a majority of the population around the refinery. However, it claimed that "the future operations of the HOUP are not expected to lead to or cause disproportionate adverse impacts to low-income or minority persons in the vicinity of the refinery," because of "the significant emission control and mitigation/offset activities that are planned." Marathon's application listed increases in 91 different toxic air contaminants, such as benzene, toluene, and formaldehyde. No MDEQ air quality standards existed for most of these contaminants. There were only "ambient screening concentration limits," which MDEQ did not monitor. Some of these, like the one for benzene, were based on questionable environmental health studies.<sup>40</sup>

Following Guy Williams' recommendations, Marathon's permit included proposals for purchasing street sweeping equipment, retrofitting of schoolbuses, and installing air monitors. It also asserted that Marathon would hire Detroit residents for HOUP "to the greatest extent possible." While it is unclear whether Marathon's "Environmental Justice Analysis" helped to sway MDEQ regulators, the firm's public relations strategy did ultimately prove effective. On June 20, 2008, MDEQ granted Marathon a permit for HOUP. At a press conference, Lisa Goldstein of SDEV praised the MDEQ decision, claiming that HOUP "won't lead to significant increases in

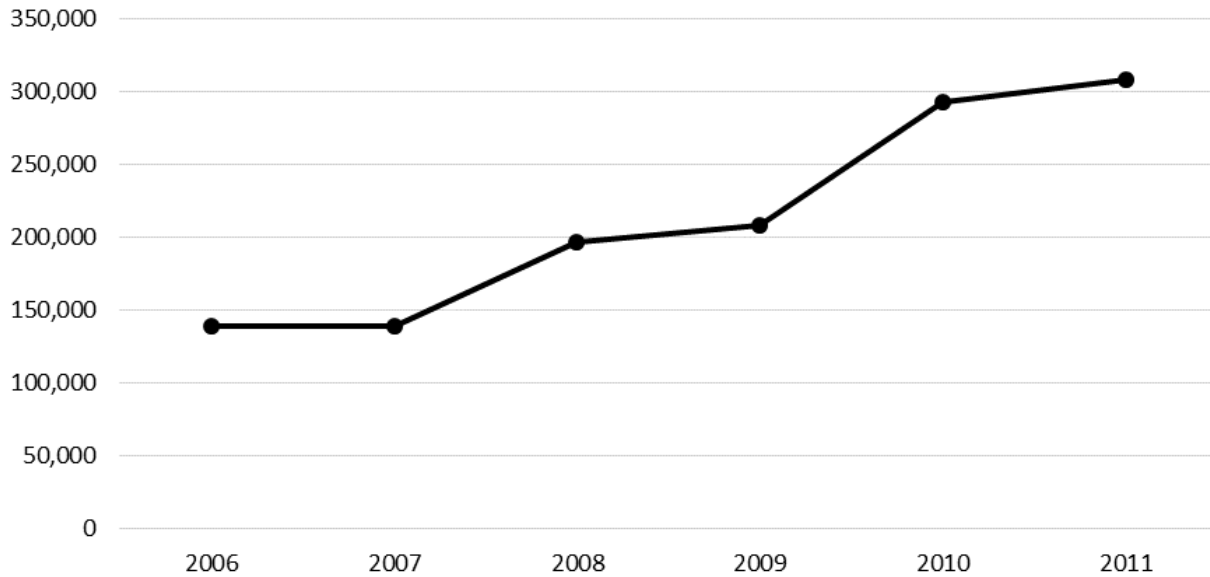
---

Environmental Justice," *Michigan Journal of Race & Law*, Vol. 14 (2009), 255-284, esp. 270-71.

<sup>40</sup> URS Corp., "Environmental Justice Analysis: Detroit Heavy Oil Upgrade Project (Detroit HOUP), Prepared for Marathon Petroleum Corp, 3-25) (2008), cited in Maguire, "Permitting Under the Clean Air Act," p. 277, n. 103. Marathon, like other industrial polluters, often based its Threshold Limit Values (TLVs) on industry-funded research. For example, in 2000 Marathon paid \$22 million for a study of the link between benzene and leukemia. In internal communications, Marathon officials openly admitted to funding the study in order to downplay that link, while using it to influence the firm's own TLVs. See David Michaels, *Doubt is Their Product: How Industry's Assault on Science Threatens Your Health* (New York: Oxford University Press, 2008), 78.

emissions.” Speaking for DWEJ, Donele Wilkins called the MDEQ decision “really disappointing.”<sup>41</sup>

**Table 7.2. Airborne Toxic Releases from the Marathon Detroit Refinery (lbs./year)**



Source: Emissions data from U.S. Environmental Protection Agency, “Detailed Facility Report: MARATHON PETROLEUM CO LP - MICHIGAN REFINING DIV, 1300 S FORT ST, DETROIT, MI 48217,” <http://echo.epa.gov/detailed-facility-report?redirect=page&fid=110000554828> [accessed August 12, 2016].

By 2010, evidence concerning Marathon’s fulfillment of commitments regarding jobs and pollution had become available. In 2010, the *Detroit News* reported that Marathon hired Detroit residents for only 28 percent of the permanent jobs (22) and 37 percent of the temporary jobs (109) created by HOUP. The newspaper also reported the results of a study by University of Michigan researchers, led by Paul Mohai. Using EPA Toxic Release Inventory data, they found that 48217 was now the most polluted zip code in the state of Michigan. EPA figures from 2006-2011 showed a doubling of toxic chemical releases from the Marathon refinery, which belied SDEV’s claim that HOUP “won’t lead to significant increases in emissions” (Table 7.2). Moreover, despite

<sup>41</sup> Maguire, “Permitting Under the Clean Air Act,” 280-81; Tina Lam, “Marathon Refinery Gets OK to Expand,” *Detroit Free Press*, June 21, 2008.

Marathon's retrofitting of schoolbuses, epidemiological evidence suggested that pollution in Southwest Detroit contributed to poor student performance at schools such as Riverview High School in 48217.<sup>42</sup>

This chain of events raised important questions about the relationship between non-profits, private funders, and the environmental justice movement in Detroit. Marathon's funding of SDEV, and its hiring of the DWEJ board chair as a consultant, demonstrated that expertise in environmental justice policy had become commodified, and available for purchase by polluting industries. Indeed, this was true even for projects which endangered the health and safety of low-income communities of color, the historical target of opposition by the environmental justice movement. This tendency would become more apparent in Detroit-based non-profits over the next five years. It would be most pronounced at DWEJ itself, although other non-profits would face pressure to support the agenda of their funders.

### **Non-Profits, Foundations, and Detroit Future City**

Like Marathon and HOUP, the case of DTE Energy exemplified the "soft power" of philanthropy in environmental justice conflicts. In 2008, DTE reported 142,000 shut-offs of gas and electricity in Detroit. The following year, DTE reported 221,000 shut-offs in the city. As the Great Recession deepened, the combination of rising utility rates and economic distress made poor Detroiters unable to afford their electric and gas bills, even as temperatures plunged in the winter months. Between 2009 and 2012, Michelle Martinez, an environmental justice organizer with the Detroit Sierra Club, was involved in a campaign against DTE's shut-offs, and in favor of rate

---

<sup>42</sup> Lam, "Life in Michigan's Most Polluted Zip Code"; Curt Guyette, "Under Orange Skies," *Metro Times*, August 22, 2012; Paul Mohai, Byeong-Suk Kweon, Sangyun Lee and Kelly Ard, "Air Pollution Around Schools Linked to Poorer Student Health and Academic Performance," *Health Affairs* Vol. 30 No. 5 (May 2011), 852-862; U.S. Environmental Protection Agency, "Detailed Facility Report: MARATHON PETROLEUM CO LP - MICHIGAN REFINING DIV, 1300 S. FORT ST, DETROIT, MI 48217," <http://echo.epa.gov/detailed-facility-report?Redirect=page&fid=110000554828> [accessed August 12, 2016].

affordability. As Martinez recalled in an interview, “during the crash, the number of shutoffs was skyrocketing.”<sup>43</sup>

As part of the People and Energy Coalition, Martinez sought to build community support for an energy affordability plan, similar to the MWRO’s Water Affordability Plan. The goal was to keep rates to within 6 percent of a poor person’s income. As Martinez told the *Michigan Citizen* in 2011, “We have low-income seniors who are paying 50 percent of their income on heat—that’s absolutely disproportional to national and state standards.” However, in contacting local non-profit organizations, Martinez discovered that the DTE Energy Foundation was giving “increments of money from \$200 to \$200,000 to a whole slew of different service providing organizations and non-profits.” As a result, she said, “people told me directly, “I won’t say anything about DTE,” for like two thousand bucks.” Martinez found it remarkable that “folks these non-profits were servicing were being shut off by DTE in the middle of the winter with their kids, freezing in their homes, they wouldn’t say anything about DTE because they got a couple of bucks from them.”<sup>44</sup>

These contradictions emerged most fully between 2010 and 2013, in relation to the Detroit Works Project (DWP), later named Detroit Future City (DFC). In fall 2010, Mayor Dave Bing (Kilpatrick’s successor), announced the DWP, a long-term plan to “rightsize” the city of Detroit. While Bing’s initial statements were vague, local media reported that DWP would require residents to “relocate from blighted areas,” and that it would involve decommissioning basic services, including water, sewers, and streetlights, from high-vacancy neighborhoods. During the first of five planned “community forums” on DWP, many residents expressed frustration and skepticism about further service cuts, and the possibility of forced relocation. DWP had a 14-

---

<sup>43</sup> Michelle Martinez, interview with author, August 14, 2015.

<sup>44</sup> Martinez, interview with author; Eric T. Campbell, “NO SHUTOFFS THIS WINTER,” *Michigan Citizen*, November 6, 2011, A1, A4.

member steering committee appointed by Mayor Dave Bing, led by representatives of Kresge, Knight, Skillman, and other private foundations. Rip Rapson, the CEO of the Troy-based Kresge Foundation, announced that Kresge would commit \$150 million to DWP, as part of a fund by ten local foundations called the New Economy Initiative. Rapson called the New Economy Initiative the “largest aggregation of philanthropic capital ever directed at a city, maybe with the exception of New Orleans.” However, the role of foundations in DWP attracted criticism. In a February 20, 2011 op-ed in the *Michigan Citizen*, Shea Howell of the Boggs Center called DWP an “assault on democratic process” and a “foundation-driven plan to shrink the city.”<sup>45</sup>

In particular, many who attended the DWP community forums complained that they were not democratic in any substantive sense. Instead of being allowed to express specific concerns to public officials, residents received electronic clickers, and could pick from pre-determined answers to multiple-choice questions, such as “What is the most damaging impact of population loss in your neighborhood? A. Increase in blight B. Paying more for less effective services, C. Diminished sense of community, D. No impact.” The premise of “rightsizing” itself was not up for debate, and residents did not get to decide on the fundamental issues of service cuts and relocation. Unsurprisingly, in light of Detroit’s history of urban renewal, and the deepening service cuts residents had endured for the past forty years, both of these features of DWP were unpopular. According to a 2012 survey of over 1,000 residents of Detroit’s east side, asked where they would like to move if they would consider moving, 54.5 percent said “I would not consider moving.” Another 11.5 percent said, “Close to where I live now”; 11.1 percent said “Outside of Detroit”;

---

<sup>45</sup> Shea Howell, “Sham Discussions,” *Michigan Citizen*, February 20, 2011, A1, A4. On the roll-out of DWP, see Daniel Clement and Miguel Kanai, “The Detroit Future City: How Pervasive Neoliberal Urbanism Exacerbates Racialized Spatial Injustice,” *American Behavioral Scientist*, Vol. 59 No. 3 (2015), 369-385. For the Rapson quote, see *Ibid.*, 376.

9.8 percent said “Anywhere in Detroit; it doesn’t matter”; and 6 percent chose “Only a certain neighborhood.”<sup>46</sup>

In April 2011, a coalition of organizations held an event, the People’s Movement Assembly, to discuss responses to the DWP. According to Michelle Martinez, these organizations were “in the EJ community” in Detroit, including MWRO, East Michigan Environmental Action Council, the Boggs Center to Nurture Community Leadership, the Detroit Sierra Club, Centro Obrero, Detroit City of Hope, the Detroit Black Community Food Security Network, and the People’s Water Board Coalition. The People’s Water Board, which overlapped with most of the organizations present, had been formed in 2009 to challenge water privatization and to advocate for a water affordability plan in Detroit.<sup>47</sup> The PMA ended up being a one-time event, which an estimated 200 people attended. In the aftermath, two participants in the PMA, Charity Hicks (a founding member of the People’s Water Board) and Sandra Turner-Handy got seats on a Detroit Works advisory committee. The purpose, at this stage, was to challenge the DWP process. As Michelle Martinez recalled, “We called [Charity Hicks and Sandra Turner-Handy] the “hornets on the wall.” However, efforts to challenge the “rightsizing” agenda from within “never really materialized into anything.” In part because of the PMA, however, the DWP steering committee

---

<sup>46</sup> Michelle Martinez, interview with author, August 14, 2015; Howell, “Sham Discussion”; Lower Eastside Action Plan, “Reinventing Detroit’s Lower Eastside: A Summary Report of the Lower Eastside Action Plan – Phase II” (October 30, 2012), cited in Daniel Clement, “The Spatial Injustice of Crisis-Driven Neoliberal Urban Restructuring in Detroit” (M.A. Thesis: University of Miami, 2013), 92. On the skeptical community response to the DWP community forums, see *Ibid.*, 82-106.

<sup>47</sup> By the time of the People’s Movement Assembly, members of the People’s Water Board coalition included MWRO, AFCME Local 207 (representing DWSD workers), the Detroit Black Community Food Security Network, East Michigan Environmental Action Council, the Sierra Club Great Lakes Program, the Rosa Parks Institute, Food and Water Watch, the Detroit Green Party, the Matrix Theater, and the Michigan Emergency Committee Against War and Injustice. On the formation of the PWB in 2009, see “People’s Water Board Remains Vigilant Over Water Access Issues in Detroit,” July 2011, <http://www.emeac.org/2011/07/peoples-water-board-remains-vigilant.html> [accessed August 12, 2016].



decided that the project needed a new name and public image.<sup>48</sup>

In December 2012, the backers of DWP publicly announced its new iteration, Detroit Future City (DFC). The publicity materials for DFC announced that Mayor Bing's 55-member advisory task force would now consult two new bodies: a 13-member Steering Committee, and 15 Process Leaders. The Process Leaders, according to a press release, would "engage residents using tools such as Facebook and Twitter." This body included Guy Williams of DWEJ, Phil Cooley of Slow's Barbecue, Judith Jackson of Youthville Detroit, and Dan Varner of Excellent Schools Detroit. A sub-group, called Ambassadors, would "ride city buses and talk with residents, put up posters and host roaming tables."<sup>49</sup>

The cornerstone of DFC was the Detroit Strategic Framework plan, a 367-page document published in 2012. The DFC plan retained the DWP emphasis on decommissioning or reducing services in over a third of the city. Despite this continuity, the plan represented something new in the history of Detroit city planning. It incorporated the language of "greening" and "sustainability" into the overarching framework of rightsizing, which implied the relocation of residents from "higher vacancy areas." These neighborhoods would become Innovation Landscapes, divided into two types: Innovation Productive and Innovation Ecological. The former would become large-scale commercial farms, while the latter would become "green" and "blue" infrastructure. "Green" infrastructure included urban forests and prairies, while "blue" infrastructure included water retention ponds to prevent stormwater runoffs.<sup>50</sup>

---

<sup>48</sup> Michelle Martinez, interview with author, August 14, 2015; William Copeland, interview with author, July 31, 2015.

<sup>49</sup> Zenobia Jeffries, "City, Foundations Revamp Detroit Works Project," *Michigan Citizen*, December 25, 2011, A1, A9.

<sup>50</sup> Detroit Future City, *2012 Detroit Strategic Framework Plan* (Detroit, MI: Inland Press, 2012), 10. Kirkpatrick observes that this passage is both "oddly delivered" and "equivocal." See Kirkpatrick, "Urban Triage," 267-68.

Despite its rhetorical emphasis on citizen participation and engagement, the plan did not address the fundamental concerns that citizens had raised in the DWP community forums. The plan’s authors acknowledged that “[r]esidents and businesses alike have been concerned about whether utilities would be shut off in the more vacant parts of the city, whether families might be forced to move from their homes (as in the days of urban renewal), or whether some city departments or community facilities would be shut down completely.” Rather than denying or confirming these possibilities, the report declared that “one thing has become very clear—the way things are and “business as usual” are no longer acceptable.” While equating areas slated for decommissioning with a “no longer acceptable” status quo, the plan glorified Detroit’s “digital/creative zones” as essential to “maintaining a competitive edge for Southeast Michigan in the 21st century.”<sup>51</sup>

If implemented, this plan would extend two trends already underway in Detroit: the withdrawal of water and other basic services from low-income, predominantly African American neighborhoods, and the infusion of resources into gentrifying, increasingly white neighborhoods. Unsurprisingly, many Detroiters found the planned decommissioning of their neighborhoods alarming. Michelle Martinez, who was then working at the Detroit Hispanic Development Corporation, recalled that, “we had a couple of meetings in Southwest Detroit about what was in the plan.” She explained, “what we did was we brought people in and we said, “This is where you live, this is where you live on their map. This is their proposal for your neighborhood in forty

---

<sup>51</sup> Ibid., 10, 68; Kirkpatrick, “Urban Triage,” 267-68. The DFC plan received a prominent endorsement from historian Thomas J. Sugrue, who called it “one of the best comprehensive plans for thinking in the short, medium, and long term about reinvention of the city.” Yet, if this plan were implemented, it would deepen the racialized metropolitan inequities that Sugrue elucidated in his 1996 book *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit*. For the Sugrue quote, see Heaster Wheeler and Alice Thompson, “No Debate: Detroit Future City is the People’s Plan,” *Michigan Citizen*, April 6, 2014, A8.

years. Is this in alignment with your vision? And it was outrage. It was utter devastation.”<sup>52</sup>

Moreover, despite the plan’s saturation with “sustainability” rhetoric, it only addressed Detroit’s environmental health problems superficially. As Patrick Geans-Ali of the Sierra Club noted in the *Michigan Citizen*, the plan did not propose any solutions for “public health, industrial epidemiology, excessive heat events, air and traffic pollution in proximity to schools, Brownfields, water pollution, privatization of public lands and the cumulative impact from heavy industry near the industrial corridor.” While briefly noting the environmental health risks in Southwest Detroit, it euphemistically called Marathon’s buffer zone around the HOUP project a “Green Innovation” zone. With respect to water, as Wayne State University law professor Peter Hammer has noted, the DFC plan proposed new “blue infrastructure” (retention ponds) in neighborhoods currently slated for mass water shut-offs. The plan thus accommodated projects like HOUP, and the removal of access to water, into its definition of “sustainability.” In the final analysis, the plan rationalized the removal of poor residents’ rights to basic survival, and thus the removal of poor residents themselves.<sup>53</sup>

And yet, as local activists quickly discovered, going up against DFC would jeopardize their access to funding. As William Copeland of the East Michigan Environmental Action Council noted, “now there are city grants that you have to say in your grant how are you aligned with Detroit Future City in order to get this money.” According to Martinez, after the plan’s publication, “there was this feeling that, if you as a non-profit are not in alignment with the Detroit Future City framework, then don’t apply for funding with us.” Increasingly, grant officers and executive

---

<sup>52</sup> Michelle Martinez, interview with author, August 14, 2015.

<sup>53</sup> Patrick Geans-Ali, “With Two Strikes Against It, Detroit Future City Must Connect With Concerns Of Citizens,” *Michigan Citizen*, April 14, 2013, A10; Interview with Michelle Martinez, August 14, 2015; Peter Hammer Interview with Kate Levy, *Detroit Minds Dying* documentary, forthcoming 2016; clips available at <http://www.detroitmindsdying.org/> [accessed August 12, 2016].

directors at non-profits stipulated that only projects aligned with the DFC plan would receive funding. As a result, Martinez added, “there was this real feeling that the non-profit industry had to fall in line.”<sup>54</sup>

No organization exemplified the link between the DFC plan and local non-profits more than DWEJ. In July 2010, the board of directors of DWEJ forced Donele Wilkins to leave the organization. Wilkins recalled that “they basically had an issue, they said, with my management style.” The board of directors, led by Williams, “had some thoughts that I might not have been on the up-and-up with the organization’s finances and stuff.” Wilkins insisted that “they did a review and all that kind of stuff, and they didn’t find anything like that, right?” Nevertheless, according to Wilkins, “I basically was relieved of my keys, and my credit cards, and whatever, and then sent out of the door without any explanation.”<sup>55</sup>

By this time, DWEJ had grown from an organization founded in Wilkins’ living room in 1994 to one with a \$2 million annual budget in 2010. DWEJ received funding from the EPA, as well as Kresge, Erb, Ford, and other foundations. In 2012-13, Guy Williams, now CEO of DWEJ, took a position on the DFC Steering Committee. Through his firm G.O. Williams and Associates, Williams’ clients included Hantz Farms Detroit, a commercial farm owned by financial executive John Hantz. In December 2012, the Detroit City Council voted to sell 1,900 parcels of land on the east side of Detroit to Hantz, whose estimated net worth was \$100 million, for only \$520,000. During a protest at the City Council chambers, Charity Hicks of the East Michigan Environmental Action Council told the *Michigan Citizen* that “[v]ulture capitalism is what’s happening in Detroit

---

<sup>54</sup> William Copeland, interview with author, July 31, 2015; Michelle Martinez, interview with author, August 14, 2015.

<sup>55</sup> Donele Wilkins, interview with author, July 14, 2015.

with this fire sale.” During the same session, a vote to lease DWSD to the private contractor EMA, Inc. was pending. Earlier that year, DWSD had approved a four-year, \$48 million restructuring plan with the consulting firm EMA, Inc., which would result in 81 percent of DWSD’s workforce being laid off. In response, AFSCME Local 207 went on strike. Connecting the deals with Hantz and EMA, Inc., Hicks commented that “[a]ll our assets, our infrastructure, our departments, our land—everything is up for sale.”<sup>56</sup>

The Hantz Farms project, like the Commonwealth of Belle Isle, was the product of a libertarian capitalist vision of Detroit’s future. A 2009 profile in *Fortune* described Hantz’s collection of “Ayn Rand first editions,” his taste for an “expensive cigar,” and his signed autographs from Henry Ford and Benito Mussolini. Hantz said of his planned farm, “We can’t create opportunity, but we can create scarcity.” During protests against the land deal, activists argued that Hantz’s plan to “create scarcity” indicated efforts to monopolize land. Hantz did declare his ambitions to expand beyond the initial 1,900 parcels. As geographer Sara Safransky has noted, as a result of the deal, “Hantz could potentially own one fourteenth of Detroit.” The Hantz Farms project became a part of the DFC plan, as one of its “Food Network and Productive Landscapes.”<sup>57</sup>

While DWEJ participated in the DFC Steering Committee, the composition of its board of

---

<sup>56</sup> John Wisely, “Water Workers Defy Court Order, Stay on Strike,” *Detroit Free Press*, October 2, 2012, 1A, 6A; Victor Billione Walker, “Takeover of City’s Water Department on Hold,” *Michigan Citizen*, November 18, 2012, A1, A4; Zenobia Jeffries, “Citizens Want ‘Plundering Stopped,’” *Michigan Citizen*, November 25, 2012, A1, A4; Detroit Future City, *2014 Year End Report*, [http://detroitfuturecity.com/wp-content/uploads/2014/02/DFC\\_2014YearEndReport.pdf](http://detroitfuturecity.com/wp-content/uploads/2014/02/DFC_2014YearEndReport.pdf) [accessed July 31, 2016], 1-19.

<sup>57</sup> David Whitford, “Can Farming Save Detroit?” *Fortune*, December 29, 2009, [http://archive.fortune.com/2009/12/29/news/economy/farming\\_detroit.fortune/index.htm](http://archive.fortune.com/2009/12/29/news/economy/farming_detroit.fortune/index.htm) [accessed July 31, 2016]; John Gallagher, John Wisely and Matt Helms, “Hantz Woodlands Gets Green Light: Council’s OK Lets Big Project Move Ahead,” *Detroit Free Press*, December 12, 2012, A4; Detroit Future City, *2012 Detroit Strategic Framework Plan*, 132; Safransky, “Greening the Urban Frontier,” 9.

directors changed. The new chair of the DWEJ board of directors was Ric Geyer. Geyer had previously worked as a financial consultant for 4731 Consulting and Deloitte & Touche, and had served as President of the Detroit Athletic Club and chair of the Heidelberg Project. According to his biographical statement on the DWEJ web site, Geyer specialized in “developing innovative solutions for improving urban landscapes.” In 2003-4, Geyer served as Governor Granholm’s Executive-on-Loan for the Cool Cities campaign, an urban redevelopment initiative based on the ideas of “creative class” guru Richard Florida. In a 2006 profile for *Model D Media*, journalist Walter Wasacz observed that Geyer “has a savvy for edgy, investable—and, he says, profitable—real estate ventures in neighborhoods long forgotten by traditional developers.”<sup>58</sup>

Another new member of the DWEJ board of directors, Gary Wozniak, had also previously worked for Deloitte & Touche. Wozniak was the chair of a \$220 million urban agriculture project on Detroit’s East Side called RecoveryPark, which the DFC plan listed as the largest of its “Productive Landscapes.” Along with Wozniak, the RecoveryPark board of directors included Richard Hosey III, the former vice president of Bank of America’s Detroit office, who also sat on the board of the Detroit Land Bank Authority. The 2,475-acre complex would include greenhouses for raising heirloom vegetables, indoor shrimp farms, and an “equestrian facility” with “60 stalls for horse rescue, veterinary research, mounted police, and private boarding.”<sup>59</sup>

---

<sup>58</sup> “Meet DWEJ,” <http://www.dwej.org/about/our-people/> [accessed July 28, 2016]; Walter Wasacz, “Making Space to Create,” *Model D Media*, February 7, 2006, <http://www.modeldmedia.com/features/555gallery.aspx> [accessed July 28, 2016]. On the Cool Cities initiative, see Jamie Peck, “Struggling With the Creative Class,” *International Journal of Urban and Regional Research* Vol. 29 No. 4 (December 2005), 740-770, esp. 751-752. Sam Butler, “Turning Up the Heat on Granholm’s Cool Cities Initiative: How Effective Will It Be?” *Urban & Regional Economic Development Handbook*, December 15, 2005, <http://www.umich.edu/~econdev/coolcities/index.html> [accessed July 28, 2016].

<sup>59</sup> Ashley Hennen, “Recovery Park to Bring Urban Agriculture, Fish Farms, Equestrian Stables to Detroit’s Eastside,” *Detroit Unspun*, July 5, 2012, <http://blog.thedetroithub.com/2012/07/05/recovery-park-to-bring-urban-agriculture-fish-farms-equestrian-stables-to-detroits-eastside/> [accessed July 28, 2016]; “Growing Jobs in Detroit,” *GreeningDetroit.com*, July 19, 2012, <http://www.greeningdetroit.com/2012/07/19/growing-jobs-in-detroit/> [accessed July 28, 2016].

In interviews with the press, Wozniak projected that RecoveryPark would create between 5,000 and 18,000 jobs, and mentioned the Spanish cooperative Mondragon as an inspiration. Wozniak also said that he would target “ex-offenders and recovering drug addicts, people who usually face barriers to employment.” While Wozniack had no public connections to the Commonwealth of Belle Isle proposal, his plan echoed Lockwood’s idea of urban farms worked by “former prisoners who are re-entering society and developing work skills.” Some local urban farmers, meanwhile, found the idea less than appealing. As David Sands reported in the *Huffington Post* in 2013, “plenty of urban farmers and environmental activists around the city are skeptical of RecoveryPark,” although others, like Brother Nature operator Greg Wilerer, supported it.<sup>60</sup>

In July 2013, DWEJ released a 72-page document, called the “Detroit Environmental Agenda.” According to *Detroit Free Press* reporter Rochelle Riley, Guy Williams planned to use the report “to educate residents, lawmakers and one emergency manager” about solutions to Detroit’s environmental problems. Williams expressed concern that “[w]e’ve been promoting this vision...and it has a lot of value, and the city is not capturing that value.” The DWEJ report laid out a blueprint for a “cleaner, leaner, greener” Detroit, which included “coordinating neighborhood planning processes, the City’s 2009 Master Plan, and the Detroit zoning ordinance and map with Detroit Future City recommendations.” While describing the pollution in zip code 48217, the plan endorsed Marathon’s proposal of “pollution buffers” around residential areas. It called for combining “more efficient and business-friendly policies” with “special effort to protect natural resources and public health in making these reforms; improved efficiency should not mean lax regulations.” On the subject of water, the plan mentioned the problem of “high water bills,” but

---

<sup>60</sup> David Sands, “Recovery Park, Detroit Urban Agriculture Project, Would Create Jobs for Ex-Offenders, Addicts,” *Huffington Post*, June 3, 2013, [http://www.huffingtonpost.com/2013/06/03/recoverypark-detroit-urban-agriculture-jobs\\_n\\_3379029.html](http://www.huffingtonpost.com/2013/06/03/recoverypark-detroit-urban-agriculture-jobs_n_3379029.html) [accessed July 28, 2016].

said nothing about water shut-offs or privatization. It only said that “[w]hatever authority ultimately manages the Detroit Water and Sewerage Department must find a way to encourage water conservation and on-site storm-water management.” While suggesting minor reforms, the DWEJ “Environmental Justice Agenda” broadly conformed with the DFC plan, HOUP, emergency management, and the regionalization and possible privatization of DWSD.<sup>61</sup>

### **‘Democracy Under Siege’**

On March 14, 2013, Michigan Governor Rick Snyder appointed Kevyn Orr as the Emergency Manager for Detroit. Snyder did so under the authority of Public Act 436, a replacement for Public Act 4. Snyder had signed Public Act 4, called the “Local Government and School District Fiscal Accountability Act,” in March 2011. The law radically expanded the powers of Emergency Financial Managers in municipalities and school districts. In an indication of their larger purview, they would become simply “Emergency Managers.” The law authorized Emergency Managers to override the authority of all elected officials in a city, including the mayor, city council, and school board. As legal scholar Michelle Wilde Anderson explains, the law allows Emergency Managers “to literally lock local officials out of city offices, email accounts, and internal information systems,” and to unilaterally cancel all collective bargaining agreements. It also allows Emergency Managers to suspend all collective bargaining by municipal employees for up to five years.<sup>62</sup>

---

<sup>61</sup> Detroiters Working for Environmental Justice, “Detroit Environmental Agenda” (July 2014), <https://www.dwej.org/wp-content/uploads/2015/12/ElectionDraftAnnalieseEdits-nohyperlinks.pdf> [accessed July 31, 2016], 34, 49, 62-64; Rochelle Riley, “Improving Quality of Life: Dirty Air, Lead Paint Among Problems That Orr is Asked to Address,” *Detroit Free Press*, July 8, 2013, A1, A7.

<sup>62</sup> Michelle Wilde Anderson, “Radical Experimentation in State Takeovers of Local Governments,” *Fordham Urban Studies Journal* Vol. 39 (2011), 577-623, esp. 586-592; U.S. Congress, House, Judiciary Committee Democratic Staff, “Democracy for Sale: Subverting Voting Rights, Collective Bargaining and Accountability Under Michigan’s Emergency Manager Law: Interim Report and Recommendations of the House Judiciary Committee Democratic Staff,” February 21, 2012, <https://democrats-judiciary.house.gov/>



The implications of Public Act 4 first became clear in the Detroit Public Schools (DPS). In April 2011, DPS Emergency Manager Robert Bobb sent lay-off notices to 5,466 salaried employees, including all of the district's teachers. He also announced the closure of 41 public schools, and proposed increasing maximum class sizes in the remaining buildings to 60. An estimated 16,000 of the displaced students would go to charters. These harsh measures attracted criticism from unlikely quarters, including in the business press. As David Kaines observed in *Forbes* (a magazine normally unsympathetic to teachers' unions), Bobb's policies represented "nothing short of a coordinated effort between the billionaire foundations pushing school reform and Tea Party conservatives intent on slashing benefits and ending collective bargaining rights."<sup>63</sup>

Over the next year, a coalition led by municipal employee unions organized a campaign, called Stand Up for Democracy, aiming to repeal Public Act 4. By early 2012, they had gathered 226,637 signatures, enough to get a statewide referendum on repealing Public Act 4 onto the ballot in November. In the ensuing referendum, 52 percent of Michigan voters, and 82 percent of Detroit voters, chose to repeal Public Act 4. However, during the lame-duck session in December, Republican legislators passed a replacement bill, Public Act 436, which contained a provision that prevented its repeal by popular referendum. Snyder signed the bill two days later, along with a "right to work" bill for the state of Michigan, which broke with earlier campaign promises. Both bills represented the consummation of a longstanding agenda advocated by the Mackinac Center

---

sites/democrats.judiciary.house.gov/files/documents/EM\_Report120221F.pdf [accessed August 12, 2016], 1-29; Paul Abowd, "Michigan's Hostile Takeover," *Mother Jones* February 15, 2012, <http://www.motherjones.com/politics/2012/02/michigan-emergency-manager-pontiac-detroit> [accessed August 12, 2016].

<sup>63</sup> Erik Kain, "Michigan Emergency Manager Robert Bobb Issues Layoff Notice to All Detroit Public School Teachers," *Forbes*, April 19, 2011, <http://www.forbes.com/sites/erikkain/2011/04/19/michigan-emergency-manager-robert-bobb-issues-layoff-notice-to-all-detroit-public-school-teachers> [accessed July 28, 2016].

and prominent business leaders like Richard DeVos, a leading Snyder campaign contributor. On March 15, two days after Kevyn Orr's appointment, the Detroit NAACP released a press statement, entitled *Democracy Under Siege!*, which highlighted potential conflicts of interest in Orr's appointment. Orr was a bankruptcy lawyer for Jones Day, a corporate law firm that represented Amway, owned by Richard DeVos. Jones Day also represented banks such as Wells Fargo and Bank of America, which had played a direct role in the city's foreclosure crisis. The NAACP stated that "[t]he people have a right to protest, declare unfair and challenge this imposed dictatorship on the city of Detroit."<sup>64</sup>

On July 18, 2013, Orr moved to file bankruptcy for the city, citing an unsustainable debt load of \$18 billion. In a detailed critique of Orr's claims, published by the liberal think tank *Demos* in November, former Goldman Sachs vice president Wallace C. Turbeville noted that Orr conflated Detroit's short-term cash shortfall with its long-term debt. Moreover, the \$18 billion figure was overstated. For example, it included \$5 billion of DWSD debt as a liability of the city's general fund, despite the fact that it was a regional liability. Orr also did not discuss the largest immediate causes of the city's budget shortfall: the 2005 swap deal, the subprime meltdown, and Governor Snyder's decision to cut state revenue sharing with Detroit by \$66 million in 2011-2012, while cutting corporate taxes by \$1.7 billion. The first two causes implicated several of the financial institutions that Jones Day represented, while the third implicated Governor Snyder. Meanwhile, Orr hired Jones Day to handle the municipal bankruptcy, the largest in the history of the United

---

<sup>64</sup> Marcus Wright, "PA 4 Repeal Campaign Building Strength," *Michigan Citizen*, July 24, 2011, A1, A4; Felicia Sonmez, "Rick Snyder Signs Right to Work Legislation," *Washington Post*, December 11, 2012; "Gov. Rick Snyder Touts Right-to-Work Law as Protesters Ridicule Him," *Detroit Free Press*, March 29, 2013; Detroit NAACP, Press Statement, "Democracy Under Siege!" March 15, 2013, [http://democrats.judiciary.house.gov/sites/democrats.judiciary.house.gov/files/documents/Press%20Statements\\_AnthonyEM.pdf](http://democrats.judiciary.house.gov/sites/democrats.judiciary.house.gov/files/documents/Press%20Statements_AnthonyEM.pdf) [accessed July 28, 2016], 1-24; Zenobia Jeffries, "'NO EM!'" *Michigan Citizen*, March 24, 2013, A1, A4.

States.<sup>65</sup>

The bankruptcy cost the city \$164.91 million in legal fees to Jones Day, Miller Buckfire and other law firms. It also facilitated harsher austerity measures on the city's population, including 4.5 percent pension cuts for 11,000 retirees. At the same time, it facilitated the full-speed privatization of city assets. In February 2014, Orr leased Belle Isle to the state of Michigan for 30 years. In May, Orr moved to privatize waste collection at the Department of Public Works, hiring Rizzo Environmental Services and Advanced Disposal on five-year contracts worth \$122.6 million. Orr also created a Public Lighting Authority to privatize the Public Lighting Department. As the *Detroit Free Press* reported, public lighting in Detroit was "once handled by hundreds of unionized municipal employees." Now, the city would only employ 20-25 workers, and outsource the rest to private contractors.<sup>66</sup>

The most significant move towards privatization, however, concerned DWSD, which had already been sharply downsized under the Kilpatrick and Bing administrations. In March 2014, Orr began seeking bids from private water companies, including American Water, Veolia, and United Water, to take over DWSD. By April, the city had received 30 different proposals. Orr asked companies to come up with binding bids by June. Privatization, *Free Press* reporter Brent Snavely noted, could result in "higher water and sewer rates, poorer service, and a mountain of administrative headaches" at DWSD. All of these problems had been visible under ex-United

---

<sup>65</sup> Detroit NAACP, "Democracy Under Siege"; Turbeville, "The Detroit Bankruptcy," 1-21. On Snyder's tax cuts, see Stephen Henderson and Kristi Tanner, "Michigan taxes: Businesses pay less, you pay more," *Detroit Free Press*, October 4, 2014.

<sup>66</sup> Ann VanderMey, "Detroit's Benevolent Dictator," *Fortune*, July 23, 2013, <http://fortune.com/2013/07/23/detroits-benevolent-dictator-2/> [accessed August 12, 2016]; Shea Howell, "State of Emergency," *Michigan Citizen*, December 8, 2013, A1, A4; Matt Helms, Joe Guillen, John Gallagher and JC Reindl, "9 Ways Detroit is Changing After Bankruptcy," *Detroit Free Press*, November 9, 2014; Christine Feretti and Robert Snell, "Detroit Bankruptcy Fees Top \$170M," *Detroit News*, December 31, 2014.

Water official Victor Mercado, and in Pontiac, which sold its water system to United Water in 2011. Mackinac Center fellow Louis Schimmel, the former Emergency Manager of Pontiac, reassured the *Free Press* that privatization worked if “you have good oversight by the municipality... We met with United Water on a weekly basis.” As in other cities, United Water had proceeded to lay off Pontiac’s unionized water workers, and raised water rates by 5 percent, and sewage rates by 14 percent.<sup>67</sup>

The announcement came 10 months into negotiations with suburban municipalities about regionalizing DWSD under a new Great Lakes Water Authority (GLWA). The GLWA board would be governed by six members, with two appointed by the Mayor of Detroit, one appointed by the Governor, and one each appointed by Wayne, Macomb, and Oakland counties. In June 2015, the City of Detroit leased DWSD to the GLWA for 40 years, in return for \$50 million per year for use of city assets. For the first time in 180 years, Detroit would lose control of its water system. GLWA’s Memorandum of Understanding, adopted later that year, listed Veolia as a contractor hired to “undertake an assessment of the systems and make recommendations to assist the parties in operating models, capital requirements and saving opportunities” for DWSD. However, there was “no commitment by DWSD, the City or the Authority to enter into a contract with Veolia to operate manage or maintain the systems.” Still, privatization would be less difficult under the GLWA. Previously, in the words of Lynna Kauchek of the People’s Water Board, “you had to have a three-fifths majority of [voters] approve a privatized water system.” With regionalization, however, “they take power away from Detroit, and then it’s much easier, because

---

<sup>67</sup> Kate Fried, “Pontiac, Michigan’s Emergency Financial Manager Undermines Residents’ Right to Water,” *Food and Water Watch*, January 6, 2012, <http://archive-org.com/page/5028352/2014-12-03/http://foodandwaterwatch.org/2012/01/blogs/> [accessed August 12, 2016]; Dustin Blichok, “Pontiac’s Public Workers employees say they were misled on privatization plan,” *Oakland Press News*, January 29, 2013; Brent Snavely, “Detroit Seeking Offers for Private Management of Water and Sewerage Department,” *Detroit Free Press*, March 15, 2014.

now they have six people, and five of them have to agree” to authorize privatization.<sup>68</sup>

### **Detroit’s New Urban Regime**

The appointment of an EFM, despite Detroit voters’ 82 percent rejection (and Michigan voters’ 52 percent rejection) of Public Act 4, overshadowed the 2013 mayoral elections in Detroit. The race pitted Mike Duggan, a former executive of the Detroit Medical Center, against ex-Wayne County sheriff Benny Napoleon. Duggan’s SuperPAC, Turnaround Detroit, raised \$3.1 million, while Napoleon’s SuperPAC raised only \$460,000. While small in comparison to the sums involved in congressional races, this more than sixfold advantage allowed Duggan to easily drown out Napoleon’s advertising presence. Duggan’s largest contributions came from Roger Penske, a billionaire General Electric board member, auto racing executive, and chair of the M-1 Rail Project.<sup>69</sup>

Soon after taking office, Duggan successfully lobbied the Department of Transportation for \$25 million in federal funds for the M-1 Rail Project, which would construct a light rail line up Woodward Avenue. The project received over \$100 million in additional funds from private donors, including \$35 million from the Kresge Foundation. By 2015, Obama administration officials had pledged to provide funding for 50 new city buses in Detroit, which would still not be enough for the Detroit Department of Transportation (DDOT) to cover its posted bus routes. While

---

<sup>68</sup> Kevyn D. Orr, Mike Duggan, Robert A. Ficano, L. Brooks Patterson, and Mark A. Hackel, “Memorandum of Understanding Regarding the Great Lakes Water Authority,” September 10, 2014, [https://www.oakgov.com/exec/Documents/great\\_lakes\\_water\\_authority/Detroit\\_DWSD\\_Executed\\_MOU\\_Sept\\_9\\_2014\\_FINAL.pdf](https://www.oakgov.com/exec/Documents/great_lakes_water_authority/Detroit_DWSD_Executed_MOU_Sept_9_2014_FINAL.pdf) [accessed July 28, 2016]; City of Detroit, “Great Lakes Authority Fact Sheet,” <http://www.detroitmi.gov/How-Do-I/Great-Lakes-Water-Authority> [accessed July 31, 2016]; Lynna Kauchek, interview with author, May 18, 2016.

<sup>69</sup> Kevin Dietz, “Mike Duggan getting big money from Penske, Karmanos through Super PAC Turnaround Detroit,” *Click On Detroit*, July 26, 2013, <http://www.clickondetroit.com/news/defenders/mike-duggan-getting-big-money-from-penske-karmanos-through-super-pac-turnaround-detroit> [accessed July 31, 2016]; Ryan Garza, “Donor Database: Detroit Mayoral Race Attracted Big-Time Super PAC Money for Mike Duggan,” *Bridge Magazine*, July 22, 2014, [http://www.mlive.com/news/detroit/index.ssf/2014/07/duggan\\_donor\\_database\\_big-time.html](http://www.mlive.com/news/detroit/index.ssf/2014/07/duggan_donor_database_big-time.html) [accessed July 31, 2016].

service would remain infrequent beyond the Woodward corridor, a single mile of M-1 rail cost as much as 140 new buses. In a city where 26 percent of households did not own a vehicle, critics argued, M-1 would concentrate resources in a narrow strip of the city, linking downtown and Midtown with the northern suburbs.<sup>70</sup>

While the M-1 project proceeded, Emergency Manager Kevyn Orr negotiated the sale of 39 parcels of land in downtown Detroit to another local billionaire, Red Wings hockey owner Mike Ilitch, for a total of \$1. The land would border the Detroit Motor City Casino Hotel, owned by Marian Ilitch, the spouse of Mike Ilitch. As Duggan explained to the press, “Kevyn Orr and I had a division of responsibilities, and on his side of the ledger was the hockey arena, which was negotiated by the emergency manager.” Ilitch planned to build a \$650 million Red Wings arena on the land, with \$284 million in taxpayer subsidies from the Detroit Downtown Development Authority (DDDA). At the same time, the DDDA would lease the arena to the Red Wings, rent-free, for up to 95 years. Whereas the City of Detroit had previously received \$7 million annually in Red Wings ticket sales, the deal negotiated by Orr excluded such revenue-sharing in the future.<sup>71</sup>

Taxpayer subsidies for private developers also occurred in the realm of “blight removal.” In October 2015, an omnibus federal spending bill added \$2 billion to the \$7.6 billion Hardest Hit

---

<sup>70</sup> Michigan Department of Transportation, “One Small Step for Public Transit, One Giant Leap for Detroit,” January 18, 2014, [http://www.michigan.gov/mdot/0,4616,7-151-63670\\_63671-293892--,00.html](http://www.michigan.gov/mdot/0,4616,7-151-63670_63671-293892--,00.html) [accessed August 5, 2016]. For the estimated cost of a mile of M-1 rail versus city buses, see Alex Halperin, “How Motor City Came Back From the Brink...and Left Most Detroiters Behind,” *Mother Jones*, July 6, 2015, <http://www.motherjones.com/politics/2015/06/motor-city-after-bankruptcy-and-detroiters-left-> [accessed August 12, 2016].

<sup>71</sup> On Orr’s deal with Ilitch, see “Downtown Development Authority Board of Directors Vote in Favor of Memorandum of Understanding for \$650 Million Downtown Detroit Events Center District,” Olympia Development of Michigan, June 19, 2013, <http://www.ilitchholdings.com/Portals/0/Olympia-Development-PR-061913.pdf> [accessed August 5, 2016]; Joe Guillen and J.C. Reindl, “Detroit city council votes today on arena deal; Ilitches to get land for \$1,” *Detroit Free Press*, February 4, 2014; Peter Rugh, “Who Bled Detroit Dry?” *Vice*, July 23, 2014; Seth Schindler, “Detroit After Bankruptcy: A Case of Degrowth Machine Politics,” *Urban Studies* Vol. 53 No. 4 (2014), 818-836, esp. 824.

Fund. Of this amount, Detroit stood to receive over \$150 million for blight removal, using funds originally earmarked for the Home Affordable Modification Program. According to the *Detroit Free Press*, the run-up to the bill “saw Rock Financial founder Dan Gilbert and JP Morgan Chase head Jamie Dimon, among others, calling top legislative leaders to lobby for it on Detroit’s behalf.” Reportedly, Dimon personally contacted House Speaker Paul Ryan and Majority Leader Mitch McConnell to urge approval of the bill, stressing that J.P. Morgan Chase had pledged \$100 million in new investments in Detroit. The federal government thus diverted funds from aid to distressed homeowners to the demolition of dilapidated homes, including those resulting from subprime foreclosures. In the process, it transferred taxpayer funds to real estate developers and banks, who would profit the most from increases in property values in targeted neighborhoods.<sup>72</sup>

---

<sup>72</sup> “Mayor Duggan’s Development Chief Says Detroit Future City Plan is His Bible,” *Deadline Detroit*, February 12, 2014, [http://www.deadlinedetroit.com/articles/8331/mayor\\_duggan\\_s\\_development\\_chief\\_says\\_the\\_detroit\\_future\\_city\\_plan\\_is\\_his\\_bible#.V0dGYPkrLIU](http://www.deadlinedetroit.com/articles/8331/mayor_duggan_s_development_chief_says_the_detroit_future_city_plan_is_his_bible#.V0dGYPkrLIU) [accessed July 27, 2016]; Todd Spangler, “Detroit Demolitions May Get a Huge Boost,” *Detroit Free Press*, December 17, 2015, A1, A2; idem., “Unlikely Partners Get Deal Done,” *Detroit Free Press*, December 19, 2015, A1, A5. For a critique of the DBRTE, see Hackworth, “Rightsizing as Spatial Austerity,” 772-75.

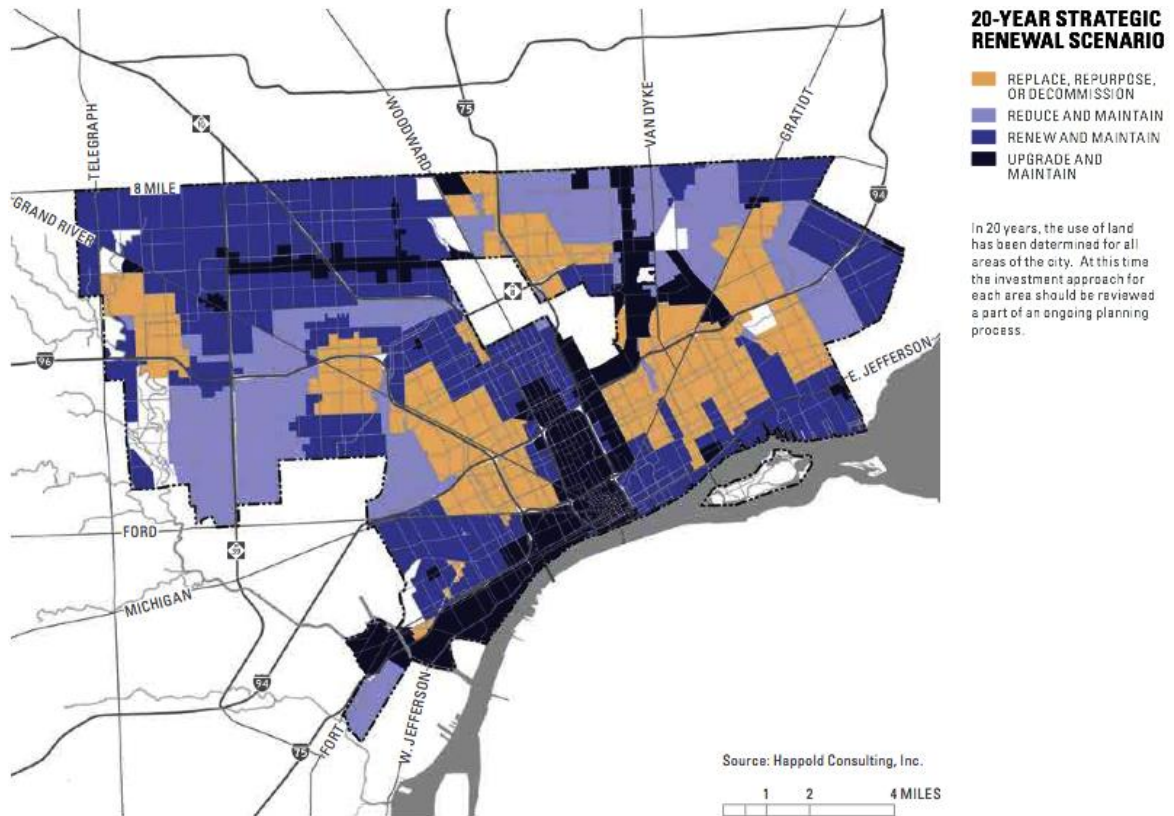


Fig. 7.2. Map of decommissioned areas under Detroit Future City plan by 2032. Areas classified under “replace, repurpose, decommission” or “reduce and maintain” encompass nearly half of Detroit’s land area. Source: Detroit Future City, *2012 Detroit Strategic Framework Plan* (Detroit, MI: Inland Press, 2012), 176.

### Human Rights, Water, and Urban Triage

Mayor Duggan was equally enthusiastic about blight removal and the DFC plan. Duggan’s appointed Group Executive for Jobs and the Economy, Tom Lewand, called the DFC plan his “bible.” In March 2014, the Detroit Blight Removal Task Force, co-chaired by Dan Gilbert, released a report on implementing the DFC plan’s recommendations. The plan included a survey of properties in the city, evaluating structural dilapidation using a Strategic Assessment Triage Tool (SATT). Based on this data, the Detroit Land Bank Authority would begin disconnecting gas, electricity, and water lines from areas scheduled for decommissioning (Fig. 7.2). While these planned disconnections proceeded, DWSD intensified its program of shutting off water for



residents behind on their bills.<sup>73</sup>

According to official statistics, DWSD ordered 71,436 shut offs between 2012 and 2015, primarily through private contractors (Table 7.3). In 2015, of 24,738 water service shut offs, 23,883 were residential (or over 97 percent). In 2014, out of 154,303 delinquent accounts, 141,137 were residential (over 91 percent). Thus, the vast majority of DWSD shut offs were residential. In 2010-2014, 89.7 percent of the city's homes were occupied, and the average Detroit household had 2.69 residents, of whom 34.6 percent were children. Economist Roger Colton, who helped design the Water Affordability Plan passed by the Detroit City Council in 2006, said that a "safe" estimate for the number of Detroit residents facing water shut-offs between 2012 and 2015 was 100,000, over a third of them children. Others, like Lynna Kauchek of the People's Water Board, believed that the number was closer to 150,000.<sup>74</sup>

Although DWSD did not release demographic statistics, the shut-off victims were overwhelmingly African American, and disproportionately women, children, and senior citizens. No one knew the public health consequences of forcing more than 1 in 7 Detroiters to live without

<sup>73</sup> On utility disconnections and the DBRT plan, see Detroit Blight Removal Task Force, *Every Neighborhood Has a Future* (May 2014), "Chapter 6: What is the best way to remove the blight?" available at <http://report.timetoendblight.org/summary/#2> [accessed July 31, 2016]. For the quote, see "Mayor Duggan's Development Chief Says Detroit Future City Plan is His Bible," *Deadline Detroit*, February 12, 2014, [http://www.deadlinedetroit.com/articles/8331/mayor\\_duggan\\_s\\_development\\_chief\\_says\\_the\\_detroit\\_future\\_city\\_plan\\_is\\_his\\_bible#.WEm2HNylzVc](http://www.deadlinedetroit.com/articles/8331/mayor_duggan_s_development_chief_says_the_detroit_future_city_plan_is_his_bible#.WEm2HNylzVc) [accessed July 31, 2016].

<sup>74</sup> Roger Colton, interview with author, July 27, 2016; Lynna Kauchek, interview with author, May 18, 2016; Detroit Water & Sewerage Department, "Meeting Minutes: July 14, 2014," [http://archive.dwsd.org/downloads\\_n/about\\_dwsd/financials/Finance\\_Committee\\_Binder\\_7-14-2014.pdf](http://archive.dwsd.org/downloads_n/about_dwsd/financials/Finance_Committee_Binder_7-14-2014.pdf) [accessed July 27, 2016], 29-30; Detroit Water & Sewerage Department, "Meeting Minutes: December 12, 2014," [http://archive.dwsd.org/downloads\\_n/about\\_dwsd/financials/Finance\\_Committee\\_Binder\\_12-12-2014.pdf](http://archive.dwsd.org/downloads_n/about_dwsd/financials/Finance_Committee_Binder_12-12-2014.pdf) [accessed July 27, 2016], 21; Detroit Water & Sewerage Department, Board of Water Commissioners Finance Committee, May 28, 2015, [http://archive.dwsd.org/downloads\\_n/about\\_dwsd/financials/Finance\\_Committee\\_Binder\\_5-28-2015.pdf](http://archive.dwsd.org/downloads_n/about_dwsd/financials/Finance_Committee_Binder_5-28-2015.pdf) [accessed July 27, 2016], 44-45; Detroit Water & Sewerage Department, Board of Water Commissioners Finance Committee, July 22, 2015, [http://archive.dwsd.org/downloads\\_n/about\\_dwsd/financials/Finance\\_Committee\\_Binder\\_7-22-2015.pdf](http://archive.dwsd.org/downloads_n/about_dwsd/financials/Finance_Committee_Binder_7-22-2015.pdf) [accessed July 27, 2016], 39-40. On Detroit family size, see U.S. Census Bureau, "Quick Facts: Detroit, Michigan," <http://www.census.gov/quickfacts/table/HSD410214/2622000> [accessed August 10, 2016].

running water for extended periods of time. However, rates of dehydration and infectious disease were certain to increase. In 2014, the Michigan Nurses Association approved a resolution stating that “[c]utting off water to community residents is a disgraceful act” and that “the lack of water, like unsafe sanitation, is a major health disaster that can lead to disease outbreaks and pandemics.”<sup>75</sup>

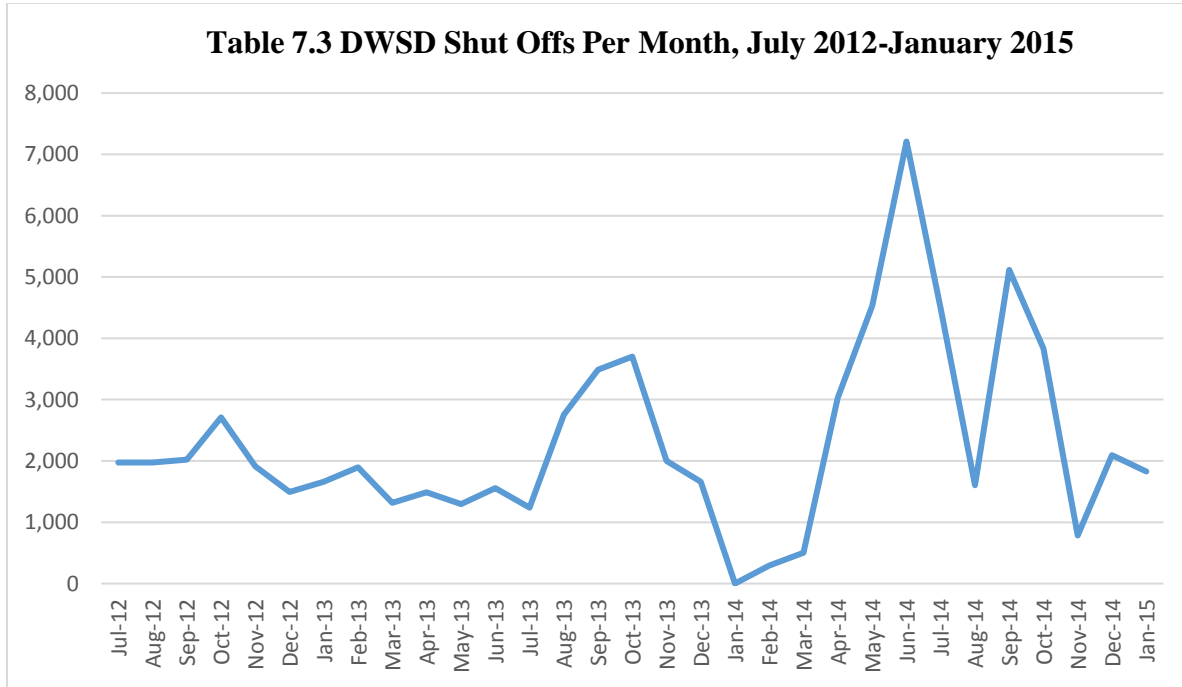


Table. 7.3. Sources: City of Detroit Water & Sewerage Department, Customer Service, “Key Performance Indicators,” July 2014, 29-30, [http://archive.dwsd.org/downloads\\_n/about\\_dwsd/financials/Finance\\_Committee\\_Binder\\_7-14-2014.pdf](http://archive.dwsd.org/downloads_n/about_dwsd/financials/Finance_Committee_Binder_7-14-2014.pdf) [accessed July 27, 2016], 29-30; City of Detroit Water & Sewerage Department, Customer Service, “Key Performance Indicators,” May 2015, [http://archive.dwsd.org/downloads\\_n/about\\_dwsd/financials/Finance\\_Committee\\_Binder\\_5-28-2015.pdf](http://archive.dwsd.org/downloads_n/about_dwsd/financials/Finance_Committee_Binder_5-28-2015.pdf) [accessed July 27, 2016], 44-45; City of Detroit Board of Water Commissioners, Finance Committee, “Key Performance Indicators,” July 2015, [http://archive.dwsd.org/downloads\\_n/about\\_dwsd/financials/Finance\\_Committee\\_Binder\\_7-22-2015.pdf](http://archive.dwsd.org/downloads_n/about_dwsd/financials/Finance_Committee_Binder_7-22-2015.pdf) [accessed July 27, 2016], 39-40.

Beginning in May and June 2014, Detroit activists began a campaign of civil disobedience against the mass shut-offs. One of the first to be arrested was EMEAC Policy Director Charity

<sup>75</sup> Michigan Nurses Association, “Emergency Resolution: Detroit Water Shut Off,” September 24, 2014, <http://www.minurses.org/cms/assets/uploads/2016/02/Emergency-Resolution-Detroit-Water-Shut-Off.pdf> [accessed August 12, 2016].

Hicks, one of the founders of the People’s Water Board. On May 16, Hicks woke to discover that a Homrich Wrecking crew was shutting off her water, along with that of her neighbors in Warrendale, in northwest Detroit. Civil rights attorney Alice Jennings recalled that, “she’s out in the street, barefooted, trying to find out what’s going on, and her two doors down her neighbor was pregnant, two kids on the porch. And she’s running, like ‘Let’s get her some water, or do something.’” After she asked a Homrich driver for identification, they peeled away, injuring her in the process. After Hicks called the police, the police arrested her on unspecified charges, and took her to the Wayne County Correctional Facility on Mound Road, on the east side of Detroit. According to Alice Jennings, she and several friends obtained Hicks’ release from jail after “I threatened them, basically, with litigation. And I wanted to see some paperwork. I have not to this day seen what they were going to charge her with.”<sup>76</sup>

On May 24, Charity Hicks and Lila Cabbil of the People’s Water Board spoke at an event at Wayne State University, entitled “Great Lakes Need Great Friends: Protecting the Great Lakes Forever.” They spoke alongside water activist Maude Barlow, chairperson of the Council of Canadians, who had served as Senior Adviser on Water to Miguel D’Escoto Brockmann, the 63rd President of the United Nations General Assembly. In a public statement, Barlow denounced the

---

<sup>76</sup> Alice Jennings, interview with author, September 2, 2015. On the role of Charity Hicks in the People’s Water Board, see East Michigan Environmental Action Council, “People’s Water Board Remains Vigilant”; Diane Bukowski, “Mass Water Shut-Offs, Mass Incarceration at Mound Road Prison for Protesters,” *Voice of Detroit*, May 28, 2014, <http://www.voiceofdetroit.net/2014/05/28/mass-water-shut-offs-mass-incarceration-at-mound-road-prison-for-protesters/> [accessed July 27, 2016]; “Remembering Charity Hicks,” *On the Commons Magazine*, July 22, 2014, <http://www.onthecommons.org/magazine/commoner/remembering-charity-hicks> [accessed July 27, 2016]; Bill Wylie-Kellerman, “The Detroit Water Struggle: Story,” *Critical Moment*, September 30, 2014, <https://critical-moment.org/2014/09/30/thedetroit-water-struggle-a-story/> [accessed August 12, 2016]; Larry Gabriel, “When the City Turned Off Water, Detroit Residents and Groups Delivered Help,” *YES! Magazine*, November 24, 2014, <http://www.yesmagazine.org/issues/cities-are-now/when-detroit-s-citizens-fought-for-their-right-to-water> [accessed August 12, 2016]; Laura Gottesdiener, “Detroit is Ground Zero in the New Fight for Water Rights,” *The Nation*, July 15, 2015, <https://www.thenation.com/article/detroit-is-ground-zero-in-the-new-fight-for-water-rights> [accessed August 12, 2016].

water shut offs as “sinister” and “ruthless.” “Most of the residents are African American and two-thirds of the cut-offs involve children,” she said, “which means that in some cases, child welfare authorities are moving to remove children from their homes as it is a requirement that there be working utilities in all homes housing children.” During a discussion, participants discussed the international law implications of DWSD policy. According to Alice Jennings, during these discussions, Charity Hicks, Lila Cabbil and Maude Barlow together “decided to contact the UN. And the first letter went from, I think, Maude or from them.”<sup>77</sup> Only six days later, a hit-and-run driver named Thomas Shanley, Jr., the son of a prominent New York City police officer, killed Charity Hicks in New York City.<sup>78</sup> Her friends set up a “Wage Love” fund to bring her body back to Detroit. The name referred to Hicks’ call, during a meeting with organizers of North Carolina’s Moral Mondays movement only weeks before, to “wage love” against the mass shut-offs and privatization.<sup>79</sup>

In response to the letter from the People’s Water Board and Maude Barlow, on June 25, 2014, the United Nations’ Office of the High Commissioner of Human Rights released a statement calling DWSD’s policy for shutting off “people who cannot pay” an “affront to human rights.”

---

<sup>77</sup> Alice Jennings, interview with author, September 2, 2014; Maude Barlow, “Water cut-offs in Detroit a violation of Human Rights,” The Council of Canadians, May 26, 2014, <http://canadians.org/blog/water-cut-offs-detroit-violation-human-rights> [accessed July 27, 2016].

<sup>78</sup> Hicks died on July 8 from injuries caused by Shanley. Witnesses initially described Shanley as “a white male in his 30s or 40s.” Shanley was reportedly driving while drunk and texting on his iPhone when he ran into a bus stop pole, crashing into Hicks. While District Attorney Cy Vance initially charged Shanley with manslaughter, Vance later reduced his charge, in an all-too-familiar pattern in cases involving killings of African Americans by whites. See Shayna Jacobs, “Cop’s Ex-Con Son Charged in Fatal Hit-and-Run in Midtown,” *New York Daily News*, August 9, 2014; Brad Aaron, “Charges Reduced in Manhattan Hit-and-Run Death of Charity Hicks,” *Streets Blog NYC*, February 14, 2016, <http://www.streetsblog.org/2016/02/04/charges-reduced-in-manhattan-hit-and-run-death-of-charity-hicks/> [accessed July 27, 2016].

<sup>79</sup> Wylie-Kellerman, “The Detroit Water Struggle”; Alice Jennings, interview with author, September 2, 2015.

Soon after, protesters began to physically blockade the Homrich dispatch facility at 4660 Grand Boulevard, to prevent trucks from leaving to perform shut-offs. Between July 10 and July 25, police arrested an estimated 29 protesters attempting to blockade Homrich trucks, many of them chanting “We Shall Not Be Moved.” Throughout the summer, protesters demonstrated against the shut-offs outside DWSD headquarters and Detroit City Hall. On July 18, over 1,000 protesters marched through downtown Detroit to call for a shut-off moratorium, in an action called by National Nurses United, who were in Detroit to participate in the Netroots conference.<sup>80</sup>

Many of the protesters targeted the financial sector, both because of its role in the city’s foreclosure crisis and in the DWSD swaps deal. As the *Free Press* reported, “marchers shouted slogans blaming Wall Street banks and predatory mortgage lenders for causing the poverty that, they say, has left thousands of Detroiters facing water shut-offs.” Paul Moist, the national president of the Canadian Union of Public Employees, arrived in Detroit with a convoy carrying 750 gallons of water for the water stations operating in churches and community centers. “America is better than this,” he told the *Free Press*. “If the richest country in the world can bail out banks and bail out Wall Street with public money, then public money from the state level and the national level

<sup>80</sup> United Nations Office of the High Commissioner for Human Rights, “Detroit: Disconnecting water from people who cannot pay-an affront to human rights,” June 25, 2014, <http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=14777&LangID=E> [accessed July 27, 2016]; Kary L. Moss, Executive Director, ACLU Fund of Michigan and Sherilyn Ifill, Director-Counsel, NAACP Legal Defense and Educational Fund, Letter to Mayor Mike Duggan, Emergency Manager Kevyn Orr, James Fausone, Chair, Detroit Water and Sewage Department, Sue McCormick, Chief Executive Office, Detroit Water and Sewage Department, July 18, 2014, [http://www.aclumich.org/sites/default/files/201\\_Due Process\\_Water Shutoffs\\_Letter.pdf](http://www.aclumich.org/sites/default/files/201_Due%20Process_Water%20Shutoffs_Letter.pdf) [accessed July 27, 2016]; Dave Jamieson, “Detroit Water Shutoffs Prompt Mass Protest, More Calls for Moratorium,” *Huffington Post*, July 18, 2014, [http://www.huffingtonpost.com/2014/07/18/detroit-water-shutoffs-netroots\\_n\\_5600493.html](http://www.huffingtonpost.com/2014/07/18/detroit-water-shutoffs-netroots_n_5600493.html) [accessed July 27, 2016]; Robert Allen and Bill Laitner, “More than 1,000 from across nation rally against Detroit water shutoffs,” *Detroit Free Press*, July 21, 2014; Robert Allen, “Canadians Decry Shutoffs, Plan Water Convoy to Detroit,” *Detroit Free Press*, July 23, 2014; Matt Helms, “Canadians Deliver Water to Protest Detroit Shutoffs,” *Detroit Free Press*, July 24, 2014; Rasheed Shabazz, “Hundreds of Protesters Flood Detroit Streets to Protest Water Shut-Offs,” *SF Bay View*, July 25, 2014, <http://sfbayview.com/2014/07/hundreds-of-protestors-flood-detroit-streets-to-protest-water-shut-offs/> [accessed August 14, 2016].

can be used to help the people of Detroit who are in harm's way health-wise without water." Later that year, Reverend Bill Wylie-Kellerman, who had been arrested blocking Homrich trucks, and whose church was running a water station, told the press, "People's water bills are increased by the debt service. You're carrying the banks."<sup>81</sup>

The connection between municipal debt and the water crisis also became a subject of the city's bankruptcy proceedings. During the protests, Judge Steven Rhodes called DWSD officials, as well as activist groups, into court to testify about the water shut-offs. On July 15, retiree and activist Cecilee McClellan testified that, "[w]hile the poorest Detroiters have their water shut off for owing \$150, J.P. Morgan Chase, UBS, Loop Financial and Morgan Stanley were paid \$537 million in termination fees on interest rate swaps out of \$1 billion in bonds used from 2010-2013." In order to pay the termination fees, Detroit had sold \$489 million in additional bonds in 2012, in a deal in which Goldman Sachs was the senior manager. By 2012, *Bloomberg* reported that "debt service has climbed to more than 40 percent of revenue" at DWSD, due to the swap termination fees. As Vanessa Fluker put it, "a significant amount of the city revenue was going to pay debt service rather than to handle the day-to-day operations of the city itself." As a result, "you're trying to regroup funds to pay debt service from individuals who have been traumatized economically from the housing crisis, coupled with the overall loss of employment in the economy and the ever-increasing water rates."<sup>82</sup>

---

<sup>81</sup> Helms, "Canadians deliver water to protest Detroit shutoffs"; Allen and Laitner, "More than 1,000 from across nation rally against Detroit water shutoffs"; Khalil Al-Hajal, "Activists who were arrested for blocking water shutoffs march through downtown Detroit," *Mlive.com*, December 8, 2014, [http://www.mlive.com/news/detroit/index.ssf/2014/12/activists\\_who\\_were\\_arrested\\_fo.html](http://www.mlive.com/news/detroit/index.ssf/2014/12/activists_who_were_arrested_fo.html) [accessed July 27, 2016].

<sup>82</sup> Vanessa Fluker, interview with author, August 19, 2015; Darrell Preston, "Detroit Shows Wall Street Never Loses on Bad Swaps: Muni Credit," *Bloomberg*, September 13, 2012, <http://www.bloomberg.com/news/articles/2012-09-13/detroit-shows-wall-street-never-loses-on-bad-swaps-muni-credit> [accessed July 27, 2016]; Saqib Bhatti, "Dirty Deals: How Wall Street's Predatory Deals Hurt Taxpayers and What We Can Do About It," Roosevelt Institute, November 18, 2014, [http://rooseveltinstitute.org/wp-content/uploads/2015/11/Bhatti\\_Dirty\\_Deals.pdf](http://rooseveltinstitute.org/wp-content/uploads/2015/11/Bhatti_Dirty_Deals.pdf) [accessed July 27, 2016], 1-15; Carrie Sloan, "How Wall Street

On July 21, Rhodes stated publicly that the shut offs had “created a lot of anger and hardship” and were “hurting the city and this bankruptcy.” The same day, a coalition of organizations—including MWRO, the People’s Water Board, the National Action Network Michigan Chapter, and Moratorium Now!—filed a restraining order on behalf of ten residents “who have had their water shut off or are at risk of having it shut off.” Calling for an immediate moratorium on shut-offs, the complaint held that DWSD’s shut-off policy violated executory contract bankruptcy law, the Due Process Clause and the Equal Protection Clause of the U.S. Constitution. It also charged that the policy violated international human rights treaties, of which the United States was a signatory. After several months of expert testimony, including from former Detroit Health Department head George Gaines, on the physical effects of water deprivation, Judge Rhodes denied the moratorium. According to Alice Jennings, the lead attorney on the case, “I really think he wanted to work it out but Mayor Duggan was just adamant, ‘No.’ And I’ve heard it’s because he wanted the bonding to go through, which has since gone though.”<sup>83</sup>

During the trial, DWSD attorneys argued that recognizing a right to water would endanger Detroit’s contracts with bondholders. As DWSD director Sue McCormick told Judge Rhodes, a moratorium “could potentially be very devastating” to the department’s budget. Roger Colton, however, testified that the city’s failure to implement a Water Affordability Plan ensured that collection would be “unsuccessful and ineffective” over the long term. According to Alice Jennings, more and more Detroiters who could not afford their water bills were “going off the

---

Caused a Water Crisis in America’s Cities,” *The Nation*, March 11, 2016, <https://www.thenation.com/article/how-wall-street-caused-a-water-crisis-in-americas-cities/> [accessed August 12, 2016]. On DWSD and Detroit’s municipal debt, see Jamie Peck and Heather Whiteside, “Financializing Detroit,” *Economic Geography* Vol. 92 No. 3 (2016), 256, 260.

<sup>83</sup>Alice Jennings, interview with author, September 2, 2015; *Lyda et al. v. City of Detroit*, Case No. 2:15-cv-10038-BAF-RSW.

grid.” “They’re saying, ‘You know what? I’ll never be able to afford water again. So let me just start living my life in urban Detroit off the grid without water.’” As a result, “there was a precipitous drop in income” at DWSD. Instead of changing the rate structure, the department was forcing people out of the system, necessitating further rate increases among remaining ratepayers, and further bond debt.<sup>84</sup>

In a letter to the United Nations Human Rights Council on October 16, 2014, Sherrilyn Ifill of the NAACP Legal Defense Fund and Kary Moss of the ACLU Fund of Michigan wrote that the “curtailment of democracy” in Detroit closed off local avenues for addressing the crisis. They pointed out that, with Governor Snyder’s appointment of Emergency Manager Orr, “residents of Detroit no longer had a voice in city governance, as their democratically elected city council and mayor became virtually powerless.” Orr, like Bing’s successor Duggan, was “a staunch supporter of DWSD’s aggressive shut-off campaign against residential customers.”<sup>85</sup>

Between October 18 and 20, UN Special Rapporteurs Leilani Farha and Catarina de Albuquerque visited Detroit. During a bus tour, they met with residents who had suffered shut offs, including single mothers, children, and people with disabilities and chronic diseases. They included residents like Nicole Cannon, a 44-year-old mother of three children, who suffered from sarcoidosis, and breathed with help from an oxygen tank. As a plaintiff in the *Lyda v. City of*

---

<sup>84</sup> Alice Jennings, interview with author, September 2, 2015; “Detroit Authorities Defend Water Shutoff Policy,” *Associated Press*, September 22, 2014; Caitlin Devitt, “Bankruptcy judge allows Detroit water shutoffs,” *The Bond Buyer*, September 29, 2014, n.p.; idem., “Moody’s: Detroit water authority positive for DWSD bondholders,” *The Bond Buyer*, October 10, 2014, n.p.; idem., “Detroit facing water, sewer rate increases,” *The Bond Buyer*, February 13, 2015, n.p.

<sup>85</sup> Kary L. Moss, Executive Director, ACLU Fund of Michigan and Sherrilyn Ifill, Director-Counsel, NAACP Legal Defense and Educational Fund, Letter to Ms. Catarina de Albuquerque and Ms. Leilani Farha, United Nations Office of the High Commissioner for Human Rights, October 16, 2014, [http://www.naacpldf.org/files/case\\_issue/Detroit%20Water%20Shutoff%20Letter%20to%20UN.pdf](http://www.naacpldf.org/files/case_issue/Detroit%20Water%20Shutoff%20Letter%20to%20UN.pdf) [accessed July 28, 2016], 1-12, esp. 2; Michigan Coalition for Human Rights, “Aftermath of the UN Visit for Water and Housing,” October 20, 2014, <http://www.mchr.org/2014/10/aftermath-of-the-un-visit-to-detroit-regarding-water-and-housing/> [accessed July 28, 2016].



*Detroit* case, Cannon testified that she paid over \$400 per month for her water bill, due to a leak in her basement, while living on “800 something dollars” from Social Security. In December, Cannon died. Jennings commented that, although Cannon was “predisposed to injury,” the water crisis impaired her health, because her high water bills caused her to “stress and struggle with the budget” every month. They also met with a woman named Nicole Hill, who had to be hospitalized due to viral infections that developed when she cut back on bathing and cleaning after DWSD shut off her water. Farha and de Albuquerque also found widespread evidence of “unaffordable and arbitrary water bills.” De Albuquerque provided examples of “indignity suffered by people whose water was disconnected,” such as a mother whose daughters “had to wash themselves with a bottle of water during menstruation.” The shut-offs, the UN experts said, violated international human rights laws to which “the United States is bound,” both concerning the “right to water” and the “right to non-discrimination,” because the vast majority of the victims were African Americans.<sup>86</sup>

Despite the UN visit, the shut-offs continued through the fall of 2014, and the winter, spring, and summer of 2015. Mayor Duggan and his administration, in the words of Lynna Kauchek, “ignored the UN’s recommendations,” and refused to answer the charge that “they were violating the human right to water and sanitation.” By February 2015, DWSD was proposing additional water rate increases of 17 percent for Detroiters, making water still less affordable for low-income residents. As the shut-offs spread, thousands of residents resorted to illegal hook-ups, which Homrich workers tried to prevent by pouring cement and gravel into water pipes. Between

---

<sup>86</sup> Alice Jennings, interview with author, September 2, 2015; United Nations Human Rights Council, “In Detroit, city-backed water shut-offs ‘contrary to human rights,’ say UN experts,” October 20, 2014, <http://www.un.org/apps/news/story.asp?NewsID=49127#.VduEtPIViko> [accessed July 28, 2016]; U.N. Human Rights Council, *Report of the Special Rapporteur on adequate housing as a component of the right to an adequate standard of living, and on the right to non-discrimination in this context, Leilani Farha* (22 December 2014), U.N. Doc. A/HRC/28/62.

January and July 2015, DWSD shut off 12,028 accounts for “illegal usage,” and another 5,988 accounts for nonpayment. As of July 14, 10,894 residents remained eligible for shut off, and crews continued to be dispatched. By this time, according to Alice Jennings, the People’s Water Board Coalition had grown to include 30 different organizations. Activists continued to lobby City Council for a Water Affordability Plan, and for state and federal legislation that would ensure the right of all people to safe, affordable water. Reflecting on the ongoing campaign, Alice Jennings said that “the story is long and powerful, because of the people who have been willing to commit to the struggle for water at such a high level.”<sup>87</sup>

### **Emergency Managers, Austerity, and Environmental Health**

The combination of odious municipal debt, takeover by Emergency Managers, and disregard for public health in majority-African American cities was not unique to Detroit. It had already occurred in Highland Park, and soon spread to Flint. The DWSD rate increases provided a public rationale for Flint’s Emergency Manager, Ed Kurtz, to remove Flint from DWSD in April 2013, converting the city’s water supply to the Flint River. His successor, Darnell Early, oversaw the completion of this process. Disregarding the EPA’s Lead and Copper Rule, Governor Snyder’s MDEQ chose to exempt the Flint Water Treatment Plant from corrosion control. Instead, MDEQ only promised to test Flint water during two six-month trial periods, and institute corrosion control if lead and copper levels exceeded EPA standards.<sup>88</sup>

This decision reflected a larger context of cost-cutting and deregulation. In 2011, Governor Snyder’s MDEQ proposed to reduce the number of air toxins regulated by the state from 1,200 to

<sup>87</sup> Alice Jennings, interview with author, September 2, 2015; Great Lakes Water Authority, “Regarding: Interim CEO’s Report—July, 2015,” 5, <http://www.glwater.org/wp-content/uploads/2015/07/072915-Interim-CEO-Report-July-29-2015.pdf> [accessed July 27, 2016].

<sup>88</sup> Flint Water Advisory Task Force, Final Report, March 2016, [https://www.michigan.gov/documents/snyder/FWATF\\_FINAL\\_REPORT\\_21March2016\\_517805\\_7.pdf](https://www.michigan.gov/documents/snyder/FWATF_FINAL_REPORT_21March2016_517805_7.pdf) [accessed July 27, 2016], 15-21

500, but dropped the proposal after a popular backlash. Partly as a result of Governor Snyder's 30% cut in state aid in 2011-2012, the Detroit Department of Health and Wellness ended its lead abatement program in 2012. The abandonment of lead abatement occurred despite evidence of pervasive exposure to lead among Detroit children. In 2014, a study of 22,842 Detroit children by the Michigan Department of Health found that 8.2 percent had elevated blood lead levels.<sup>89</sup>

These policies of deregulation, tax cuts, and austerity led directly to a water crisis in Flint, as they had in Detroit. Because the Flint River water was high in corrosive chlorides, the new water supply caused lead and copper to leach from water pipes into the city's drinking water for over two years. In early 2015, Darnell Earley, the Emergency Manager of Flint, hired Veolia as a water quality consultant. Veolia's 2015 Interim Report, released on February 18, declared that Flint's water supply was "safe" and "in compliance with drinking water standards." It dismissed widespread reports of health problems among residents, stating that "[s]ome people may be sensitive to any water." During the same period, as the state Attorney General's office later discovered, MDEQ staffers tampered with test results from Flint to conceal the emerging problem. In May, a Virginia Tech study contradicted MDEQ's claims, finding that lead levels in one Flint water sample reached 13,200 parts per billion, a level the EPA considered "hazardous waste." An epidemiological study in 2014-2015, led by Dr. Mona Hanna-Attisha of Michigan Children's

---

<sup>89</sup> Peter Luke, "Gov.-Elect Rick Snyder Announces Reorganization Plan, Including Separation of DEQ, DNR," *Bridge Magazine*, November 30, 2010, [http://www.mlive.com/politics/index.ssf/2010/11/gov-elect\\_rick\\_snyder\\_announce.html](http://www.mlive.com/politics/index.ssf/2010/11/gov-elect_rick_snyder_announce.html) [Accessed July 27, 2016]; Keith Matheny, "Kids in Danger as Lead Programs Cut: Detroit's Budget Crisis Slices Aid for Residents," *Detroit Free Press*, April 28, 2013, 1A, 11A; Michigan State Budget Office, Office of Regulatory Reinvention, "ORR Implemented ARC Recommendations: Tracking Sheet," November 21, 2013, [http://www.michigan.gov/documents/lara/ORR\\_ARC\\_Recommendations\\_IMPLEMENTED\\_439402\\_7.docx](http://www.michigan.gov/documents/lara/ORR_ARC_Recommendations_IMPLEMENTED_439402_7.docx) [accessed August 11, 2016]; Garret Ellison, "Michigan Rejects Plan to Deregulate Huge List of Toxic Air Chemicals," *Bridge Magazine*, April 5, 2016, [http://www.mlive.com/news/index.ssf/2016/04/michigan\\_wont\\_deregulate\\_huge.html](http://www.mlive.com/news/index.ssf/2016/04/michigan_wont_deregulate_huge.html) [accessed August 11, 2016]; Martha Stansbury, Robert Scott, and Jessica Cooper, "2014 Data Report on Childhood Lead Testing and Elevated Levels," Michigan Department of Health and Human Services, March 14, 2016, 1-39, [http://www.michigan.gov/documents/mdhhs/2014\\_Child\\_Lead\\_Testing\\_and\\_Elevated\\_Levels\\_Report\\_515233\\_7.pdf](http://www.michigan.gov/documents/mdhhs/2014_Child_Lead_Testing_and_Elevated_Levels_Report_515233_7.pdf) [accessed August 11, 2016].

Hospital, found that the incidence of elevated blood lead levels in Flint children more than doubled (from 2.4 percent to 4.9 percent) after the switch.<sup>90</sup>

Similar problems appeared in the Detroit Public Schools (DPS) under Emergency Management. The following year, school officials in Detroit discovered elevated levels of lead and copper in 19 out of 62 schools tested. During the same period, Governor Snyder appointed Darnell Earley as the Emergency Manager of DPS. After the Flint lead poisoning scandal (and Earley's role in it) attracted national attention, Earley stepped down from his position at DPS. Following the resignation, Governor Snyder praised Earley, saying that he "restructured a heavily bureaucratic central office" and "set in place operating and cost-containment measures" in Detroit schools. The lead testing results suggested that such "cost-containment" measures were as dangerous for children in Detroit as in Flint. At one Detroit school, Ronald Brown Academy, tests showed lead levels of 1,500 parts per billion, and tests at eight schools found copper levels at 1,300 parts per billion.<sup>91</sup>

Officials at DPS, now led by Emergency Manager Stephen Rhodes (the judge who had presided over Detroit's bankruptcy hearings), publicly downplayed the results. "Although children are exposed to lead from many different sources," they told the press, "the EPA maintains that the

---

<sup>90</sup> Mona Hanna-Attisha, Jenny LaChance, Richard Casey Sadler, and Allison Champney Schnepf, "Elevated Blood Lead Levels in Children Associated with the Flint Drinking Water Crisis: A Spatial Analysis of Risk and Public Health Response," *AJPH Research* Vol. 106 No. 2 (February 2016), 283-290; Flint Water Advisory Task Force, Final Report, 15-62. Veolia's Interim Report is quoted in a lawsuit by the Michigan Attorney General's Office, available at [https://content.govdelivery.com/attachments/MIAG/2016/06/22/file\\_attachments/572551/Hall\\_Veolia\\_LAN\\_complaint\\_final\\_6\\_21\\_2016.pdf](https://content.govdelivery.com/attachments/MIAG/2016/06/22/file_attachments/572551/Hall_Veolia_LAN_complaint_final_6_21_2016.pdf).

<sup>91</sup> Abby Jackson, "The Detroit schools emergency manager resigns after a month of 'sick-outs' and stomach-turning images of decay," *Business Insider*, February 2, 2016, <http://www.businessinsider.com/darnell-earley-is-resigning-as-emergency-manager-of-detroit-public-schools-at-the-end-of-february-2016-2> [accessed August 12, 2016]; Eric Lacy, "Darnell Early out as Detroit schools EM, has Lansing ties," *Lansing State Journal*, February 5, 2016; Mark Hicks, "Higher Lead, Copper Levels in 19 Detroit Schools' Water," *Detroit News*, April 14, 2016; Jennifer Chambers and Jim Lynch, "Dangerous Lead Levels Detailed at Some DPS Schools," *Detroit News*, April 14, 2016.

main place for exposure is in the home due to lead-based paint that is damaged and peeling.” Denying that Detroit schools were the “main source” of child lead poisoning, however, constituted an admission that they were not safe. Similar complaints about black mold, rats, roaches, and leaking roofs contributed to a “sick-out” by teachers that closed 85 of 100 DPS schools in the winter of 2015-2016. After seven years under Emergency Management, Detroit schools appeared to be more hazardous than ever. The water test results, in particular, suggested that a Flint-like poisoning crisis could easily occur in Detroit.<sup>92</sup>

The interconnected water crises in Detroit and Flint demonstrated the human costs of overriding democracy in the name of austerity and debt service. More generally, the physical proximity of mass water shut-offs to the world’s largest sources of fresh water highlighted the artificial scarcity that resulted from commodifying nature. As Lynna Kaucke of the People’s Water Board observed, “these decisions that are made undemocratically, without any system of checks and balances, have now left hundreds of thousands of people without access to water in a state that is surrounded by more fresh water than just about any other place in the world.” Like mass unemployment alongside crumbling infrastructure, and evictions amid abandoned homes, Michigan’s water crises revealed a widening chasm between basic human needs and a profit-driven system of resource distribution.<sup>93</sup>

### Conclusion

The economic restructuring of Detroit between 2000 and 2015 opened up expansive new terrains for accumulation by private investors. For Detroit’s largest developers, like Dan Gilbert,

---

<sup>92</sup> Emma Brown, “Rats, Roaches, Mold—Poor Conditions Lead to Teacher Sickout, Closure,” *Washington Post*, January 20, 2016.

<sup>93</sup> Lynna Kaucke, interview with author, May 18, 2016. For evidence of higher water rates in urban areas, see Rachel Butts and Stephen Gasteyer, “More Cost Per Drop: Water Rates, Structural Inequality, and Race in the United States—the Case of Michigan,” *Environmental Practice* 13 (December 2011), 386-395.

Mike Ilitch, Roger Penske, and John Hantz, the city offered cheap land and generous taxpayer subsidies. The DFC plan and blight removal, by decommissioning and clearing high-vacancy neighborhoods, promised to boost the value of their real estate. Multinational corporations, like Marathon Petroleum and Philip Morris (renamed Altria in 2003), also enjoyed multi-decade tax exemptions for their investments in Detroit. Meanwhile, Detroit was an ongoing source of profit for the nation's largest banks, via the deregulated subprime mortgage and swaps markets. Private contractors also benefited from outsourcing and privatization, from Veolia's consulting work in Detroit and Flint to the firms now fixing the city's streetlights, hauling its trash, and running over a third of its schools. Meanwhile, in 2015 alone, while DWSD officially shut off water service for 23,300 homes, it only shut off 680 businesses, despite the fact that businesses owed \$41 million in water bills, compared with \$26 million for private homes. Delinquent businesses that had not been shut off included the city's golf courses in Palmer Park.<sup>94</sup>

These inequities, in microcosm, exemplified what some activists called “two Detroits.” If the period between 2000 and 2015 was one of opportunity for real estate developers and upper-income professionals, who were disproportionately white and male, it was one of large-scale dispossession for low-income Detroiters, who were disproportionately African American and female. The extraction of profit from privatization, foreclosed homes, and rising water bills occurred at the expense of physical survival for residents like Nicole Cannon and Nicole Hill. The reduction in recipients of cash assistance in Wayne County from 198,000 in 1995 to 15,238 in 2013, and the elimination of the Vendor Pay program, increased vulnerability to eviction and

---

<sup>94</sup> Joel Kurth, “Detroit Hits Residents on Water Shut-Offs as Businesses Slide,” *Detroit News*, April 1, 2016; Ryan Felton, “Detroit Water Shut-Offs Resume—and Residents Continue to Struggle with Bills,” *Metro Times*, July 6, 2016. On charter schools in Detroit, see Kate Zernike, “A Sea of Charter Schools in Detroit Leaves Students Adrift,” *The New York Times*, June 28, 2016. Zernike notes that, as of 2016, for-profit companies run “about 80%” of the charter schools in Michigan, the highest percentage in the nation.

utility shut-offs. For the majority of Detroiters, the early 21<sup>st</sup> century was not a time of accumulating wealth, but of accumulating risk.<sup>95</sup>

Within social movement politics, it is no coincidence that the most militant resistance to land grabs, mass water shut-offs, and privatization in Detroit came from organizations rooted in the public sector. MWRO and AFSCME Local 207 had a vested interest in the defense of the public sector, and they were accountable to working-class and poor Detroiters in a way that most non-profits were not. The case of DWEJ provides a clear example of this phenomenon. Recalling the 1991 UCC-CRJ conference, Donele Wilkins said that the participants shared the characteristics of “[n]o longer wanting to be the dumping ground for industry.” They were tired of being “ignored by environmental organizations, who by the way, their board of directors and staff represented the industries that were poisoning our communities.” By becoming consultants for the Marathon refinery expansion, Hantz Farms, and the DFC plan, some DWEJ board members had compromised these values.<sup>96</sup>

Conversely, the founding principles of the People’s Water Board—that “water is a human right and all people should have access to clean and affordable water” and that water is “a commons that should be held in the public trust free of privatization”—directly challenged neoliberal capitalist logic. They echoed civil rights activist William Ratliff’s argument, at the Black Lake conference in 1976, that the “basic causes of environmental and economic injustice” were a combination of “discrimination, over-concentration of wealth and a shortage of economic democracy.” Ultimately, an environmental justice movement that served the needs of poor and

---

<sup>95</sup> Wayne County Metro Community Action Agency, “2013 Community Assessment” (2013), 42-43; David Sands, “Michigan Welfare Cuts: 46,000 Children Lost Cash Assistance After State Imposed Lifetime Limits,” *Huffington Post*, March 29, 2012, [http://www.huffingtonpost.com/entry/michigan-welfare-cuts-children-cash-assistance-lifetime-limits\\_n\\_1387873](http://www.huffingtonpost.com/entry/michigan-welfare-cuts-children-cash-assistance-lifetime-limits_n_1387873) [accessed July 28, 2015].

<sup>96</sup> Donele Wilkins, interview with author, July 14, 2015.

working-class people could not rely on funding from multinational corporations, private foundations, and real estate developers. It would have to defend the right of all people to a safe and healthy environment, rather than restricting access to those with sufficient capital.<sup>97</sup>

---

<sup>97</sup> East Michigan Environmental Action Council, "People's Water Board Remains Vigilant"; William B. Ratliff, "Preamble," to "Environment and the Poor" workshop, May 6, 1976, "Working for Environmental and Economic Justice and Jobs" conference, proceedings, folder 12, box 10, UAW-CRD.



## EPILOGUE

*People will move here from all over the world, bringing their capital, and even those coming without capital will do so just to see how capitalism is really supposed to work...and to see how it can replace destitution and the dole with dignity and jobs.*

Hal Sperlich, "Commentary," in Rodney Lockwood, *Belle Isle: Detroit's Game Changer* (2012)

*And I'll be in New York City, and people will be like, "Oh, Detroit, I hear it's so awesome." And I'm like, "Yeah, it is really awesome if you're not black or brown and poor." [...] Because you are a big fish with a few dollars. But if you don't have access to capital, your school is closed, your library is closed. You know, your street is at risk of being rubblized. The property around you is being sold to some foreign investor. People are being pushed out of their homes. Their neighbor, if not yourself. Your lights are being turned off, and you don't have water. You know, what...what people don't see, and what's being invisibilized, is so horrifying.*

Michelle Martinez, interview with author, August 14, 2015

On July 1, 2014, the editors of the *Detroit News* attacked the "narrative being pushed by community activists" that "water is a right and no one should be cut off for non-payment." The editors went on to offer readers a history lesson: "But even in the days of community wells and aqueducts, citizens came together and taxed themselves for obtaining and delivering water." No commentator mentioned that Progressive-era Detroit mayor Hazen Pingree ran on a free water platform in 1895, and railed against utility rate structures that favored the wealthy. This platform helped Pingree win by a landslide, and won approval by popular referendum in 1897, with the strongest support from the city's working-class wards. Moreover, during the Great Depression, the then-named Detroit Department of Water Supply adopted a policy, as Water Consumers Account Superintendent Hal F. Smith wrote in 1933, "that water service should not be discontinued to a residence where the only result would be to deprive a family of water service." Curiously, for the *Detroit News*, memory of the 1820s was fresher than that of the 1890s, or even the 1930s.<sup>1</sup>

<sup>1</sup> "Water shut-offs aimed at scofflaws, not needy," *Detroit News*, July 1, 2014. On the Depression-era policy, see Hal F. Smith, "At War with the Depression in the Detroit Water Department," *Journal of the American Water Works Association*, Vol. 25 No. 12 (December 1933), 1681-1689, esp. 1683-5.

In January 1914, a century before the UN Human Rights Council denounced Detroit's water shut-offs, the Ford Motor Company announced the doubling of workers' wages, from \$2.50 to \$5.00 per day. As labor historians have shown, the "\$5 a day" was actually a profit-sharing plan, which was contingent on workers meeting the behavioral benchmarks of the Ford Sociological Department. Most workers did not actually make \$5 per day, and the plan excluded women for its first two years. Like other manufacturers, Ford primarily hired African Americans for the lowest-paying, most hazardous jobs at the Highland Park plant. Nevertheless, the high wages in Detroit auto factories—largely due to pressure from organized labor—marked the symbolic inauguration of a new phase in the history of capitalism.<sup>2</sup>

Sociologist Saskia Sassen has recently called this a phase of "incorporation," whereby capital accumulation in the industrial core of the world economy became linked to a "vast expansion of a middle class." Although Fordist capitalism "did not eliminate inequality, discrimination, or racism," it "reduced systemic tendencies toward extreme inequality" through a regime of "mass production and mass consumption, with strong labor unions in at least some sectors, and diverse government supports." Without directly referencing Detroit, Sassen argues that, since the 1970s, this phase has given way to one of "expulsion," in which the formal economy shrinks, placing more and more people in the ranks of the unemployed, underemployed, homeless, or incarcerated. In this scenario, capital accumulation increasingly becomes delinked from economic security for the global working class. In many ways, mass water shut-offs in the original

---

<sup>2</sup> On women and the five dollar day, see Martha May, "The Historical Problem of the Family Wage: The Ford Motor Company and the Five Dollar Day," *Feminist Studies* Vol. 8 No. 2 (Summer 1982), 399-424. On the Ford Sociological Department investigations, see Stephen Meyer III, *The Five Dollar Day: Labor Management and Social Control at the Ford Motor Company, 1908-1921* (Albany: State University of New York Press, 1981), 123-148. On African Americans at the Ford Model T plant, see Clarence Hooker, *Life in the Shadows of the Crystal Palace: Ford Workers in the Model T Era, 1910-1927* (Bowling Green: Bowling Green State University Press, 1997), 89-106.

heartland of Fordism provide disturbing evidence of this shift from incorporation to expulsion.<sup>3</sup> More broadly, the water crisis demonstrated how the position of Detroit within the global economy had changed over the past century. If in the 1910s Detroit stood at the technological cutting edge of capitalism's industrial core, by the 2010s it represented the infiltration of trends long evident in the system's global periphery, including land grabs, privatization, the suspension of democracy, and the imposition of austerity through debt service. On a micro-scale, the policies of Emergency Managers in Michigan closely resembled the structural adjustment programs of the International Monetary Fund (IMF) in Latin America, Africa, and Asia, and (more recently) in the Eurozone.<sup>4</sup>

This process of neoliberal restructuring had profound implications for environmental inequality in Detroit. To appreciate these changes, a historical perspective is necessary. The urban reforms that resulted in decommodifying environmental goods (like water and parks) and regulating environmental hazards (like air and water pollution) expanded access to people who could not purchase the former (or avoid the latter) through the market. Similarly, within the Fordist manufacturing system, worker demands for protection from indoor pollution challenged capital's externalization of costs onto labor. As UAW leaders recognized, the social-democratic logic that justified a right to jobs, housing, and public assistance during the New Deal also justified a right to clean water and air after World War II. Those rights, however, would only become possible

---

<sup>3</sup> Saskia Sassen, *Expulsions: Brutality and Complexity in the Global Economy* (Cambridge: Harvard University Press, 2014), 17. For empirical evidence of this shift, see *Ibid.*, 12-79.

<sup>4</sup> On land grabs, see *Ibid.*, 80-116. For specific examples in Detroit, see Safransky, "Greening the Urban Frontier"; Matthew Birkhold, Grace Lee Boggs, Rick Feldman, and Shea Howell, "A Detroit Story: Ideas Whose Time Has Come," in Alexander Reid Ross, ed., *Grabbing Back: Essays Against the Global Land Grab* (Oakland: AK Press, 2014), 193-208. For comparisons of Detroit's "plan of adjustment" under emergency management with structural adjustment plans, see Michael Peter Smith and Lucas Owen Kirkpatrick, "Reinventing Decline: Urban Decline and the Politics of Possibility," in Michael Peter Smith and Lucas Owen Kirkpatrick, eds., *Reinventing Detroit: The Politics of Possibility* (New Brunswick: Transaction Publishers, 2015); Jamie Peck and Heather Whiteside, "Financializing Detroit," *Economic Geography* Vol. 92 No. 3 (2016), 235-268.

through an expansion of federal regulation, prodded by activism in both working-class and middle-class communities. In Detroit, labor unions played a key role in these efforts. If the federal government subsidized racist housing policies, wasteful energy use, and the decline of inner cities, it could also—under pressure from social movements—create jobs, enforce civil rights laws, and grant all citizens the right to clean air and water.

With this understanding, labor and civil rights activists in Detroit participated in a diverse coalition that attempted to reconcile social-democratic and environmental demands on the state in the 1960s and 1970s. Significantly, these efforts did not merely give rise to a call for “environmental justice.” They were more ambitious, demanding “environmental and economic justice and jobs.” However, neoliberal restructuring reversed the trend of increased public ownership and regulation that characterized the Progressive and New Deal eras. Privatization and deregulation opened up new areas of the economy to private capital accumulation, but at the cost of increasing risk for poor and working-class Americans (disproportionately women and people of color). As the discontinuation of the Vendor Pay program in Detroit illustrates, the withdrawal of income supports for the poor also intensified vulnerability to environmental risks.

In the context of these shifts, and with the decline of labor unions, a more narrowly focused environmental justice movement developed in the 1980s and 1990s. The heightened focus of the movement on environmental racism after the 1991 First National People of Color Environmental Leadership Summit responded to a nationwide pattern of disproportionate pollution exposure among low-income communities of color, and the organizational biases of white-dominated, conservation-oriented environmental organizations. At the same time, however, demands for “environmental justice” became delinked from programs for full employment, which were a central theme of the 1976 Black Lake conference. In this context, parts of the movement became

incorporated into what historian Karen Ferguson has called “the ‘community capitalism’ of grant-seeking local nonprofits” within a “hollowed-out neoliberal governance” structure funded by private foundations. As the case of DWEJ makes clear, the structural dependence of non-profits on private funders inhibited their capacity to resist polluting projects (like HOUP) and urban triage (in the form of the DFC).<sup>5</sup> These changes mirrored developments that occurred in the 1980s and 1990s in mainstream environmental organizations. By contrast, environmental justice groups based in the public sector and labor unions were more able to fight for the interests of poor and working-class Detroiters.

In Detroit, the 21<sup>st</sup> century brought increased poverty and unemployment for the majority of the city’s population. In 1999, 34.8% of Detroit children and youth were living below the federal poverty line. In 2009, this percentage had risen to 46%, and by 2012 it was 59.4%. Following the 2008 financial crash, Detroit’s official unemployment rate was 29 percent, but unofficial estimates reached nearly 50 percent.<sup>6</sup> Addressing Detroit’s massive problems of poverty, unemployment, and environmental contamination could potentially be synergistic tasks, however. During the presidential campaign in 2008, Barack Obama spoke of creating “5 million green jobs.” According to the Council of Economic Advisors, the \$90 billion in “Clean Energy” spending in the Obama administration’s 2009 stimulus package created only 720,000 jobs (although critics have questioned whether all such jobs deserve the appellation “green”). Moreover, as environmental

---

<sup>5</sup> Karen Ferguson, *Top Down: The Ford Foundation, Black Power, and the Reinvention of Racial Liberalism* (Philadelphia: University of Pennsylvania Press, 2013), 259.

<sup>6</sup> Michigan League for Public Policy, “Poverty-Children Ages 0-17–SAIPE: Detroit, Michigan,” <http://datacenter.kidscount.org/data/tables/1692-poverty--children-ages-0-17--saipe?loc=24&loct=3#detailed/3/58/false/869,36,868,867,133/any/3591,13134> [accessed October 29, 2016]; Data Driven Detroit and the Skillman Foundation, “The State of the Detroit Child 2012,” 8, [http://www.skillman.org/content/download/2702/24140/file/2012\\_Detroit\\_Child\\_report.pdf](http://www.skillman.org/content/download/2702/24140/file/2012_Detroit_Child_report.pdf) [accessed October 29, 2016]; Vince Veneziani, “Detroit’s Unemployment Rate Nears 50%,” *Business Insider*, December 19, 2009, <http://www.businessinsider.com/almost-half-of-detroits-workers-are-unemployed-2009-12> [accessed August 12, 2016].

law professor Arthur C. Lin has written, the Obama administration's "All-of-the-Above" energy policy resulted in only "modest changes to the energy supply mix" in the United States. Indeed, the federal government has continued to provide greater support for expanded fossil fuel production than for renewables, weatherization, brownfield remediation, and other low-carbon sectors. The Republican sweep of Congress in the 2014 midterm elections further obstructed even minimal federal government action on pressing unemployment, environmental, and infrastructure challenges.<sup>7</sup>

Yet, the possibilities for job creation in renewable energy, weatherization, and environmental remediation efforts in Detroit are potentially very large. After leaving DWEJ, Donele Wilkins founded a new non-profit, called the Green Door Initiative, which provided "green jobs" training for working-class Detroiters. These jobs, according to Wilkins, included "environmental lead removal, asbestos removal, deconstruction and all that kind of stuff." They also involved weatherization, energy auditing, and the operation of wastewater treatment plants. Wilkins said that people receiving job training at her organization were "on average making like 18 bucks an hour." About a third were formerly incarcerated, "and we target African American men, primarily between the ages of 22 and 35. And we've been pretty successful, and have about a 92 percent job placement rate." Wilkins, who sat on the Detroit Brownfield Redevelopment Authority, estimated that there were 60,000 parcels of contaminated land in the city. Cleaning up those sites could provide safe, living-wage jobs for Detroiters, including those currently

---

<sup>7</sup> Joseph Aldy, "A Preliminary Assessment of the American Recovery and Reinvestment Act's Clean Energy Package," *Review of Environmental Economics and Policy* Vol. 7 No. 1 (January 2013), 136-155; Arthur C. Lin, "A Sustainability Critique of the Obama "All-of-the-Above" Energy Approach," *Journal of Energy & Environmental Law* (Winter 2014), <https://law.ucdavis.edu/faculty/lin/files/GWUJEEL.pdf> [accessed August 8, 2016], 17-25, esp. 19; Michelle Chen, "Where Have All the Green Jobs Gone?" *The Nation* April 22, 2014 [<https://www.thenation.com/article/where-have-all-green-jobs-gone/>] [accessed August 8, 2016].

unemployed or underemployed due to structural racism and prior convictions.<sup>8</sup>

However, the past century of Detroit history does not provide any evidence that the private sector (including eco-entrepreneurs like Wozniak) will provide those jobs on its own. During the 1960s and 1970s, limited federal support for job training was only fitfully accompanied by actual jobs programs.<sup>9</sup> The most significant historical precedent, in this respect, is with the New Deal. During the 1930s, the Works Progress Administration (WPA) created over 100,000 jobs in Detroit, and the subsequent wartime mobilization brought Detroit's unemployment rate to a historic low.<sup>10</sup> The New Deal—although fundamentally compromised by its accommodation with Jim Crow—provided lasting benefits to working-class Detroiters, including African Americans. This era saw a moratorium on home foreclosures in the state of Michigan, financial regulations that reduced market volatility for half a century, the creation of a welfare state, and the federally recognized unionization of mass production industries. In the 21<sup>st</sup> century, only a rebuilding of the public sector on this scale could address Detroit's structural unemployment and poverty. Moreover, the very policies that could put Detroiters back to work were also imperative for dealing with global climate change, and the environmental health problems of childhood lead poisoning, asthma, and brownfield site contamination.<sup>11</sup>

---

<sup>8</sup> Interview with Donele Wilkins, July 14, 2015.

<sup>9</sup> Margaret Weir, *Politics and Jobs: The Boundaries of Employment Policy in the United States* (Princeton: Princeton University Press, 1992), 62-98; Judith Stein, *Running Steel, Running America: Race, Economic Policy, and the Decline of Liberalism* (Chapel Hill: University of North Carolina Press, 1998), 73-74, 190-91, 314. For a proposal for a 21<sup>st</sup> century full employment policy, see Alan Aja, Daniel Bustillo, William Darrity Jr., and Darrick Hamilton, "Jobs Instead of Austerity: A Bold Policy Proposal for Economic Justice," *Social Research: An International Quarterly* Vol. 80 No. 3 (Fall 2013), 781-794.

<sup>10</sup> Elizabeth Clemens, *The Works Progress Administration in Detroit* (Chicago: Arcadia, 2008), 7.

<sup>11</sup> For critiques of market-based solutions to 21<sup>st</sup> century environmental crises, see Heather Rogers, *Green Gone Wrong: How Our Economy is Undermining the Environmental Revolution* (New York: Scribner, 2010); Andrew Szasz, *Shopping Our Way to Safety: How We Changed from Protecting the Environment to Protecting Ourselves* (Minneapolis: University of Minnesota Press, 2009); Naomi Klein, *This Changes*

However, the DFC plan proposed to contract rather than expand the public sector. In the form of “rightsizing,” it incorporated environmental rhetoric into the reigning framework of austerity, which combined ever-deeper public service cuts for low-income communities of color with lucrative land deals for well-connected developers and corporations. The use of sustainability discourse by planners to rationalize urban triage, and by developers to promote gentrification, created new forms of environmental inequality in Detroit. Affluent, mostly white professionals, not least those employed in the sixty companies housed in Gilbert’s downtown properties, would benefit from flows of capital to the “digital/creative” zone in the DFC plan, including new investments in bike paths, parks, yoga studios, and health food stores. A vast chasm of life chances separated those who could afford to shop at Whole Foods, or live in LED-certified lofts, from those who faced water shut-offs and chronic disease from outdoor and indoor pollution exposure in their neighborhoods and schools.<sup>12</sup>

As this contrast suggests, market logic played out differently in the case of environmental benefits and burdens in 21<sup>st</sup> century Detroit. The affluent paid for the former directly, as market commodities, while the poor paid for the latter indirectly, as market externalities. Environmental benefits drove up real estate values in gentrification zones, such as zip codes 48202 and 48243, while environmental burdens lowered them in “sacrifice zones,” such as zip codes 48217 and 48211. However, sacrifice zones could become gentrification zones, through home foreclosures,

---

*Everything: Capitalism Versus the Climate* (New York: Simon & Schuster, 2014); Ted Steinberg, “Can Capitalism Save the Planet? On the Origins of Green Liberalism,” *Radical History Review* No. 107 (Spring 2010), 7-24; Christian Parenti, “The Environment-Making State: Territory, Nature, and Value,” *Antipode* Vol. 47 No. 4 (September 2015), 829-848. These arguments parallel those of 19<sup>th</sup> century critics of laissez-faire liberalism, who advocated what Karl Polanyi called the “protection of society” from capitalist market forces. See Karl Polanyi, *The Great Transformation* (Boston: Beacon Press, 1944), 130-220.

<sup>12</sup> Interview with Michelle Martinez; “Detroit Bus Company to Inject Imagination and \$1.5 Million into New Hamtramck Headquarters,” *Mlive.com*, October 6, 2013; Matt Helms, Joe Guillen, John Gallagher and JC Reindl, “9 Ways Detroit is Changing After Bankruptcy,” *Detroit Free Press*, November 9, 2014.



planned decommissioning, and federally subsidized demolitions in neighborhoods such as Brush Park. As Lynna Kauchek observed of the shut-offs, “it’s been used as a way to clear out some neighborhoods.” After the city had legally condemned homes, blight removal funds paid for them to be bulldozed, whether for “Innovation Landscapes” or high-end rental properties. In the words of Michelle Martinez, “disinvestment is part of the economic strategy” of developers who stood to profit from the DFC plan.<sup>13</sup>

In response to the hollowing out of municipal government and public services, many well-intentioned activists spurned government solutions in favor of small-scale, grant-funded projects. Themes of volunteerism frequently accompanied experiments in urban agriculture and ecological education, sometimes linked to charter schools. Films such as *Urban Roots*, screened at the Whole Foods “Do Something Reel” film festival, celebrated urban farming as a solution to the problems of hunger and urban food deserts in Detroit. This enthusiasm for low-income residents achieving “self-reliance” in food, however, echoed the rationales of conservative legislators and think tanks for ongoing cuts in food stamps, and the dismantling of the welfare state.<sup>14</sup> A voluntarist, micro-entrepreneurial development strategy could never scale up sufficiently to address the mass unemployment, infrastructure problems, or air, water, and soil contamination in the city.

In a widely read July 2007 essay in *Harper’s*, the anarchist writer Rebecca Solnit said of urban farming in Detroit that “it is unfair, or at least deeply ironic, that black people in Detroit are being forced to undertake an experiment in utopian post-urbanism that appears to be

---

<sup>13</sup> Interview with Lynna Kauchek, May 18, 2016; Interview with Michelle Martinez, August 14, 2015. On land speculation in Detroit, also see Akers, “Making Markets”; Hackworth, “Rightsizing as Spatial Austerity”; Safransky, “Greening the Urban Frontier”; Kirkpatrick, “Urban Triage”.

<sup>14</sup> Kami Pothukuchi, “Proposed Cuts in Food Stamps Will Hurt Detroiters,” *Michigan Citizen*, October 6, 2013, A10; Jonathan Oosting, “Food Stamp Cuts Coming to Michigan, 1 of 4 States Not Taking Action to Avoid Them,” *Mlive.com*, September 24, 2014, [http://www.mlive.com/lansingnews/index.ssf/2014/09/food\\_stamp\\_cuts\\_coming\\_in\\_mich.html](http://www.mlive.com/lansingnews/index.ssf/2014/09/food_stamp_cuts_coming_in_mich.html) [accessed July 31, 2016].

uncomfortably similar to the sharecropping past their parents and grandparents sought to escape.” Solnit added that “[t]here is no moral reason why they should do and be better than the rest of us— but there is a practical one. They have to.” However, the assumption that African American Detroiters “have to” be “better than the rest of us” (with “us” referring to non-Detroiters or recent arrivals) was problematic. In the context of the DFC plan, ideas about the inevitability of differential sacrifice, and the celebration of “self-reliance” without public assistance, could easily justify an agenda of urban triage.<sup>15</sup>

Over the long term, such an agenda threatened to deepen already extreme metropolitan inequalities. In 2016, the gap in average life expectancies between Detroit and its surrounding suburbs was over 10 years, and in some cases as high as 16 years. In 2016, in the 48230 zip code of Grosse Pointe (92.2 percent white), median household incomes were \$99,714; in the neighboring Detroit zip code of 48213 (96.6 percent black), median household incomes were \$20,914. According to a 2015 study by planners Ed Goetz, Tony Damiano, and Jason Hicks, metropolitan Detroit had 147 areas of “racially concentrated poverty” (76 percent African American) and 55 areas of “racially concentrated affluence” (1.1 percent African American). Yet, in the name of “sustainability,” the DFC plan would withdraw basic services from the former, while doing nothing to reduce the ecological footprint of the latter.<sup>16</sup>

---

<sup>15</sup> Rebecca Solnit, “Detroit Arcadia,” *Harper’s* (July 2007), 65-73.

<sup>16</sup> Christine MacDonald and Charles A. Ramirez, “Life span for Detroit’s poor among shortest in nation,” *The Detroit News*, June 3, 2016; Alana Samuels, “Where the White People Live: How Self-Segregation and Concentrated Affluence Became Normal in America,” *The Atlantic*, April 10, 2015, <http://www.theatlantic.com/business/archive/2015/04/where-the-white-people-live/390153/> [accessed August 12, 2016]; Edward G. Goetz, Tony Damiano, and Jason Hicks, “American Urban Inequality: Racially Concentrated Affluence,” University of Minnesota (2015), [http://www.lincolnst.edu/docs/979/1839\\_8%20Edward%20Goetz.pdf](http://www.lincolnst.edu/docs/979/1839_8%20Edward%20Goetz.pdf) [accessed August 7, 2016]. For demographic and income data on these zip codes, see U.S. Census Bureau, “2010-2014 American Community Survey 5-Year Estimates,” [http://factfinder.census.gov/faces/nav/jsf/pages/community\\_facts.xhtml](http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml) [accessed August 7, 2016].

From this perspective, the characterization of the DFC's planned decommissioning as necessary for urban sustainability begs both ethical and practical questions. Geographer Seth Schindler claims that a local "degrowth coalition" has adopted the DFC plan in recognition of the reality that "budgetary constraints prohibit capital investment." The plan, he argues, "diverges from austerity urbanism" and constitutes "an implicit rejection of the single-minded pursuit of economic growth at the expense of marginalized populations." This optimistic reading of the DFC plan obscures a fundamental question: *who* will bear the brunt of "degrowth," and who will not? Clearly, low-income African Americans will, and upper-income white residents of the "digital/creative" zone and surrounding suburbs will not.<sup>17</sup>

How might a vision of urban sustainability truly challenge these racialized patterns of economic and environmental injustice? In February 2014, a coalition of thirty-seven community organizations and activist groups, under the umbrella of Detroiters Resisting Emergency Management, released a proposal called the People's Plan for Restructuring Toward a Sustainable Detroit. Challenging both Emergency Management and the agenda of urban triage, this proposal called for (among other things): tax reform (to enable property tax collection without evictions and foreclosures, and ensure that non-residents working in the city contribute to the tax base); the restoration of state revenue sharing; discharging odious municipal debts to banks (from interest rate swaps and other speculative instruments) as part of bankruptcy; prioritizing the hiring of Detroit residents by businesses operating in the city; establishing a community land bank (as an

---

<sup>17</sup> Seth Schindler, "Detroit after Bankruptcy: A Case of Degrowth Machine Politics," *Urban Studies* Vol. 53 No. 4 (2014) 1-19, esp. 14. For a critique of the DFC plan's erasure of regional inequalities, see Peter Hammer, "Race, Regionalism, and Reconciliation: Detroit Planning Fails the Three Rs," *Progressive Planning* No. 205 (Fall 2015), 1-9. On the link between segregation, sprawl, and wasteful resource use, see Joe T. Darden and Igor Vojnovic, "The Colors That Shaped a City: The Role of Racial and Class Tensions in Inhibiting Urban Sustainability, the Detroit Context," in Igor Vojnovic, ed., *Urban Sustainability: A Global Perspective* (East Lansing: Michigan State University Press, 2012), 435-474.

alternative to selling public land at low prices to “ultra-high-net worth individuals”); a public interest bank; participatory budgeting; restoring control of the Detroit Public Schools (and Governor Snyder’s Education Achievement Authority) to the control of the democratically elected school board; equalizing per-pupil funding between Detroit and “wealthier school districts”; returning art, music, and recreational programs to the Detroit Public Schools; establishing “24-hour youth recreation centers”; implementation of existing nuisance abatement legislation rather than the current “blight removal” program; increasing “quality and quantity of bus service”; ending the outsourcing of public sector jobs to non-union workers; and repealing Emergency Manager legislation.<sup>18</sup>

Today, the possibility of a more just and sustainable future is evident in the People’s Plan, the water affordability plans of the People’s Water Board, and in job training programs like the Green Door Initiative. Rather than continuing to combine austerity for the poor with giveaways for elite developers and multinational corporations, an inclusive vision of urban sustainability would be downwardly redistributive. It would also move beyond market-based solutions. Addressing Detroit’s economic and environmental health problems will require large-scale, equitably distributed public investments in infrastructure and social provision. If the allocation of environmental goods in Detroit is market-based, it will exclude the poor, who are disproportionately African Americans, women, and children.

As Detroit’s recent history shows, moreover, policies of urban triage inevitably lead to human triage. The UN Special Rapporteurs recognized something that Detroit’s political leaders have refused to: that allowing wealth, income, and place of residence to determine access to water

---

<sup>18</sup> Detroiters Resisting Emergency Management, “People’s Plan for Restructuring Toward a Sustainable Detroit,” February 14, 2014, <http://www.d-rem.org/wpcontent/uploads/2014/02/PeoplesPlanV.1FullPage.pdf> [accessed August 7, 2016].

and other survival necessities is incompatible with basic human rights. If Detroit's recovery is to include all of its residents, it will be necessary to challenge the logic of the market, and to reverse the neoliberal dismantling of the public sector. Over the longer term, as Martin Luther King, Jr. said half a century ago, addressing poverty and the untrammled commodification of earth's resources will require us to "question the capitalistic economy." Indeed, as King recognized before his death, it will require us to move beyond capitalism itself, and to create economic and political systems that are truly democratic.<sup>19</sup>

---

<sup>19</sup> On King's critique of capitalism, see Douglas Sturm, "Martin Luther King, Jr., as Democratic Socialist," *The Journal of Religious Ethics* Vol. 18 No. 2 (Fall 1990), 79–105.

**BIBLIOGRAPHY****Archival and Manuscript Collections**

Archives of Labor and Urban Affairs, Walter P. Reuther Library, Wayne State University

Coleman Young Collection

Detroit Revolutionary Movements Collection

Douglas A. Fraser Collection

Eugene Shafarman Collection

Henry Kraus Collection

Jerome P. Cavanaugh Collection

Joe Brown Collection

Olga Madar Collection

Robert W. Dunn Collection

Samuel P. Levin Collection

Tom Stephens Collection

United Auto Workers—Conservation and Recreation Department Records

United Auto Workers—Foundry & Forge Department Records

United Auto Workers—Health and Safety Department Records

United Auto Workers—Social Security Department Records

United Community Services Central Files

Urban Environment Conference Records

Walter P. Reuther Collection

William Fredericks Collection

Winifred A. Harbison Collection

Benson Ford Research Library, Dearborn, MI

Air Pollution Study Subseries Collection

Bentley Historical Library, University of Michigan-Ann Arbor

Carey P. McCord Collection

Henry F. Vaughan Collection

Underground Newspapers Collection

Burton Historical Library, Detroit Public Library, Detroit, MI

Board of Water Commissioners Collection

Hazen Pingree Collection

Thomas Sands Collection

Henry R. Winkler Center for the Study of Health Professions, University of Cincinnati

Robert A. Kehoe Collection

Labadie Collection, Hatcher Library, University of Michigan-Ann Arbor

Library of Michigan, Lansing, MI

Annual Report of the Detroit Board of Health, 1903-1915

Bulletin of the Detroit Board of Health

National Archives and Records Service, College Park, MD.

Public Health Service Records

Records of the State Department

National Library of Medicine, Bethesda, MD

Wilhelm C. Hueper Collection

### **Interviews**

Colton, Roger. Interview by author, July 27, 2016

Copeland, William. Interview by author, July 31, 2015

Fluker, Vanessa. Interview by author, August 19, 2015

Izant, Carol. Interview by author, June 25, 2015

Jennings, Alice. Interview by author, September 2, 2015

Kauckcheck, Lynna. Interview by author, May 18, 2016

Kopack, Laurie. Interview by author, June 26, 2015

Martinez, Michelle. Interview by author, August 14, 2015

Maxey, Ahmina. Interview by author, July 28, 2015

Wilkins, Donele. Interview by author, July 14, 2015

### **Published Interviews**

Battle, Robert "Buddy." Oral History Interview with Herbert Hill, March 19, 1969, Blacks in the Labor Movement, Oral History Transcripts Collection, Reuther Library.

### **Newspapers**

*AFL-CIO News*

*Auto Worker News*

*Bond Buyer*

*Chicago Tribune*

*Daily Worker*

*Detroit Free Press*

*Detroit News*

*Detroit Post and Tribune*

*Detroit Times*

*The Detroiter*



*Dodge Worker*

*Fisher Body*

*Ford Worker*

*Ludington Daily News*

*Michigan AFL-CIO News*

*Michigan Chronicle*

*Michigan Citizen*

*New York Daily News*

*New York Times*

*Oakland Press News*

*River Rouge Herald*

*Washington Post*

*Windsor Star*

### **Magazines, Newsletters, and Newsweeklies**

*Against the Current*

*Critical Moment*

*Fast Company*

*Forbes*

*Fortune*

*FRUM*

*Heartland Institute Newsletter*

*Metro Times*

*Mother Jones*

*Newsweek*

*Occupational Hazards*

*On the Commons*

*Party Affairs*

*Solidarity*

*The Nation*

*W.E.A.V.E. Newsletter*

*YES! Magazine*

### **Primary Sources (Books and Reports)**

*22nd Annual Report, Board of Health, City of Detroit, 1902-3.* Detroit: Allied Printing, 1903.

Advisory Committee on Tetraethyl Lead to the Surgeon General of the Public Health Service,  
*Public Health Aspects of Increasing Tetraethyl Lead Content in Motor Fuel: A Report.*  
Washington, D.C.: U.S. Government Printing Office, 1959.

*Annual Reports of the Detroit Board of Health.* Detroit: The Board of Health, 1903-1915.

Arnold, H.L. and Fay L. Faurote. *Ford Methods and Ford Shops.* New York: The Engineering Magazine Company, 1915.

Bureau of Labor Statistics, *Handbook of Labor Statistics: 1929 Edition.* Washington, D.C.: U.S. Government Printing Office, 1929.

Citizens Research Council of Michigan, *Detroit Board of Zoning Appeals.* Detroit: Citizens Research Council of Michigan, 1969.

*City of Detroit, Journal of the Board of Aldermen, January 9, 1883 to January 8, 1884.* Detroit: Post & Tribune Job Co., 1884.

*City of Detroit: Journal of the Common Council From January 10, 1888 to January 8, 1889.*

Detroit: Wm. F. Moore, 1889.

*Compiled Ordinances of the City of Detroit, 1912.* Detroit: Houghton-Jacobsen Printing Co., 1912.

Conyers, John. Testimony in U.S. Congress, House Judiciary Committee, Subcommittee on Commercial and Administrative Law. *Hearings on the Role of the Lending Industry in the Home Foreclosure Crisis*, in 111th Cong., 1st sess., September 9, 2009, 5-6.

Detroit Board of Health. *First Annual Report of the Board of Health of Detroit, July 1882.* Detroit: Post & Tribune, 1882.

Detroit Board of Water Commissioners. *Annual Report of the Board of Water Commissioners to the Common Council of the City of Detroit, Together with the Reports of the Secretary, For the Year Ending December 31, 1860.* Detroit: Free Press Mammoth Book and Job Printing House, 1861.

Detroit City Plan Commission, *Renewal and Revenue: an Evaluation of the Urban Renewal Program in Detroit.* Detroit: Detroit City Plan Commission, 1962.

Detroit Common Council, *Detroit Water Works to the Common Council of the City of Detroit, December 20, 1852*, 34-35. Detroit: George E. Pomeroy & Co., 1854.

Detroit Community Renewal Program, *Detroit: The New City.* Detroit: Detroit Community Renewal Program, 1966.

Detroit Department of Health and Wellness Promotion, *Combined Data Book 2007 & 2008.* Detroit: Detroit Department of Health and Wellness Promotion, 2008.

Feldman, Richard and Michael Betzold, eds. *End of the Line: Autoworkers and the American Dream. An Oral History.* Urbana: University of Illinois Press, 1988.

Hamilton, Alice. *Exploring the Dangerous Trades: The Autobiography of Alice Hamilton, M.D.* Boston: Little, Brown and Company, 1943.

Henry, D. Farrand. *Address to the Public: The Advisability of Purchasing Belle Isle for a Park, Water Works and Basis for a Tunnel*. Detroit: Union Job Printing Company, 1874.

International Joint Commission, *Report of the International Joint Commission on the Pollution of the Atmosphere in the Detroit River Area*. Washington, D.C. and Ottawa: International Joint Commission, 1962.

—*Report of the International Joint Commission, United States and Canada, on the Pollution of Boundary Waters*. Washington, D.C.: International Joint Commission, 1951.

—*Hearings of the International Joint Commission, Remedies for the Pollution of Boundary Waters between the United States and Canada*. Washington, D.C.: Government Printing Office, 1915.

—*Pollution of Boundary Waters: Report of the Consulting Sanitary Engineer Upon Remedial Measures, March 8, 1916*. Washington, D.C.: Government Printing Office, 1918.

Leonard, J.W. *The Industries of Detroit: Her Relations as a Centre of Trade, Manufacturing Establishments and Business Houses*. Detroit: J.M. Elstner & Co. Publishers, 1887.

*Manual of the Common Council, City of Detroit*. Detroit: Detroit Common Council, 1875.

McCord, Carey P. "The Physiologic Aspects of Air Pollution," University of Michigan School of Public Health, *Lectures Presented at the Inservice Training Course in Air Pollution, February 6,7,9, 1950*. Ann Arbor: University of Michigan, 1950.

McLaughlin, Allan J. *Sewage Pollution of Interstate and International Waters, With Special Reference to the Spread of Typhoid Fever*. Washington: Government Printing Office, 1912.

McLeod, Norman. *What Sick and Crippled Men are Doing for the Ford Motor Company*. Chicago: Modern Hospital, 1919.

Michigan Department of Health, *Some Significant Accomplishments and Trends in Pollution*

- Control in the Greater Detroit Metropolitan Area During the Period 1956-1962*. Detroit: Michigan Department of Health, 1962.
- Morse, Jedediah. *A Compendious and Complete System of Modern Geography: Or, A View of the Present State of the World*. Boston: Thomas and Andrews, 1814.
- Nelkin, Dorothy and Michael S. Brown, eds. *Workers at Risk: Voices from the Workplace*. Chicago: University of Chicago Press, 1984.
- Nixon, Richard M. *Public Papers of the President of the United States: Richard M. Nixon, 1972*. Ann Arbor: University of Michigan Library, 2005.
- Norwood, Edwin P. *Ford Men and Methods*. Garden City, N.Y.: Doubleday, Doran & Co., 1931.
- Pingree, Hazen S. *Annual Address of Hazen S. Pingree, Mayor of the City of Detroit, Delivered to the Detroit Common Council on January 9, 1894*. Lansing: Robert Smith Printing Co. 1897.
- Eighth Annual Message of Hazen S. Pingree to the Common Council, January 12, 1897*. Detroit: The Thos. Smith Press, City Printers, 1897.
- Seventh Annual Message of Hazen S. Pingree to the Common Council, January 14, 1896*. Detroit: The Thos. Smith Press, City Printers, 1896.
- Sixth Annual Message of Hazen S. Pingree to the Common Council of the City of Detroit, January 7, 1895*. Thomas Smith Printing Co., 1895.
- President's Science Advisory Committee, *Restoring the Quality of Our Environment: Report of the Environmental Pollution Panel*. Washington, D.C.: The White House, 1965.
- Randolph, A. Philip, Martin Luther King, Jr., and Bayard Rustin. *A "Freedom Budget" for All Americans: A Summary*. New York: A Philip Randolph Institute, 1967.
- Reasoner, James M. *Michigan Reports: Cases Decided in the Michigan Supreme Court of*

*Michigan from July 24 to October 3, 1914* Vol. 182 (Chicago: Callaghan and Company, 1915), 157-163.

*Report of the Board of Trustees of the Detroit Water Works to the Common Council of the City of Detroit, December 20, 1852.* Detroit: George E. Pomeroy & Co., 1854.

*Report of the Board of Water Commissioners of the City of Detroit.* Detroit: Detroit Free Press Publishing Company, 1894.

*Report of the National Advisory Commission on Civil Disorders.* Washington, D.C.: The Commission on Civil Disorders, 1968.

*Sessional Papers Vol. 9: Fifth Session of the Eight Parliament of the Dominion of Canada LXCII.* Ottawa: Hunter, Rose, 1900.

“Smog Control Antitrust Case,” in U.S. Congress, Senate, Select Committee on Small Business, Subcommittee on Monopoly, *Hearing on The Role of Giant Corporations in the American and World Economies, Part 2A—Appendixes, Corporate Secrecy: Overviews* 92<sup>nd</sup> Cong., 1<sup>st</sup> Sess., November 9-12, 1971, 1662-1692.

Social Planning Division, Detroit City Plan Commission, *Promotion at What Cost? Pollution, Power Blackouts, and Detroit Edison’s Promotional Electricity Rates: Presentations at the Michigan Public Service Commission Energy Hearings, June 1972* (Detroit: Detroit Social Planning Division, 1972).

*The Revised Ordinances of the City of Detroit for the Year 1890.* Detroit: J.W. Morrison & Co., 1890.

*Twelfth Annual Report of the Bureau of Labor and Industrial Statistics of Michigan, Year Ending February 1, 1895.* Lansing: Robert Smith & Co., 1895.

U.S. Commission on Civil Rights. *Hearings before the United States Commission on Civil Rights:*

*hearings held in Detroit, Michigan, December 14, 1960 and December 15, 1960.*

Washington, D.C.: U.S. Government Printing Office, 1961.

U.S. Congress, House, Committee on Education and Labor, Subcommittee on Equal Opportunities. *Hearings on H.R. 50: A Bill to Establish a National Policy and Nationwide Machinery for Guaranteeing All Adult Americans Able and Willing to Work the Availability of Equal Opportunities for Useful and Rewarding Employment*, Detroit, Michigan, March 24, 1975.

U.S. Congress, House, Committee on Rivers and Harbors, *Hearings on H.R. 519, H.R. 587, and H.R. 4070*, 79th Cong., 1st sess., November 13, 14, 15, and 20, 1945.

U.S. Congress, House, Subcommittee on Economic Stabilization of the Committee on Banking, Finance, and Urban Affairs, *Hearing on the Urban Jobs and Enterprise Zone Act of 1981*, 97 Cong., 1<sup>st</sup> sess., July 8, 1981.

U.S. Congress, House. Committee on Government Operations. *Hearings on Water Pollution—Great Lakes (Part 3—Western Lake Erie, Detroit River, Lake St. Clair, and Tributaries)*. 89<sup>th</sup> Cong., 2<sup>nd</sup> sess., September 9, 1966.

U.S. Congress, House. Committee on Public Works and Transportation, *Hearings on Implementation of the Federal Water Pollution Act*, 97 Cong., 1 sess., July 14-23, 1981.

U.S. Congress, House. *Hearings Before the Committee on Banking and Currency, Housing Act of 1954: Air Pollution Prevention Amendment*. 83rd Congress, 2nd Sess., April 13-15, 1954. Washington, D.C.: Government Printing Office, 1954.

U.S. Congress, House. *Hearings on H.R. 12306 Before the Committee on Education and Labor*. 87th Congress, 2nd sess., January 10, 1962.

U.S. Congress, Senate, Committee on Banking, Housing, and Urban Affairs, 96 Cong., 1<sup>st</sup> sess.,

*Hearings on the Chrysler Corporation Loan Guarantee Act of 1979*, November 16-21, 1979.

U.S. Congress, Senate, Subcommittee on Air and Water Pollution of the Committee on Public Works, *Hearings on S. 649, S.737, S.1118 and S.1183*. 88<sup>th</sup> Cong., 1<sup>st</sup> sess., June 17-26, 1963.

U.S. Congress, Senate. *Hearings Before the Subcommittee on Environmental Pollution of the Committee on Public Works*. 94<sup>th</sup> Congress, 1<sup>st</sup> Session, May 17, 1975.

U.S. Department of Health, Education, and Welfare and Public Health Service, *Transcript of Conference in the Matter of Pollution of the Navigable Waters of the Detroit River and Lake Erie and Their Tributaries Within the State of Michigan, First Session, March 27-28, 1962*. Washington, D.C.: U.S. Government Printing Office, 1962.

U.S. Environmental Protection Agency Office of Solid Waste Management Programs. *Detroit's Municipal Solid Waste Management System: a Case Study*. Silver Spring, MD: National Technical Management Service, U.S. Department of Commerce, 1973.

U.S. Public Health Service, Division of Air Pollution. *Motor Vehicles, Air Pollution, and Health: A Report of the Surgeon General to the U.S. Congress in Compliance with Public Law 86—493: The Schenck Act (June 1962)*. Washington, D.C.: Government Printing Office, 1962.

United Auto Workers. *United Action for Clear Water: Report of Papers Presented at Conference Held at Cobo Hall, Nov. 6, 1965*. Detroit, MI: UAW Recreation Department, 1965.

United Church of Christ, Commission for Racial Justice. *Toxic Waste and Race in the United States: A National Report on the Racial and Socioeconomic Characteristics of Communities Surrounding Hazardous Waste Sites* (New York: United Church of Christ, 1987).



Vaughan, Richard D. and George L. Harlow. *Report on Pollution of the Detroit River, Michigan Waters of Lake Erie, and Their Tributaries*. Washington, D.C.: U.S. Department of Health, Education, and Welfare, Public Health Service, Division of Water Supply and Pollution Control, April 1965.

Washington, Forrester B. *The Negro in Detroit: A Survey of Conditions of a Negro Group in a Northern Industrial City During the War Prosperity Period, Vol. 1*. Detroit: United Charities of Detroit, 1920.

### **Primary Sources (Journal and Magazine Articles)**

“Alumnus Investigates Detroit’s Water Supply.” *Michigan Technic*, No. 2 Vol. XXVIII (May 1915), 284-286.

“An Association of Smoke Inspectors.” *The Engineers’ Review*, Vol. 17 (July 1906), 42.

“Building and Labor Conditions in Detroit.” *The American Contractor* (September 11, 1920), 19.

“Enforcing the Non-Smoke Ordinance.” *Automobile Topics* Vol. 21, November 26, 1910, 487.

“Ford Factory Hospital Service.” *Automobile Trade Journal* Vol. 18 No. 10 (April 1914), 160.

“Hell’s Half Acre.” *Bulletin of the Detroit Board of Health*, Vol. IX No. 10 (April 1917), 6-8.

“Industrial Accident Board Proceedings.” *Michigan Manufacturer and Financial Record* Vo. 11 No. 8 (August 23, 1913), 10.

“Lead Poisoning.” *The Indicator*, Vol. XL No. 15 (August 5, 1914), 312.

“Occupational Diseases—Not Included Under the Michigan Workmen’s Compensation Act.” *Public Health Reports* Vol. 29 No. 45 (November 1914), 2999-3006.

“One View of Auto Smoke Ordinances.” *Automotive Industries* Vol. XVIII (February 13, 1908), 218.

“Pension Attack.” *OSARC Newsletter* Vol. 13 No. 5 (December 2005), 7-11.

“Pollution of Boundary Waters.” *Canadian Journal of Public Health* (Vol. 42 No. 4 (April 1951), 152-154.

“Rehabilitating Cripples at Ford Plant: Full Efficiency Attained by 85 Per Cent—4032 Jobs for Disabled Listed—Light Handwork in Hospital Speeds Recovery.” *The Iron Age* Vol. 12, No. 13 (September 26, 1918), 739-42.

“The Bank and the City: A Story of the Life of the First National Bank of Detroit and the People  
“The Detroit Water Works.” *Detroit Post and Tribune*, December 15, 1877, reprinted in *Report of the Pioneer Society of the State of Michigan, Vol. IV*, 468-470. Lansing: Wynkoop Hallenbeck Crawford Col., 1906.

“Typhoid Fever in Detroit.” *Journal of the American Medical Association* Vol. LV No. 15 (October 8, 1910), 1284-86.

“What Do the Unions Want in Safety? An Exclusive Interview with Walter Reuther.” *Occupational Hazards: Industrial Safety and Housekeeping* (February 1955), 21-23, 65-69.

Brown, Joanna and Ronni Scheier. “Growing Cancer Rates: Workplace May Be Hazardous to Health of Blue Collar Minorities.” *Chicago Reporter* Vol. 10 No. 3 (March 1981), 28-33.

Chadwick, Henry D. “The Tuberculosis Situation in Detroit.” *City Health* Vol. 14 No. 7 (October 1930), 3-4.

Clayton, George D., H.P. Brinton, W.M. Gafafer, Morris Katz, J.C. Radcliffe, Harold W. Baynton, Joseph G. Molner and William G. Frederick, “The Detroit-Windsor Air Pollution Study.” *Public Health Reports (1896-1970)*, Vol. 67, No. 7 (July 1952), 658-671.

Cooper, J.E. “An Industry Initiates a Waste Program.” *Sewage Works Journal* Vol. 19 No. 5 (September 1947), 817-826.

- de Sajous, Louis T. "The Treatment of Lead Poisoning." *Modern Treatment and Preventive Medicine* (February 10, 1917), 274-75.
- Dennis, Tom. "The Need for Black Caucuses in Unions." *Party Affairs*, Vol. 2, No. 6 (June 1968), 1-3.
- Douglas, Bruce H. and Edmund Tompkins, "Silico-Tuberculosis as Seen in a Large Industrial Center." *Radiology* Vol. 34 No. 4 (1940), 405-410.
- Feeney, Andy. "Empty factories, quiet voices: Can the unions fight job losses and still take strong stands on the environment?" *Environmental Action* Vol. 14 No. 4 (October/November 1982), 21-24.
- Flagg, Samuel B. "City Ordinances and Smoke Abatement." *United States Bureau of Mines Bulletin* No. 43 (1912), 7-55.
- Haar, Gary Ter and Regine Aronow, "New Information on Lead in Dirt and Dust as Related to the Childhood Lead Problem." *Environmental Health Perspectives* 7 (May 1974), 83-89.
- Hamilton, Alice and George R. Minot. "Ether Poisoning in the Manufacture of Smokeless Powder." *The Journal of Industrial Hygiene*, Vol. 2 No. 2 (June 1920), 42-49.
- Hanna-Attisha, Mona, Jenny LaChance, Richard Casey Sadler, and Allison Champney Schnepf. "Elevated Blood Lead Levels in Children Associated with the Flint Drinking Water Crisis: A Spatial Analysis of Risk and Public Health Response." *AJPH Research* Vol. 106 No. 2 (February 2016), 283-290.
- Hayhurst, Emory. "Fight for Control of Occupational Diseases." *Hospital Management* Vol. 2 No. 1 (August 1916), 16-20.
- Hendry, J.R. "Detroit's Intensive Sewer Construction Program: Relief Sewers in Old Part of City and Trunk and Lateral Extensions Being Built--\$31,570,000 of Bonds Authorized—

- Program and Methods Outlined.” *Engineering News-Record*, November 2, 1922, 745-748.
- Hepler, John M. “Detroit River Study: A Discussion.” *Sewage Works Journal* Vol. 21 No. 3 (May 1949), 531-532.
- Leisen, Theodore Aldred. “The Detroit Water Works.” *Journal of the American Water Works Association*, Vol. 4, No. 2 (June 1917), 206-213.
- Linsky, Benjamin. “Air Pollution and Man’s Health: In Detroit.” *Public Health Reports* Vol. 68 No. 9 (Sep. 1953), 870-872.
- McConnell, W.J. and J. Fehnel. “Health Hazards of the Foundry Industry.” *The Journal of Industrial Hygiene* Vol. 16 No. 4 (1934), 227-251.
- Meder, Albert E. “Workmen’s Compensation and Employers’ Liability insurance Law: The Effect of a Workmen’s Compensation Act Upon Recovery in Tort for an Occupational Disease or Other Non-Compensable.” *A.B.A. Sec. Ins. Negl. & Comp. L. Proc.* (1938), 329-337.
- Morris, Julia. *The Huber Avenue story: what pollution has cost a community; a four-year record of a 'clean' foundry.* Detroit, MI: United Auto Workers, 1970.
- Murphy, Francis V. “New Hazards of Industry.” *Monthly Labor Review* Vol. 21 No. 4 (1925), 4-6.
- Nesbitt, George B. “Relocating Negroes from Urban Slum Clearance Sites.” *Land Economics* Vol. 25 No. 3 (August 1949), 275-288.
- Norton, J. “The Relief Crisis in Detroit.” *Social Service Review* Vol. 7 No. 1 (March 1933), 1-10.
- Perkins, Frances. “Labor Standards and War Production.” *Annals of the American Academy of Political and Social Science* Vol. 224 (November 1942), 54-57.
- Silverstein, Michael, Franklin Mirer, David Kotelchuck, Barbara Silverstein, and Michael Bennett, “Mortality among workers in a die-casting and electroplating plant.” *Scandinavian Journal*

- of Work, Environment and Health* Vol. 7 (1981): supplement 4, 156-165.
- Smith, Hal F. "At War with the Depression in the Detroit Water Department." *Journal of the American Water Works Association* (Vol. 25 No. 12 (December 1933), 1681-1689.
- Swan, James A. "Response to Air Pollution: A Study of Attitudes and Coping Strategies of High School Youth." *Environment and Behavior* No. 2 (1970), 127-152.
- Washington, Forrester B. "Reconstruction and the Colored Woman." *Life and Labor* Vol. IX No. 1 (January 1919), 3-7.
- Who Lived With It." *Michigan Manufacturer and Financial Record*, Vol. 29 (April 15, 1922), 3-13, 36.
- Williams, Gardner S. "Typhoid Fever and the Water Supply in Detroit." In Michigan State Board of Health, *Proceedings, Addresses and Discussions at the Sanitary Convention Held at Detroit, Michigan, December 9 and 10, 1897*, 90-100. Lansing: Michigan State Board of Health, 1897.
- Wood, H.G. *A Practical Treatise on the Law of Nuisances in the Their Various Forms: Including Remedies Therefor at Law and in Equity*. San Francisco: Bancroft-Whitney Company, 1893.

#### **Web Sites and Other Online Sources**

- ?NewsID=49127#.VduEtPIViko [accessed July 28, 2016].
- "Competition Teaches Detroit Schools About Privatization." *Michigan Privatization Report*, August 1, 2000, <https://www.mackinac.org/3007> [accessed July 31, 2016].
- "Mayor Candidates Express Varying Degrees of Openness to Privatization." *Michigan Privatization Report*, January 11, 2002, <http://www.mackinac.org/3968> [accessed July 27, 2016].

- Abowd, Paul. "Michigan's Hostile Takeover." *Mother Jones* February 15, 2012, <http://www.motherjones.com/politics/2012/02/michigan-emergency-manager-pontiac-detroit> [accessed August 12, 2016].
- Allard, Scott W. "Place, Race and Work: The Dynamics of Welfare Reform in Metropolitan Detroit." Brookings Institution (September 2001), <https://www.brookings.edu/wp-content/uploads/2016/06/allard.pdf> [accessed July 31, 2016], 1-11.
- Baynton, H.W. "The Role of Meteorology in the Detroit-Windsor Air Pollution Study." Paper presented to the monthly meeting of the Royal Meteorological Society, Canadian Branch, Toronto, Ontario, May 7, 1953, <http://www.cmos.ca/RMS/r040401.pdf> [accessed August 7, 2016], 1-11.
- Bhatti, Saqib. "Dirty Deals: How Wall Street's Predatory Deals Hurt Taxpayers and What We Can Do About It." Roosevelt Institute, November 18, 2014. [http://rooseveltinstitute.org/wp-content/uploads/2015/11/Bhatti\\_Dirty\\_Deals.pdf](http://rooseveltinstitute.org/wp-content/uploads/2015/11/Bhatti_Dirty_Deals.pdf) [accessed July 27, 2016], 1-15.
- Butler, Sam. "Turning Up the Heat on Granholm's Cool Cities Initiative: How Effective Will It Be?" *Urban & Regional Economic Development Handbook*, December 15, 2005. <http://www.umich.edu/~econdev/coolcities/index.html> [accessed July 28, 2016].
- City of Detroit, "Great Lakes Authority Fact Sheet." <http://www.detroitmi.gov/How-Do-I/Great-Lakes-Water-Authority> [accessed July 31, 2016].
- Craib, Raymond Craib. "Escape Geographies and Libertarian Enclosures." Yale Program in Agrarian Studies Colloquium, February 2015, <http://agrarianstudies.macmillan.yale.edu/sites/default/files/files/CraibAgrarianStudies.pdf> [accessed July 27, 2016].
- Data Driven Detroit and the Skillman Foundation, "The State of the Detroit Child 2012." <http://>

[www.skillman.org/content/download/2702/24140/file/2012\\_Detroit\\_Child\\_report.pdf](http://www.skillman.org/content/download/2702/24140/file/2012_Detroit_Child_report.pdf)

Deguire, Peter, Binxin Liao, Lauren Wisnieski, Doug Strane, Robert Wahl, Sarah Lyon-Callo, and Erika Garcia, “Detroit: The Epicenter of Asthma Burden in Michigan.” Michigan Department of Health and Human Services, March 2016 [http://caphedetroit.sph.umich.edu/wp-content/uploads/2016/03/Final\\_Detroit-The-Epicenter-of-Asthma-Burden\\_2-29-2016.pdf](http://caphedetroit.sph.umich.edu/wp-content/uploads/2016/03/Final_Detroit-The-Epicenter-of-Asthma-Burden_2-29-2016.pdf) [accessed August 11, 2016], 1-44.

Detroit Blight Removal Task Force, *Every Neighborhood Has a Future* (May 2014), “Chapter 6: What is the best way to remove the blight?” <http://report.timetoendblight.org/summary/#2> [accessed July 31, 2016].

Detroit Future City. *2012 Detroit Strategic Framework Plan*. Detroit, MI: Inland Press, 2012. [http://detroitfuturecity.com/wpcontent/uploads/2014/02/DFC\\_ExecutiveSummary\\_2ndEd.pdf](http://detroitfuturecity.com/wpcontent/uploads/2014/02/DFC_ExecutiveSummary_2ndEd.pdf) [accessed August 13, 2016].

Detroit Future City. *2014 Year End Report*. [http://detroitfuturecity.com/wp-content/uploads/2014/02/DFC\\_2014YearEndReport.pdf](http://detroitfuturecity.com/wp-content/uploads/2014/02/DFC_2014YearEndReport.pdf) [accessed July 31, 2016].

Detroit NAACP, Press Statement, “Democracy Under Siege!” March 15, 2013, [http://democrats.judiciary.house.gov/sites/democrats.judiciary.house.gov/files/documents/Press%20Statements\\_AnthonyEM.pdf](http://democrats.judiciary.house.gov/sites/democrats.judiciary.house.gov/files/documents/Press%20Statements_AnthonyEM.pdf) [accessed July 28, 2016], 1-24.

Detroit Water & Sewerage Department, Board of Water Commissioners Finance Committee, May 28, 2015, [http://archive.dwsd.org/downloads\\_n/about\\_dwsd/financials/Finance\\_Committee\\_Binder\\_5-28-2015.pdf](http://archive.dwsd.org/downloads_n/about_dwsd/financials/Finance_Committee_Binder_5-28-2015.pdf) [accessed July 27, 2016].

Detroit Water & Sewerage Department. “Meeting Minutes: Friday, December 12, 2014.” [http://archive.dwsd.org/downloads\\_n/about\\_dwsd/financials/Finance\\_Committee\\_Binder\\_12-12-2014.pdf](http://archive.dwsd.org/downloads_n/about_dwsd/financials/Finance_Committee_Binder_12-12-2014.pdf) [accessed July 27, 2016].

Detroit Water & Sewerage Department. "Meeting Minutes: July 14, 2014." [http://archive.dwsd.org/downloads\\_n/about\\_dwsd/financials/Finance\\_Committee\\_Binder\\_7-14-2014.pdf](http://archive.dwsd.org/downloads_n/about_dwsd/financials/Finance_Committee_Binder_7-14-2014.pdf) [accessed July 27, 2016].

Detroit Water and Sewerage Department. "DWSD Fact Sheet." June 10, 2014, [http://www.dwsd.org/downloads\\_n/about\\_dwsd/fact\\_sheet/dwsd\\_fact\\_sheet.pdf](http://www.dwsd.org/downloads_n/about_dwsd/fact_sheet/dwsd_fact_sheet.pdf) [accessed July 27, 2016].

Detroit Water and Sewerage Department. "Meeting Minutes: Wednesday, July 22, 2015." [http://archive.dwsd.org/downloads\\_n/about\\_dwsd/financials/Finance\\_Committee\\_Binder\\_7-22-2015.pdf](http://archive.dwsd.org/downloads_n/about_dwsd/financials/Finance_Committee_Binder_7-22-2015.pdf) [accessed August 12, 2016].

Detroiters Resisting Emergency Management. "People's Plan for Restructuring Toward a Sustainable Detroit." February 14, 2014, <http://www.d-rem.org/wpcontent/uploads/2014/02/PeoplesPlanV.1FullPage.pdf> [accessed August 7, 2016].

Detroiters Working for Environmental Justice, "Detroit Environmental Agenda" (July 2014), <https://www.dwej.org/wp-content/uploads/2015/12/ElectionDraftAnnalieseEdits-nohyperlinks.pdf> [accessed July 31, 2016], 1-72.

Elmore, Bart. "Author's Response." In *H-Environment Roundtable Reviews* Vol. 5 No. 6 (2015), 25-33.

Flint Water Advisory Task Force, Final Report, March 2016, [https://www.michigan.gov/documents/snyder/FWATF\\_FINAL\\_REPORT\\_21March2016\\_517805\\_7.pdf](https://www.michigan.gov/documents/snyder/FWATF_FINAL_REPORT_21March2016_517805_7.pdf) [accessed July 27, 2016].

Fort, Daniel L. "The Injustice of Environmental Justice." Mackinac Center for Public Policy, August 3, 1998, [www.mackinac.org/488](http://www.mackinac.org/488) [accessed August 12, 2016].

Gibson, Carl. "This City Could Become the Next Detroit." *Think Progress*, April 4, 2015, <https://thinkprogress.org/this-city-could-become-the-next-detroit->



- dae211c02b0c#.1nr7ejwof [accessed August 8, 2016].
- Goetz, Edward G., Tony Damiano, and Jason Hicks, “American Urban Inequality: Racially Concentrated Affluence.” University of Minnesota (2015), [http://www.lincolninst.edu/docs/979/1839\\_8\\_percent20Edward\\_percent20Goetz.pdf](http://www.lincolninst.edu/docs/979/1839_8_percent20Edward_percent20Goetz.pdf) [accessed August 7, 2016].
- Great Lakes Water Authority, “Regarding: Interim CEO’s Report—July, 2015.” [http://www.glwater.org/wp-content/uploads/2015/07/072915\\_Interim-CEO-Report-July-29-2015.pdf](http://www.glwater.org/wp-content/uploads/2015/07/072915_Interim-CEO-Report-July-29-2015.pdf) [accessed July 27, 2016].
- Grossman, Anna, Nadia Johnson, and Gretchen Sidhu, eds. *Diverting the Flow: A Resource Guide for Gender, Rights, and Water*. New York: Women’s Environment and Development Organization, 2003. <http://genderandwater.org/en/gwa-products/knowledge-on-gender-and-water/case-studies/Ench36US.pdf> [accessed July 28, 2016].
- Hohman, James H. “Mackinac Center Recommendations Found in New Financial Emergency Legislation.” March 17, 2011, <http://www.mackinac.org/14756> [accessed July 31, 2016].
- Hudson, Peter James. “The Racist Dawn of Capitalism: Unearthing the Economy of Bondage.” *Boston Review*, March 14, 2016, <https://bostonreview.net/books-ideas/peter-james-hudson-slavery-capitalism> [accessed August 11, 2016].
- Kersey, Paul and Joseph P. Overton. “Right-to-Work Laws Accelerate Economic Development.” June 5, 2002, <https://www.mackinac.org/4399> [accessed July 31, 2016].
- LaFaive, Michael D. “For Whom the Private “Belle” Tolls: Is it Time to Privatize Belle Isle?” *Michigan Privatization Report*, December 1, 2000, <http://www.mackinac.org/3156> [accessed July 27, 2016].
- Lott, Leslie. “Health Care With Harm: A Study of the Initiative to Shut Down Henry Ford Hospital in Detroit, Michigan.” University of Michigan, <http://umich.edu/~snre492/Jones/>

henryford.htm [accessed August 12, 2016].

Massauga Earth First! Press Release, “Activists Occupy and Hang a Banner from the Highland Park Municipal Building in Protest of Water Shut-Offs.” July 28, 2003, <http://www.great-lakes.net/lists/enviro-mich/2003-07/msg00138.html> [accessed July 28, 2016].

Michigan Department of Attorney General. “Cox Files Charges Against Medical Waste Facility Owner and Consultant for Falsifying Air Quality Documents.” August 20, 2006, <http://www.michigan.gov/ag/0,1607,7-164--141392--,00.html> [accessed August 12, 2016].

Michigan Department of Community Health, *2012 Annual Data Report on Blood Lead Levels of Children in Michigan*, [https://www.michigan.gov/documents/mdch/2012AnnualDataReportOnBloodLeadLevels\\_419508\\_7.pdf](https://www.michigan.gov/documents/mdch/2012AnnualDataReportOnBloodLeadLevels_419508_7.pdf) [accessed August 12, 2016].

Michigan League for Public Policy, “Poverty - Children Ages 0-17 – SAIPE: Detroit, Michigan.” <http://datacenter.kidscount.org/data/tables/1692-poverty--children-ages-0-17--saipe?loc=24&loct=3#detailed/3/58/false/869,36,868,867,133/any/3591,13134> [accessed October 29, 2016].

Michigan Legislature. “Executive Reorganization Order E.R.O. 1991-22, Sec. III-A-2.” [https://www.legislature.mi.gov/\(S\(wh3ly155pn34q155q515k1rr\)\)/documents/mcl/pdf/mcl-E-R-O-No-1991-22.pdf](https://www.legislature.mi.gov/(S(wh3ly155pn34q155q515k1rr))/documents/mcl/pdf/mcl-E-R-O-No-1991-22.pdf) [accessed August 12, 2016].

Michigan State Budget Office, Office of Regulatory Reinvention. “ORR Implemented ARC Recommendations: Tracking Sheet.” November 21, 2013. [http://www.michigan.gov/documents/lara/ORR\\_ARC\\_Recommendations\\_IMPLEMENTED\\_439402\\_7.docx](http://www.michigan.gov/documents/lara/ORR_ARC_Recommendations_IMPLEMENTED_439402_7.docx) [accessed August 11, 2016].

Michigan Welfare Rights Organization. “Recent History of Utility Shut-offs for Detroit's Poor,

- Disabled, and Seniors (2002).” [http://mwro.org/past\\_actions.htm](http://mwro.org/past_actions.htm) [accessed July 31, 2016].
- Moss, Kary L. and Sherilyn Ifill, Letter to Mayor Mike Duggan, Emergency Manager Kevyn Orr, James Fausone, Chair, Detroit Water and Sewage Department, Sue McCormick, Chief Executive Office, Detroit Water and Sewage Department, July 18, 2014, [http://www.aclumich.org/sites/default/files/201\\_DueProcess\\_WaterShutoffs\\_Letter.pdf](http://www.aclumich.org/sites/default/files/201_DueProcess_WaterShutoffs_Letter.pdf) [accessed July 27, 2016].
- National Consumer Law Center, Inc. “Why Servicers Foreclose When They Should Modify and Other Puzzles of Servicer Behavior.” October 2009, <https://www.nclc.org/images/pdf/pr-reports/report-servicers-modify.pdf> [accessed July 31, 2016], 1-60.
- Orr, Kevyn D., Mike Duggan, Robert A. Ficano, L. Brooks Patterson, and Mark A. Hackel, “Memorandum of Understanding Regarding the Great Lakes Water Authority.” September 10, 2014, [https://www.oakgov.com/exec/Documents/great\\_lakes\\_water\\_authority/Detroit\\_DWSD\\_Executed\\_MOU\\_Sept\\_9\\_2014\\_FINAL.pdf](https://www.oakgov.com/exec/Documents/great_lakes_water_authority/Detroit_DWSD_Executed_MOU_Sept_9_2014_FINAL.pdf) [accessed July 28, 2016].
- Reagan, Ronald. “Executive Order 12291-Federal Regulation, February 17, 1981.” In John Woolley and Gerhard Peters, eds. *The American Presidency Project*, available at <http://www.presidency.ucsb.edu/ws/?pid=43424> [accessed August 31, 2015].
- Reeves, Andrew L. “Evaluation of Beryllium Data.” Wayne State University, Department of Occupational and Environmental Health, August 1987, 2-4. [http://beryllium.eu/resources/Health\\_Safety\\_Studies\\_Literature/Cancer/Reeves-Evaluation of Beryllium Animal Data.pdf](http://beryllium.eu/resources/Health_Safety_Studies_Literature/Cancer/Reeves-Evaluation_of_Beryllium_Animal_Data.pdf) [accessed August 7, 2016].
- Shlanger, Zoe. “Choking to Death in Detroit: Flint isn’t Michigan’s Only Disaster.” *Newsweek*, March 30, 2016, <http://www.newsweek.com/2016/04/08/michigan-air-pollution-poison-southwest-detroit-441914.html> [accessed August 11, 2016].

- Sierra Club. “NAFTA’s Impact on Mexico.” <http://vault.sierraclub.org/trade/downloads/nafta-and-mexico.pdf> [accessed August 7, 2016].
- Sloan, Carrie. “How Wall Street Caused a Water Crisis in America’s Cities.” *The Nation*, March 11, 2016, <https://www.thenation.com/article/how-wall-street-caused-a-water-crisis-in-americas-cities/> [accessed August 12, 2016].
- Stansbury, Martha, Robert Scott, and Jessica Cooper. “2014 Data Report on Childhood Lead Testing and Elevated Levels: Michigan.” Michigan Department of Health and Human Services, March 14, 2016, [http://www.michigan.gov/documents/mdhhs/2014\\_Child\\_Lead\\_Testing\\_and\\_Elevated\\_Levels\\_Report\\_515233\\_7.pdf](http://www.michigan.gov/documents/mdhhs/2014_Child_Lead_Testing_and_Elevated_Levels_Report_515233_7.pdf) [accessed August 11, 2016], 1-39.
- State of Michigan v. Veolia North America and Lockwood, Andrews & Newnam, P.C., available at [https://content.govdelivery.com/attachments/MIAG/2016/06/22/file\\_attachments/572551/Hall\\_Veolia\\_LAN\\_complaint\\_final\\_6\\_21\\_2016.pdf](https://content.govdelivery.com/attachments/MIAG/2016/06/22/file_attachments/572551/Hall_Veolia_LAN_complaint_final_6_21_2016.pdf).
- Steimel, Greg. “The Truth About the Mackinac Center.” Michigan Education Association, August 2015, <http://www.mea.org/sites/default/files/images/MEAMatters.pdf> [Accessed July 31, 2016], 1-20.
- Sultana, Farhana, Chandra Talpade Mohanty and Sarah Miraglia. “Gender Justice and Public Water for All: Insights from Dhaka, Bangladesh.” *Municipal Service Project Occasional Paper* No. 17 (April 2013), [http://municipalservicesproject.org/sites/municipalservicesproject.org/files/event/Sultana-MohantyMiraglia\\_Gender\\_justice\\_and\\_public\\_water\\_for\\_all\\_Insights\\_from\\_Dhaka\\_Bangladesh\\_Apr2013.pdf](http://municipalservicesproject.org/sites/municipalservicesproject.org/files/event/Sultana-MohantyMiraglia_Gender_justice_and_public_water_for_all_Insights_from_Dhaka_Bangladesh_Apr2013.pdf) [accessed July 27, 2016], 2-23.
- Taylor, Maureen. “The United States: Refusing to Back Down.” In United Nations Development Programme, *Resource Guide: Mainstreaming Gender in Water Resource Management* (November 2006), 229-230, <http://www.undp.org/content/dam/aplaws/publication/en/>

publications/environment-energy/www-ee-library/water-governance/resource-guide-main-streaming-gender-in-water-management/IWRMGenderResourceGuide-English-200610.pdf [accessed July 27, 2016].

Temin, Peter. "The American Dual Economy: Race, Globalization and the Politics of Exclusion." November 30, 2015, Institute for New Economic Thinking Working Paper No. 26, <https://www.ineteconomics.org/uploads/papers/The-American-Dual-Economy-Race-Globalization-and-the-Politics-of-Exclusion.pdf> [accessed July 28, 2016].

Turbeville, Wallace C. "The Detroit Bankruptcy." *Demos*, November 2013. <http://www.demos.org/publication/detroit-bankruptcy> [accessed July 28, 2016], 1-56.

U.S. Bankruptcy Court, Eastern District of Michigan, Southern Division, Case No. 13-53846, <http://www.mieb.uscourts.gov/sites/default/files/detroit/docket7885.pdf> [accessed July 26, 2016].

U.S. Census Bureau. "2010-2014 American Community Survey 5-Year Estimates." [http://factfinder.census.gov/faces/nav/jsf/pages/community\\_facts.xhtml](http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml) [accessed August 7, 2016].

U.S. Census Bureau. "Highland Park (city), Michigan." <http://quickfacts.census.gov/qfd/states/26/2638180.html> [accessed July 28, 2016].

U.S. Census Bureau. "Population and Housing: 1950." "General Characteristics: Michigan." <http://www2.census.gov/prod2/decennial/documents/37779850v2p22.zip> [Accessed July 28, 2016].

U.S. Census Bureau. "Quick Facts: Detroit, Michigan." <http://www.census.gov/quickfacts/table/HSD410214/2622000> [accessed August 10, 2016].

U.S. Congress, House, Judiciary Committee Democratic Staff. "Democracy for Sale: Subverting

- Voting Rights, Collective Bargaining and Accountability Under Michigan’s Emergency Manager Law: Interim Report and Recommendations of the House Judiciary Committee Democratic Staff.” February 21, 2012. [https://democrats-judiciary.house.gov/sites/democrats.judiciary.house.gov/files/documents/EM\\_Report120221F.pdf](https://democrats-judiciary.house.gov/sites/democrats.judiciary.house.gov/files/documents/EM_Report120221F.pdf) [accessed July 27, 2016], 1-29.
- U.S. Congress, Senate, Majority and Minority Staff Report, Permanent Subcommittee on Investigations. “Wall Street and the Financial Crisis: Anatomy of a Financial Collapse.” April 13, 2011, [http://www.hsgac.senate.gov//imo/media/doc/Financial\\_Crisis/Financial\\_CrisisReport.pdf?attempt=2](http://www.hsgac.senate.gov//imo/media/doc/Financial_Crisis/Financial_CrisisReport.pdf?attempt=2) [accessed July 28, 2016].
- U.S. Environmental Protection Agency. “Detailed Facility Report: Marathon Petroleum Co LP— Michigan Refining Div, 1300 S Fort St, Detroit, MI, 48217.” <http://echo.epa.gov/detailed-facility-report?redirect=page&fid=110000554828> [accessed August 12, 2016].
- U.S. Environmental Protection Agency. “Facts About East Side Issues That May Affect Your Health.” [http://www.epa.gov/ncer/childrenscenters/factsheets/factsheet\\_eastside.html](http://www.epa.gov/ncer/childrenscenters/factsheets/factsheet_eastside.html) [accessed August 12, 2016].
- United Nations Human Rights Council. “In Detroit, city-backed water shut-offs ‘contrary to human rights,’ say UN experts.” October 20, 2014. <http://www.un.org/apps/news/story.asp>
- United Nations Office of the High Commissioner for Human Rights. “Detroit: Disconnecting water from people who cannot pay: an affront to human rights.” June 25, 2014. <http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=14777&LangID=E> [accessed July 27, 2016].
- Utt, Ronald D. “Time to Privatize Detroit’s Public Lighting Department.” *Michigan Privatization Report*, April 9, 2002, <http://www.mackinac.org/4149> [accessed July 31, 2016].

- Wasilevich, Elizabeth, Sarah Lyon-Callo, Ann Rafferty, and Kevin Dombkowski. “Detroit—Epicenter of the Asthma Burden.” Michigan Department of Community Health, [https://www.michigan.gov/documents/mdch/14\\_Ch12\\_Detroit\\_Epicenter\\_of\\_Asthma\\_276687\\_7.pdf](https://www.michigan.gov/documents/mdch/14_Ch12_Detroit_Epicenter_of_Asthma_276687_7.pdf) [accessed August 12, 2016], 1-28.
- Wayne County Metro Community Action Agency, “2013 Community Assessment.” <http://www.waynemetro.org/file/207/downloadpercent3Ftokenpercent3D8f3QoYvw+&cd=3&hl=en&ct=clnk&gl=us> [accessed July 28, 2016].
- Werbe, Peter. “History of the Fifth Estate: The Early Years.” *Fifth Estate* No. 368-369 (Spring-Summer 2005), <http://www.fifthestate.org/archive/368-369-spring-summer-2005/history-fifth-estate-early-years/> [accessed August 31, 2015].
- Whitford, David. “Can Farming Save Detroit?” *Fortune*, December 29, 2009. [http://archive.fortune.com/2009/12/29/news/economy/farming\\_detroit.fortune/index.htm](http://archive.fortune.com/2009/12/29/news/economy/farming_detroit.fortune/index.htm) [accessed July 31, 2016].
- Wolfram, Gary. “Don’t Waste Water Treatment Privatization Opportunities.” *Michigan Privatization Report*, December 1, 2000, <http://www.mackinac.org/3162> [accessed July 31, 2016].
- Woodcock, Leonard. “Labor and the Economic Impact of Environmental Control Requirements.” Paper presented at “Jobs and the Environment—Whose Jobs? Whose Environment?” conference, Institute of Industrial Relations, University of California—Berkeley, November 28, 1972, 1-13. Online Archive of California. <http://www.oac.cdlib.org/ark:/28722/bk0003s9447/FID1> [accessed December 6, 2016].
- World Bank. “GDP (current US\$).” <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?page=4> [accessed August 12, 2016].

Wylie-Kellerman, Bill. "The Detroit Water Struggle: Story." *Critical Moment*, September 30, 2014. <https://critical-moment.org/2014/09/30/thedetroit-water-struggle-a-story/> [accessed August 12, 2016].

### **Theses and Dissertations**

Aldridge, Sara M. "The Muted Group Gains a Voice: A Case Study of the Henry Ford Hospital Medical Waste Incinerator." M.A. Thesis: Central Michigan University, 2011.

Anieri, Philip J.D. "Regional Reform in Historic Perspective: Metropolitan Planning Institutions in Detroit, 1950-1990." Ph.D. Dissertation: University of Michigan, 2007.

Aschoff, Nicole. "Globalization and Capital Mobility in the Auto Industry." Ph.D. Dissertation: Johns Hopkins University, 2008.

Carrera, Jennifer Suzanne. "Sanitation and Social Power in the United States." Ph.D. Dissertation: University of Illinois-Urban-Champaign, 2014.

Cialdella, Joseph S. "Gardens in the Machine: Cultural and Environmental Change in Detroit, 1879-2010." Ph.D. Dissertation, University of Michigan, 2015.

Clement, Daniel. "The Spatial Injustice of Crisis-Driven Neoliberal Urban Restructuring in Detroit." M.A. Thesis: University of Miami, 2013.

Conley, Joe Greene. "Environmentalism Contained: A History of Corporate Responses to the New Environmentalism." Ph.D. Dissertation: Princeton University, 2006.

DeMatteo, Arthur Edward. "Urban Reform Politics and the Working Class: Detroit, Toledo, and Cleveland, 1890-1922." Ph.D. Dissertation: University of Akron, 1999.

Dunsby, Joshua. "Clarifying Smog: Expert Knowledge, Health, and the Politics of Air Pollution." Ph.D. Dissertation: University of California—San Diego, 2001.

Gonen, Julianna Susan. "Reproductive Hazards Litigation: Gender and Labor Politics in the Third



- Branch.” Ph.D. Dissertation.: American University, 1996.
- Gordon, Robert. “Environmental Blues: Working-Class Environmentalism and the Labor-Environmental Alliance, 1968-1985.” Ph.D. Dissertation: Wayne State University, 2004.
- Gugliotta, Angela. “Hell with the Lid Taken Off: A Cultural History of Air Pollution—Pittsburgh.” Ph.D. Dissertation: University of Notre Dame, 2004.
- Hageman, Daniel. “Deindustrialization and the Urban Landscape: Race, Space, and Memory in Back of the Yards, 1950-1980.” Ph.D. Dissertation: University of Illinois: Urbana Champaign, 2015.
- Hall, Jacob. “Created for Destruction: The Rise of the Automobile Industry and the Decline of Municipal Welfare in Detroit.” Unpublished Ph.D. Dissertation: University of Iowa, 2014.
- Hill, Angela S. “Lead Poisoning in Detroit Children.” M.A. Thesis: Eastern Michigan University, 2004.
- Jacoby, Louis R. “Perception of Noise, Air, and Water Pollution in Detroit.” Ph.D. Dissertation: Department of Geography, University of Michigan Ann Arbor, 1972.
- Johannson, Nsenga Lee. "Viewing African American History through the Lens of Health: The Great Migration and African Americans in Detroit, 1916-1940." Ph.D. Dissertation, University of Michigan, 2004.
- Johnson, Barry. “Wastewater Treatment Comes to Detroit: Law, Politics, Technology and Funding.” Ph.D. Dissertation: Wayne State University, 2010.
- Marrero, Karen. “Founding Families: Power and Authority of Mixed French and Native Lineages in Eighteenth-Century Detroit.” Ph.D. dissertation: Yale University, 2011.
- Moore, Jason W. “Ecology and the Rise of Capitalism.” Ph.D. Dissertation: University of California Berkeley, 2007.

- Rose, Sarah Frances. "No Right to Be Idle: The Invention of Disability, 1850-1930." Ph.D. Dissertation: University of Chicago, 2008.
- Safransky, Sara. "Promised Land: The Politics of Abandonment and the Struggle for a New Detroit." Ph.D. Dissertation: University of North Carolina, Chapel Hill, 2015.
- Slack, Hubert R. "Study of the Governmental Agencies Responsible for the Control of Water Pollution of the Detroit River." M.A. Thesis: Wayne State University, 1962.
- Snyder, Lynne Page. "The Death-Dealing Smog Over Donora, Pennsylvania': Industrial Air Pollution, Public Health, and Federal Policy, 1915-1963." Ph.D. Dissertation: University of Pennsylvania, 1994.
- Walker, W. Frank. "A Study of the Prevalence of Disease in the City of Detroit with Special Reference to the Influence of the Type and Sanitation of Dwellings upon Disease." Ph.D. Dissertation: University of Michigan, 1922.
- Ward, Brandon. "Detroit Wild: Race, Labor, and Postwar Urban Environmentalism." Ph.D. Dissertation: Purdue University, 2014.

### **Secondary Sources (Books and Articles)**

- Ackard, Patrick J. "Corporate Mobilization and Political Power: The Transformation of Economic Policy in the 1970s." *American Sociological Review* Vol. 57 No. 5 (October 1992), 597-615.
- Adeola, Francis O. *Industrial Disasters, Toxic Waste, and Community Impact: Health Effects and Environmental Justice Struggles around the Globe*. Lanham, MA: Lexington Books, 2012.
- Adkin, Laurie and Catherine Alpaugh. "Labour, Ecology and the Politics of Convergence." In Frank Cunningham, Sue Findlay, Marlene Kadar, Alan Lennon and Ed Silva, eds. *Social Movements/Social Change: The Politics and Practice of Organizing*, 57-73. Toronto:

Between the Lines, 1988.

Adkin, Laurie E. *The Politics of Sustainable Development: Citizens, Unions and the Corporations*.

Montreal: Black Rose Books, 1998.

Adler, Richard. *Cholera in Detroit: A History*. Jefferson, NC: McFarland & Co., 2013.

Adler, William D. *Molly's Job: A Study of Life and Work on the Global Assembly Line*. New York: Touchstone, 2001.

Agyeman, Julian. *Sustainable Communities and the Challenge of Environmental Justice*. New York: New York University Press, 2005.

Aja, Alan, Daniel Bustillo, William Darrity Jr., and Darrick Hamilton. "Jobs Instead of Austerity: A Bold Policy Proposal for Economic Justice." *Social Research: An International Quarterly* Vol. 80 No. 3 (Fall 2013), 781-794.

Akers, Joshua. "Making Markets: Think Tank Legislation and Private Property in Detroit." *Urban Geography* Vol. 34 No. 8 (2013), 1070-1095.

Aldy, Joseph. "A Preliminary Assessment of the American Recovery and Reinvestment Act's Clean Energy Package." *Review of Environmental Economics and Policy* Vol. 7 No. 1 (January 2013), 136-155.

Allen, Ernie. "Dying from the Inside: The Decline of the League of Revolutionary Black Workers." In Dick Custer, ed. *They Should Have Served That Cup of Coffee: Seven Radicals Remember the Sixties*, 71-109. Boston: South End Press, 1979.

Allen, Margaret and Philip Perkins. "Working for Environmental and Economic Justice and Jobs." In Bunyan Bryant, ed. *Thunder at Michigan and in the Heartland: Working for Student Empowerment and Action*, 33-40. New York: Morgan James Publishing, 2009.

Allum, James R. "'An Outcrop of Hell': History, Environment, and the Politics of the *Trail Smelter*

- Dispute.” In *Transboundary Harm in International Law: Lessons from the Trail Smelter Arbitration*, Eds., Rebecca M. Bratspies and Russell A. Miller, 13-26. New York: Cambridge University Press, 2006.
- Amsterdam, Daniel. *The Roaring Metropolis: Businessmen’s Campaign for a Civic Welfare State*. Philadelphia: University of Pennsylvania Press, 2016.
- Anderson, Carlotta R., *All-American Anarchist: Joseph Labadie and the Labor Movement*. Detroit: Wayne State University Press, 1998.
- Anderson, Michelle Wilde. “Radical Experimentation in State Takeovers of Local Governments.” *Fordham Urban Studies Journal* Vol. 39 (2011), 577-623.
- Andrews, Richard. *Managing the Environment, Managing Ourselves: A History of American Environmental Policy*. New Haven: Yale University Press, 1999.
- Arena, John. *Driven from New Orleans: How Non-Profits Betray Public Housing and Promote Privatization*. Minneapolis: University of Minnesota Press, 2012.
- Ashford, Nicholas. *Crisis in the Workplace: Occupational Disease and Injury: A Report to the Ford Foundation*. Cambridge: MIT Press, 1976.
- Awâsis, Sâkihitowin. “Pipelines and Resistance Across Turtle Island.” In Tony Weis, Toban Black, Stephen D’Arcy, and Joshua Kahn Russell, eds. *A Line in the Tar Sands: Struggles for Environmental Justice*, 253-266. Toronto: Between the Lines, 2014.
- Babson, Steve, David Riddle and David Elsila, *The Color of Law: Ernie Goodman, Detroit, and the Struggle for Labor and Civil Rights*. Detroit: Wayne State University Press, 2010.
- Babson, Steve, Ron Alpern, Dave Elsila, and John Revitte. *Working Detroit: The Making of a Union Town* (Detroit: Wayne State University Press, 1986.
- Bachmann, John. “Will the Circle Be Unbroken: A History of the U.S. National Ambient Air Quality Standards.” *Journal of the Air & Waste Management Association* 57:6 (2007),

652-697.

Bacow, Lawrence S. *Bargaining for Job Safety and Health*. Cambridge: MIT Press, 1980.

Bailer, Lloyd H. "The Negro Automobile Worker." *Journal of Political Economy* Vol. 51 (October 1943), 415-428.

Bailey, Christopher J. *Congress and Air Pollution: Environmental Policies in the USA*. New York: St. Martin's Press, 1998.

Balcers, Wanda and Chloé Deligne, "Environmental Protest Movements Against Industrial Waste in Belgium, 1850-1940." In *Environmental and Social Justice in the City: Historical Perspectives*, eds. Geneviève Massard-Guilbaud and Richard Rodger, 233-247. Cambridge, UK: The White Horse Press, 2011, 233-247.

Baldasty, Gerald J. *E.W. Scripps and the Business of Newspapers*. Urbana: University of Illinois Press, 1999.

Baptist, Edward E. *The Half Has Never Been Told: Slavery and the Making of American Capitalism*. New York: Basic Books, 2014.

Barca, Stefania. "Laboring the Earth: Transnational Reflections on the Environmental History of Work." *Environmental History*, 19 (January 2014), 3-27.

Barclay, Hartley W. *Ford Production Methods*. New York: Harper & Brothers, 1936.

Barlow, Maude. *Blue Future: Protecting Water for People and the Planet Forever*. New York: New Press, 2013.

Barnard, John. *American Vanguard: The United Auto Workers during the Reuther Years, 1935-1970*. Detroit: Wayne State University Press, 2004.

Barnett, Harold C. "And Some with a Fountain Pen: Mortgage Fraud, Securitization, and the Subprime Bubble." In Susan Will, Stephen Handelman, and David C. Brotherton, eds. *How They Got Away With It: White Collar Criminals and the Financial Meltdown*, 104-129.

- New York: Columbia University Press, 2013.
- Bates, Beth Tompkins. *The Making of Black Detroit; in the Age of Henry Ford*. Chapel Hill: University of North Carolina Press, 2012.
- Battista, Andrew. *The Revival of Labor Liberalism*. Urbana: University of Illinois Press, 2008.
- Batzell, Rudi. "The Labor of Social Reproduction: Household Work and Gendered Power in the History of Capitalism, 1870-1930." *Journal of the Gilded Age and Progressive Era* 15 (2016), 310-330.
- Beckert, Sven, Angus Burgin, Peter James Hudson, Louis Hyman, Naomi Lamoreaux, Scott Marler, Stephen Mihm, Julia Ott, Philip Scranton, and Elizabeth Tandy Shermer. "Interchange: The History of Capitalism." *Journal of American History* Vol. 101 No. 2 (September 2014), 503-536.
- Beckert, Sven. *Empire of Cotton: A Global History*. New York: Alfred A. Knopf, 2014.
- "History of American Capitalism." In Eric Foner and Lisa McGirr, eds. *American History Now: Critical Perspectives on the Past*, 314-335. Philadelphia: Temple University Press, 2011.
- Beideman, Catherine E. "Eminent Domain and Environmental Justice: A New Standard of Review in Discrimination Cases." *Boston College Environmental Affairs Law Review* Vol. 34 No. 2 (January 2007), 273-302.
- Bell, Shannon Elizabeth. *Our Roots Run as Deep as Ironweed: Appalachian Women and the Fight for Environmental Justice*. Urbana: University of Illinois Press, 2013.
- Bickerstaff, Karen and Gordon Walker, "The Place(s) of Matter: Matter Out of Place—Public Understandings of Air Pollution." *Progress in Human Geography* Vol. 27 No. 1 (2003), 45-67.
- Biggs, Lindy. *The Rational Factory: Architecture, Technology, and Work in America's Age of*

- Mass Production*. Baltimore: Johns Hopkins University Press, 1996.
- Biles, Roger. *The Fate of the Cities: Urban America and the Federal Government, 1945-2000*. Lawrence: University Press of Kansas, 2011.
- Birkhold, Matthew, Grace Lee Boggs, Rick Feldman, and Shea Howell. "A Detroit Story: Ideas Whose Time Has Come." In Alexander Reid Ross, ed. *Grabbing Back: Essays Against the Global Land Grab, 193-208*. Oakland: AK Press, 2014.
- Biven, W. Carl. *Jimmy Carter's Economy: Policy in an Age of Limits*. Chapel Hill: University of North Carolina Press, 2002.
- Black Hawk and J. Gerald Kennedy. *Life of Black Hawk, or Ma-ka-tai-me-she-kia-kiak: Dictated by Himself*. New York: Penguin, 2008.
- Blackmar, Elizabeth. "Inheriting Property and Debt: From Family Security to Corporate Accumulation." In Michael Zakim and Gary J. Kornblith, eds. *Capitalism Takes Command: The Social Transformation of Nineteenth-Century America*, 93-118. Chicago: University of Chicago Press, 2012.
- Block, Fred and Margaret A. Somers. *The Power of Market Fundamentalism: Karl Polanyi's Critique*. Cambridge: Harvard University Press, 2014.
- Bluestone, Barry and Irving Bluestone, *Negotiating the Future: A Labor Perspective on American Business*. New York: Basic Books, 1992.
- Blum, Elizabeth. *Love Canal Revisited: Race, Class, and Gender in Environmental Activism*. Topeka: University Press of Kansas, 2008.
- Blumberg, Louis and Robert Gottlieb. *War On Waste: Can America Win Its Battle With Garbage?* Washington, D.C.: Island Press, 1989.
- Bouk, Dan. *How Our Days Became Numbered: Risk and the Rise of the Statistical Individual*.

- Chicago: University of Chicago Press, 2015.
- Boyle, Kevin. *The UAW and the Heyday of American Liberalism, 1945-1968*. Ithaca: Cornell University Press, 1995.
- Branco, Manuel Court and Pedro Damiao Henriques. "The Social Costs of Water Commodification in Developing Countries." In Wolfram Elsner, Pietro Frigato and Paolo Ramazzotti, eds. *Social Costs and Public Action in Modern Capitalism: Essays Inspired by Karl William Kapp's Theory of Social Costs*, 183-202. New York: Routledge, 2006.
- Brandt, Allan M. *The Cigarette Century: The Rise, Fall, and Deadly Persistence of the Product that Defined America*. New York: Basic Books, 2007.
- Braverman, Harry. *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*. New York: Monthly Review Press, 1974.
- Brechin, Gray. *Imperial San Francisco: Urban Power, Earthly Ruin*. Berkeley: University of California Press, 2006.
- Brechin, Grey. *Imperial San Francisco: Urban Power, Earthly Ruin*. Berkeley: University of California Press, 1999.
- Briggs, Laura. *Reproducing Empire: Race, Sex, Science, and U.S. Imperialism in Puerto Rico*. Berkeley: University of California Press, 2002.
- Brooks, Karl Boyd. *Before Earth Day: The Origins of American Environmental Law, 1945-1970*. Lawrence: University Press of Kansas, 2009.
- Brosnan, Kathleen. *Uniting Mountain and Plain: Cities, Law, and Environmental Change along the Front Range*. Albuquerque: University of New Mexico Press, 2002.
- Broughton, Chad. *Boom, Bust, Exodus: The Rust Belt, the Maquilas, and a Tale of Two Cities*. New York: Oxford University Press, 2015.



- Brown, Rebecca. "Unequal Burden: Water Privatisation and Women's Human Rights in Tanzania." *Gender and Development* Vol. 18 No. 1 (March 2010), 59-68.
- Bryant, Bunyan and Elaine Hockman. "The Greater Detroit Resource Recovery Facility (the Incinerator)." In Bunyan Bryant, ed. *Michigan: A State of Environmental Justice?*, 127-40. New York: Morgan James Publishing, 2011.
- Bührs, Ton, *Environmental Integration: Our Common Challenge*. Albany: State University of New York Press, 2009.
- Bullard, Robert D., Paul Mohai, Robin Saha, and Beverly Wright. "Toxic Wastes and Race at Twenty: Why Race Still Matters After All These Years." *Environmental Law Review* Vol. 38 No. 2 (Spring 2008), 371-411.
- Bullard, Robert. *Dumping in Dixie: Race, Class, and Environmental Quality*, 3<sup>rd</sup> ed. Boulder: Westview Press, 2000.
- Ed. *Unequal Protection: Environmental Justice and Communities of Color* (San Francisco: Sierra Club Books, 1994).
- Burton, Clarence M., William K. Stocking, and Gordon K. Miller, *The History of Detroit Michigan, 1701-1922, Vol. 1*. Detroit: S.J. Clarke Publishing Company, 1922.
- Burton, Constance Dowd and Joseph P. Tomain. "Nuclear Transition: From Three Mile Island to Chernobyl." *William & Mary Law Review* Vol. 28 No. 3 (1987), 363-437.
- Buttigieg, Joseph, ed. *Antonio Gramsci: Prison Notebooks, Vol. II*. New York: Columbia University Press, 1992.
- Butts, Rachel and Stephen Gasteyer. "More Cost Per Drop: Water Rates, Structural Inequality, and Race in the United States—the Case of Michigan." *Environmental Practice* 13 (December 2011), 386-395.

- Cabadas, Joseph B. *River Rouge: Ford's Industrial Colossus*. St. Paul, MN: Motor Books, 2004.
- Caraley, Demetrios. "Washington Abandons the Cities." *Political Science Quarterly* Vol. 107 No. 1 (Spring 1992), 1-30.
- Carson, Rachel. *Silent Spring*. New York: Houghton Mifflin, 1962.
- Caruso, Chris. "A Case Study in Organizing: The Struggle for Water in Post-Industrial Detroit." In Willie Baptist and Jan Rehman, eds. *Pedagogy of the Poor: Building a Movement to End Poverty*, 84-100. New York: Columbia University Teachers College Press, 2011.
- Castleman, Barry and G.E. Ziem. "Corporate Influence on Threshold Limit Values." *American Journal of Industrial Medicine* Vol. 13 (1988), 531-559.
- Castleman, Barry. *Asbestos: Medical and Legal Aspects*. New York: Law & Business, Inc., 1984.
- Chandler, Alfred and Takashi Hitino. *Scale and Scope: The Dynamics of Industrial Capitalism*. Cambridge, MA: Belknap Press, 1990.
- Chandler, Alfred D. *The Visible Hand: The Managerial Revolution in American Business*. Cambridge: Harvard University Press, 1977.
- Checker, Melissa. "'Wiped Out by the Greenwave': Environmental Gentrification and the Paradoxical Politics of Urban Sustainability." *City & Society* Vol. 23 No. 2 (December 2011), 210-229.
- Polluted Promises: Environmental Racism and the Search for Justice in a Southern Town*. New York: New York University Press, 2005.
- "'Like Nixon Coming to China': Finding Common Ground in a Multi-Ethnic Coalition for Environmental Justice." *Anthropological Quarterly* Vol. 74 No. 3 (July 2003), 135-146.
- Cherniack, Martin. *The Hawk's Nest Incident: America's Worst Industrial Disaster*. New Haven: Yale University Press, 1986.

- Chinoy, Ely. "Manning the Machine: The Assembly Line Worker." In Peter L. Berger, Ed., *The Human Shape of Work: Studies in the Sociology of Occupations*, 51-82. New York: Macmillan, 1964.
- Chomsky, Aviva. *Linked Labor Histories: New England, Columbia, and the Making of a Global Working Class*. Durham: Duke University Press, 2008.
- Cialdella, Joseph S. "A Landscape of Ruin and Repair: Parks, Potatoes, and Detroit's Environmental Past, 1879-1900." *Michigan Historical Review*, 1879-1900 Vol. 40 No. 1 (Spring 2014), 49-72.
- Clark, Paul F. *The Miners' Fight for Democracy: Arthur Miller and the Reform of the United*
- Clemens, Elizabeth. *The Works Progress Administration in Detroit*. Chicago: Arcadia, 2008.
- Clement, Daniel and Miguel Kanai. "The Detroit Future City: How Pervasive Neoliberal Urbanism Exacerbates Racialized Spatial Injustice." *American Behavioral Scientist*, Vol. 59 No. 3 (2015), 369-385.
- Cobble, Dorothy Sue Cobble. *The Other Women's Movement: Workplace Justice and Social*
- Cohen, Lizabeth. "From Town Center to Shopping Center: The Reconfiguration of Community Marketplaces in Postwar America." *American Historical Review* Vol. 101 No. 4 (October 1996), 1050-1081.
- Coleman-Adebayo, Marsha. *No Fear: A Whistleblower's Triumph over Corruption and Retaliation at the EPA*. Chicago: Chicago Review Press, 2011.
- Colten, Craig E. and Peter N. Skinner. *The Road to Love Canal: Managing Industrial Waste Before the EPA*. Austin: University of Texas Press, 1996.
- Commoner, Barry. *Making Peace with the Planet*. New York: New Press, 1992.
- Connelly, Matthew. *Fatal Misconception: The Struggle to Control World Population*. Cambridge:

- Harvard University Press, 2008.
- Cooper, Afua. *The Hanging of Angélique: The Untold Story of Canadian Slavery and the Burning of Old Montréal*. Athens, GA: University of Georgia Press, 2007.
- Cooper, Philip J. *The War Against Regulation: From Jimmy Carter to George W. Bush*. Topeka: University Press of Kansas, 2009.
- Cotgrove, Stephen F. *Catastrophe or Cornucopia? The Environment, Politics, and the Future*. New York: Wiley, 1982.
- Cowie, Jefferson. *Stayin' Alive: The 1970s and the Last Days of the Working Class*. New York: The New Press, 2010.
- “‘A One-Sided Class War’: Rethinking Doug Fraser’s 1978 Resignation from the Labor-Management Group.” *Labor History* Vol. 44 No. 3 (2003), 307-314.
- Capital Moves: RCA’s 70-Year Quest for Cheap Labor*. Ithaca: Cornell University Press, 1999.
- Cray, ed. *Chrome Colossus: General Motors and its Times*. New York: McGraw-Hill Book Company, 1980.
- Cronon, William. *Nature’s Metropolis: Chicago and the Great West*. New York: W.W. Norton, 1991.
- Changes in the Land: Indians, Colonists, and the Ecology of New England*. New York: Hill and Wang, 1983.
- Darden, Joe T. and Igor Vojnovic. “The Colors That Shaped a City: The Role of Racial and Class Tensions in Inhibiting Urban Sustainability, the Detroit Context.” In Igor Vojnovic, Ed., *Urban Sustainability: A Global Perspective*, 435-474. East Lansing: Michigan State University Press, 2012.
- Darden, Joe T. *Detroit: Race Riots, Racial Conflict, and Efforts to Bridge the Racial Divide*. East

- Lansing: Michigan State University, 2013.
- Darden, Joe T., Richard Child Hill, June Manning Thomas, and Richard Thomas. *Detroit: Race and Uneven Development*. Philadelphia: Temple University Press, 1987.
- Dauvergne, Peter and Genevieve LeBaron. *Protest, Inc.: The Corporatization of Activism*. Somerset, MA: Wiley, 2014.
- Davis, Mike. *Ecology of Fear: Los Angeles and the Imagination of Disaster*. New York: Metropolitan Books, 1998.
- Dawson, Emily. "Lessons Learned from Flint, Michigan: Managing Multiple Source Pollution in Urban Communities." *William and Mary Environmental Law and Policy Review* Vo. 26 No. 2 (2001), 367-405.
- DeMatteo, Arthur Edward. "Organized Labor Versus the Mayor: The Detroit Federation of Labor and the Revised City Charter of 1914." *Michigan Historical Review* Vol. 21 No. 2 (Fall 1995), 62-92.
- Dempsey, Dave. *Michigan's Rise as a Conservation Leader*. Ann Arbor: University of Michigan Press, 2001.
- Derickson, Alan. *Black Lung: Anatomy of a Public Health Disaster*. Ithaca: Cornell University Press, 1998.
- "Health Security for All? Social Unionism and Universal Health Insurance, 1935–1958." *Journal of American History*, 80 (March 1994), 1333–1356.
- Dewey, Scott Hamilton. *Don't Breathe the Air: Air Pollution and U.S. Environmental Politics, 1945-1970*. College Station: Texas A & M University Press, 2000.
- "The Antitrust Case of the Century': Kenneth Hahn and the Fight Against Smog." *Southern California Quarterly* Vol. LXXXI No. 3 (1999), 341-376.

- Diamond: A Struggle for Environmental Justice in Louisiana's Chemical Corridor*. Cambridge: MIT Press, 2006.
- Doody, Colleen. *Detroit's Cold War: The Origins of Postwar Conservatism*. Urbana: University of Illinois Press, 2012.
- Downey, Gary L. "Ideology and the Clamshell Identity: Organizational Dilemmas in the Anti-Nuclear Power Movement." *Social Problems* Vol. 33 No. 5 (June 1986), 357-373.
- Doyle, Jack. *Taken for a Ride: Detroit's Big Three and the Politics of Air Pollution*. New York: Four Walls Eight Windows, 2000.
- Dracos, Michael. *Biocidal: Confronting the Poisonous Legacy of PCBs*. Boston: Beacon Press, 2010.
- Drinnon, Richard. *Facing West: The Metaphysics of Indian-Hating and Empire-Building*, 2<sup>nd</sup> ed. Norman: University of Oklahoma Press, 1997.
- Drutchas, Geoffrey G. "Gray Eminence in a Gilded Age: The Forgotten Career of Senator James McMillan of Michigan." *Michigan Historical Review* Vol. 28 No. 2 (Fall 2002), 78-113.
- Dudley, Kathryn Marie. *The End of the Line: Lost Jobs, New Lives in Postindustrial America*. Chicago: University of Chicago Press, 1994.
- Dunaway, Wilma. *The First American Frontier: Transition to Capitalism in Southern Appalachia, 1700-1865*. Chapel Hill: University of North Carolina Press, 1996.
- Dunn, Robert W. *Labor and Automobiles*. New York: International Publishers, 1929.
- Dunsby, Joshua. "Localizing Smog: Transgressions in the Therapeutic Landscape." In Melanie Du Puis, ed. *Smoke and Mirrors: The Politics and Culture of Air Pollution*, 170-202. New York: New York University Press, 2004.
- Eastman, Joel W. *Styling versus Safety: The American Automobile Industry and the Development*

- of Automotive Safety, 1900-1966*. Boston: University Press of America, 1984.
- Egilman, David, Tess Bird, and Caroline Lee. "Dust Diseases and the Legacy of Corporate Manipulation of Science and Law." *International Journal of Occupational and Environmental Health* Vol. 20 No. 2 (April 2014), 115-125.
- Eisenberg, Allison. *Downtown America: A History of the Place and the People Who Made It*. Chicago: University of Chicago Press, 2004.
- Eisinger, Douglas S. *Smog Check: Science, Federalism, and the Politics of Clean Air*. New York: Earthscan, 2010.
- Eisner, Marc Allen. *The American Political Economy: Institutional Evolution of Market and State*. New York: Taylor and Francis, 2013.
- Elkind, Sarah S. *How Local Politics Shape Federal Policy: Business, Power, and the Environment in Twentieth-Century Los Angeles*. Chapel Hill: University of North Carolina Press, 2011.
- Engels, Mary-Louise. *Rosalie Bertell: Scientist, Eco-Feminist, Visionary*. Toronto: Women's Press, 2005.
- Esping-Andersen, Gøsta. *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press, 1990.
- Farley, Reynolds, Sheldon Danziger and Harry Holzer. *Detroit Divided*. New York: Russel Sage Foundation, 2000.
- Faust, Kasey M., Dulcy M. Abraham, and Shawn P. McElmurry. "Water and Wastewater Infrastructure Management in Shrinking Cities." *Public Works Management & Policy* Vol. 21 No. 2 (2016), 128-156.
- Ferguson, Karen. *Top Down: The Ford Foundation, Black Power, and the Reinvention of Racial Liberalism*. Philadelphia: University of Pennsylvania Press, 2013.
- Fields, Barbara J. and Karen E. Fields. *Racecraft: The Soul of Inequality in American Life*. New

York: Verso, 2012.

Fields, Barbara J. *Slavery and Freedom on the Middle Ground: Maryland during the Nineteenth Century*. New Haven: Yale University Press, 1985.

—“The Advent of Capitalist Agriculture: The New South in a Bourgeois World.” In Thavolia Glymph and John K. Kushma, eds. *Essays on the Post-Bellum Southern Economy*, 73-94. College Station, TX: Texas A & M Press, 1985.

Fine, Sidney. *Violence and the Model City: The Cavanaugh Administration, Race Relations, and the Detroit Riot of 1967*. Ann Arbor: University of Michigan Press, 1989.

—*The Automobile under the Blue Eagle: Labor, Management, and the Automobile Manufacturing Code*. Ann Arbor: The University of Michigan Press, 1963.

Finkel, Alvin. “Workers’ Social-Wage Struggles During the Great Depression and the Era of Neoliberalism: International Comparisons.” In Leon Fink and Joan Sangster, eds. *Workers in Hard Times: A Long View of Economic Crises*, 113-140. Urbana: University of Illinois Press, 2014.

Fitzgerald, Stephanie J. “‘Idle No More’: First Nations Women and Environmental Struggles.” In Stephanie J. Fitzgerald, ed. *Native Women and Land: Narratives of Dispossession and Resurgence*, 111-112. Albuquerque: University of New Mexico Press, 2015.

Fixico, Donald. *The Invasion of Indian Country in the Twentieth Century: American Capitalism and Tribal Natural Resources*. Boulder: University Press of Colorado, 1998.

Flanagan, Maureen A. “The City Profitable, the City Livable: Environmental Policy, Gender, and Power in Chicago in the 1910s.” *Journal of Urban History* Vol. 22 No. 2 (January 1996), 163-190.

Flink, James J. *The Automobile Age*. Cambridge: MIT Press, 1988.



- Fones-Wolf, Elizabeth. *Selling Free Enterprise: The Business Assault on Labor and Liberalism, 1945-1960*. Urbana: University of Illinois Press, 1995.
- Foote, Christopher L., Warren C. Whatley, and Gavin Wright, “Arbitrating a Discriminatory Labor Market.” *Journal of Labor Economics*, 21 (July 2003), 493-532.
- Fox, Judy. “The Future of Foreclosure Law in the Wake of the Great Housing Crisis of 2007-2014.” *Washburn Law Journal* Vol. 54 (2015), 489-526.
- Francis, Rose. “Water Justice in South Africa: Natural Resources Policy at the Intersection of Human Rights, Economics, and Political Power.” *Georgetown International Environmental Law Review* Vol. 18 No. 1 (October 2005), 149-196.
- Frank Murphy: The Detroit Years*. Ann Arbor: University of Michigan Press, 1975.
- Freund, David. *Colored Property: White Racial Politics in Suburban America*. Chicago: University of Chicago Press, 2007.
- Frost, Karolyn Smardz. “Forging Transnational Networks of Freedom: From the War of 1812 to the Blackburn Riots of 1833.” In Karolyn Smardz Frost and Veta Smith Tucker, eds. *A Fluid Frontier: Slavery, Resistance, and the Underground Railroad in the Detroit River Borderland*, 43-66. Detroit: Wayne State University Press, 2016.
- Gabin, Nancy F. *Feminism in the Labor Movement: Women and the United Auto Workers, 1935–1975*. Ithaca: Cornell University Press, 1990.
- Galster, George. *Driving Detroit: The Quest for Respect in the Motor City*. Philadelphia: University of Pennsylvania Press, 2012.
- Geismer, Lily. *Don’t Blame Us: Suburban Liberals and the Transformation of the Democratic Party*. Princeton: Princeton University Press, 2015.
- Georgakas, Dan and Marvin Surkin. *Detroit, I Do Mind Dying: A Study in Urban Revolution*, 2nd

- ed. Boston: South End Press, 1998.
- Gerrard, Michael B. and Sheila Foster, eds. *The Law of Environmental Justice: Theories and Procedures to Address Disproportionate Risks*. Chicago: American Bar Association, 2008.
- Gilmore, Ruth Wilson. "In the Shadow of the Shadow State." In INCITE! Women of Color Against Violence, eds. *The Revolution Will Not Be Funded: Beyond the Non-Profit Industrial Complex*, 2nd Ed., 41-52. Boston: South End Press, 2009.
- Gindin, Sam. *The Canadian Auto Workers: The Birth and Transformation of a Union*. Toronto: James Lorimer and Company, 1995.
- Gioielli, Robert. *Environmental Activism and the Urban Crisis: Baltimore, St. Louis, Chicago*. Philadelphia: Temple University Press, 2014.
- Gonzalez, George. *The Politics of Air Pollution: Urban Growth, Ecological Modernization, and Symbolic Inclusion*. Ithaca: State University of New York Press, 2005.
- Goodstein, Eban. *The Trade-Off Myth: Fact and Fiction about Jobs and the Environment*. San Francisco: Island Press, 1999.
- Gordon, Robert. "'Shell No!': OCAW and the Labor-Environmental Alliance." *Environmental History* Vol. 3 No. 4 (October 1998), 460-487.
- Gottlieb, Robert. "The Next Environmentalism: How Movements Respond to the Changes That Elections Bring from Nixon to Obama." *Environmental History* Vol. 14 No. 2 (April 2009), 298-308.
- Forcing the Spring: The Transformation of the American Environmental Movement*, 2<sup>nd</sup> Ed. Washington, D.C.: Island Press, 2005.
- Gottschalk, Marie. *The Shadow Welfare State: Labor, Business, and the Politics of Health Care in the United States*. Ithaca: Cornell University Press, 2000.

- Grandin, Greg. *Fordlandia: The Rise and Fall of Henry Ford's Jungle City*. New York: Metropolitan Books, 2009.
- Greenberg, Miriam. *Branding New York: How a City in Crisis Was Sold to the World*. New York: Routledge, 2008.
- Greenwald, Richard. *The Triangle Fire and the Protocols of Peace, and Industrial Democracy in Progressive Era New York*. Philadelphia: Temple University Press, 2005.
- Greider, William. *Secrets of the Temple: How the Federal Reserve Runs the Country*. New York: Simon & Schuster, 1987.
- Grinder, R. Dale. "The Battle for Clean Air: The Smoke Problem in Post-Civil War America." In *Pollution and Reform in American Cities, 1870-1930* ed. Martin Melosi, 83-103. Austin: University of Texas Press, 1980.
- Grover, William F. *President as Prisoner: A Structural Critique of the Carter and Reagan Years*. Albany: State University of New York Press, 1989.
- Gugliotta, Angela. "Class, Gender, and Coal Smoke: Gender Ideology and Environmental Injustice in Pittsburgh, 1868-1914." *Environmental History* Vol. 5 No. 2 (April 2000), 165-193.
- Gumprecht, Blake. "Who Killed the Los Angeles River?" In William Deverell and Greg Hise, eds. *Land of Sunshine: An Environmental History of Metropolitan Los Angeles*, 115-134. Pittsburgh: University of Pittsburgh Press, 2005.
- Hackworth, Jason. "Rightsizing as Spatial Austerity in the American Rust Belt." *Environment and Planning A* Vol. 47 No. 4 (2015), 766-782.
- The Neoliberal City: Governance, Ideology, and American Urbanism*. Ithaca: Cornell University Press, 2007.
- Hall, Leda McIntyre and Melvin F. Hall, "Detroit's Urban Regime: Composition and

- Consequence.” *Mid-American Review of Sociology* Vol. 17 No. 2 (Spring 1993), 19-37.
- Halpern, Martin. *UAW Politics in the Cold War Era*. Albany: SUNY Press, 1988.
- Halpern, Martin. *Unions, Radicals, and Democratic Presidents: Seeking Social Change in the Twentieth Century*. Westport, CT: Praeger, 2003.
- “Jimmy Carter and the UAW: Failure of an Alliance.” *Presidential Studies Quarterly* Vol. 26 No. 3 (Summer 1996), 755-777.
- Hamilton, Cynthia. “Toward a New Industrial Policy.” In Bunyan Bryant, ed. *Environmental Justice: Issues, Policies, and Solutions*, 107-114. Washington, D.C.: Island Press, 1995.
- Hammer, Peter. “Race, Regionalism, and Reconciliation: Detroit Planning Fails the Three Rs.” *Progressive Planning* No. 205 (Fall 2015), 1-9.
- Harris, Howell John. *The Right to Manage: Industrial Relations Policies of American Business in the 1940s*. Madison: University of Wisconsin Press, 1982.
- Hartig, John H. *Burning Rivers: Revival of Four Urban-Industrial Rivers That Caught on Fire*. Ecovision: Burlington, ON, 2010.
- Hartsmann, Betsy. *Reproductive Rights and Wrongs: The Global Politics of Population Control*. Boston: South End Press, 1995.
- Hays, Samuel P. *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955–1985*. New York: Cambridge University Press, 1987.
- Henrickson, Wilma Wood, ed. *Detroit Perspectives: Crossroads and Turning Points*. Detroit: Wayne State University Press, 1991.
- Hepler, Allison L. *Women in Labor: Mothers, Medicine, and Occupational Health in the United States, 1890–1980*. Columbus: University of Ohio Press, 2000.
- Hester, Donald D. *The Evolution of Monetary Policy and Banking in the U.S.* Heidelberg:

- Springer-Verlag, 2010.
- Highsmith, Andrew. *Demolition Means Progress: Flint, Michigan, and the Fate of the American Metropolis*. Chicago: University of Chicago Press, 2015.
- Hill, Libby. *The Chicago River: A Natural and Unnatural History*. Chicago: Lake Claremont Press, 2000.
- Hines, Revathi I. "The Price of Pollution: The Struggle for Environmental Justice in Mossville, Louisiana." *The Western Journal of Black Studies* Vol. 39 No. 3 (Fall 2015), 198-208.
- Hinton, Elizabeth. *From the War on Poverty to the War on Crime: The Making of Mass Incarceration in America*. Cambridge: Harvard University Press, 2016.
- Hirschhorn, Joel S. "Cleanup Levels for Dioxin-Contaminated Soils." *Remediation Journal* Vol. 7 No. 3 (Summer 1997), 63-80.
- Hochschild, Arlie. *Strangers in Their Own Land: Anger and Mourning on the American Right*. New York: New Press, 2016.
- Holli, Melvin. *Reform in Detroit: Hazen Pingree and Urban Politics*. New York: Oxford University Press, 1969.
- Hooker, Clarence. *Life in the Shadows of the Crystal Palace, 1910-1927: Ford Workers in the Model T Era*. Bowling Green, OH: Bowling Green State University Popular Press, 1997.
- Hounshell, David A. *Strategy and Structure: Du Pont R & D, 1902-1980*. New York: Cambridge University Press, 1988.
- From the American System to Mass Production, 1800-1932: The Development of Manufacturing Technology in the United States*. Baltimore: Johns Hopkins University Press, 1984.
- Howe, Joshua. *Behind the Curve: The Science and Politics of Global Warming*. Seattle: University

- of Washington Press, 2014.
- Hyde, Charles K. *Detroit: An Industrial History Guide*. Detroit: Detroit Historical Society, 1980.
- Immergluck, Daniel. *Foreclosed: High-Risk Lending, Deregulation, and the Undermining of America's Mortgage Market*. Ithaca: Cornell University Press, 2009.
- Inglehart, Ronald. *The Silent Revolution: Changing Values and Political Styles among Western Publics*. Princeton: Princeton University Press, 1977.
- Jacobs, Meg. *Panic at the Pump: The Energy Crisis and the Transformation of American Politics in the 1970s*. New York: Hill and Wang, 2016.
- “The Politics of Environmental Regulation: Business-Government Relations in the 1970s and Beyond.” In Kim Philips-Fein and Julian Zelizer, Eds. *What's Good for Business: Business and American Politics since World War II*, 212-232. New York: Oxford University Press, 2012.
- Janowitz, Morris. *Social Change and Politics, 1920–1976*. New York: Transaction Publishers, 2010.
- Jeffreys, Steve. *Management and Managed: Fifty Years of Crisis at Chrysler*. New York: Cambridge University Press, 1986.
- Johnson, Daniel. “Pollution and Public Policy at the Turn of the Twentieth Century.” In *Land of Sunshine: An Environmental History of Metropolitan Los Angeles*, eds. William Deverell and Greg Hise, 78-94. Pittsburgh: University of Pittsburgh Press, 2006.
- Johnson, Walter. *River of Dark Dreams: Slavery and Empire in the Cotton Kingdom*. Cambridge: Harvard University Press, 2013.
- Jones, A.C. “Rank-and-file opposition in the UAW During the Long 1970s.” In Aaron Brenner, Robert Brenner and Cal Winslow, eds. *Rebel Rank and File: Labor Militancy and Revolt*

- from Below During the Long 1970s*, 281-310. New York: Verso, 2010.
- Jones, Bryan D., Lynn W. Bachelor and Carter Wilson. *The Sustaining Hand: Community Leadership and Corporate Power*. Topeka: University Press of Kansas, 1986.
- Joshi, Deepa. "Like Water for Justice." *Geoforum* Vol. 61 (May 2015), 111-121.
- Kapp, Karl William. *The Social Costs of Private Enterprise*, 2nd ed. New York: Schocken Books, 1975.
- Kasarda, John D., Jürgen Friedrichs and Kay Ehlers, "Urban Industrial Restructuring and Minority Problems in the U.S. and Germany." In Malcolm Cross, ed. *Ethnic Minorities and Industrial Change in Europe and North America*, 250-275. New York: Cambridge University Press, 1992.
- Kazis, Richard and Richard L. Grossman. *Fear at Work: Job Blackmail, Labor and the Environment*. New York: Pilgrim Press, 1982.
- Keeran, Roger. *The Communist Party and the Auto Workers' Unions*. New York: International Publishers, 1980.
- Kelman, Ari. *The River and its City: The Nature of Landscape in New Orleans*. Berkeley: University of California Press, 2003.
- Kenyon, Amy Maria. *Dreaming Suburbia: Detroit and the Production of Postwar Space and Culture*. Detroit: Wayne State University Press, 2004.
- Kilfoil, Jack F. *C.C. Trowbridge, Detroit Banker and Michigan Land Speculator, 1820-1845*. New York: Arno Press, 1979.
- Kirkpatrick, Lucas Owen. "Urban Triage, City Systems, and the Remnants of Community: Some "Sticky" Complications in the Greening of Detroit." *Journal of Urban History* Vol. 41 No. 2 (2015), 261-278.

- Klein, Barbara and Charles Press. "The Political Response in Michigan to Reaganomics and the New Federalism." *Publius* Vol. 12 (1983), 139-149.
- Klein, Jennifer. *For All These Rights: Business, Labor, and the Shaping of America's Public-Private Welfare State*. Princeton: Princeton University Press, 2003.
- Klein, Naomi. *This Changes Everything: Capitalism Versus the Climate*. New York: Simon & Schuster, 2014.
- Klinge, Matthew. *Emerald City: An Environmental History of Seattle*. New Haven: Yale University Press, 2007.
- Kocka, Jürgen. *Capitalism: A Short History*. Princeton: Princeton University Press, 2016.
- Krippner, Greta. *Capitalizing on Crisis: The Political Origins of the Rise of Finance*. Cambridge: Harvard University Press, 2011.
- Layzer, Judith A. *Open for Business: Conservatives' Opposition to Environmental Regulation*. Cambridge: MIT Press, 2012.
- Lee, Charles, ed. *Proceedings of the First National People of Color Environmental Leadership Summit*. New York: United Church of Christ Commission on Racial Justice, 1992.
- Lerner, Steve. *Sacrifice Zones: The Front Lines of Toxic Chemical Exposure in the United States*. Cambridge: MIT Press, 2010.
- Levy, Jonathan. *Freaks of Fortune: The Emerging World of Capitalism and Risk in America*. Cambridge: Harvard University Press, 2012.
- Lewis, Tammy. *Ecuador's Environmental Revolutions: Ecoimperialists, Ecodependents, and Ecoresisters*. Cambridge: MIT Press, 2015.
- Lewis-Colman, David M. *Race against Liberalism: Black Workers and the UAW in Detroit*. Urbana: University of Illinois Press, 2008.



- Lichtenstein, Nelson. *The Most Dangerous Man in Detroit: Walter Reuther and the Fate of American Labor*. New York: Basic Books, 1995.
- “Life at the Rouge: A Cycle of Workers’ Control.” In *Life and Labor*, ed. Charles Stephenson and Robert Asher, 15-37. New Brunswick: Rutgers University Press, 1991.
- Lockwood, Rodney. *Belle Isle: Detroit’s Game Changer*. Lexington, KY: self-published, 2012.
- Loeb, Alan P. “The Birth of the Kettering Doctrine: Fordism, Sloanism, and the Discovery of Tetraethyl Lead.” *Business and Economic History* Vol. 24 No. 1 (1995), 72-87.
- Logan, John R. and Harvey L. Molotch. *Urban Fortunes: The Political Economy of Place*, 2<sup>nd</sup> ed. Berkeley: University of California Press, 2007.
- Loizides, Georgios Paris. ““Making Men” at Ford: Ethnicity, Race, and Americanization during the Progressive Period.” *Michigan Sociological Review* Vol. 21 (Fall 2007), 109-148.
- Longhurst, James. *Citizen Environmentalists*. Lebanon, NH: Tufts University Press, 2010.
- Loomis, Erik. *Out of Sight: The Long and Disturbing Story of Corporations Outsourcing Catastrophe*. New York: New Press, 2015.
- Lorence, James J. *Organizing the Unemployed: Community and Union Activists in the Industrial Heartland*. Albany: SUNY Press, 1996.
- Luger, Stan. *Corporate Power, American Democracy, and the Automobile Industry*. New York: Cambridge University Press, 2000.
- Lumley, Darwyn. *Breaking the Banks in Motor City: The 1933 Detroit Banking Crisis and the Start of the New Deal*. Jefferson, N.C.: McFarland & Co., 2009.
- Maguire, Katherine Annise. “Permitting Under the Clean Air Act: How Current Standards Impose Obstacles to Achieving Environmental Justice.” *Michigan Journal of Race & Law*, Vol. 14 (2009), 255-284.

- Mallinder, Lorraine. "Deadly Secret: A 1940s Whistleblower Uncovers Evidence Linking Asbestos to Cancer." *Canada's History* (April-May 2011), 33-38.
- Malm, Andreas and Alf Hornborg. "The Geology of Mankind? A Critique of the Anthropocene Narrative." *The Anthropocene Review* Vol. 1 No. 1 (April 2014), 62-69.
- Martinez-Alier, Joan Martinez-Alier and Roldan Muradian. "Taking Stock: The Keystones of Ecological Economics." In Joan Martinez-Alier and Roldan Muradian, eds. *Handbook of Ecological Economics*, 1-25. Northampton, MA: Edward Elgar Publishing, 2015.
- Martinez-Alier, Joan. "The Environmentalism of the Poor: Its Origins and Spread." In J. R. McNeill and Erin Stewart Mauldin, eds. *A Companion to Global Environmental History*, 513-529. Malden, MA: Wiley-Blackwell, 2012.
- Master, Scott. "Public Utility Ownership in 19<sup>th</sup>-Century America: The "Aberrant" Case of Water." *Journal of Law, Economics, & Organization* Vol. 27 No. 3 (2010), 604-654.
- May, Martha. "The Historical Problem of the Family Wage: The Ford Motor Company and the Five Dollar Day." *Feminist Studies* Vol. 8 No. 2 (Summer 1982), 399-424.
- McCarthy, Thomas. *Auto Mania: Cars, Consumers, and the Environment*. New Haven: Yale University Press, 2007.
- "Henry Ford, Industrial Ecologist or Industrial Conservationist? Waste Reduction and Recycling at the Rouge." *Michigan Historical Review* Vol. 27 No. 2 (September 2001), 52-88.
- "The Coming Wonder? Foresight and Early Concerns about the Automobile." *Environmental History* Vol. 6 No. 1 (January 2001), 46-74.
- McCulloch, Jock and Geoffrey Tweedale. "Anthony J. Lanza, Silicosis and the Gauley Bridge Nine." *Social History of Medicine* Vol. 27 No. 3 (August 2014), 1-18.

- McEvoy, Arthur. "Environmental Law and the Collapse of New Deal Constitutionalism." *Akron Law Review* Vol. 46 No. 4 (2013), 881-908.
- McGrayne, Sharon Bertsch. *Prometheans in the Lab: Chemistry and the Making of the Modern World*. New York: McGraw Hill, 2002.
- McGurty, Eileen. *Transforming Environmentalism: Warren County, PCBs, and the Origins of Environmental Justice*. Rutgers: Rutgers University Press, 2009.
- "From NIMBY to Civil Rights: The Origins of the Environmental Justice Movement." *Environmental History* Vol. 2 No. 3 (July 1997), 301-323.
- McNab, David T. *Circles of Time: Aboriginal Land Rights and Resistance in Ontario*. Waterloo, ON: Wilfrid Laurier University Press, 1999.
- McNeur, Catherine. *Taming Manhattan: Environmental Battles in the Antebellum City*. Cambridge: Harvard University Press, 2014.
- Mehta, Lyla, Jeremy Allouche, Alan Nicol and Anna Walnycki. "Global Environmental Justice and the Right to Water: The Case of Peri-Urban Cochabamba and Delhi." *Geoforum* 54 (2014), 158-166.
- Meier, August and Elliot Rudwick. *Black Detroit and the Rise of the UAW*. New York: Oxford University Press, 1979.
- Meisner-Rosen, Christine. "Business Leadership in the Movement to Regulate Industrial Air Pollution in Late Nineteenth and Early Twentieth Century America." *Economic History Yearbook* Vol. 50 No. 2 (2009), 23-43.
- "Knowing' Industrial Pollution: Nuisance Law and the Power of Tradition in a Time of Rapid Economic Change, 1840-1864." *Environmental History* Vol. 8 No. 4 (October 2003), 565-597.

- Mele, Christopher. "Casinos, Prisons, Incinerators, and Other Fragments of Neoliberal Urban Development." *Social Science History* Vol. 35 No. 3 (Fall 2011), 423-452.
- Melosi, Martin V. "Houston's Public Sinks: Sanitary Services from Local Concerns to Regional Challenges." In *Energy Metropolis: An Environmental History of Houston and the Gulf Coast*, eds. Martin V. Melosi and Joseph A. Pratt, 109-147. Pittsburgh: University of Pittsburgh Press, 2007.
- The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present*. Baltimore: Johns Hopkins University Press, 2000.
- Meltzer, Allan H. *A History of the Federal Reserve, Vol. II, Book Two, 1970-1986*. Chicago: University of Chicago Press, 2003.
- Merchant, Carolyn. *Ecological Revolutions: Nature, Gender, and Science in New England*, 2<sup>nd</sup> ed. Chapel Hill: University of North Carolina Press, 2010.
- Radical Ecology: The Search for a Livable World*, 2<sup>nd</sup> Ed. New York: Routledge, 2005.
- Mercier, Laura. *Anaconda: Labor, Community, and Culture in Montana's Smelter City*. Urbana: University of Illinois Press, 2001.
- Meyer, Stephen. *The Five Dollar Day: Labor Management and Social Control in the Ford Motor Company, 1908-1921*. Albany: State University of New York Press, 1981.
- Michaels, David. *Doubt is Their Product: How Industry's Assault on Science Threatens Your Health*. New York: Oxford University Press, 2008.
- "Occupational Cancer in the Black Population: The Health Effects of Job Discrimination." *Journal of the National Medical Association* Vol. 75 No. 10 (1983), 1014-1018.
- Milazzo, Paul Charles. *Unlikely Environmentalists: Congress and Clean Water, 1945-1972*. Topeka: University Press of Kansas, 2006.

- Milkman, Ruth. *Gender at Work: The Dynamics of Job Segregation by Sex during World War II*. Urbana: University of Illinois Press, 1987.
- Miller, Elizabeth. "Building Participation in the Outreach for the Documentary *The Water Front*." *Journal of Canadian Studies* Vol. 43 No. 1 (Winter 2009), 59-87.
- Miller, Karen R. *Managing Inequality: Northern Racial Liberalism in Interwar Detroit*. New York: New York University Press, 2014.
- Mills, Charles W. "Black Trash." In Laura Westra and Bill E. Lawson, eds. *Faces of Environmental Racism: Confronting Issues of Global Justice*, 73-94. New York: Rowman & Littlefield, 2001.
- Minchin, Timothy. *Forging a Common Bond: Labor and Environmental Activism during the BASF Lockout*. Gainesville: University Press of Florida, 2003.
- Mine Workers*. Ithaca: New York State School of Industrial and Labor Relations, 1981.
- Mohai, Paul, Byeong-Suk Kweon, Sangyun Lee and Kelly Ard. "Air Pollution Around Schools Linked to Poorer Student Health and Academic Performance." *Health Affairs* Vol. 30 No. 5 (May 2011), 852-862.
- Mohaupt, Rosina K. *Social and Economic Rating of Detroit Census Tracts*. Detroit: Detroit Bureau of Government Research, 1945.
- Molotch, Harvey L. "The City as Growth Machine: Towards a Political Economy of Place." *American Journal of Sociology* Vol. 82 No. 2 (September 1976), 309-332.
- Montgomery, David. *Workers' Control in America: Studies in the History of Work, Technology, and Labor Struggles*. New York: Cambridge University Press, 1979.
- Montoya, Maria E. *Translating Property: The Maxwell Land Grant and the Conflict Over Land in the American West, 1840-1900*. Berkeley: University of California Press, 2002.

- Montrie, Chad. *Making a Living: Work and the Environment in the United States*. Chapel Hill: University of North Carolina Press, 2008.
- Moody, Kim. *An Injury to All: The Decline of American Unionism*. New York: Verso, 1988.
- Moore, Colleen F. *Silent Scourge: Children, Pollution, and Why Scientists Disagree*. New York: Oxford University Press, 2003.
- Moore, Ted. "Democratizing the Air: The Salt Lake Women's Chamber of Commerce and Air Pollution, 1936-1945." *Environmental History* 12 (January 2007), 80-106.
- Morgan, Iwan. "Monetary Metamorphosis: The Volcker Fed and Inflation." *The Journal of Policy History* Vol. 24 No. 4 (2012), 545-571.
- Morris-Crowther, Jayne. "Municipal Housekeeping: The Political Activities of the Detroit Federation of Women's Clubs in the 1920s." *Michigan Historical Review* Vol. 30 No. 1 (Spring 2004), 31-57.
- Murakawa, Naomi. *The First Civil Right: How Liberals Built Prison America*. New York: Oxford University Press, 2014.
- Murphy, Lucy Eldersweld. *Great Lakes Creoles: A French-Indian Community on the Northern Borderlands, Prairie Du Chien, 1750-1860*. New York: Cambridge University Press, 2014.
- Nadasen, Premilla. *Household Workers United: The Untold Story of African American Women Who Built a Movement*. Boston: Beacon Press, 2015.
- *Welfare Warriors: The Welfare Rights Movement in the United States*. New York: Routledge, 2005.
- Nader, Ralph. *Unsafe at Any Speed: The Designed-In Dangers of the American Automobile*. New York: Grossman Publishers, 1965.
- NAFTA*. Princeton: Princeton University Press, 2014.

- Nash, Linda. "Purity and Danger: Historical Reflections on the Regulation of Environmental Pollutants." *Environmental History* Vol. 13 No. 4 (2008), 651-658.
- Inescapable Ecologies: A History of Landscape, Disease, and Knowledge*. Berkeley: University of California Press, 2005.
- Needham, Andrew. *Power Lines: Phoenix and the Making of the Modern Southwest*. Princeton: Princeton University Press, 2014.
- Needleman, Herbert L. "The Removal of Lead from Gasoline: Historical and Personal Reflections." *Environmental Research A* 84 (2000), 20-35.
- "Clair Patterson and Robert Kehoe: Two Views of Lead Toxicity." *Environmental Research* 78 (August 1998), 79-85.
- Neumann, Tracy. *Remaking the Rust Belt: The Post-Industrial Transformation of North America*. Philadelphia: University of Pennsylvania Press, 2016.
- "Privatization, Devolution, and Jimmy's Carter's Urban Policy." *Journal of Urban History* Vol. 40 No. 2 (2014), 283-300.
- Nevins, Allan. *Ford: Volume II, Expansion and Challenge, 1915-1933*. New York: Arno Press, 1976.
- Ford: The Times, The Man, The Company, Vol. 1*. New York, Charles Scribner's Sons, 1954.
- Nightingale, Carl. *Segregation: A Global History*. Chicago: University of Chicago Press, 2012.
- Noble, Charles. *Liberalism as Work: The Rise and Fall of OSHA*. Philadelphia: Temple University Press, 1986.
- Norwood, Edwin P. *Ford Men and Methods*. Garden City, N.Y.: Doubleday, Doran & Co., 1931.
- Nugent, Angela. "Fit for Work: The Introduction of the Physical Examination in Industry." *Bulletin of the History of Medicine* Vol. 57 No. 4 (Winter 1983), 578-95.

- Nye, David E. *Consuming Power: A Social History of American Energies*. Cambridge: MIT Press, 1999.
- O'Brien, Mary and Joseph A. Page, *Bitter Wages: Ralph Nader's Study Group Report on Disease and Injury on the Job*. New York: Grossman Publishers, 1973.
- Oestreicher, Richard. *Solidarity and Fragmentation: Working People and Class Consciousness in Detroit, 1875-1900*. Urbana: University of Illinois Press, 1986.
- Oldham, James C. "Organized Labor, the Environment, and the Taft-Hartley Act." *Michigan Law Review* Vol. 71 No. 5 (April 1973), 935-1040.
- Ott, Julia C. *When Wall Street Met Main Street: The Quest for an Investors' Democracy*. Cambridge: Harvard University Press, 2011.
- Paavola, Jouni. "Interstate Water Pollution Problems and Elusive Federal Water Pollution Policy in the United States, 1900-1948." *Environment and History* Vol. 12 No. 4 (November 2006), 435-465.
- Page, Joseph A. and Gary B. Sellers, "Occupational Safety and Health: Environmental Justice for the Forgotten American." *Kentucky Law Review*, 79 (Fall 1970), 114-44.
- Pahlke, Robert. "Cycles of Closure in Environmental Politics and Policy." In Ben A. Minteer and Bob Pepperman Taylor, eds. *Democracy and the Claims of Nature: Critical Perspectives for a New Century*, 279-300. Lanham, MD: Rowman and Littlefield, 2002.
- Parenti, Christian. "The Environment-Making State: Territory, Nature, and Value." *Antipode* Vol. 47 No. 4 (September 2015), 829-848.
- Parsons, Rachel. "Smart Bombs and Coca Cola: Capitalism's Big Plans for Highland Park." *Critical Moment* No. 10 (May-June 2005), 14-15.
- Peck, Jamie and Heather Whiteside, "Financializing Detroit." *Economic Geography* Vol. 92 No.



3 (2016), 235-268.

Peck, Jamie. "Struggling With the Creative Class." *International Journal of Urban and Regional Research* Vol. 29 No. 4 (December 2005), 740-770.

Pellow, David Naguib and Lisa Sun-Hee Park. *The Silicon Valley of Dreams: Environmental Injustice, Immigrant Workers, and the High-Tech Global Economy*. New York: NYU Press, 2002.

Peña, Devon G. *The Terror of the Machine: Technology, Work, Gender, and Ecology on the U.S.-Mexico Border*. Austin: University of Texas Press, 1997.

Peterson, Joyce Shaw. *American Automobile Workers, 1900-1933*. Albany: SUNY Press, 1987.

Pietilä, Hilikka. "The Triangle of the Human Economy: Household—Cultivation—Industrial Production: An Attempt at Making Visible the Human Economy in Toto." *Ecological Economics* Vol. 20 No. 2 (1997), 113-128.

Piper, Karen. *Global Water Inequality and the Coming Chaos*. Minneapolis: University of Minnesota Press, 2014.

Platt, Harold L. *Shock Cities: The Environmental Transformation of Manchester and Chicago*. Chicago: University of Chicago Press, 2005.

Polanyi, Karl. *The Great Transformation*, 2nd ed. Boston: Beacon Press, 1957 [1944].

Radford, Gail. "From Municipal Socialism to Public Authorities: Institutional Factors in the Shaping of American Public Enterprise." *Journal of American History* Vol. 89 No. 3 (December 2003), 863-890.

Rainey, Shirley A. and Glenn S. Johnson, "Grassroots Activism: An Exploration of Women of Color's Role in the Environmental Justice Movement," *Race, Gender, and Class* Vol. 16 No. 3 (2009), 144-173.

- Rawson, Michael. *Eden on the Charles: The Making of Boston*. Cambridge: Harvard University Press, 2010.
- “The Nature of Water: Reform and the Antebellum Crusade for Municipal Water in Boston.” *Environmental History* Vol. 9 No. 3 (July 2004), 411-435.
- Read, Jennifer. “Managing Water Quality in the Great Lakes Basin: Sewage Pollution Control, 1951-1960.” In Edgar-André Montigny and Anne Lorene Chambers, eds. *Ontario Since Federation: A Reader*, 339-361. Toronto: University of Toronto Press, 2000.
- Rector, Josiah. “Environmental Justice at Work: the UAW, the War on Cancer, and the Right to Equal Protection from Toxic Hazards in Postwar America.” *Journal of American History* Vol. 101 No. 2 (September 2014), 480-502.
- Reed, Jr., Adolph. *Stirring in the Jug: Black Politics in the Post-Segregation Era*. Minneapolis: University of Minnesota Press, 1999.
- Rich, Wilbur. “From Motor City to Service Hub.” In H.V. Savitch and John Clayton Thomas, eds. *Big City Politics in Transition*, 64-85. New York: Sage Publications, 1991.
- Coleman Young and Detroit Politics: From Social Activist to Power Broker*. Detroit: Wayne State University Press, 1989.
- Riddle, David. “Capital Migration, Urban Fiscal Crisis and Unemployment in Detroit.” *The Peninsular Papers (Michigan Sociological Association)*, Vol. 2 No. 2 (Spring 1977), 50-61.
- Rights in Modern America*. Princeton: Princeton University Press, 2004.
- Robinson, James C. and D.G. Paxman. “The Role of Threshold Limit Values in U.S. Air Pollution Policy.” *American Journal of Industrial Medicine* 21 (1992), 383-396.
- Rockaway, Robert A. *The Jews of Detroit, 1792-1914*. Detroit: Wayne State University Press,

1986.

Rodgers, Daniel. *Atlantic Crossings: Social Politics in a Progressive Age*. Cambridge: Harvard University Press, 1998.

Rogers, Heather. *Green Gone Wrong: How Our Economy is Undermining the Environmental Revolution*. New York: Scribner, 2010.

Rosenberg, Charles E. *The Cholera Years: The United States in 1832, 1849, and 1866*, 2nd ed. Chicago: University of Chicago Press, 1987.

Rosenzweig, Roy. *Eight Hours for What We Will: Workers and Leisure in an Industrial City, 1870-1920*. New York: Cambridge University Press, 1983.

Rosner, David and Gerald Markowitz. *Lead Wars: The Politics of Science and the Fate of America's Children*. Berkeley: University of California Press, 2013.

—*Deceit and Denial: The Deadly Political of Industrial Pollution*, 2<sup>nd</sup> ed. Berkeley: University of California Press, 2013.

—“The Struggle Over Employee Benefits: The Role of Labor in Influencing Modern Health Policy.” *The Milbank Quarterly*, 18 (March, 2003), 45–73.

—“Industry Challenges to the Principle of Prevention in Public Health: The Precautionary Principle in Historical Perspective.” *Public Health Reports* Vol. 117 (November-December 2002), 501-512.

—*Deadly Dust: Silicosis and the Politics of Occupational Disease in Twentieth Century America*. Princeton: Princeton University Press, 1992.

—“‘A Gift from God’? The Public Health Controversy over Leaded Gasoline during the 1920s.” In David Rosner and Gerald Markowitz, eds. *Worker's Safety and Health in Twentieth-Century America*, 121-139. Bloomington: Indiana University Press, 1987.

- “More than Economism: The Politics of Workers’ Safety and Health, 1932-1947.” *The Milbank Quarterly* Vol. 64 No. 3 (1986), 331-354.
- Ross, Benjamin and Steven Amter. *The Polluters: The Making of Our Chemically Altered Environment*. New York: Oxford University Press, 2010.
- Rothman, Hal K. *Saving the Planet: The American Response to the Environment in the Twentieth Century*. Chicago: Ivan R. Dee, 2000.
- Russell, Edmund. *War and Nature: Fighting Humans and Insects with Chemicals from World War I to Silent Spring*. New York: Cambridge University Press, 2001.
- Safransky, Sarah. “Greening the Urban Frontier: Race, Property, and Resettlement in Detroit.” *Geoforum* 56 (2014), 236-248.
- Sassen, Saskia. *Expulsions: Brutality and Complexity in the Global Economy*. Cambridge: Harvard University Press, 2014.
- Schindler, Seth. “Detroit after Bankruptcy: A Case of Degrowth Machine Politics.” *Urban Studies* Vol. 53 No. 4 (2014), 818-836.
- Seidman, Neil and Brenda Platt. “Counterpoint: The Realities of Waste-to-Energy.” *Waste News*, December 3, 2001.
- Seldman, Neil. “Recycling—History in the United States.” In Attilio Bisio and Sharon Boots, eds. *Encyclopedia of Energy Technology and the Environment*, 2354-5. New York: John Wiley and Sons, 1995.
- Selleck, Henry B. *Occupational Health in America*. Detroit: Wayne State University Press, 1962.
- Sellers, Christopher. *Hazards of the Job: From Industrial Hygiene to Environmental Health Science*. Chapel Hill: University of North Carolina Press, 1997.
- Shaw, Todd C. *Now is the Time! Detroit Black Politics and Grassroots Activism*. Durham: Duke

- University Press, 2009.
- Shrader-Frechette, Kristin. *Environmental Justice: Creating Equality, Reclaiming Democracy*. New York: Oxford University Press, 2002.
- Sidorick, Daniel. *Condensed Capitalism: Campbell's Soup and the Pursuit of Cheap Production in the Twentieth Century*. Ithaca: Cornell University Press, 2009.
- Silverstein, Michael. *The Case of the Workplace Killers: A Manual for Cancer Detectives on the Job*. Detroit: United Auto Workers, 1980.
- Sinclair, Timothy. *The New Masters of Capital: American Bond Rating Agencies and the Politics of Creditworthiness*. Ithaca: Cornell University Press, 2005.
- Smary, Eugene E. "Environmental Justice: More Than "NIMBY" or "LULU." *Heartland Institute Newsletter* (February 1999), 7-13.
- Smith, Maureen, Pamela Yates, John Froines and Robert Gottlieb. "Disassociating Toxics Policies: Occupational Risk and Product Hazards." In Robert Gottlieb, ed., *Reducing Toxics: A New Approach to Industrial Policymaking*, 95-123. Washington, D.C.: Island Press, 1995.
- Smith, Michael Peter and Lucas Owen Kirkpatrick, eds. *Reinventing Detroit: The Politics of Possibility*. New Brunswick: Transaction Publishers, 2015.
- Snyder, Lynn Page. "Revisiting Donora, Pennsylvania's 1948 Air Pollution Disaster." In Joel Tarr, ed. *Devastation and Renewal: An Environmental History of Pittsburgh and its Region*, 126-144. Pittsburgh: University of Pittsburgh Press, 2004.
- Soll, David. *Empire of Water: An Environmental and Political History of the New York City Water Supply*. Ithaca: Cornell University Press, 2013.
- Solnit, Rebecca. "Detroit Arcadia." *Harper's* (July 2007), 65-73.

- Spears, Ellen Griffith. *Baptized in PCBs: Race, Pollution, and Justice in an All-American Town*. Chapel Hill: University of North Carolina Press, 2014.
- Steady, Filomina Chioma, ed. *Environmental Justice in the New Millennium: Global Perspectives on Race, Ethnicity and Human Rights*. New York: Palgrave MacMillan, 2009.
- Stein, Judith. "Politics and Policies in the 1970s and Early Twenty-First Century: The Linked Recessions." In Leon Fink and Joan Sangster, eds. *Workers in Hard Times: A Long View of Economic Crises*, 141-160. Urbana: University of Illinois Press, 2014.
- Pivotal Decade: How the United States Traded Factories for Finance in the Seventies*. New Haven: Yale University Press, 2010.
- Running Steel, Running America: Race, Economic Policy, and the Decline of Liberalism*. Chapel Hill: University of North Carolina Press, 1998.
- Steinberg, Philip E., Elizabeth Nyman, and Mauro J. Caraccioli. "Atlas Swam: Freedom, Capital, and Floating Sovereignties in the Seasteading Vision." *Antipode*, Vol. 44 No. 4 (September 2012), 1532-1550.
- Steinberg, Ted. *Gotham Unbound: An Ecological History of Greater New York*. New York: Simon & Schuster, 2014.
- "Can Capitalism Save the Planet? On the Origins of Green Liberalism." *Radical History Review* No. 107 (Spring 2010), 7-24.
- Slide Mountain, or, the Folly of Owning Nature*. Berkeley: University of Carolina Press, 1995.
- Stieber, Jack. *Governing the UAW*. New York: Wiley, 1962.
- Stobbe, Mike. *Surgeon General's Warning; How Politics Crippled the Nation's Doctor*. Berkeley: University of California Press, 2014.
- Stoll, Steven. "A Metabolism for Society: Capitalism for Environmental Historians." In Andrew

- Isenberg, ed. *The Oxford Handbook of Environmental History*, 369-397. New York: Oxford University Press, 2014.
- Stradling, David and Richard Stradling. *Where the River Burned: Carl Stokes and the Struggle to Save Cleveland*. Ithaca: Cornell University Press, 2015.
- Stradling, David. *Smokestacks and Progressives: Environmentalists, Engineers, and Air Quality in America, 1881-1951*. Baltimore: Johns Hopkins University Press, 1999.
- Strugar, Michael. "Air Pollution." In Kevin T. Smith, eds. *Environmental Law in Michigan*, 333-380. Ann Arbor: Institute of Continuing Legal Education, 1982.
- Sturm, Douglas. "Martin Luther King, Jr., as Democratic Socialist." *The Journal of Religious Ethics* Vol. 18 No. 2 (Fall 1990), 79-105.
- Sugiman, Pamela. "Privilege and Oppression: The Configuration of Race, Gender, and Class in Southern Ontario Auto Plants, 1939 to 1949." *Labour/Le Travail* (Spring 2001), 83-113.
- Sugrue, Thomas J. *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit*, 2nd ed. Princeton: Princeton University Press, 2005.
- Sutter, Paul. *Driven Wild: How the Fight Against Automobiles Launched the Modern Wilderness Movement*. Seattle: University of Washington Press, 2002.
- Swan, James A. "Response to Air Pollution: A Study of Attitudes and Coping Strategies of High School Youth." *Environment and Behavior* No. 2 (1970), 127-152.
- Sward, Keith. *The Legend of Henry Ford*. 2<sup>nd</sup> ed. New York: Atheneum, 1968.
- Szasz, Andrew. *Shopping Our Way to Safety: How We Changed from Protecting the Environment to Protecting Ourselves*. Minneapolis: University of Minnesota Press, 2009.
- Sze, Julie. *Noxious New York: The Racial Politics of Urban Health and Environmental Justice*. Cambridge: MIT Press, 2007.

- Szymanski, Ann-Marie. "Regulatory Transformations in a Changing City: The Anti-Smoke Movement in Baltimore, 1895-1931." *The Journal of the Gilded Age and Progressive Era* Vol. 13 No. 3 (July 2014), 336-376.
- Tabb, William K. *The Restructuring of Capitalism in Our Time*. New York: Columbia University Press, 2012.
- Tainter, Joseph A. Tainter. *The Collapse of Complex Societies*. New York: Cambridge University Press, 1988.
- Taylor, Dorceta. *The Rise of the American Conservation Movement: Power, Privilege, and Environmental Protection*. Durham: Duke University Press, 2016.
- Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility*. New York: NYU Press, 2014.
- The Environment and the People in American Cities, 1600s-1900s: Disorder, Inequality, and Social Change*. Durham: Duke University Press, 2009.
- Teaford, John C. *Cities of the Heartland: The Rise and Fall of the Industrial Midwest*. Bloomington: Indiana University Press, 1993.
- Temby, Owen. "Trouble in Smogville: The Politics of Toronto's Air Pollution during the 1950s." *Journal of Urban History* Vol. 39 No. 4 (2012), 669-689.
- Thomas, June Manning. *Redevelopment and Race: Planning a Finer City in Postwar Detroit*. Detroit: Wayne State University Press, 1997.
- Thompson, Heather Ann. *Whose Detroit? Politics, Labor, and Race in a Modern American City*. Ithaca: Cornell University Press, 2001.
- Thomson, Jennifer. "Toxic Residents: Health and Citizenship at Love Canal." *The Journal of Social History* Vol. 50 No. 1 (Fall 2016), 204-223.



- Thorsheim, Peter. *Inventing Pollution: Coal, Smoke and Culture in Britain Since 1800*. Athens: Ohio University Press, 2006.
- Tranter, Bruce. "The Environmental Movement: Where to From Here?" In Robert White, ed. *Controversies in Environmental Sociology*, 185-203. New York: Cambridge University Press, 2004.
- Tribe, Keith. "Liberalism and Neoliberalism in Britain, 1930-1980." In Philip Mirowski, ed. *The Road from Mont Pèlerin: The Making of the Neoliberal Thought Collective*, 2<sup>nd</sup> Ed, 68-97. Cambridge: Harvard University Press, 2015.
- Troesken, Werner. "Typhoid Rates and the Public Acquisition of Private Waterworks, 1880-1920." *The Journal of Economic History* Vol. 59 No. 4 (December 1999), 927-948.
- Uekötter, Frank. *The Age of Smoke: Environmental Policy in Germany and the United States, 1880-1970*. Pittsburgh: University of Pittsburgh Press, 2009.
- "Divergent Responses to Identical Problems: Businessmen and the Smoke Nuisance in Germany and the United States, 1880-1917." *Business History Review* Vol. 73 No. 4 (Winter 1999), 641-676.
- United Church of Christ, Commission for Racial Justice. *Toxic Wastes and Race in the United States: A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites*. New York: United Church of Christ, 1987.
- Vallianatos, E.G. *Poison Spring: The Secret History of Pollution and the EPA*. New York: Bloomsbury Press, 2014.
- Vanderwarker, Amy. "Water and Environmental Justice." In Juliet Christian-Smith, Peter H. Glick, Heather Cooley, Lucy Allen, Amy Vanderwarker, and Kate A. Berry, eds. *A Twenty-First Century U.S. Water Policy*, 52-89. New York: Oxford University Press, 2012.

- Vogel, David. *Fluctuating Fortunes: The Political Power of Business in America*. New York: Basic Books, 1989.
- Walker, Richard. *The Country and the City: The Greening of the San Francisco Bay Area*. Seattle: University of Washington Press, 2007.
- Wallick, Franklin. *The American Worker: An Endangered Species*. New York: Bantam Books, 1972.
- Walsh, Edward J., Rex Warland and D. Clayton. *Don't Burn it Here: Grassroots Challenges to Trash Incinerators*. University Park, PA: University of Pennsylvania Press, 1997.
- Ward, Robert David and William Warren Rogers, *Convicts, Coal and the Banner Mine Tragedy*. Tuscaloosa.: University of Alabama Press, 1987.
- Waring, Marilyn. *If Women Counted: A New Feminist Economics*. New York: Harper & Row, 1988.
- Warren, Christian. *Brush With Death: A Social History of Lead Poisoning*. Baltimore: Johns Hopkins University Press, 2000.
- Washington, Sylvia Hood. *Packing Them in: An Archaeology of Environmental Racism in Chicago, 1865-1954*. Lanham, MD: Lexington Books, 2006.
- Waterhouse, Benjamin. *Lobbying America: The Politics of Business in America from Nixon to*
- We the People of Detroit Community Research Collective. *Mapping the Water Crisis: The Dismantling of African American Neighborhoods in Detroit: Volume One*. Detroit: We the People of Detroit Community Research Collective, 2016.
- Weaver, Timothy. "Urban Crisis: The Genealogy of a Concept." *Urban Studies* (forthcoming), 1-17.
- Blazing the Neoliberal Trail: Urban Political Development in the United States and the United*

- Kingdom*. Philadelphia: University of Pennsylvania Press, 2015.
- Weir, Margaret. *Politics and Jobs: The Boundaries of Employment Policy in the United States*. Princeton: Princeton University Press, 1992.
- Wells, Christopher. *Car Country: An Environmental History*. Seattle: University of Washington Press, 2012.
- Widick, B.J. *Detroit: City of Race and Class Violence*, 2nd ed. Detroit: Wayne State University Press, 1989.
- Wiese, Andrew. *Places of Their Own: African American Suburbanization in the Twentieth Century*. Chicago: University of Chicago Press, 2004.
- Wilson, Monica. "Public Funds Up in Flames: The Incineration Industry Seeks Renewable Energy Subsidies." *Multinational Monitor* (September/October 2006), 31-33.
- Witt, John Fabian. *The Accidental Republic, Destitute Widows, and the Remaking of American Law*. Cambridge: Harvard University Press, 2004.
- "The Transformation of Work and the Law of Workplace Accidents." *Yale Law Journal* Vol. 107 No. 5 (March 1998), 1467-1502.
- Wolcott, Victoria W. *Remaking Respectability: African American Women in Interwar Detroit*. Chapel Hill, 2001.
- Wood, Gregory. "'The Paralysis of the Labor Movement': Men, Masculinity, and Unions in 1920s Detroit." *Michigan Historical Review* Vol. 30 No. 1 (Spring 2004), 59-91.
- Worster, Donald. "Transformations of the Earth: Toward an Agroecological Perspective in History." *Journal of American History* Vol. 76 No. 4 (March 1990), 1087-1106.
- Wright, Beverly. "Living and Dying in Louisiana's 'Cancer Alley'." In Robert Bullard, ed. *The Quest for Environmental Justice: Human Rights and the Politics of Pollution*, 87-106. San

Francisco: Sierra Club Books, 2005.

Wyle, Jean. *Poletown: Community Betrayed*. Chicago: University of Illinois Press, 1989.

Young, Coleman A. *Hard Stuff: The Autobiography of Coleman Young*. New York: Viking, 1992.

Zeitlin, Maurice and Judith Stepan-Norris, "Red Unions and 'Bourgeois' Contracts?" *American Journal of Sociology* Vol. 96 No. 5 (March 1991), 1151-1200.

Zieger, Robert H., Timothy J. Minchin, and Gilbert J. Gall, eds. *American Workers, American Unions: The 20<sup>th</sup> & 21<sup>st</sup> Centuries*. Baltimore: Johns Hopkins University Press, 2014.

**ABSTRACT****ACCUMULATING RISK: ENVIRONMENTAL JUSTICE AND THE HISTORY OF CAPITALISM IN DETROIT, 1880-2015**

by

**JOSIAH RECTOR****May 2017****Advisor:** Dr. Elizabeth Faue**Major:** History**Degree:** Doctor of Philosophy

This dissertation is an environmental history of Detroit, Michigan from the 19<sup>th</sup> century to the present. Recent scholarship on the history of capitalism has largely ignored the problem of environmental inequality, and the negative externalities of economic growth. In contrast, studies of the environmental justice movement have richly documented race, class, and gender inequalities in environmental risk exposure. However, they have neglected the relationship between the development of the environmental justice movement and the restructuring of American capitalism since the 1970s, including deindustrialization and the shift to neoliberalism. Bringing these fields together, this dissertation connects Detroit's long-term economic transformation to the accumulation of environmental health risks in urban neighborhoods. It argues that environmental conflicts in metropolitan Detroit have historically determined who would pay for the negative externalities of industrial and real estate development. Over the course of the 20<sup>th</sup> century, corporations, real estate developers, and affluent white residents increasingly shifted the environmental costs of regional growth onto working-class and low-income communities of color.

Between the Civil War and World War II, Detroit's industrialization generated massive air, water, and soil pollution. Because of housing and job segregation, African Americans

disproportionately paid the costs of this pollution, in the form of lower property values and higher rates of disease. After World War II, the movement of capital out of Detroit enabled manufacturers to reduce regulatory compliance costs, while leaving a legacy of polluted brownfield sites that the city could not afford to clean up. While manufacturers disinvested from Detroit, they used the threat of job loss to divide workers and environmentalists. In response, United Auto Workers (UAW) leaders formed a coalition for “Environmental and Economic Justice and Jobs” with civil rights and environmental groups. In the 1980s, this coalition broke down in the context of ongoing deindustrialization, metropolitan racial segregation and inequality, and the neoliberal restructuring of the United States economy.

In the 1990s and 2000s, the decline of industrial unions altered the political economy of environmental justice activism in Detroit. Increasingly, the movement divided into non-profits and organizations based in a shrinking public sector. The dependence of non-profits on private grant funding became problematic in the 2000s, as local foundations began to support a policy of urban triage, as expressed in the 2010 Detroit Works Project and the 2013 Detroit Future City plan. Meanwhile, as Detroit became one of the epicenters of the nation’s subprime mortgage foreclosure crisis, more and more Detroit residents became vulnerable to losing their homes, or their ability to pay water bills. Neoliberal policies of deregulation, privatization, and austerity exacerbated environmental health risks for low-income Detroiters, especially African American women and children. This trend culminated in 2012-2015, when the Detroit Water and Sewerage Department shut off water for over 100,000 residents. From auto manufacturing to subprime lending, processes of capital accumulation in Detroit have produced negative externalities for vulnerable populations. For the majority of Detroiters, this dissertation ultimately argues, the history of capitalism has not been a story of accumulating wealth, but of accumulating risk.

## AUTOBIOGRAPHICAL STATEMENT

Josiah Rector was born in Santa Cruz, California in 1984, and grew up in Seattle, Washington. He received a Bachelor of Arts Degree in English, with a minor in History, from Temple University in 2006. After discovering his passion for history late in his undergraduate career, he earned a Master of Arts Degree in History from Wayne State University in 2012, and a Ph.D. in History from the same institution in 2016. Josiah's research focuses on urban environmental history, the environmental justice movement, and labor history. His publications include articles and essays in the *Journal of American History*, the *Detroit People's Atlas*, *Jacobin*, and *Against the Current*.