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**Recipe for Disaster: Chemical Wastes, Community Activists,
and Public Health at Love Canal, 1945-2000**

presented by

Amy Marie Hay

has been accepted towards fulfillment
of the requirements for the

PhD degree in History

A handwritten signature in cursive script, appearing to read "Dean M. Fine".

Major Professor's Signature

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RECIPE FOR DISASTER
CHEMICAL WASTES, COMMUNITY ACTIVISTS, AND PUBLIC HEALTH
AT LOVE CANAL, 1945-2000

VOLUME I

By

Amy Marie Hay

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of History

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ABSTRACT

RECIPE FOR DISASTER: CHEMICAL WASTES, COMMUNITY ACTIVISM, AND PUBLIC HEALTH AT LOVE CANAL, 1945-2000

By

Amy Marie Hay

Love Canal, one of the best-known environmental disasters of the late-twentieth century, represents a signal event in American history. The short and standard version of events begins in 1978, when residents of a suburban neighborhood in Niagara Falls, New York, learned that they lived near a chemical disposal site containing approximately 22,000 tons of hazardous wastes. They organized, fought state and federal officials, and won permanent relocation from the area. This commonly accepted account, known simply as Love Canal, encapsulates a mythic American story: aggrieved, honest citizens fight big government and business to protect their families and homes. In the process, Love Canal became a script for certain kinds of environmental activism, with women as essential participants. The story of health and environmental activism in Niagara Falls, however, involves many more actors and stretches chronologically into the 1990s. Using Niagara Falls as a case study, this dissertation project examines women's grassroots activism within Niagara Falls and the interface with a variety of "experts" – governmental, scientific, and medical – in battles over definitions of risk, the importance of professional knowledge, and public perceptions of Niagara Falls; community members' involvement demonstrated citizen agency and women's alternative activism as these groups affected policy decisions regarding the environment and public health.

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Niagara Falls itself becomes a metaphor for the American experience, as activists overcame their disappointment with public officials, disbelief in science and disappointment in the democratic process. At the beginning of the twentieth century, Niagara Falls seemed poised to combine a healthy, thriving chemical industry with the pristine natural beauty of the falls. The LaSalle neighborhood within Niagara Falls promised working- and middle class families in the 1950s, 60s and 70s the opportunity to buy their own homes and participate in the “American Dream.” After the discovery of the buried wastes, residents faced economic and medical uncertainty. Other events within American society – the Vietnam War, student democracy movement, women’s movement, and Watergate scandal – framed the discovery of the community’s toxic threat. Love Canal activists effectively used “local knowledge” to challenge the collected authority of the assorted experts, and effectively change public policy decisions. This Love Canal case study illuminates broader issues of risk, citizen participation, and state obligations within American society, as Love Canal residents presented a variety of arguments to justify relocation from the contaminated site. Community activism demonstrated the mixed legacy of America’s postwar social movements, showing ordinary citizen empowerment, continuing racism, and the tensions over the growing uncertainty of scientific knowledge and authority. As such, Love Canal activism challenges the assumption of the decline of social activism with the end of the Vietnam war, and suggests that social movements took on new forms and concentrated on different issues in their interactions to the state.

DEDICATION

This dissertation is dedicated to:
Jon Kenny and the Love Canal Residents
and Dolores Ann Huston Hay

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ACKNOWLEDGMENTS

Dissertation writers know they are working on labors of love . . . that require much blood, sweat, and tears (to invoke Churchill) in the making of the final creation. Dissertations, and their writers, also require much support and dedication from many others, who deserve to be recognized for their varying degrees of support. This dissertation writer, like so many before, owes many, many debts of gratitude that this brief space cannot begin to repay. It is the best available, however.

This dissertation started as a discussion with my advisor, Dr. Lisa Fine. But it also resulted from the relationship that existed before that. Lisa has been the very best professional, and personal, mentor I could be blessed with finding. She supported me when I was uncertain, always gave good advice (but only when asked), edited reams of rough, and very raw, drafts, and perhaps most importantly, helped me own the research I produced. I am very proud to have her as an intellectual preceptor, and am happy that her presence in my life will continue. The rest of my committee gave me support, advice, insight, and greatly improved the final work. Drs. Maureen Flanagan, Martin Pernick, Darlene Clark Hine, and Kirsten Fermaglich all helped me grow as a scholar throughout my graduate education. I have some small sense of the burdens graduate students place on their advisors, and can only be grateful that these individuals were willing to work with me. I am especially thankful that I had a committee that supported me despite an extended leave of absence. Their support made it possible for me to return to my graduate studies and complete this dissertation. I give a heartfelt “thank you” to them all.

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My dissertation research benefited in two other important areas: financial assistance and archival support. I owe thanks to the History Department, under chair Lewis Siegelbaum and graduate chair Leslie Moch, which provided a travel award to do research in Niagara Falls. The College of Arts and Letters, under the directorship of Dean Patrick McConeghy, awarded me two internal fellowships to research and write this dissertation, and their financial support was invaluable. When I began researching this dissertation, the archivists at the State University of New York at Buffalo provided essential assistance. Even more generously, Kathleen Delaney and Dan Dilandro helped make Buffalo a home for the seven months I lived there. Pat Virgil at the Buffalo and Erie County Historical Society helped me negotiate the archives there, and I appreciate her aid. The staff at the New York State archives made my trip there as painless as efficient, and painless, as possible.

Friends and family gave so generously to this very needy graduate student that I cannot begin to thank them, and can only barely acknowledge all their help. Gabriela Sota Laveaga asked a crucial “Do you have dedicated writing time?” that pushed me to start writing. Friends let me talk incessantly about toxic chemicals, and took me to many movies, dinners, vacations, and entertainments that kept me sane in an insane world. Among these generous individuals were Patti Rogers, Elizabeth Demurs, Jen Fleming, Stuart Willis, Joe Genetin-Pilawa, Grace Legaspi, Jill and Joe Grimes, and Corinne Heinen and Patty Gibbs. Kirsten Fermaglich spent countless hours reading bad drafts, provided many Kleenexes and chocolate, and is still my friend. (She even lent me Cleo, and our walks on the sidewalks of East Lansing provided much needed exercise, and even more happiness in Cleo’s calm presence.)

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Meeting with Julia Woesthoff for coffee, a movie, a talk in the halls always helped raise my spirits, and our discussions about our work made my dissertation much better. Dawne Curry and Piril Atabay deserve special recognition for all their support as patient roommates to a grumpy, tired, cranky, teary graduate student. They especially heard all my incoherent thoughts about this project and helped me make sense of it all. Piril made me feel welcome when I came back to East Lansing, helped me move across the country when I left it. Her support and generous heart really know no bounds. My friend Susan Kroeg gave me so much good advice (including a notebook to write down when I actually worked on my dissertation), emotional support, patience, tough love, and good company that she's stuck for life: no way will I let her disappear now. Equally patient, supportive, and intellectually challenging, her husband Brad Wood deserves special thanks for sharing Susan at critical moments (dinner, basketball games, movies), as well as offering his own words of support and good sense. They shared their families with me as well, and the holidays I spent with Donna and Bill Kroeg and Roger and Jane Wood were much appreciated. I thank all of them for being such good and generous people. My family also gave much emotional and financial support. My mother Dolores and father Arthur both died before this project was completed. I hope they are proud. My sister Cris and brothers Bill, Scott, and Jim all supported this crazy endeavor, even when they were unsure what I was doing, and I am glad for our links of blood and love. I hope my nieces (Sydney, Bridget, Claire, Meagan, and Lily) and nephews (Andrew, Caleb) will all be proud of their aunt someday too. We'll see.

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Lastly, I would like to thank all the individuals connected with Love Canal. So many people – residents and public officials, concerned neighbors of nearby communities, and even people on the national level – suffered in trying to address this terrible disaster. Telling their stories placed a great burden on me, and I hope I got it a little bit right at least. I am happy to play a small part in recovering their lived experiences, and making them known to a broader audience. They deserve much respect, and writing about their actions at Love Canal made me use all the scholarly skills, human compassion, and simple wisdom that all good historians learn to bring to their topics.

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Chapter One

“A New Species of Trouble” Introduction to the Love Canal Chemical Disaster

“Love Canal Declared Clean, Ending Toxic Horror” proclaimed the March 18, 2004 front-page New York Times headline. The article reported that one of the country’s first toxic waste site eligible for Superfund monies, a 1980 federal program that targeted polluted areas for federal aid in removing wastes and restoring land, appeared “clean enough to be taken off the list.”¹ Twenty-five years earlier, a best-selling exposé had described the “toxic horror” in one Love Canal family’s basement as “a strange black sludge bleeding through the basement walls . . . [n]othing could stop a smell like that of a chemical plant from permeating the entire household, and neighborhood calls to the city for help were unavailing.”² For various groups – area residents, activists, observers – Love Canal came to hold meaning as both a physical place, the abandoned canal site used to bury chemical wastes, and as experience, primarily a series of events that took place over approximately three year period, from 1978 to 1980.

Love Canal’s physical space resulted from a failed economic venture. In the late-nineteenth century, Niagara Falls entrepreneur William Love started a canal project to link different elevations of the Niagara River, producing cheap electrical power in the process. The economic crash of 1893 and development of other power sources led to the project’s abandonment. Even after Love’s business failure, Niagara Falls remained a vibrant city at the turn-of-the-century. Long known for its natural beauty and a popular tourist destination throughout the nineteenth and twentieth centuries, the city contained a growing

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chemical industry. The availability of cheap power, generated by the Falls, attracted manufacturers like Union Carbide, DuPont, Olin Mathieson, and a homegrown company, Hooker Chemical, to the area since the early twentieth century. Starting in 1920, Hooker Chemical, the City of Niagara Falls, and other chemical companies dumped their wastes in the clay-lined canal site for several decades. Hooker Chemical exclusively used the site for dumping after it purchased the land in 1943. In 1952, Hooker Chemical sealed the dump site and sold the property to the Niagara Falls Board of Education, and the site became the source of ongoing resident complaints, with the majority of complaints centering on leaking chemicals and noxious odors. The Board proceeded to build an elementary school on the property, and the location attracted real estate developers who built suburban housing. By the early 1970s, the last of new housing developments built in the LaSalle neighborhood were sold. When scientists with the United States Environmental Protection Agency (hereafter the EPA) detected pesticide pollutants in Lake Ontario in 1977, they traced the contamination back to the chemicals buried in the middle of the LaSalle neighborhood. Few expected the next development: LaSalle area residents became politicized and with other community activists demanded state intervention in the now recognized crisis. Beginning in the summer of 1978, the mostly working-class residents united, fought, and eventually won a state buy-out of their homes and relocation of approximately 900 families. This series of events also became known as Love Canal, one of the country's first attempts to deal with chemical wastes, what sociologist Kai Erikson called "a new species of trouble." This Love Canal's meaning remains elusive, even until today.³

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Love Canal became one of the best-known environmental disasters of the late-twentieth century, and represented a signal event in American history. The commonly accepted account of events, known simply as Love Canal, encapsulated a mythic American story: aggrieved, honest citizens fighting big government and business to protect their families and homes. Contemporaries, societal critics, and later scholars imbued the events of Love Canal with sometimes overlapping and sometimes contradictory meanings. Love Canal became a rallying cry in the emerging environmental justice movement, although that movement became more closely linked to issues of race.⁴ Two contemporaneous accounts focused on residents' politization and interactions with the state. One woman, Lois Gibbs, emerged as the major leader of the most prominent community group. Her memoir, Love Canal: My Story, served as a public memory of the disaster and supported her later environmental activism in grassroots community organizing against other hazardous wastes. One of the other best known Love Canal accounts came from a scholar living nearby. Dr. Adeline Levine, a sociologist at the State University of New York at Buffalo, conducted a study of residents' activism and wrote about it in Love Canal: People, Politics and Science, published in 1982. Her study indicted state government for its failure to adequately respond to residents' needs, and she charged that the cost of cleaning up toxic wastes, coupled with concern over the precedence the disaster would set, sentenced Love Canal residents and their advisors to a long, protracted fight for their basic rights.

Other scholars used Love Canal as a case study to examine policy, knowledge, and women's activism. Allan Mazur focused more closely on the tension between scientific

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truth and political decisions in his work on Love Canal, A Hazardous Inquiry: The Rashomon Effect at Love Canal. Mazur's work explored why one specific account, resident and activist Lois Gibbs', became the accepted Love Canal story. Other sociologists, including Phil Brown, Steve Kroll-Smith, and Steven Crouch used Love Canal as a case study example of the social construction of scientific knowledge and the new responses citizens took in challenging scientific and medical authority.⁵ Finally, feminist scholars viewed women's activism at Love Canal as evidence of a new kind environmental philosophy, eco-feminism, that challenged the patriarchal subjugation of nature and women. Carolyn Merchant's Earthcare: Women and the Environment represents the most prominent of these works. Ongoing historical studies of Love Canal consider it within a long-term historical environmental perspective and examine its gender dynamics.⁶

This study places Love Canal within a broader historical context of America in the 1970s. It considers issue of risk, expertise, and the ways in which a chemical disaster and interactions between ordinary citizens and public officials showed the mixed legacy of America's postwar social movements. The Love Canal chemical disaster was more than a simple story of community empowerment. The disaster resulted from a century of technological progress that produced the chemical wastes buried in the canal. The manufacture of numerous consumer goods, used as the Dupont slogan proclaimed in making "better things for better living through chemistry," and from pesticide and herbicide production that ensured abundant food supplies, carried unforeseen risks.⁷ Love Canal brought together various groups composed of residents, community activists, and

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public officials who contested the meaning of scientific authority, the role of government, and what this chemical disaster meant for the broader society. These conflicts created new challenges for those in power, forcing officials to pay attention, for the first time, to working-class whites, minorities, and women. Examination of the Love Canal disaster allows insight into the ways postwar social movements affected existing social thought and institutions, along with the ways citizens and government changed in response to the problem. In this sense, Love Canal is a case study that illuminates historians' attempts to wrestle with an appropriate periodization and paradigms for understanding post-1945 America.

Historians' narrow focus on what groups composed the 1960s New Left has obscured significant issues. Instead of one solitary group, the Students for a Democratic Society (SDS), many postwar social movements were interconnected. At the same time, using SDS as the paradigm social movement misconstrues the 1960s as a story of declension. It also misses a fundamental reshuffling of Americans' thinking and politics. In his essay, "A Movement of Movements: The Definition and Periodization of the New Left," historian Van Gosse builds on newer historiography that questions previous scholarship that attempted to chronologically constrain the New Left within the 1960s and reduce it to a mainly white student movement centered within the group Students for a Democratic Society (SDS). This narrow definition omitted other important mass movements attempting to achieve civil rights, such as those led by "African Americans, Puerto Ricans, Chicanos, Native Americans, Asian Americans, women, gays and lesbians, poor people, prisoners, pacifists, anti-imperialists, and others . . ."⁸ Responding to Gary

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Gerstle and Steve Fraser's edited collection called The Rise and the Fall of the New Deal Order, 1930-1980, Gosse challenged the existing periodization that marked the 1980s as the end of the New Deal and the beginning of the conservative backlash.⁹ He suggested, instead, a more inclusive view of postwar social movements that highlighted their interconnectedness rather than their fractures. In Gosse's periodization, the New Left's influence expanded chronologically beyond the narrow confines of the 1960s, starting with the 1950s Civil Rights movement and extending into the changed political landscape of the 1970s and 1980s. In an influential 1996 work, The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit, historian Thomas Sugrue marked the end of the New Deal in 1968 with the Detroit race riots rather than 1980, supporting Gosse's contention. Sugrue cogently argued that Americans contested what kind and who would receive the benefits of New Deal liberalism. Gosse's "movement of movements" helped reshape the contours of the political playing field, shifting the fundamental issues Americans fought over. More recently, Lisa McGirr identified 1964 as a key moment in the rise of the New Right, several decades before Ronald Reagan's election in 1980.¹⁰ This historical rethinking has important consequences for how 1970s America should be understood.

Historical scholarship had already begun challenging the focus on SDS as the singular New Left group of the postwar period. As early as 1979, with the publication of Personal Politics, Sara Evans showed the connections between the Civil Rights movement, the New Left, and the women's movement.¹¹ In his essay, Gosse echoed questions that Wini Breines raised concerning the use of SDS as the paradigm of New Left activism.¹² Gosse credited historical works on the Civil Rights movement and black politics as

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counter examples to such thinking. Women's history, too, has presented a strong challenge to narrowly defining the New Left and SDS as the paramount social movement of the postwar period. Other scholars continued Evans work on the interconnections between Civil Rights and other social movements, up to the most recent scholarship which includes Barbara Ransby's 2003 biography of Ella Baker.¹³ Wini Breines' and Alice Freeman's work on women's involvement in the New Left also offered a corrective to the narrow focus on male activists, while Daniel Horowitz' biography of Betty Friedan examined the influence of labor radicalism on Friedan's later leadership of the women's movement.¹⁴

The reduction of the New Left to SDS shaped historical understandings of the 1960s and what happened after in another unfortunate way, making it into a story of decline. Historian Richard Moser identified the historical trend of making the 1960s an idyllic moment ended by the conservative backlash of the 1980s: "The reigning historical accounts explain the [1960s] as a utopian moment in which America's rebellious sons and daughters strove for authenticity and sought to perfect the world with moral and political ideals that envisioned an almost apocalyptic change."¹⁵ The story became one of "declension" wherein the promise of the 1960s social change was lost after 1980 in a conservative backlash.¹⁶ This Love Canal case study supports a more nuanced examination of the 1970s, using an understanding of history that Moser describes in terms of "transformation and reconstruction." In this vision, the process of historical change proceeds "as the play between continuity and discontinuity or between tradition and

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innovation.”¹⁷ Moser went on to argue that tradition in this sense becomes part of the tension from which new consciousness emerges and change occurs.

Historians have begun examining the 1970s as a distinct historical moment as well. Contemporaries judged the decade as self-indulgent and disillusioned, a turning away from the idealism of the 1960s. An emerging reassessment of the 1970s suggests that this was the decade where ordinary Americans grappled with the changes in politics, culture, and everyday life instigated by various postwar social movements. Arthur Stein sought out the positive legacy of these social movements in his early examination of the 1970s, Seeds of the Seventies: Values, Work, and Commitment in Post-Vietnam America. Other scholars have offered a more mixed opinion of the changes wrought by such social movements.¹⁸ Much research has begun assessing changes specific to the 1970s themselves. The most significant of these works, Bruce Schulman’s The Seventies: The Great Shift in American Culture, Society, and Politics, argued for the “southernization” of American society, a process closely connected with two major changes in America that occurred during the 1970s: an emphasis on free markets, and a retreat to the shelter of home and family. An essay collection edited by Beth Bailey and David Farber also examines new phenomena that emerged in 1970s America like skate and punk, technology, and new understandings of sexuality, race, and the role of America within the world.¹⁹ This study of Love Canal looks at the ordinary people initially left out of many of these cultural and economic shifts, such as the relocation of industry to the South, but still affected by them. One major change within American society visible in the 1970s was the environmental movement, which many saw as the major legacy of ‘60s idealism.

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The Love Canal chemical disaster followed a new environmental awareness that emerged in the early 1970s, and a study of the disaster furthers changes within environmental history that consider the urban landscape. Already begun in Samuel Hays' Beauty, Health, and Permanence (1987), environmental historians identified the post-1945 period as demonstrating different understandings of the environment.²⁰ While examining postwar environmental policy, Hays' work connected postwar environmentalism with the environmental activism of the Progressive Era. His work also noted an important change in the way Americans understood human beings relationship to the environment from one of conserving natural resources to preserving them. William Cronon's Nature's Metropolis: Chicago and the Great West represented a major work integrating human action within the field of environmental history. In response to criticism of Nature's Metropolis, Cronon wrote an even more influential essay that reshaped the fields of both urban and environmental history. In "The Trouble with Wilderness: or Getting Back to the Wrong Nature," Cronon criticized environmental historians' narrow focus on "pristine nature" that typically left human beings out of their historical examinations.²¹ This essay paved the way for new historical examinations of the urban and suburban environment, such as Andrew Hurley's work on Gary, Indiana, Adam Rome's consideration of suburbia and environmentalism, and Maureen Flanagan's study of women's differing understandings of the urban city.²² Both Flanagan and Rome, in his essay on the 1960s and the environmental movement, discuss middle-class women's environmental activism as well.²³ This Love Canal study advances these studies, and explores new ground: the health and environmental activism of working-class women in the 1970s.

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Scholars have marked the 1970s as an important break in the twentieth century. Here, the Love Canal chemical disaster provides a historic case study showing the beginning of a postmodernity characterized by changed economic structures, challenges to scientific authority, and the hazardous legacies of industrial society. Two significant social theorists identify the 1970s as key moment in the shift from modernity to postmodernity. In his work, The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change, social theorist David Harvey identified 1972 as the point when a postmodern age began. As part of his discussion postmodernity, Harvey examined both “time and space as sources of social power.”²⁴ Generally, capital held the advantage in setting the standard measures used by society, such as the manipulation of time as seen in something like the ten-hour workday. In the past, capital also had an advantage over labor with regards to the control of space, which Harvey distinguished from place. Working-class people typically made strong stands against capital based in certain locales, like Seattle’s general strike in 1918, the Flint strike in 1933, and to the 1960s urban unrest.²⁵ The importance of space and place at Love Canal lies with residents’ ability to make their particular struggle connected to a distinct place a universal struggle connected to a perceived right, the obligation of the state to protect its citizens, and a challenge to capital’s control over space. Residents achieved a social movement that Harvey described as having “the aim of liberating space and time from their current materializations and constructing a society in which value, time, and money are understood in new and quite different ways.”²⁶ Even as capital altered its relationship to space, however, Harvey

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argued that changes in capital such as flexible accumulation did not signify a postcapitalist or postindustrial society.²⁷

The continuation of a capitalist system in this postmodern condition still carried consequences observed by other social critics. In Risk Society: Towards a New Modernity, social theorist Ulrich Beck argued that in the 1970s human societies moved from an age of modernity anchored in the capitalist industrial society to an age marked by risk. Beck's provocative work argued that human beings were moving beyond modernity to another stage, which he called "reflexive modernity." Just as industrial society replaced the hierarchal power of birth and church with that of science and technology, now these categories of power were being replaced. Beck noted the tension in industrial society between the underlying premises of modernity like "civil rights, equality, functional differentiation, [and] methods of argumentation and skepticism," and the fragmentary and incomplete realization of these ideals.²⁸ Modernization brought about industrial society, and Beck's reflexive modernization brought about a new kind of society, a "risk society." If industrial society's capitalism sought to legitimize the unequal distribution of wealth in a society of scarcity, risk society addressed the distribution of modernization's hazards. Beck defined risk as the "systemic way of dealing with hazards and insecurities induced and introduced by modernization itself."²⁹

Beck described the risks of this reflexive modernity as not necessarily new, but definitely changed. The idea of risk itself no longer carried connotations of bravery and adventure, but now implied global dangers. He contrasted the previous ills of industrialization with the current ones: "It is nevertheless striking that hazards in those

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days assaulted the nose or the eyes and were thus perceptible to the senses, while the risks of civilization today typically escape perception and are localized in the sphere of physical and chemical formulas (e.g. toxins in foodstuffs or the nuclear threat).”³⁰ The chemical wastes found in Niagara Falls fit Beck’s definition of this new kind of risk. The 22,000 tons of chemicals dumped in the old canal site included polychlorinated biphenyls (PCBs), benzene, toluene, lindane, and dioxin. All of these organic or semi-organic chemicals are odorless, long-lasting, and harmful in small quantities. These new environmental risks elude detection in a way that previous pollution risks like smoke and fouled waters did not. Unlike the sanitation challenges of the late-nineteenth and early-twentieth centuries, the chemical wastes buried at Love Canal presented public health with a difficult challenge as officials tried to understand and manage the risks the chemicals presented. Love Canal’s leaking chemicals were first discovered in Lake Ontario, and held the potential of polluting the other Great Lakes. Further investigations showed not only the canal dump, but multiple sites of contaminated land spread all over the Buffalo-Niagara Falls metropolitan area. Love Canal fit, more or less, with all of the five claims Beck made about risk society, particularly those concerning knowledge. Chemical wastes posed risks “that generally remain invisible, being based upon causal interpretations, and thus exist only in terms of the scientific/anti-scientific knowledge about them [making] them particularly open to social definition and construction.”³¹ Love Canal especially demonstrated Beck’s claim that the dangers of risk society, like a toxic spill, present the “political potential of catastrophes” which can lead to the “reorganization of power and authority.”³² The fundamental question in risk society, as science policy analyst Sheila

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Jasanoff correctly identified, lies with decisions about not only illness and death, but also how and who experiences these events, and what does it mean to live with uncertainty and ignorance about our surroundings.³³ Love Canal marked the beginnings of this changed consciousness.

Both Harvey and Beck identify the 1970s as a key moment in the emergence of postmodern society. Harvey actually gives a year, 1972, wherein capitalism assumed new forms and contemporary culture shifted. Beck identifies the 1970s as the moment where recognition of risk as the defining element of what he calls reflexive modernity. One contemporary source published in 1977, Edward Lawless' Technology and Social Shock, marks the 1970s as a moment when Americans' consciousness of risk began to change. In his book Lawless examined several case studies dealing with current technological problems and their coverage in the news. Lawless identified the public alarm over various technological hazards as 'social shock' and considered the ways these episodes were covered by the media and perceived by the general public.³⁴ Because of the unknown risk posed by the leaking chemicals and the extensive media Love Canal received, it resembles the case studies collected by Lawless. Scientific and medical professionals increasingly used the concept of risk and risk assessment from the 1970s onward.³⁵ These characteristics also distinguish Love Canal from other cases of urban environmental pollution that historians have studied. In 1970s America, political malfeasance demonstrated another upheaval of traditional hierarchies of power. The 1974 Watergate scandal precipitated Americans' loss of confidence in government, and negatively shaped citizens' relationships with public officials. Shocked by the country's failures abroad, in

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Vietnam, and at home, Americans in the late 1970s struggled to reconcile previous assumptions.

Niagara Falls' residents routinely accepted the pollution in their homes and workplaces caused by the city's chemical companies, but their attitudes changed after Love Canal. Unlike the response of Progressive reformers at the turn-of-the-century, most working-class whites and minorities sporadically fought to improve their polluted environments but experienced little success in cleaning up their cities.³⁶ Residents accepted their polluted cities in part because they associated the pollution with good jobs and homes and accepted the perceived trade-off. Psychologist Michael Edelstein interviewed Niagara Falls' residents and noted that prior to Love Canal residents had normalized living in their industrial setting, that their city's pollution composed an accepted, if not acceptable, part of an "industrial landscape."³⁷ After the Love Canal disaster, residents viewed their surroundings as a "contaminated landscape," one in which they refused to accept the associated risks. The dramatic 'discovery' of Love Canal changed residents' understandings of the risk posed by chemical wastes and increased their resistance to accepting such risks.

In his environmental study of Gary, Indiana historian Andrew Hurley delineated the "social geography of pollution" based upon class and racial inequalities between residents. One of the best postwar community studies of urban environmental pollution, Hurley's work explained the ways in which capitalism produced not only an uneven distribution of wealth, but an unequal distribution of harm.³⁸ The study provided historical proof of Beck's characterization of earlier pollution and the ways the wealthy tried,

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somewhat successfully, to avoid the hazards of modernization. As middle-class whites took advantage of postwar housing built in the environmentally cleaner suburbs, working-class whites and blacks both lived and worked in the most polluted parts of Gary. In Hurley's account of Gary, United Steel defeated a multi-racial and class coalition concerned with holding the company responsible for its pollution. Unlike Hooker Chemical, the corporate culprit of Love Canal, United Steel effectively used stalling techniques and poor economic conditions to resist city and state attempts to require new technology that would reduce its pollution. The difference between Niagara Falls appeared to be the framing of Love Canal pollution in terms of harm as identified and defined by residents themselves and the broader societal acceptance of residents' perceptions of risk and demand for state intervention.

This study considers the effect hazardous chemical wastes had upon a mostly working-class residential community in Niagara Falls, New York, and what this disaster meant for the community and the country. A brief overview of Love Canal begins with the mobilization of a mostly working-class neighborhood in a moderate sized city, Niagara Falls, New York. Residents demanded that the state buy their homes and relocate them away from the leaking toxic chemicals. State of New York authorities initially only relocated families closest to the canal, called inner-ring residents, in the fall and winter of 1978, a few months after becoming involved in the growing crisis. The remaining residents made a number of different arguments and carried out numerous public demonstrations to extend the borders of the evacuation area. In the process, one residential group – the Love Canal Homeowners' Association – became a model for

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grassroots organizing and effectively pressuring public officials to address environmental pollution. Women composed the most active members of the Homeowners' Association. Their visible involvement became a part of the successful script for mobilizing communities, and represents one of the best studied aspects of the Love Canal chemical disaster. Using their roles as mothers, news media coverage, and local knowledge of the area's geography and community, these women successfully forced the Jimmy Carter administration to help New York State to buy out the remaining residents' homes, those living in the outer-rings. The disaster and its handling also prompted Congress to amend 1970 environmental legislation and create a "Superfund" of monies designed to clean-up other environmental pollution around the country. This study places the disaster into an historical context, and seeks to answer a number of questions. What were the influences and consequences of the major postwar social movements – Civil Rights, student democracy, women's liberation – on Love Canal specifically and American society more generally? In what ways does the Love Canal story change if actors other than the Love Canal Homeowners' Association are added back into the story? What significance does a women's activism based upon a maternal identity have in a post-feminist society? In what ways were the rhetoric and actions of community activists effective? What are the consequences of those arguments and actions? What does Love Canal tell us about American society in the 1970s? How did Love Canal change American society?

The rest of this introduction examines two of the best-known groups of actors at Love Canal – the Love Canal Homeowners' Association and the New York State Department of Health – and their formation, leadership, and positions in the Love Canal

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crisis. It argues that deeper tensions than economics pitted these two entities against each other, as residents and public officials struggled to define the nature of the risk presented by the canal's chemical wastes and what constituted proper action. Chapter Two looks at the residents' initial claims for state intervention primarily based upon property ownership, and their disappointment at government's failure to respond. The chapter argues that this lack of response on the part of government can be seen in the hostilities between homeowners, who expected state protection of their property, and minority and senior renters living in a housing project located at the edge of the contaminated area. State indifference to residents' claims based on property-ownership meant homeowners made new arguments for relocation that are examined in Chapters Three and Four. Chapter Three examines residents' claim that the state was obliged to relocate them based upon the threat chemical wastes posed to families, reproduction, and homes. The evidence presented suggests that citizens' relationship with the state was shifting from one based upon the home as property to one based upon the home as the site of the traditional nuclear family. Love Canal's women led residents in demanding state public health officials protect their families, present and future, from the harm posed by toxic chemicals. Along with the threat to homes and families, residents made claims of expertise based upon local knowledge, which composes the subject of Chapter Four. The chapter argues that residents successfully challenged the Department of Health's scientific authority in defining what harm had been done. Love Canal residents' perceptions of risk became the accepted transcript of events. Contrary to later accounts, the Love Canal Homeowners' Association never explicitly argued for relocation on the basis of social justice. Chapter Five examines

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another community group that claimed state intervention on the basis of social justice, the Ecumenical Task Force. The chapter argues that it was this interfaith coalition that recognized government and corporations should be held responsible for aiding Love Canal residents based upon tenets of social and economic justice. The group also showed changes in religious understanding of the environment, and suggests some of the ways that the social movements of the postwar period went “underground,” appearing in new forms of activism. Finally, Chapter Six traces Love Canal’s political, cultural, and intellectual legacies. It argues that aside from initial cultural productions that more successfully captured the disaster’s apocalyptic aspects, the Love Canal’s influence on later political activism, cultural productions, and intellectual scholarship erased and replaced specific elements of the disaster, which altered the tragic and heroic lessons of Love Canal. The chapter also considers what meaning the Love Canal holds today.

* * * * *

“We are most willing to meet with the Grounds and Buildings Committee of this Board to help plan the play area. . . . The carrying out of these requests would create a healthy and safe play area for over 500 youngsters, who have no place to attain good clean recreation.”³⁹ Mrs. Edward Salerno, the chairwoman of the Playground & Recreation Committee for the 99th Street Home & School Association, made this plea in November of 1961. The Association wanted the area directly behind the school improved so it could serve as a playground. As Mrs. Salerno pointed out in her address, the group spoke not only as parents, but as property owners who wished that “school grounds meet the standards of our private homes and churches.”⁴⁰ By spring of the next year, the parents’

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dedicated efforts finally brought action and gave their children a demonstration in democracy at work. A Niagara Gazette article credited the parents' role as essential in the Board of Education's decision. Going beyond a letter writing campaign, Association representatives had met with the school's principal, school system consultants, and the city's director of parks and recreation. "In addition to meeting with various authorities," the article noted, "the group also made a neighborhood survey to determine how many youngsters would benefit from a playground."⁴¹ The Association's success proved to be an ironic one. Less than twenty years later the 99th Street School would be closed, and the surrounding neighborhood abandoned, as the result of actions taken by another group of concerned mothers. A dramatic revelation in the summer of 1978 alerted LaSalle neighborhood residents to a much bigger threat to their children's health – the presence of toxic chemicals leaking from a hazardous waste dump buried beneath the playground itself. These later LaSalle neighborhood mothers did much more than write letters and meet with public officials to protect their children from chemical wastes.

Many other things had changed within American society in the intervening years between 1961 and 1978, most particularly the emergence of social movements that altered the relationship between citizens and the state. The 99th Street Home & School Association mothers were possibly aware of the Civil Rights movement, but most likely not deeply involved. College students at the University of California at Berkeley, the University of Michigan, Columbia University and on other college campuses had yet to articulate their disappointments with American society and propose radical solutions. The Association women may have recognized some of the limitations of their individual lives,

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but would not have connected these problems to a systemic hierarchy of power based upon sex. Their school activism took place before Betty Friedan identified the suburban home as a “comfortable concentration camp” in her 1963 book, The Feminine Mystique and the subsequent women’s liberation movement. In 1961, LaSalle mothers may have worried about the nuclear arms race and its fallout, but they and their families were also enjoying America’s unprecedented postwar prosperity.

A new consciousness appeared to be the biggest change the Niagara Falls’ LaSalle neighborhood experienced between 1961 and 1978, but not necessarily one of societal inequalities. Instead, Niagara Falls’ residents slowly became aware of the multitude of hazardous compounds that surrounded them in their everyday surroundings. Postwar Americans knew about the horrific effects of nuclear radiation, and had debated the benefits of water fluoridation. In the 1950s and 1960s, grassroots organizations successfully lobbied on the local and federal level to alter public policy regarding water fluoridation and nuclear testing. Members of these movements worried about low-dose, long-term exposure to substances known to be harmful at higher doses.⁴² Rachel Carson’s cautionary tale published in 1962, Silent Spring, represented one of the best known warnings about the use of chemical pesticides and their harmful effect on the natural, and possibly human, environment.⁴³ In Niagara Falls, a new understanding of the possible harm the buried toxic chemicals represented came about primarily because of the efforts of one news reporter, and the determination of one LaSalle homemaker.

During the summer of 1978 the community slowly became aware of the buried chemicals. As late as the fall of 1978, many LaSalle neighborhood residents remained

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unaware of or unsure about the toxic chemicals hidden under the neighborhood. LaSalle resident Lois Gibbs' ignorance of the chemical dump in her neighborhood was typical of many residents. She credited her first awareness of the buried hazardous wastes to a series of articles written by Niagara Gazette reporter Mike Brown throughout the spring and summer of 1978. Like Gibbs, many residents dismissed the first articles, thinking that the dump site was located somewhere else in Niagara Falls. Some residents admitted they had known about the waste site, but not the chemicals, and still others claimed to have known about the presence of chemicals all along.⁴⁴ LaSalle residents paid more attention to Brown's reporting when EPA and New York State environmental engineers began investigating their neighborhood. Almost all of the residents agreed that they did not realize the dangers connected with the buried chemicals until the newspapers articles began to appear. Some residents even identified Brown as the "most important person in this whole melodrama, terrible tragedy, . . ."⁴⁵ Even when they knew about the chemicals, residents remained unsure of the risks these substances posed.

Awareness of the chemical contaminants buried within the neighborhood slowly led to residents questioning the area's experiences of ill health. Once she became aware of the buried wastes, Gibbs worried if the chemicals could be the cause of her son's illness, a concern that prompted her to speak to her neighbors. These contacts played a crucial role in the next step of the community's mobilization.⁴⁶ The Gibbs family lived on 102nd Street, several blocks from the canal itself. Unlike homes immediately surrounding the canal, none of the residents on the street had experienced the noxious odors, emerging barrels, oily, black liquid, or other physical signs of chemical contamination in their

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backyards or basements. Gibbs' son Michael attended the 99th Street elementary school which was at the center of the contaminated area. When she learned about the chemicals, Gibbs wondered if they could be affecting her son's health. Michael suffered from epileptic seizures, with no family history to explain his condition. Gibbs contacted the school principal and requested Michael be transferred. The school official denied her request on the grounds it would set precedent allowing other children experiencing unexplained illnesses to leave as well. Gibbs realized that it would take community pressure, and worked up her courage to get petition signatures to close the school, since "[o]ur children's lives were being threatened."⁴⁷ Concern for her son's health gave her the courage to approach neighbors about the possible dangers of the toxic wastes in their midst.

Gibbs appeared as a typical suburban homemaker and mother when she began contacting her neighbors about the petition, and this role provided the foundation for the community's mobilization. She went from house to house, talking with people in their homes, explaining how she understood the implications of the newspaper stories.⁴⁸ These contacts occurred in normal, everyday settings, and they allowed Gibbs' one-on-one contact with the wider neighborhood. Starting with her friends, Gibbs "went to the back door, as [she] always did when [she] visited a neighbor."⁴⁹ Gibbs literally mobilized the community over their kitchen tables and slowly recruited other women in the neighborhood to help. Debbie Cerillo, a friend from high school helped gain signatures for the petition.⁵⁰ Another mother, active at the 99th Street School, met Gibbs' there and joined the petition campaign. She described her experience: "She [Gibbs] really got me

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into it, got my curiosity going and really getting me concerned and we went knocking on doors getting people to sign, . . . ”⁵¹ One woman became involved because her mother lived next to Gibbs and conveyed the daughter’s offer of help.⁵² Many women considered such activities as their contribution to the family, a natural sexual division of labor within the family.⁵³ The neighborhood women in particular became essential links in the community’s growing awareness of the chemicals. One young mother described her first meeting with Gibbs at a neighborhood playground. Gibbs appeared with her own children and began to talk to the woman about neighborhood concerns over the chemicals. The LaSalle woman’s description of the meeting gave a sense of how these community encounters might be initiated, with Gibbs’ own role as a mother an essential part of the interaction. Gibbs herself noted that people told her about their illnesses, that “people would tell [her] *their* troubles.”⁵⁴

Lois Gibbs’ concern mobilized LaSalle mothers and their subsequent politicization followed in a long tradition within American history. Motherhood represented an important role and useful category of activism from the American Revolution onward.⁵⁵ Throughout the nineteenth century, women identified themselves as mothers and justified their public activities on that basis.⁵⁶ Motherhood represented an especially powerful role at the turn-of-the-century, as women addressed the social evils of alcohol, urban pollution, and women’s labor conditions.⁵⁷ Important health and social welfare programs recognized the state’s responsibility to mothers and children as politicians responded to the enfranchisement of women.⁵⁸ During the 1930s, women reformers influenced New Deal welfare policies and activists used their role as mothers and consumers to protest food

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costs.⁵⁹ In postwar America, women continued to mobilize around the role of motherhood, and mothers played crucial roles in the Civil Rights, anti-nuclear, and anti-war movements. Poor women united to demand better housing and welfare policies.⁶⁰ Motherhood became a contested category within second-wave feminism, as liberal and conservative women fought over which group best represented mothers with respect to reproductive rights, the Equal Rights Amendment, and work conditions.⁶¹ In 1978, Gibbs' and the other Love Canal women's health and environmental activism marked one of the first manifestations of activist mothering after the women's liberation movement of the late 1960s and 1970s. Gibbs identified her own political activism as rooted in her strong identity as a mother worried over her children. "They made a conscious decision that it was OK to make my child sick," Gibbs noted when describing her anger at public officials' refusal to help residents.⁶²

As she went from home to home, Gibbs built a network of concerned neighbors. In getting petition signatures, Gibbs became aware of previously unrecognized health problems: families in house after house in the streets surrounding the canal had experienced unexplainable illnesses, including miscarriages and birth defects. What had initially been twenty-five minute visits grew to stays of an hour or more, as Gibbs answered residents' questions. People became even more curious after a June meeting with the New York State Department of Health, where they were advised not to eat vegetables out of their garden. Public health warnings fanned residents' worries, which deepened the more they learned.

Gibbs proved crucial in linking community residents with informed outsiders who provided important support. As one resident expressed it, Gibbs “had a lot of connections to get this thing going and people didn’t realize how many people she knew, and all the right people.”⁶³ Two individuals in particular became essential resources to both Gibbs and eventually the Homeowners’ Association – her brother-in-law, Wayne Hadley, and the woman he introduced Lois to, a research scientist named Dr. Beverly Paigen. Hadley taught biology at the State University of New York at Buffalo. Gibbs routinely babysat for Wayne and her sister Kathy in her LaSalle area home. Hadley’s scientific training and personal experiences as an environmental activist greatly contributed to Gibbs’ development as a community leader.⁶⁴ Hadley “translated” the list of chemicals detected by air tests that Gibbs and other residents received from the New York State Department of Health in June. Paigen, a researcher at the Roswell Park Memorial Institute – Buffalo’s premier cancer research center – also helped residents understand the scientific information collected. She, too, had scientific training and an activist past, having served as the director at the University’s Rachel Carson School, an undergraduate program that encouraged the awareness and study of environmental problems.⁶⁵ Hadley tutored Gibbs on how to negotiate the system – public appearances, politicians, the press – while Paigen provided information and long-term support. Gibbs herself also took the initiative to meet state officials handling the situation. Actions by taken by the New York State Department of Health also helped mobilize the community.

The New York State Department of Health only became involved at Love Canal after the local government and county health department failed to respond to the disaster.

The federal EPA detected Mirex, an organic pesticide, in Lake Ontario in 1976. The New York State Department of Environmental Conservation traced the chemical back to one source, a dump located at 102nd Street in Niagara Falls. Hooker Chemical and the Olin-Mathieson Company jointly used the site, and both denied depositing Mirex there. Concurrent with Mirex investigations, the Niagara Gazette published a story exposing the chemicals buried in the Love Canal site. By 1977, the city of Niagara Falls hired an outside consulting firm, Calspan Corporation, which offered a plan to reduce groundwater contamination in the LaSalle neighborhood. Concerned over costs, the city eventually decided not to act, and by the spring of 1978 the state Department of Health was the lead agency investigating the disaster..

Public officials recognized the unique problem the buried hazardous chemicals presented almost from the beginning. In April of 1978, David Axelrod, head of the laboratory division, urged Commissioner of Health Dr. Robert Whalen to take action after Axelrod realized that the samples analyzed at the state lab were from a residential area. Whalen visited the site in April of 1978 and witnessed the smelly leaking barrels and chemicals rising to the surface. He issued a series of health directives to the Niagara County Health Department.⁶⁶ The Niagara area public officials responded slowly and ineffectually, offering cheap fans to help with ventilation problems and delaying the erection of a fence around the canal.⁶⁷ This response typified the lack of action the Niagara County Health Department displayed all along. As early as 1954, the department received at least nine complaints about Love Canal chemicals. In response to residents' continuing complaints, the department's only discernible action consisted of dumping dirt

over exposed chemicals. The Niagara County health department also failed to communicate with any state agencies about the status of the dump.⁶⁸ Even after the department fenced the area off, children still played on school grounds all summer and continued to use the space as a part of their private recreational activities.⁶⁹ At the same time, the local press – especially reporter Mike Brown – intensified their coverage of the growing list of problems. Eventually, after an EPA report suggested potentially serious health consequences, state public health officials met with residents to discuss the situation.⁷⁰

An emergency declaration by the Department of Health provided the catalyst in the formation of the Homeowners' Association. Department officials scheduled a meeting to discuss what should be done about the chemical contamination at the canal on August 2. Gibbs, her husband Harry, and Debbie Cerillo drove from Niagara Falls to the state capital, about a five to six hour drive. Those attending the meeting included public health officials, consultants, other LaSalle area residents, and reporters, including the Gazette's Brown. Once there, Department of Health Commissioner Robert Whalen proclaimed an emergency health declaration, recommending that all pregnant women and children under the age of two leave the area. The declaration shocked the LaSalle neighborhood representatives. Gibbs remembered her brother-in-law's admonishment that the press would be there for only the first fifteen minutes of the meeting and immediately challenged the gathered officials. Dr. Nicholas Vianna, the DOH medical investigator, told Gibbs he had found no evidence of "abnormalities" present in the wider neighborhood, in the examinations of residents done by the Department of Health since

June. Gibbs countered that she knew of at least five crib deaths “just by walking around, and [she] wasn’t doing a health survey . . . [she] had found sick people all around the canal.”⁷¹ Vianna advised her to enlist residents’ cooperation in filling out health surveys, to “push the residents” if she wanted to get anything done. The Niagara Falls contingent left, angry, frustrated, and concerned about the safety of their homes and families.

While Gibbs and Cerillo both challenged public officials at the Albany meeting, residents in Niagara Falls responded to the emergency health declaration. Gibbs, her husband Harry, and Debbie Cerillo arrived in Niagara Falls the same evening of the public meeting. Once there, they found a panicked group of residents, milling about the street “screaming, yelling and talking – and burning papers in a bucket.”⁷² Resident Tom Heisner, nominally in charge of the crowd, called for Gibbs to speak about the Albany meeting even as he encouraged the crowd to burn their mortgages and tear up their tax bills. Gibbs spoke to the crowd, her first of many speeches about Love Canal.⁷³ Gibbs described the meeting events and explained the emergency health order. Women and children were being evacuated because public health officials detected an increase in miscarriages and birth defects. Gibbs told gathered residents the reason more people could not be evacuated was that “the data were insufficient, according to Dr. Vianna.”⁷⁴ She urged the crowd to tell the state medical investigators everything, from increased pimples to colds and headaches, conditions Paigen had alerted her might result from chemical exposure. Women asked about what had been done to their children, what might happen. Residents expressed fears about leukemia and crippling diseases, questions all beyond

Gibbs' ability to answer, and with no public health representatives present. Residents organized in response to their perceived abandonment by public officials.

Within days of the initial health declaration, residents formed a citizens' group to pressure public officials to address the neighborhood's recognized chemical contamination. Public health representatives appeared at a tense and emotional public meeting in Niagara Falls on August 3, the day after Commissioner Whelan issued the emergency health order. Residents almost erupted when they learned that only families with pregnant women or children under two would be relocated from the area and were given no real explanation of what risks they faced. Gibbs demanded to know why New York State Governor Hugh Carey was absent from the meeting. The next night, August 4, at a public meeting held at the Frontier Fire Hall, the members of the newly-formed Love Canal Homeowners' Association elected their officers: Lois Gibbs as president, Tom Heisner as vice-president, Karen Schroeder as secretary and Debbie Cerillo treasurer.

Residents held different opinions about how the extent of chemical contamination and how to handle the problem of leaking chemicals. After reporter Mike Brown's articles began appearing in the Niagara Gazette, resident Karen Schroeder called U.S. Congressman John LaFalce's office. Schroeder also attended the Department of Health meeting in Albany, but evidently did not speak at the gathering. Gibbs later suggested that Schroeder had connections to Hooker Chemical, making her suspect. At the very least the two women viewed the issue of relocation differently.⁷⁵ Schroeder emphasized the concerns of the residents living immediately next to the canal, while Gibbs and her allies defined the area more broadly, as "from 93d and 103d streets and Buffalo Avenue to

Bergholtz Creek . . . [t]hese were natural boundaries that made sense to everyone.”⁷⁶ Of the north-south boundaries of the area Gibbs identified, geographic features did provide natural demarcation. Defining the east-west boundaries, from 93rd to 103rd Streets, created tensions within the Homeowners’ Association. The inclusion of more homes potentially decreased the chance of state intervention, as the costs rose with the number of families affected. Both Schroeder and Tom Heisner owned homes directly by the canal and they attempted to set up an action committee to address the needs of residents immediately abutting the canal. They were expelled from the Homeowners’ Association, whose general membership worried that public officials might ignore residents’ concerns about their safety and the value of their homes.⁷⁷ New York State officials’ immediate response justified these fears.

At the same time community residents were organizing, public officials addressed the problem cautiously, and made residents’ relocation conditional upon medical proof of harm. A day after the organization of the Homeowners’ Association, Bill Wilcox of the Federal Disaster Assistance Administration (now the Federal Emergency Management Agency, or FEMA), toured the canal site, along with Congressman LaFalce. By August 7, New York State Governor Hugh Carey came to Niagara Falls for a public meeting. Before that general meeting, Carey met with Gibbs, Hadley, Heisner and Schroeder at a private meeting at the 99th Street School. Here the LaSalle residents told him that they feared that their families were being harmed. At the later meeting, speaking to a large crowd and covered by the media, Governor Carey told residents that New York State would buy the houses closest to the canal, and reimburse residents for their furnishings. When residents

from the wider neighborhood questioned the Governor whether they could be moved, he replied that if health problems or contamination could be proven beyond the inner rings of homes, that these houses would be bought as well.⁷⁸ Although state officials acted quickly once they recognized the problem, their solution left much to be desired.

The preliminary health study results, an angrily mobilized community, and election year politics all combined to ensure at least some residents would be relocated. Health Commissioner Robert Whalen issued the emergency declaration once Department of Health epidemiologists detected an increase in miscarriages and birth defects within families living closest to the canal. Gibbs had spoken several times about more widespread illnesses within the community.⁷⁹ Governor Carey's absence at the initial meetings angered residents, many who thought he only came later because it was an election year. While anger at government officials like Carey united residents, the identification of an arbitrary line of contamination provoked full mobilization and commitment to the Homeowners' Association.⁸⁰ With a boundary that marked some houses as "inner ring" – those directly abutting the canal and across the street – and "outer ring" – which consisted of the surrounding neighborhood, official actions played a part in creating a group consciousness and identity among residents.⁸¹ Perceptions of official stonewalling and indifference to outer ring residents' suffering, coupled with the arbitrary designation of the contaminated areas, served as the basis of community activism for the next twenty-two months.⁸² Residents used a number of different arguments in making their case for state intervention. The next chapter considers 1970s

Niagara Falls' economic conditions and race relations. It argues that residents made their initial claims for state intervention on the basis of property ownership, which revealed itself to be a flawed strategy. It suggests that citizens' relationship with the state shifted from one based on their status as property owners to one based upon the home as the site of the traditional nuclear family, and one threatened by a new species of trouble.

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62. Sharon M. Livesey, "Organizing and leading the grassroots: An interview with Lois Gibbs, Love Canal Homeowners' Association activist, founder of Citizens Clearinghouse for Hazardous Wastes, and executive director of the Center for Health, Environment and Justice," Organization & Environment, 16, no. 4 (December 2003), accessed on Proquest January 29, 2004, 8: 488-503.

63. Interview 112, Levine Collection.

64. Adeline Levine, Love Canal: Science, Politics, and People (Lexington: Lexington Books, 1982), 32. Levine notes that Hadley had been concerned about the effect of industrial pollution on freshwater lakes and rivers for some time.

65. "Rachel Carson College," The Colleges, State University of New York at Buffalo 1978-1979 bulletin/course catalogue, 22.

66. Levine, 20.

67. There appears to be no real reason for the County Health Department's delay, other than a reluctance to offend a powerful local company. There is no way to tell if such delays were deliberate, and if so, by the initiative of County Health officials themselves or under orders from others.

68. “609 . . . And Counting: Hazardous Wastes and the Public’s Health in New York State,” A Report of the New York State Senate Standing Committee on Energy and Utilities, State Senator Thomas Bartosiewicz ranking member, presented to the Democratic Conference, March 1980, 9, Box 11, ETF Collection.

69. Dr. David Axelrod Testimony, United States of America, The State of New York, and UDC-Love Canal vs. Hooker Chemicals and Plastics, et al, December 20, 1990. Axelrod’s testimony includes a description of his first visit to the Love Canal site, in April of 1978. The visiting delegation met children who showed them various projects they had built, including a treehouse.

70. Aside from prompting DOH involvement, this report is also significant as the first official document that acknowledges that residents may need to be relocated. Levine, 19.

71. Gibbs, 30.

72. Ibid., 33.

73. T. Dunbar Moodie discusses the “historical particularity” of social movements, in which he points out that it is only in retrospect that we can pick out the social networks that have significance in the creation of social movement mobilization. See his essay, “Mobilization on the South African Gold Mines,” in Social Movements: Identity, Culture, and the State, edited by David S. Meyer, Nancy Whittier, and Belinda Robnett (New York: Oxford University Press, 2002).

74. Gibbs, 34.

75. Mazur, 74.

76. Mazur’s book contains an interview with Karen Schroeder, which he labels “Ring 1’s Account,” see pages 59-66; Gibbs refers to Schroeder as being from 97th Street in her 1982 account, 27, 32 and describes the “natural boundaries”, 39.

77. Mazur, 65.

78. Gibbs, 45.

79. Ibid., 35.

80. Levine talks about how public meetings functioned in the creation of a group identity and consciousness, 23, and also how support provided by the state helped in the formation of a community organization, most particularly in providing office space, furniture and supplies at the 99th Street School, 54. Eventually, New York State also agreed to pay for a consultant to help activists evaluate scientific information, see Gibbs, 54.

81. David S. Meyer, "Opportunities and Identities: Bridge-Building in the Study of Social Movements," in Social Movements: Identity, Culture, and the State, *ibid.*, 5.

82. Meyer's essay, "Opportunities and Identities: Bridge-Building in the Study of Social Movements," provides a good discussion about the ways state policies affect social movement identity and agency. Levine also provides an extended discussion of residents' perceptions of the original evacuation boundary lines.

Chapter Two

“This House is Worthless” Race, Property, and Citizenship

One 63-year-old black grandmother, a resident of the LaSalle Housing Project, condemned the lack of attention low-income renters had received so far during the crisis from public officials. The housing project bordered on the eastern edge of the area potentially contaminated by leaking toxic chemicals. The woman never saw any public officials, though she was home all day. She attributed this fact to race. “Mostly black people live in these projects, what do they care? Kill them all (laugh).”¹ The woman suggested that the renters’ disorganization might be another reason for public officials’ neglect. “They [the renters] don’t know nothing about organization,” she lamented, “so maybe that’s it. I don’t think any black people here know anything about really getting together and getting anything done . . . when I see ‘em I just get sick . . .”² Government assistance, like the politicians themselves, was nowhere to be seen. She criticized local and state agencies’ failure to respond to the needs of project residents. “They don’t come here. They’re helping other people,” she noted, “and we pay taxes too. They don’t even come around. The only people that came around was the Board of Health.”³ The best thing for everyone to do, in her opinion, was leave. She gave her reasoning for such extreme advice: “What affect them is going to affect us too.”⁴ Responsible for the care of eight grandchildren the lack of comparably-sized housing units kept her from following her own advice, along with the fact that other Niagara Falls housing units required a \$600 deposit which she could not afford.

Her perspective of the situation contrasted with the strong opinions expressed by one white Love Canal Homeowners' Association married couple. Disgusted with New York State Governor Hugh Carey's response to the disaster, the couple thought homeowners should be taken care of first. As the husband said, "Those [rental units] have been vacant and occupied, in and out. We're owners, and we came first, we invested our money in real estate and we should come first."⁵ His wife added: "If they want to move, why don't they? Welfare pays to move them." She pointed out that there was other state housing available in Niagara Falls. Asserting his tolerance, the husband stated "if they allow the minorities to . . . if we continuously do this, then we'll do anything. If they want to move, damn, let em move!"⁶

These opposing viewpoints highlight the underlying racial and class tensions embedded within the Niagara Falls community, tensions intensified by bad economic conditions and the disaster itself. In both perspectives, residents made claims for state aid based upon their status as taxpayers. The Homeowners' Association members, however, qualified this understanding with another requirement that gave their claim precedence: investment in property. Like working-class whites throughout the industrial North, LaSalle neighborhood residents expected that citizenship granted them the right of property ownership. White homeowners in turn expected the state to protect this privileged status.⁷ Outer-ring residents grew frustrated when public officials ignored homeowners' claims upon the state for relocation. Homeowners also feared that the presence of a large public housing population located on the eastern fringe of the affected area increased the state's hesitancy to relocate residents (Figure 1).



FIGURE 1

Aerial Photograph of Love Canal area, including Griffon Manor
New York State Department of Health, "A Special Report to the Governor &

Legislature: Love Canal (April 1981)

Folder 114, Box 11, ETF Collection, University Archives, SUNY Buffalo

Built in 1971, the LaSalle Housing Project contained 250 garden-level apartments, with some units having four and five bedrooms, in a courtyard design with curving boulevards. Many of its eleven hundred low-income residents believed it to be the best public housing available in the city, mainly because of its spaciousness and suburban setting. Of this eleven hundred, about 660 residents were black. Senior citizens and other individuals receiving public assistance composed the rest of the development's occupants.⁸ The project, built with 1960s urban development funds and administered by the Niagara Falls Housing Authority, replaced an older housing complex called Griffon Manor. Griffon Manor, also built with government funds, housed vital World War II chemical industry war workers.⁹ Many Niagara Falls residents continued to call the new LaSalle housing project "Griffon Manor," distinguishing between the two by attaching the prefix "old" to the housing's previous incarnation, while newspaper accounts routinely called it Griffon Manor or LaSalle interchangeably. The new Griffon Manor's location, in the midst of a suburban neighborhood, made it an anomaly as far as postwar housing patterns. The Federal Housing Administration (FHA), one of the primary state-sponsored programs fueling home ownership, sought to create stable neighborhoods that were homogenous with respect to class and race. The agency recommended subdivision regulations and restrictive covenants to achieve these outcomes. Because the agency helped finance housing purchases, its policies affected zoning laws, banking practices, and other practical considerations. In reality, such practices resulted in housing patterns that were segregated by race, although typically not by class.¹⁰ This meant the presence of any racial minorities in a housing tract could significantly affect the property values of

other homes. In Niagara Falls, white LaSalle neighborhood homeowners worried about the effect the development, and its minority residents, had on their property values.¹¹ By 1978, the erupting chemical disaster in white residents' backyards overshadowed any effect the minority renters had on property values.

The Love Canal chemical disaster revealed a particular economic and political landscape in 1978 when property-owning, working-class whites made unanswered claims upon the state for relocation. At the same time, white homeowners perceived that black residents received privileged treatment from public officials. The presence of low-income black renters in the midst of a mostly white suburb showed the continuing tensions over what form the "rights consciousness at the center of postwar liberalism" would take.¹² In Niagara Falls, the chemical disaster ignited racial tensions rather than the 1960s urban riots other cities experienced. Public officials' denial of working-class whites' demands for relocation fed homeowners' feelings of betrayal and frustration at the state's indifference, and this indifference prompted them to make different arguments for relocation that will be examined in subsequent chapters. Love Canal residents' investments in their homes represented the most substantial investment the families made, one that would be almost impossible to duplicate after the 1975 recession. The discovery of a toxic chemical dump in the middle of their residential neighborhood almost guaranteed the immediate devaluing of their homes.

A new political coalition emerged within American society during the 1930s Depression under Democratic president Franklin D. Roosevelt's administration. Composed of progressive liberals, ethnic working-class whites, white Southerners, and

African Americans, the New Deal coalition united a cross section of the voting public under the Democratic Party banner.¹³ African Americans' shift from the Republican Party represented the most significant addition to this political coalition, with the Civil Rights movement of the 1950s cemented this political realignment. At the same time political culture saw historic re-configurations, the United States economy experienced an expansion in production and consumer buying never seen before. Wartime industries switched over from manufacturing military items to the production of consumer goods, and Americans began satisfying needs long delayed by the 1930s Depression and the war itself. Housing represented a major component of this economic boom, as New Deal banking reforms and postwar legislation granting major veterans' benefits fueled the building frenzy. Between 1934 and 1972, more than half of the American public became homeowners.¹⁴ More than ever before, owning a home became a real possibility for working-class white Americans and many came to consider it a right.¹⁵

Americans' postwar prosperity led to ambitious political legislation and government programs designed to end poverty. Although historical work like that done by Deborah Gray White and autobiographies like Pauli Murray's have shown the Civil Rights movement antecedents from Reconstruction onwards, mainstream America became aware of the movement in the 1940s and 50s.¹⁶ The Reverend Dr. Martin Luther King was a household name, and the Civil Rights movement achieved historic legislation in the passage of the 1964 Civil Rights Act and 1965 Voting Rights Act.¹⁷ At the same time, President Lyndon B. Johnson's "Great Society" set up programs that channeled funds to community organizations on the grassroots level.¹⁸ Blacks increasingly

populated urban city centers as whites moved into the suburbs. This reconfiguration of housing patterns increased urban blacks political power, although the reasons for these dynamics remain understudied.¹⁹ Tensions between urban minorities and suburban whites during the 1970s centered on property rights and taxes, as city residents fought with suburbanites over what services would be offered and who would pay for them.²⁰

“A Little Picket Fence”: Property and Homes

Most of Niagara Falls’ working-class whites thought of themselves in terms of three overlapping economic identities: as working union members, or their spouses; as tax-paying homeowners, and as consumers. Many LaSalle neighborhood residents worked in the local chemical industry, in Buffalo’s automotive industry, or for the city of Niagara Falls as skilled and unskilled labor. Union membership was high in all three of these employment areas. The Niagara Falls chemical industry held an important place in unionization history as it was the site where the United Gas, Coke and Chemical Workers of America (UCGGWA) was established in 1942. The new union was considered progressive, as the assembled union leaders “spent considerable time discussing and adopting resolutions which reflected a distinctly liberal slant for those times.”²¹ When the Mine Workers Union left the Congress of International Organizations (CIO), a Niagara Falls union, Carborundum Local 12058, became the key to keeping the local chemical industry workers part of the CIO. A 1943 vote kept the CIO union in power. In 1954 the UGCCWA merged with the Oil Workers union to form the Oil, Chemical and Atomic Workers International Union, which would be the major union in Niagara Falls’ chemical industries.²²

Niagara Falls working-class white residents' considered their economic investments in individual homes an equally important part of their identities. The LaSalle neighborhood contained a mix of housing types, but small two- and three-bedroom starter houses predominated. In 1953, the Niagara Falls Board of Education acquired the former canal and buried waste site from Hooker Chemical and built the 99th Street Elementary School on the property. The majority of LaSalle homes were sold following the school's construction, in the late 1960s and early 1970s. Home prices ranged from \$18,000 to \$23,000. Niagara Falls' blue-collar workers took advantage of these favorable prices, with some residents using Federal Housing Administration (FHA) financing or Veterans' Administration loans to purchase the homes.²³ By 1978, house values had risen by \$10,000 to \$15,000 above the original selling prices. Comparable new housing might go even higher, from \$45,000 to \$60,000. LaSalle residents' homes represented a significant financial investment. Similar to other working-class whites nationally, Niagara Falls residents found homeownership to be the most significant means of building wealth. In his study of 1970s New Jersey chemical workers, sociologist David Halle noted the purchase of a home served almost as a rite of passage for working men's economic ascendancy. Halle's New Jersey workers also loudly complained about rising property taxes that accompanied homeownership. LaSalle homeowners mirrored these concerns, as New York State residents paid the fifth highest per capita property taxes in the country in 1975.²⁴ With respect to taxes, Halle's New Jersey workers and Niagara Falls residents reflected national trends. Working- and middle class homeowners' discontent with high taxes led to a taxpayers' revolt, culminating in the 1978 passage of Proposition 13 in

California, which drastically cut state property taxes. Various explanations have been offered for the phenomena, with one promising approach focusing on the tax movement as a kind of social movement.²⁵

No means existed to quantify the emotional investments residents attached to their homes. Homeownership allowed workers and their families more privacy, more space, and freedom from landlords' supervision.²⁶ As one woman described her home: "That was my first house, the little white house, and someday I figured we'd have a little picket fence, it was typical . . . I wanted it."²⁷ Homeowners' Association president Lois Gibbs described LaSalle as "a typical American small town that you would see in a TV movie – neat bungalows, many painted white, with neatly clipped hedges or freshly painted fences."²⁸ Most residents agreed with one woman who appreciated her husband's hard work on their house but gave another reason to cherish their home: the community built around it. "You grow such a love for something [their home]," she said, "the neighbors were fantastic."²⁹ Most LaSalle residents regarded themselves as lucky to live in the neighborhood.

The chemical industry's demand for skilled labor, and the high wages paid for hazardous work, meant that Niagara Falls workers earned a good income. Niagara County showed a per capita income of \$7,280 in 1978, and LaSalle residents' salaries appeared to be in line with this figure.³⁰ A 1969 New York State economic outlook projected significant changes in consumer spending in the 1970s. The report anticipated that money "spent on housing, by far the largest item, [was] likely to show a more rapid increase in the first half of the decade due to the tremendous increase in household

formation.”³¹ Economic planners noted that with the “coming of age of the postwar generation, New York State [could] expect a sharp rise in the number of marriages – one of the major forces of change underlying changes in the number of characteristics of households.”³² This growth in household formation, coupled with increasing numbers of household incomes totaling more than \$15,000 meant that the sharp growth in the consumer market of televisions, recreational vehicles, sporting equipment, and books would continue to rise. Based on unpublished projections, the report showed items like house furnishings, medical care, and recreation as key growth areas of consumer expenditures.³³

LaSalle families in the early 1970s reflected these projections with their increased consumption of goods and services, as they made houses more comfortable. Many residents ‘improved’ their modest homes with finished basements, additional rooms, or other home improvements.³⁴ Gibbs noted that “in the summertime, you [saw] men painting their houses or adding an extra room, women taking care of gardens, and children riding bicycles and tricycles on the sidewalks or playing in the backyards.”³⁵ Families added pools, remodeled garages, and planned on making other home improvements.³⁶ Families in LaSalle, like other working-class whites nationally, also experienced a mixed class experience with respect to their residential lives. Many white collar workers bought their first home in the LaSalle neighborhood. They considered these homes as “starter houses” and planned on moving into a better home at a later date.³⁷ Herbert Gans’ pioneering 1960s study of suburbanites, The Levittowners, found a mingling of working-, lower-middle, and upper-middle classes in the New Jersey

community that he studied.³⁸ Halle found that the working-class families in his study also lived in neighborhoods of heterogeneous class characteristics, especially since “their income enable[d] better-paid blue-collar workers to buy the same houses and consumer goods and services as many white-collar employees and engage in many of the same leisure activities.”³⁹

By the mid- and late-1970s, however, this economic prosperity failed to materialize in New York State. Over a twenty-five year period from 1950 to 1975, New Yorkers experienced several disturbing economic trends: a lower growth in per capita income as compared to national averages, a decrease in manufacturing employment of half a million jobs, and the loss of small manufacturing companies, which left the state at the rate of almost one per day in a five-year period between 1967 and 1972.⁴⁰ Economists identified several primary reasons for the state’s bleak economic conditions, including a high individual tax burden, a poor perception of the state labor market, high energy costs, and the cost of pollution and environmental controls.⁴¹ The loss of manufacturing jobs contributed in another way to the state’s economic decline, as skilled workers followed the manufacturing firms south.⁴² This migration of skilled labor resulted in higher unemployment and an increased demand on public sector social services, and higher taxes to pay for them with fewer citizens eligible to tax.⁴³ The local paper gave Niagara Falls residents mixed economic news in the first month of 1975. January headlines in the Niagara Gazette announced the layoff of more than 700 workers in at the Harrison Radiator Division of General Motors, located in nearby Lockport, and 200 workers at the Carborundum Company’s in Wheatfield, and several thousand autoworkers in Buffalo.⁴⁴

Despite an unemployment rate of 10.3 percent, a January 1975 Niagara Gazette editorial claimed that the local economy did not reflect such bleak conditions. As the editorial stated, “local industrial conditions are good and look to be getting better,” an opinion based upon the expansion of Falls’ industrial employers like Airco Alloys, Hooker Chemicals & Plastics, Nabisco, Union Carbide, Goodyear, and Great Lakes Carbon.⁴⁵

Even if the Gazette’s editorial was correct, although it was unlikely with such high unemployment, the economic news throughout the winter and spring of 1975 confirmed the worst about national and state affairs. A glance at Niagara Gazette headlines and feature articles showed the falling national output, the highest inflation rate since 1946, and the shattering of the American Dream.⁴⁶ A feature article asked, “Why? Just why is it that we live so badly?” The author identified a number of causes for the economy’s woes, among them automation, prices, price supports, consumption, and the war in Vietnam.⁴⁷ An editorial in the same issue questioned if increased production could solve the national problem. It, too, condemned Americans’ consumption and the belief that the economy would continue to expand, at the same time noting a problem of a more existential nature. “Hopefully,” the editorial observed, “our goal is not to see how many people, deluged with gadgets, we can cram onto the surface of the Earth, to commiserate with each other in their mediocre existence.”⁴⁸ Other headlines detailed the state’s high tax rates and how many jobs continued to be lost. Niagara County’s unemployment rate for January of 1975 matched Detroit’s, one of the most severely affected areas of the country due to the automotive industry’s extreme depression, reaching an estimated rate of 14.9 percent.⁴⁹

The national and New York State economy improved slightly over the next three years, but a sense of economic fragility remained; Niagara Falls residents still had cause to be concerned about their economic status. During the 1974-1975 recession, New York State lost twice as many jobs as the national average, and the state's recovery lagged behind other parts of the country. One economic report noted: "Even by comparison with the rest of the Northeast, New York State went into the recession earlier, deeper, and recovered more slowly."⁵⁰ State economists argued that New York State "emerged from the past recession even less competitive with the rest of the country than when it entered."⁵¹ One of the identified problems in New York State's slow economic recovery appeared to be the state's "overdeveloped" public sector relative to its ability to generate taxable dollars. Beginning in 1978, efforts had been made to address this imbalance and state budgets were brought back in line with its projected revenues, which meant that budgets contained very little extra monies.⁵²

New York State's precarious economic situation meant public officials would be reluctant to address Love Canal homeowners' demands for state purchase of their homes. When the Love Canal chemical disaster erupted in the spring and summer of 1978, it occurred at one of the very possible worst moments to expect generous state aid in redressing the crisis. Governor Hugh Carey's delayed response to the crisis can be attributed to the very serious budgetary issues it presented. Even before the chemical disaster homeowners already felt under attack, as social critics on the left and right criticized working- and middle-class homeowners with respect to their conspicuous consumption and as evidence of the deteriorating American family.⁵³ LaSalle

homeowners responded to their precarious financial situation by demanding the state act by buying their property.

The Problem of Griffon Manor: Race and Property

The Love Canal Homeowners' Association incorporated to address the chemical disaster and the ways it affected homeowners' lives and property, but the name also signified a major chasm separating LaSalle neighborhood residents: property owners and renters. Members chose the word "homeowners" for the group name because Association president Lois Gibbs received advice that noted any protests centered on taxes or mortgages required the members be property owners. Many members and the group's advisors assumed state officials would more readily listen to property owners rather than people renting.⁵⁴ Racial tensions between homeowners and residents flared up from the beginning. As news coverage of a September 1 public meeting reported: "The crowd's outcry took on racial overtones from time to time, as residents of Griffin Manor, a low-income housing project charged that they were being ignored." The article quoted a Griffon Manor resident, Marilyn Dolson, who charged state officials were evacuating homeowners in preference to the renters at Griffin Manor. "They're going to scat," she said, referring to the homeowners, "but we'll be here while you're digging."⁵⁵ Her words aptly summed up an understanding of inequality that five years later would be recognized as "environmental racism."⁵⁶ Although environmental activists identified Love Canal as a signal event in the environmental justice movement, race has remained a relatively unexplored aspect of the conflict. Along with their own fears about chemical contamination, Griffon Manor residents fought public officials' reluctance to

intervention, internal divisions, and homeowners in their attempts to seek redress for the disaster.

The state of race relations in Niagara Falls during the 1970s displayed the mixed legacy of the Civil Rights movement: the idealistic goals identified by leaders like Martin Luther King, Jr., and their less-than-perfect realization. Historians have begun to examine the failure of the Civil Rights movement in Northern cities that led to the race riots of 1968 in Detroit and Los Angeles. Among these revised understandings, historians have reassessed the violence of the Southern resistance to the Civil Rights movement, the origins of the fracturing of the movement, and the means Northern whites used to maintain defacto segregation.⁵⁷ The emergence of black power and its vilification as a violent movement lessened broader support of the Civil Rights movement among white Americans. The assassinations of Malcolm X and Martin Luther King, Jr., left a void in African Americans political leadership that proved difficult to fill.

Niagara Falls residents increasingly became aware of race and experienced racial tensions as the numbers of African Americans increased in the city. By 1970, African Americans represented twelve percent of the city's total population, more than doubling their numbers since 1960. This new population mix, and the public's consciousness of race, challenged city officials' sensitivity, as a February 8, 1970 Niagara Gazette editorial demonstrated. The opinion piece chastised a Niagara Falls city manager for his ill-advised comment that a recent black appointee would "bring credit upon his race." Such language, the editorial contended, set race relations back. "Racial bromide" like this, the paper warned, "understandably incenses black youths and militants."⁵⁸ Relations between

average black and white Niagara Falls residents appeared strained as well. At a 1970 community meeting sponsored by the Police-Community Relations Unit, Falls' Eastside residents aired complaints. One white resident claimed that increasing numbers of black children had begun harassing white children. A black resident responded with a complaint about the "threatening kind of atmosphere" created when white women walked in the neighborhood with police dogs. One black resident noted that while black residents respected New York State troopers, local policemen received less regard because they did not "give or get respect."⁵⁹

Northern black leadership increasingly called for blacks to support their own communities first in response to the racial segregation within the cities. In a 1970 speaking engagement, Muhammad Kenyatta, a Black Nationalist, urged a Niagara Falls audience that blacks "must control the ground we live on and control our own economic environment." He continued, noting "I shouldn't have to tell black people to arm themselves."⁶⁰ Kenyatta dismissed alliances with other white groups like hippies or yippies, or white liberals. Just weeks after Kenyatta's visit, an article confirmed the city's racial segregation. The May 29, 1970 Niagara Gazette piece outlined the city's continuing segregation with regard to housing and education. The article noted a number of reasons for this reality, among them certain neighborhoods' strong ethnic identities, real estate agents, and the role of the Niagara Falls Housing Authority in maintaining segregated housing patterns. The Housing Authority in particular resisted attempts to implement scattered site public housing and continued to set policies that created "large public

housing projects which, in effect, have maintained or reinforced concentrated black population areas.”⁶¹

As hard economic times intensified later in the 1970s, Niagara Falls’ African American population suffered disproportionately. As a 1975 guest editorial written by the Black Employees Club explained, “a few years back when work got slow and lots of whites were laid off, they just laid off blacks and hired the whites. And we were out of another job.”⁶² The editorial estimated that most of the larger local factories’ employment figures showed a ten percent rate for blacks, with it decreasing to a rate of five percent for smaller companies. It claimed that trade unions were closed to black membership. Blacks in Niagara Falls rarely saw their friends and neighbors selling them cars or furniture. Local banks offered loans for automobiles, but not for homes. Echoing the call for a healthy black economy made five years before by Muhammad Kenyatta, the editorial applauded local black business owners and urged black Niagara Falls residents to “keep most of our money in our own neighborhood.”⁶³ The editorial ended by calling upon black brothers and sisters to stick together, support each other, believe in law and order. “The only thing we are asking the white man for is equal civil rights,” the editorial concluded. Blacks had cause to be wary, given the poor leadership shown five years before in the city’s efforts to integrate its schools.

Niagara Falls residents, like other Northern cities, struggled with civil rights issues when the city addressed school integration beginning in 1970. Reacting to the Supreme Court’s historic 1954 Brown v. Board of Education ruling desegregating public schools, the New York State legislature had passed anti-busing legislation in 1969. The

law barred any appointed school board or official from enforcing any measures for racial integration without the express permission of parents.⁶⁴ Although not bound by the law because the Board of Education was elected, not appointed, Niagara Falls had done little to integrate its schools. Local educational officials proposed reshuffling boundaries and other measures to achieve integration, which would be a black-white ratio of 18 to 82 percent.⁶⁵ Although Niagara Falls escaped the more extreme reactions to state-enforced busing as seen in cities like Boston, the city still saw its measure of dissent.⁶⁶ As the Board of Education considered implementing a plan for integration, parents spoke out. Mrs. P. Ross questioned the justice of a “forced busing plan which denies the citizen rights of admittance to a neighborhood school . . .”⁶⁷ On May 8, more than eighty women picketed for an hour at the Niagara Falls Board of Education meeting to protest forced busing and a petition with more than four thousand names was presented. William W. Baum wrote an irate letter to the editor complaining about the Niagara Gazette’s coverage of the issue on May 14. Baum accused the paper of “managing the news” and generally maligning opponents of the Board of Education’s integration plan.⁶⁸ Almost all of the coverage about school integration mentioned the heavily segregated nature of Niagara Falls housing. Helen Schoniger, principal of one predominantly black elementary school, pointed out the real problem at a public meeting: “I’m not for busing either but until we have integrated housing we can’t do otherwise.”⁶⁹ The racial tensions school busing brought up could be seen as well. Speaking at the same meeting Schoniger spoke at, the teacher coordinator for racial balance responded to comments that the United States Constitution protected minorities. “The Constitution,” Paul Brown Jr.

pointed out, “protects everyone.”⁷⁰ Eight years later, the chemical disaster in the middle of the LaSalle neighborhood resurrected similar charges of minorities receiving preferential treatment.

Approximately two months after LaSalle neighborhood residents organized the Homeowners’ Association, residents at Griffon Manor followed suit on September 27, 1978. The newly formed Concerned Love Canal Renters’ Association held many of the same goals that Homeowners’ Association did. Composed primarily of black mothers, the group’s first priority appeared to be to “simply find out whether it is hazardous to live at Griffin Manor.”⁷¹ The Renters’ Association forcefully communicated Griffon Manor residents’ concerns that health officials and politicians were neglecting them.⁷² The organization of the Renters’ Association differed in two respects from homeowners: the local chapter of the National Association for the Advancement of Colored People (NAACP) advised and was present at their initial meeting, and state officials recruited a Department of Social Services employee to help address renters’ concerns.⁷³ Their first concern, however, remained finding out if the hazardous chemicals buried at Love Canal had harmed residents.

Like other local officials, the Niagara Falls Housing Authority appeared eager to let state authorities address the Love Canal problem. When the Renters’ Association complained to public health officials that they were being ignored, the Department of Health sent out health investigators. Inspection of the housing project revealed numerous code violations, among them rodent infestations and broken sanitary lines. The severity of these conditions, “while not strictly Love Canal related,” prompted public health

officials' intervention, including an apartment-by-apartment inspection conducted by the Niagara County Department of Health.⁷⁴ Conditions appeared so bad that Love Canal Task Force officials later sought rent withholding as a means of pressuring the Niagara Falls Housing Authority to act.⁷⁵ It remains difficult to determine whether evidence of authorities' response to Griffon Manor residents resulted from a concern over city and state liability for residents' health, or because of concerns over the presence of racial minorities. Most likely both factors contributed to state authorities heightened awareness of the situation at Griffon Manor. Whatever the cause of officials' response to Griffon Manor residents, ignoring this constituency potentially carried legal and political ramifications.

State and federal officials continued to displayed a sensitivity to race early in their early interactions with Griffon Manor residents. Dr. Phillip C. Gioia, the medical investigator assigned to the project, informed his superiors about the state of resident blood testing. He detailed the steps taken by task force officials to ensure resident participation, and gave explanations for any missed tests.⁷⁶ The Renters' Association charged racial discrimination and retained an attorney in the fall of 1978. Representatives from the Department of Health, the Love Canal Task Force, and the United States Department of Justice met with a group representative and their attorney to discuss the charges. State officials received a list of concerns from the Renters' Association, which included aid in filling out residents' health surveys.⁷⁷ Judy Keys, the community liaison, kept task force officials informed with regard to LaSalle Development activities, while other official communications discussed the correct response to renters' concerns.⁷⁸

Shortly after the Renters' Association formed, another group of Griffon Manor residents differing in race, age, and agenda organized. This group, the LaSalle Development Tenants' Association, wanted public officials to focus on more than the issue of chemical contamination. Members, mostly white senior citizens living in the project, thought improved living and housing conditions should be addressed first. The Tenants' Association also worried about the state's long-term plans for the project. These concerns contrasted with those of the Renters' Association, whose members focused on potential health problems. The two groups clashed almost from the beginning. The presence of two Griffon Manor organizations caused confusion. It hindered both groups from achieving their differing goals. Despite Task Force officials' efforts to mediate, members of the two organizations fought.

This internal strife within Griffon Manor distracted the Renters' Association from other issues, and caused confusion over who represented the development and what their goals were. In a December 12 letter, Renters' Association president Elene Thornton informed On-Site Coordinator Mike Cuddy of the Renters' Association nominees to serve on the Land Use Committee, a newly formed group charged with deciding what should be done with the Love Canal area. She also warned him that the "residents of the La Salle Development refuse to have Mrs. Agnes Jones or Mr. Nunzio LoVerdi to represent their community . . . [the Tenants Association] under the leadership of the two individuals have shown irresponsible actions and portrayed images that embarrass the community."⁷⁹ Tensions escalated, and on December 15, Cuddy received a phone call from Thornton stating that LoVerdi brought his clothes into the office, and had been disruptive. LoVerdi

claimed he represented the LaSalle Development, both the Renters and Tenants Associations. While officials figured out how to handle the situation, Thornton threw LoVerdi's clothes out of the office and locked the door. He evidently returned and tried to break down the door. Later that day, Dan Workman met with the groups' leaders, Thornton and Agnes Jones, to discuss the situation. He urged them to merge the associations and form a group to represent the residents on both Love Canal and housing issues. The women agreed to try, but asserted part of the difficulties came from the mixed messages of Task Force members. The planned meeting to discuss a merger would take place early in January and eventually an agreement was worked out.⁸⁰

Although the Renters' and Homeowners' Association cooperated on some ventures, tensions also continued between Griffon Manor's low-income residents and LaSalle homeowners. Both organizations most active members were mothers, and concern for their children united the two groups. With the help of Task Force officials, the two organizations petitioned the Niagara Falls Board of Education to allow students to eat lunch at school. This protected children from exposure to remedial construction activities going on at the canal site. The women also managed to get funding for a daycare program, which also provided a retreat from ongoing clean-up activities.⁸¹ Cooperation ended, however, when the renters questioned homeowners' motives. One Griffon Manor resident, a white woman, explained: "The only time they wanted us, the Griffin Manor people, is to put these children in the nursery . . . They won't help us, why should we help them?"⁸² Members of the Homeowners' Association also expressed hard sentiments about the low-income renters, often in explicitly racist terms.

While the official leadership of the Homeowners' Association always expressed concern over the status of Griffon Manor residents, the rank-and-file white membership displayed more negative opinions. Numerous LaSalle area residents distinguished themselves from the present low-income population. 'Old' Griffon Manor residents consisted of mostly working-class whites and LaSalle area residents remained well aware of the distinction between the "old" and "new" Griffon Manors.⁸³ The most common charge homeowners made against the renters dealt with money. One woman described attending a Homeowners' meeting: "They [the homeowners] get up there and make fools of themselves, over stupid things. The renters are 'screaming their heads off' and she says, 'You crazy people, you're renters [sic], get out,' what are you waiting for? They want money.'" According to another resident, the renters wished for "free medical, they want to be moved into nicer places, and have the rent paid, they want free food, . . . they want everything handed to them."⁸⁴ Homeowners complained that with no investment in property, nothing kept the renters in the area. "I don't think much of the Renters Association because when you['re] renting you can move out whenever you want to."⁸⁵ One Homeowners' Association member identified Griffon Manor as the problem. "There's no way they can establish 3,4,5 rings," she noted, "they'll have to evacuate all of Griffon Manor."⁸⁶ She left unsaid the reason why Griffon Manor was a problem: the evacuation of eleven hundred people made it that much more expensive for state authorities to relocate residents. She and other homeowners feared that the inclusion of the low-income renters in demands for relocation hurt homeowners' own chances of

receiving financial aid. Other residents more openly acknowledged race as a factor in their unhappiness with Griffin Manor.

Homeowners betrayed their own fears of being ignored by authorities in their discussions of race, and often conflated such discussions with complaints about foreign aid and government waste. For example, when one man expressed his discontent over the extent of United States foreign aid, his wife connected the issue to race. “You read in the paper about minorities and you get tired of hearing about how they’re put on,” she noted, “and you sit back and you say what are they complaining about?” Interestingly, this woman’s frustration at state indifference led her to identify with the so-called “put upon” group. “But when you’re put in a situation,” she noted, “where you figure that you can understand what [the minorities are] talking about. Money going overseas . . .”⁸⁷

LaSalle’s homeowners resembled other working-class whites in their equation of poverty with racial minorities.⁸⁸ Given this perspective, it was easy for homeowners to express hostility towards Griffin Manor’s minority renters. Another homeowner blamed the renters for their own problems, saying: “When them Blacks get their fingers stomped on enough, then they understand their common enemy is the state and the federal, and not us.”⁸⁹ One man proclaimed his tolerance, but still thought a line needed to be drawn.

“[I]f we continuously do this, then we’ll do anything. . . .” if the renters wanted to move, he continued, “damn, let em move!”⁹⁰ One resident took his fears even further, declaring he would join the Ku Klux Klan, not caring from where help might come.⁹¹ While not always directly connected with race, these discussions about foreign aid and property

ownership displayed how residents viewed the relationship between property and privilege within American society.

In the eyes of homeowners, their status as property-owners guaranteed them financial assistance from the government first, before wasting funds on local renters or foreign aid. As the statement made by a white male member of the Homeowners' Association which opened this chapter claimed, "All the people who should be taken care of is homeowners. . . . We're owners, and we came first, we invested our money in real estate and we should come first."⁹² Another resident identified residents' status as taxpayers as meriting attention from the state. She complained to a bank official that "if we were welfare people, you'd be doing something for us, wouldn't you? . . . We wouldn't be in this position." Worse than that, residents' status as taxpayers meant they were "paying the piper for something somebody else did and [she] didn't think [it was] right."⁹³ Another man identified himself as a tax payer, and questioned what he had done "to get something like this, where they're proving that it's causing sicknesses, cancer, miscarriages, heart trouble, epilepsy, and all . . ."⁹⁴ One wife thought that the government "owe[d] their constituents the right to enjoy their homes," while her husband agreed that they paid taxes.⁹⁵ One resident vented his frustration: "Damn it all, they can take money to Korea, they can take it to Vietnam [for hurricane relief], and throw it around there like gangbusters."⁹⁶ Another resident questioned why the government should pay to bring the bodies of the Jim Jones tragedy, where over nine hundred people participated in a murder-suicide pact, back from Guyana: "They can do it for people overseas, for these jokers in Guyana. . . . They should take care of their own people first. We pay taxes."⁹⁷

In all of these complaints, residents identified themselves as taxpayers, which justified government action on their behalf. Residents questioned spending money on foreign aid to countries like Israel while they worried about the value of their homes.⁹⁸

Working-class white homeowners tried to use their status as property owners as leverage with public officials, but to little avail. Residents loosely organized before the formation of the Homeowners' Association discussed withholding their tax or mortgage payments. When LaSalle resident Lois Gibbs returned from the August 1 public health meeting held in Albany, LaSalle resident Tom Heisner was urging residents to burn their mortgages. "We're not paying anything," he told the crowd, "This house is worthless, useless. . . . We can't live here."⁹⁹ Many residents followed his example, placing papers in a bucket and lighting them on fire. While some residents withheld such payments, others hesitated because the effect on their credit rating.¹⁰⁰ Perhaps more significantly, local and state authorities paid little attention to the action. It became even less effective after April 7, 1979, when New York State Governor Hugh Carey signed legislature granting Love Canal homeowners property tax relief that reduced their taxes by almost eighty percent.¹⁰¹ Despite the very real investment Love Canal residents had made in their homes, and the financial difficulty families would experience in losing such investments, residents' status as property-owners carried little sway with public officials.¹⁰²

"The Best Housing in Town": Relationships With the State

Public officials' indifference to demands based upon property-ownership disillusioned Love Canal residents, who felt betrayed by officials' lack of a response to

their status as property owners. Gibbs and other residents expressed their frustration with public officials they recognized as paid to serve taxpayers. Residents directed much of their harshest criticism for local government officials, particularly Mayor O’Laughlin. One resident described him as a bird who repeats himself, pointing out: “He never has any real answers to anything.”¹⁰³ Many residents blamed the city for allowing construction on the site. Others held state officials responsible. Governor Hugh Carey’s slow response angered residents, many of whom thought he only visited Niagara Falls because it was an election year. One resident described him as a “glory hunter” when the governor agreed to relocate inner-ring residents, while another thought he had “overextended himself” for the same action.¹⁰⁴ The governor appeared to be both ineffectual and venal. In an interesting gendering of politics, one resident mockingly labeled local officials “city mothers” instead of acting as “city fathers” for their lack of direct action. They were more concerned with fixing roads and cleaning streets than resolving the bigger problem.¹⁰⁵ LaSalle resident Patricia Pino alluded to an even more negative gender stereotype when she described the historic connections between prostitution and politics. Both, she noted in a 1980 letter to the editor, were “paid professions,” and she addressed the governor as “Governor Madam Carey” in her letter.¹⁰⁶ The problem seemed to be the nature of politics itself. One resident admitted her distrust and disillusionment in government. She explained: “I don’t think [government] has read the Constitution in a long, long time. I think it’s very corrupt.” The woman identified the real problem, stating “I think that the men in our government, at all levels, are politicians . . . Very congenial men. Also very scheming, very selfish and

very corrupt.”¹⁰⁷ While LaSalle residents may have had more cause for their cynical view of the American political process, such views actually resembled those expressed in other working-class communities.¹⁰⁸

White residents’ attitudes toward minorities, United States foreign aid, and ineffectual politicians indicated the real reason underlying the ‘problem’ of Griffon Manor. Residents questioned the state’s failure to respond to Love Canal residents as property-owning citizens. Working- and middle-class LaSalle residents considered property-ownership as the primary element in their relationship with the state. Historian Thomas Sugrue has argued that the New Deal’s historic political coalition that united working-class whites and African Americans ended in the 1970s, much earlier than historians previously suggested. By the late 1970s, many working-class Americans understood their taxes as funding programs for individuals who did not work.¹⁰⁹ Most working-class whites assumed these benefits went to unworthy blacks. Resident Patty Grenzy plaintively explained her bitterness “because my government, one which is so powerful and great to achieve peace in other countries, help needy people across seas, bring home dead bodies from South America, etc., hasn’t the time nor money to help its own people, when we need it.”¹¹⁰ The perception that homeowners had been wronged united Love Canal’s mostly white residents and directed their anger directly at state agencies and elected officials.

In contrast, Griffon Manor residents tried to understand why the development failed to unite and make greater demands on state authorities. Some Griffin Manor residents thought that the project’s internal divisions hurt them in dealing with public

officials. Unlike the homeowners, the renters failed to unite because the groups were “too soft.” From their disadvantaged position, the residents needed to speak loudly and forcefully to authorities. The black grandmother whose interview opened this chapter thought: “Most white people, . . . they’re not going to listen to no black or even poor whites unless you get out there and raise a lot of hell and then they’ll say something.”¹¹¹

In fairness, the same resident admitted that the leadership was only as good as their followers. Another resident provided a different scenario for the project’s poor organization. According to her, the initial collection of health information at Griffin Manor worked beautifully. As she described it: “We had a lovely thing going here. People weren’t panicking. And then all of a sudden they went crazy.”¹¹² After discussion with other residents, the woman could only explain the problem as simple greed. “These Goddamn people are greedy. They won’t help one another [no] more.”¹¹³ One other possibility includes the treatment Griffin Manor residents received by the state. As contrasted with the homeowners, state authorities avoided mobilizing the population by declaring one part of the development unsafe and the rest safe, which was the case with the homeowners.¹¹⁴ Even though the LaSalle Development residents did not always like the information they received from state authorities, public officials generally responded in a timely fashion to their concerns. The renters seemed to have better access to public officials as well.

The Renters’ Association dealt with a different group of public officials than did the homeowners. The Homeowners’ Association focused its attention the Department of Health. This was a natural choice, since Governor Hugh Carey charged that agency with

deciding whether or not the disaster affected residents' health. In the case of the renters, the bulk of existing correspondence shows they conducted most of their interactions with Love Canal Task Force officials, primarily on-site coordinator Michael Cuddy and Task Force Commissioner William Hennessy, with the assistance of the community liaison.¹¹⁵ The memos from the Department of Health concerning the renters often addressed other task force officials, rather than Griffin Manor residents or leadership. Considerable communication between task force officials, mostly Mike Cuddy and Department of Transportation Commissioner William Hennessy, took place, with the topics outlining the current state of affairs with the renters' group and advising the best response to make.¹¹⁶ When Renters' Association president Elene Thornton requested she be allowed to attend daily task force staff meetings to facilitate communication, on-coordinator Cuddy denied her request.¹¹⁷ Public officials assumed a paternalistic relationship with Griffon Manor residents, only marginally better than the antagonistic one with the Homeowners' Association. One example of this patronizing relationship would be in residents' access to technical expertise.

The biggest questions and decisions at Love Canal all involved medical and scientific information not typically available to ordinary citizens. Responding to the Homeowners' Association's request, the state of New York provided an outside scientific consultant to the group to assist in assessing medical, scientific, and technical information. This consultant, Stephen Lester, joined the Homeowners' Association shortly after its organization. Along with a biologist, Dr. Beverly Paigen, and sociologist, Dr. Adeline Levine, these outside "experts" greatly contributed to the Homeowners'

Association's ability to effectively challenge state medical and scientific officials' assessments at Love Canal. Renters' Association Chairperson Thornton received a very different response when she asked for technical assistance. Task force officials did not hire a consultant for the renters' group. Thornton was forced to look for outside assistance. She attempted to get such help from the nearby State University of New York at Buffalo (SUNY Buffalo), aware that her "organization members lack[ed] the technical training necessary to understand and evaluate [the] medical and environmental data presented and the effectiveness of the remedial construction program." Her efforts proved fruitless.¹¹⁸ Like the homeowners, Thornton and the Renters' Association remained frustrated with the lack of information and their treatment by public officials.

While officially representing only part of the Griffon Manor community, the Renters' Association tried to address residents' health concerns and the potential harm the leaking chemicals represented. Commenting on the state's response to their October 27 critique, Thornton and the Renters' Association reprimanded public officials once again. In a December 20, 1978 statement, the Renters' Association once again called upon state authorities to determine if "the residents of the LaSalle Development [were] living on chemically contaminated land?" The Association rejected officials' reply that an ongoing testing and sampling program was underway. More, and similar to Homeowners, they deplored any attempts to make Griffin Manor residents medical test subjects. "We don't want to be used as guinea pigs: having members of your family or yourself recalled for one or more series of retesting without explanation constitutes mental cruelty. We want explanations of what these tests are attempting to detect . . ."¹¹⁹ In the eyes of residents,

state officials continued to neglect technical, physical and mental needs. Even more explicitly than the homeowners, the renters contested the terms of relocation, charging that residents deserved to be compensated for the loss of their “peace of mind.” With respect to this last argument, the Renters’ Association saw some success.

The Renters’ Association tried to assist families affected by the predicament. The group’s leadership realized that families with immediate health problems, “[t]hose which toxic fumes or pollutants would aggravate . . . ,” should be moved.¹²⁰ Association president Elene Thornton convinced task force officials that some residents suffered from conditions likely to be worsened by the physical conditions, or had displayed emotional responses that suggested relocation would be best for them. The Department of Health’s February 8 health order expanded the area identified for the removal of families with pregnant women and children under the age of two. Griffin Manor residents now fell under its jurisdiction. Community liaison Judith Keys worked with Thornton to identify the residents the health order applied to, using Department of Social Services staff to contact residents and information from the Niagara Falls Housing Authority. Keys also worked to ensure those eligible could be efficiently relocated, helping coordinate any necessary financial guarantees with local social services agencies.¹²¹ Just as the order caused dissension between DOH officials and the homeowners, its strict application presented potential problems for housing authorities and Griffin Manor residents. The biggest area concern appeared to be the acceptance of new tenants at Griffin Manor, who would need to be informed about the risk they incurred with occupancy in the housing project. These concerns required that the information about relocation be posted at the

development, along with notification to new tenants as a part of their lease.¹²² Other problems connected with relocation from Griffin Manor concerned moving costs and housing availability.

Despite the assumptions of homeowners that Griffin Manor residents could simply move, it remains clear that state intervention was often necessary for this to happen. While the monies were available under New York State's Social Service Law, Griffin Manor residents often needed state intervention to receive the funds. Judith Keys, the community liaison, mediated discussions with Niagara Falls housing authorities about moving expenses, informing local officials of the relevant passages in the law. The cited clauses applied in cases where serious physical or mental conditions necessitated removal for the safety of the individual.¹²³ One of the biggest concerns appeared to be finding comparable housing within the Niagara Falls area. The lack of suitable housing, apartments with four or five bedrooms, appeared as the major stumbling block. Thornton sought such resources herself, and more interestingly, enlisted the aid of task force officials.¹²⁴ The lack of adequate housing haunted Griffin Manor renters throughout the rest of the Love Canal crisis.

The problems with adequate housing replacement for the renters of Griffin Manor appeared especially acute during the active relocation of homeowners and Manor residents during the temporary relocation during the summer of 1980. The result, at least in part, of the botched chromosome studies carried out by the Environmental Protection Agency, this temporary relocation came after the second emergency disaster declaration issued by the Carter administration. By the fall of 1980, the relocation of residents from

the area changed from temporary to permanent. Prior to that, the temporary relocation of Griffin Manor residents can be compared to that of the homeowners.¹²⁵ While the task force report broke down temporary relocation applicants into three groups – private sector, Griffin Manor, and Senior Citizens – it included no information on the racial breakdown. By August of 1980, the task force received 200 applications for temporary relocation from Griffin Manor residents, approximately thirty-five percent of the total applications received. Of those residents already relocated in motels, Griffin Manor residents compared roughly equal with other groups (46 percent). One of the most telling statistics dealt with residents' plans to go to conventional housing. Here, the Griffin Manor residents surveyed showed reduced expectations, with no more than an average of thirteen percent planning on moving into single-standing family homes. Several obstacles stood in the way of permanently relocating Griffin Manor residents.

State officials and community activists continued to monitor the renters' housing dilemma. By December 5 1980, state officials began interviewing tenants, primarily from Griffin Manor, for Section 8 housing. Officials conducted seventy-nine interviews, with a total of twenty-nine certificates issued for public housing. Only nine certificates resulted in signed leases. Task force officials recognized that the renters might not have the resources to locate suitable housing, and hired two outside contractors to help. The Housing Assistance Center (HAC) and Housing Opportunities Made Equal (HOME) agencies provided professional counseling, referral services, clinics and fast sheets to the renters. The agencies supposedly offered knowledge of governmental regulations regarding existing programs and how to achieve "fair housing rights and the mechanisms

to attain them.”¹²⁶ An on-site office would be opened within the week. Information compiled by a community organization aiding Love Canal victims suggested that these agencies proved far from successful in placing families. Contracted for three months service, and paid \$33,000, the agencies placed only two families with only one month remained on their contract.¹²⁷ The community organization concerned with Griffon Manor residents, an interfaith coalition called the Ecumenical Task Force, continued to advocate for the renters, recognizing that this population bore unique problems, among them: low incomes; large families; physical handicaps; and difficulties negotiating bureaucratic red tape. In the coming months, the Ecumenical Task Force continued their advocacy of the renters, despite local officials’ resistance.

Public officials on the federal and state levels perceived the issue differently than local officials. As early as October of 1980, the Department of Housing and Urban Development (HUD) granted the City of Niagara Falls Housing Authority 150 Section 8 certificates and twenty-seven more certificates for new or substantially renovated HUD units. According to Task Force administrator William C. Hennessy and New York State Assemblyman Arthur O. Eve, who had been involved with the renters’ situation from the beginning, the agency intended these certificates be used in the permanent relocation of Griffin Manor residents. Almost six months later, the Niagara Falls city council voted to not accept the twenty-seven certificates issued by HUD, certificates to be used in “scattered site housing.” The conflict came about in part because of HUD officials’ decision to withhold funds to renovate two other city housing projects, originally built by New York State and ineligible for federal rehabilitation assistance grants. The decision

resulted from federal officials' perception that the city was not "sensitive to the problems of the large families that used to live in Griffin Manor."¹²⁸ One Niagara Falls councilman called the HUD offer "blackmail."

Local Niagara Falls' politicians proclaimed a number of reasons for their position. Deep in denial, and sadly representative of most of their actions during the entire disaster, Niagara Falls political leaders perpetuated the injustice against Griffin Manor renters. Niagara Falls officials listed a number of concerns with renovating the housing, including the cost – estimated at \$60,000 a unit – although one news account indicated that HUD would provide sufficient money to build the units – the fact that the HUD designation would take twenty-seven homes off of city tax rolls, and because the city already had a vacancy rate of ten percent. Niagara Falls Mayor Michael C. O'Laughlin gave the most disturbing reason: the city already had adequate housing within the LaSalle development, "the best housing units in town for large families in town for large families."¹²⁹ Until the EPA issued its report on the habitability of the area, O'Laughlin said the city was unable to determine the safety of the complex. If it was safe, any new units by the city duplicated existing housing, and the city would "have large units we won't have a need for."¹³⁰ Hidden within these official "reasons," the real issues of class and race permeated the Council's decision.

The problem of Griffin Manor revealed much about postwar notions of citizenship, discrimination, and the relationship between minorities and local, state and federal government. Although not well-known, the residents of Griffin Manor occupied a distinctive role in the Love Canal crisis. Their presence and homeowners' responses to

them contradicted the Homeowners' Association public positions. The Homeowners' Association leadership initially courted Griffin Manor residents, recognizing them to be equally affected and realizing their numbers added political weight to the existing crisis. The regular membership of the group, composed of white homeowners, displayed more mixed emotions, expressing both sympathy and resentment of the relationship the predominantly minority renters exacted from the state. Homeowners, based on their status as property owners, claimed the status of worthy victims. These LaSalle residents demanded state and federal officials respond to the disaster, while at the same time denying these privileges of citizenship to Griffin Manor residents. The hostility displayed by LaSalle homeowners toward low-income renters showed Northern working-class whites' expectations of state protection of their rights, first among them being the right to property.

Working- and middle-class whites seemed to view the political system as protecting the rights of historically discriminated-against groups rather than ensuring the just allocation of resources – resources they deserved more of, since they paid a greater share. The evidence presented here suggests more than proves white resentment of minorities perceived special treatment by the state. Such evidence fits, however, within the broader historical scholarship, such as Nelson Lichtenstein's examination of the decline of unions' political influence and rise of racial discrimination as a means of seeking redress from the state.¹³¹ It also suggests that while government at the federal and state levels displayed an awareness of minority constituents, progressive public policy was thwarted at the local level, something also consistent with the work of other

historians. Another community group, the Ecumenical Task Force, discussed in Chapter Five, would address Griffon Manor residents' concerns and issues of social justice. When public officials seemed to ignore property ownership as a legitimate reason for demanding relocation, LaSalle residents were forced to make other arguments justifying state-aided relocation. In the meantime, homeowners focused on their own concerns and essentially forgot about Griffon Manor residents. The next two chapters discuss the arguments the Homeowners' Association made in claiming state intervention in the crisis. Led by an energetic and savvy leader, the Love Canal Homeowners' Association demanded state intervention on the basis of protecting the nuclear home and family, most particularly in its reproductive function.

Endnotes

1. Interview 114, Folder 16, Adeline Levine Collection (Buffalo, New York: Buffalo and Erie Counties Historical Society), hereafter cited as Levine Collection. Levine, a sociology professor at the nearby State University of New York at Buffalo, studied the Love Canal disaster. She and a group of graduate students interviewed residents in the fall and winter of 1978. As a condition of using the collection, informant names cannot be disclosed, and Levine declined permission for the use of pseudonyms.
2. Interview 114, Levine Collection.
3. Ibid.
4. Ibid.
5. Interview 125, Levine Collection.
6. Ibid.
7. Thomas J. Sugrue, The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit (Princeton: Princeton University Press, 1996), 10, 62. For more on the working-class whites and exclusive rights to homeownership, see Thomas Sugrue, "Crabgrass-Roots Politics: Race, Rights, and the Reaction against Liberalism in the Urban North, 1940-1964," Journal of American History 82 (1995), 551-78.
8. See "Memo," Dan Workman to James Jones, Governor's Office, February 14, ETF Collection, cited in Elizabeth Blum, "Pink and Green: A Comparative Study of Black and White Women's Environmental Activism in the 20th Century," (Houston: University of Texas at Houston, 2000); and Adeline Levine, Love Canal: Science, Politics and People (Lexington: Lexington Books, 1982), 198.
9. In the first newspaper accounts about the project's construction, the name appears as "Griffon Manor," named possibly after the ship of French explorer Renee-Robert Cavalier, Sieur de la Salle. LaSalle Village (later the LaSalle neighborhood after the village's annexation by Niagara Falls in 1927) was where LaSalle landed during his explorations on the Niagara River. Later newspaper accounts and other published sources use "Griffin Manor" for the project name. I use the "-on" spelling for the project.
10. Kenneth Jackson, Crabgrass Frontier: The Suburbanization of the United States (New York: Oxford University Press, 1985), 208; Thomas Sugrue, The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit (Princeton: Princeton University Press, 1996), 62-64.
11. Carolyn Pack Interview, June 26, 2002, Niagara Falls. Ms. Pack a teenager at the

time of the crisis, remembered her parents' concern over the LaSalle Housing Project's effect on property values.

12. Sugrue, 10.

13. For the formation of this New Deal coalition, see Harvard Sitkoff, A New Deal for Blacks: The Emergence of Civil Rights as a National Issue (New York: Oxford University Press, 1978); Lizabeth Cohen, Making a New Deal: Industrial Workers in Chicago, 1919-1939 (New York: Cambridge University Press, 1990); and a collection of essays edited by William H. Chafe, The Achievement of American Liberalism: the New Deal and Its Legacies (New York: Columbia University Press, 2003).

14. Kenneth T. Jackson, Crabgrass Frontier: The Suburbanization of the United States (New York: Oxford University Press, 1985), 204. For Americans' newly realized purchasing power, see Lizabeth Cohen, A Consumers' Republic: The Politics of Mass Consumption in Postwar America (New York: Alfred A. Knopf, 2003). Gail Radford discussed federal policy that promoted homeownership in Modern Housing for America: Policy Struggles in the New Deal Era (Chicago: University of Chicago Press, 1996).

15. Sugrue, 63.

16. See Deborah Gray White, Too Heavy A Load: Black Women in Defense of Themselves, 1894-1994; and Pauli Murray, Pauli Murray: The Autobiography of a Black Activist, Feminist, Lawyer, Priest and Poet (Nashville: University of Tennessee Press, 1989).

17. See Taylor Branch's two biographies of King, Parting the Waters: American in the King Years, 1954-1963 (New York: Simon and Schuster, 1988) and Pillar of Fire: America in the King Years, 1963-65 (New York: Simon and Schuster, 1998); for more on the Civil Rights movement, see

18. For the expansion of the welfare state see: Michael B. Katz, The Undeserving Poor: From the War on Poverty to the War on Welfare (New York: Pantheon, 1989); Alice O'Connor, Poverty Knowledge: Social Science, Social Policy, and the Poor in the Twentieth Century U.S. History (Princeton: Princeton University Press, 2001); and Thomas F. Jackson, "The State, the Movement, and the Urban Poor: The War on Poverty and Political Mobilization in the 1960s," in The "Underclass" Debate: View From History, edited by Michael B. Katz (Princeton: Princeton University Press, 1993).

19. For black urban political power, see Stephen Gregory, Black Corona: Race and the Politics of Place in an Urban Community (Princeton: Princeton University Press, 1998); Heather Ann Thompson, Motor City Breakdown: The Politics of Race and Liberalism on the Streets and Shopfloors of Postwar Detroit (Ithaca: Cornell University Press, 2001); and Martha Biondi, To Stand and Fight: The Civil Rights Movement in Postwar New

York City (Cambridge: Harvard University Press, 2003). The story of postwar black political power is still being written, particularly for the 1970s and 1980s.

20. For the tax revolt of the 1970s, see David Sears and Jack Citrin, Tax Revolt: Something for Nothing in California (Cambridge: Harvard University Press, 1982); Lisbeth Haas, "Grass-Roots Protest and the Politics of Planning, Santa Ana, 1976-1988," in Postsuburban California: The Transformation of Orange County Since World War II, edited by Rob Kling, Spencer Olin, and Mark Poster (Berkeley: University of California Press, 1991); and Thomas Byrne and Mary D. Edsall, Chain Reaction: The Impact of Race, Rights, and Taxes on American Politics (New York: W.W. Norton, 1992).

21. Ray Davidson, Challenging the Giants: A History of the Oil, Chemical and Atomic Workers International Union (Denver: Oil, Chemical and Atomic Workers International Union, 1988), 132-135, quote from 135.

22. Davidson, 138, 139; 244-246.

23. Adeline Levine, Love Canal: Science, Politics, and People (Lexington: Lexington Books, 1982), 13.

24. David Halle, America's Working Man: Work, Home, and Politics Among Blue-Collar Property Owners (Chicago: University of Chicago Press, 1984), 11-13, 226; "Property Taxes Map," Niagara Falls Gazette, February 23, 1975, 8D. The only states with higher taxes than New York were Massachusetts, Connecticut, California, and New Jersey.

25. David Lowery and Lee Sigelman, "Understanding the Tax Revolt: Eight Explanations," The American Political Science Review, volume 75, no. 4 (December 1981), 969-974; and David Sears and Jack Citrin, Tax Revolt: Something for Nothing in California (Cambridge: Harvard University Press, 1982). Lisa McGirr links the California tax revolt to conservative grassroots activism in her book, Suburban Warriors: The Origins of the New American Right (Princeton: Princeton University Press, 2001).

26. Halle, 11.

27. Interview 127, Levine Collection.

28. Lois Gibbs, Love Canal: My Story as told to Murray Levine (Albany: State University of New York Press, 1982), 8.

29. Interview 103, Levine Collection; see Interviews 101, 109, 129, 134, 137, 140, Levine Collection for similar sentiments.

30. William T. Grainger and Richard J. Sheftic, "Personal Income in Areas and Counties

of New York State, 1978,” Research Bulletin No. 48 (Albany: Bureau of Business Research, August 1980), 14; of thirty-nine LaSalle residents interviewed, the most common family income reported fell into the \$10,000 to \$20,000 range.

31. New York State Economic Outlook for the Seventies (Albany: Office of Planning Coordination, December 1969), 50.

32. Ibid., 26

33. Ibid., 53.

34. See Interviews 101, 102, 103, 108, 110, 112, 116, 119, 127, 134, 137, 138, 142, Levine Collection.

35. Gibbs, 8.

36. Mazur, 209; Interview 128, Levine Collection.

37. See Interviews, 138, 141, Levine Collection.

38. Herbert Gans, The Levittowners: Ways of Life and Politics in a New Suburban Community (New York: Pantheon Books, 1967), 24-31.

39. Halle, 75.

40. Felician F. Foltman and Peter D. McClelland, “Introduction and Summary: The Extent of the Problem,” in New York State’s Economic Crisis: Jobs, Income, and Economic Growth: Proceedings and Commentary from the Labor-Management Conference on the Business Climate and Jobs in New York State, Buffalo, New York, November 6-8, 1975, edited by Felician F. Foltman and Peter D. McClelland (Ithaca: New York State School of Industrial and Labor Relations, 1977), 1.

41. Ibid. 4, 5.

42. Recent historical scholarship has begun to reconsider the causes, process, and effects of deindustrialization within American society. See the collection of essays in Beyond the Ruins: The Meanings of Deindustrialization, edited by Jefferson Cowie and Joseph Heathcott (Ithaca: ILR Press, 2003), especially Rich Newman’s essay on Niagara Falls, “From Love’s Canal to Love Canal: Reckoning With the Environmental Legacy of an Industrial Dream.”

43. Roy W. Bahl, The New York State Economy: 1960-1978 and the Outlook, Occasional Paper No. 37 (Syracuse: Maxwell School of Citizenship and Public Affairs, October 1979), 4, 5, 15.

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44. "700 laid off at Harrison," Niagara Gazette, January 10, 1975, 2A; "Carbodivision has laid off 200 workers," Niagara Gazette, January 17, 1975, 2B; "Auto industries set more layoffs," Niagara Gazette, January 18, 1975, 2A.
45. "Area jobless rate hits 10.3%," Niagara Gazette, January 28, 1975, 1A; and Editorial, "Falls factory jobs," 8A, Niagara Gazette, January 28, 1975.
46. "National output drops sharply," Niagara Gazette, January 17, 1975, 1A; "Inflation rate rises to highest since '46," Niagara Gazette, January 21, 1975, 1A; and Victoria Graham, "Hard Times: The American Dream Dissolves in the Great Recession," Niagara Gazette, February 2, 1975, 2E.
47. Alexander B. Malec, "Why? Just why is it that we live so badly?," Niagara Gazette, February 16, 1975, 3E.
48. Morton I Weinberg, "Can we produce our way out of economic dilemma?," Niagara Gazette, February 16, 1975, 11A.
49. "Harrison plant lays off 770," Niagara Gazette, February 21, 1975, 2A; "9,000 will be laid off," Niagara Gazette, February 22, 1975, 1A; "Property Taxes," Niagara Gazette, February 23, 1975, 8D; and David L. Russell, "Unemployment rate here sets record," Niagara Gazette, March 1, 1975, 1A.
50. Roy W. Bahl, The New York State Economy: 1960-1978 and the Outlook, Occasional Paper No. 37 (Syracuse: Metropolitan Studies Program, The Maxwell School of Citizenship and Public Affairs, October 1979), 73.
51. Ibid., 84.
52. Roy Bahl and Larry Schroeder, Projecting and Planning State and Local Government Fiscal Activity in a Declining Region: A Budgetary Forecasting Model for New York Monograph No. 5 (Syracuse: Maxwell School of Citizenship and Public Affairs: December, 1980), xi.
53. See Natasha Zaretsky, "In the Name of Austerity: Middle-Class Consumption and the OPEC Oil Embargo of 1973-1974," in The World the Sixties Made: Politics and Culture in Recent America, edited by Van Gosse and Richard Moser (Philadelphia: Temple University Press, 2003).
54. Levine, 33.
55. Gary Spencer, "LaSalle Residents Remain Up Tight On Canal Cleanup," Buffalo Courier-Express, September 1, 1978, Newspaper Clippings File, Ecumenical Task Force of the Niagara Frontier Love Canal Collection (Buffalo, New York: University Archives

of the State University of New York), hereafter cited as the ETF Collection.

56. The first case usually recognized as an example of environmental racism is Warren County, North Carolina, where an African American community was targeted for a hazardous landfill in 1982. See Eileen McGurty, "From NIMBY to Civil Rights: The Origins of the Environmental Justice Movement," Environmental History, 1997, 2(3): 301-323. The United Church of Christ Commission for Racial Justice was one of the first national civil rights groups to raise the issue of environmental justice in its 1987 study, Toxic Wastes and Race; for a discussion of environmental racism, see Robert Bullard, Dumping in Dixie: Race, Class, and Environmental Quality (Boulder: Westview Press, 1990), Confronting Environmental Racism: Voices from the Grassroots, edited by Robert D. Bullard (Boston: South End Press, 1993), and Faces of Environmental Racism: Confronting Issues of Global Justice, edited by Laura Westra and Paul Wenz (Lanham, Maryland: Rowman & Littlefield, 1995). For an excellent historical examination of the process of siting noxious and hazardous industries in low-income and minority neighborhoods, see Andrew Hurley, Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945-1980 (Chapel Hill: University of North Carolina Press, 1995).

57. See Thomas Sugrue, The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit (Princeton: Princeton University Press, 1996).

58. Editorial, "Let's Say It Properly," Niagara Falls Gazette, February 8, 1970, 8A.

59. Bob Summers, "Blacks, Whites Air East Side Crime, Law Problems," Niagara Gazette, February 25, 1970, 11.

60. Mary Heydon, "Black Nationalist Urges Separatism Among the Races," Niagara Gazette, May 3, 1970, 1C.

61. Ed Collins, "Public Housing Compounds Racial Imbalance in City," Niagara Gazette, May 29, 1970, 3B.

62. Black Employees Club, "The thing we ask for is equal civil rights," Niagara Gazette, February 2, 1975, 8A.

63. Ibid.

64. For the best examination of the tensions, racial and class, surrounding Northern busing, see J. Anthony Lukas, Common Ground: A Turbulent Decade in the Lives of Three American Families (New York: Alfred A. Knopf, 1986). Lukas' book gave the stories of three Boston families during the 1975-76 busing crisis.

65. Ed Collins, "Fall Is Target Date, Not Deadline, for Integration," Niagara Gazette,

February 4, 1970, 32; Charles R. Holcomb, "Here's Up-to-Date Picture on Integration Busing," Niagara Gazette, February 16, 1970, 6.

66. For the controversies of the Boston case, see J. Anthony Lukas' Common Ground, ibid., and Ronald Formisano, Boston Against Busing: Race, Class, and Ethnicity in the 1960s and 1970s (Chapel Hill: University of North Carolina Press, 1991). Along with taxes, McGirr identified busing as another element of grassroots conservatism's resurgence. See McGirr, 239.

67. Mrs. P. Ross, Letter to the Editor, Niagara Gazette, May 7, 1970, 14.

68. William W. Baum, "Coverage of Busing Issues Criticized," Niagara Gazette, May 14, 1970, 14.

69. Collins, "Housing Authority's Role in School Race Balance Argued," ibid.

70. Ibid.

71. "Griffin Manor Residents Form Group to Learn of Love Canal Dangers," Buffalo Courier Express, September 27, 1978, np, newspaper clippings file, Ecumenical Task Force of the Niagara Frontier (Buffalo, New York: University Archives, State University of New York at Buffalo), hereafter cited as the ETF Collection.

72. Memorandum from Cora Hoffman, Love Canal Task Force Liaison, Department of Mental Hygiene, to Dr. Taylor, New York State Department of Health, September 21, 1978, Folder "LaSalle Development (aka Griffin Manor) Housing Authority," Box 2, DOT Series 13430-89, (Albany, New York: New York State Archives), hereafter cited as NYS Archives.

73. Meetings 9/22/78 - 9/27/78 Memo, ibid., 2.

74. Meetings 9/22/78 - 9/27/78 Memo from Judith Keys to Tom Frey, Love Canal Task Force members, September 28, 1978, Folder "Background Material," Box 2, DOT Series 13430-89, NYS Archives.

75. Memorandum from Judith A. Keys, Community Liaison [she replaced Cora Hoffman], Love Canal Task Force to Ms. Nancy Dubner, Department of Transportation, October 27, 1978, Folder "LaSalle Development (aka Griffin Manor) Housing Authority," Box 2, DOT Series 13430-89, NYS Archives.

76. Memo from Philip C. Gioia, M.D., New York State Department of Health, Regional Office, to Dr. La Verne Campbell, Judy Keys, Mike Cuddy (all task force officials), October 20, 1978, Folder "LaSalle Development (aka Griffin Manor) Housing Authority," Box 2, DOT Series 13430-89, NYS Archives.

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77. Memorandum from Dr. Campbell, Regional Health Director – Western Region/Buffalo, to Dr. Glenn Haughie, Deputy Director – Office of Public Health, October 20, 1978, ibid.
78. Memorandum from Judith A. Keys, October 27, 1978, ibid.; Memorandum from Daniel S. Workman, Jr., Urban Affairs – Buffalo Office, to William C. Hennessy, Commissioner Department of Transportation [Love Canal Task Force Commissioner], October 27, 1978; Letter from Arthur O. Eve, [New York State] Assemblyman 143rd District, and Dan Workman, Urban Affairs – Buffalo Office, to Commissioner William C. Hennessy, Department of Transportation, October 31, 1978; Memorandum from Michael J. Cuddy, On-Site Coordinator, Love Canal Task Force, to William C. Hennessy, Commissioner Department of Transportation, November 3, 1978, and Letter from Commissioner William C. Hennessy, Love Canal Task Force, to Ms. Elene Thornton, President, Concerned Love Canal Renters Association, November 17, 1978, all in Folder “LaSalle Development (aka Griffin Manor) Housing Authority,” Box 2, DOT Series 13430-89, NYS Archives.
79. See Thornton’s December 19, 1978, letter to Daniel Workman, Office of Urban Affairs, indicating that an agreement had been reached about a fair division of concerns and duties; see Letter from Elene Thornton, Chairman of the Concerned L.C. Renters Association, to Mike Cuddy, On-Site Coordinator, Love Canal Task Force, December 12, 1978 for the warning about Jones and LoVerdi, all in NYS Archives, ibid.
80. Memorandum from Dan Workman, Deputy Special Assistant for Urban Affairs, to William C. Hennessy, Commissioner, Department of Transportation, December 21, 1978; Letter from William C. Hennessy, Department of Transportation Commissioners and Task Force administrator, to Elene Thornton, Chairperson, Concerned Love Canal Renters Association, January 5, 1979, in Folder “LaSalle Development (aka Griffin Manor) Housing Authority,” Box 2, DOT Series 13430-89, NYS Archives. Hennessy comments on the efforts of Dan Workman, a Buffalo Department of Urban Development administrator, to arbitrate between the groups, and their agreement to work together. Hennessy also urges to use Workman’s services as necessary.
81. Memorandum from Judith A. Keys, Community Liaison, to Ms. Nancy Dubner, “Summary,” October 27, 1978, ibid.
82. Interview 117, Levine Collection. The interviewee, a long-time resident of Niagara Falls with family living in the area, commented extensively on the relationship between the renters and homeowners in her interview.
83. For how residents distinguished whether they had lived in the former Griffin Manor or the new low-income housing project, see Interviews 102, 115, 123, 128, 134, 138, 139, and 143, Levine Collection where residents either explicitly refer to the former housing, or discussed how it had changed. See also Joe Dunmire Interview, June 12, 2002,

Townawanda, New York, with author.

84. Interview 134, Levine Collection.

85. Interview 122, Levine Collection. See also Interview 138, Levine Collection.

86. Interview 125, Levine Collection.

87. Interview 128, Levine Collection.

88. Halle, 213.

89. Interview 119, Levine Collection.

90. Interview 125, Levine Collection.

91. Interview 111, Levine Collection.

92. Interview 125, Levine Collection.

93. Interview 138, Levine Collection.

94. Interview 128, Levine Collection.

95. Interview 116, Levine Collection.

96. Interview 121, Levine Collection.

97. Interview 116, Levine Collection.

98. Interviews 121, 137, 127, 128, 138, Levine Collection.

99. Levine, 33-35, and 196; quote from Gibbs, 33.

100. Interviews 116, 125, 135, 142, Levine Collection.

101. Mazur, 223.

102. The very negative effect the disaster had on property values can be seen in numerous Interviews in the Levine Collection. See Interviews 116, 118, 119, 124, 125, 126, 128, 129, 134, 135, 138, 140, and 142.

103. Interview 102.

104. Interviews 117, 115, Levine Collection. Many of the residents, mostly those who had been relocated when they were interviewed, expressed positive opinions of Carey. In

general the opinion reflected the resident's degree of involvement with the Homeowners' Association.

105. Interview 107, Levine Collection.

106. "Letter to Editor," written by Patricia Pino, May 19, 1980, Folder "Statements on Love Canal," Box 50 "ETF Files R-Z, 1980-87," ETF Collection.

107. Interview 107, Levine Collection.

108. Halle, 242-245.

109. See Linda Gordon, Pitied But Not Entitled: Single Mothers and the History of Welfare, 1890-1935 (New York: Free Press, 1994) for a discussion of the contrast between "earned" benefits and "welfare" charity in the creation of two major pieces of New Deal legislation: social security (earned through work) and aid to families with dependent children (unearned welfare); Halle, 236. Such attitudes tend to support the view of the late-1970s and early-1980s tax revolt as a kind of social movement. See Heather Thompson's review of Lisa McGirr's Suburban Warriors, "Rescuing the Right," Reviews in American History, volume 30, no. 2 (2002): 322-332.

110. Open letter from Patty Grenzy, undated, Folder "Grenzy, Patricia-speech-n.d.," Box 61 "ETF Files 1979-88," ETF Collection

111. Interview 114, Levine Collection.

112. Interview 117, Levine Collection.

113. Ibid.

114. See David S. Meyer's introductory essay, "Opportunities and Identities: Bridge-Building in the Study of Social Movements," in Social Movements: Identity, Culture, and the State, edited by David S. Meyer, Nancy Whittier, and Belinda Robnett (New York: Oxford University Press, 2002).

115. I would suggest these relationships reflected both who the groups identified as the enemy, in the case of the homeowners, the Department of Health, and who they identified as friends. In the case of the renters, public officials more directly responsible to the governor (unlike the more independent Axelrod). There is some correspondence between William Hartenstein, an On-Site Coordinator and the Homeowners' group as well. While Judith Keys obviously helped the Homeowners' Association with a multitude of issues, she does not appear in any of the extant documents associated with that group, although brief, and negative mention is made of her predecessor, Cora Hoffman. New York State Assemblyman Arthur Eve exerted significance influence over the state bureaucracy,

which must be seen in part as due to considerations of race.

116. See the Memorandum from Michael Cuddy to William Hennessy, November 3, 1978 and Hennessy's corresponding November 17th letter to Elene Thornton, NYS Archives, ibid., for one example of this process. An example of DOH correspondence would be Dr. Campbell's (of the Health Unit Office at Love Canal) Memorandum to Dr. Glenn Haughie, a DOH official, November 15, 1978. Campbell details the efforts of "special counseling assistance" to the residents in the LaSalle Development during a ten-day period. One reason for the lack of correspondence between the Renters' Association and the Department of Health may be because that agency communicated with the Niagara Falls Housing Authority (and their attorney) with information about environmental testing, coupled with a poor response rate by Griffin Manor residents to repeated attempts to set up comprehensive testing. See letter from Glenn Haughie, Deputy Director, Office of Public Health, to Mr. Abranmowitz, Attorney, Board of Niagara Falls Housing Authority, May 4, 1979, NYS Archives, ibid.

117. Letter from Elene Thornton, Chairperson Concerned Love Canal Renters Association, to Michael Cuddy, On-Site Coordinator, November 15, 1978; response letter from Michael Cuddy to Elene Thornton, November 16, 1978, NYS Archives, ibid.

118. See letter from Michael Cuddy, On-Site Coordinator, to Dr. Robert Ketter, President, SUNY Buffalo, January 9, 1979 and Ketter's January 18, 1978, response, NYS Archives, ibid.

119. "Statement by Concerned Love Canal Renters Association," December 20, 1978, NYS Archives, ibid.

120. "Concerned Love Canal Renters Assn.," October 10, 1978, Folder "LaSalle Development (aka Griffin Manor) Housing Authority" Box 2, DOT Series 13430-89, NYS Archives.

121. Memorandum from Judith A. Keys, Community Liaison, to Elene Thornton, CLCRA, February 24, 1979; letter from Judith A. Keys, Community Liaison, to Mr. Michael Gallagher, Niagara County Department of Social Services, February 22, 1979. NYS Archives, DOT Series 13430-89, Box 2, Folder "LaSalle Development (aka Griffin Manor) Housing Authority." Keys notes that either a letter of guarantee or cash security deposits may be necessary, whatever was needed to ensure families could be moved quickly. This letter also suggests the difficulties public assistant recipients encountered in negotiating the welfare system.

122. Letter from Michael Cuddy, On-Site coordinator, to Mr. Harry Wrobel, Executive Director, Niagara Falls Housing Authority, March 20, 1979, NYS Archives, ibid. A letter from Harry Albond, Niagara Falls City Manager, to Michael Cuddy, April 2, 1979 indicates the city worried about how vacant units, and asked if state authorities planned to

reimburse the city for such lost revenue. Albond suggests that if the state reimburses the city for the units, and the Department of Housing and Urban Development replaces the Section 8 housing, he would allocate funds for the relocation of residents.

123. Letter from Judith A. Keys, Community Liaison, to Mr. Goebelbecker, Niagara County Community Action Program, January 29, 1979, NYS Archives, ibid.

124. Letter from Elene Thornton, Chairperson, Concerned L.C. Renters Assn., to John Lynch, Catholic Charities, December 22, 1978; and Letter from Michael Cuddy, On-Site Coordinator, Love Canal Task Force, and Judith A. Keys, Community Liaison, December 19, 1978, both in NYS Archives, DOT Series 13430, Box 2, Folder "LaSalle Development (aka Griffin Manor) Housing Authority."

125. All the numbers in the following analysis were calculated using the "Breakdown – Temporary Relocation Applicants," 8/18/80, Folder 34-4, Box 34 "ETF Board Minutes, 1980-February 1986," ETF Collection.

126. Love Canal Task Force, "Status Report," December 5, 1980.

127. Memo from Diane Sheley, Family and Neighborhood Services Coordinator, to Sister Margeen Hoffmann, ETF Executive Director, December 12, 1980, Folder "ETF Memos, 1979-81, 1986-88," Box 65 "ETF Files, 1979 - [1985-86] 1991," ETF Collection. There appears to be some discrepancy between when the state officially announced the HAC and HOME contracts in their monthly status reports and when they were hired. See Diane Sheley, "Report of Advocacy Outreach Program, Ecumenical Task Force Executive Board," November 11, 1980, Box 34 "ETF Board Minutes, 1980-February 1986," where Sheley comments on the hiring of the two agencies.

128. Memo from Diane Sheley, Family & Neighborhood Services Coordinator, to ETF Executive Board, April 8, 1981. The quote comes from a Buffalo Courier-Express article "Falls Cries 'Blackmail' to HUD," included with Sheley's memo, Box 34, ETF Collection.

129. Paul Westmore, "Smith calls HUD funding requirement 'blackmail,'" Niagara Falls Gazette, ibid.

130. Westmore, "Smith calls HUD funding requirement 'blackmail,'" and "Falls Cries 'Blackmail' to HUD," ibid.

131. Nelson Lichtenstein, State of the Union: A Century of American Labor (Princeton: Princeton University Press, 2002).

Chapter Three

“Recipe for Disaster” Motherhood, Reproduction and Citizenship

In August of 1979, Love Canal resident Ann Hillis cracked. She had taken her son Ralph to see the pediatrician, and had spent the day at the doctor's office. While there, she badgered her son's physician, questioning if perhaps he “would just one time say his [Ralph's] environment might be the cause of the bronchitis and the rash.”¹ Her doctor declined to do so, and Hillis suspected the fear of Love Canal lawsuits silenced him. After taking her son home, she brooded over the injustice of not being allowed to leave her contaminated home. She drove to the New York State Love Canal Task Force offices and demanded relocation for herself and her child. William Hartenstein, the on-site coordinator, replied she needed a physician's verification that her child's illness was caused by the Love Canal chemicals. Hillis picked up the Buffalo phone book and threw it at him. “If my child dies ‘Sir,’” she screamed, “I will remember you and all the so-called Health Department.” Hillis left the office, distraught, and beside herself with anger. Contacting a local aid organization, Hillis made arrangements to leave her home. She called her husband's workplace and told him she “was leaving the house forever” and took her son and left. Hillis ended her account of the episode by declaring she would no longer be the State's “guinea pig,” and demanding that state monies should pay for her family's relocation.

Hillis' dramatic exit typified other Love Canal residents' experiences, as they struggled with family illnesses they now suspected were caused by toxic chemicals, and

with public health officials' seemingly uncaring response. New York State Governor Hugh Carey's relocation decision required residents to prove ill health as a consequence of canal chemical exposure before they could be evacuated. This policy pitted residents in the broader Love Canal area – the outer rings – against Department of Health medical officials. Residents increasingly took drastic, even violent, action in their attempts to gain the attention of public officials. At the same time, their actions and arguments revealed their claims of state intervention as based upon protecting citizens' homes as the site of the traditional nuclear family and heterosexual reproduction.

Love Canal residents like Ann Hillis demanded that state officials protect their homes, families, and right to procreate; this understanding of state obligation underpinned their tactics and arguments. The state's obligation to protect the heterosexual family also framed much of the 1980s New Right's conservative ideology. In her work on anti-abortion campaigns, historian Rosalind Petchesky identified state action as anti-feminist and part of the emerging New Right. Ronald Formisano and J. Anthony Lukas linked working-class whites' conservative radicalism with the protection of their families in their studies of Boston's anti-busing.² The Love Canal women's activism marks the emergence of a post-feminist maternalism. Like Boston mothers involved in conflict over public education desegregation, Love Canal women perceived themselves as mothers charged with protecting their families and homes. Love Canal activists embraced motherhood and the traditional family as a powerful imagery in making their demands. Women's political activism channeled through their roles as mothers has a long and successful history within American history, and women on both ends of the political

spectrum have invoked motherhood as the reason for their political activism.³ The use of symbolic motherhood after the women's liberation movement reasserted a traditional role for Love Canal women that once again connected their political activism directly with their families and homes.

Residents argued for relocation based upon their roles as mothers and fathers concerned with the physical well-being of their families. This reassertion of a traditional gender role for women and a new one for men, who expressed concern for their families separate from their role as economic providers, meant residents claimed a status with the state based upon reproduction and the family. From August 1978 until permanent relocation in the fall of 1980, the Homeowners' Association women based their protests on their roles as mothers. American women had long used motherhood as a rhetorical strategy, a means of mobilization, and a justification for their public activities. The Love Canal women's maternalism represented one of the first examples of maternalist rhetoric and activism after the feminist and women's liberation movements of the 1960s and 1970s.⁴

During the 1980s, second wave feminists experienced a cultural backlash. The gains made by feminists came under attack with the ascendancy of the New Right and conservatives made feminists the target of particularly virulent attacks, in part by identifying the movement as responsible for the lost utopia of "traditional family values."⁵ Cultural critic Lauren Berlant has argued that heterosexual reproduction functions as the basis of citizenship after this conservative backlash. The recent controversies over same-sex marriage support this interpretation, as conservatives seek to

reassign domestic work to the reconstructed private realm of the home. The nature of women's citizenship was not a new issue as Americans struggled with political, economic, and social restructuring that generally decreased women's status within society throughout the latter decades of the twentieth century. Three models of postwar citizenship disadvantaged women seeking equality: as producers, as consumers, and as head of households. The United States' Cold War concerns emphasized the home and consumption as key elements of American superiority. Returning veterans and their employment hastened women's return to the home. The nuclear family – father, mother and children in a single-unit home – constituted the best defense against foreign invasion or Communist subversion.⁶ Motherhood and the family figured as an essential ideology of the state. Beginning in the nineteenth century and continuing throughout the twentieth, formal legislation and informal work rules prevented women from attaining economic and workplace equity with men. These factors barred women from fulfilling a nineteenth-century wage labor standard of the bread-winner ideal, and achieving citizenship through production. After World War II, veterans benefits, governmental policies, and private sector advantages privileged white males' roles as citizens through their roles as consumers.⁷ The institution of marriage itself disadvantaged women in attaining the full rights of citizenship. The decision to marry, often considered a private act, created public realities that promoted women's inequality.⁸

Women fought in major grassroots movements for equal rights and social justice. Their involvement in the Civil Rights movement, responses to the Cold War in the anti-nuclear/anti-war movement, and with the student democracy movement and New Left

culminated in second wave feminism and the women's liberation movement of the 1960s and 1970s. Women in the Civil Rights movement served as important links between formal leadership and the grassroots.⁹ At the same time, women also addressed Cold War concerns. Initially responding to the nuclear arms race from their positions as mothers concerned about their children's future, middle-class women were drawn into the anti-war activities of the 1960s.¹⁰ Here they met a younger generation of male and female activists committed to challenging United States' imperialist policies. The Civil Rights and University of California at Berkeley's Free Speech movement influenced many in this younger generation. These activists formed the New Left, a political movement that emphasized the radical beginnings of the American republic rather than the Communist doctrines of the old left.¹¹ Concurrently, working-class and poor women became involved in Lyndon B. Johnson's Great Society campaign. These women fought for welfare and housing rights, becoming integral leaders within their communities.¹² Beginning in 1963 with the publication of Betty Friedan's The Feminine Mystique, women's previous work in these social justice movements and continued activism within the workplace coalesced into the second wave feminist movement and more broadly, the women's liberation movement.¹³

The women's liberation movement changed a number of political, economic and social realities for American women, while at the same time it generated a tremendous conservative backlash. Feminists challenged women's discrimination in a wide array of areas, from employment inequality, to academic bias, childrearing and family structures, and patriarchal medical practice. Significant victories came in changing some of these

practices. The National Organization of Women (NOW) helped stop sex-typed employment advertisements. Feminists helped establish women's studies programs within universities. Ordinary women, empowered with a new understanding of the unpaid labor connected to the home, demanded a more equitable sharing of domestic duties. Women achieved reproductive rights with the development and use of the hormonal birth control pill in the 1960s and the legalization of abortion in New York State in 1970 and nationally in 1973.¹⁴ Women saw increased visibility in 1970s in the media. Ms. magazine began publication in 1971, films like Alice Doesn't Live Here Anymore featured strong roles for female actors, and Betty Friedan and Gloria Steinem became public icons of the feminist movement. Almost simultaneously, feminism received negative attention from the media, which often stereotyped the movement as composed of angry, bitter, male-bashing women.¹⁵ Women of color, working-class women, and conservative women expressed their resistance to a movement they feared would harm their status. While minority women began parallel liberation movements that addressed racism, women on the political right joined hate groups.¹⁶ Phyllis Schlafley mobilized conservative women and led a successful political campaign to stop the passage of the Equal Rights Amendment.¹⁷

Love Canal women proudly proclaimed themselves mothers concerned about their families. As mothers, they perceived and responded to three interrelated threats the chemical contamination posed: the risk to pregnant women and reproduction, the disruption of their families and homes, and the upheaval of traditional gender roles. All of these perceived threats centered on women, reproduction, and the home. Love Canal

women claimed a citizen relationship with the state based upon their roles as mothers. Additionally, at the same time Love Canal women were making arguments based upon traditional female gender roles, community residents were articulating a new gender role for men. Love Canal men emphasized emotional sentiments that emphasized their care for their families rather than concern over property. Love Canal residents' arguments and actions focused on women and men's reproductive roles as parents and the risk chemical wastes posed, and they demanded the state intervene to preserve these roles.

The three threats residents perceived – to reproduction, children and homes, and to traditional gender roles – structure this chapter. Community members' typically understood these dangers as intertwined and responded to them as such. My analysis here separates these responses to allow a better understanding of the arguments' rhetorical underpinning and arranges them in topical rather than chronological order. In the first section, I contend that residents challenged public officials to provide a safe environment for reproduction so they could fulfill their obligations as female citizens. Next, I examine how residents, aided by media coverage, portrayed the state as uncaring and indifferent to the disaster's effect on existing homes and families. Even more disturbing to residents, the community's contamination went beyond disruption of the family in its perversion of traditional gender roles. Finally, I end with a consideration of how the Love Canal community claimed a traditional gender role for women yet expressed a new gender role for men that connected males with the home and family beyond the traditional roles of breadwinner and protector.

Miscarriages, Birth Defects, Bad Chromosomes: Reproductive Risk and Citizenship

Residents' fears about reproductive harm first appeared during the community's mobilization, and this early awareness helped publicize the problem. Gibbs told her neighbors about the community's miscarriages, birth defects and crib deaths.¹⁸ Residents also expressed fears at public meetings held before Governor Carey decided to relocate the people living closest to the canal. As one pregnant mother asked, "What's going to happen to me, Mrs Gibbs? What's going to happen to my baby?"¹⁹ The August 8, 1978 public health order evacuating pregnant women and children under the age of two (issued before the relocation of residents closest to the canal) only intensified these fears. The early arguments about reproductive risk centered on pregnancy and birth defects. Private conversations and public meetings alerted residents to the ongoing problem and prepared them to act when public health officials denied outer-ring residents' requests for relocation.

Love Canal residents argued that the previous miscarriages and birth defects suffered by the area's families proved the area's chemical contamination and the necessity of relocation. A pregnant woman, interviewed as part of a sociological study, worried about the chemicals' effects on her fetus, wondering if "the baby will be retarded?"²⁰ One husband stood at a public meeting in February of 1979 and showed his despair over his wife's pregnancy. "It's too late for my wife. She's already six months pregnant. What do I do if I have a monster because you wouldn't move us out before?"²¹ On August 2, 1979, Gibbs published an open letter to her "Fellow Citizens of America." The letter listed the deaths, miscarriages, and birth defects suffered by LaSalle residents.

It noted there were many more individuals that preferred to remain anonymous. The letter ended with the plea: “How many names will be added to the list by next year? Why can’t we be relocated – those of us who are still alive?”²² Ann Hillis used a homemaking analogy in describing the risks to pregnant women. “LOVE CANAL,” she wrote, “approximately 16 acres, ‘Recipe’ 22,000 tons of toxic waste, mix with spring water, snow, etc., and human beings.” The deadly mixture’s yield: “miscarriage, mentally retards, birth defects, urinary track respiratory, central nervous disorders, live damage, cancer, suicides, death!”²³ The Department of Health continued studying the community’s miscarriages throughout 1978 and 1979. At a public meeting held a few weeks after Gibbs’ letter appeared, Commissioner of Health Dr. David Axelrod admitted the miscarriage rate at Love Canal appeared to be as high as thirty-five to forty-five percent. These rates were well above the average, where twenty percent of pregnancies ended in miscarriage. One resident at the meeting likened the Department of Health’s refusal to relocate residents to “human sacrifice.”²⁴

When the Department of Health finally responded to the increased miscarriage rates, the Homeowners’ Association changed its argument to one based upon the potential risks to all pregnancies. On February 8, 1979, the Department of Health Commissioner geographically expanded the emergency health declaration that had evacuated pregnant women and children under the age of two. Members of the Homeowners’ Association met with Commissioner David Axelrod before the announcement of the health order. Gibbs badgered him, demanding to know what the remaining women should do if they wanted to conceive. Why should these potential mothers stay, she asked, if Axelrod was

saying that “women have to get pregnant and risk the possibility that the fetus will be damaged before they even know they are pregnant, and then they will have to wait several weeks before they can move.”²⁵ Gibbs characterized the Department of Health as “crazy,” and warned it could not “play with people’s lives!”²⁶ She even went so far as to ask Axelrod if the health department was “practicing birth control.” From the perspective of Love Canal residents, public health officials’ refusal to relocate all couples desiring pregnancy meant they were denying women the right to become mothers.

Public health officials refused to relocate upon the basis of potential pregnancy, arguing that women knew the risks, while residents asserted that they could not make such assessments. Ironically, the ruling contradicted existing workplace practices in place since the beginning of the twentieth century that regulated women’s working conditions and hours.²⁷ In Gibbs’ confrontation with Axelrod, she ridiculed the idea that women now knew the risk associated with pregnancy and could make appropriate decisions. Using herself as an example, she noted her own confusion: “I don’t know the risk. Is it more of a risk than smoking a pack of cigarettes, or less?”²⁸ Gibbs concluded that ordinary people could not make such decisions as they lacked the qualifications. At the February 8 public meeting between health officials and residents, Homeowners’ Association member Grace McCoulf argued that waiting to become pregnant put her at harm as well. “You can’t make me have my baby here,” McCoulf warned, “I want to have a baby, and I’m getting older. I want to have my baby before I am thirty.”²⁹ McCoulf later obtained a physician’s letter recommending she be relocated before she conceived. Gibbs went head-to-head with a public health physician over whether

McCoulf could evaluate the risks associated with a possible pregnancy. If the official did not know the risk, Gibbs asked, how “could he expect an ordinary woman, who had no knowledge of toxic effects, to evaluate the risk?”³⁰ Gibbs again leveled the charge that the Department of Health’s policies were de facto birth control. In the residents’ opinion, choices about whether or not to conceive first required a safe environment for conception, and any decisions that prevented that condemned women to be barren.

Concerns about the harm to pregnancies and children took on new urgency and provoked an extreme reaction when residents found out that the canal chemicals might have caused genetic damage. The Environmental Protection Agency (EPA) had commissioned a health study of Love Canal residents’ chromosomes in January of 1980. Conducted by Dr. Dante Picciano, the study identified eleven of thirty-six residents as having chromosomal breakage. This genetic damage, according to media accounts, could result in an increased risk of miscarriages, stillbirths, and birth defects. Worse, it could also signify increased cancer risk or genetic damage that might appear in any children the individuals had or chose to have.³¹ The manner in which residents discovered this new danger compounded the problem even more; it appeared in newspaper stories before any study participants had been contacted. In an effort to rectify the situation, the EPA sent representatives to Niagara Falls to meet with residents and explain the study’s findings. In the most dramatic protest throughout the conflict, Love Canal residents took two EPA officials hostage. In a later interview, Lois Gibbs described the volatile scene: “Moms were dumping gasoline on the front yards of some of the houses spelling out the words EPA and then lighting it on fire.”³² This widely covered protest, along with official

mismanagement, prompted President Jimmy Carter to issue another emergency disaster declaration, on May 18, 1980. The federal government proceeded with the relocations of all residents who wished to leave, despite serious questions over the chromosome study's methodology and results. This second disaster declaration continued to ignore any possibility of the chemicals wastes harm to human beings, as officials justified the decision on residents' mental stress rather than the area's physical conditions. Whatever the grounds, the declaration still assured the temporary relocation of the remaining Love Canal families.

Love Canal residents continued to use the chemicals' threat to pregnancy to advance their cause of permanent, state-aided relocation. In a very public use of the miscarriage data, a group of residents appeared for the second time on The Phil Donahue Show in June of 1980. Residents consciously used the appearance to apply political pressure. After settling into their rooms, Gibbs met the other residents in the hotel bar to discuss their strategy for the next day. Residents received assignments, with instructions on what to answer and how to redirect the question to their assigned topic. Gibbs coached them. If a guest was supposed to talk about miscarriages but got a question about the mayor, Gibbs suggested they answer: "I don't like the mayor because I have had three miscarriages and other health problems, and he won't help us."³³ In Gibbs' opinion, the tactic worked and the show received thousands of letters of support after the residents' appearance. The performance also demonstrated the ways Gibbs and the Homeowners' Association women had grown to be sophisticated advocates for their cause. Residents successfully used reproductive risk as an essential part of their argument

for relocation. The media would play a significant role in the defining and propagating the next threat residents responded to, the harm the canal chemicals caused in children and homes. The Love Canal women's appearance on the Donohue show, and their actions described in the following section, demonstrate the ways that a group of women who scorned feminism were still deeply influenced by feminist arguments and tactics.

Children, Homes, and Pictures: Families and Citizenship

Love Canal women considered motherhood their primary identity, and understood the protection of families and homes as a natural female role. As historian Annelise Orleck noted in her study of women's consumer boycotts, maternalist appeals often mobilize women previously apolitical.³⁴ Love Canal women saw their activism as a logical feature of the sexual division of labor within the family. As one mother explained: "I was the one who had to take care of the household and the children and stuff like that. . . . protecting the family and everything and see what's going on with our health and our home and everything else."³⁵ In her study of working-class women's anti-busing activism, sociologist Julia Wrigley noted several factors favored female leadership, which included support of traditional family structure, activities considered female, and the strategies used.³⁶ At Love Canal, the focus on protecting the family and home promoted female leadership. Perhaps equally important, many of the men were employed in the chemical industry responsible for the pollution, which made their public participation difficult. Few, if any, of these women considered themselves feminists, or were affected by the women's liberation movement itself. Gibbs admitted that "women's liberation was a subject for raucous humor among her friends."³⁷ Yet in their arguments

and actions, these women show the influence of New Left and feminist activism. It might have been easier for Love Canal women to identify with the public theater tactics of feminists, if only because they were done by women who looked like them. Many of the Love Canal women may have seen coverage of feminists' protests at the 1968 Miss America pageant, or read about the women's liberation movement after a demonstration held at a major women's magazine. In 1970, feminists staged a sit-in at the offices of The Ladies Home Journal. Their actions prompted the magazine to provide in-depth coverage of the women's liberation movement in the next issue.³⁸ Whatever the influence, when confronted with state officials' refusal to relocate their families, the Homeowners' Association female members performed dramatic acts of public theater to draw attention to and gain support of their cause. While men served as street representatives, held minor association offices, and faithfully attended meetings, community women became the public face of the Homeowners' Association, and were featured prominently in the organization's protest activities.³⁹

Media coverage helped create the story of mothers struggling to protect their families and homes, and residents were well aware of this. As Gibbs later noted, the media "loves women and children, especially the visual media."⁴⁰ Just as their appearance on the Phil Donahue Show demonstrated, the Love Canal residents were prepared to use whatever means available to plead their case. The death of seven-year-old Jon Kenny in October of 1978 shocked the community, and many residents blamed Kenny's kidney failure and subsequent death on chemical exposure. The death marked the advent of public protests centered around children and the harm Love Canal

chemicals posed to them. Through carefully constructed public protests, Love Canal mothers told how toxic chemicals threatened families and homes. The focus on children and homes extended the danger of Love Canal chemicals from potential motherhood to existing families. Children appeared in public protests, at public rallies, and in news coverage of events. These appearances made implicit claims upon the state to protect the nation's families.

From Jon Kenny's death in October until permanent relocation was achieved a little less than two years later, the Homeowners' Association women created public protests that emphasized their roles as mothers protecting their children. Residents forced state officials to provide buses and drivers in case remediation work required an evacuation of the area. Grace McCoulf and her children stood on the street during one evacuation drill and noted to reporters that the family would have died of toxic fumes because passing buses failed to pick them up.⁴¹ Gibbs called a child abuse hotline and reported the Department of Health Commissioner for mistreatment, as a failure to remove the children exposed them to deadly toxic chemicals. Hotline officials debated and finally declined to follow up on the charges. As a civil servant carrying state-sanctioned actions, the commissioner could not be charged for doing his duty.⁴² One planned protest involved the delivery of two coffins, one adult sized and one for a child, to the Governor's office. The press covered the "funeral procession" throughout its journey on Highway 90 from Niagara Falls to Albany. The Homeowners' Association found the Albany press to be less sympathetic to their cause than reporters in Western New York.⁴³ Resident Ann Hillis invoked Jon Kenny's death at a rally held October 4, 1979, which

featured Jane Fonda and Tom Hayden. The couple, controversial for their anti-war activism and involvement with liberal causes, may have been influenced by Fonda's work in The China Syndrome, a 1979 movie dealing with a nuclear accident cover-up, produced by Fonda's company. Fonda admitted in interviews that she thought the movie would be both commercial and "have a social impact."⁴⁴ Love Canal residents warmly welcomed Fonda, thankful for any assistance in publicizing their cause. Residents remained unaware or uncaring of the contradiction between their conservative family rhetoric and Fonda and Hayden's radical pasts. At the rally, Hillis proudly declared herself a wife and mother. She told the assembled crowd that Jon's death should never be forgotten and blessed "Jon Kenny, and all the old and the young and the many that were conceived but never had a chance to run and play."⁴⁵

Residents brought their children to protests as visible evidence of those who stood to suffer the most from the chemical contamination and in the process fabricated media friendly events. At one of Governor Carey's first visits to Niagara Falls, LaSalle children dressed in their Sunday best surrounded him in a semi-circle. Lois Gibbs then asked the governor, "Are you going to let [these] three-, four-, and five-year olds stay in Love Canal and die?"⁴⁶ Parents also took their children to the Buffalo airport, for planned protest at one of President Jimmy Carter's campaign stops. At the airport, Love Canal residents held signs accusing Governor Carey of child abuse.⁴⁷ Grandparents living in Long Island, New York saw their grandchildren on a picket line in one televised protest.⁴⁸ Residents brought their children to the May 1980 EPA kidnapping event. This action actually angered some of the mediators as the children could have been physically harmed, given

the potential violence of the situation.⁴⁹ As tensions mounted within the community, the public interactions between Love Canal residents and public officials provided, as described by sociologist Penelope Ploughman, “spontaneous events” that residents then shaped into packaged news stories, “useful for news producers.”⁵⁰ The photographs accompanying the Love Canal news articles often showed children holding protest signs. In one article, photographs showed children at a number of protests. Their signs included: “We Want Out Now,” “We Older Kids Need to Go to Help” (referring to the emergency health declaration evacuating children two years or younger), “Evacuate Us All, NOT Just Little Kids” (emphasis in original), and “Please Don’t Let Me Die.”⁵¹ Another Gazette article included protest photos unrelated to the story. In the picture, a mother held her daughter. Another child, not her own, stood beside her holding a sign that read: “Help My Brothers and Sister, It’s Too Late for ME.” A flag with a skull and crossbones waved above the group.

The successful manipulation of the media coverage depended not only on a newsworthy Love Canal story, but also on the changed nature of the press and its role within society. Two major events of the late-twentieth century, the Vietnam war and the Watergate political scandal, increased the press’ relevance and importance within society.⁵² Like earlier Progressive Era muckrakers, reporters once again viewed themselves as societal watchdogs, monitoring the actions of those in power. Mike Brown, one of the first covering Love Canal, saw himself as an advocate – as a person first, then a reporter.⁵³ In a post- Vietnam and Watergate era, journalists approached the Love Canal disaster as a wrong needing to be rectified.

Love Canal residents gained the sympathies of the press, and in the process became savvy suppliers of both stories and pictures documenting the effects of the disaster. Sociologist Penelope Ploughman analyzed the news coverage of the Love Canal chemical disaster through an examination of news articles written about government, residents, and the chemical industry. Unlike the student radicals of the 1960s, Love Canal residents, and the Homeowners' Association in particular, received consistently favorable press in three newspapers analyzed, the Niagara Gazette, the Buffalo News, and New York Times. While government officials and actions appeared in most of the articles examined over a three year time period, the residents received more media coverage than business, a somewhat surprising result. Hooker Chemical chose to use channels of "bureaucratic propaganda" in its attempts to explain its side of the story, publishing articles in trade journals and putting out "Factlines." The Homeowners' Association, on the other hand, "achieved the status of a legitimate and credible news sources."⁵⁴ In the process, the residents became "mediacized," adapting their schedules to accommodate media deadlines and through the staging of numerous and elaborate "media events." The pictures of LaSalle residents showing mothers, fathers, children with protest signs became so prevalent that these images appear in published Department of Health reports and journal articles discussing the situation.⁵⁵ Using both written text and visual illustrations, the media helped Love Canal residents narrate the story of their disrupted families and homes.

Reporters' stories shocked residents and readers as they told about toxic chemicals found beneath the elementary school playground. The Gazette's Mike Brown

interviewed the Voorhees and Schroeder families and wrote about Tom and Lois Heisner's child who was born with a birth defect.⁵⁶ Ongoing media coverage of events also stressed this particularly compelling aspect of the story. In the first weeks after the formation of the Love Canal Homeowners' Association, residents' pictures appeared in stories about the public meeting with the DOH and other public officials. After the August 2nd emergency health declaration, residents scrambled to find other living arrangements. Under the headline, "2 tots headed for grandmas," a *Niagara Gazette* article told the story of Rose and Ken Nugent, who were sending their children away. The article included a picture of the parents holding their children in front of their home.⁵⁷ Another article appeared in the *Gazette* where an area child was interviewed. The boy admitted he and other children had played in the vacant lot at 97th Street located on top of the canal site. His father now suffered from a "nervous condition," and the article recounted his mother's complaint of official indifference. The photography printed with the article showed the Wednesday night meeting with Health Commissioner Whalen, and depicted a father holding his daughter on his shoulders at the meeting.⁵⁸

Media accounts situated the dump site amidst an idyllic, thriving, seemingly prosperous community perfect for raising children and emphasized the horrific reality of chemical contamination. David Shribman, a reporter from the *Buffalo Evening News*, played upon the contrast between the peaceful suburban setting of the LaSalle neighborhood and the lurking menace posed by the chemical contamination. "It has all the makings of the perfect residential area," Shribman wrote, "The bus line is at one end of the block, the elementary school at the other. There is little traffic. And the field

behind their homes would someday become a park.”⁵⁹ The piece also conveyed the fear and anger felt by residents, and described the protest signs now appearing within the community. One sign, “Wanted – healthy home for toddler,” embodied the threat to the community’s children, and article noted that residents feared “their children may be dying.”⁶⁰ One account featured Linda Fortino, seven months pregnant, in an article entitled “Expectant mother says she’s scared.”⁶¹ Another story, appearing in the Buffalo Courier-Express, profiled a young family from Love Canal. Included with it, a picture showed the husband holding his son, and his wife kneeling on the ground with their three-month-old baby. The description of the family’s home characterized it as “one of casual domesticity.”⁶² Even the national news media used the trope of the endangered family in their follow-up coverage of the Love Canal disaster.

Traditional women’s magazines began covering the disaster in 1979 and 1980, featuring the Love Canal women as activists fighting the disruption of their families.⁶³ One McCall article focused on the Quimby family. The Quimby’s story followed a traditional heterosexual narrative: meeting, marrying, moving into the first home and having children. Barbara Quimby described their present situation as a nightmare, a complete contradiction of what people usually expected. “You fall in love and you’re going to have a little white house with a white picket fence and beautiful babies. That’s what everyone believes in when they’re young and in love.”⁶⁴ Brandy and Courtney Quimby, Barbara’s daughters, suffered from mental retardation and severe asthma. While Barbara did not blame herself for Brandy’s condition, she admitted that she “would never, never have another baby now.” She knew too much. A later essay, printed in The

Nation, discussed the increased suicide rate among Love Canal teenagers, as they struggled to come to terms with a tragic legacy. The piece cited the example of one fourteen-year-old, who took an overdose of sleeping pills because of fears about her future health, particularly reproductive health.⁶⁵

In both its text and photography, a later news feature summed up the harm that had been done to the Love Canal families. In “Breakdown: Love Canal’s Walking Wounded,” a 1981 Village Voice cover story portrayed an embattled community. A photograph of a former Love Canal mother, out-of-focus in the background, with her young son gazing into the eye of the viewer appeared on the magazine’s cover. The other photographs illustrating the story included a picture of a mother and daughter, who expressed concern about their future health, and a portrait of Luella Kenny, posed in front of a black silhouette, of the kind made by elementary school children, of her child Jon who died in the fall of 1978. The written narrative told about the various Love Canal family tragedies: a worried husband and father committed suicide; a young woman, active in the Homeowners’ Association, who had separated from her husband; a seventeen-year-old woman confided her decision not to have children; and the children of Love Canal obsessed about the toxic poisons present in their bodies. All of these stories accentuated people forced out of their normal roles – a father who deserted his family through death, a divorced wife, a woman choosing a barren future. One of the most effective pictures contained no residents, but showed a garage door with a black stork emblazoned on it.⁶⁶ Even more than the text story, the visual story of these Love Canal families expressed a

story of loss and quiet anguish, emphasized the harm done to the community's children and homes.⁶⁷

The later use of one photograph produced during this time at Love Canal supports this interpretation of activists' intentions in using these pictures as a kind of visual rhetoric, one re-enforcing their maternalist arguments. In the summer of 1978, Department of Health medical investigators drew blood from LaSalle area families as part of the ongoing health study. The Buffalo News ran a series of photos of the children, with one particularly striking picture of a small, blond-haired little girl grimacing in pain. This photograph later appeared in fund-raising materials sent out by the Citizen's Clearinghouse for Hazardous Wastes, Inc (Figure 2). (CCHW), the environmental action group started by Lois Gibbs after she left Niagara Falls.⁶⁸ Characterizing itself as a "grassroots environmental crisis center," the CCHW aided communities in their opposition to hazardous waste landfills, by providing toxic waste information, techniques for community mobilization, and strategies of public advocacy. Appearing on the pledge card, and within the body of the letter itself, the picture illustrated and validated Gibbs' credentials, gained through her activism at Love Canal. The letter described her "discovery" of the Love Canal dump, the community's mobilization, and the winning of relocation and buy-out of neighborhood homes. Gibbs wrote that she formed the CCHW "to help other parents do what I did: fight for the lives of their children when they're threatened by toxics."⁶⁹ The appearance of the photograph in later literature simply showed a distilled understanding of the conflict at Love Canal, and served as a summarization of grassroots activists' understanding of the conflict.



LOVE CANAL INSPIRES NEW TOXICS MOVEMENT

FIGURE 2

Citizen's Clearinghouse for Toxic Waste, "Five Years of Progress, 1981-1986," Fifth Anniversary Convention, Arlington, VA, May 31 – June 1," Folder "Conferences, CCHW," Box 51, ETF Collection, University Archives, SUNY Buffalo

The photograph's details reveal the imbedded assumption of grassroots environmental activism: the uncaring nature of government and need for public response. In the photograph, a pair of hands physically restrained the little girl. It remains unclear if these hands belong to a parent or a medical assistant. The technician taking the blood sample looms over the child, whose face reflects fear and pain. (Contrast with Figure 3, also of a child having her blood taken.) While the picture depicted the drawing of blood, which would be tested for the harmful effects of toxic chemicals, the written text of the letter emphasized the need for parents to act. The letter cautioned parents to save their children from exposure to chemicals, chemicals that may cause deformities and disease, even death. Pictures of these conditions might be more graphic, but conceivably even more powerful tools of advocacy.⁷⁰ If intentional or not, this photograph of a small, frightened child captured the basic premise(s) underlying both the Homeowners' Association and CCHW: the need to protect children not only from toxic chemicals but from indifferent government representatives. Such a photo implicitly demanded citizen involvement and government action in protecting children from harm. The choice of this particular photo offered other advantages as well.

The photo of the unnamed girl allowed CCHW activists to apply Love Canal to other incidences of toxic waste contamination. The fund-raising letter using the photograph urged "parents," not just mothers, to fight for their children. One of the examples described Gibbs meetings with concerned individuals, including a "distraught father in Jacksonville, Ark" mourning the loss of his daughter to dioxin poisoning and fearful for other children in the community.⁷¹ The picture of an unknown child from



FIGURE 3

Love Canal Girl Getting Blood Drawn, NYS DOH

New York State Department of Health, "A Special Report to the Governor &
Legislature: Love Canal (April 1981)

Folder 114, Box 11, ETF Collection, University Archives, SUNY Buffalo

Love Canal allowed the disaster to potentially become a universal one, one requiring a response from both mothers and fathers.⁷² The severity of the toxic chemical threat demanded fathers become involved in protecting their families, and emphasized the caring aspect of that role, even as the community struggled with disruptions of existing gender roles.

Activist Mothers, Caring Fathers: Women, Men, and Citizenship

Dealing with the disaster provoked new behaviors in both men and women. Women's public activism demanded a significant commitment of energy and time, which often meant that their everyday work at home suffered. The disaster itself stressed marriages as tensions rose. The disaster affected men, too. As a result they displayed behavior contrary to the tough masculine norms of the community. As some of the preceding analysis has shown, toxic waste activists' arguments subtly emphasized that parents were crucial in the hazardous waste fight. Emulating the LaSalle women's success at gaining attention and publicity, the disaster encouraged the community's men to emphasize their roles as caregivers within the family rather than just economic providers.

Organizing and running the Homeowners' Association played to community women's strengths, but demanded a sacrifice on their part as well. Before the discovery of the chemical contamination within their neighborhood, LaSalle women considered their most important work to be within the home. The women's heavy involvement in protest activities required that they be away from their homes for many hours at a time. Barbara Quimby left her two daughters at home to attend meetings and staff the

Homeowners' Association office. Quimby missed so much time with her family that her disabled daughter asked if her mother was "at a meeting" years later.⁷³ Women fixed their families quick meals and stopped doing household chores so they could do Association work.⁷⁴ Lois Gibbs, like many of the women, sacrificed her previously normal family life. In her memoir of events, she shared one story where she missed a major family celebration, her son's birthday. Starving when she returned home late at night, she ate her sister's coffee cake, a poor substitute for the real birthday cake Gibbs had no time to make. Her son cried when he realized she had eaten what was to be his birthday cake. At the small party Gibbs managed to have, four lawyers and two doctors joined the family in singing "Happy Birthday" to her six-year-old son. Their presence highlighted how abnormal the Gibbs family's home life had become.⁷⁵

Less obvious than the work done for the Homeowners' Association, the situation at Love Canal stressed many couples, and women found they could not perform their everyday duties. Many couples admitted they fought more, and mothers yelled at their children more often.⁷⁶ Several of the Love Canal women began taking tranquilizers, or smoked more cigarettes, to help them deal with the stress.⁷⁷ Families were allowed to move temporarily during heavy remedial construction at the canal site in the fall of 1979. Most families went to nearby hotels and tried living in limited space with no cooking facilities. The hotels refused to provide lunches for children or working men, and families quickly spent the thirteen dollars a day food allotment allowed by the state.⁷⁸ Aside from the chaos during the day, hotel living made more intimate activities impossible. Resident Ann Hillis described the situation: "In one room with two beds and

our eleven-year-old child in one bed, besides, I was dead to any feeling, but there were times when my husband had desires and I did not.”⁷⁹ The realities of living with chemical contamination overwhelmed many women.

Chemical contamination affected Love Canal men adversely too, as they found it impossible to protect their families or property using traditional means. Early during the community’s organizing, several residents discussed some kind of tax or mortgage strike.

At a neighborhood meeting before the formation of the Homeowners’ Association, resident Tom Heisner encouraged the crowd to burn their mortgages and tear up their tax bills, and many of the residents complied.⁸⁰ Even as residents attempted to implement these protests, the more compelling, and sympathetic, story of the threat to pregnant women and as well as the tax abatement assistance implemented made tax protests less effective.⁸¹ Many of the community’s men admitted they felt helpless to protect their families. They wanted to stay in their homes until there was some assurance of reimbursement for their homes, another source of stress within families.⁸² Worse yet, dealing with the threats to their homes and families made men act strangely. They began crying, conduct not normally seen in this working-class community. Gibbs described her own distress as seeing such behavior: “The men in our neighborhood don’t cry. They are he-men, the type of men who protect their families and will let nothing hurt them. To see so many men cry really upset me.”⁸³ The women working at the Homeowners’ Association offices saw many of these distraught men, and often offered them comfort.⁸⁴ Trying to deal with the chemical disaster in traditional ways, protecting their families and property, had proved impossible for Love Canal men.

In contrast to some Love Canal men's failure to deal with the disaster in a conventional 'male' manner, the response of a few men signaled the acceptance of a new male gender role. In the process, Love Canal residents displayed a form of community parentalism, in which both men and women showed nurturing sentiments toward their families.⁸⁵ When Love Canal resident James Clark testified before Congress on March 28 and 29, 1979, he emphasized the need for some kind of national plan to address the toxic waste problem, no matter how expensive. He rhetorically asked the "worth" of one child, and warned of the consequences of ignoring the problems. "We cannot victimize our Nation's children through carelessness and greed."⁸⁶ Clark told a story about a young girl, her face scarred by an unexplained rash. Holding up a picture, he pleaded on the behalf of the young girl who was his daughter. In his appearance, Clark stressed his role as a father, and emphasized the need to protect children everywhere. Other men in the Love Canal area voiced anger and regret over the loss of their homes, not always in the context of valuable property, but as places that they had made their own. One wife described her husband's feelings toward their home: "To him it was his life he had put into it."⁸⁷

Comparing their current situation to their wartime experiences, Love Canal men expressed a new understanding of what was needed to protect their families. Under the headline, "Vets Face New War at Home," an article in the Buffalo Veteran, the local area newsletter, featured an interview with two Love Canal residents in the summer of 1980. Both men, given pseudonyms, talked about the fears and anxieties they had for their homes and families. Exposed to Agent Orange during the Vietnam war, the men agreed

that they had faced a much more difficult battle at Love Canal. Hough saw himself as a “angry, bitter, dying old man who’s ready to start killing people,” well-aware of the chemical contamination permeating his neighborhood.⁸⁸ He ended his interview with an implicit analogy: he pointed to a dying tree in his back yard and compared it to the ones defoliated by Agent Orange in Vietnam. Jack Spencer, the other veteran interviewed, connected his family history of illness – stunted growth, back problems, skin rashes, heart attacks – to illnesses known to have chemical causes. Spencer thought the government has failed both Agent Orange victims and the residents of Love Canal, but Love Canal residents bore an especially grievous burden. The risk of combat constituted a known part of his job in Vietnam. But at Love Canal, he noted, “[I]t was always my understanding that you don’t take your kids into combat with you . . . At least not in the American Army.”⁸⁹ These Love Canal men realized they could not safely raise their families in this contaminated landscape.

Another measure of the new role men occupied can be seen in the chemical industry’s response, as they emphasized a caring workplace role for men. An advertisement included in a Hooker Chemical brochure – assembled to defend the company – showed a new kind of industry man. “As a chemist who helps decide how industry wastes are managed,” the ad read, “my standards are high. As a father, [my standards are] even higher.”⁹⁰ The ad responded to grassroots protests over hazardous chemicals in a particular way when it used the image of a dedicated scientist whose role as a father meant he would protect the environment. The advertisement’s text profiled Peter Briggs, the a company chemist: “When I was hired, I was told I was to be the

conscience of my company. I'm concerned about the environment. I want it to be clean for my kids, as well as everybody else's."⁹¹ Employers charged men with new responsibilities, symbolically at least, that emphasized the need to care for the environment and families.

Love Canal residents invoked motherhood, homes and families as the basis of the state's response to the chemical disaster. This reproduction was carried out through a traditional nuclear family: father, mother and children. Given the proof of reproductive harm, the Homeowners' Association women tried to use pregnancy risks to justify relocation. Department of Health officials contended that Love Canal women could control their own reproduction, an assumption made possible because of the development and widespread use of the hormonal birth control pill, and the legalization of abortion in New York State in 1970 and nationally in 1973. Women demonstrated this understanding of reproductive choice, and their right to decide, when Gibbs accused the Department of Health of practicing birth control. Love Canal women, even after the women's liberation movement, organized and protested around the idea of protection of their families. The women did not identify with a larger feminist movement in critiquing hierarchal structures of power, nor did they challenge institutional power on the basis of gender inequality. Women's liberation influenced Love Canal in more subtle ways, most obviously in the fight over relocation for women desiring to conceive and female residents use of public theater and the media. Even when Department of Health officials refused to consider pregnancy as a reason for relocation, however, the reproductive arguments Love Canal residents made reinforced a traditional female gender role of

women as mothers. These arguments revealed an underlying understanding of citizenship rights based in part on heterosexual reproduction. Yet intentional or not, Love Canal women's protests mirrored those of feminists who demonstrated at the Ladies Home Journal.

Another influence of the women's liberation movement on Love Canal might have been how men's roles changed. Feminists sought new understandings of the family and how domestic work within the family should be done.⁹² In this new society, men were called upon to share more duties within the family, including more emotional caring for their family. New images of sensitive men like Alan Alda, a self-proclaimed feminist, appeared within the national media. Even the local media presented new male roles, along with the old. One Niagara Gazette feature touted Alda as a actor with "low-key naturalness and subtle sensitivity," along with more macho men like Burt Reynolds and Jack Nicholson.⁹³ Men and women at Love Canal struggled with a new cultural ideal for men that contrasted with the stoically masculine one they had known before. The media coverage of the disaster aided Love Canal men's expressions of caring and emotion and made their assumption of a more sensitive male role more acceptable.

The threat Love Canal's chemical contamination posed to pregnancies, homes and families as shown in public protests and media coverage demonstrated an particular understanding of residents' relationship to the state. The Homeowners' Association women understood their citizenship to be directly centered on the family and home. The arguments residents made for relocation displayed an understanding of their relationship to the state as one based upon heterosexual reproduction and the traditional nuclear

family. Residents claimed this relationship, and demanded state intervention to protect their families and homes.

Endnotes

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6. Elaine Tyler May's Homeward Bound: American Families in the Cold War Era (New

York: Basic Books, 1988).

7. See Alice Kessler-Harris, In Pursuit of Equity: Women, Men, and the Quest for Economic Citizenship in 20th-Century America (New York: Oxford University Press, 2001) on how governmental policies privileged wage work and limited women's economic equity. For how white men practiced citizenship as consumers, and how women and African Americans fought for rights through consumerism, see Lizabeth Cohen's A Consumers' Republic: The Politics of Mass Consumption in Postwar America (New York: Alfred K. Knopf, 2003).

8. See Nancy F. Cott, Public Vows: A History of Marriage and the Nation (Cambridge: Harvard University Press, 2000).

9. See Jo Ann Gibson Robinson, The Montgomery Bus Boycott and the Women Who Started It: The Memoir of Jo Ann Gibson Robinson, edited, with a foreword, by David J. Garrow (Knoxville: University of Tennessee Press, 1987) and Belinda Robnett, How Long? How Long?: African-American Women in the Struggle for Civil Rights (New York: Oxford University Press, 1997).

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12. See Nancy Naples, Grassroots Warriors: Activist Mothering, Community Work, and the War on Poverty (New York: Routledge, 1998).

13. For recent histories of the women's movement, see Ruth Rosen's The World Split Open: How the Modern Women's Movement Changed America (New York: Viking, 2000) and Sara Evans, Tidal Wave: How Women Changed America at Century's End (New York: The Free Press, 2003). Dorothy Sue Cobble charts women's workplace activism in The Other Women's Movement: Workplace Justice and Social Rights in Modern America (Princeton: Princeton University Press, 2004).

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15. See Susan Faludi, Backlash: The Undeclared War Against American Women (New York: Crown, 1991) for a discussion of media bias and feminism.
 16. See Susan E. Marshall, "Rattle on the Right: Bridge Labor in Antifeminist Organizations," and Kathleen Blee, "Reading Racism: Women in the Modern Hate Movement," both in No Middle Ground: Women and Radical Protest (New York: New York University Press, 1998).
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 18. Interview 138, Box Two, Folder 11, in the Adeline Levine Love Canal Collection (Buffalo, New York: Buffalo and Erie Counties Historical Society), hereafter cited as the Levine Collection. Levine and several sociology graduate students interviewed Love Canal residents from the fall of 1978 throughout the spring of 1979, after the initial relocations and during the remaining residents' fight for state aid to leave the area. The survey questions focused on families' health and how they regarded local organizations and public officials. Per collection rules, informants are identified by Interview number only.
 19. Lois Gibbs, Love Canal: My Story as told to Murray Levine (Albany: State University of New York Press, 1982), 35.
 20. Interview 127, Levine Collection.
 21. Gibbs, 95.
 22. Lois Marie Gibbs, Love Canal Homeowners' Association President, "Open Letter to Fellow Citizens of America," August 2, 1979, Folder "Love Canal Homeowners' Association – List of deaths, miscarriages, birth defects, 8/2/79," Box 26, in the Ecumenical Task Force of the Niagara Frontier Love Canal Collection (Buffalo, New York: University Archives at the State University of New York at Buffalo), hereafter cited as the ETF Collection. The emphasis is in the original.
 23. Hillis manuscript, 5.
 24. Quoted in Adeline Levine, Love Canal: Science, Politics and People (Lexington: Lexington Books, 1982), 109.
 25. Gibbs, 94.
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27. The legal precedence for such practices was the 1908 Muller v. Oregon case. See Nancy Woloch, Muller v. Oregon: A Brief History With Documents (Boston: Bedford Books, 1996) for more on the court ruling. Kathryn Kish Sklar discusses protective labor legislation in her biography of Florence Kelley, Florence Kelley and the Nation's Work (New Haven: Yale University Press, 1995). See Susan Faludi, Backlash: The Undeclared War Against American Women (New York: Crown, 1991) for more current examples of labor discrimination based on reproductive risk.
28. Ibid.
29. Gibbs, 95.
30. Gibbs, 104.
31. Allan Mazur, A Hazardous Inquiry: The Rashomon Effect at Love Canal (Cambridge: Harvard University Press, 1998), 85.
32. Sharon M. Livesey, "Organizing and leading the grassroots: An interview with Lois Gibbs, Love Canal Homeowners' Association activist, founder of Citizens Clearinghouse for Hazardous Wastes, and executive director of the Center for Health, Environment and Justice," Organization & Environment, 16, no. 4 (December 2003), accessed on Proquest January 29, 2004, 8.
33. Gibbs, 163.
34. See Amy Swerdlow, Women Strike for Peace: Traditional Motherhood and Radical Politics in the 1960s (Chicago: University of Chicago Press, 1993); Annelise Orleck discusses women's politicization in her essay, "'We are that mythical thing called the public': Militant Housewives During the Great Depression," Feminist Studies, Volume 1, Number 1 (Spring 1993): 157.
35. Interviews 103 and 125 Levine Collection.
36. Julia Wrigley, "From Housewives to Activists: Women and the Division of Political Labor in the Boston Antibusing Movement," in No Middle Ground: Women and Radical Protest, edited by Katherine M. Blee (New York: New York University Press, 1998), 254.
37. Murray Levine, "Introduction," Love Canal: My Story, ibid., xiv.
38. Ruth Rosen, The World Split Open: How the Modern Women's Movement Changed America (New York: Penguin Books, 2000), 1968 Miss America Pageant, 160; Ladies Home Journal sit-in, 300, 301.
39. Interviews 119 and 141, Levine Collection; Livesey interview, 7. In the interview,

Gibbs gives two reasons for women's larger role in the Homeowners' Association: the men worked in the chemical industry and hesitated to publicly criticize pollution caused by their jobs; women just organized better, as it required the same ability mothers showed in delegating tasks and responsibilities.

40. Livesey interview, 9.

41. Gibbs, 70.

42. Ibid., 75.

43. Ibid., 97.

44. Margie Crow, "The China Syndrome," Off Our Backs: A Women's Newsjournal, volume 9, issue 6 (May 31, 1979), 3.

45. Hillis manuscript.

46. Livesey interview, 10.

47. Interview 138, Levine Collection. The informant mentions that the family almost took their daughters to a planned protest at city hall, but it was too cold. They had made signs for the children to carry though.

48. Interview 137, Levine Collection.

49. Donna Ogg Interview with author, Lewiston, New York, July 2, 2002. Ogg said it seemed wrong that parents fighting to protect their children would endanger them by bringing them to the tense and potentially violent situation.

50. Penelope D. Ploughman, "The Creation of Newsworthy Events: An Analysis of Newspaper Coverage of the Man-Made Disaster at Love Canal," unpublished Ph.D. dissertation (Buffalo: State University of New York at Buffalo, 1984), 196.

51. "Week saw limited evacuations, aid appeals," *Niagara Gazette*, August 6, 1978.

52. See Investigative Reporting: the lessons of Watergate, a two day conference sponsored by the School of Public Communication, Boston University, April 23-24, edited by Walter Lubars and John Wicklein; Michael Schudson's essay on Watergate and a broader discussion of the press and the public, in The Power of the News (Cambridge: Harvard University Press, 1995); and David Obst, Too Good to be Forgotten: Changing American in the '60s and '70s (New York: J. Riley & Sons, 1998) for how the press, and its relation to government and the general public, changed while covering these events.

53. Mazur, 116.

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54. Ploughman, 185.
55. Love Canal: A Special Report to the Governor & Legislature (Albany: NYS Department of Health); and Irwin D.J. Bross, "Muddying the water at Niagara," in "Forum," New Scientist, December 11, 1980, Folders 114 and 121, Box 11, ETF Collection.
56. Mike Brown, "Love Canal Homeowners Plan 'Loss of Value' Lawsuit," Niagara Gazette, August 21, 1978, and "Love Canal Area Residents List Grievances," Niagara Gazette, August 23, 1978.
57. "2 tots headed for grandmas," Niagara Gazette, August 3, 1978.
58. Jerauld E. Brydges, "We watched them dump barrels," Niagara Gazette, August 3, 1978.
59. David Shribman, "Love Canal Area: American Dream Now Nightmare," Buffalo Evening News, August 6, 1978.
60. Ibid.
61. "Jerauld E. Brydges, "Expectant mother says she's scared," Niagara Gazette, August 3, 1978.
62. Sally Fox, "Love Canal Area Becomes Nightmare for Young Family," Buffalo Courier-Express, August 6, 1978.
63. See Greg Mitchell, "The Heroine of Love Canal," Family Circle, March 11, 1980 for an example of the former, and "Our Fear Never Ends," by Fern Marja Eckman, McCall's, June 1980, for the latter.
64. Eckman, "Our Fear Never Ends," 136.
65. Tracy Freedman, "Leftover Lives to Live," The Nation, May 23, 1981.
66. See Martin Pernick's The Black Stork: Eugenics and the Death of 'Defective' Babies in American Medicine and Motion Pictures Since 1915 (New York: Oxford University Press) for a discussion of the long history this pictograph has.
67. David Weinberg, "Breakdown: Love Canal's Walking Wounded," The Village Voice, September 9-15, 1981. The cover photo credit identifies Sylvia Plachy as the photographer.
68. Citizen's Clearinghouse for Hazardous Wastes, fund-raising letter [1987], Folder "Newsletters, Correspondence [3 folders]," Box 8 "Environmental and Citizen Advisory

Groups, 1979-1989,” ETF Collection. Citizen’s Clearinghouse for Hazardous Wastes, Arlington, VA. (Lois Marie Gibbs, President), 1984-1988.” Gibbs started the organization as a direct result of her Love Canal activism, after moving to Virginia in 1981. She currently serves as the director of the renamed Center for the Environment, Health and Justice. The photograph also appeared on the draft cover for a brochure advertising a rally to oppose the resettlement of the LaSalle neighborhood. See “Love Canal, Don’t Allow History to Repeat Itself, For Our Children’s Sake,” and the accompanying letter from Gibbs, August 10, 1989, Folder 28-17 “[Citizens Clearing House on Hazardous Waste, 1989-90]” Box 28 “Reports, 1986-87,” ETF Collection.

69. Ibid.

70. Other activists have not hesitated to employ graphic, violent images in their efforts to sway individuals. See Rosalind Petchesky’s essay on anti-abortion rhetoric, “Fetal Images: The Power of Visual Culture in the Politics of Reproduction,” in Reproductive Technologies, edited by Michelle Stanforth (Minneapolis: University of Minnesota Press, 1987).

71. CCHW fund-raising letter.

72. The young child’s picture changes from a “visual quote,” an image of record, to a “visual document,” or even “visual theater.” At the same time, because the picture bears no caption, it functions as a universal representation of victimized children. Julianne H. Newton suggests a typology of human visual behavior – where the terms visual quote, document and theater appear – in her book, The Burden of Visual Truth: The Role of Photojournalism in Mediating Reality (Mahwah, NJ: Lawrence Erlbaum Associates, 2001), 129-147. Barbie Zelizer discusses how photographs taken during the liberation of the concentration camps went from documenting specific referents, to universal images proving Nazi atrocities in her essay, “From the Image of Record to the Image of Memory,” in Picturing the Past: Media, History and Photography, edited by Bonnie Brennan and Hanno Hardt (Chicago: University of Illinois Press, 1999), 99-104.

73. Temma Kaplan, Crazy for Democracy: Women in Grassroots Movements (New York: Routledge, 1997), 41.

74. Interviews 113, 126, 136, 137, Levine Collection for examples of disrupted schedules.

75. Gibbs, 51-53.

76. See Interviews 103, 105, 108, 109, 110, 127, 137, Levine Collection.

77. See Interviews 101, 105, 108, 110, 127, 137, Levine Collection.

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78. Kaplan, 32.
79. Hillis manuscript.
80. See Mazur, 62; Gibbs describes Heisner's actions, 33.
81. For an example of this, see the article written by Jerauld Brydges, "Canal residents vow a tax strike," Niagara Gazette, August 3, 1978. It discusses the proposed tax strike, but also includes an interview with a pregnant mother. New York State Governor Hugh Carey and Congressman John LaFalce also helped canal residents get tax relief in the fall of 1978 and spring of 1979.
82. See Interviews 106, 119, 137, and 143, Levine Collection for examples of this.
83. Gibbs, 72.
84. Gibbs, 72; Kaplan, 37.
85. In my use of the term "community maternalism," I am contrasting a paternalistic model (and rhetoric) that would emphasize the disaster as affecting property. Such attitudes were displayed by both men and women, one of the ways a new configuration of maternalist and paternalist arguments present at Love Canal.
86. James Clark Testimony presented to the United States Congress House Subcommittee on Oversight and Investigation, March 28, 29, 1979, Folder "Statements on Love Canal," Box 50 "ETF Files R-Z, 1980-87," ETF Collection.
87. See Interviews 102, 103, 108, 116, 122, 127, 128, 129, 137, Levine Collection, quote from Interview 103. In Interview 124, the wife does describe her husband's feeling toward the house as that of a "status symbol," a much more typically paternalistic view of the home as property.
88. Leslie Patten Wolff, "Vets Face New War at Home," Buffalo Veteran, July/August, 1980, volume 2, no. 2, 3.
89. Ibid. Note: Jack Spencer may very well be Jim Clark, a war veteran. There are enough similarities in their stories to suggest this. I would simply argue that the article in the veteran newsletter offered another forum for Clark to express his maternalist understanding of the situation.
90. Chemist/Father advertisement, ETF Collection, Box 5, Folder 5-18.
91. Ibid.
92. See Lauri Umansky, Motherhood Reconceived: Feminism and the Legacies of the

Sixties (New York: New York University Press, 1996).

93. Ms. Cover, "Special Issue on Men," and Alan Alda, "Men: What Every Woman Should Know About Men," Ms., October 1975, volume 4, no. 4; Gloria Schallock, "Men: You're being watched," Niagara Gazette, January 18, 1975, 5A.

Chapter Four

More Than Just “Dumb Housewives” Risk, Expertise, and Citizen Science

New York State Department of Health official Dr. Campbell wrote a memo several years after Love Canal that highlighted one of the fundamental tensions between public health officials and Love Canal residents. While obviously aiming for humor, the memo's subject line read: “Risk – The World is Flat – Don't Fall Off the Edge!”¹ Campbell discussed the sad state of the world, which did not seem to appreciate public officials' hard work and expertise. It pointed out the harm caused by media attention of certain risks for “shock purposes when often such risks don't amount to the proverbial ‘hill of beans’.” Such risks frequently posed minimal or no risk, all while the “public in general and individuals in particular largely ignore certain risks which kill, maim, or cause physical or emotional disability.” Citizens, in Campbell's opinion, could not properly understand laboratory reports, noting that “any number, other than zero, is to them an indication of a deadly potion – whether in air, water, or soil.” If public health officials struggled to assess the significance of parts per million, billion, or trillion, then the generally public certainly could not. “Laboratory technology has far outstripped public health practice in this regard. . . . it might have been better if science (the purists) had never developed a capability to test to such minute levels,” the Campbell suggested, “since I suspect that in many instances the test results themselves (the numbers) cause more heartache and (psycho)somatic illnesses than the trace amounts of chemicals discovered through such testing.” The answer, he advised, lay in identifying whether a

risk merited the attention of public health officials. They should hold the power to judge such risks, and dismiss them if necessary. This freed officials to “get on with its business of attacking real health problems.”² With Love Canal residents, NYS public health officials found a public resistant to accepting their expertise and authority when it came to deciding the risks posed by the buried chemical wastes.

Defining the nature of the problem and its risk became the fundamental issue of Love Canal. The Homeowners’ Association disputed health officials’ assessment of how far the chemicals had spread and the contamination’s effects on community health. The Department of Health became the designated arbitrator of who would be relocated based upon Governor Carey’s requirement of proven health problems as a condition for relocation.³ According to the Department, chemical contamination within the LaSalle neighborhood only affected houses next to the canal. State officials thought they had erred on the side of caution when they evacuated the next ring of homes.⁴ Gibbs and the Homeowners’ Association leadership realized it was imperative to show that the ill effects of the canal chemicals extended well beyond the inner ring homes that had been evacuated. These interactions between residents and public health officials best show the emergence of Beck’s risk society. Department of Health officials faced a threat that was difficult to detect, had little scientific information about its possible harm, and whose clean-up would cost hundred of thousands of dollars. Adeline Levine and others argued that this last consideration explained New York State’s public officials reluctance to remove all the residents from the LaSalle neighborhood.⁵

State officials' concerns with the cost of the Love Canal cleanup cannot be dismissed, but more than simple economics affected the way Love Canal was handled. Governor Hugh Carey charged the Department of Health with determining the extent of the contamination and its effects on the LaSalle neighborhood, already acquiring the moniker "Love Canal." Although this mostly working- and middle-class neighborhood held little political sway in Albany, election-year politics and public health officials' recognition of possible harm, at least to some residents, meant that Governor Carey agreed to relocate those families closest to the canal. Beginning in the 1970s, legislation like the 1970 Clean Air Act, the 1972 pesticide ban, and the 1976 Toxic Substance Control Act went beyond pollution abatement. Regulatory agencies like the federal Environmental Protection Agency or NYS Department of Health were charged with decreasing, in the words of science policy analyst Sheila Jasanoff, "[r]isk, or the possibility of adverse effects, . . ."⁶ With this new understanding of regulatory agencies' charge, the paucity of scientific information on the actual harm caused by low-dose, long-term exposure to toxic chemicals made health officials task more difficult, and an emphasis on finding definitive proof of harm intensified the problem. This new species of trouble revealed a public health culture that privileged a biomedical model of health and disease prevention over other possible approaches.

Since their ascendancy in the late-nineteenth century, scientists had gained societal respect and authority throughout the twentieth century in a variety of arenas. Public health seemed to have conquered epidemic disease, and public's opinion of medical practice rose.⁷ Social scientists, along with medical practitioners, set boundaries,

defined questions, and acted as agents of social inquiry and control.⁸ Scientific achievements in health, psychology, technology, and their popularization resulted in a particular understanding of science as a product rather than a process.⁹ Scientists maintained a high profile even as many of their activities received a mixed reception from the public. Americans debated and practiced eugenics in the teens and twenties, while the post-World War II period saw an increased respect for scientists despite the dropping of the atomic bomb.¹⁰ Scientific experts interacted less and less with the public, with medicine being one of the few remaining areas of daily contact. Medical professionals identified diseases and validated patients' illnesses, giving them significant power in the lives of ordinary people. This appeared especially critical when conditions required state intervention, such as at Love Canal.¹¹ Science became an important element in public policy, as professionals increasingly tried to negotiate the new technologies of the late-twentieth century.¹² But as the twentieth century closed, Americans increasingly questioned scientific expertise and its authority.

Two events of the 1970s demonstrate the era's challenges to medical objectivity and authority. The first concerned the revelation in 1972 that the United States Public Health Service (PHS) had been conducting a syphilis experiment on poor black men for the past forty years. The experiment, sponsored through Alabama's Tuskegee Institute, kept the men ignorant of their condition with investigators telling patients they had "bad blood." The exposé, which appeared in the Washington Star, ignited a huge public outcry as critics accused the PHS of performing a spurious scientific experiment similar to those done under the Nazi regime during World War II. While the Service tried to defend

itself, it remained clear that race and class biases tainted the Tuskegee syphilis experiment from the beginning, and it raised serious questions about scientific objectivity.¹³ The second event originated in the feminist movement's critique of the patriarchal nature of healthcare delivery and research in the United States. In 1973, radical feminists in Boston published Our Bodies, Ourselves: A Book by and for Women, which is considered the preeminent example of women reclaiming medical knowledge and authority over their health. A part of this feminist critique of medical practice focused on the absence of medical research on women's diseases, such as breast cancer.¹⁴ Like the outcry over the Tuskegee experiment, the publication of Our Bodies, Ourselves offered a direct challenge to the medical establishment and the authority it wielded.

The contested science at Love Canal between local residents and outside experts foreshadowed the science wars of the late-twentieth century, as scientific knowledge lost some of its societal authority to legitimize. This chapter focuses on the production and use of scientific knowledge at Love Canal and the ways Love Canal residents' successfully undermined the Department of Health's authority, challenging the agency's right to deny outer-ring residents' relocation. It argues that the conflict between the Department of Health and residents resulted from more than the economic costs the disaster presented; a public health culture that privileged technological expertise and control failed in its charge to protect the public's health. At the same time, as the previous chapter demonstrated, the empowerment of ordinary people gained in the social movements of the 1950s and 60s left a mixed legacy. While ordinary citizens demanded the right to participate in the production of scientific knowledge and claimed legitimacy

from such knowledge, the process by which this was accomplished made many scientific conclusions less certain. Love Canal represented one of the first, and certainly one of the best known, cases where ordinary citizens began to challenge the objectivity and authority of science. The argument presented here falls into three major areas: the problem of risk definition which the Love Canal disaster presented to the public health establishment; the contrast between medical expertise and citizen science; and the ways Love Canal revealed the social construction of scientific knowledge and the tension between scientific truth and public policy decision-making.

“State-of-the-Art”: Risk Assessment at Love Canal

The New York State Department of Health demonstrated all the advances made in public health since the emergence of the germ theory of disease in the nineteenth century, and the profession’s continuing failures. As a leading public health institution, the New York State Department of Health used all the modern tools of disease detection, and embraced the belief that properly trained professionals carried out an essential part of their mission.¹⁵ Established in 1901, under the newly formed Department of Health, which replaced the previous state Board of Health, the Antitoxin Laboratory in Albany symbolized New York’s leadership in advancing the “new” public health of the twentieth century, incorporating the emerging germ theory of disease. This theory helped identify specific causative agents for contagious diseases, and allowed public health officials to more effectively intervene to prevent illness.¹⁶ Laboratory discoveries in the 1880s, German physician Robert Koch’s discovery of the tuberculosis bacilli, and the work of French scientist Louis Pasteur gave rise to the “germ theory of disease,” which

revolutionized public health medicine. Physicians could now prevent epidemics through early intervention and by changing the conditions that promoted their genesis and spread.

Given these circumstances, public health departments focused on the broader societal conditions responsible for epidemic disease – poor sanitation, poor nutrition, poor individual choices or behavior. American public health emphasized a research intensive, biomedical model due to the vision of medical reformer Abner Flexner and Dr. William Welch, dean of the influential Johns Hopkins School of Medicine.¹⁷ Public health officials gained state authority to declare quarantines and condemn residences and businesses.¹⁸ Despite strong critiques of conditions leading to poor health, public health departments and physicians often failed to change the underlying structural factors that led to poor health – from inadequate housing to governmental tobacco subsidies.

American public health educators emphasized the biomedical model of disease prevention over the socio-political or environmental, models that would have paid greater attention to societal factors contributing to disease. The Johns Hopkins model focused on basic science research, laboratory bacteriology, sanitary engineering, and epidemiology.¹⁹

Historians mostly agree that industrial medicine, that area of public health concerned with occupational disease, retreated from major critiques of industry and their role in the creation of unsafe work places and habits over the course of the twentieth century.²⁰ A still ongoing debate considers whether the new bacteriology, with its emphasis on laboratory science and microbiology, narrowed the scope and concerns of twentieth century public health.²¹ The New York State Department of Health's handling of the Love Canal disaster suggests that while public health medicine continued to address a

broad range of societal problems, the underlying public health paradigm did not adequately address the challenges presented by environmental toxins. Public health extended beyond a narrow preoccupation with disease, but still saw the use of increasingly reductionist methods of detection and response.

With the decision to buy the inner-ring homes, NYS officials began organizing to handle the purchase of approximately 240 family homes. An inter-agency task force, led by the Department of Transportation (hereafter DOT), coordinated the various activities at the canal – the temporary relocation of homeowners and reimbursement for their expenses and homes, the health studies being conducted by the Department of Health, and clean-up and remediation activities supervised by the Department of Environmental Conservation. Officials chose the DOT as the lead agency because of its extensive experience in buying private property and relocating citizens as a part of their public works mission, especially active after the urban renewal projects of the 1960s. Love Canal Task Force officials began purchasing the homes immediately surrounding the canal site along with remediation of the chemical contamination. Even though all of these state agencies (DOT, DEC, DOH) had significant contact with LaSalle area residents, residents focused on Department of Health officials as the designated arbitrators of risk.

The real problem resided with the fact that officials' ability to determine harm lagged far behind scientists' ability to detect the presence of chemicals and other additives. The Department of Health's slow and cautious release of information exacerbated relations with residents. Department officials failed to explain to residents

what the air sample readings they had gathered meant, and only set up a toll-free line for questions after residents' complaints.²² The blood samples took months to be tested, and some residents were asked to donate more blood because their previous sample had been lost or mishandled. Perhaps the greatest offense committed by Department of Health officials lay with their insensitivity and unquestioning commitment to "science," and the scientific method. This dilemma led to situations whereby other factors – benefits, risks, exposure – became an essential, and difficult to explain, part of "scientific judgement." The new scientific capability to detect small quantities of toxic substances distracted the Department of Health from assessing the situation more holistically. The Department of Health took pride in its designation as a "state-of-the-art" facility, one embracing the highest laboratory and scientific standards of the day.

Professionalized medicine in the mid to late-nineteenth marked a change in the relationship between patient and physician. Prior to the germ-theory of disease, physicians and patients negotiated the illnesses patients sought consultation over, with physicians help place such disorders within a broader teleological framework. As medical authority grew, strengthened by the ability of doctors to more effectively intervene and treatment contagious disease, doctors gained the ability to "name" a patient's condition. This ability shifted power to the physician participant, aided by the growing use of technology, such as the stethoscope, which mediated patients' experiences of illness. As cultural critic Michel Foucault has noted, the use of outside instruments allowed physicians to "objectively" quantify the previously subjective symptoms reported by patients. The new laboratory emphasis within public health culture, previously

discussed, made the objective science of the lab more essential to public health medical practice.²³ For the Department of Health physicians and officials, there needed to be objective evidence of contamination, and then trained verification of illness, for acceptance of the community's claim of ill health. The very same standards that enabled the Department of Health to identify the environmental and health issues also may have also impaired their ability to respond effectively to the crisis.

The career of David Axelrod, the major public health official connected with Love Canal, best exemplified this dilemma between science and care. Axelrod graduated from Harvard Medical School and went on to build an impressive resumé, with employment at the National Institute of Health before joining the NYS Department of Health. In this previous position, Axelrod's duties included research on the molecular and viral causes of cancer, along with evaluating animal studies for cancer risk and the scientific methodologies in place with National Cancer Institute contractors.²⁴ A public health official, addressing Niagara Falls community activists, described Axelrod as "a top-notch scientist . . . a leading toxicological expert in the country, if not the world."²⁵ Axelrod himself identified membership in two organizations as important experiences and factors affecting his handling of Love Canal. With the Institute of Medicine of the National Academy of Sciences, Axelrod gained experience in the assessment of technologies for determining cancer risks. His work for the National Research Council's Subcommittee for the Evaluation of Short-Term Exposures to Air Pollutants of the Safe Drinking Water Committee dealt primarily with setting standards for federal agencies to use in requiring either the protection from or elimination of work place pollutants. This exposure proved

essential in developing the new methodologies used in detecting Love Canal's toxic chemicals.²⁶

The influence and prestige of the NYS Department of Health allowed it to develop innovative laboratory procedures and standards with which to address the Love Canal situation. One measure of the Department's influences can be seen through the presentations made by major corporations to gain Department of Health approval for product additives. In October of 1981, Proctor and Gamble met with the Department of Health to present information on a chemical "builder" – sodium nitrilotriacetate (NTA) – which they wished to add to the laundry detergent Tide. In essence, if the NYS Department of Health judged that the substance would not meet safe water standards, the corporation would not be able to add it.²⁷ Dr. Nicholas Vianna, the lead medical investigator at Love Canal, had experience with large-scale health studies.²⁸ The work done with the National Research Committee's subcommittee proved essential to the agency's implementation of new methods of chemical detection, carried out by Dr. Nancy Kim.²⁹ Axelrod's experience allowed the Department of Health to develop new methods to detect chemical substances, which was tested in air and other media (soil, water) samples from Love Canal homes.³⁰ Even more significant, the Axelrod considered the Department of Health's laboratory facilities the equal, or better, of the contract lab used by the federal Environmental Protection Agency. Axelrod legitimately called his department a "state-of-the-art" facility.³¹ All of this scientific expertise led state health officials to privilege "objective" measures of proof.

Residents and their supporters viewed the problem differently, and questioned the Department of Health's reluctance to take action. The Department of Health faced a much more difficult task in convincing Love Canal residents and community activists, who viewed their standards as "demanding excessive proof before acting to relieve what appears to be an obvious problem."³² As the previous chapter showed, Love Canal women effectively challenged public health officials over the issue of reproductive risk. During the summer of 1979, Axelrod communicated and met with community groups to explain the Department of Health's position. These communications reveal the Department of Health's confidence that the situation at Love Canal was being handled appropriately. Axelrod wrote one correspondent: "As I am sure you are aware, this Department was responsible for the recognition of Love Canal, not simply as an environmental disaster, but a potential health disaster as well."³³ Later in the letter, Axelrod expressed concern about the "value" of information gathered by inexperienced individuals. He went on to correct an implied assumption, that any health survey information "obtained will provide the 'supportive evidence' for relocation." Axelrod stated the need for a study based on a hypothesis, versus one where the information merely justified a "pre-conceived notion or pre-emptory [sic] conclusion."³⁴

Axelrod's training exemplified the importance the Department of Health placed upon the medical verification of illness, carried out by trained professionals with adequate technological and laboratory support. Even as public health medicine increasingly relied on new methodologies, the field retained its knowledge of environmental influences, but under a new guise. Dating back to ancient Greece, medical and lay persons made the

connection between the environment and health. This understanding recognized that certain geographic locations promoted ill health, such as swampy land. The concept of these “miasmatic” conditions structured early twentieth-century public health campaigns toward the eradication of mosquitoes and hookworms, industry pollution, and need for public sanitation.³⁵ Twentieth-century public health identified environmental causes for chronic illnesses such as asthma, heart disease, arthritis, diabetes and cancer and medical practitioners became aware of the concept of risk factors.³⁶ One 1970 article exhorting the benefits of “urban ecology” stressed numerous variables, which included “elements of the environment, the population structure, the social structure, and the subcultural [sic] outlook of the residents.”³⁷ The field of epidemiology incorporated medical geography and statistical analysis, social engineering skills, emphasizing preventive actions as the most sound practice of all. Epidemiology as a science depended upon a critical number of individuals being affected to determine accurate correlations between specific conditions or behaviors (smoking for example) and consequences, such as an increase in lung cancer.³⁸ These causal correlations became an essential component of public health officials’ ability to evaluate risk.

In later court testimony, Axelrod admitted that the Department of Health’s initial epidemiological studies were focused on producing a risk assessment as quickly as possible, given the level of urgency Commissioner Whalen attached to the project. From the beginning, the studies concentrated on evaluating risk to a *population* rather than an *individual*. The team assembled chose to limit the number of chemicals to ensure complete sampling, and Axelrod admitted that while specific chemicals were chosen,

there was also a concern in not adding more chemicals and creating difficulties in their analysis. One point made by Axelrod dealt with the need to develop an actual process that would avoid a “multiplication of procedures that would change the comparability of data during the course of analysis.”³⁹ This need demonstrated the ways in which the New York State Department of Health was practicing cutting edge laboratory testing in the creation of new procedures; the development of these procedures slowed the department’s ability to respond in a timely fashion to test results. In what must have seemed like double-speak to residents, Axelrod stated that the “risk for an individual was probably minimal, but that the risk to the population with respect to clear routes of exposure was substantial . . .”⁴⁰ Residents, while unaware of the complexity of these new analytic procedures, still responded correctly to the perception that the science involved took precedence over an immediate concern for residents’ safety.

Attempts to quantify the risk posed by the Love Canal contamination proved both tentative and futile. Axelrod’s 1990 testimony characterized risk assessment “as a new emerging science,” and one the Department of Health attempted to address as best possible, based upon staff members’ previous experience.⁴¹ The department worked to establish standards and translate studies done on animals into comprehensible assessments of risk, called “action level estimates,” and struggled to determine the risk associated with groups of chemicals rather than just individual compounds. From a public health perspective, two of the biggest problems with risk assessment appeared to be the actual significance of the calculated risk, and the ability of the general public to understand the factors composing the assessments. Perhaps the best example of the

difficulty associated with first task can be seen through an examination of a Environmental Protection Agency (EPA) report prepared at the request of the Department of Health, Education and Welfare regarding the safety of Love Canal housing.

In June of 1979, the Department of Housing and Urban Development requested the EPA “provide a methodology for making risk assessments related to Love Canal housing.”⁴² To assess the carcinogenic risk, EPA scientists used air monitoring data compiled by the NYS Department of Health in 1978. With ongoing remediation activities, the EPA admitted that the calculations “did not necessarily reflect current risks inside the houses.”⁴³ The scientists produced several equations that seemed no more comprehensible or reliable than the information collected by the Department of Health. A generalized equation for estimating the lifetime risk, $R = \sum_i (\sum_j (RF)_{ij} E_j)$, considered all the chemicals (i) and possible routes of exposure (j), while figuring the risk factor (RF) for each chemical. The equation’s complexity might challenge an expert’s understanding, not to mention a member of the general public.⁴⁴ The report qualified such an equation, though, noting that “there is a paucity of information on interactions between specific chemicals at issue, most carcinogens do act independently.”⁴⁵ The report acknowledged its limited assessment provided little information accurate enough for home mortgage sureties, given the numerous assumptions and uncertain information with which it was composed.

Applied to the real life situation existing at Love Canal, these calculations of risk ultimately appeared meaningless. They depended upon a number of assumptions, including the NYS Department of Health laboratory testing data and its applicability, a

specific time of exposure (fifteen hours for thirty years), the variability of carcinogens tested, projection over a thirty year period, the use of four carcinogens as predictive of risk, and use of the one-hit model – the only “extrapolation model with a substantial scientific foundation.”⁴⁶ The one-hit model refers to idea that harm can be caused by one exposure, and does not consider the synergy of chemicals or what might happen with multiple hits.⁴⁷ The report contained numerous qualifiers and disclaimers, chief among them an inability to evaluate the synergistic effects of the chemical compounds.

Complicating matters further, the report’s early release exacerbated the poor relationship between the EPA and the NYS Department of Health, as well as harming Department of Health efforts at Love Canal. In a letter complaining to an EPA administrator, Axelrod claimed the report had been “widely misinterpreted,” and worsened an already tense state of affairs. Even more galling, he charged, the EPA report used Department of Health information that the federal government had previously rejected as a grounds for providing aid to the state or Department of Health. Perhaps most embarrassingly, the report featured numerous calculation errors, “which overestimated the magnitude of the risk.”⁴⁸ No public agency, on the state or federal level, adequately spoke to the concerns of community residents regarding their individual risk.

While the Department of Health proved itself to be a “state-of-the-art” facility in detecting chemical contamination, it foundered when it came time to apply such information. In the summer of 1979, On-site Task Force Coordinator William Hartenstein urged Health Commissioner Axelrod to release information. The long delay, although understandable given difficulties of sample collection and analysis, added to

residents' suspicions something was being hidden. Hartenstein acknowledged a reasonable reluctance to release "unqualified analyses figures to laymen" but saw the release of "qualitative statements" as crucial to maintaining the state's credibility, even if there were "quantitative results of each sample are impractical."⁴⁹ Despite the chance of misinterpretation, the Department of Health needed to begin releasing information.

Responding to Hartenstein's plea, Axelrod issued an "interim" report in June that detailed the Department of Health's environmental and epidemiological studies at Love Canal.

The Department of Health's studies appeared to be unfocused, scattered, and incomplete. The studies concentrated on confirmation of reproductive risk and tried to determine the agent, or agents, responsible for the adverse health effects, and what were the potential routes of exposure. As such, they included a pregnant rat study, with which they hoped to evaluate the presence of potentially harmful chemicals in the basements of inner-ring homes.⁵⁰ An extensive number of soil sample programs showed the presence of chemicals, the collection of samples from control-study houses, and confirmation of the presence of dioxin within the soil of some yards. The report listed a number of other on-going studies examining storm sewer contamination, urine analysis of remedial construction workers, a control-group study done on residents north of Colvin Boulevard, the consideration of other illnesses and review of medical records. Overall, it contained little real information on the actual risk of living at Love Canal. As a summation of almost a year's intensive study of Love Canal environmental and health conditions, the report reflected badly on the department, and seemed to corroborate what activists had charged, a cover-up of the health hazards at Love Canal.

“A Little Common Sense”: Expertise, Local Knowledge, and Citizen Science

In contrast with scientific expertise through formal education, Love Canal residents emphasized simple ‘common sense.’ One of the first examples of this can be seen with Lois Gibbs’ confrontation with a state engineering consultant discussing how the chemical wastes would be handled. Speaking at the meeting when the Department of Health issued the first emergency of health declaration, the consultant discussed containment plans to stop the spreading chemicals. Gibbs listened to the plan and then attacked. “I’m just a dumb housewife,” Gibbs said, “I’m not an expert. *You’re* the expert. I’m just going to use a little common sense.”⁵¹ The consultant replied, according to Gibbs, with more “incomprehensible engineering terms.” In one of the first encounters between a scientific official and a resident, Gibbs clearly identified the terms of the contest. During the same exchange, Gibbs asked how the remedial construction would work, given the underground streams in the area. Gibbs and the Homeowners’ Association later called these streams swales, and articulated an explanation of how these underground streambeds transported canal chemicals throughout the broader LaSalle neighborhood. The swale theory played a crucial role in the conflict over Love Canal science.

The genesis of the swale theory incorporated awareness of the LaSalle neighborhood, knowledge only residents had, into a coherent pattern that explained the broader neighborhood’s contamination. In the process, this “local knowledge” of conditions conferred authority on residents.⁵² The women of the newly formed

Homeowners' Association put in long hours contacting LaSalle neighborhood residents, urging them to fill out the health surveys from the Department of Health. While calling, Association members noted any cases of illness their neighbors shared with them. The list of ailments ranged from serious conditions like cancer and kidney disease to lesser complaints, such as migraines, rashes, coughs, congestion, and sore throats.⁵³

Homeowners' Association president Lois Gibbs, aware of the neighborhood's illnesses from her own organizing efforts, remained convinced that Love Canal's chemical contamination had caused the community's illnesses. One night, she went home tired and discouraged and experienced an epiphany. Gibbs started marking residents' reported illnesses on a map of the neighborhood. She used "a different symbol for each disease group: central nervous system problems, including hyperactivity, migraines, and epilepsy; birth defects and miscarriages; and respiratory disorders."⁵⁴ Gibbs saw a pattern; she remembered an underground streambed, called swales locally, that passed by her house. She drew in another swale identified by longtime residents, and eventually credited her neighbors for drawing all the swale lines.⁵⁵ The swales seemed to correlate with outer-ring residents' illness.

The swale theory became public knowledge, and served as an incentive for residents to conduct their own health studies. Gibbs shared her discovery with Dr. Nicholas Vianna, the Department of Health medical investigator in charge of health studies. She gave a copy of the map to Niagara Gazette reporter Mike Brown, who wrote an article that appeared on October 4, 1978. Gibbs also contacted Dr. Beverly Paigen, the cancer researcher informally advising the Homeowners' Association. Paigen suggested

that the Association document “the illnesses along the swales and swampy areas.”⁵⁶ The Homeowners’ Association began their health survey the very next day. Paigen helped them refine their findings and transferred it all to a series of map overlays that showed the community’s illnesses correlated with the swales. The Buffalo Evening News printed the swale map on October 18, and the Gazette on November 1 (Figure 4). Identification of swale routes and mapped illnesses offered a feasible explanation for outer-ring contamination that undermined state officials’ authority. The swale theory became an important piece of Love Canal residents’ arguments for relocation.

Residents’ local knowledge of both the area’s geography and community’s illnesses composed an essential part of this alternate theory. The Homeowners’ Association needed to document residents’ illnesses and explain what appeared as a random pattern of illnesses within the broader LaSalle neighborhood. These underground streambeds, or swales, seemed to answer this question. Department of Health officials operated under the assumption that chemical contamination from the canal had migrated linearly and affected houses closest to the canal the most.⁵⁷ The swales offered a different explanation of how the community had been contaminated, with pockets of illness found along the swales, which had transmitted the chemicals into the broader LaSalle neighborhood. Two different bodies of local knowledge made up the theory – longtime residents’ geographic knowledge of the underground streams and the Homeowners’ Association’s awareness and collection of information about residential illness.⁵⁸

The swale map did more than argue for a larger area of contamination, it translated private experiences of illness into publicly accepted incidences of disease.

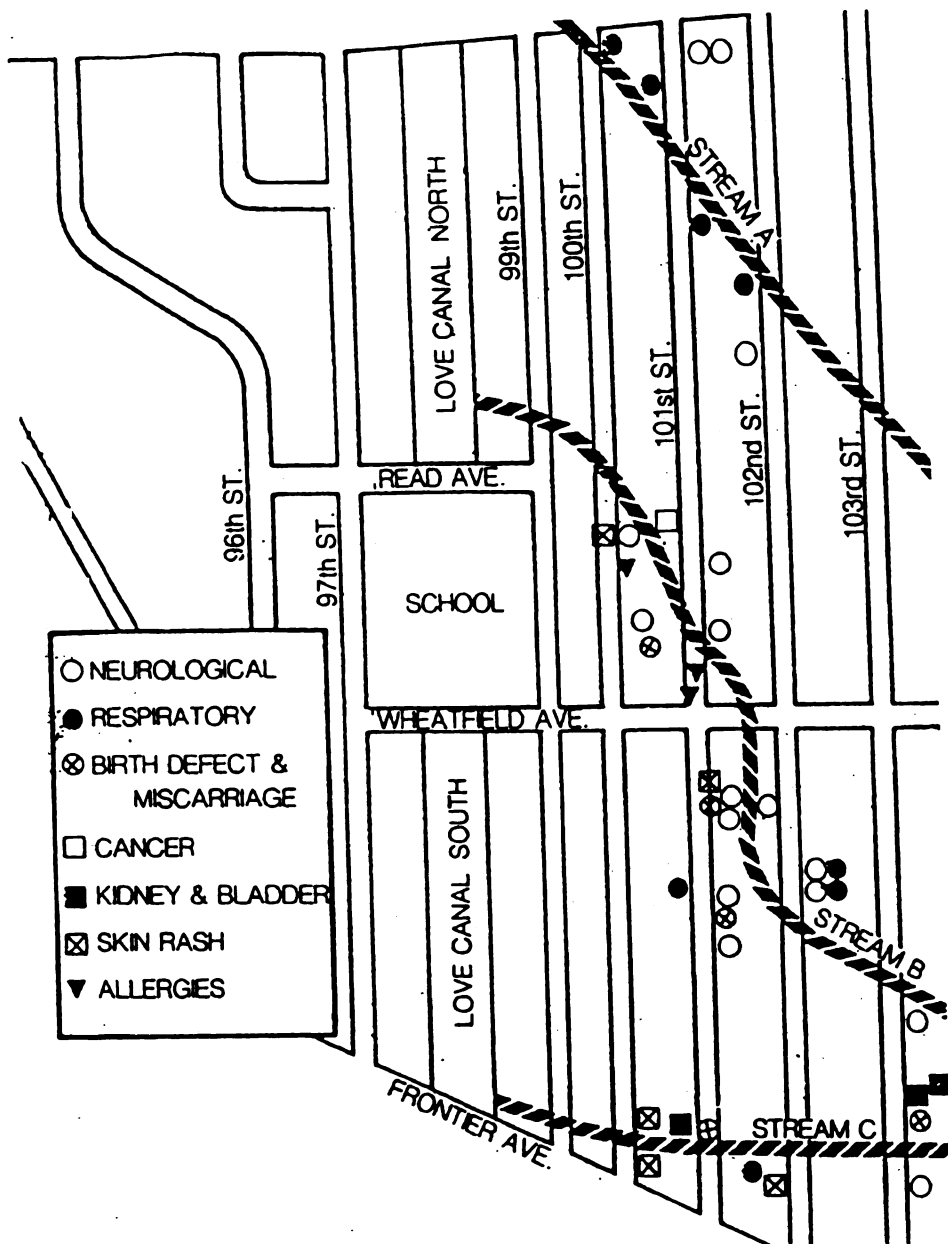


FIGURE 4

Love Canal Swale Map

Mike Brown, "Wider canal health effects seen,"

Niagara Gazette, November 1, 1978

Newspaper Clippings File, ETF Collection, University Archives, SUNY Buffalo

Medical clinicians, and historians, distinguish between the ideas of illness and disease quite simply: illness refers to patients' subjective experiences of their condition while the classification of a disease requires the objective verification of the condition, typically through a physician's diagnosis.⁵⁹ Using the information gathered by the Association's volunteers, Gibbs described her dramatic connection between neighborhood illnesses and the existing swales. The cases recorded by the Homeowners' Association women – of colds, skin rashes, kidney problems – did not appear that way on the map Gibbs and her neighbors constructed.⁶⁰ They appeared on the map as “squares, triangles, and stars.” These symbols correlated to different disease categories, such as “central nervous system problems, . . . hyperactivity, migraines, and epilepsy; birth defects and miscarriages; and respiratory disorders.”⁶¹ Love Canal residents adopted a language of expertise and transformed their private experiences of illness into medically recognized conditions.⁶² The swale map recorded residential illness, unverified by physicians, using medical terminology and epidemiological coding. The swale theory combined community knowledge with scientific expertise and legitimated residents' illnesses as disease.⁶³

The swale map's legitimization of residents' illnesses became especially important because of the subjective nature of the conditions themselves and local physicians' reluctance to become involved. Love Canal residents did not all suffer from what legal experts call a “signature disease,” one “uniquely linked to a particular toxic substance.”⁶⁴ The range of illnesses reported by Love Canal residents included birth defects, neurological, urinary, and psychological ailments, some of the most difficult ones to link to specific chemicals. Local physicians' played no significant role in verifying

residents' illnesses, a fact which cast doubt on residents' claims of ill health.⁶⁵ This group's absence can be explained in part because of historic tensions between public health medicine and private practice.

The Love Canal disaster's uncertainty blurred the roles of medical professionals. Public health medical culture emphasized specific concerns that focused on laboratory science and risk assessment. The need to avoid conflict between private doctors and department of health physicians meant residents were unsure of what role either group played.⁶⁶ Private care physicians had worried about competition from public health departments since their establishment in the late-nineteenth century, a continuing concern throughout the twentieth century, strongly linked with fears of socialized medicine.⁶⁷ The uneasy relationship between private practitioners and public health officials saw a division of medical services, one that ensured that public health agencies did not directly compete with private practice physicians. Consequently, public health experts focused on quantitative medicine, which depended heavily on research done in an academic setting.⁶⁸ Physicians cared for individual cases of illness, while public health departments focused on systemic problems that caused ill health – pollution, poor sanitation, even poverty.⁶⁹ Despite several meetings with the Niagara County physicians, the Department of Health failed to gain widespread cooperation or communication with area physicians. This failure resulted in confusion on the part of private physicians and residents.

Niagara Falls' medical practitioners appeared to have provided little assistance to residents. When interviewed, residents reported a variety of reactions – positive, negative, neutral – about their own doctors. Even as some doctors cooperated with their

patients, writing letters recommending relocation, the physician often expressed skepticism regarding chemical causation.⁷⁰ Some physicians actively obstructed the testing process, charging patients for the transference of their medical records to Albany.⁷¹ Many residents believed that the doctors involved did nothing, or worse, had changed their minds.⁷² As one resident expressed it, “I don’t think the doctor ignored you, he just wouldn’t pinpoint what its [his low blood count] source was. They didn’t want to get involved in Love Canal.”⁷³ The man identified the real reason for physicians’ reluctance: “It could involve a lot of time in court and these doctors, they’re not going to benefit. So they figure they’re putting in a lot of their own time for nothing. They don’t want to know.” An article in the April 4, 1979, Medical Tribune, suggested that physicians worried about malpractice suits and these anxieties affected their willingness to speak out. As the Niagara County Medical president, Dr. James Kropelin, noted: “You see hepatic [liver] effects in a man, and he also drinks – you’d better be prepared to pin down the effects you see.”⁷⁴ Residents charged that local physicians feared reprisals from the Department of Health, which regulated medical licensing within the state.⁷⁵ Physicians themselves admitted to being overwhelmed, as they sorted through varied medical considerations – whether patients’ neurologic, teratogenic, hepatic, renal, cystic, or respiratory problems were canal related.⁷⁶ Whatever the reasons for their hesitancy, area physicians remained absent from the events taking place around them.

With or without medical confirmation of residents’ illnesses, the swale theory gained acceptance. Public meetings, media coverage, and national appearances publicized the swale theory and helped it achieve credibility. Paigen discussed a possible

causal relationship between underground waterways and illness at a Love Canal Homeowners' meeting on October 3, 1978.⁷⁷ Residents later saw a modified version of the original map, produced by Paigen after the Homeowners' Association's took its own health survey.⁷⁸ The swale theory appeared in the local press throughout October and into November. The theory received national exposure when Beverly Paigen presented the swale theory before a Congressional audience, in the spring of 1979. Congressman Albert Gore, Jr. called for a congressional investigation of hazardous waste dumping in Toone, Tennessee and the congressional hearings included testimony on Love Canal as well. The House Sub-Committee on Oversight and Investigations invited Love Canal residents to appear in March of 1979.⁷⁹ In her testimony, Paigen presented the raw data used to analyze illness patterns, but used modified "swale maps" as visual proof of her assertions. Paigen had plotted the Homeowners' Association survey results onto a series of LaSalle area maps with both the swales and "historically wet," or traditionally swampy patches located throughout the area at Love Canal. She submitted these epidemiological mappings as a part of her testimony. Paigen's written, oral, and visual testimony linked the swales with Love Canal families' illnesses.

The Department of Health's failure to provide evidence that discounted the swale theory helped it gain legitimacy as well. Public health officials came closest to accepting the swale theory in February of 1979, but still refused to accept the explanation as validation for a widespread evacuation of the community. Health Commissioner Dr. David Axelrod extended the original health declaration when the initial epidemiological evidence analyzed by medical investigators seemed to show increased number of

miscarriages among LaSalle neighborhood women in “historically wet” areas of the canal. The department stopped short of endorsing the swale theory, however.⁸⁰ Public health officials considered the health declaration’s expansion to be erring on the side of caution, a more than adequate response to the risk. In May of 1979, the testimony of Love Canal Task Force On-site coordinator Michael Cuddy indicated the Department of Health’s stance on the swale theory. Soil testing done to that point failed to show the swales were carrying canal chemicals. Furthermore, he noted, Department of Health investigators considered there to be a “very poor correlation between environmental pollution and health problems.” Cuddy went on to add, “If we find a pattern of added health risk to a portion of the population, we’ve been acting on that finding.”⁸¹ At the same hearing, Gibbs and relocated resident Debbie Cerillo testified the swales had spread contamination throughout the outer-ring area.⁸² The Homeowners’ Association considered the Department of Health’s response inadequate and misguided. Over the summer and fall of 1979, community activists advanced the swale theory while public officials remained adamant in their refusal of the theory.⁸³

The persistence of the theory in public discussions showed the success of the community’s counter-narrative to the official explanation of contamination. The swale theory appeared so widely accepted that the Environmental Protection Agency’s 1982 report on conditions at the canal specifically denied any evidence of chemical migration via swales. Figure 2 of the report shows the swales drawn on a map of the Love Canal area (Figure 5). According to the EPA, multimedia (air, soil, water) monitoring data “revealed a limited pattern of environmental contamination in the area.”⁸⁴ Even more

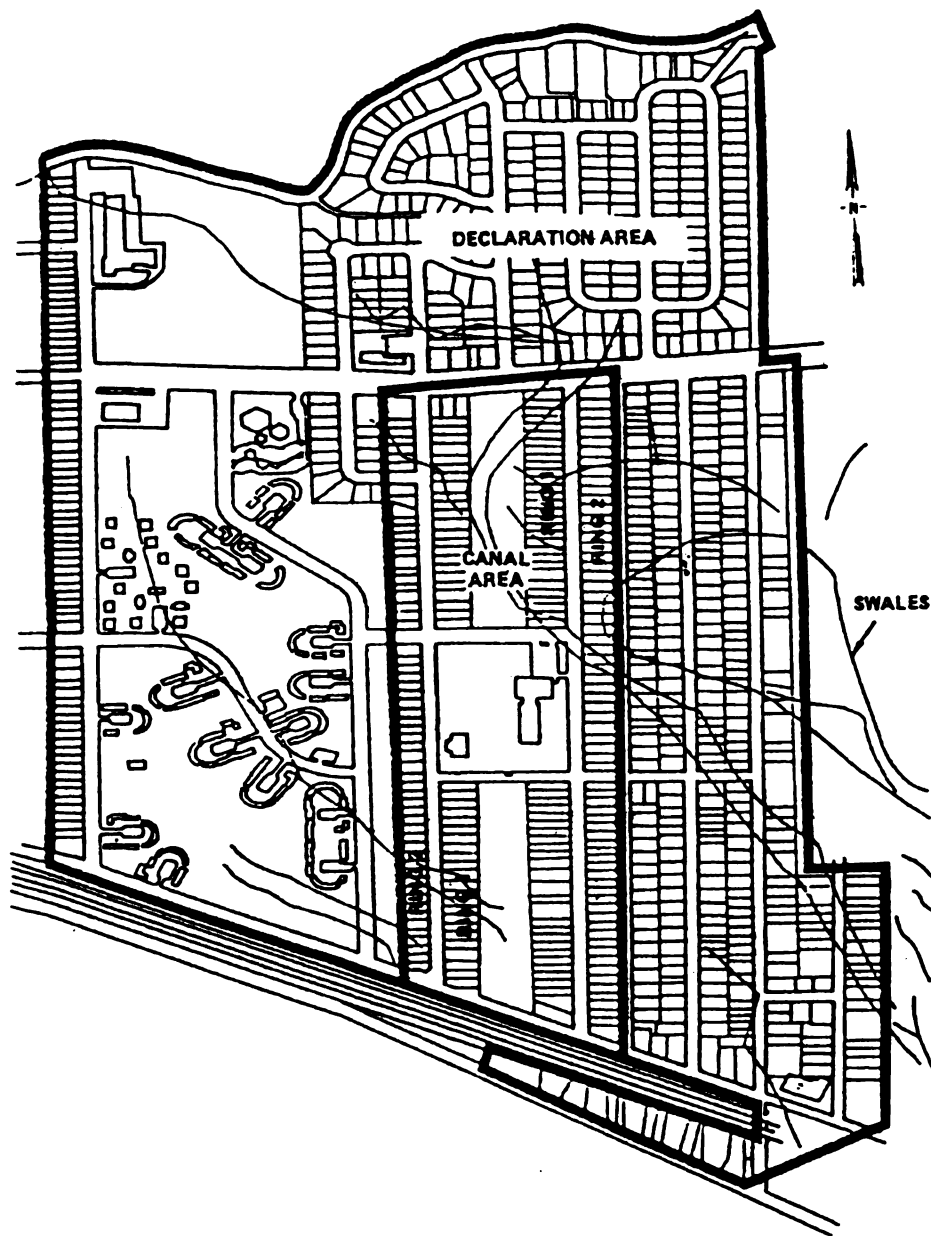


Figure 2. The General Love Canal Study Area.

FIGURE 5

Love Canal Study Area Map

Environmental Protection Agency,

"Environmental Monitoring at Love Canal," v.1, 3

Folder 1195, Box 5, ETF Collection, University Archives, SUNY Buffalo

explicitly, a 1982 EPA news release stated that the chemical contamination found appeared to be only in Ring I homes and within local sewer lines. It also specifically addressed the issue of swales. “There is no evidence that outside of Ring I swales (now-filled shallow channels) served as preferential routes for chemicals to travel from Love Canal.”⁸⁵ These official attempts to refute the swale theory showed how it had become the generally accepted explanation of chemical contamination at Love Canal. Sociologist Penelope Ploughman’s study of Love Canal media coverage identified the swale theory as one way the Homeowners’ Association gained legitimacy for all their scientific activities.⁸⁶

Health studies done by the Department of Health and Homeowners’ Association provided another area of contrast between expertise and common sense, beginning with the collection of medical information and samples. The Department of Health began health studies in the summer of 1978. Beginning with residents closest to the canal, public health investigators administered detailed medical histories. Debbie Cerillo, an active member of the Homeowners’ Association, described one problem with the health surveys: “They handed me a 22-page health survey that covered most every part of my body, with the exception of my children.”⁸⁷ Other residents noticed that the space allotted for the names of their personal physicians was twice that of that given for their children’s illnesses. One mother literally threw her questionnaire on the floor, enraged that “there was no place to write about the kids.”⁸⁸ Also as part of the health studies, public health technicians collected blood samples from residents. The process quickly degenerated into chaos when officials agreed to test any concerned residents. The appearance of hundreds

of people completely overwhelmed the collection sites, staffed only with two to four technicians daily. Residents, hot, anxious, many with small children waited with no assurances medical technicians would see them that day.⁸⁹ The Homeowners' Association suggested reorganizing the testing procedure, and recommended either a street-by-street or alphabetical approach.⁹⁰ Another incidence of mismanagement occurred when the Department of Health began testing for hazardous chemicals in outer-ring residents' homes. Public health officials advised residents with high toxic chemical readings to avoid their basements. Officials told one woman with a basement washing machine to "throw the laundry in and come right back up."⁹¹ In all of these cases, residents' common sense solutions contrasted with the Department of Health's seeming ineptitude.

The content and methodology of the health studies represented a more significant difference between public health officials and residents. One of the biggest problems appeared to be the use of control groups and what constituted an adequate comparison population. Scientific studies used control groups – a set of people matched with respect to the test group in economic, racial, and geographic features, except for one variable – to identify differences between the groups. Using one variable at Love Canal, exposure to toxic chemicals, medical investigators attempted to determine if chemical exposure caused the community's ill health. In the Homeowners/Paigen health study, the dry northern area provided a similar population to which they compared the southern wet part of the neighborhood. The Department of Health argued against using the same population as its own control group, in part because the actual exposure of northern

LaSalle neighborhood residents was in doubt. The Homeowners' Association in turn questioned the Department's calculation of the miscarriage rate for the area. Instead of evaluating births and miscarriages in a five-year period, as suggested by Gibbs, the Department of Health compared Love Canal miscarriage rates with those of women in a Canadian study. With Love Canal, however, officials only used physician-verified cases as contrasted with the Canadian study, which included patient-reported miscarriages.⁹² This meant the Canadian case included a greater number of incidences, which increased the study's calculated miscarriage rate.

The Department of Health personnel privileged health histories collected by trained individuals as more objective and therefore more accurate. The department discounted the health information gathered by the community because untrained individuals with a "vested interest" in the outcome of the study collected the information.

A 1984 Department of Health report discussed the problem of "health assessments" used to evaluate the effects of toxic chemicals on nearby people. Public health officials emphasized the difficulty in administering such surveys. Along with the need for a matched control population, such surveys potentially contained "reporting biases . . . as a result of community sensitization to the known presence of a pollution source."⁹³

Responses that included "stomach pains," "nervousness," or "more colds than usual" should be discounted, since these subjective symptoms could not be verified.⁹⁴ Without physician or hospital verification, the DOH viewed the Homeowners' survey as fatally flawed.

Homeowners' Association members countered with charges the Department of Health's own bias and gave examples. Homeowners' Association president Lois Gibbs accused public officials of incompetence and claimed the Department of Health's inability to "conduct a good objective scientific study" led residents to do their own.⁹⁵ Association vice-president Debbie Cerillo emphasized a different aspect of the Homeowners' Association's health survey, and suggested "with a more personal basis we got more results."⁹⁶ Gibbs pointed out that the women asked standard medical history questions, which included getting family and occupational information.⁹⁷ Some significant differences in the ways the Department of Health conducted their health surveys for outer-ring residents gave credence to the Homeowners' Association's charges. Unlike the careful health interviews used in gathering inner-ring residents' medical histories, public health personnel haphazardly collected information from outer-ring residents. Investigators dropped the surveys off in mailboxes, badgered residents to fill in blank spaces, and provided no explanation of what could be considered birth defects. Language presented a barrier for Spanish-speaking residents, and those unfamiliar with medical terminology.⁹⁸

Despite practicing "state-of-the-art" analysis, the Department of Health's health studies suffered a very public loss of credibility when reviewed by an independent panel. While in Washington D.C. for the congressional hearings, Beverly Paigen and the Department of Health submitted their respective health studies for review by a panel of outside experts, an action requested by Congressman John LaFalce (D-NY).⁹⁹ The panel's final report, issued July 26, summed up the health studies done so far at Love

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Canal. While acknowledging the different approaches, the report validated Paigen's conclusion that the "historically wet" areas of the Love Canal area posed a threat to health and safety and commended her work. The issues of proper control groups and the miscarriage rates used by the Department of Health, long a point of contention with Paigen and the Homeowners' Association, figured as a central point in the panel's report.¹⁰⁰ The panel judged the New York State Department of Health studies, produced through a "state-of-the-art" methodology, as representing a conservative viewpoint. The report publicly acknowledged the state's potential bias, suggesting that "outside scientists both in the interpretation of data and the formulation of recommendations to the State should be continued." The panel encouraged the inclusion of "non-scientists, local residents and other in future deliberations."¹⁰¹ A press release issued by the Secretary of Health, Education and Welfare, Joseph A. Califano, Jr., "confirm[ed] that residents of un-evacuated areas surrounding Love Canal, in Niagara Falls, New York, have been exposed to potential health risks because of a nearby chemical dumping ground."¹⁰² Paigen later admitted that she felt vindicated by the report's conclusions and that the committee thought "the Health Department did a terrible job."¹⁰³ Nevertheless, while the panel acknowledged the health problems at Love Canal, it made no recommendation for relocation, or how it would be funded. Instead, it counseled further scientific studies.¹⁰⁴

Residents eventually realized they were not powerless in their interactions with health officials because they controlled access to a necessary component of any health studies: their bodies. Following up on the disastrous chromosome study, the EPA attempted to start another comprehensive health study in the spring of 1980, but quickly

ran into a very serious road block. Only a week after the second emergency disaster declaration that funded the temporary relocation of all Love Canal families who wished to leave, the Homeowners' Association and other community groups announced they would not participate in an EPA-sponsored medical study "unless the government agreed to buy their homes."¹⁰⁵ Federal officials expressed the hope that residents would still cooperate. On June 15, 1980, the Love Canal Homeowners' Association voted unanimously not to participate for a number of reasons, including the EPA's refusal to let Homeowners' Association consultants to review study protocols. As the press release announcing the boycott noted: "This is very important to us. Our scientific input must be a part of the health studies design. The studies conducted by the New York State Department of Health in 1978 have proved to be 'useless' because of the poor design. . . . We do not want more useless information."¹⁰⁶ The planned boycott drew criticism from several quarters. The Buffalo Courier-Express expressed sympathy for Love Canal residents' "frustration and disappointment," but chastised them for using a "poor policy tactic" in trying to affect officials' decisions.¹⁰⁷ The editorial questioned why residents would withhold their participation in studies designed to resolve the continuing medical uncertainty. Congressman John LaFalce, a long-time ally of the LaSalle residents questioned the decision as well. From LaFalce's perspective, a boycott raised questions about residents' sincerity and real concerns about health risks.¹⁰⁸ In July, New York State Senators Jacob Javits and Daniel Patrick Moynihan amended the federal appropriations bill to provide President Carter with the money to permanently relocate residents.¹⁰⁹

Residents reconsidered their involvement and a coalition of public health authorities and community residents and activists thrashed out the various concerns and issues in any future health studies. The Center for Disease Control (hereafter CDC) became the lead agency coordinating health studies. Working in cooperation with medical investigators from the State University of New York at Buffalo (hereafter SUNY Buffalo) and a large number of community representatives, the Love Canal Medical Advisory Committee Members met in October of 1980 to discuss study protocols. Among those present were epidemiologists, community activists and advisors, including Lois Gibbs, Beverly Paigen, and Stephen Lester, and representatives from the CDC. The committee struggled with how to make the study scientifically valid and still responsive to the community's needs. Why not, Beverly Paigen asked, answer the question that Love Canal residents worried about: "Did Love Canal affect the people's health?"¹¹⁰ Medical investigators answered that the phase I part of the study would not be able to answer what the harmful effects of chemicals on residents were, nor show any correlations between illnesses and chemicals. As one investigator admitted, "it was difficult to diagnose chemicals in the blood with the limited knowledge we have today." Freezing the blood drawn in the first phase of the study offered a chance for future analysis, "as the limits of science expand."¹¹¹

The Medical Advisory Committee wrestled with accommodating the desires of residents with the dictates of science and economics. The community wanted the first phase of the study to be more than free medical examinations. The cost of adding a control group, necessary to scientifically validate the Phase I study, led medical

investigators to suggest a compromise. They proposed doing a matched comparative study focusing on Love Canal children, from birth to age 21. Study epidemiologists noted that children presented a “cleaner” study, since there were less complicating factors, such as tobacco and alcohol use, or occupational exposure to hazardous chemicals. Adults would still be offered physical examinations and participate in the specialized neurological and chromosomal studies, and be included in the second phase of the health study. Homeowners’ representative Gibbs thought that reproductive studies should be included in the health study, especially since these problems played such a significant role as “indicators of harmful effects of the Love Canal.”¹¹² The meeting ended with Gibbs asking for time for the community to consider these proposed changes. The 1980 election of Ronald Reagan made these deliberations moot. The new Congress denied funding for the study, and no further federal studies of Love Canal residents took place.¹¹³ The cost of epidemiological studies, linked with the history of scientific uncertainty, proved to be major obstacles in attempts to definitively answer the simple question, “How had Love Canal chemicals affected residents?”

“Housewife Data”: The Social Construction of Scientific Knowledge

If the Love Canal disaster did nothing else, it revealed the social construction of scientific knowledge. Confronted with a first case scenario disaster, public health officials asserted their authority and made claims of scientific objectivity. Residents objected to their treatment by public officials, and generated their own understandings of causation, risk, and what should be done. Issues of race, class and gender shaped the scientific knowledge produced at Love Canal, for both public officials and residents. The

Department of Health's reception of the Homeowners' Association's community health study represented one of the best examples of the social construction of knowledge and the way external considerations affected it. Lois Gibbs and Beverly Paigen worked closely together to analyze and encode the results gathered by women for the Homeowners' Association health study. Paigen attended a special meeting with Department of Health officials held in Albany on November 1, 1978. Paigen returned from the meeting convinced that the evidence she presented impressed public health authorities. Gibbs and Paigen learned about the Department's reaction from a newspaper article. Gibbs summed up the reason for the state's dismissal: "They [the Department of Health] said there was no data to back up the claim . . . It didn't mean anything because it was put together by a bunch of housewives with an interest in the outcome of the study."¹¹⁴ Public health officials' cavalier rejection of the study shocked the women. The Department's dismissal implicitly contrasted the "housewife data" supplied by the Homeowners' Association with the real science being done by public health investigators. Both official and citizen science showed such imbedded biases. This section considers the intertwined influences of gender, class and race on Love Canal science; the role of outside experts; and the ways media coverage affected public perception of the crisis.

Love Canal women embraced the role of "dumb housewives" and used it to challenge the expertise and objectivity of public health officials. In the interchange with the state engineering consultant, Gibbs equated being a housewife with common sense. The Love Canal women continued to redefine housewife as a positive source of knowledge. Dr. David Axelrod became Commissioner of Health in January of 1979, and

he established a panel of outside experts to review the Love Canal health studies. The panel's membership remained secret, and the commissioner only asked the Homeowners' Association's scientific advisors to attend the panel's first meeting. The panel's advice led to the second emergency health declaration that expanded the evacuation notice announced in February. At a private meeting held before the general announcement, Axelrod met with a select group of Love Canal residents and Paigen. The women all wore blue ribbons with their declared 'expertise' upon them. Beverly Paigen's ribbon identified her as "an expert on useless housewives' data."¹¹⁵ The other women listed "listening to New York State bullshit," a question mark, and their expertise on blue-ribbon panels on their ribbons.

Scientific knowledge functioned as a marker of class at Love Canal in two ways: as evidence of expertise gained through higher education and specialized training, and in the tension between experts located in the state capital of Albany and citizens living in Niagara Falls. One of the ways class tensions between the center and periphery played out appeared in residents' expectations of government officials. Love Canal activists repeatedly pointed out the ways elected public officials and individuals hired by the state failed to fulfill their obligation of protecting the public. In the letter Lois Gibbs wrote to Rosalynn Carter that opened the last chapter, Love Canal residents stated they were tax-paying citizens who had voted various officials into office.¹¹⁶ Here, residents expressed a different understanding the role expertise should play. Instead of allowing public officials to make unilateral decisions, the Homeowners' Association and other activists emphasized public officials' obligations to citizens. Nearby Grand Island resident Roger

Cook complained about the experts in Albany, a complaint that expressed a very real unhappiness about center/periphery tensions.¹¹⁷ Gibbs criticized Cora Hoffman, a liaison with the governor's office, and Mike Cuddy, the on-site coordinator for the Love Canal Task Force, for their lack of responsiveness. As she noted, "We pay the salaries of people like Cora Hoffman and Mike Cuddy . . . They're supposed to be working for us."¹¹⁸

Residents expected Department of Health and other public officials connected to the disaster to respond to the community's perceived needs and involve them in the decision-making process. They resented being treated as uneducated individuals incapable of understanding, like children.¹¹⁹ At one public meeting a state consultant presented the technical schematics for clean-up. Remediation plans called for drainage ditches to collect contaminants, and the engineer guaranteed the drains would never get plugged up. Many area men, experienced factory workers, questioned his confidence. As Gibbs noted: "They have seen more than one smart engineer with perfect plans take them back to the drawing board."¹²⁰ While the Department of Health received the majority of the criticism, other public officials proved equally dismissive of residents' capabilities. Invited to watch the ABC Television documentary, The Killing Ground, Gibbs defended Love Canal residents' knowledge to a hostile group composed of local Niagara Falls officials. City administrators mocked residents' credentials, which included belittling resident Jim Clark as a mere ditch digger. "Jim Clark may not be an educated man," Gibbs conceded, "but he is very intelligent . . . He knows what he is talking about. He has read and educated himself, . . ."¹²¹ Clark later encouraged community activists to set

up an information center with journal articles and references to help residents educate themselves about hazardous wastes.¹²²

Like the swale map that publicly encoded residential illness as disease, using scientific symbols, residents' use of technical language granted their citizen science some measure of legitimacy. The Homeowners' Association created its own technical jargon in its designation of the area's underground streambeds as "swales." Sociological interviews done in the fall of 1978, at the beginning of outer-ring residents' fight for relocation, displayed residents' level of awareness about the swales. In this early stage, residents demonstrated poor understandings how the swales functioned to transport chemical contamination. LaSalle neighborhood residents defined swales differently, showing the differences in expertise among residents themselves.¹²³ Some described swales as "natural drainage ditch . . . really just a run-off" or understood them as part of a 1938 farming tile drain system.¹²⁴ Others expressed uncertainty about how the swales affected them directly, although they credited the geological waterways with contaminating the area. One resident even offered a counter explanation that suggested sanitary sewers were a route of contamination – the idea eventually accepted as the official explanation for the contamination of Bergholtz Creek.¹²⁵ Another resident described relatives being afraid to visit, because they "were raised here [and] used to paddle across [a] swale in a boat."¹²⁶ As one resident told an interviewer inquiring about what a swale was, "You see, we have different names for everything out here."¹²⁷ So even as residents railed against official science's use of technical terms, the Homeowners' Association used their own technical language in the formation of the swale theory.

Considerations of class and race also affected the application of the Homeowners' Association's swale theory. While the swales explained how residents within the broader LaSalle area had been exposed and the theory gained popular acceptance, residents applied this explanation selectively as needed to protect their own claims for relocation. This can be seen in the case of Griffon Manor. On the swale map reproduced in newspapers, swales crossed the canal diagonally and appeared to be concentrated in the southeast corner of the development. In the published maps, the swales missed Griffon Manor, although other maps showed the swales present throughout the project.¹²⁸ Racial tensions had already arisen with the Homeowners' Association over the issue of Association membership, which pitted owners versus renters, and the allocation of public health resources.¹²⁹ Rank-and-file Homeowners' Association members feared that moving an additional 1100 people would prove too costly for state authorities, and prevent the relocation of any of the remaining residents. Addressing this fear, Homeowners' Association members offered different explanations of how the swales worked, and how the chemicals that contaminated their homes missed Griffon Manor. Association members argued that "because the basic swale flow was E→W and the carry off [went into] Black Creek" that swales could not have carried chemicals to the project.¹³⁰ The racial tensions between the Homeowners' Association and the minority residents of Griffon Manor meant that the groups failed to unite, and this division affected the application of the Homeowners' Association's swale theory.

In contrast to the lack of support provided by local physicians, the Homeowners' Association received aid from outside experts in the production of their scientific

knowledge, but generally downplayed these experts' involvement. Although private practitioners mostly deferred to public health officials, several other scientists supported residents' activities. Wayne Hadley, Lois Gibbs' brother-in-law, taught biology at nearby SUNY Buffalo. Aside from his own contributions as a scientific advisor, Hadley put the Homeowners' Association in touch with other concerned scientists he knew from his own activism, including Beverly Paigen.¹³¹ Hadley and Paigen in particular presented as a new kind of scientist who combined environmental activism with their academic pursuits. Gibbs described Wayne's friends as "hippies with long beards that went down to their belt buckles and long hair," and Hadley knew environmental activists and "professional protesters."¹³² Other outside experts included Dr. Charles Ebert, a geologist from the SUNY Buffalo, and the consultant hired by the State of New York to act as a scientific advisor to the Homeowners' Association, Stephen Lester. Both men were involved with the swale theory. Ebert consulted with local residents and evaluated the area with respect to the swale formations and made several reports to state authorities while Lester challenged state officials' dismissal of the swales during their clean-up of the area.¹³³ None of these advisors, with the possible exception of Paigen, appeared widely known. The residents remained central actors in the labor and analysis of their scientific endeavors. Gibbs' later involvement in community environmental activism emphasized this point: sympathetic scientific consultants should never speak for the group, or be prominently displayed. If community groups needed to consult or hire an expert, Gibbs' advised them, "Experts should be used to support what you say, but never be the spokesperson."¹³⁴

At least one of these outside experts came into conflict with established scientific institutions and demonstrated the way in which Love Canal provoked a conflict in professional standards. Hadley aided residents with little interference from the SUNY Buffalo administration, but also little assistance.¹³⁵ Beverly Paigen faced a much more hostile situation in her employment at the Roswell Park Memorial Institute, a nationally renowned cancer research center. Already viewed as somewhat of a problem employee, Paigen's tense relationship with supervisors worsened with her involvement with Love Canal.¹³⁶ At that time the Institute existed as a part of the state healthcare system administered by the Department of Health. Paigen's early Love Canal work attracted the attention of Commissioner Robert Whalen. Whalen complained to her supervisors, demanding that any scientific statements be supported with evidence. Her supervisors began monitoring her activities and requested she keep them apprised of her public appearances.¹³⁷ Paigen defended herself. "When I speak as an individual, rather than as a representative of Roswell Park," she wrote in a memo, "I follow the guideline announced to all staff members that what I say and to whom I say it does not require prior approval by anyone."¹³⁸ Paigen continued to speak about Love Canal at public forums, eventually arguing state scientists faced a conflict of interest "because the state would have to foot the bill for adverse findings."¹³⁹ This outspokenness led to confrontations with her superiors at Roswell Park, Commissioner of Health Axelrod, and eventually Governor Carey, and many considered her actions evidence of disloyalty. As one of her supervisors at Roswell Park observed: "I am shocked to hear from you that Dr. Paigen has no way of documenting her data . . . This in line with what has been released in the newspaper, is a

serious breach of scientific credibility, Institute responsibility, and the like.”¹⁴⁰ New York State audited Paigen in August of 1979, and her tax file contained numerous newspaper clippings about her activities at Love Canal.¹⁴¹ Press coverage of her harassment at Roswell Park alerted others to Paigen’s situation who rallied to her defense, and she continued to assist Love Canal residents and other victims of toxic contamination.¹⁴²

The media played a significant role at Love Canal in its education of the general public and framing of the disaster. As discussed in the previous chapter and in the case of Paigen’s harassment, news media coverage shaped the way the general public understood not only events, but also the validity of information. Mike Brown’s early stories about Love Canal gave anecdotal stories about residents’ illnesses, but conveyed them in the most dramatic terms possible. Sociologist Allan Mazur analyzed the news media coverage of Love Canal and concluded that Brown’s reporting “made the story more alarming than it needed to be to convey the information he had.”¹⁴³ The headlines Niagara Falls residents saw in their morning paper in the spring and summer of 1978 emphasized the serious nature of the toxic chemical threat. According to Mazur, local press coverage of the situation equated Love Canal with “chemicals and disease.”¹⁴⁴ Mazur also examined the 1979 ABC documentary The Killing Ground, and observed that the only individual challenged on air in the segment on Love Canal was Bruce Davis, the Hooker Chemical representative. Various Love Canal residents described their experiences, and as Mazur noted, the “documentary never questions assertions of chemical damage, even by speakers who claim no expertise.”¹⁴⁵ Dr. Beverly Paigen appeared as the only scientist interviewed in the documentary. The swale theory received

extensive coverage in the press, which helped in its general acceptance and the legitimization of the Homeowners' Association's scientific endeavors. When Gibbs released the Homeowners' Association health study information to the press before any scientific review, however, she violated generally accepted scientific standards that required peer review.¹⁴⁶ The study's premature release required public officials to respond to something many residents now considered fact.¹⁴⁷ The chromosome study represented the most grievous example of a scientific study released before it underwent any peer review. Residents panicked when they learned their tests showed genetic damage. News articles about the study failed to qualify the study's results, which lacked any kind of control group, and later received significant scientific criticism.¹⁴⁸

Public health officials complained about the way the news media portrayed science being done, but found themselves equally unhappy over the ways they appeared in press coverage of the disaster. Lead health investigator Dr. Nicholas Vianna appeared on the CBS morning news on February 8, 1979. In the interview, Vianna referred to the Love Canal womens' miscarriages as "fetal wastage." His insensitivity outraged residents.¹⁴⁹ A professional colleague of Commissioner of Health Axelrod made a formal complaint to the Columbia School of Journalism review board regarding media bias in a May 1980 60 Minutes episode on the behalf of Axelrod. The review panel ruled that the episode showed no bias.¹⁵⁰ Reporter Mike Brown noted in an interview that while he considered Axelrod to be his best source, the continued warfare with residents made Axelrod increasingly bitter. This disillusionment came in part because the "local media accepted Paigen's word over Axelrod's."¹⁵¹ At the very least, the news media coverage

of the Love Canal disaster marked a more adversarial relationship between the press and scientific experts.¹⁵²

A more sympathetic press might have helped Department of Health officials in explaining their position, but the fundamental conflict between scientific truth and medical ethics overshadowed officials' actions. Residents repeatedly accused public health officials as treating them like "human guinea pigs."¹⁵³ One resident condemned the Department of Health's refusal to evacuate the entire area as "human sacrifice."¹⁵⁴ Residents charged from the beginning that New York State officials feared setting a precedent at Love Canal, and this fear resulted in a tentative and inadequate response. Mazur's examination of the disaster noted that there were in effect two Love Canals, the inner-ring residents relocated by the end of 1978, and the outer-ring residents who fought for relocation. The Department of Health, according to Mazur, responded relatively quickly to the needs of residents with demonstrated ill effects, primarily in homes closest to the canal.¹⁵⁵ For health officials, it remained less clear that the wider LaSalle neighborhood had been contaminated. Sociologist Adeline Levine interviewed Love Canal participants and wrote a major sociological study of the disaster. She argued that while public health officials believed in the rational, objective character of their decisions, the reality of the Love Canal situation meant that political considerations played the most significant role. Levine concluded economic considerations influenced almost all public policy decisions regarding Love Canal.¹⁵⁶

The disaster exposed the fragile nature of scientific knowledge, where an empowered citizenry challenged health officials' authority and undermined scientific

certainty. The conflicts over the 1980 health studies showed the difficulties inherent in balancing citizens' practical concerns with scientific validity. The proposed CDC/SUNY Buffalo study received a number of negative responses from outside reviewers considering its scientific merit. Many of these concerns echoed those already expressed by community activists and advisors, but scientific experts also focused on a different set of problems. One commentator thought the "Love Canal population, because of the long standing emotional, financial, and litigational [sic] complicating issues is not the suitable subject to serve as a prototype for the scientific evaluation of effects of toxic waste exposure."¹⁵⁷ He went on to say despite this opinion, if the study continued it should omit pulmonary function testing. Such testing required a high degree of patient cooperation, was considered "non-objective," and usually reflected tobacco exposure rather than toxic waste. This point highlights the very real challenge in assigning causation of respiratory ailments to canal chemicals, especially in a highly charged, tense, and emotional situation that might cause respiratory problems like asthma in and of itself. Another reviewer questioned the number of participants involved, and whether any statistically significant outcomes could be shown. He gave the example of chromosome breaks: "if the frequency of chromosome breaks in the Canal group is 23 times the non-Canal group (23% versus 1%), the difference will not be statistically significant. However, the general public will not understand why 1 vs. 23% is not significant."¹⁵⁸ In the opinion of the scientific community, Love Canal made a poor choice in determining the effects of toxic exposure, in part because of the community's ignorance and politicization. Commenting on the planned community boycott of health studies,

Congressman John LaFalce identified another problem. LaFalce worried that a boycott not only tainted residents' motives, but threatened how the bureaucratic system worked. "I fear that the results could be a serious loss of credibility among health professionals, policymakers at all levels of government, and indeed the general public itself."¹⁵⁹

Beverly Paigen expressed the tensions between science and the public interests, and the ways the standard rules of science seemed not to apply. In a 1982 Hastings Center Report, a journal devoted to bioethics, Paigen admitted her own changed understanding of how science should work. She thought her differences with Department of Health officials would be resolved using the usual scientific channels, "by examining protocols, experimental design, and statistical analysis."¹⁶⁰ In actuality, she realized the "facts made little difference in resolving our disagreements – the Love Canal controversy was predominantly political in nature, and it raised a series of questions that had more to do with values than science."¹⁶¹ Paigen discussed a number of lessons Love Canal had taught the scientific community. She included community representation on all levels of decision-making and respect for dissenting opinions as key recommendations for ethical scientific investigation and public policy decisions. She also advocated a mediation process that emphasized agreement on the facts in dispute, the composition of the group adjudicating the dispute, and agreement among parties to accept the final decision.¹⁶²

Unlike other scientific debates that feature expert testifying against expert, the Love Canal chemical disaster made citizen science widely known for the first time. A small group of residents at Love Canal educated themselves, gained their neighbors' trust, and networked with sympathetic scientists in challenging state scientific officials. The

disaster exposed the social construction of scientific knowledge and the very real consequences of those constructions. Love Canal became a paradigmatic example of citizen science, most particularly “popular epidemiology.”¹⁶³ The disaster put a health department charged with the preserving public health and safety in direct conflict with that very public. Each side tried to achieve the best results possible given the particular constraints imposed by a first-case disaster. Sentiments and opinions expressed by one side in the conflict could have as easily been remarks made by their opponents. “When I make public statements,” Beverly Paigen wrote, “I am guided by my responsibilities to the public health, to the proper role of a scientist in society, and by my loyalty to Roswell Park and its reputation.”¹⁶⁴ David Axelrod and other public health officials thought they displayed a responsible attitude toward public health, acted as proper scientists, and were loyal public servants in New York State. Love Canal residents fought for a more responsive public authority and proved to be more than ‘just dumb housewives.’ Their struggles played out on a new terrain, as citizen scientists demanded a democracy of knowledge and the right to participate in the decisions based upon that information. But residents still based their demand for relocation on what was happening in their own backyards. Commissioner Axelrod recognized this fact when he asked “But under what authority do we evacuate everyone? Do we evacuate all of Harlem because it has an infant mortality rate four times the state average?”¹⁶⁵ The next chapter considers a different group of community activists and their claims for state intervention based upon principles of economic and social justice.

Endnotes

1. NYS DOH Interoffice Memo from Dr. Campbell, Regional Health Director – Western Region/Buffalo, to Dr. David Axelrod, Commissioner of Health, Executive Office, May 13, 1981, Folder 20 “Axelrod, David – Correspondence, 1980-1981,” Box 1, DOH Series 13307-86A, in the New York State Archives (Albany: New York State Archives), hereafter cited as NYS Archives. All of the quotes in this paragraph are taken from the memo.
2. *Ibid.*, italics in original.
3. Jasper, 107.
4. Mazur, 90.
5. Levine, 121.
6. Sheila Jasanoff, “Science, Politics, and the Renegotiation of Expertise at EPA,” *Osiris*, 2nd Series, v.7, Science after ‘40 (1992), 197, 198. Edward P. Russell III discusses the EPA’s focus on health risk versus environmental degradation in his essay, “Lost Among the Parts Per Billion: Ecological Protection at the United States Environmental Protection Agency, 1970-1993,” *Environmental History*, v.2, n.1 (January 1997): 29-51.
7. See Nancy Tomes’ The Gospel of Germs: Men, Women, and the Microbe in American Life (Cambridge: Harvard University Press, 1998) for a discussion about how public health used the germ theory of disease to promote itself.
8. There is a wide body of literature on this topic. Some examples would include: Burton Bledstein’s Culture of Professionalism: The Middle Class and the Development of Higher Education in America (New York: Norton, 1976) on the importance of professional knowledge; Jeffrey Weeks’ Against Nature: Essays on History, Sexuality, and Identity (Concord: Paul and Co., 1991) explored the ways medical practitioners labeling of homosexuality as a medical condition had both negative (it was considered deviancy) and positive (it created a group consciousness) effects; Daryl Michael Scott’s Contempt and Pity: Social Policy and the Image of the Damaged Black Psyche, 1880-1996 (Chapel Hill: University of North Carolina Press, 1997) persuasively shows how social scientists created societal understandings of black men as passive victims and the consequences of this constructed identity; Elizabeth Lunbeck examined the growing power of the psychological profession to determine the boundaries of normal in The Psychiatric Persuasion: Knowledge, Gender and Power in Modern America (Princeton: Princeton University Press, 1994).
9. See John C. Burnham’s How Superstition Won and Science Lost: Popularizing Science and Health in the United States (New Brunswick: Rutgers University Press,

1987) for an excellent discussion on how the general public came to understand science as it was transmitted via science writers and the popular media.

10. Martin Pernick's The Black Stork: Eugenics and the Death of 'Defective' Babies in American Medicine and Motion Pictures Since 1915 (New York: Oxford University Press, 1996) starts with one infamous Chicago case where a physician kills an infant and expands to consider popular understandings of eugenics, euthanasia, and both popularization of these issues and public understandings. Wendy Kline also examines popular eugenic understandings and practices in Building a Better Race: Gender, Sexuality, and Eugenics From the Turn of the Century to the Baby Boom (Berkeley: University of California, 2001). Daniel Kevles discusses both the power of social and biological scientists within eugenics in his book, In the Name of Eugenics: Genetics and the Uses of Human Heredity (New York: Knopf, 1985).

11. Some examples include: In Radium Girls, Women and Industrial Health Reform: 1910-1935 (Chapel Hill: University of North Carolina Press, 1997), Claudia Clark examines watch dial painters and their fights with medical and government authorities to acknowledge radium-poisoned workers and achieve recompense; Gerald Markowitz and David Rosner look at industry, occupational disease, and government responses in Deceit and Denial: The Deadly Politics of Industrial Pollution (Berkeley: University of California Press, 2002); Steven Epstein looks at AIDS activists and their influence on research and treatment in Impure Science: AIDS, Activism, and the Politics of Knowledge (Berkeley: University of California Press, 1996).

12. Bruce L. R. Smith, American Science Policy Since World War II (Washington D.C.: Brookings Institution, 1990), gave a broad overview of the development of science policy in the postwar United States while Daniel Sarewitz examined five myths of science and proposed a "sustainable development" model more responsive to public needs in his work, Frontiers of Illusion: Science, Technology, and the Politics of Progress (Philadelphia: Temple University Press, 1996). See also Sheila Jasanoff, The Fifth Branch: Science Advisors as Policymakers (Cambridge: Harvard University Press, 1990).

13. For accounts of the experiment, see James H. Jones, Bad Blood: The Tuskegee Syphilis Experiment (New York: Free Press, 1981); Susan L. Smith, Sick and Tired of Being Sick and Tired: Black Women's Health Activism in America 1890-1950 (Philadelphia: University of Pennsylvania Press, 1995); and Tuskegee's Truths: Rethinking the Tuskegee Syphilis Study, edited by Susan M. Reverby (Chapel Hill: University of North Carolina Press, 2000).

14. See Sandra Morgen's Into Our Own Hands: The Women's Health Movement in the United States, 1969-1990 (Brunswick: Rutgers University Press, 2002) for an examination of the feminist health movement. Barron Lerner's The Breast Cancer Wars: Hope, Fear, and the Pursuit of a Cure in Twentieth Century America (New York: Oxford

University Press, 2001) examined women's activism, medical research, and government policy.

15. Levine, 72. Levine notes that the DOH has a \$124 million budget, a staff of 6,000, and well-equipped laboratory facilities.

16. A Brief History of the New York State Department of Health Laboratory, 1901-1914 (Albany: A Centennial Publication, NYS DOH, 2001), 11; for more on New York State's prominence in public health, see Morris M. Cohn, P.E., Sc.D. and Dwight F. Metzler, P.E., S.M., The Pollution Fighters: A History of Environmental Engineering in New York State (Albany: Health Education Service, Inc., 1973); and Elizabeth Fee, Disease and Discovery: A History of the Johns Hopkins School of Hygiene and Public Health, 1916-1939 (Baltimore: Johns Hopkins University Press, 1987), 35.

17. Fee, 47.

18. See Charles Rosenberg's The Cholera Years, the United States in 1832, 1849, and 1866 (Chicago: University of Chicago Press, 1962) for the development of New York City's public health department, which looks at the changes in public health thinking through an examination of three major cholera epidemics, all before the emergence of the germ theory of disease. John Duffy's The Sanitarians: A History of American Public Health (Urbana: University of Illinois Press, 1990) tells the story of public health medicine in the early twentieth century with an emphasis on sanitary engineering.

19. Fee, 132-145.

20. See Claudia Cohen's study of watch-dial painters, Radium Girls, Women and Industrial Health Reform: 1910-1935 (Chapel Hill: University of North Carolina Press, 1997), which considers the poor response of public health officials and other medical "experts" in the tragedy; in Deceit and Denial: The Deadly Politics of Industrial Pollution (Berkeley: University of California Press, 2002), Gerald Markowitz and David Rosner look at the lead and chemical industries, and their success in avoiding responsibility for the harm done by their products, primarily to workers but also the general public.

21. David Rosner and Gerald Markowitz examine changes in public health understandings (and responses) to occupational disease in two books, Deadly Dust: Silicosis and the Politics of Occupational Disease in Twentieth-Century America (Princeton: Princeton University Press, 1991) and Deceit and Denial: The Deadly Politics of Industrial Pollution, *ibid.* Allison Hepler considers how instead of improving occupational conditions, the detection of reproductive harm led to restrictions on women workers in her work, Women in Labor: Mothers, Medicine, and Occupational Health in the United States, 1890-1980 (Columbus: Ohio State Press, 2000). Judith Walzer Leavitt discusses the "new" public health debate in her essay, "'Typhoid Mary' Strikes Back: Bacteriological Theory and Practice in Early Twentieth-Century Public Health," *Isis*,

1992, Volume 83, and in her book, Typhoid Mary: Captive to the Public's Health (Boston: Beacon Press, 1996).

22. Levine, 42.

23. Charles Rosenberg, "Framing Disease: Illness, Society, and History," Introductory essay in Framing Disease: Studies in Cultural History, edited by Charles Rosenberg and Janet Golden (New Brunswick: Rutgers University Press, 1992), xviii-xx. In many respects, Rosenberg's essay, along with Foucault's Birth of the Clinic: An Archeology of Medical Perception, translated from the French by A. M. Sheridan Smith (New York: Pantheon Books, 1973), "frame" this chapter in that it addresses the social construction of disease and the role medicine plays in that process. The dilemma for Department of Health officials with Love Canal lay in recognizing a new, and previously unknown, social framework for the illnesses residents were reporting.

24. David Axelrod obituary, Albany Times-Union, January 20, 2001; and court testimony, Folder 1315 "Dr. David Axelrod Court Testimony [re: Love Canal]. 12/20/90, Box 25, ETF Collection.

25. "Statements made by Lou Violanti, NYSDepartment of Health, Buffalo Office," Ecumenical Task Force, Executive Committee Mtg., June 9, 1979, Folder "Violanti, Lou-Statement - New York State Dept. of Health, June 9, 1979, Box 50 "ETF Files, R-Z, 1980-87," ETF Collection.

26. Axelrod Testimony.

27. Memo from Dr. Hetling to Dr. Axelrod, October 1, 1981, concerning a presentation made by Proctor and Gamble concerning the introduction of Tide Detergent's use of sodium nitrilotriacetate (NTA) as a "builder," Folder 15 "Environmental Health Services, 1981," Box 3 "DOH Commissioner's Office Subject Files," DOH Series 13307-86A, NYS Archives. Dr. Kim confirmed that this was routine event at the Department of Health, see Dr. Nancy Kim Interview, July 24, 2003.

28. For examples, see N. J. Vianna and A. Polan, "Lymphomas and occupational benzene exposure," Lancet, 1979 June 30, 1 (8131): 1394-5; N. J. Vianna and A. K. Polan, "Non-occupational exposure to asbestos and malignant mesothelioma in females," Lancet, 1978 May 20; 1 (8073): 1061-3; and N. J. Vianna, "The malignant lymphomas: epidemiology and related aspects," Pathbiology Annual 1977; 7: 231-55. A LexisNexis Medical Abstract Search shows Vianna published over twenty articles in regional and national medical journals before Love Canal, primarily on Hodgkin's disease and cancer.

29. Kim affirmed that Axelrod's experience with the subcommittee was essential in setting up the methodologies the department used to detect and evaluate the presence of chemicals within Love Canal homes, Dr. Nancy Kim Interview.

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30. Axelrod Testimony, ibid., 3569.
31. Axelrod Testimony, ibid., 3570, quote from 3569.
32. Letter from W.C. Hennessy, Love Canal Task Force Administrator, to Reverend Paul Moore, Chairman, Ecumenical Task Force, May 21, 1979, Folder 49-7 "Department of Transportation (NYS), 1979-80," Box 49 "ETF Files," ETF Collection. Hennessy quotes a previous letter written by Moore offering help and inquiring as to the status of task force activities.
33. Letter from Dr. David Axelrod, NYS Department of Health Commissioner, to Reverend Paul Moore, spokesperson for the Ecumenical Task Force to Address the Love Canal Disaster (ETF), June 22, 1979, NYS Archives, Albany, New York, Series Department of Health 13307-86A, Box 9, Folder 18 "Paigen, Dr. Beverly, 1979-1980."
34. Ibid.
35. For a good history of these kinds of public health efforts, see John Duffy's The Sanitarians: A History of American Public Health (Urbana: University of Illinois Press, 1990) and Jo Ann Carrigan's history of yellow fever in Louisiana, The Saffron Scourge: A History of Yellow Fever in Louisiana, 1796-1905 (Lafayette: Center for Louisiana Studies, 1994). Charles Rosenberg's The Cholera Years: The United States in 1832, 1849, and 1866 (Chicago: University of Chicago Press, 1962) discusses late-nineteenth public health campaigns. For a study of urban municipal housekeeping, see Suellen Hoy, Chasing Dirt: The American Pursuit of Cleanliness (New York: Oxford University Press.
36. William G. Rothstein, Public Health and the Risk Factor: A History of an Uneven Medical Revolution (Rochester: University of Rochester Press, 2003), 51. See also Aronowitz, Making Sense, and Allan Brandt, "'Just say no': risk, behavior, and disease in twentieth-century America," in Scientific Authority & Twentieth-Century America, edited by Ronald G. Walters (Baltimore: Johns Hopkins University Press, 1997).
37. George W. Carey, "Urban Ecology, Geography, and Health Problems," Bulletin of the New York Academy of Medicine, volume 46 (2), February 1970: 82.
38. For an excellent discussion of epidemiology and public health, see Steve Wing, "Limits of Epidemiology," in Illness and the Environment: A Reader in Contested Medicine, edited by Steve Kroll-Smith, Phil Brown, and Valerie J. Gunter (New York: New York University Press, 2000).
39. Axelrod testimony, 1990, 3573.
40. Ibid., 3575.

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41. Ibid., 3561.
42. Fact Sheet, "EPA's Response to HUD Request on Love Canal," undated, Box 95, ETF Collection.
43. Ibid.
44. The "housewife" might very well question the usefulness of such an equation too.
45. EPA, "Carcinogen Assessment Group's Cancer Risk Estimation Procedure for Selected Carcinogens in Love Canal Area Housing," Box 25, ETF Collection.
46. Ibid., 14.
47. For an excellent discussion with the problems of risk assessment of technology, see Sheila Jasanoff's essay, "Technologies of Humility: Citizen Participation in Governing Science," Minerva, v.41, n.3 (September 2003): 224-240.
48. Letter from Dr. David Axelrod, New York State Department of Health Commissioner, to Douglas M. Costle, Administrator, U.S. Environmental Protection Agency, November 8, 1979, Box 12, ETF Collection.
49. Letter from William G. Hartenstein, On-site Task Force Coordinator, to Dr. Daniel [sic] Axelrod, Commissioners NYS Department of Health, July 16, 1979, Folder "'DOH Activities' – Love Canal," Box 2, NYS Archives, DOT Series 13430-89.
50. Dr. David Axelrod, "Interim Report on N.Y.S. Department of Health Environmental and Epidemiological Studies at Love Canal," July 30, 1979, 2, NYS Archives, ibid.
51. Gibbs, 31.
52. For a discussion of the idea of "local knowledge," see Clifford Geertz, Local Knowledge: Further Essays in Interpreting Anthropology (New York: Basic Books, 1983). Stephen R. Couch and Steve Kroll-Smith discuss Gibbs' swale theory in their essay, "Environmental Movements and Expert Knowledge," in Illness and the Environment: A Reader in Contested Medicine, edited by Steve Kroll-Smith, Phil Brown, and Valerie J. Gunter (New York: New York University Press, 2000), 390.
53. "Love Canal Chronological Report, April 1978 to January, 1980," Love Canal Homeowners' Assoc. Inc., Folder "Love Canal Chronological Report, April 1978 to January 1980, Love Canal Homeowners Assoc. Inc.," Box 13, "Resource Library, Numeric Files," in the Ecumenical Task Force of the Niagara Frontier Love Canal Collection (Buffalo, New York: University Archives, State University of New York at Buffalo) hereafter cited as the ETF Collection.

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54. Lois Gibbs, Love Canal: My Story as told to Murray Levine (Albany: State University of New York Press, 1982), 66. In sociologist Adeline Levine's account of the incident, Gibbs actually put pins into a map, which represented neighborhood illnesses, and realized that there were significant groupings of illness which she then correlated with the presence of swales. See Adeline Levine, Love Canal: Science, Politics, and People (Lexington: Lexington Books, 1982), 78.
55. Gibbs, *ibid.* Given the way Gibbs describes the event, this episode seems to represent a classic example of "local knowledge," a term coined by anthropologist Clifford Geertz. The term refers to information about conditions held by people who live, work and interact in those social spaces. See Geertz, Local Knowledge: Further Essays in Interpretative Anthropology (New York: Basic Books, 1983); a later newspaper account also displayed local knowledge of the Love Canal site; it discussed a 1953 aerial photograph taken by a neighborhood resident. See Mike Brown, "Photo shows Love Canal chemical burial," Niagara Gazette, December 3, 1978.
56. Gibbs, *ibid.*, 67.
57. Levine, 93.
58. See Mark Monmonier, Cartographies of Danger: Mapping Hazards in America (Chicago: University of Chicago Press, 1997) for an account of how professional geographers map dangerous conditions like hurricanes, crime, and contaminated water. Love Canal residents' swale map would seem to be another kind of mapping that merits investigation.
59. Robert A. Aronowitz, Making Sense of Illness: Science, Society, and Disease (New York: Cambridge University Press, 1998), 9.
60. "Love Canal Chronological Report, April 1978 to January 1980," *ibid.*
61. Gibbs, 66.
62. Stephen R. Couch and Steve Kroll-Smith, "Environmental Movements and Expert Knowledge: Evidence for a New Populism," in Illness and the Environment: A Reader in Contested Medicine, edited by Steve Kroll-Smith, Phil Brown, and Valerie J. Gunter (New York: New York University Press, 2000), 385.
63. Gibbs, 67.
64. Sheila Jasanoff, Science at the Bar: Law, Science, and Technology in America (Cambridge: Harvard University Press, 1995), 119.
65. Jasanoff, 123.

66. Levine, 85.

67. Judith Walzer Leavitt, The Healthiest City: Milwaukee and the Politics of Health Reform (Madison: University of Wisconsin Press, 1996 [1982]), 74, 75; Paul Starr, The Social Transformation of American Medicine (New York: Basic Books, 1982).

68. See the introduction to Robert Aronowitz' Making Sense of Illness: Science, Society, and Disease (Cambridge: Cambridge University Press, 1998), for a discussion of the division between clinical medicine and private practice.

69. Levine, 85. Levine suggests that DOH investigators wanted to avoid becoming emotionally involved with Love Canal residents. I would argue that while this may be true, these health care workers saw this traditional division of labor between private and public health care practice as normal and necessary. Public health efforts, from this perspective, would be focused on determining the systemic problems and utilizing state resources appropriately. The hesitancy of local physicians remains more difficult to explain or excuse.

70. Interviews 112, 121, 126, and 138, Levine Collection.

71. Interview 126, Levine Collection.

72. Interviews 126, 136, Levine Collection.

73. Interview 3, quoted in Martha Fowlkes and Patricia Miller, The Social Construction of a Disaster (Washington D.C.: Federal Emergency Management Agency, 1982), 78.

74. Richard Nason, "Love Canal Mds in Bind as Periled Families' List Grows," Medical Tribune, April 4, 1979, Vol. 20, no. 13, 2.

75. Interview 138, Levine Collection.

76. Nason, 1.

77. Mazur, 175. Mazur provides an extensive discussion about the scientific validity of the swale theory in his book. Here, I am more concerned with the ways in which laywomen constructed a sophisticated theory and successfully presented it to a broader audience.

78. Interview 138, Folder 11, in the Adeline Levine Love Collection (Buffalo, New York: Buffalo and Erie County Historical Society), hereafter cited as the Levine Collection.

79. Sarah Vowell, "Eliminate the Middleman," This American Life, hosted by Ira Glass (Chicago: WEBZ, 1999) Episode 151, aired January 28, 2000.

80. Mazur, 99.

81. Mike Cuddy Testimony, "Status of Hazardous Dump Sites and Toxic Substance Regulation in New York State, Public Hearing" Chairman: Assemblyman Alexander B. Grannis, Niagara Falls, NY, May 3, 1979, Folder L-1, 1/3," Box 10 "File Cabinet 3, Drawer 1, Resource Library.Num.Files," ETF Collection.

82. See Gibbs and Cerillo testimonies.

83. Letter from Lois Gibbs, Homeowners' Association President, to Dr. David Axelrod, Commissioner of Health, August 3, 1979; Letter from Stephen Lester, Staff Scientist, to Robert Flacke, Commissioner of Environmental Conservation, September 4, 1979; Letter from Norman H. Nosenchuck, remediation supervisor, to Stephen Lester, October 3, 1979; all in Folder "Central and Northern Sectors – Love Canal," Box 2, Series 13430-89 Dept. Of Transportation, (Albany: New York State Archives), hereafter cited as NYS Archives. The state also met with other community activists to explain their understanding of the swale theory, see Lou Violanti, NYS DOH, Buffalo Office, and William Harkenstein, Director Love Canal Remedial Construction Project, meeting summaries with the Ecumenical Task Force, June 9, 1979, Folder "Statements on Love Canal," Box 50 "ETF Files, R-Z, 1980-87," ETF Collection.

84. United States Environmental Protection Agency, Environmental Monitoring at Love Canal, Volume I (Washington: May 1982), v.

85. "Love Canal Study: Declaration Area Found Habitable by PHS [Public Health Service]," EPA News Release, July 14, 1982, Folder "USEPA: Environmental Monitoring at Love Canal," Box 22, ETF Collection.

86. Penelope D. Ploughman, "The Creation of Newsworthy Events: An Analysis of Newspaper Coverage of the Man-Made Disaster at Love Canal," unpublished Ph.D. dissertation (Buffalo: State University of New York at Buffalo, 1984), 196.

87. Debbie Cerillo Testimony, "Public Hearing on the Status of Hazardous Dump Sites and Toxic Substance Regulation in New York State," Chairman Assemblyman Alexander B. Grannis, Niagara Falls, New York, May 3, 1979, Folder "Public Hearing, May 3, 1979," Box 10 "File Cabinet 3, Drawer 1, Resource Library," ETF Collection.

88. Quoted in Levine, 83.

89. See Gibbs, 56, and Levine, 81 for their descriptions of the situation. The picture discussed in Chapter Two, of the small blond child, was taken at the blood collection drive in June, 1978.

90. Gibbs, 56.

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91. Gibbs, 68.
92. Levine, 67.
93. Alice Stark, D.Ph., Susan Standfast, M.D., M.P.H., and Robert H. Huffaker, D.V.M., M.P.H., "Health Assessment," Office of Public Health, New York State Department of Health, August 1984, Folder "Resource Lib.," 5, Box 25, ETF Collection. Stark now heads the most recent Love Canal studies, slated to end in 2003.
94. As mentioned in Chapter Two, one of the differences – by medical standards – between illness and disease lies with verification by a medical professional, usually a physician. See Robert Aronowitz, *ibid.* One of the first scholars to note the enormous power this granted physicians was Michel Foucault, The Birth of the Clinic: An Archeology of Medical Perception, translated by A.M. Sheridan Smith (New York: Pantheon Books, 1973). Foucault also discusses how medical technology, such as the stethoscope, conferred such authority to physicians.
95. Gibbs, 5.
96. Debbie Cerillo Testimony.
97. Gibbs, 68.
98. Gibbs describes the problems with the surveys in her narrative, focusing in particular on the absence of space for children's illnesses, xx; Levine also discusses the problems with how the surveys were distributed (one resident's visitor received a questionnaire, as the investigator assumed he lived there) and constructed, xx; see also the "Love Canal Homeowners Association – Summary to 60 Minutes," May 1980, 2, ETF Collection, Box 50 "ETF Files, R–Z, 1980-1987," Folder "Sixty Minutes, summary sent in by LC Homeowners Association, May 1980." This document notes that trained DOH investigators personally interviewed inner-ring families (approximately 239), but left questionnaires at the homes of outer-ring residents (750 homes).
99. Mazur, 110.
100. "Report of Meetings Between Scientists from HEW & EPA and Dr. Beverly Paigen and [Scientists] of the State of New York Department of Health Concerning Love Canal," July 26, 1979, Folder 5-30, "EPA Meetings Between Scientists from HEW & EPA and Dr. Beverly Paigen, 4/12/79," Box 5 "Environmental Protection Agency [EPA], Reports, 1976-80," ETF Collection; Letter from Lois Gibbs, LCHA President, to DOH Commissioner Dr. David Axelrod, August 3, 1979, Folder "Homeowners Assoc. & Tenants – Love Canal," DOT Series 13430-89, Box 2, NYS Archives.
101. "Report of Meetings Between Scientists," *ibid.*

102. Joseph A. Califano, Secretary of the United States Department of Health, Education, and Welfare, "Press Release," Thursday, July 26, 1979, Folder 320-A, Box 14, ETF Collection.

103. Mazur, 111. In the interview excerpt, Paigen goes on to say that Axelrod had been "humiliated by that encounter and by the encounter before Congress. At that time he wanted revenge." Two different scientists connected with Love Canal, Dr. Michael Stoline (statistics) and Fr. Jack Kieffer (engineering) indicated that the official scientific establishment came to respect, if not completely agree, with Paigen's work and conclusions. See Dr. Michael Stoline Interview, May 3, 2003, and Fr. Jack Kieffer Interview, July 15, 2002.

104. "Report of Meeting."

105. Josh Barbanell, "Love Canal Families Balk at Further Tests," New York Times, Wednesday, May 28, 1980, B3.

106. Love Canal Homeowners Association, "Press Release," June 16, 1980, Folder "Health Testing – correspondence & resolutions, 1980-81," Box 61 "ETF Files, 1979-88," ETF Collection.

107. Editorial, "Test Boycott Is Foolish," Buffalo Courier-Express, June 13, 1980, 22.

108. "LaFalce Calls for Cooperation with Health Testing," News from Congressman John J. LaFalce, undated, Folder "Health Testing – correspondence & resolutions, 1980-81," Box 61 "ETF Files, 1979-88," ETF Collection.

109. "Progress Report, March 20, 1979 – August 1, 1980," 52, 54, Ecumenical Task Force of the Niagara Frontier Love Canal Collection, online at <http://ublib.buffalo.edu/libraries/projects/lovecanal/documents>, hereafter cited as ETF, "Progress Report, March 20 – August 1, 1980."

110. Michele Alexander, Ph.D., Clinical Coordinator, "Advisory Meeting of October 23, 1980 – Minutes," Love Canal Advisory Committee, , Folder "Health Testing – correspondence & resolutions, 1980-81," Box 61 "ETF Files, 1979-88," ETF Collection.

111. Ibid.

112. Michele Alexander, Ph.D., Clinical Coordinator, Advisory Committee – Love Canal Health Project, "Summary, Advisory Committee Meeting, December 10, 1980," Advisory Committee, Folder "Health Testing – correspondence & resolutions, 1980-81," Box 61 "ETF Files, 1979-88," ETF Collection.

113. New York State Department of Health studies have continued through 2003.

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114. Gibbs, 81.
115. Gibbs, 94.
116. Letter from Lois Marie Gibbs, President, Love Canal Homeowners' Association, to Mrs. Rosalynn Carter, October 22, 1979, in the Folder "Homeowners Assoc. & Tenants – Love Canal," DOT Series 13430-89, Box 2, NYS Archives.
117. Roger Cook, handwritten notes, Folder "ETF–Love Canal Resident Record, n.d.," Box 95, ETF Collection.
118. Gibbs, 56.
119. Gibbs, 18, 56; Interview 140, Levine Collection.
120. Gibbs, 110; see also David Halle, America's Working Man: Work, Home, and Politics Among Blue-Collar Property Owners (Chicago: University of Chicago Press, 1984) for his discussion of chemical workers' local knowledge of work conditions, 119-125.
121. Gibbs, 106.
122. Memo, J. Kieffer to Sr. Margeen Hoffmann, November 30, 1981, Folder "Memos," Box 65, ETF Collection.
123. Epstein, 350-352.
124. Interviews 112, 136, Levine Collection.
125. Interview 134, Levine Collection. Interview 143 offers both explanations – swales and sanitary sewers – as routes of contamination.
126. Interview 138, Levine Collection.
127. Interview 143, Levine Collection.
128. Gibbs' published map in the Niagara Gazette and Buffalo News did not indicate a swale running through the Griffon Manor project; Levine's 1982 book does include a map indicating a swale in the area, 90.
129. See Chapter Four for a more complete discussion of Griffon Manor.
130. Interview 136, Levine Collection. These respondent had done the door-to-door canvassing of the neighborhood, and believed a strong correlation existed between canal contamination and community illness. Initially, Griffon Manor residents were not

contacted for any health surveys.

131. Levine, 75.

132. Levine, 30, 32; Quote from Gibbs, 47.

133. Dr. Charles Ebert, "Comments on the Love Canal Pollution Abatement Plan (No.2)" [November 13, 1978], and also Ebert's article, "Love Canal: An Environmental Disaster," Transition: Quarterly Journal of Socially and Ecologically Responsible Geographers, 10, no.3 (Fall 1980): 2-11, Folder "Ebert, Charles, Dr. [1980], Box 5 "Alpha Files, N-Z," ETF Collection. Lester corresponded with Department of Environmental Conservation officials in the fall of 1979. See: Letter from Stephen Lester, Staff Scientist, to Robert Flacke, Commissioner of Environmental Conservation, September 4, 1979; Letter from Norman H. Nosenchuck, remediation supervisor, to Stephen Lester, October 3, 1979; all in Folder "Central and Northern Sectors - Love Canal," Box 2, Series 13430-89 Dept. Of Transportation, NYS Archives.

134. Lois Gibbs and Will Collette, Experts: A User's Guide (Arlington: Citizens Clearinghouse for Hazardous Waste, 1985), 2. For the use of local/experiential knowledge by grassroots groups, see Stephen R. Couch and Steve Kroll-Smith, "Environmental Movements and Expert Knowledge: Evidence for a New Populism," in Illness and the Environment: A Reader in Contested Medicine, edited by Steve Kroll-Smith, Phil Brown, and Valerie J. Gunter (New York: New York University Press, 2000), 384-404.

135. Levine, 182, 183.

136. There is an entire file at the NYS Archives with documentation on Paigen. Internal Roswell Park memos from as far back as 1976 indicate that Paigen had clashed with her supervisors, a situation not helped by the fact she worked under the direct supervision of her husband, Dr. Kenneth Paigen. For examples of this testy relationship, see Dr. Mirand, Memo to Dr. Paigen 4/9/77; Memo from Dr. Fred Rosen, Roswell Park Memorial Insitute to Dr. G.P. Murphy 12/12/79; Letter to Dr. Eugene M. Zimmerman, Assistant Program Director for Carcinogenesis, Division of Cancer Research Resources and Centers, National Institutes of Health from Beverly Paigen, June 20, 1978; Folder "Paigen, Dr. Beverly," DOH Series 13307-86A, Box 9, NYS Archives.

137. Memo from Dr. Murphy to Dr. Mirand, August 7, 1978; Memo from Murphy to Mirand, August 11, 1978; Memo from Murphy to Dr. Pressman, Associate Institute Director, September 15, 1978; and Memo from Dr. Beverly Paigen to Drs. Murphy, Pressman, and Mirand, September 12, 1978, ibid.

138. Memo from Dr. Beverly Paigen to Drs. Murphy, Pressman, and Mirand, September 12, 1978, ibid.

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139. Levine, 130.
140. Memo from Dr. Murphy to Drs. Mirand and Pressman, August 11, 1978, ibid.
141. Levine, 130-132; Mazur, 100-102.
142. Levine, 133. Paigen assisted the Woburn, Massachusetts families and concerned mothers in East Gray, Maine. See Jonathan Harr, A Civil Action (New York: Vintage Books, 1995, 1996), 144; and Mary Joy Breton, Women Pioneers for the Environment (Boston: Northeastern University Press, 1998), 128-130.
143. Mazur, 123. His analysis of the news media appeared in Chapter 10, pages 121-141.
144. "Panel Review of Biogenics Corporation Study of Chromosome Abnormalities in Love Canal Residents," Roy E. Albert, M.D. Chairman, NYU Medical Center, June 12, 1980," Folder "Love Canal – Chromosome Studies/Evacuation 1979-1980," Box 3 "Independent Studies/Reports," ETF Colleciton; Mazur, 126.
145. Mazur, 133. See also Celio Ferreira, Åsa Boholm, and Ragnar Löfstedt, "From Vision to Catastrophe: A Risk Event in Search of Images," in Risk, Media and Stigma: Understanding Public Challenges to Modern Science and Technology, edited by James Flynn, Paul Slovic and Howard Kunreuther (Sterling, VA: Earthscan Publications, Ltd., 2001).
146. Dr. Charles Ebert, "Comments on the Love Canal Pollution Abatement Plan (No.2)" [November 13, 1978], ibid.; Levine, 93.
147. See Interview 138, Levine Collection.
148. A number of scientific panels reviewed the chromosome study, most negatively. For example, see "Panel Review of Biogenics Corporation Study of Chromosome Abnormalities in Love Canal Residents. Roy E. Albert, M.D. Chairman, NYU Medical Center, June 12, 1980, Folder "Love Canal – Chromosome Study/Evacuation, 1979-1980," Box 3, "Independent Studies/Reports," ETF Collection.
149. Levine, 100.
150. Memo, Robert Miller to David Axelrod, Folder 19 "Axelrod, David – Correspondence, 1979," DOH Series 13307-86A, Box 1, NYS Archives.
151. Quoted in Mazur, 117. New York Times reporter Donald McNeil also considered Axelrod to be an important and reliable source, see Mazur, 130.
152. See June Goodfield's Reflections on Science and the Media (Washington, D.C.:

American Association for the Advancement of Science, 1981) for a brief history of media coverage of science, and Burnham, How Superstition Won and Science Lost, ibid.

153. For examples, see Cerillo Testimony, ibid.; Gibbs, 34; and Levine, 202.

154. Quoted in Levine, 109.

155. Mazur, 66, 133.

156. Levine, 61, 213.

157. Letter from Laurence I. Alpert, M.D., Director of Laboratories & Nuclear Medicine, to Clark W. Heath, Jr., M.D., Department of Health and Human Services, Center for Disease Control, November 24, 1980, ETF Collection, ibid.

158. Letter from Steven D. Aust, Professor, Michigan State University, to Clark W. Heath, Jr., Director Chronic Disease Division, Bureau of Epidemiology, Center for Disease Control, November 26, 1980, ETF Collection, ibid.

159. "LaFalce Calls for Cooperation with Health Testing," News from Congressman John J. LaFalce, undated, ETF Collection, Box 61 "ETF Files, 1979-88," Folder "Health Testing – correspondence & resolutions, 1980-81."

160. Beverly Paigen, "Controversy at Love Canal," Hastings Center Report, June 1982, 29.

161. Ibid.

162. Ibid., 35.

163. For examples, see Phil Brown, "Popular Epidemiology and Toxic Waste Contamination: Lay and Professional Ways of Knowing," and Stephen R. Couch and Steve Kroll-Smith, "Environmental Movements and Expert Knowledge: Evidence for a New Populism," both in Illness and the Environment: A Reader in Contested Medicine, edited by Steve Kroll-Smith, Phil Brown, and Valerie J. Gunter (New York: New York University Press, 2000); Michael Edelstein, Contaminated Communities: The Social and Psychological Impacts of Residential Toxic Exposure (Boulder: Westview Press, 1988); and Irwin Allen, Citizen Science (London: Routledge, 1995).

164. Memo from Dr. Beverly Paigen to Drs. Murphy, Pressman, and Mirand, September 12, 1978, Folder 16 "Paigen, Dr. Beverly," Box 9, Series DOH 13307-86A, NYS Archives.

165. Quoted in Michael Brown, Laying Waste: The Poisoning of America by Toxic Chemicals (New York: Pantheon Books, 1979, 1980), 55.

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RECIPE FOR DISASTER
CHEMICAL WASTES, COMMUNITY ACTIVISTS, AND PUBLIC HEALTH
AT LOVE CANAL, 1945-2000

VOLUME II

By

Amy Marie Hay

A DISSERTATION

Submitted to
Michigan State University
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Chapter Five

“Where There Is No Vision” Churches, Social Justice, and Earthcare

One of the most dramatic Love Canal confrontations took place in Los Angeles, on May 21, 1980, at the Occidental Petroleum annual shareholders' meeting. Occidental owned Hooker Chemical Company, the local Niagara Falls chemical company that was the primary polluter at Love Canal. Present at the meeting were three Love Canal activists: Luella Kenny, whose son Jon had died in the fall of 1978 from what many thought was exposure to Love Canal chemicals; Sr. Joan Malone, a Franciscan nun and member of the Ecumenical Task Force of the Niagara Frontier, there to introduce a shareholder's resolution on corporate responsibility using her religious order's Occidental Petroleum stocks; and Sister Margeen Hoffmann, the Executive Director of the Ecumenical Task Force of the Niagara Frontier. Kenny addressed the meeting and spoke about her son Jon's illness.¹ She told the story of Jon's death, and went on to link Love Canal illnesses with poor economic conditions. She ended her statement with a plea for change: "I'm sure our ancestors found it difficult to eliminate child labor and sweat shops . . . history has proven that giant corporations can grow and still have concern for their employees."² Malone then rose to speak to the gathered Board of Directors. As she approached the microphone, Occidental Chairman of the Board Armand Hammer ordered her microphone turned off, and told her "Go back to Buffalo."³ While many people know the story of Chairman Hammer's actions, very few know anything of the group that challenged him that day. Along with the Homeowners'

Association, the Ecumenical Task Force represented the other major community grassroots organization active at Love Canal. The group, composed of local religious faith communities and institutions, remained active in environmental causes for over a decade, locally in Niagara Falls and regionally throughout the Western New York area. From its inception, the Task Force marked an important and unrecognized phenomena in American history: the emergence of a postwar religious-based environmental activism.

Immediately following World War II American organized religion experienced a renewed cultural salience. Postwar religious leaders preached a gospel of progress, of improvement of the human condition. By 1953, over eighty percent of Americans accepted the Bible as the “revealed word of God.”⁴ The Reverend Norman Vincent Peale preached to thousands, exhorting followers to follow the principles of his 1952 book, The Power of Positive Thinking, while Bishop Fulton Sheen hosted the popular television show, Life is Worth Living.⁵ Reinhold Niebuhr towered above other religious leaders, a voice in the wilderness of liberal Protestantism that argued for the doctrine of original sin, and influenced a number of other mainline Protestant denominations.⁶ The Reverend Billy Graham led an evangelical revival briefly united with mainline Protestantism in the 1940s, and one divided by the late 1960s.⁷ Religious leaders condemned the atomic bomb, led the Civil Rights movement, and criticized American materialism.⁸ American Catholics underwent a seismic change with the changes wrought in the Church’s thinking and practice after the Second Vatican Council called by Pope John XXIII in 1962. The Catholic Left grew increasingly bold in their anti-war protests, joining with other faith in the peace demonstrations.⁹ The American government’s involvement in Central and

Latin America in the 1970s and 1980s provoked criticism from Catholic leadership, which was influenced by the emergence of “liberation theology” a doctrine that combined a critique of capitalism and continuing world poverty, and proposed radical social change.¹⁰ Organized religion, however, played almost no role in the other social movement of the 1970s, environmentalism.

Postwar critics blamed organized religion, most particularly Christianity, for humankind’s exploitation of the Earth. In 1967, historian Lynn White, Jr. wrote an influential essay that appeared in Science entitled “The Historic Roots of Our Ecologic Crisis.” White charged that human beings’ anthropocentrism created a dualism between the human and natural worlds that privileged the human.¹¹ Theological doctrines that emphasized the afterlife, human dominion over nature, and the salvation of the soul blinded Christian leaders to the earth’s ongoing degradation. Other critics echoed White’s criticism, most particularly Ian McHarg and Roderick Nash. This condemnation of Christianity’s concern with salvation and the afterlife meant that organized religion has been on the defensive with regard to its environmental thinking.¹² With the rise of the modern environmental movement, however, churches increasingly began to address ecological issues. Religious bodies began to express new relationships with the Earth that downplayed the idea of human dominion over nature and emphasized concepts like sustainability and human beings roles as stewards of the Earth.¹³ Changes in theology and church institutions in the 1960s and early 1970s promoted this shift. Three theologians in particular influenced organized religion’s ecological thinking: H. Paul Santmire, a Lutheran minister; and two figures associated with the appearance of creation

theology, Fr. Thomas Berry, a Catholic priest; and Matthew Fox, an American Dominican. Creation theology retold the story of Genesis as one of progressive evolution rather than Adam's fall from Eden and humanity's attempts at redemption.¹⁴ These changes in theological thinking, coupled with involvement in other postwar social movements, served as the preconditions for the faith community's involvement with the technological disaster in their own backyards.

The Ecumenical Task Force to Address the Love Canal Disaster, later the Ecumenical Task Force of the Niagara Frontier (ETF), represented the religious communities' response to the Love Canal chemical disaster. Long associated with disaster-relief efforts, the religious community in the Niagara Falls area initially offered direct aid to residents. The Love Canal chemical disaster presented a unique problem to both the broader society generally and religious community specifically because of the human-made origins of the problem, the uncertainty of harm caused, and unclear accountability for the disaster. As the disaster continued, Task Force members found themselves advocating to change hazardous waste policies. In the process, the group exposed the limitations of governmental toxic waste policy, called for corporate responsibility, and condemned a societal ethos that emphasized consumption and waste. At the same time, the Task Force reconnected the Love Canal disaster to a broader regional and national environmental movement. They also offered a contrasting approach to dealing with government and industry than the one offered by the Love Canal Homeowners' Association. This chapter argues that although the Task Force's presence at Love Canal remains mostly absent in later accounts of the disaster, the Task Force's

activities and articulation of a philosophy of eco-justice best represented the principles of the environmental justice movement. This chapter begins with the genesis of the group and the two historic functions of church ministry: the pastoral and the prophetic. Then, the Task Force began its role as a mediator with residents, the state, industry, other community groups and of knowledge. This contrasted to the Task Force's evolving philosophy, as the organization's leaders moved from a conception of a female Earth to one of environmental stewardship and justice. Finally, the chapter concludes with a comparison of the Task Force with the Love Canal Homeowners' Association.

The Ecumenical Task Force arose from the ministry of the Reverend Paul Moore, pastor of the First Presbyterian Church of Lewiston, a town only a few miles away from Niagara Falls. Moore's involvement with Love Canal began simply through his visits to the area and the observation of public officials' poor treatment of residents. His role, and the religious community's, expanded greatly, however, when his sermons about the disaster prompted one congregant to ask "What are we doing?" In February of 1979, Moore and Donna Ogg, a part-time church employee, summoned the western New York religious community to meet and discuss the problem. In their initial letter, they quoted the prophet Amos, warning against complacency and the need to acknowledge and aid the suffering residents.¹⁵ At the March 13 meeting, representatives of the various religious denominations – Protestant, Catholic, Jewish – agreed that area churches and religious organizations needed to provide direct assistance to residents and also assume an advocate role in pressuring governmental officials to respond to not only the Love Canal disaster, but to act on the broader issue of hazardous wastes. Meeting attendees also

decided that the Task Force would act as a source of information, gathering and interpreting “appropriate data.”¹⁶

In the formation of the Task Force, religious bodies gained a flexible means to address an uncertain, and in some respects, unprecedented situation. The various member denominations each sent at least one representative to sit on the executive board, which included four officer positions. The Executive Director, a paid position, reported to the executive board. As such, the executive board determined and carried out the organization’s activities. Over time, the composition of the Executive Board shifted from mostly male religious clergy to lay individuals, with a better proportion of female to male representation.¹⁷ Women, however, were consistently the majority of the paid and volunteer staff, including the position of Executive Director. All the individuals involved served the Task Force well, many giving long years of service, and even financial support in some very lean times. While this top-heavy structure might seem ineffective, the Task Force mobilized quickly. By April of 1979, the newly-formed ETF began receiving reports and forming subcommittees. The group also moved quickly to hire a director and alert public officials of their desire to assist in ongoing efforts, informing them that the ETF’s total membership represented over one million people in the western New York area.¹⁸ This number also represented the potential numbers that could be mobilized to apply political pressure. The Task Force set up several meetings with public officials – Commissioner Axelrod, a Department of Health representative from Buffalo, New York State Assemblymen Matt Murphy and Joseph Pillittere – and individuals connected with the Homeowners’ Association such as Dr. Beverly Paigen.¹⁹

Almost from the beginning, Ecumenical Task Force members realized they were involved in a unique endeavor. Although churches had a long history of helping during times of natural disaster, Love Canal represented the first time, to the best of Task Force members' knowledge, that religious organizations had responded to a human-made technological disaster.²⁰ Active members identified a variety of influences on their environmental understanding, including Rachel Carson's Silent Spring and the creation theology of Matthew Fox and Thomas Berry.²¹ Task Force members also brought their experiences with the Civil Rights, anti-war movements, and the burgeoning environmental movement with them to their work at Love Canal. Paul Moore had protested in Civil Rights demonstrations, while Task Force members Roger Cook and Terri Mudd were involved in anti-war activities.²² Latin American liberation theology provided an important, if less apparent influence on group members, especially the radical teaching techniques of Paolo Freire, a Brazilian educator, that emphasized dialogue, justice, and consciousness-raising.²³ The other major influence on the group came from organized religion's commonly accepted role in everyday ministry: the pastoral, or care for its adherents; and the prophetic, to speak of justice to those in power.

The Pastoral and the Prophetic: Aid, Advocacy, and Amicus Curiae

Especially in its early incarnation, the ETF's direct aid efforts tackled the problems residents were experiencing. The first "Progress Report," covering from March 20, 1979 to August 1, 1980, issued by the Task Force showed the amounts and kind of aid given. The Task Force directed residents to existing funds first, either private or public, with Task Force monies existing as a means of final resort. In the period between July 1,

1979 and June 30, 1980 the ETF assisted approximately 800 families. The biggest amount of monetary grants to residents went to four families, who received \$3,334.78 for medical services. Direct aid grants helped twenty-one families with rental and housing costs (\$3,025.93), and ten others with transportation/moving expenses (\$1,976.13). The direct aid report for the period ending August 1, 1980 noted that as the crisis continued, more and more families had exhausted their financial resources, and grants for food purchases, phone bills and copying had increased. The total amount disbursed in direct aid grants added up to over \$11,000.²⁴ While the Federal Emergency Declaration paid for temporary relocation, the agency administering the funds, the Federal Emergency Management Agency (FEMA), included no specific guidelines to deal with a human-made disaster. Only two local agencies, the ETF and Catholic Charities of Niagara County, gave financial assistance for relocation costs left unaddressed by FEMA.²⁵

The Task Force operated with a different understanding of their direct aid efforts. Because of Director Sr. Margeen Hoffmann's experience with Minnesota flood disaster relief, and the Task Force's funding from church disaster relief funds, an awareness of natural disaster-relief issues shaped the ETF's approach. The Task Force recognized the differences between natural and human-made disasters, though, noting that residents' "needs [were] less tangible and more immediate; more [was] required of the human spirit."²⁶ Unlike the response in natural disasters, Love Canal residents received little aid or support from the wider Niagara Falls community. As one ETF member later noted, there were no "Kiwans with food baskets, no Boy Scouts with street corner collections, no banks with low interest loans, no aid societies with welcoming homes for

the victims.”²⁷ The plight of residents failed to arouse sympathy within the broader Niagara Falls community, where the chemical industry represented a major employer. In contrast, Love Canal residents often found themselves attacked by other community members. One woman described her hostile reception when she met acquaintances in a store parking lot. After she responded hesitantly to their inquiries of concern, she endured a hostile tirade. “You people are all crazy over there, I don’t know what you’re all hollerin’,” the male acquaintance, a retired Hooker Chemical employee, the man exclaimed. He denied he had ever experienced any harm.²⁸ The Love Canal resident replied that he wore safety equipment, such as gas masks, and was not exposed in a confined space for twenty-four hours a day. She mentioned all the illnesses within the neighborhood. “How’d you know that they are caused by chemicals?” he asked, “How do you know they wouldn’t have ‘em if they were somewhere else?”²⁹ The woman admitted that was the whole problem, and the uncertainty added to everyone’s distress. The protracted battle with state and federal officials, the continuing medical uncertainty, and difficulties associated with relocation all strained individuals and families. The Task Force Board and staff recognized these needs.

Just as the Homeowners’ Association served as a source of support for residents, so too did the Task Force help residents cope with the mounting psychological problems connected to the disaster. The ETF staffed an on-site center, located in the Wesley United Methodist Church, one of two churches located in the LaSalle neighborhood. The staff welcomed Love Canal residents to “drop in for conversation, update information, personal counseling if desired, fellowship and refreshments.”³⁰ Here, the ETF’s space

mirrored the role the Homeowners' Association headquarters held in keeping residents informed about the ongoing situation and creating a supportive atmosphere. It went further in the sense that as neutral space, under the guise of a traditional church-related activity, the ETF presence may have encouraged more residents to take advantage of counseling services. The ETF staff participated in training sessions held for interfaith advocates by the Christian Reformed World Relief Committee. Their training differed slightly from the standard usually provided because of the unusual nature of the Love Canal disaster. Task Force leaders acknowledged their desire to design better training for such situations, especially considering "the lack of government guidelines, the inability to get federal disaster relief funds, and the uncertain long-range impact of the disaster . . ."³¹ A "Love Canal Hot Line," staffed by these trained advocates, helped the ETF alleviate the psychological effects of the disaster. It appeared to be one of the few groups capable of such aid.

The Ecumenical Task Force acted when a number of agencies traditionally providing relief services did not. Citing a number of reasons – poor funding, political concerns, increasing caseloads – for the neglect of local aid agencies, board member John Lynch claimed the ETF filled an important void. Residents, "under scrutiny by scientists, politicians, and the media as a great 'laboratory to study the effects of toxic chemicals on a civilian population'," reacted with anger, cynicism, and self-destructive behavior.³² In defining itself, the ETF proclaimed an identity as a mediator and its ability to represent all parties at Love Canal. "We make no claim to neutrality in the present situation," read its self-described role, "and we strive to work for justice through understanding and

reconciliation.”³³ As an “outside” organization not composed of Love Canal residents, the ETF helped validate the enormous strains, financial and emotional, residents experienced. The Task Force not only met a number of essential services – food, moving, housing – not covered by other resources, it had “remained an independent, objective, and professional advocate voice for residents who daily encounter bureaucratic red tape, run-arounds and arbitrary administrative interpretations of the law.”³⁴ The Task Force provided on-site counseling, and encouraged residents to seek out other services and to become involved in the resolution of their problems. It, like the Homeowners’ Association, empowered residents to demand answers from their elected officials. The Task Force joined residents in those demands, at the same time proclaiming that the hazardous waste problem extended beyond the narrow constraints of Love Canal.

The ETF used the large numbers of congregants from the collected religious denominations as one means to exert political pressure. In an early meeting, the group recommended a letter writing campaign designed to reinforce the recent Congressional testimony of Love Canal residents in the spring of 1979. In May of 1980, the ETF held a conference on “The Social and Moral Issues of Toxic Waste Disposal” aimed at educating the religious community, and jointly sponsored by the Council of Churches of Buffalo and Erie Counties and the Jewish Federation of Greater Buffalo.³⁵ Board members alerted their own denominations of the situation, and pushed for the issue to appear on regional and national agendas.³⁶ These appeals continued into 1980, with ETF Board member Reverend Guy Peak introducing “A Resolution on the Environment,” at the 143rd Annual Convention of the (Episcopalian) Diocese of Western New York.

Peek's resolution broadened the issue, linking the church's past aid to Love Canal victims with the ongoing problems of hazardous wastes. The declaration called for government and business to develop appropriate waste management plans. It also advocated greater religious involvement, suggesting church members' involvement in developing "practical solutions for the problems of waste disposal and treatment" and identifying the need for the Diocesan Council to study the moral and ethical issues related to such issues.³⁷ At the urging of Albany's Roman Catholic Bishop, the general secretary of the U.S. Catholic Conference argued Love Canal residents' case in a letter to President Jimmy Carter. In his letter Bishop Thomas Kelly noted: "To abandon them would be to abandon the struggle to keep our world human."³⁸ The American Lutheran Church approved the donation of \$2000 after the introduction of a resolution on hazardous wastes.³⁹ The ETF used its own presence to apply pressure on local and state officials.

The ETF also exerted political influence through convening private meetings and maintaining membership on local and state agencies, and testimony at public hearings. In November of 1979, Task Force leaders advised Niagara Falls Mayor Michael O'Laughlin, as head of the Love Canal stabilization and revitalization committee, to set up a temporary relocation program similar to the one used for inner-ring families the previous fall, and pushed for permanent relocation for residents wishing to leave. Going even further, the Task Force asked for representation on the committee.⁴⁰ John Lynch served as the group's representative on the committee, later known as the Love Canal Area Revitalization Agency (LCARA). Executive Board member Terri Mudd later served on the New York State's Superfund Management Board, established with the passage of

New York State's own environmental legislation in 1983.⁴¹ The Task Force met with Mayor O'Laughlin in the fall of 1980 to clarify his positions on a number of issues, while the political advocacy committee urged the interfaith community to lobby Congressman John LaFalce's office to pressure the Federal Emergency Management Agency regarding its administration of relocation funds.⁴²

The Ecumenical Task Force also represented Griffon Manor residents. Task Force members pursued the housing problem for the poor and minority tenants of Griffin Manor, keeping the issue before Niagara Falls officials. Owner occupied duplexes provided the majority of housing with three, four and five bedroom units, which were exempt from Section 8 housing regulations. In the opinion of ETF workers, discrimination existed as a "fact."⁴³ By far and away, the LaSalle Development supplied the only five bedroom units for low-income families, with thirty-six of these units. Twenty-three families still occupied such units at Griffin Manor, even though many feared the Niagara Falls Housing Authority planned to close the development.⁴⁴ Diane Sheley, the ETF member most directly involved with the Griffin Manor problem, surveyed what public housing was available to families needing large units. Of the two projects certified for Section 8, one anticipated no vacancies (although they only had eight out of thirty units available), and the other projected a few vacancies of their four-bedroom units. Once identifying the problem, Sheley recommended ETF Board members meet with Mayor O'Laughlin and bring the shortage of available housing for low-income families to his attention. She also counseled a meeting between the ETF Board, Department of Social Services representatives, Human Rights Representation, and the

New York State Division of Housing, along with elected officials. In Sheley's opinion, the ETF needed to alert the media, local and state officials, and involve other community agencies.⁴⁵ Any further action presented ethical questions for ETF members.

Task Force members debated how far the group should go in addressing the city's racism. The June 8, 1981 Executive Board Meeting Minutes gave some hint of the disagreement over what their course of action should be. Some members questioned if the group should "directly confront [the] issue of 'permanent underclass' and 'overt racism' in City Government and the Falls in general," or if such actions were too far removed from their role as advocates.⁴⁶ The board reached consensus that Sheley's role would be to gather information and report her findings to the Board, which would then "decide its course of action regarding racial discrimination etc."⁴⁷ By November of 1981, fifty-seven families lived at Griffin Manor. The lack of adequate housing kept thirteen large families at the development. The other families stayed for more personal reasons. These families demonstrated no ill health effects, had lived in the area for many years, and recognized their apartments at the LaSalle Development as home. As noted in an ETF advocacy report: "Most of these families are content with their decision [to stay] at this time."⁴⁸ The LaSalle Development lasted until 1987, ten years after the discovery of buried chemical wastes, and nine years after the formation of the Concerned Love Canal Renters Association.⁴⁹ The following year, state senator John Daly announced a program he thought would solve two problems – the need for affordable housing and a chance to reclaim the abandoned Love Canal area.

The relocation of residents left desolate, ghost-like spaces and homes where the former inner- and outer-ring homes stood. Daly's plan, feasible because of the Department of Health Commissioner David Axelrod's declaration of Love Canal area's "habitability," proposed using state housing programs to offer incentives for low-income and first time home buyers to renovate abandoned Love Canal housing. (The habitability decision did not declare the Love Canal area to be *safe*, an important distinction state and federal officials were careful to make.) Under the terms of the Affordable Home Ownership Development Program, the program provided a rebate of up to sixty percent of the renovation costs, to a maximum of \$20,000. Daly's news release announcing the program and a Buffalo News article describing it touted the idea as one way to reclaim the Love Canal area. As Daly noted: "The homes are in horrendous condition after just sitting there for 10 years getting beaten up by the weather."⁵⁰ Daly envisioned a partnership between the Love Canal Area Revitalization Agency – a quasi-federal/state organization charged with resuscitating the blighted area – which would price the housing initially at low prices, making it attractive to low-income and first-time middle-class homeowners. Speculations about such a plan existed almost from the beginning of the crisis. One black Griffin Manor resident told what she had heard: "I've heard rumors they're gonna fix them up, and this is from a white person, and they gonna sell them to the blacks. And I said this is one black, I wouldn't buy if I could."⁵¹ Critics, however, pointed out the problem with this tidy solution to the Love Canal problem.

The Ecumenical Task Force stressed the potential injustice, if not outright racism, embodied in such a plan. The ETF response noted that "Senator Daly appears quite

willing to put the under privileged, first time home buyers, and no doubt, minorities, back into the Love Canal neighborhood, now that part of it has been declared suitable for settlement.”⁵² In the ETF’s opinion, state authorities needed to integrate the old LaSalle area with people from all levels of society – from low-income to luxury homes.

According to the ETF vision statement, justice demanded that a true rejuvenation of the area did not “condemn a few under-privileged people to an isolated ghetto marked by a sad history . . .” but noted that if Love Canal was liveable, executives and professionals should be able to live there as well.⁵³ The ETF also invoked a United Church of Christ 1987 report that demonstrated that hazardous waste siting disproportionately affected the poor and minorities. The Executive Director of the United Church of Christ committee issuing the 1987 report wrote in protest of the Daly plan. Benjamin Chavis, Jr., urged the Love Canal Land Use Committee recommend other alternative uses for the Love Canal site, uses that would not resettle the homes and the human beings that lived in them. Chavis noted that part of the commission’s concern came from the fact that clean-up activities were still ongoing. He also warned of the very real possibility the re-habitation decision “would place poor and racial minority populations at greatest such risk [sic].”

As the resolution of the Love Canal dragged out over years – and as a part of their broader environmental agenda – the ETF continued to meet with public officials. In 1985, the group met with Governor Mario Cuomo to express their concerns over environmental issues in New York State, especially the Niagara and Erie Counties.⁵⁴ A number of members – Paul Moore, Donna Ogg, Sister Margeen, Roger Cook, Richard Cook, Terri Mudd – all testified at the various public hearings held by the State of New

York on the toxic waste problem, hazardous waste siting permit hearings, and forums for efficient and safe waste disposal.⁵⁵ One important difference in goals and activism between the ETF and the Homeowners' Association concerned their attitudes regarding corporate responsibility.

One of the Task Force's best known efforts was the appearance at the Occidental Chemical shareholders' meeting described at the beginning of this chapter. Sr. Joan Malone, a Franciscan nun, came to the ETF with connections to both the Interfaith Center for Corporate Responsibility (ICCR), and the Buffalo Center for Justice. Malone's religious order (nuns of St. Francis) owned a small number of Occidental Petroleum shares, and the ICCR planned on introducing a shareholder's resolution on a corporate responsibility resolution.⁵⁶ In this aspect of their advocacy work, the ETF faced strong resistance from church officials, who responded to corporate pressure. Malone and other ETF members met with an Occidental lawyers before submitting the shareholder's resolution on a Friday afternoon. When Malone went to work on Monday morning, the Bishop had already contacted her principal (she worked as a school librarian at the time) to stop her attendance at the Los Angeles meeting. Malone respected the courage of her Order as it decided to proceed with the action.⁵⁷ According to Malone, her encounter with Hammand revealed the real problem: Occidental's "implicit attitude that it lies outside the ordinary legal and ethical guidelines that govern the rest of us has been central to its response to church shareholder action."⁵⁸ Despite such obstacles, the ETF followed the ICCR model, turning to legal intervention in their attempts to affect corporate decisions.

As part of their efforts to address the broader environmental concerns of Niagara Falls, and the western New York State area, the Ecumenical Task Force became involved in the *other* toxic cases in Niagara Falls. One of the most tragic aspects of Love Canal, and one of the least known, concerns the multitude of other toxic dump sites and hazardous waste facilities located within Niagara Falls. Hooker Chemical dumped numerous chemical wastes at its 102nd Street property – located at the edge of the Love Canal disaster area and even closer to the Niagara River. Contamination from Hooker’s “S” Area landfill, the Hyde Park work site and the resulting contamination of Bloody Run Creek, combined with contamination at Dupont’s industrial site Necco Park, and two hazardous waste site facilities providing contained waste storage (CECOS International and SCA), all made Niagara Falls one of the most contaminated cities in the United States. The Task Force played a role in many of these waste sites, either through litigation or community coalition protests. There were so many areas of concern – including Love Canal habitability and national policy issues – that Board members split into task groups to address them all!⁵⁹ The “S” Area landfill and Hyde Park site represent two major cases demonstrating the Task Force’s litigation strategy.

The Ecumenical Task Force’s legal endeavors started with a lawsuit against Occidental (the then-owner of Hooker Chemical), but continued for almost ten years in a variety of cases. Within its first year of activity, the ETF retained the services of attorney Barbara Morrison as legal counsel. One of the first legal actions the group pursued was legal status in the lawsuit being brought against Occidental Petroleum with regard to the damages at Love Canal. On March 6, 1981, the ETF received amicus curiae (Friend of

the Court) status in the ongoing lawsuit, a decision described as “a landmark in the work of an Interfaith Task Force and could be the beginning of our bringing issues of liability, responsibility and justice to bear for the first time in our courts, on the issue of hazardous wastes.”⁶⁰ Later that year, ETF members attended a meeting held by the New York State Attorney General’s office concerning the negotiations dealing with a lawsuit against Occidental and the “S” Area landfill. Task Force members justified their legal endeavors based on sentiments like the one expressed by one NYS state attorney: “Western New York is designated as a sacrifice area for corporate profit.”⁶¹ Shortly after the meeting, the ETF Board voted to seek Intervenor Status in the S-Area suit.⁶² For the next several years, the Task Force juggled giving testimony and input in the two court cases. The diligence of their attorney, Barbara Morrison, proved essential in both cases.

Through their legal interventions, the ETF offered important challenges to proposed settlements, often through the use of expert testimony. The day before the Hyde Park hearings ended, ETF hydrogeologist E. Grant Anderson testified that chemicals from the landfill had leaked through the gorge wall and into the Niagara River. His testimony contradicted state and federal witnesses, who stated no contamination along the gorge wall had occurred. Morrison petitioned the court for an immediate trial, even if it meant several more years of litigation. Morrison based her petition on the belief that the proposed settlement freed Hooker from future liability in exchange for an inadequate cleanup project.⁶³ Almost two months later, in part because of Morrison’s investigations, it was announced that the Environmental Protection Agency’s expert witness falsified his academic credentials, casting doubt on his testimony regarding the Hyde Park site

hydrogeology.⁶⁴ Testing early in 1982 validated Anderson, Morrison and the ETF, with proof of contamination in the Niagara River below the Hyde Park landfill. In March, 1982, the presiding judge approved the final cleanup plan for the Hyde Park landfill. By October of 1982, remediation work at Hyde Park began.⁶⁵ The ETF continued to follow the judgment's enforcement, even meeting with New York State Department of Environmental Conservation engineers to discuss what was being done, expressing special concern for the storage of dioxin at the Hyde Park site and questioning Occidental's financial obligations in the cleanup.⁶⁶ The ETF proved more successful in the Hyde Park case than in its efforts in the "S" Area landfill lawsuit.

The Task Force's legal involvement put a financial strain on the organization, despite cooperation with other groups and monetary assistance from a major grant. Joining with two other environmental groups, Pollution Probe and Operation CLEAN Niagara of Canada, in March of 1983 the Task Force petitioned the court to intervene in the proposed settlement agreement of the "S" Area landfill site.⁶⁷ Part of their funding supporting legal intervention came from a \$60,000 Donner Foundation grant awarded to the three groups for restorative work on the Niagara River. The ETF spent \$15,000 of their grant money allotment for legal fees connected with the "S" Area lawsuit.⁶⁸ Over eight months later – on December 3, 1983 – attorneys for Occidental and the United States reached an agreement on the cleanup plan for the "S" Area landfill, pending approval from the City of Niagara Falls, NYS Department of Health and Environmental Conservation, and the federal Environmental Protection Agency.⁶⁹ The ETF continued to monitor the situation, with their intervenor status still pending. Terri Mudd, an ETF

Board member and the citizen representative on New York State's Superfund Management Board reported that the "S" Area landfill figured as a topic of conversation on the meeting, but state officials dismissed it as an "imminent health risk." One cause for concern appeared to be regional Department of Environmental Conservation officials "non-advocacy" stance with regard to health and the environment.⁷⁰ In their monitoring of the situation, the Task Force served as strong and vigilant advocate for the broader Niagara Falls community.

The Task Forces's legal interventions demonstrated the substantial barriers to community participation in litigation. Almost a year after their initial petition, and after a settlement agreement had been reached, presiding Judge John T. Curtin denied the ETF and its allies intervenor status.⁷¹ This decision barred the ETF and other environmentalist groups from reviewing any data the decision was based upon, or participating in settlement negotiations (or how those requirements would be carried out). A bad settlement, or poor enforcement of a good settlement, meant the ETF had failed to safeguard the interests of local residents. It also meant that the Task Force and its allies would not be reimbursed for any monies they spent in pursuing the case, a possibility that intervenor status afforded.⁷² Even appeal of the decision risked financial burdens, as the Task Force was asked to pay \$1000 toward Occidental's printing fees.⁷³ In legal cases like Hyde Park and the "S" Area, the cost of technical advisors – "expert witnesses" – represented one of the most significant expenses. Attorney Morrison notified ETF Board members that she needed a number of technical witnesses "having expertise in the disciplines of hydrogeology, environmental chemistry, and design engineering, in order to

thoroughly evaluate the nature and scope of eminent hazard posed by Hooker's 'S' Area dump to the Niagara River and to the surrounding communities."⁷⁴ Morrison noted that their Canadian associates planned on providing the hydrogeologist (Grant Anderson, who testified in the Hyde Park case), but the Task Force would be responsible for providing the legal and engineering services. The ETF had recognized a different need for scientific and technical experts long before their use in legal interventions. The group's role as mediators between different community groups, community members and public officials, and between community members and various experts became one of its most distinctive contributions to the Love Canal crisis.

"We Are Different": The ETF as Mediators of Science, Industry & the Grassroots

As part of their service vision, the ETF sought to create a network of technical advisors who filled a variety of functions: providing expert testimony, assessing conditions, educating community members, and giving analysis of the science being done at Love Canal. In connection with the "S" Area litigation, Morrison mentioned that the services of "various members of ETF Scientific & Technical Advisory Board, having expertise in toxicology, biochemistry, and genetics will be necessary."⁷⁵ The "Board" Morrison referred to represented one of the distinctive elements of the Task Force; the Scientific/Technical Advisory Board (S/TAB) fulfilled one of the ETF's earliest goals – to gather and interpret appropriate data. The ETF contacted a number of prominent and less well-known scientists to serve as scientific and technical experts in evaluating the massive amounts of scientific studies done in connection with Love Canal, and other

environmental issues in the Niagara Falls area.⁷⁶ The Board also provided necessary, and costly, technical expertise to the various community groups allied with the ETF.

The ETF succeeded in attracting a broad group of concerned scientists as consultants, although the degree of their involvement varied greatly. Task Force members began the formation of a technical advisory group that would support the ETF's broader community concerns, sending out invitations to join in the summer of 1980.⁷⁷

These consultants came from a variety of backgrounds, and included individuals with advanced degrees in biology, chemistry, medicine, physiology, geology, engineering – all obvious areas of needed expertise. The ETF also tapped the talents of other, less obvious, experts. Some of these members provided expertise in architecture and city planning, clinical psychology, and community revitalization to the Task Force. The stated principle underlying the formation of the Scientific/Technical Advisory Board recognized “that economic viability, environmental quality, ethics, science, justice, and a host of other values are complementary, not mutually exclusive.”⁷⁸ By September of 1981, S/TAB members numbered twenty, and helped bridge the gaps in understanding and knowledge for ETF Board members, staff, and the Niagara Falls community. Executive Director Sister Margeen Hoffmann credited the existence of the ETF's scientific advisors as a major reason in obtaining amicus curiae status in the Hyde Park landfill case. Hoffmann quoted the presiding judge “ . . . the extreme complexity of the issues in this case argues for the court's accepting the proffered assistance of ETF's 'Board of Technical Experts'. In this regard, the court notes ETF has already submitted a professionally prepared report

...”⁷⁹ The S/TAB in time became a distinctive element of the Task Force, making important contributions to the ETF’s stewardship of the Niagara Frontier.

The sheer amount of scientific studies and information about Love Canal demanded the use of scientific and technical advisors. The state of New York paid for the services of an independent scientific consultant for the Homeowners’ Association, a man named Stephen Lester, and cancer researcher Dr. Beverly Paigen played an important advising role within the Homeowners’ Association. The members of the Ecumenical Task Force’s Scientific/Technical Advisory Board held a different position within the Task Force and the broader community.⁸⁰ Some of the objectives the ETF envisioned these advisors filling included using board members as liaisons with public agency policy makers, such as the Environmental Protection Agency or Centers for Disease Control. The Task Force expected the S/TAB to advise and help create their policy positions, an especially important function given the Task Force’s hopes to serve as a model for the religious community in connection with human-made disasters. Scientific/technical advisory members offered resources for community education, or gathered information that could be used in future community-generated health studies. They also connected religious bodies and peace and justice activists in discussions about what needed to be done to address the toxic wastes problem.⁸¹

The scientific/technical advisory board became an integral component of the Task Force, and in the eyes of Task Force members contributed vital services. Executive Director Hoffmann recommended an expansion of the advisory board, which allowed different areas of expertise to be added, an important consideration in the ever-evolving

scientific studies of Love Canal and other Niagara environmental issues. It also helped prevent the overloading any one individual or group of S/TAB members, and could even be used as a means of recruiting individuals on a local and national level in participating in the Task Force's regional environmental work.⁸² The use of scientific advisors in public education efforts, of both the lay and religious communities, appeared as an early part of Task Force duties. A 1980 conference sponsored by the Task Force on the ethical considerations connected with the toxic waste disposal sought to educate the religious community in particular. One session dealt with the scientific perspectives on environmental health risks, featuring Alvin Ogg, and ETF member, and Sister Rosalie Bertell, identified as a genetic and cancer research scientist.⁸³ Bertell a member of the scientific/technical advisory board, recommended an individual who played an important role in the ETF's day-to-day scientific and technical affairs.

The ETF foresaw a flexible and creative role for their only paid technical consultant, one that allowed him to supervise the S/TAB, be free to investigate new and ongoing sites, act as a paid consultant, and even educate community members. The individual they hired, Fr. Jack Kieffer, a Jesuit priest assigned to the Detroit province (but originally from Buffalo), filled all these roles. Initially, S/TAB committee chairmen Roger Cook and G. Thomas Martin contacted Kieffer regarding his offer to help with the testing of water samples from the Love Canal area in August of 1980, a time when a significant number of residents were still living in the Emergency Declaration Area. They also inquired if Kieffer could be available to help members of the Homeowners' Association, or individual residents in their testing requests.⁸⁴ Kieffer actually came to

Niagara Falls and conducted a three day assessment of the remedial activities at the Love Canal site. Kieffer's report suggested his understanding of a technical consultant role included "giving recommendations on health and eating which could help reduce the effects of pollutants on the people exposed to them," and to "be available to receive information from people in the canal area and to advise them in technical matters."⁸⁵ Kieffer identified a need to oversee the various federal testing projects done by the Environmental Protection Agency and Centers for Disease Control. The sheer volume of environmental studies being done at Love Canal necessitated specialized oversight. Even before Kieffer's tenure with the ETF, members of the Task Force foresaw a role for the Scientific/Technical Advisory Board in helping decide the area's future.⁸⁶ Kieffer's presence on-site allowed the group to pursue such a presence.

As a scientific consultant, Kieffer's other significant contribution came as a community consultant and watchdog. The Task Force successfully contracted Kieffer's services to the Love Canal Area Revitalization Agency (of which ETF treasurer John Lynch was a community representative). By April of 1981, the ETF Board received a contract for scientific and technical consulting services for LCARA; the \$25,000 contract budget provided \$10,000 for consultant services.⁸⁷ Kieffer created a sizable resource library, with a wide range of journals devoted to hazardous waste issues. Community members encouraged an expansion of resources addressing health, chemicals, and dump sites.⁸⁸ Kieffer traveled with ETF Board member Terri Mudd to meet with other community groups and advise them about the potential pollution they were facing. Kieffer investigated local residents' complaints, and served as resource at the local

level.⁸⁹ Overall, Kieffer's on-site presence greatly aided the Task Force's ability to make timely initial assessments and responses to incidences of possible contamination and ongoing remediation activities.

Scientific and Technical Advisory Board members Drs. Richard Cook and Michael Stoline offered an important critique of a major Love Canal study, exemplifying one of the S/TAB's most significant contributions to the science done at Love Canal. The Environmental Protection Agency began an environmental assessment of Love Canal starting in the summer of 1980. Despite significant investments of time, money, and other resources, this study failed to resolve the continuing controversy over the extent and consequences of chemical contamination at Love Canal. The agency collected, tested and analyzed of over 6,000 multimedia samples (air, water, soil) over the summer and fall of 1980, and spent over \$5.4 million in laboratory contract costs alone to process the data. The EPA study included analyses of approximately 150 chemical substances, and finally appeared in May of 1982. Among its conclusions, the report declared that no clear evidence of Love Canal contamination existed in the residential section of the Emergency Declaration Area (EDA). From that, the agency declared those portions of the EDA habitable.⁹⁰ Almost immediately the report drew criticism from the Homeowners' Association, the Environmental Defense Fund, and other members of the scientific community and general public. The Ecumenical Task Force convened a special panel of the S/TAB members to assess the EPA study. The work done by two academics – mathematics professor Michael Stoline and chemistry professor Richard Cook (and brother of ETF member Roger Cook) – offered one of the strongest critiques of the

science done by the EPA, specifically regarding the statistical analysis employed in determining the extent of contamination.

At the time the EPA monitoring report was released, the ETF's scientific advisors offered the most comprehensive and scientifically compelling challenges of the EPA's study. The critique offered by the S/TAB members focused on the number of samples drawn, the statistical analysis of that information, and the resulting conclusions made by the EPA. Stoline and Cook argued that the EPA used too few comparison samples from a designated control area (the agency drew multiple samples from one site). This consistent pattern of under sampling within the control area meant that any comparative inferences made between the two areas would be problematic. The small control size also provided an insufficient statistical power needed to detect differences in the extent of contamination between the EDA and control area.⁹¹ Given this flawed process of data collection and analytical capability, the report's final recommendation that the Love Canal area could be considered safe rested on very shaky science, and "stem[med] solely from inadequate experimental design and fundamental errors in the use of inferential statistics."⁹² The analysis of the report took a substantial time commitment from both men, dedication that proved necessary given the difficulties in enlisting help in their efforts.

Like their legal efforts, the Task Force's foray into the scientific realm sparked controversy, as other groups hesitated to enter the political and scientific fray presented by the Love Canal disaster. Correspondence between the ETF and the American Statistical Association demonstrates the broader political considerations and issues

specific to Love Canal at the time, and implies what the systemic problems were when dealing with the uncertain science of chemical wastes. Anticipating the release of the Environmental Protection Agency's Love Canal report, the ETF contacted the Buffalo-Niagara Chapter of the American Statistical Association for aid in evaluating the study. This local chapter approached the national organization, and were advised to contact the committee specifically dealing with "Statistics and the Environment." The Buffalo-Niagara chapter alerted the national group of the upcoming release of the EPA report, and their desire of an "objective review."⁹³ The national association proved less willing to offer assistance to the Task Force.

Concerns over the time commitment necessary for an adequate review, along with the inherent problems presented by the EPA environmental report appeared to be the major reasons for the American Statistical Association's hesitancy to become involved in the environmental science of Love Canal. The national organization responded to the local chapter request by advising patience until the federal National Bureau of Standard evaluation had been released.⁹⁴ A later letter reiterated the need to study the Bureau of Standards report, and need to review both reports as thoroughly as possible. One problem facing the ETF seemed to be deciding what conclusions the EPA report actually drew. Upon further consideration, the American Statistical Association's committee on the statistics and the environment decided not to reassess the EPA (and National Bureau) reports. The committee chairman noted one reason underlying their decision was the estimate it would take "10 person years of careful effort to analyze and interpret the

results.”⁹⁵ A final letter acknowledged the political and emotional nature of the Love Canal controversy.

One of the biggest problems preventing the assistance of the American Statistical Association lay with the sheer amount of data connected with the disaster. In the case of the EPA’s environmental monitoring of conditions at Love Canal, the report’s own inherent confusion meant the best assistance the association offered consisted of an offer to recommend consultants who could help the Task Force in critiquing the EPA report.⁹⁶ But if the extent and nature of the scientific studies done thus far daunted the “experts,” it made the Task Force’s efforts to evaluate and disseminate the meanings of the study to the community all the more important. The ETF’s experience with the American Statistical Society demonstrated the very real service offered by the S/TAB consultants, as they offered expertise in the service of Love Canal (and Niagara Falls) residents. While ETF members considered the S/TAB a vital and clear advantage, others offered differing opinions.

With the apparent resolution of the Love Canal disaster with the permanent relocation of residents in the fall of 1980, the ETF shifted its focus to other environmental concerns. The nature and activities of the ETF changed over time, and the group struggled with finances and image over the ten years of their existence. The ETF’s 1980 decision to remain active came about not only because of the continuing Love Canal situation, but because of the environmental needs and concerns of the greater western New York State area. Group members also saw a need to speak out against the “irresponsibilities that continue to produce man-made disasters.”⁹⁷ With resolution of the

immediate issues facing Love Canal residents (the purchase of homes and offer of permanent location), the purpose for the ETF became more difficult to explain. Board members attempted to redefine their mission more broadly, including their efforts to influence public policy. Direct aid, which once meant financial assistance offered to Love Canal residents, took on a new meaning. In the eyes of some Task Force board members, direct aid also referred to court action, an endeavor often beyond the means of residents. As Jack Kieffer put it, “Not only do bags of groceries keep things going but so does the environment – air, wind, soil . . .”⁹⁸ Board member Guy Peek responded to Kieffer, noting: “All plants and organisms are interconnected . . . The definition of ecology is synergistic.”⁹⁹ But the Task Force’s attempts to unite religion’s traditional prophetic and pastoral missions blurred their identity to the general public. One later critic even questioned the ETF’s ability to offer scientific expertise, and expressed the opinion such efforts hurt the group’s credibility.¹⁰⁰ Despite such confusion, the interactions between technical advisors and the broader community represented just one example of how the Task Force positively affected conditions in Niagara Falls and the broader region. In the eyes of ETF members, their success came directly because they brought religious-inspired social justice concerns to the problem of hazardous wastes.

An awareness of their innovative status and approach to environmental issues permeated the consciousness of the Task Force’s members. The March 10, 1981 ETF Executive Board Minutes (“Respectfully ? Submitted”) consist of a number of sketches, all sporting the caption “We Are Different.” The drawings show an ETF networker – with wings, halo, and Bible – contrasted with a “Regular Networker (Sierra Club),” a

Neanderthal figure with club in hand. The same angelic features characterize the ETF legal aid advisor, compared to the Sierra Club's advisor, a grubby individual with money in pockets and hand. The regular scientist, a bespectacled figure, pounds rocks, while the ETF scientific advisor stands in heavenly splendor. The last comparison shows the ETF Executive Director cradling smiling, joyous people in her wings, while the Typical Environmental Director (Sierra Club) hair in a towering point, acts as the puppet master with individuals attached to his strings.¹⁰¹ All of these images claimed a particular character for the Task Force, one uncorrupted by money, obsessions, or power. This perception of an ETF difference, especially as contrasted with traditional environmental groups, can be supported through an examination of the Task Force's relationship with several distinct groups of people – the Niagara Falls industrial community, other grassroots organizations, and other regional environmental groups.

Along with the Scientific/Technical Advisory Board, one of the most innovative endeavors undertaken by the Ecumenical Task Force involved participation in the Niagara Falls' Environmental Liaison Committee. The committee, sponsored by the Niagara Area Chamber of Commerce, gathered approximately nineteen representatives from industry, community members and activists to discuss the issue of toxic wastes in the Niagara Falls area.¹⁰² The Committee's genesis remains unclear, although the Chamber of Commerce may have been concerned over the ways negative publicity from Love Canal affected the area's ability to attract industry and residents, or it may have been the result of a sympathetic industry leader like DuPont's Dick Knowles. Whatever the reason, the group first organized in January of 1985, and met for the first time in

March. Committee members listed two main objectives: to bring people from the industrial and environmental communities together with the hope of building relationships, understanding, and trust, and to create a neutral forum where community members from all sectors could meet to “responsibly and rationally reason together.”¹⁰³ Meeting ground rules emphasized an equality of ideas, openness and respect, “and independent opinions and discussions . . .”¹⁰⁴ The group intentionally focused on industry management and community members, without anyone from the labor media, public relations, government or legal arenas present.¹⁰⁵ In the eyes of Task Force members, the Environmental Liaison Committee presented a chance to work with the existing industries to keep jobs and help protect the environment.

Ideally, the meetings provided a safe forum for issues to be discussed and both sides – industry and community members – to express their concerns. The Liaison Committee included several ETF members, among them Executive Director Sr. Margeen Hoffmann, Terri Mudd, Pat Brown, Roger Cook, Barbara Hanna, and Fr. Joseph Power. None of these Task Force members officially represented the ETF, but rather attended Liaison Committee meetings as community members. From among local Niagara Falls industry, DuPont’s Chemicals and Pigment plant manager Dick Knowles chaired the committee, with individuals from Olin Mathieson and Occidental representing the major chemical industries, and other members from the area’s hazardous waste disposal industry included.¹⁰⁶ Members expressed a willingness to try working together cooperatively, despite misgivings. “I think Dr. Knowles [DuPont’s Dick Knowles] is a person of high principles but I still reserve the right to disagree. He’ll just have to work

twice as hard to convince me.”¹⁰⁷ Hoffmann described the group as “a small but dedicated cadre . . . struggling to identify areas of a common ground where we can stand together or reasonably discuss the many issues which often divide us or may cause us to operate in more confrontational situations.” The joint venture took a significant commitment of both time and trust.

The Environmental Liaison Committee represented a significantly different approach to working with industry. The Liaison Committee met routinely met for two hours every month. From the perspective of Task Force members, the committee dealt with the unchanging reality that the Niagara Falls’ chemical industries remained a major economic factor in the area, and the Liaison Committee offered one means for conflict resolution over the issue of hazardous waste production and disposal.¹⁰⁸ Industry leaders had helped ETF lobbying efforts in the past, as when Knowles had supported Hoffmann’s request to study Environmental Protection Agency protocols.¹⁰⁹ The connections made through the Environmental Liaison Committee helped further the Task Force’s attempts to bring together representatives from industry, academe, government, and victims of toxic chemical exposure, and paralleled their work on a major conference. The “Blueprint for Action Conference,” held in October, 1985, succeeded in educating the religious denominational leadership, which had important consequences with respect to the Task Force’s agenda regarding public policy and legislation.¹¹⁰ Unfortunately, the unlikely alliance of industry and community environmentalists proved difficult to maintain.

A cooperative venture such as the Liaison Committee posed several risks. Task Force members worried about being “co-opted,” while the representatives of industry management struggled to establish their trustworthiness. Disagreements over state regulations, corporate decisions, and legal maneuvers all strained a delicate balance. On December 5, 1985, the Industrial Liaison Committee (also sponsored by the Niagara Falls Chamber of Commerce) joined with Occidental Chemical and National Solid Wastes Management Association, in serving a petition on the New York State Department of Environmental Conservation over that department’s pollution standards. Those Environmental Liaison Committee members not affiliated with industry found out from news coverage in the Niagara Gazette and environmental groups. Task Force members felt betrayed, especially considering past requests by industry representatives for community members of the Environmental Liaison Committee not to support Greenpeace actions or bring in lawyers. For the ETF members of the committee, and other environmental representatives, the very point at issue – the standards set for industry – represented a vital question, and one community members considered crucial.¹¹¹

The silence of Liaison Committee’s industry representatives caused incalculable harm in the opinion of some community members. Former Love Canal resident Joann Hale expressed her disappointment over the lawsuit, and thought a year’s worth of meeting had been thrown away. Hale pointed out that she chose to overlook the damage done to her family in meeting with the local plant managers from the chemical industry. She ascribed no ill will to them, “convinced that each of you has more sense than your predecessors.”¹¹² Hale questioned the integrity of a suit based on the assumption the

industry employees know what was best for the community. Knowles publicly apologized, admitting he had been aware of the legal action, but had not thought to inform the Environmental Liaison Committee. "I simply blew it. It did not occur to me to review it [the court petition] with you, nor was I aware of or sensitive to your intense interest in this. . . . I hope we can build again and move forward to make the [Environmental Liaison Committee] the force we dreamed it could be."¹¹³ The committee continued to meet into 1987, but never realized its promise for conflict resolution, a role that ETF members hoped it might fulfill. Part of the group's failure might have been industry's half-hearted support of reforming the ways it did business in the Niagara Falls area, as its pursuit of less stringent regulations demonstrated. The ETF's work with other grassroots activists proved more successful.

Aside from working with residents trying to leave Love Canal, the Ecumenical Task Force aided a number of other groups with ties to Love Canal and others with no direct relationship. Writing for the Wesley United Methodist Church newsletter, executive director Hoffmann emphasized that the decision to leave "must be a voluntary choice."¹¹⁴ Hoffmann acknowledged that residents who wished to stay in the neighborhood were often overlooked. In supporting these other residents, Hoffmann identified environmental testing and revitalization as two key issues concerning the Task Force. The ETF's S/TAB made such monitoring feasible, and offered other grassroots groups important services as well. In the case of the Sabre Park People's Association, a group of concerned citizens living in a trailer park near a Niagara Falls hazardous waste storage facility, the Task Force made their scientific advisors accessible. Along with staff

members “rapport and genuine empathy,” the ETF’s involvement gave the group a measure of credibility. Eleanor Conmy, the group’s president, saw the ETF as an important resource in disputes of this type, and praised them for their aid.¹¹⁵ The ETF’s resource library, under the care of Jack Kieffer, provided residents with technological information on chemicals and health, dump sites, and hazardous waste disposal.¹¹⁶ The ETF offered not only expertise, but met the more practical needs of grassroots environmental groups.

Given its concerns over regional environmental issues, the ETF networked with a wide range of groups in a variety of manners. They provided space to groups like Niagara Environmental Action, formed out of concern with air and waste pollution in Niagara Falls and County.¹¹⁷ The Love Canal Renters’ Association received \$50.00 from the ETF to help cover phone expenses. While the amount seems small, little things like having a phone made all the difference in organizational success. As the founder of the Citizen Organization to Protect the Environment (COPE) admitted: “Not to diminish the importance of your personal friendships,” wrote Diane Heminway, “but one of the most important functions ETF has served for me has been the use of your copier.” She went on to describe its importance, “I hope you will continue to make your machine available to all who need it; very few of us can afford to pay the high costs of copying after paying our monthly phone bills. I know you are sensitive.”¹¹⁸ Heminway expressed gratitude for ETF assistance in paying her organization’s phone bills. The ETF offered not only financial assistance, but such mundane services as letter editing and computer training. Beyond helping fledgling organizations, the ETF worked with community members in

their efforts to start new groups and mediated between new and existing groups with public officials.

One of the most useful roles performed by the Task Force consisted of building networks between concerned community members and public officials. The toxic waste problem in Niagara Falls extended well beyond Love Canal, although that disaster's success with respect to grassroots organizing inspired numerous communities to do the same. The ETF assisted Niagara Falls citizens in the organization of one group, LaSalle and Niagara Demand (LAND), concerned over the leakage of toxic wastes from the CECOS/Necco Park landfill. They hosted a meeting between LAND and the Department of Health with a resulting promise by the DOH to monitor the area for a possible "cancer cluster" (an increased incidence in cancer rates specific to a geographic location).¹¹⁹ Task Force members vigilantly met with representatives from the Departments of Health and Environmental Conservation to find out what the current plans for health testing and clean-up were.¹²⁰ Task Force members could be trusted to disseminate the information to community residents, an important public service. Besides helping citizens form their own community groups, the ETF networking assistance also connected citizen groups to each other.

The ETF functioned as a regional resource center, helping community groups throughout western and central New York State. The Task Force's religious character resulted in a loose network based upon that aspect. In one case, a priest from LeRoy, New York, requested the ETF's assistance in the matter of a manufacturing plant slated to be built next to a Catholic school.¹²¹ Two Task Force members, Terri Mudd and Jack

Kieffer, visited the newly organized group, Citizens for Safe Air. They encouraged the group to contact local police and fire departments for safety assessments, and put the group into contact with COPE, as both organizations were concerned with dioxin and its effects on children. As Mudd reported on the visit, this action “appear[ed] to be a significant and proper role for [the] ETF in getting citizens with similar concerns together and network.”¹²² Mudd noted that such contacts promoted informed decision-making, a strong focus in the ETF’s resource guide, “Earthcare.” Another citizen’s groups asked the ETF to exert their influence on religious leaders, noting that they had been unable to “budge” the local clergy.¹²³ These cases show how the Task Force existed as effective link in regional grassroots organization, a role they duplicated with regional environmental groups.

Three different regional environmental groups demonstrate the Ecumenical Task Force’s success at (re)connecting Love Canal to a broader environmental movement. These groups also show how Love Canal activism existed as a nexus of related, but varied, environmental problems. The first group, Great Lakes United, formed after the Ecumenical Task Force, and set up its central office in Buffalo in 1985. A coalition of environmentalists, gamesmen and fishermen, labor unions, and community groups on both sides of the border, Great Lakes United focused on the health of the lakes themselves, appropriate given the fact that the Love Canal pollution was first detected in Lake Ontario. Two of the group’s major goals – the prevention of toxic contaminants polluting the Great Lakes, and the clean-up of contaminated communities – made this group a natural ally for the Task Force. Hoffman served on its Board of Directors in

1987.¹²⁴ Both groups, already coalitions, came together with several others in 1988 in the Campaign to Save Niagara, an effort to stop the expansion of CECOS International, a contained hazardous waste site located in Niagara Falls (and already the recipient of Love Canal dioxin wastes). The Campaign used a variety of expert testimony to stop the construction of two new CECOS contained waste depositories in 1990. Another coalition the ETF actively worked with in the late 1980s, the New York Toxics Coalition, helped support the Task Force's fight against the re-sale of Love Canal homes.¹²⁵ Both groups were active lobbyists for other toxic wastes issues under consideration by the New York State legislature.¹²⁶ The Task Force's involvement and cooperation with all these groups showed a strong regional (and international) consciousness, one that placed the Love Canal disaster within a broader framework with respect to the toxic waste problem.

Ecumenical Task Force members knew their response in addressing hazardous wastes to be a unique one. Far more than any other group, the ETF understood Love Canal and chemical wastes from a disaster paradigm perspective, even while they acknowledged important differences. One issue that consistently confronted them appeared to be the ways governmental agencies lacked procedures to handle human-made disasters. Task Force members also recognized the challenges such conditions held for communities themselves. The group wrote and published Earthcare: Lessons from Love Canal as one way of informing communities on grassroots organization. Labeled as a resource and response guide, the 1987 manual attempted to provide "information, ideas, and inspiration to other groups and individuals working and living in the face and shadows of other 'Love Canals'."¹²⁷ The guide outlined the ETF's understanding of their

vision of environmental stewardship. For the ETF, Love Canal resulted from a “lack of foresight and careless earthcare.”¹²⁸ This lack of vision, embodied in Proverbs 29:18, “With no vision, the people perish,” would be the cause of humankind’s end. The interconnectedness of the human condition and the treatment of the earth corresponded to the interwoven areas relevant to hazardous wastes: science, ethics, law and public policy. Vital to this process, the ETF claimed, was an informed citizenry active in the decisions made.

The manual revealed the varied perspectives from which Task Force members viewed the problem of hazardous wastes. An emphasis on “participatory democracy” within the manual linked the Task Force to the ideals of the New Left and student democracy movement of the 1960s. Several Task Force members were active in the anti-war movement, among them Paul Moore and Roger Cook.¹²⁹ In an introductory essay, Task Force members Donna Ogg and John Lynch quoted from Rachel Carson’s Silent Spring, likening the fictional town Carson described to the reality of Love Canal.¹³⁰ Paul Moore saw the Earth as a “loving mother who gave us birth and faithfully sustains us.”¹³¹ Moore went on to argue that as an entity unable to speak for “herself,” the Earth required protection. He used graphic imagery, comparing the Earth to “a vulnerable woman . . . ravaged and raped by brutal exploiters and heartless profit-takers, and then discarded as a worthless, spent thing, wounded and sore, . . .”¹³² Moore’s language revealed a newer theological understanding of godhood which emphasized the creative force of the Divine, while incorporating a gendered understanding of the Earth.¹³³ Finally, Moore and the manual throughout emphasized the transitory relationship human beings had with nature,

suggesting that religious covenant made humans the stewards, not owners, of the earth.

In this, Task Force members' understanding of humankind's relationship with nature reflected broader changes within the religious community's environmental thinking.¹³⁴

These principles underlaid the manual's purpose: to offer the ETF's understanding of environmental stewardship and its use as a guiding principle for other communities dealing with toxic wastes.¹³⁵ Essential to this notion of stewardship were the ideas of "direct service and efforts toward systemic change . . ."¹³⁶ In a shift from previous understandings of the nature under the domain of humankind, the ETF's environmental stewardship identified the earth as a part of a divine creation, with human beings charged to care for it as a part of their relationship with a divine being. One of the most significant ideas expressed under this idea of stewardship was a clear connection between the idea of stewardship and equity. By the time Earthcare was published in 1987, the concept of environmental justice had become a well-accepted philosophy, although the idea was more often linked with race and civil rights.¹³⁷

Just as the Ecumenical Task Force blended together the theological with the practical, so too did their resource manual. While several sections of Earthcare addressed the lessons of Love Canal, the role of faith communities, and the idea of environmental stewardship, the manual also contained pragmatic advice. These more practical considerations included the stages communities went through when dealing with a toxic waste disaster. The guide outlined a procedure for an interfaith response to situations similar to Love Canal, providing detailed steps to achieve ecumenical organization and advocacy. Step Thirteen advised building coalitions with other groups and enlisting the

aid of scientific and technical professionals in group organizing. It even went so far as to offer the services of the ETF's own Scientific/Technical Advisory Board "for analysis and interpretation of data and reports."¹³⁸ Earthcare offered sample organizational forms, how to contact government officials, how to write a news release, and even information on filing a Freedom of Information Request. Members of the Task Force clearly thought the ETF offered an effective model for religious-based environmental activism.

Homes and Churches: The Homeowners' Association and the ETF

The Love Canal disaster aroused two different groups of citizens to organize and demand government intervention. The groups, for the most part, worked together in achieving this goal. Both groups shared information and tried to obtain any available aid for residents, and both were frustrated by the officials' poor treatment of residents and slow response. There are, however, some differences between the two groups, which included their membership, arguments and tactics, and accomplishments. These dissimilarities can be characterized as falling into three major areas: who the groups represented; the nature of change they accomplished; and the societal critiques they offered.

The Homeowners' Association membership included most, but not all, of the residents living in the Love Canal area, while Task Force members lived in surrounding communities. Homeowners' Association members considered the shared experience of living at Love Canal as an important distinction of their understanding of the crisis, and one that legitimized their involvement as activists. Most of the Task Force members lived close to Love Canal, but not in the affected area itself.¹³⁹ The Task Force's greater

residential diversity offered several advantages: residents who wanted different goals than those espoused by the Homeowners' Association found aid; public officials and the broader community viewed the group as having less self-interest in the outcome of any financial transactions; and Task Force made Love Canal a societal problem rather than a local issue. Perhaps the best illustration of this can be seen in the Task Force's advocacy for Griffon Manor residents. The Homeowners' Association's requirement of property ownership and concerns that the inclusion of too many people might endanger their own claims meant that these other Love Canal residents had gone unrepresented. Task Force members advocated for Griffon Manor residents who had few financial resources or the ability to challenge public officials' decisions regarding the housing development.

The groups' differing tactics affected their relationship with public officials and effect on public policy. The Homeowners' Association relationship with New York State Department of Health officials quickly became adversarial, in part because of officials' perceived incompetency and power to decide the relocation issue. The Task Force, too, came into conflict with state officials, but overall managed to maintain a more cooperative relationship.¹⁴⁰ This meant that the Task Force retained its ability to publicly protest officials' actions, but was still granted greater respect by public officials and allowed better access.¹⁴¹ One example of this generally better relationship would be the reception of Task Force member Roger Cook's aid to state officials trying to set up public hearings on the issue of the United States Army's dumping of toxic wastes at Love Canal. Gail McFarland, an aide working for the New York State Assembly's committee on Environmental Conservation, expressed her gratitude for Cook's involvement in 1980:

“Mr. Cook has graciously offered to arrange a meeting with us and the eyewitnesses as well as opening the Ecumenical Task Force’s files for our use and copying. He is continuing to search for additional eyewitnesses and photographs to substantiate Federal involvement.”¹⁴² McFarland went on to note, “I suggest that we are very lucky to have enlisted Roger Cooks’ and the Ecumenical Task Forces’ assistance and that we remain sensitive to their objectives and concerns.” Task Force members served on more local and state committees involved with environmental issues, and saw more success in changing public policy on the state and local levels. The group successfully helped pass New York State’s “right to know” laws, change hazardous waste industry regulation, and affect the local clean-up of hazardous waste sites.

In comparison with the Homeowners’ Association, Task Force members held corporations responsible in part for the chemical wastes, while at the same time identifying the problem of societal consumption. The group’s involvement in the various legal cases connected with Love Canal and Niagara Falls pollution showed their attempts to hold polluting corporations responsible. Task Force members, however, took their critique one level further when they began speaking out about citizens’ responsibilities to reduce their own consumption of materials that produced harmful waste byproducts.

Unlike the Love Canal Homeowners’ Association, whose primary arguments focused on the protection of homes and families, the Ecumenical Task Force pushed to make Love Canal a societal problem that required national attention. The group positively achieved some changes within church organizations dedicated to disaster relief and social justice issues, but it failed in its attempts to hold public officials on the state and national level

more accountable for the ways decisions relating to hazardous waste disposal were made.

The Ecumenical Task Force played an important role at the Love Canal in its early relief efforts. Task Force members pursued a broader environmental agenda than the Homeowners' Association and helped put the disaster into a larger perspective. The group also offered a different model of community organization that emphasized its role as in mediation and advocacy. Like the Homeowners' Association, the Task Force showed the continuing legacy of progressive postwar social movements in its membership's experiences and influences. Finally, the Task Force's understanding of social justice showed the changed understandings of the state's role in protecting citizens. These positive aspects of Love Canal would not all survive. An examination of Love Canal and the other human-made disasters of the 1970s show a mixed cultural message, as seen in the artistic productions examined in the next chapter.

Endnotes

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21. Donna Ogg Interview with author, Lewiston, New York, July 2, 2001.

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38. Patrick Brennan, “U.S. Catholic Conference issues statement on Canal,” Western New York Sunday Visitor, August 17, 1980, Box 34 “Board Minutes, 1980 – Feb. 1986,” ETF Collection.

39. ETF, “Board & Committee Reports,” October 14, 1980, Box 34 “Board Minutes, 1980 – Feb. 1986,” ETF Collection.

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41. Townsend, 20; ETF, “Board of Directors’ Meeting, Minutes,” November 8, 1983, T. Mudd’s report on the Superfund Management Board, Box 34 “Board Minutes, 1980 – Feb. 1986,” ETF Collection.

42. ETF Board/Mayor Michael O’Laughlin Discussion, September 5, 1980, Box 34 “Board Minutes, 1980 – Feb. 1986,” ETF Collection; ETF, “Committee Reports: Political Advocacy,” September 30, 1980, Box 34 “Board Minutes, 1980 – Feb. 1986,” ETF Collection.

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44. The information about available low-income housing comes from Family & Neighborhood Services Coordinator Diane Sheley’s Memo to the ETF Board of Directors, May 19, 1981; the information about possible closure in the Memo from Diane Sheley, to ETF Executive Board, May 6, 1981, both memos in ETF Collection, Box 34 “Board Minutes, 1980 – Feb. 1986,” ETF Collection.

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48. “ETF Direct Advocacy Program Report, June 1980 – November 1981,” Folder 32-4, Box 32 “ETF, 1980-81,” ETF Collection.

49. Joann Hale “Demolition of LaSalle Housing,” memo to ETF Board, March 19, 1987, Folder “ETF Correspondence,” Box 65 “ETF Files, 1979 – [1985-86] 1991,” ETF Collection.

50. “News from the Senate Committee on Housing and Community Development, Senator John B. Daly, Chairman,” September 30, 1988; quote from Marc Lacey, “State Housing Program Can Help to Resettle Love Canal, Daly Says,” Buffalo News, September 30, 1988, B-12.

51. Interview 114, Levine Collection.

52. “Response,” October 13, 1988, Ecumenical Task Force of the Niagara Frontier, Folder “Senator Daly Proposal for State Housing Program in LC, 1988,” Box 27 “ETF Scientific and Technical Advisory Board, 1980-83,” ETF Collection.

53. Ibid.

54. ETF, “Summary of Activities and Significant Accomplishments of the Ecumenical Task Force of the Niagara Frontier, Inc. (ETF), October 1, 1984 – October 31, 1985,” Box 34 “Board Minutes, 1980 – Feb. 1986,” ETF Collection. One outcome of the meeting was a new Department of Health form designed for use at existing and newly discovered sites.

55. Testimony for Paul Moore and Donna Ogg, transcript copy (in author’s possession), Public hearing on the Status of Hazardous Dump Sites and Toxic Substance Regulation in New York State, Chairman NYS Assemblyman Alexander B. Grannis, Niagara Falls, New York, May 3, 1979; personal correspondence from Sister Margeen Hoffmann to Mary Cahill, October 14, 1980, Folder “Correspondence,” Box 65 “ETF Files, 1979 – [1985-86] 1991,” ETF Collection.

56. Townsend, 24. It is Townsend’s observation that the ETF sought to influence corporate decisions, in contrast with the Homeowners’ Association’s exclusive focus on influencing government agencies and policy makers. I have incorporated Townsend’s point within a broader argument on the ETF’s relationship with industry. Joan Malone left the Franciscan order, although she remains involved in social justice issues. Joan Malone Interview, July 23, 2002.

57. Townsend recounts the incidence with the Bishop (24), while Sr. Joan expressed her pride in her Order's convictions in an interview with the author. See Sr. Joan Malone Interview, July 23, 2002.

58. Malone, "An American Tragedy," 3D, *ibid*.

59. ETF, "Board of Directors' Meeting Minutes," May 14, 1985, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection. Board members formed nine task groups to address the multitude of issues: CECOS (contained waste site located in Niagara Falls), Love Canal Habitability, S-Area, Hyde Park, 102nd Street dump, Niagara River, New Technologies, Liaison to DEC, National Policy. In this sense, the ETF showed good insight into how these various issues were interconnected and needed a coordinated approach in solving them.

60. "Progress Report II of the Ecumenical Task Force of the Niagara Frontier, August 1, 1980 – September 15, 1981," 55, Folder 180, Box 12, ETF Collection and hereafter cited as "Progress Report II"; "Update, August 17, 1982 – Public Policy and Direct Aid Responses."

61. "Progress Report II," 63.

62. "Progress Report II," 64. The meeting with NYS Attorney General's office took place on July 16, 1981. The ETF Board voted in late August.

63. "Chronology, 1981-1984," [September 17, 1981 – August 18, 1984], ETF Collection, Box 20, untitled, Folder 1002, hereafter cited as "Chronology."

64. "Chronology," 4; Fr. John Kieffer Interview, July 15, 2002. The hydrogeologist, David Twedell, supervised the placement of 20 to 30 percent of the environmental monitoring wells at Love Canal. Data from these wells was used to determine the habitability of the Love Canal site, discussed later in the chapter.

65. "Chronology," 6, 11.

66. ETF, "Board of Directors' Meeting Minutes," October 16, 1984, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.

67. "Chronology," 15. (March 23, 1983)

68. Ecumenical Task Force of the Niagara Frontier, Inc., "Annual Meeting 1984, Financial Summary," Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection. \$5000 of the grant went for the purchase of a micro-computer as well.

69. "Chronology," 15, 22.

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70. ETF, "Board of Directors' Meeting Minutes," November 8, 1983, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.
71. "Chronology," 25.
72. ETF, "Executive Board Meeting Minutes," July 14, 1981, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection. A breakdowns of the 1981/82 annual budgets gives some sense of how much the ETF anticipated spending on pro bono legal services, somewhere in the amount of \$50,000. Under RCRA legislation, the judge could demand that the government reimburse counsel fees and expenses.
73. ETF, "Board of Directors' Meeting Minutes," January 15, 1985, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.
74. Memo from Barbara Morrison, ETF Attorney, February 15, 1982, Folder 8-32 "Notes S-Area Landfill [1982]," Box 8 "Environmental and Citizen Advisory Groups, 1979-1989," ETF Collection.
75. Ibid.
76. See "Progress Report II," 12. Among the prominent names listed as S/TAB members are Barry Commoner, a noted academic biologist concerned with environmental pollution; Samuel Epstein, a prominent physician/toxicologist who argued that cancer incidences had increased because of environmental pollution; and Beverly Paigen, who was still located at the Roswell Park Memorial Institute in Buffalo, New York. Several of the board member came from Canadian institutions, such as Sister Rosalie Bertell, the director of Research at the Ministry of Concern for Public Health, Jesuit Center, Toronto, Ontario, and Dr. Douglas J. Hallett, a Ph.D. in biology and chemistry affiliated with the Ontario Regional Department of Environment, Woodlawn, Ontario.
77. "Progress Report, March 20, 1979 – August 1, 1980," 39.
78. "Progress Report II," 25.
79. "Progress Report II," 26.
80. Lois Gibbs' account mentions Lester, and recounts his and Beverly Paigen's attempts to view New York State Department of Health data, but he remains a somewhat shadowy figure. Townsend points out that the ETF created a Technical Advisory group before such funds were available through Superfund legislation. See Townsend, 31.
81. Ecumenical Task Force Committee Reports, Scientific/Technical Advisory Board, September 30, 1980, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection

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82. Memo from Sister Margeen Hoffmann, Executive Director, to Public Policy Response Committee, August 27, 1981, Folder "Memos," Box 65 "ETF Files, 1979 - [1985-86] 1991," ETF Collection.
83. "A Conference on Man-Made Disasters: The Church's Response," May 22, 1980, Folder "O'Connell, Rev. William C.," Box 71 "Alphabetical File, I-P," ETF Collection.
84. Letter from Rober Cook and G. Thomas Martin, ETF Board members, to Fr. Jack Kieffer, August 6, 1980, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection. The ETF Board members wanted to know if Kieffer could test for a number of hazardous chemicals, including benzene, toluene, and lindane.
85. John L. Kieffer, "Report of the Three Day Visit of John L. Kieffer to the Ecumenical Task Force of the Niagara Frontier and the Love Canal Site on September 8, 9, and 10, 1980," January, 1981, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.
86. Sr. Margeen Hoffmann, "A Tension of Vision and Reality," A statement read to the Love Canal Area Revitalization Agency (LCARA) Public Meeting, October 23, 1980, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.
87. ETF, "Progress Report II," 26; and ETF, "Executive Board Meeting Minutes," March 10, 1981, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.
88. Memo from Jack Kieffer to Sr. Margeen Hoffmann, November 30, 1981. The community member requesting a "information center" was Jim Clark, a former Love Canal resident, see J. Kieffer, memo to Sr. Margeen Hoffmann, November 30, 1981, Folder "Memos," Box 65 "ETF Files, 1979 - [1985-86] 1991," ETF Collection.
89. Terri Mudd, "Report on Visit to LeRoy, N.Y., 3-14-85 by Terri Mudd & Jack Kieffer, S.J., P.E., Ph.D.," March 21, 1985, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.
90. Michael R. Stoline and Richard J. Cook, "A Study of Statistical Aspects of the Love Canal Environmental Monitoring Study," The American Statistician, May 1986, v. 40, no. 2, 174.
91. Ibid., 174, 175.
92. Quoted in "Well Done, Local Scientist's efforts make a difference," Kalamazoo Gazette, June 26, 1983, A-6, Folder "Cook, Richard," Box 51 "ETF Files, C-H," ETF Collection.
93. Letter from Thomas S. Rohrer, President Buffalo-Niagara Chapter, American Statistical Association, to Mr. Fred Leone, Executive Secretary, American Statistical

Association, December 10, 1981, Box 61 "ETF Files 1979 – 88," ETF Collection.

94. Letter from Richard L. Anderson, President-Elect, American Statistical Association, to Rev. James N. Brewster, Chairman, and Sister Margeen Hoffmann, Executive Director, Ecumenical Task Force of the Niagara Frontier, March 12, 1982, ibid.

95. Letter from Charles A. Rohde, Professor, Department of Biostatistics, Johns Hopkins University School of Hygiene and Public Health, and Chairman, Statistics and the Environment, American Statistical Association, October 7, 1982, ibid. The amount of time needed to adequately assess the EPA report does raise questions about the original study itself, completed in a mere two years!

96. Letter to Sr. Margeen Hoffmann, Executive Director, Ecumenical Task Force of the Niagara Frontier, from Fred C. Leone, Executive Director, American Statistical Association, October 27, 1982, ETF Collection, ibid.

97. Ecumenical Task Force of the Niagara Frontier, "ETF to Remain," Common Ground, August, 1980, volume 2, no. 2., 1, Folder 49-16, Box 49 "ETF Files," ETF Collection.

98. ETF, "Executive Board Meeting," March 10, 1981, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.

99. Ibid.

100. Letter from Linus Ormsby, ETF Financial Advisory/Communications Task Team member, to Rev. Joseph Levesque, President, Ecumenical Task Force of the Niagara Frontier, July 9, 1986, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection. Ormsby contended that rather than being seen as a religious group, people perceived them as "a group of environmentalists."

101. Roger Cook, "Ecumenical Task Force Executive Board Meeting Minutes," March 10, 1981, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.

102. ETF, "Board of Directors' Meeting Minutes," February 28, 1985, Box 34 "Board Minutes, 1980 – Feb. 1986," untitled folder.

103. "Objective," undated photocopy; "Ground Rules," undated memo, Box 95, ETF Collection, and letter from Sr. Margeen Hoffmann, Executive Director, to Barbara Hanna, April 29, 1986, Box 51 "ETF Files, C-H," ETF Collection. Hoffmann invites Hanna to join the Environmental Liaison Committee.

104. Letter from Hoffmann to Hanna, April 29, 1986, ibid.

105. Letter from Hoffmann to Hanna, April 29, 1986, ibid.; handwritten notes,

"Executive Board Meeting," February 25, 1985, 3, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.

106. "Environmental Liaison Committee Members," undated, ETF Collection, Box 51 "ETF Files, C-H," ETF Collection.

107. Frank Gilmore, "Niagara tells community about pollution cleanup," DuPont News, April 1985, v. 14, no. 4, 2, Box 51 "ETF Files, C-H," ETF Collection.

108. G. Thomas Martin, "Facing Environmental Issues: The Environmental Liaison Committee," ETF Collection, Box 16 "Resource Library," ETF Collection.

109. ETF, "Board of Directors' Meeting Minutes," December 6, 1984, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.

110. Townsend, 25.

111. Sister Margeen Hoffmann, OSF, Ecumenical Task Force of the Niagara Frontier, "Remarks – Environmental Liaison Committee," March 19, 1986, Folder 8-9 "Environmental Liaison Committee (Niag. Falls Chamber of Commerce)," Box 8 "Environmental and Citizen Advocacy Groups, 1979-1989," ETF Collection.

112. Letter from Joann Hale, Environmental Liaison Committee community representative, to Richard N. Knowles, Environmental Liaison Committee Chairman, April 23, 1986, Box 51 "ETF Files, C-H," ETF Collection.

113. Letter from Richard N. Knowles, Environmental Liaison Committee Chairman, to Committee members, March 20, 1986, ibid.

114. Sister Margeen Hoffmann, "Sept. 10th issue of Wesley United Methodist Church Newsletter," [1980], Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.

115. Eleanor Conmy, Sabre Park People's Association, "Memo – Service rendered to Sabre Park People's Association and Town of Niagara residents," January 6, 1981, ETF Collection, ibid.

116. J. Kieffer, "Memo," November 30, 1981, Folder "Memos," Box 65 "ETF Files, 1979 – [1985-86] 1991," ETF Collection.

117. ETF, "Untitled Report," August 17, 1982, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection. The Task Force used the report of its activities as part of a fund-raising campaign, noting their flexibility in meeting the needs of victims, and asking for monies to carry out such activities.

118. Letter from Diane Heminway, Citizen Organization to Protect the Environment, to

the Ecumenical Task Force, March 17, 1987, Folder "Memos," Box 65 "ETF Files, 1979 -- [1985-86], ETF Collection.

119. "Summary of Activities and Significant Accomplishments of the Ecumenical Task Force of the Niagara Frontier, Inc. (ETF), October 1, 1984 – October 31, 1985," Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.

120. The ETF met with Norman Nosenchuck, the Director of the Division of Solid & Hazardous Waste, NYS DEC and Joseph Slack, Engineer, Bureau of Remedial Action, NYS DEC, to discuss the current status of clean-up efforts at Love Canal and the Hyde Park landfill. See ETF "Board of Directors' Meeting Minutes," October 16, 1984, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.

121. ETF, "Board of Directors' Meeting Minutes," January 15, 1985, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.

122. Terri Mudd, "Memo – LeRoy," March 21, 1985, Box 34 "Board Minutes, 1980 – Feb. 1986," ETF Collection.

123. Letter from Sandra J. Weston, Chairman-Fulton Safe Drinking Water Action Committee, Chairman/Coordinator-Central NY Toxics Coalition, to Sister Margeen Hoffmann, Executive Director, Ecumenical Task Force of the Niagara Frontier, Inc., August 28, 1987, Box 50, ETF Collection.

124. Great Lakes United, "The Qualities and Faces and Values of Great Lakes United Board Directors, GLU Retreat–June 27, 1987, Folder 8-27a, Box 8 "Environmental and Citizen Advisory Groups, 1979-1989," ETF Collection.

125. Folder 9-16 "Miscellaneous articles, mailings, newsletters [ed. Ann Rabe] Toxics in Your Community," Box 9 "Environmental and Citizen Advocacy Groups, 1979-89," ETF Collection.

126. Ibid.

127. Earthcare: Lessons From Love Canal – A Resource and Response Guide, edited by Sister Margeen Hoffmann, The Ecumenical Task Force of the Niagara Frontier (Niagara Falls: March 1987), 15.

128. Ibid.

129. Townsend, 21.

130. Earthcare, 20.

131. Ibid., 19.

132. Ibid.

133. Matthew Fox, Original Blessings (Santa Fe: Bear, 1983); and Thomas Berry, The Dream of the Earth (San Francisco: Sierra Club Books, 1988).

134. See Joseph Earl Bush, "Social Justice and the Natural Environment in the Study of the World Council of Churches, 1966-1990" (Drew University, 1993).

135. The manual noted that the words hazardous and toxic carried specific legal implications. Despite those differences, the manual used the words interchangeably. See page six, Earthcare.

136. Ibid., 39.

137. See Eileen Maura McGurty, "From NIMBY to Civil Rights: The Origins of the Environmental Justice Movement," Environmental History, v. 2, n. 3 (July 1997): 301-323; Robert D. Bullard, "Environmental Justice for All," in Unequal Protection: Environmental Justice and Communities of Color, edited by R. D. Bullard (San Francisco: Sierra Club Books, 1994); and United States Environmental Protection Agency, Environmental Equity: Reducing Risk for All Communities, vol. 1, EPA 230-R-92-008 (Washington, D.C.: GPO, 1992). The major document that links environmental concerns with those of civil rights is the 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).

138. Earthcare, 91.

139. The exceptions would be residents who considered themselves members of both groups, like Joann Hale and Luella Kenny, and those who left the Homeowners' Association and allied themselves with the Task Force, like Melanie Bailey and Ann Hillis. These women actually split away from the Homeowners' Association and established their own group, People for Permanent Relocation. Task Force employee, and later director, Pat Brown had lived at Love Canal.

140. Norman Nosenchuck Interview with author, August 6, 2002.

141. Patricia Miller and Martha Fowlkes, The Social Construction of a Disaster (Washington D.C.: Federal Emergency Management Agency, 1982), 121.

142. Memo from Gail McFarland to David W. Keiper, June 20, 1980, Folder 2, Box 1, Series L0133-8, NYS Archives. McFarland and Keiper were working with attorney Michael Zweig, who was a special counsel to the New York State Assembly on Environmental Conservation.

Chapter Six

“Return to Love Canal”: Love Canal’s Cultural Legacy

In the scene “Nobody Will Hire You” from the 1982 movie Tootsie, actor Michael Dorsey and his agent George Fields discuss plans to finance Michael’s roommate’s play, “Return to Love Canal:”

George: Michael, nobody’s gonna do that play.
Michael: Why?
George: Because it’s a downer, that’s why. Because nobody wants to produce a play about a couple that moved back to Love Canal.
Michael: But it actually happened!
George: WHO GIVES A SHIT? Nobody wants to pay twenty dollars to watch people living next to chemical waste! They can see that in New Jersey!¹

By 1982, the former LaSalle neighborhood had been ‘remediated,’ and families were offered low-priced housing to move back to Love Canal. While Lois Gibbs and other *former* residents pursued their lives after relocation – as activists, mothers, tax-paying citizens – the memory of Love Canal resonated in both obvious and obscure ways within the broader consciousness of Americans. It appeared explicitly, in the form of ironic humor, in films like Tootsie, or as an implicit doom in works of literature like Margaret Atwood’s The Handmaid’s Tale. The event itself came to hold multiple meaning and the Love Canal metaphor signified everything from heroic environmental triumph to the cynical reality of Ronald Reagan’s America, and appeared in a variety of arenas. This *chapter* considers the ways the Love Canal and other environmental disasters shaped popular culture.

Niagara Falls, the natural wonder, had long influenced many artistic and cultural expressions from its ‘discovery’ by white missionaries at the end of the seventeenth century throughout the nineteenth century. The scenic grandeur of the Falls inspired the artistic creations of poets and painters, while its physical ruggedness challenged daredevils and engineers.² By the end of the nineteenth century, Niagara Falls had regained its place as a sublime icon in the writings of authors like Nathaniel Hawthorne and Margaret Fuller, or paintings of Thomas Cole and Frederic Church.³ At the turn-of-the-century, Niagara Falls seemed to have successfully combined the beauty of the Falls with the industrial promise provided by the cheap power they afforded, although historians mark a decline after this point.⁴ Throughout the twentieth century, Niagara Falls appeared within American culture, if in a lesser role. The city continued to attract honeymooners starting their married lives as tourists, or served as a setting for movies such as the 1953 Marilyn Monroe film Niagara and the 1978 blockbuster Superman II. As one resident explained, Niagara Falls held a “glamorous” reputation.⁵ Love Canal changed the “landscape” of Niagara Falls as residents and outsiders had known it. As resident Robert Powers explained: “Everywhere you go now when you tell people you come from Niagara Falls, you’re ashamed to say it. It’s become known as a dump site, that’s what it’s known as. [E]verybody knows about Niagara Falls, the dump city.”⁶

Historical memory appears intimately connected to the physical landscape and the meaning residents attach to their surroundings. In Landscape and Memory, historian Simon Schama argued that the human beings created mythic landscapes that could be “self-consciously designed to express the virtues of a particular political or social

community.”⁷ In their examination of Youngstown, Ohio, sociologists Sherry Lee Linkon and John Russo explored the ways in which deindustrialization tore apart the city’s “constitutive narrative” of itself, revealing pre-existing underlying tensions and divisions within the community.⁸ For Niagara Falls, Love Canal as chemical disaster threatened the city’s desired identity as a beautiful tourist destination and vibrant industrial center. Environmental psychologist Michael Edelstein studied the effects of Love Canal on Niagara Falls residents. According to Edelstein, residents of Niagara Falls believed they lived in a “contaminated landscape.” Edelstein defined the term as the following: Landscape referred to the connection people made between their physical surroundings (natural, modified, human-built) and their placement within it, with both a “cognitive and emotional attachment to space, a mode of adaptation.”⁹ Prior to Love Canal, normal landscapes for Niagara Falls residents included the “industrial,” “natural/tourist,” and “residential.” Love Canal changed residents’ perceptions of their surroundings, and the now-aware Niagara Falls residents could no longer tolerate the risks associated with an industrial landscape. In these residents’ perceptions, the landscape they lived in was contaminated. For them, and people on the national level, Love Canal became a universal symbol of toxic contamination.

Love Canal’s influence suggests the ways Americans dealt, or failed to deal, with the problem of toxic wastes and the restructuring of politics, activism, and gender roles prompted by environmental disasters. Chemical wastes’ biological threat prompted state authorities to set up birth defect and cancer registries. The Love Canal Medical Trust provided a model for other cases of environmental poisoning, such as Vietnam

veterans and their exposure to Agent Orange.¹⁰ More oblique references to Love Canal or environmental disaster appear everywhere. Actress Jane Fonda dedicated her bestselling 1981 exercise manual, Jane Fonda's Workout Book, to the Love Canal women and their fight.¹¹ This chapter examines the chemical disaster's influence more systematically by tracing Love Canal and other contemporary environmental disasters' effects within literature and film. Some influences receive more attention or discussion than others, and those discussed are by no means definitive. The chapter ends with a consideration of how Love Canal has become an iconic symbol within the broader society.

The themes of motherhood, home, family and empowerment all connect these seemingly disparate cultural manifestations. Cultural productions influenced by Love Canal and the other environmental disasters of the 1980s reduced the events and actors into one of two forms: as narratives of doom, or as stories of activism disconnected from community members. Literary works mostly embodied the physical and psychological stress caused by these postwar environmental disasters. The influence of Love Canal carries both positive and negative messages embedded in the cultural productions examined here.

Wastes, Handmaids, and Families: Chemical Disasters in Literature

Love Canal happened in the midst of other frightening environmental events in American society. On March 28, 1979, a plant malfunction at the Three Mile Island nuclear power station located in Middletown, Pennsylvania, released radioactive gas into the air. Governor Thornburgh evacuated preschool children and pregnant women in a five-mile radius from the plant, echoing the NYS Department of Health orders removing

the same groups from the Love Canal. Happening concurrently with Love Canal, news of another contaminated community made the headlines when residents of Woburn, Massachusetts, filed suit charging that polluted water had resulted in abnormally high rates of childhood leukemia. Americans seemed to be surrounded with overwhelming messages of threat and doom. Four literary works in different genres – a non-fiction exposé, a novel, a play, and true crime – interpreted the forbidding sense of alarm embodied at Love Canal and these other environmental disasters.

Along with the Hadleys and Beverly Paigen, another Love Canal actor affected by the tragedy was Niagara Gazette reporter Michael Brown. Brown had returned to Niagara Falls in 1975 and became a reporter for the local newspaper. Initially interested in a managed waste site located Lake Ontario, Brown slowly recognized a much bigger story unfolding in the LaSalle neighborhood of Niagara Falls, where residents complained they were experiencing a multitude of problems. Brown investigated and wrote the series of articles that alerted many LaSalle and Niagara Falls residents about the chemical wastes buried in the middle of a suburban neighborhood. As a part of his investigation, Brown surveyed other regions in the country to find out about hazardous wastes in their cities. He noticed two things: officials on all levels either did not know or did not care about waste disposal, and there were other leaking landfills across the country. Laying Waste: The Poisoning of America by Toxic Chemicals represented the result of Brown's investigations.¹² Starting with Love Canal, Brown looked at the problems of chemical wastes in Iowa, Tennessee, New Jersey, Louisiana, California, Michigan, and Maryland, and addressed the problems associated with chemical waste disposal.

Love Canal and the horrific conditions residents faced provided the heart of Brown's exposé, which Brown then put into a national context. Brown wrote about the children born with birth defects, the area's higher miscarriage rate, and the community's terrified families. As one reviewer described it, the Love Canal tragedy had "resulted in babies born deaf or disfigured; . . . strong men becoming enfeebled and women fearful of trying to have children, . . ." ¹³ Not only Brown's book, but the reviewer himself, identified the wrong done in terms of how it disrupted the natural order of things: strong men able to work and support their wives and the ability of women to have children. The real significance of Laying Waste, however, came from its placement of the Love Canal chemical disaster within a national context. The book ended with a discussion of the difficulties of hazardous waste disposal. Brown had achieved, in the opinion of some critics, a muckraking exposé of the problems that Love Canal signified for the American public. In his New York Times review of the book, Kai T. Erikson noted the book "does exactly what good reporting is supposed to do. It alerts us, educates us, provides a focus for our apprehension, and it does those things plainly and cleanly." ¹⁴ Brown's Love Canal writing proved so powerful it was anthologized as the exemplar of the persuasive essay. ¹⁵ By putting Love Canal into a larger context, Laying Waste reinforced the idea that toxic chemicals could be in anyone's backyard. The book sensationalized the disaster, and it highlighted society's vulnerability to this looming crisis.

One book written by Canadian author Margaret Atwood showed such an increased awareness of environmental risk and the ways such disasters threatened more than the environment. The child of an etymologist, Atwood grew up spending significant time in

the Canadian north, and may have had a greater ecological awareness because of her upbringing. In 1985 Atwood published a novel called The Handmaid's Tale. Set in the near future, the book told the story of Offred, a woman living in the former United States, but now a citizen in a religious theocratic state known as the Republic of Gilead. The book attracted much praise and controversy, and eventually came to represent a cautionary tale for American feminists during the conservative Reagan-era backlash. In a 1985 interview about her novel, Atwood attributed a number of influences in its genesis. She discussed her research for the book, which included a "huge scrapbook of material . . . including a lot of material on toxic pollutants and their effects."¹⁶ Atwood claimed, "There's not a single detail in the book that does not have a corresponding reality, either in contemporary conditions or historical fact."¹⁷ Atwood, as resident of nearby Toronto, would have been very familiar with the events in nearby Niagara Falls. Her work, like Love Canal, centered on the potentially devastating reproductive effects of chemical wastes. Coupled with concerns over nuclear radiation, Atwood's novel of speculative fiction correctly posited a future earth contaminated with chemical and nuclear contamination. In her society, human beings suffered social and political disruptions along with the environmental consequences.¹⁸

Homes, families, motherhood and the roles of women, men, and the state all constituted major thematic elements within Atwood's fictional work. Within this context of alarming, ill-defined threats to humankind (especially the most vulnerable populations, women and young children), Atwood envisioned one possible logical outcome.¹⁹ Set sometime in the near future of the twenty-first century, the novel suggested a world where

infertility due to nuclear and chemical contamination had caused a political and cultural revolution in the United States. The new Republic of Gilead centered its political power on the protection of women, or more correctly the protection of reproduction. Atwood disputed the idea that her novel could be considered science fiction “of the classic kind.” She instead characterized the work as a “dystopia, a negative utopia.”²⁰ One literary critic noted that A Handmaid’s Tale existed not in the future, but in the present. It served as “a warning that should present trends continue they will lead to a hellish future,” and identified toxic dumping as one of the trends.²¹ In Atwood’s dystopian story of a repressive religious oligarchy, women pay a high a price for the environmental sins of the twentieth century. Such pollution’s effect on fertility justified the repressive state’s assumption of control over its female citizens, reducing them to their most basic biological function, the womb.

This cost can be seen in how chemical wastes shaped the handmaid Offred’s world in various ways. The Republic placed women into various categories: Wives, Aunts, Econowives, Handmaids, Marthas. Stripped of their homes and families, handmaids like Offred serve the state via their reproductive function. Handmaids’ citizenship within the Republic depended upon their fertility, while Marthas’ status reflected their economic contributions. Their relationship to men defined all women of the Republic. Women who defied these new roles or were sterile were declared Unwomen. Leaders of the new Republic punished the Unwomen by sending them to the contaminated “Colonies” to do forced labor. “The other Colonies are worse, though, the toxic dumps and the radiation spills. They figure you’ve got three years maximum, at

those, before your nose falls off and your skin pulls away like rubber gloves.”²² The effects of chemical toxins still scarred the supposedly safe Republic in the form of mutations and birth defects. The Republic declared such affected fetuses “Unbabies” and shredded them for disposal. In this society, fertility and resigned acceptance were the only things saved women from death in the Colonies.

The “Historical Notes” section of the novel specifically mentioned the environmental disasters of the twentieth century that caused the infertility and led to the creation of the Republic of Gilead. Explaining the declining birthrate, one academic gives a number of reasons, with chemical contamination high among them:

Stillbirths, miscarriages, and genetic deformities were widespread and on the increase, and this trend has been linked to the . . . leakages from chemical- and biological-warfare stockpiles and toxic-waste disposal sites, of which there were many thousands, both legal and illegal—in some incidences these materials were simply dumped in the sewage system—and to the uncontrolled use of chemical insecticides, herbicides, and other sprays.²³

The threats posed by these chemical wastes listed above parallel the very same negative reproductive outcomes that mobilized the LaSalle neighborhood. The response of Atwood’s fictional society to this threat, however, appeared to be very different than the activism seen at Love Canal. Instead of empowered women making demands upon public officials, the women of the New Republic experienced a very different kind of state intervention and suffered for their passivity. Another fictional work captured elements of Love Canal differently, although no less disturbingly.

Novelist Joyce Carol Oates, too, had geographic familiarity with Love Canal since she grew up just outside of Lockport, New York, between Buffalo and Niagara Falls.

Oates' play, "The Ballad of Love Canal," focused on one Love Canal family that has been abandoned by their neighbors, government officials, everyone except the media. She too included the reproductive risks (and the tragic outcomes) of chemical wastes as an important element in her literary creation. Both works, in very different ways, captured the affliction caused by chemical wastes and served as warnings of what could, or was, happening. Oates published the play in 1991, and it told the story of one family, the Noonans: Bama, the mother, Medrick, her husband, and their son Dugan.²⁴ The men of the family consistently expressed hostility throughout the play, while Bama alternated between hospitality and terror. In an essay accompanying the collection in which "Ballad" appeared, Oates expressed the belief that drama represented a "communal act," making her play a fitting medium in which to explore the Love Canal tragedy.

The play begins with explicit stage instructions to the actors concerning the characterization of the family members. "Each of the NOONANS has a mannerism (nervous tic, twitch, gesture, stammer, habit of scratching, etc.) which should be subtly modulated through the play; never allowed to become mechanical, predictable, or obtrusive."²⁵ These mannerisms all imply that some kind of physiological or psychological damage has been done to the characters. Such behaviors help define the characters, and visibly put individual faces on the maladies reported by Love Canal residents. Oates complicated her presentation of the Love Canal story, however, in the crude dialogue spoken by the Noonans, and questionable actions they pursue.

The Noonans appear as uneducated, contradictory, uncertain narrators of the disaster that has befallen them. The characters expressed frustration over their

interactions with physicians and public officials, who are telling absent in the drama, as in real life. In one of the most heart-rending sequences of the play, Bama addressed the audience to tell them about her miscarriages, describing in graphic and grotesque detail the loss of three babies. With stage instructions dictating sarcasm, Bama condemned the doctors. “Therez nuthin wrong with *uz*’ the doctors say.”²⁶ Her husband Medrick excoriated the medical profession, and public officials, even more explicitly.

Tryin to’ cruce [“coerce”] us inta sellin sayin ev’body else is sellin, thought
I c’ld trust the Gov’ment now I know betta! An the doctors lyin sayin the
X-rayz an all an blood-tests an all don show up nuthin, fuckin lyin sunzabitches
Im gonna SUE I’m gonna SUE f’r a hunnert milyun dollarz I gotta Silver
Star Godamit gotta WAR WOUND (pulls up shirt, a fatty scar on his midriff
is revealed) t’ prove it!²⁷

This speech conveyed not only Medrick’s disgust with doctors, but his expectations that he should be treated better by the government given his military service. Later in the play, Medrick mourned his lost trust in government. “What breakz yur heart is – alluvem [“all of them”] lyin to ya. The Prezident on down. Ya vote for em then they don give a damn ya live or die, ya eaten up with c-, c-, ca-, canzer or ya blood go bad . . . ”²⁸ Son Dugan appeared to be the most directly affected by Love Canal. Seizure medications increase his appetite, and he suffers from attacks of imaginary “antz,” all caused by “the Tri-chloro-phenol . . . in my baby’s blood – All over the playground.”²⁹ The only assistance the Noonans receive comes in the form of Gip, Medrick’s brother, who showed up to help them move from their condemned home.

The play conveys residents’ rage and despair over the lack of state intervention. But Oates’ play does not uniformly read as a condemnation of public officials. The play

contains a sequence where the men lightheartedly drink beer and smoke. The scene can be read different ways: it echoed public health investigators and observers' questions about lifestyle choices and residents' ill-health, or it may express residents' "for tomorrow we die" indifference. That Oates included the scene at all suggests Love Canal's medical uncertainty.³⁰ Medrick Noonan embodied the more venial aspects of Love Canal: a desire to get as much money as possible for his home, attempts to keep his home's history of chemical contamination from potential buyers, and his threats to sue. The character of Medrick appeared to be lost and without bearings as he struggled to deal with the changes wrought by his home's contamination. He "forgets" to tell his wife they are moving because of the "X-rays piercing [his] brain."³¹ Medrick bemoaned his lost manhood and patriotism. "Once, I was a soljer, proud of my country an them proud of me an – (pause) I was a, a well man, then." The play captures the threats to home and traditional gender roles chemical contamination presented to Love Canal residents.

Perhaps most tellingly, Oates' characters expressed rage at the media attention aimed at them. Dugan glares at the audience at one point, exclaiming, "You – spyin on us huh? Noozepapers, teevee – like we wuz freakz huh? Hey Pa . . . one of em's gotta, a, cammel [camera], Golly dam. . . . PEEEPLE MAG'ZINE, TIIME! Like we wuz freakz contam'ated glowin inth' fuckin dark!"³² This accusation highlighted the controversial role the media played in the original Love Canal disaster. Some observers had questioned the ways the media coverage seemed to encourage portrayals of Love Canal residents as angry, irrational, even crazy, people.³³ Oates ends the play ironically. Bama materializes as a younger version of herself and is welcomed into the neighborhood. This ending

reinforced the tragic trajectory of Love Canal, as the young woman at the end expressed all her hopes and dreams for the new home, surrounded by caring and thoughtful neighbors welcoming her to “LOVE CANAL.”³⁴ In contrast to these fictional warnings, the true-crime story of environmental pollution begin the erasure of community residents from the historical narrative of events, and the public’s consciousness of environmental activism.

Jonathan Harr’s 1995 nonfictional work, A Civil Action, marked a shift in the ways stories of environmental risk would be told. It focuses on the another community disaster of the 1980s, the chemical contamination of drinking water in Woburn, Massachusetts. Using the extensive court testimony, personal interviews, and press coverage, Harr told the story of several families in Woburn, Massachusetts, who brought a lawsuit against two major corporations, W.R. Grace and Beatrice Foods, charging that their neglect led to the contamination of residents’ drinking water.³⁵ Residents received confirmation of elevated numbers of childhood leukemia in 1979, the same time Love Canal residents were in the middle of their fight with New York State officials. Woburn residents faced the same horror as Love Canal families in the threat to home and family through the most innocuous of substances, water. The two communities shared other similarities as well: outside scientists conducting a health study, the involvement of the EPA and state agencies, and the medical uncertainty about the effects of chemical wastes. Harr actually choose to focus on one of the major differences between the two communities in his extensive discussion of the legal action brought by Woburn residents.

The decision to focus on the legal aspects of the case cheated the significance of the Woburn case, and begins to reshape the ways stories of environmental threat will be artistically portrayed thereafter. Although the Woburn families introduce the story, Harr focused on their attorney, Jan Schlichtmann, and the legal battle in court to win damages from the companies. While Schlichtmann's own personal demons made for a fascinating and complex character, Harr's decision slighted the significance of Woburn as part of a national problem, and was in direct contrast to Brown's placement of Love Canal into a broader context. One reviewer described this as the book's major flaw: "Good as it is, 'A Civil Action' falters by presenting the Woburn case in a one-dimensional, made-for-the-movies way. Mr. Harr . . . depict[s] a world containing three types of people: innocent victims, lonely crusaders and the malignant pawns of the corporate state."³⁶ While the work documented a corrupt legal system that allowed both corporations off with minor penalties, Harr's narrow focus meant he missed making a meaningful comparison between the role of the state and federal institutions in the two cases. The same reviewer addressed this issue when he observed Harr's attention to the court case led him to neglect "the participation of the Environmental Protection Agency, the United State's Attorney's office and various Massachusetts state agencies."³⁷ In an oblique fashion, this later involvement at Woburn implies that agencies like the EPA had learned lessons from the Love Canal disaster and how to respond to cases of environmental contamination. The growing problem of human-made environmental disasters influenced film as well as literature, as the next section considers.

Chemically Erased: Toxic Chemicals Go Hollywood

Environmental contamination figured as the topic of several movies in the late-twentieth century, all dealing with issues of toxic chemicals. Two movies released after Love Canal became nationally known dealt with issues of environmental contamination. The China Syndrome (1979) and Silkwood (1983) looked at radiation contamination, with reporters and employees as the major focus of the films. Both films were based upon earlier incidents in the 1970s, and relied heavily on the story of Kerr McGee worker and nuclear activist Karen Silkwood and her death in 1974. These films centered their stories on workers and the horrific outcomes of accidents, and neither film considered community residents as major subjects. Instead of being influenced by Love Canal, they instead seem to be a part of the cultural Zeitgeist into which it fit. Two other movies produced late in the twentieth century showed the influence of 1980s environmental disasters in their focus on communities as far apart as Massachusetts and California. These films completed the move away from environmental disasters as stories of doom to ones of displaced activism.

As early as the 1990s, just a little over a decade after the Love Canal, the disaster's legacy of community empowerment had been forgotten. Two popular films of the late twentieth century told very different stories of community activism, while at the same time erasing earlier cultural productions' stories of environmental doom. A Civil Action (1998), based on Jonathan Harr's 1995 book, told the story of residents in Woburn, Massachusetts, and their efforts to explain a cluster of leukemia cases within the community. The movie, much more than the book, focused on the court against the W.R.

Grace Company (among others), which was accused of contaminating drinking water. Erin Brockovich (2000) concentrated on the successful legal action brought against Pacific Gas and Electric (PG&E) by the residents of Hinkley, California, whose water had been contaminated by chromium hexachlorate. The films share a striking similarity in which characters act as heroes and in the portrayal of the affected communities residents.

According to these films, in cases of uncertain science and corporate greed, the legal system represented the best hope for justice. Like its written counterpart, the film A Civil Action, focused primarily upon the character of Jan Schlichtmann, the lawyer who agreed to represent the families of Woburn in their suit against Beatrice Foods and W. R. Grace. Even more so than the book, the film featured the legal confrontation between Schlichtmann, played by John Travolta, and the attorney representing Beatrice Foods, portrayed by Robert Duvall. Woburn community residents appeared mostly as background – setting up the court battle that will be the real heart of the movie, in scenes convincing Schlichtmann of their cause, and as victims demanding pity. Director Steve Zaillian received praise for his restraint in starting the story after the children have died.³⁸

One critic applauded the film's avoidance of cheap sentimentality, but noted a potentially crippling absence. "In Love Canal's toxic shadow, A Civil Action could easily have degenerated into "Movie of the Week" theatrics. It doesn't, but Zaillian may have miscalculated by leaving the families so far behind."³⁹ Instead, the film portrayed the Woburn families as victims rescued by lawyer Schlichtmann. Anne Anderson, the Woburn equivalent of Lois Gibbs and major force behind the lawsuit, disputed residents' portrayal in the movie. "I think the picture portrays us as a rather sorry lot . . . And it

makes Jan into a sort of Mighty Mouse who comes to save the day. It wasn't really like that. I'd done a lot of work before Jan ever arrived on the scene."⁴⁰ Ironically, part of Schlichtmann's dramatic arc came from his hubris in turning down a large settlement. This outcome would be avoided in the other film about toxic wastes.

The law, even if not lawyers, remained the heroic protagonist of Erin Brockovich. Moving even farther from the actual contamination of communities, Steven Soderbergh directed a script by Susannah Grant that featured an out-of-work mother as its major figure, whose triumph came in the form of a job as a legal investigator and a substantial award check at the end of the film. More striking than A Civil Action's portrayal, the residents of Hinkley look like passive victims. Instead of the concerned mothers aroused by a local Lois Gibbs – or A Civil Action's Anne Anderson – the character of Erin Brockovich herself alerts the community to the health dangers they have suffered from chemical contamination. Early in the movie, several sequences show Brockovich as a caring mother, concerned for her children's welfare. In a later scene, a Hinkley mother rushes to rescue her daughter after Brockovich convinces her that there may be something dangerous in the water. Brockovich usurps the Hinkley's mothers' role as protectors of their children and homes. The film's movie poster shows a youthful, attractive Brockovich (Julia Roberts) holding her daughter. Continuing in its positive portrayal of the legal system, in one scene, the lawyer working with Brockovich actually invokes the specter of Love Canal in when organizing Hinkley's residents. They have to stick together, he warns, or they will face the fate of Love Canal, a legal quagmire with continuing unresolved court cases. He leaves out any mention of Love Canal's activism,

or its legislative legacy. Like A Civil Action, in Erin Brockovich the story became one of overcoming personal adversity rather than one of community empowerment.

Neither film addressed the social and cultural reasons underlying the contamination of Woburn and Hinkley. Both films simplified the scientific uncertainty connected to the cases, and both downplayed the role played by community members.⁴¹ In an exposé of the arbitration process used to determine the Hinkley case, journalist Kathleen Sharp described the film as a “populist victory,” although another review of the movie rightly asked why the residents themselves were not the real focus of the film. “It is an extraordinary moment when the townspeople begin to put two and two together, assisted by Brockovich. . . . If only they had been developed and made the center of the drama!”⁴² The consideration of the contaminated communities in both films offered a much richer story than appeared on screen. Each film critiqued the corporations that polluted the communities – W.R. Grace, Beatrice Foods, PG&E – but neither indicted the American legal system that lets them off. In her review of A Civil Action, critic Kate Randall noted: “Such a film could serve as a springboard for considering the fate of similarly polluted and contaminated communities . . . It could have exposed in much sharper relief the ruthlessness and recklessness with which these corporations pursue profits, at the expense of the health and lives of unsuspecting families.”⁴³ Worse yet, because both films made members of the legal community the principal actors of the narratives, they actually undermined one of the major actualities of Love Canal: the empowerment of ordinary people to fight for a more responsive government. The heroic portrayal of the legal profession rather than community residents in these films

demonstrate the ways the Love Canal activists left a mixed cultural legacy. Even as Love Canal inspired new kinds of commitment and activism, community activists experienced a cultural erasure as portrayed in these films.

The loss and suffering of these residents acted as the catalyst for the main character's personal redemption. As film critic Mike Clark said, "We hear about the misery but don't see it."⁴⁴ John Travolta discussed what attracted him to role of Jan Schlichtmann in an interview. "How do you make a guy who is unaware of his flaws, unaware of his insensitivity at first, have a wonderful growth?," Travolta mused, "He goes from an egocentric, me, me, I, I guy, all for the buck, greed and all that, and turns into this other guy who basically gives up everything for what he believes in. It's an extraordinary thing."⁴⁵ The Woburn families' suffering provided the substance of this transformation. Critic Michael Sragow scathingly described Brockovich's transformation "as she wiggles around the aluminum-sided houses of Hinkley, California, knocking on doors . . . she comes to seem a little saintly, a little too saintly, in fact, to be true."⁴⁶ Erin Brockovich goes one step further in displacing the mothers in the contaminated town of Hinckley. Instead of the town's families uniting and protesting, the town turns to Erin Brockovich to save them. In both a A Civil Action and Erin Brockovich, outsiders save the victims of chemical contamination. The films simplify Love Canal one step further. Instead of aggrieved, honest citizens fighting corrupt business and government, the films' focus on the solitary heroics of their main characters create a happy ending to a story that has none. In this sense, the films reflect the individualistic ethos of the nineties, as noted by historian Eric Foner in his critique of another film, Steven Spielberg's Amistad.⁴⁷

These films show Hollywood's retreat from the socially relevant filmmaking of the 1960s and 1970s.⁴⁸ The residents of Woburn and Hinkley exist in the same limbo as other forgotten or omitted groups in the film industry's understanding of the world – minorities, older women, working-class people (the ones not wearing clothes that reveal their beautiful bodies). These films invert Love Canal's somber warning of widespread chemical contamination. The continuing problems of contamination, clean-up, and responsibility disappear, if they were ever present, from these visual narratives. They both end with financial victories, but with no changes to the system or challenges to society to reduce its wastes. Ironically, a film that made Love Canal a butt of humor better reflected its reality.

This chapter opened with a film scene that, while it played the continuing Love Canal saga for laughs, more honestly addressed the stigma associated with toxic chemicals than those just discussed. Released in 1982, the film Tootsie opened to both popular and critical acclaim. The story focuses on Michael Dorsey, an out-of-work actor determined to prove his acting ability. Dorsey eventually succeeds by posing as a strong and independent actress starring in a soap opera. A number of writers worked on the project, among them Don McGuire, *M*A*S*H* scribe Larry Gelbart, Robert Kaufman, playwright Murray Schisgal, and an uncredited rewrite done by Elaine May.⁴⁹ In a relatively minor but crucial plot point, Dorsey's roommate Jeff has written a play called "Return to Love Canal" and Dorsey wants to raise money to produce and star in it, thus providing his motive for accepting the soap opera job. The dialogue between Dorsey and his agent centered on the commercial appeal of such a drama, with agent Fields' resulting

scorn. The playwright's attitude toward commercial success confirmed Field's disdain. It pleases Jeff when people cannot understand his work: "I don't like it when guys come up to me and say, 'I saw your play, and y'know, I cried, man' I like it when . . . they say, . . . 'I saw your play. I didn't get it.' That is sweet!"⁵⁰ The resulting dialogue played the situation for ironic laughs, but also conveyed a popular understanding of what Love Canal meant. Such a topic was "a downer," and really not even all that interesting as toxic chemicals were everywhere, even in neighboring New Jersey. Nobody wanted to hear, much less pay to see, about people living next to a chemical dump. Tootsie captured the stigma chemical contamination conferred on Niagara Falls, a stigma shared by nearby towns in New Jersey. Another film showed Love Canal's legacy in its subject, if not in name, in its consideration of chemicals as ubiquitous poisons and a dilemma of modern civilization.

The 1995 independent film Safe, written and directed by Todd Haynes, considered the problem of environmental illness and the frustrations of those afflicted. Although the movie never explicitly mentions Love Canal, it examines the problems of a living in a world with omnipresent chemicals after you have discovered that those chemicals have caused your illness. Carol White, played by Julianne Moore, lives, as reviewer Janet Maslin described it, in "a bubble of antiseptic privilege."⁵¹ White seems disconnected from her absent husband and stepson. After placing White in her sterile suburban surroundings, the movie progresses by showing her becoming inexplicably ill with headaches, fatigue, and nose bleeds. Her physician, unable to diagnose her problem, refers her to a psychiatrist. Still seeking answers to her illness, White realizes she has the

“twentieth century disease” of multiple chemical sensitivity. She eventually goes to a New Age healing center, run by a charismatic HIV-positive man seeking help. She not only gives up her family, but ultimately abandons any hope of refuge.

Haynes’ film conveyed how society abandoned victims of environmental illness through the powerlessness of his main protagonist. In interviews about his film, which received mixed reviews, Haynes described the character as at “the most radical point in her life” when she becomes ill.⁵² For Haynes, the film provided a chance to challenge traditional Hollywood narratives, characterized by a triumphant journey toward self-satisfaction and easy conflict resolution. Haynes identified the character’s realization that chemicals caused her illness as one of the most hopeful in the movie. She “gets angry in the hospital and says, ‘It’s the chemicals that did it to me.’”⁵³ It may be significant that Carol White suffers from this mysterious illness, not her husband or stepson. In Haynes’ vision, new age therapies that place the blame back on the individual blunt Carol White’s desperate challenge to the world around her.⁵⁴ A opaque, seemingly passive woman, humanized by Julianne Moore’s performance, Cathy White accepts that she may be to blame for her illness. In its sensitive telling of how society chooses to deal with environmental illness, Safe aptly captured Love Canal residents’ experiences. Medical authorities refused to acknowledge their illnesses, outsiders blamed them for their ill health, and the broader community of Niagara Falls scorned them. Unlike Safe’s bewildered housewife, Love Canal residents empowered themselves by creating a counter-narrative to the official one. But like Cathy White, the residents of Love Canal and other toxic waste disasters found no easy resolution to their dilemma. The chemical

legacy of doubt, despair, and disease unearthed at Love Canal shadow the uncertain choice made at the end of the film, as Cathy White retreats into an igloo, a shell of white isolated from the world, and a sterile promise of safety.

Love Canal and the other environmental disasters of the late 1970s appear reproduced in fractured ways in subsequent cultural productions. Written works like Atwood's A Handmaid's Tale for the most part treated these disasters as apocalyptic warnings or as stories of failure, like the family in Oates one-act play. The disasters' corresponding role in the creation of grassroots activism remains absent from the narratives that show Love Canal's influence. Surprisingly, later visual works restore community activism to the story of environmental disasters, but in an equally distorted way. These stories displace afflicted community members with heroic legal figures, all the while glorifying the materialistic lifestyles that produce the environmental disasters they are fighting. Todd Hayne's Safe best captures the existential angst of environmental contamination, but offers a much more bleak resolution in the character of Carol White, a passive housewife who aids her removal from society's vision. All of these cultural productions show the resistant nature of the Love Canal disaster to linear, simple, storytelling. As an advent of postmodernity, Love Canal itself remains opaque to modern narrative structures. The next chapters continues the consideration of Love Canal's influence as it provides a conclusion to this telling of its story.

Endnotes

1. Tootsie (1982).
2. There is actually a significant body of literature that considers the influence of Niagara Falls (the cataracts) on the imagination. For examples of popular works, see Ralph Greenhill & Thomas D. Mahoney, Niagara (Toronto: University of Toronto, 1969); Anthony Bannon with C. Robert McElvoy, The Taking of Niagara Falls: A History of the Falls in Photography (Buffalo: Media Study, 1982). Academic discussions would include Elizabeth McKinsey's Niagara Falls: An Icon of the Sublime (Cambridge: University of Cambridge Press, 1985) and Patrick McGreevy's Imagining Niagara: The Meaning and the Making of Niagara Falls (Amherst: University of Massachusetts Press, 1994).
3. McKinsey, 190. McKinsey notes that these artists fought their own disappointment in the gap between their expectations of the Falls and their initial experience of them. They did use it as an inspiration, but in a way "less spontaneous, more self-conscious, more personal and deliberately artistic."
4. William Irwin argued in The New Niagara: Tourism, Technology, and the Landscape of Niagara Falls, 1776-1917 (University Park: Pennsylvania State Press, 1996) that the promise of the "new Niagara" had ended by the 1920s.
5. Joe Dunmire Interview, June 12, 2002.
6. Robert Power Testimony, May 5 public hearing, 86, Folder "CECOS documents – Articles and Clippings, May-September, 1982," Box 1 "Recycling-Incineration-Articles and Clippings, April 1986-February 1989," in the Love Canal Collection of the Ecumenical Task Force of the Niagara Frontier (Buffalo, New York: University Archives, State University of New York at Buffalo), hereafter cited as the ETF Collection.
7. Simon Schama, Landscape and Memory (New York: Vintage Books, 1995), 15. Schama points out that the original meaning of the word landscape from its Germanic roots "signified a unit of human occupation" rather than a pristine representation of wilderness (10).
8. Sherry Lee Linkon and John Russo, Steeltown U.S.A: Work and Memory in Youngstown (Lawrence: University Press of Kansas, 2002), 4.
9. Ibid., , 40.
10. Paul MacClennan, "Love Canal Trust Fund Is A Reminder of Failure," Buffalo News, February 26, 1995, 12. MacClennan quotes Luella Kenny, co-chair of the trust, in his article. Kenny mentioned this claim in her August 13, 2002, interview as well.

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11. Luella Kenny Interview, August 13, 2002. Mrs. Kenny got her copy of Fonda's book out while I was interviewing her. Love Canal was just one of the causes Fonda supported in the 1970s. She made a fund-raising appearance for the Homeowners' Association in the fall of 1979. The exercise book, published in 1981, still appeared as number fourteen nonfiction title of the New York Times bestseller list in October of 1983, "Best Sellers," New York Times, October 30, 1983, BR36.
 12. Michael Brown, Laying Waste: The Poisoning of America by Toxic Chemicals (New York: Pantheon Books, 1979, 1980). The cover of my edition of the book has a mailman delivering mail in a gas mask in the Love Canal neighborhood.
 13. Richard Severo, "Review: Laying Waste: The Poisoning of America by Toxic Chemicals," May 6, 1980, New York Times, C3.
 14. Kai T. Erikson, "Contaminating the Countryside," May 18, Section 7, 40.
 15. Michael Brown, "Love Canal and the Poisoning of America," edited by Nancy R. Comley, et al, 6th edition (New York: Bedford/St. Martin, 2001). Brown's essay is in the "Reporting" section under "Technologies and Sciences."
 16. Ibid., 67. Atwood later states that if enough chemicals fill the environment, fertility will go down. Her own background as the daughter of an entomologist perhaps made Atwood particularly aware of the dangers of chemical contaminants.
 17. Le Anne Schreiber, "Female Trouble: An Interview," Vogue, January 1986, 209. Atwood also credited the Afghanistan's Taliban government and the role of women in such Islamic states as an influence.
 18. Atwood's dystopian society also incorporated the conservative political climate and backlash against feminism present in the 1980s. For me it suggests the ways in which Love Canal as an event marks a transitional point between the civil rights movements of the 1950s, 60s, and 70s (blacks, students, women) and the conservative era of the 1980s.
 19. Atwood admits that while she began writing the novel in 1984, she had "the idea in my head for four years . . .," Q&Q Interview, "There's nothing in the book that hasn't already happened," Quill and Quire, 67 (September 1985), 66.
 20. Q&Q Interview, 66, ibid.
 21. Michael Foley, quoted in David S. Hogsette, "Margaret Atwood's rhetorical epilogue in The Handmaid's Tale: The reader's role in empowering Offred's speech act," Critique, Summer 1997, 38 (4), 7.
 22. Margaret Atwood, A Handmaid's Tale (New York: Fawcett Crest Book, 1985), 323.

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23. Ibid., 386.
24. Joyce Carol Oates, Twelve Plays (New York: Dutton, 1991).
25. Joyce Carol Oates, "The Ballad of Love Canal," Twelve Plays (New York: Dutton, 1991), 119.
26. Ibid., 130.
27. Ibid., 126.
28. Ibid., 132.
29. Ibid., 125.
30. My thanks to Piril Atabay who pointed out this scene's alternative reading.
31. Ibid., 131.
32. Ibid.
33. See Donna Ogg Interview, July 2, 2002.
34. This ending is also anachronistic, as Bama would have been welcomed to the LaSalle neighborhood rather than Love Canal. Oates is currently working on a novel about Niagara Falls called The Falls.
35. Jonathan Harr, A Civil Action (New York: Vintage Books, 1995, 1996).
36. Gregg Easterbrook, "Toxic Business," 'A Civil Action' Book Review in New York Times, http://www.geocities.com/robertduvall_0/1999/civibnyt.html, 2.
37. Ibid., 3.4.
38. Charles Taylor, "A Uncivil Adaptation," salon.com, <http://archive.salon.com/movies/reviews/1998/12/23reviewa.html>, accessed 12/30/03. Taylor actually praises the performance of the actor portraying the child's father, David Thornton.
39. Kent Williams, "A Civil Action," thedailypage.com, <http://www.thedailypage.com/going-out/movies/reviews/print.php?intReviewID=218>, accessed 12/30/03.
40. Quoted in Kate Randall, "A Civil Action: a compelling tale loses much of its impact," World Socialist Web Site, <http://www.wsws.org/articles/1999/jan1999/civ-j21.shtml>, accessed 12/30/03.

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41. Of the two cases, only Woburn has been definitively shown to have chemical contamination of the water supply.
42. David Walsh, "Simplifying matters: Erin Brockovich, directed by Steven Soderbergh, written by Susannah Grant," March 21, 2000, World Socialist Web Site, <http://www.wsws.org/articles/2000/mar2000/erin-m21.shtml>. The arbitration exposé was discussed in Kathleen Sharp's "'Erin Brockovich': The real story," [salon.com](http://dir.salon.com/ent/feature/2000/04/sharp/index), <http://dir.salon.com/ent/feature/2000/04/sharp/index>, accessed 12/30/03. Sharp's article examined the problems with the process of arbitration, where the mediation process is kept secret, versus the court system which is public.
43. Kate Randall, "A Civil Action: a compelling tale loses much of its impact," January 21, 1999, World Socialist Web Site, <http://www.wsws.org/articles/1999/jan1999/civ-j21.shtml>, accessed 12/30/03.
44. Mike Clark, "Too-civil 'Action' doesn't do justice to the real-life drama," USA Today, December 22, 1998, 4D.
45. Louis B. Parks, "The character who came in from the cold; TRAVOLTA MAKES HIS CASE FOR 'A CIVIL ACTION'," The Houston Chronicle, Zest Section, 8.
46. Michael Sragow, "DVD Review: Erin Brockovich," salon.com, 2.
47. Eric Foner, Fresh Air with Terri Gross, January 21 Broadcast, 2001.
48. See Andrew Schroeder, "The Movement Inside: BBS Films and the Cultural Left in the New Hollywood," in The World the Sixties Made: Politics and Culture in Recent America, edited by Van Gosse and Richard Moser (Philadelphia: Temple University Press, 2003).
49. Larry Gelbart, Laughing Matters: On Writing M*A*S*H, Tootsie, Oh God!, and a Few Other Funny Things (New York: Random House, 1998), 137-142; Susan Dworkin, Making Tootsie: A Film Study With Dustin Hoffman & Sydney Pollack, 17. The script is considered an exemplar of screen writing. It also won a New York film critics award, given to Gelbart and Schisgal.
50. Tootsie (1982).
51. Janet Maslin, "Review: Safe," New York Times, June 23, 1995, C20: 4.
52. Stephen Brody, "Todd Haynes' Safe," July 20, 1995, <http://home.comcast.net/~rogerdeforest/haynes/index/html>, accessed 12/30/03.
53. Larry Gross, "antibodies," from Filmmaker Magazine, Summer 1995, vol. 3, no. 4,

ibid.

54. Haynes made the point in an interview that “a victim who can articulate her experiences as a victim is no longer a victim—she has become a threat.” See Brody interview, ibid.

Chapter Seven

“A Great Thing for Democracy” Conclusion to the Love Canal Chemical Disaster

Love Canal showed the mixed legacy of America's postwar social movements while it challenged historians' periodization of the twentieth century. The very movements that changed citizens' involvement with, and expectations of, the state also shaped their responses to the environmental crisis Love Canal presented. White homeowners demanded state intervention on the basis on property-ownership, and made new claims when public officials ignored such claims. Wives and mothers visibly challenged state authority and used media coverage to apply political pressure. Their activism, based on traditional motherhood, represented the appearance of a post-feminist maternalism. Society accepted women as political actors, especially if they were making claims based upon traditional female roles. At the same time, Love Canal men grasped the new gender roles emerging within the society. Scholars have overlooked two aspects of Love Canal's influence on grassroots activism: the continuing maternal and parental appeals that appear in the better-known national grassroots anti-toxic campaigns; and the continued and effective presence of religious organization in a reconnecting Love Canal to regional environmental activism. These two aspects also expand the influence of postwar social movements into the 1980s and 1990s, an overlooked legacy that present a more nuanced understanding of the 1980s. They also support the contention that postwar social movements effectively changed expectations of the state and issues within



American society. This chapter examines this continuing influence Love Canal had on environmental activism, intellectual constructions of Love Canal that connect it to Beck's emerging risk society, and women's activism as a post-feminist movement.

“Everyone's Backyard”: Love Canal, Politics, and Social Activism

One of the saddest Love Canal legacies existed within the city of Niagara Falls itself. Once the “Honeymoon” capital of the country, the city's landscape contained many chemical waste sites, scared and angry residents, indifferent local politicians, and a state and national reputation as a toxic waste dumping ground. This reputation came about in part because of numerous other contaminated industrial sites and waste disposal facilities in the city. Elected representatives found it easier to keep shipping toxic wastes to western New York than spread waste centers more in a more equitable and just manner throughout the state.

Love Canal bequeathed legislative changes as the state tried to address the problem of hazardous wastes. Love Canal positively affected public environmental policy on a number of levels, with perhaps the best-known outcome being changes in national environmental legislation. Most observers credited Love Canal as key ingredient in the passage of the federal 1980 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), more commonly known as “Superfund.” The act allowed the Environmental Protection Agency (EPA) to identify and clean up hazardous waste sites and pursue financial recompense from the polluters. Love Canal affected environmental legislation within New York State as well. The Love Canal disaster prompted the passage of new and revised hazardous waste siting legislation

within New York State, as regional activists fought the new problem of contained waste sites.¹

Gibbs' Love Canal activism proved essential in organizing the new toxics movement. Based on her experience at Love Canal, Gibbs worked to empower communities to act when faced with existing or proposed hazardous wastes. A key element of this empowerment depended upon information about hazardous chemicals and their potential for physical harm. Gibbs initially formed the Clearinghouse to distribute reliable scientific information about the physical harm toxic chemicals presented. Besides mailing information on organization and chemicals, Gibbs traveled to communities afflicted with toxic wastes, like the dioxin-contaminated Times Beach, Missouri. Gibbs' visits brought publicity to residents' plight and she helped local people to organize like Love Canal residents had. The CCHW noted their distinctive role: "Other early efforts to deal with hazardous wastes were handled by victims in a variety of ways, but none of them involved direct, mass organizing action which was first used on a toxics issue at Love Canal."² The CCHW's newsletter title, Everyone's Backyard, best summed up the organization's fundamental premise: no community should face the threat of chemical contamination.

Two arguments consistently appeared in the CCHW's grassroots campaign against hazardous wastes – a continuation of Love Canal's community maternalism and parentalism, and a newer articulation of one based upon the idea of environmental justice. The proceedings of the Clearinghouse's fifth anniversary convention, "Five Years of Progress, 1981-6," showed the ways the new toxics movement presented these ideas. The

Clearinghouse dedicated the report to “the memory of the children.” A list of communities also appeared in the dedication, and it noted the “dozens of other sites of toxic tragedies that caused the unjust and premature deaths of innocents and to the many others whose lives were taken by corporate polluters . . . ”³ The proceedings included pictures of the small child getting her blood tested; of Lois Gibbs holding her daughter Missy taken during the Love Canal crisis; a small child labeled Jessie Fuchs-Simon; a mother with children at an EPA protest in Lowell, Massachusetts; several other photographs of women and children; and a final photograph of Gibbs holding her new son Ryan (Figure 6).⁴ In one section entitled “Hazardous Waste: A Social Justice Issue,” the proceedings contained a picture of African Americans at a community meeting in North Carolina. The text described the toxic waste fight in the South, and discussed a well-known episode in Warren County. It mentioned the United Church of Christ, whose own historic report marked the “first of several declarations by national churches condemning this country’s hazardous waste policy as immoral.”⁵ A vibrant and successful movement had coalesced around Gibbs, who shifted her environmental activism from Niagara Falls to a national grassroots environmental movement based in Washington, D.C.

Other figures with close ties to Love Canal figured prominently in future environmental battles. Gibbs’ sister Kathy and brother-in-law Wayne Hadley moved away from the Niagara Falls area early in the Love Canal fight. Hadley had been an early advisor and mentor to Gibbs. In 1979 the Hadleys moved to Montana, eventually moved to another Superfund site, the Clark Fork River, polluted by mining wastes.⁶ Benefitting



Lois and new son, Ryan

FIGURE 6

Citizen's Clearinghouse for Toxic Waste, "Five Years of Progress, 1981-1986," Fifth Anniversary Convention, Arlington, VA, May 31 – June 1,"

Folder "Conferences, CCHW," Box 51, ETF Collection, University Archives, SUNY Buffalo

from their Love Canal experiences, the Hadleys helped organize an active community group and worked to get EPA Superfund designation for an area of contamination. Beverly Paigen, the environmental researcher who had been a major advisor to the Homeowners' Association, shared her professional expertise on toxic chemicals several times after Love Canal. The first case was with homemakers in Gray, Maine, and later the Woburn families, who were also concerned about the chemical contamination of drinking water. In both cases, Paigen helped homemakers challenging public officials' declarations of safety on environmental hazards.⁷ These other campaigns, besides the direct connection to Love Canal, also suggest the ways that Love Canal changed the terrain of environmental activism with respect to its membership and issues. For the first time working class people had become involved in a movement previously characterized by its elite membership. Their presence went beyond mere symbolism, as these groups were prepared to challenge the authority of the state and science regarding the safety of chemical wastes.⁸

Despite the heroic narrative typically told about Love Canal, the happy resolution depended on residents leaving the contaminated neighborhood. Gibbs' 1982 memoir, Love Canal: My Story, ended in 1980 with President Jimmy Carter signing the second emergency declaration act that allowed the eventual permanent relocation of residents. Even as Gibbs acknowledged the changes in Love Canal families – divorces, disrupted childhoods, a profound distrust in government – the story still ended on a positive note. Gibbs wrote: “The Love Canal Homeowners Association will go on in some form. We have been successful. We fought ‘City Hall,’ and we won!”⁹ The canonical account of

Love Canal ignored the lingering effects the Love Canal disaster had upon the city and other residents of Niagara Falls. Environmental activism continued in Niagara Falls forever changed by Love Canal.

One of the major environmental conflicts during the 1980s concerned the expansion of a contained hazardous waste site facility within Niagara Falls, CECOS International. Originally owned by Union Carbide, the CECOS site already contained several acres of landfilled hazardous wastes, some from the Love Canal disaster itself. Industry used these kinds of hazardous waste containment sites since the 1940s to dispose of the byproducts of plastics, organics, and other chemical and manufacturing pollutants. Industries chose the burial of hazardous wastes based on economic considerations rather than ones based on safety.¹⁰ Later environmental activism in Niagara Falls focused on contained hazardous waste disposal in contrast with the untreated industrial wastes. In the case of CECOS, Niagara Falls activists were fighting the whole principle of landfilling, or burying, toxic wastes. As early as 1983, CECOS petitioned New York State's Department of Environmental Conservation (DEC) to expand and built two new hazardous waste storage units (nos. 4 and 5). CECOS called the units Secure Contained Residue Facilities, otherwise known as SCRFs.¹¹ The DEC granted the construction permits based on CECOS previous license to store hazardous wastes. The Task Force opposed this initial expansion of the facility, and regrouped to fight further expansions through its participation in the Campaign for Niagara from 1987 through 1990.

Endeavors to prevent another CECOS landfill expanded the previous Love Canal activism. The Campaign united Niagara Falls residents with regional environmental

activists, which included a wide array of local and regional groups.¹² This community activism expanded the narrow focus seen in the Homeowners' Association, which emphasized residency as essential for an understanding of the situation. The Campaign also reconnected Niagara Falls to broader regional environmentalism. The Task Force's historic connection to Love Canal allowed its members to act as key intermediaries in this process. Task Force members spoke out forcefully about the harm being done to Niagara Falls, and their words and actions made the group a major actor in Campaign activities. These public declarations and the Campaign's legal strategies all sought to reclaim a new identity for Niagara Falls and protect it for the future.

Maternalist rhetoric figured prominently in the arguments made against the CECOS expansion. In a 1987 speech, ETF Executive Director Sister Margeen Hoffmann argued against landfills out of concern not only for the current generation, "but for the future of our children and the community."¹³ ETF member Terri Mudd spoke eloquently about the problems hazardous wastes had previously caused men and women. Her public testimony displayed an understanding of gender roles as biologically determined which ascribed strong maternal instincts to women and men as patriarchal providers. "Like all mothers in the animal kingdom, when the young are in danger, the mother will take quick action. But in this case the action was to condemn the workplace of the male parent, and to move from the home he founded."¹⁴ She warned against the same tensions happening again. The ETF used images in its organizational materials for many years that reinforced a maternalist message. In the ETF's first progress report (1979/80), the cover photograph showed a child walking with his head down, holding flowers, with a fenced area posted

with the words, “Hazardous Chemicals, Unauthorized Entry Prohibited” in the background. The acknowledgement inside read: “To William D. Cecil, who took the cover photo, . . . He certainly did not realize that it would become the ETF symbol when he took the photo.”¹⁵ The same photograph appeared on the 1981 progress report, and the 1985-86 Annual report, and as an illustration in the October 1984 edition of the magazine e/sa [Engage/Social Action]. The journal issue contained articles by Gibbs and Sister Joan Malone, an Task Force member. The photo acknowledgment simply read “from ETF.”¹⁶

The photograph did not appear on the third progress report issued in 1984. That cover featured a quotation from Chief Seattle about care for the earth. By 1987, the ETF had developed a new graphic that it used on its promotional materials, a seedpod and seedling done in brown and green. This roughly corresponded with the ETF’s growing regional environmental involvement and the development of a stewardship philosophy. It had, however, claimed the picture of the child as the ETF “symbol” in that first report’s acknowledgment section, and concern for the communities’ children remained a consistent element of their environmental arguments. The ETF also used expert witnesses who validated residents’ fears for their home, both broadly and narrowly defined.

In the legal arena, in various public hearings held for the expansion permit, CECOS offered expert testimony that emphasized technology, control and expert knowledge. The company’s witnesses verified the safety of the proposed expansion and sought to reassure local residents. SCRF#6 project manager Peter Tarnawskyj testified at

a June, 1987, public hearing for the expansion permit. Tarnawskyj pointed out that CECOS generated no waste itself, but rather took care of an “inevitable by-product of our modern industrial society.”¹⁷ The construction of the new waste disposal facility continued ongoing operations and fitted neatly within the boundaries of an established area well-designed and qualified to take care of its contents. As Tarnawskyj described it, the SCRF contained wastes, preventing them from migration through superior technology. One piece of Tarnawskyj’s evidence showed SCRF#6 within the confines of the CECOS facility but failed to show the facility within the broader confines of Niagara Falls. Another witness, Neil D. Williams, Ph.D., a senior engineer with GeoServices, Inc., later gave testimony on the design of SCRF#6 in the summer of 1988. Specifically, Williams talked about the shear strength of the SCRF liner system. Based upon test results obtained using soil samples from the site, Williams indicated that SCRF#6 met all the “requisite safety factors imposed” by New York State. The schematics Williams included with his testimony certified his expertise, and required another expert to interpret them.¹⁸ Although the Campaign used expert witnesses as well, their testimony placed the CECOS facility within a broader framework.

The Ecumenical Task Force and their allies provided expert testimony that evaluated the ways the CECOS facility affected Niagara Falls’ physical and psychological landscape. While they included reports from scientific consultants questioning the assumptions of CECOS concerning the safety and technology of SCRF#6, more importantly the ETF succeeded in shifting the debate to questions of where the facility was located and how it affected the surrounding community. Task Force members

contextualized CECOS within Niagara Falls, putting the facility on a city map of with all the nearby schools, churches, and public places highlighted.¹⁹ Unlike their industry counterparts, the expert testimony of Campaign witnesses incorporated their professional credentials while at the same time restoring the question of how the proposed expansion affected the broader community of Niagara Falls. In the same way that the Love Canal Homeowners' Association successfully transformed private experiences of illness into public incidences of disease through the mapping of the swales, the Campaign for Niagara provided expert testimony that was based upon local knowledge of conditions validated through scientific expertise.

Task Force technical advisor Father John Kieffer, S.J., a licensed engineer, questioned the safety of the SCRF as located within the CECOS facility and its ability to effectively monitor for migrating chemicals. He likened the site to “an indeterminate 2a Superfund site in which we are not really sure what is happening, since at least 25 test wells are unable to be used.”²⁰ Kieffer raised doubts about storing more wastes at the site given the multitude of processes already taking place and suggested that the site's geological features made it a perfect distribution system for any leaking chemicals. To support his points, Kieffer included visual evidence showing the crowded nature of the CECOS facility and the site's hydrological aquifer. He argued that it would be very difficult to effectively monitor for any potential leaks of the contained hazardous wastes in SCRF#6. Kieffer's supporting diagrams showed two things clearly: they situated the SCRF within the broader CECOS facility among a multitude of operations and buried wastes, and showed how the CECOS facility lay in relation to major geographical

waterways in the area. The Campaign's other star witness spoke on an even more personal subject: how the CECOS expansion affected people's homes.

One of the contested areas of evidence concerned residents' experiential knowledge of hazardous wastes. Previous public testimonies given prominently displayed the experiences of Love Canal residents, something later trials sought to limit. The special judge in the CECOS trial excluded the presentation of such "anecdotal" citizen testimonial evidence, and required that only expert testimony be given.²¹ The Campaign for Niagara coalition circumvented this ruling in a distinctive and effective manner through the use of its own expert witness. Dr. Michael Edelstein, a social psychologist, specialized in cases of environmental psychology. Edelstein helped document the ways in which the CECOS expansion caused local residents intolerable levels of psychological stress. A telephone survey queried Niagara Falls residents about their attitudes and understanding of toxic wastes. The survey revealed a community concerned about more pollution and distrustful of state oversight and regulation. Most residents strongly expressed the feeling that Niagara Falls had done enough "public" service in accepting toxic wastes from other communities. More, some residents thought the "whole city [was] contaminated."²² Residents' interviews showed a community scarred by Love Canal and with a different understanding of chemical wastes.

According to Edelstein, residents of Niagara Falls lived in a "contaminated landscape." Unlike residents in other communities, those in Niagara Falls had substantial experience with toxic waste sites beyond Love Canal. These areas included the S-Area and 102nd Street dumps, mercury contamination at Dupont's Necco Park site, and the

Hyde Park chemical dump. These sites symbolized the poor protection offered by “state-of-the-art” disposal technologies and local and state government’s will to protect the general public. Correct or not, people in Niagara Falls expected SCRF#6 to leak, that it represented “a toxic incident in incubation”²³ Niagara Falls residents wanted to break a cycle of pollution that left future generations at risk and responsible for the clean-up of their mistakes. Residents’ frustration and fear arose from their own feelings of powerlessness. Many thought that the public officials displayed no concern for their public protests against the expansion of the CECOS facility. As one resident put it, “What can you do about it? Nothing! So you make dinner.”²⁴

Edelstein testified that the combination of physical discomforts – noise, odors, dust – along with the frustration of being ignored by public officials and uncertain about the actual effects of the contained waste facility led Niagara Falls residents to feel trapped within their own homes. “To make matters worse, such an individual comes to view his home not as the traditional haven, and investment in society, . . . the home has become a liability to [the homeowners] rather than the asset which the American home traditionally represents.”²⁵ Edelstein included the ways the physical structure of what residents referred to as “Mt. CECOS” negatively impinged upon their consciousness and intensified their feelings of entrapment. Despite promises that the site would be landscaped and undetectable as a toxic waste repository, Niagara Falls residents associated the looming mounds with anxiety, guilt, helplessness, and frustration. “Its image has been transformed from that of the honeymoon capital of the world to the waste capital. This stigma is reinforced by the media visibility for CECOS and by all the waste

problems in the area”²⁶ The Love Canal and other toxic wastes within Niagara Falls prevented these individuals from trusting industry or public officials easily. The permanent “environmental stigma” born by Niagara Falls could only be lifted through a concerted effort to stop the further siting of toxic wastes with the community.

Edelstein’s testimony transformed residents’ experiences of fear and frustration into scientifically validated data, presented in a form acceptable to the court. The Campaign effectively took local knowledge of the conditions surrounding the CECOS expansion and used a social science expert to legitimize those experiences. This tactic had its roots in the ETF’s early recognition of the mental suffering imposed on LaSalle neighborhood residents during the original Love Canal crisis. It also built on the Homeowners’ Association’s success in validating residents’ local (experiential) knowledge of conditions. Unlike the Homeowners’ Association, which rejected official scientific knowledge and authority in producing its own scientific theories and health studies, the ETF and its coalition allies used scientific authority in a different way. Working in cooperation with concerned and sympathetic scientists (as well as paying for expert testimony), this later environmental activism mediated between lay individuals experiential knowledge and scientific authority. It also increased activists chances of achieving official recognition of the problem and legal sanction of their goals.²⁷

CECOS hired a prominent public health official to rebut Edelstein’s testimony on residents’ psychological stress. Dr. V.T. Covello, a distinguished professor at the Columbia University School of Public Health, based his refutation of residential stress on two major points: it was impossible to assign any one cause, such as the CECOS facility,

as the cause for residents' stress; and any attributed stress came from misconceptions of risk.²⁸ In both of these points, Covello echoed those made by NYS Department of Health officials in the original Love Canal case. Here, Covello argued that a multitude of factors (family, marital, financial, and employment problems) contributed to stress. To single out the toxic wastes contained at the CECOS site as the major cause could not be proven. Moreover, Covello went on to state that the risk associated with such chemical wastes had been distorted and the problems with the lay public's understandings of risk. According to Corvello, "People tend[ed] to overestimate the risks of dramatic or sensational causes of actual or potential harm, such as accidents, and underestimate the risks of more common threats to health, such as asthma, emphysema, and diabetes, which take one life at a time and are common in nonfatal forms."²⁹ He noted that people tended to discount risks that were "not memorable, obvious, palpable, tangible, or immediate."³⁰

Covello blamed media distortion for much of the misunderstandings individuals held about the risks of toxic wastes. His testimony demonstrated the ways in which public health culture continued to seek technological or expert verification of single-agent causative events, and suggested that it had not responded to the challenge presented by the Love Canal chemical wastes. It also showed the growing resentment the established scientific community held for the mass media and the ways it depicted science.

Building upon established tactics and arguments made in the original Love Canal case, the Campaign for Niagara used new understandings of trauma to validate residents' experiences. Edelstein's testimony reconfigured earlier Love Canal rhetoric concerning the threat to homes and families that chemical wastes presented to incorporate

psychological definitions of mental harm. In the case of SCRF#6, the Campaign to Save Niagara prevailed and the administrative law judge denied CECOS an expansion permit.³¹ The presence of chemical wastes, even of the contained variety, still haunted activists in a post-Love Canal world. Concurrent with the environmental activism, intellectuals used Love Canal to challenge understandings of the state's responsibilities to citizens, the limits of scientific authority, and the social construction of scientific and medical knowledge.

Love Canal as Academic Exemplar: The Intellectual Construction of Love Canal

Love Canal's legacy continued in its influence on intellectual productions about the disaster. In these studies within the academia, the Love Canal story served very different purposes, and appeared most significant in the fields of sociology, and a newer field of research, science and technology studies. The tragedy at Niagara Falls became an immediate subject for sociologists and provided material for sociologists interested in community studies and the social construction of medical and scientific knowledge. These academic writings show intellectuals responding to the emergence of Beck's risk society as exemplified in Love Canal. The examination of these broad areas identified here traces the genealogy of specific writings that address Love Canal as an analytical subject, as well as works they influenced. Affected by Love Canal, intellectuals grappled with issues of chemical wastes, societal obligations, and human beings relationship with both the material and natural world around them.

A sociological examination of Love Canal appeared as one of the first community study on human-made disasters. Dr. Adeline Levine, a sociologist at the State University

of New York at Buffalo, knew the events at nearby Love Canal should be studied. Levine and a group of graduate students interviewed the residents of Niagara Falls living in the LaSalle neighborhood during the fall and winter of 1978. They collected residents' demographic information, how they found out about the present situation, who had provided assistance, and most significantly, about their past and current state of health.³² Fairly early in the process, Levine realized the possibility of book. The resulting Love Canal: Science, Politics, and People, appeared in 1982 and became a model of sociological study of chemical contamination.³³ One reviewer noted the book's omission of official interviews in Levine's study, although other reviewers praised Levine's ability to present "a balanced understanding of the position and the rationales of (all) the main parties to the dispute."³⁴ Levine and other contemporaries – as well as later scholars – missed the ways in which her study both complimented, and would have benefitted from, sociologist Kai T. Erikson's work on an Appalachian mining town devastated by a flood. Erikson's book, Everything in its Path: Destruction of Community in the Buffalo Creek Flood, made an important contribution in its articulation of the idea of trauma and how a natural disaster had imposed not only a physical, but mental, trauma on the community.³⁵ The same issues applied to the Love Canal community (with possibly a third trauma imposed by the poor response of public officials), but Levine's study centered on how chemical contamination affected science and public policy.

Levine's book would be the first of many sociological studies examining toxic contamination and communities. Psychologist Michael Edelstein used his experiences as an expert consultant for Love Canal activists in his work, Contaminated Communities:

The Social and Psychological Impacts of Residential Toxic Exposure, published in 1988.

The book considered the ways in which communities' toxic contamination was not an isolated phenomena, but as noted by one reviewer, "reveal[ed] something about the heart of a culture."³⁶ Like Levine, Edelstein provided a case study of a contaminated community. He expanded upon this case study, however, by comparing it with other contaminated communities, including Love Canal. No Safe Place: Toxic Waste, Leukemia, and Community Action, by Phil Brown and Edwin J. Mikkelsen, appeared in 1990 and suggested that residents in Woburn, like their Love Canal counterparts, practiced what Brown and Mikkelsen called "popular epidemiology." Levine's study continued in an existing subdivision of environmental sociology, and helped delineate changed understandings of science and the role of the state.³⁷ It also offered a new role for social scientists. Responding to a review of her own book, Levine noted that sociologists themselves were not "viewed by society as value-free scientists whose chief mission is to build and test theories but rather as social critics who disseminate information and articulate moral and normative viewpoints, . . ."³⁸ In their role as social critics, other sociologists looked upon Love Canal as a challenge to scientific objectivity.

The Love Canal disaster and the actions of community residents provided a case study for sociologists interested in the social construction of medical and scientific knowledge. An essay written by Beverly Paigen and published in the Hastings Center Report, a bioethics journal proved to be an important influence within this area of study. In "Controversy at Love Canal," Paigen questioned the basic values of science. She told of her own doubts concerning the morality of pursuing scientific certainty over

responsible doubt.³⁹ It was Paigen's treatment during the Love Canal crisis that led her to question the kind of science being done, and whether it was right to inflict potential harm on residents while searching for scientific facts. As documented in Levine's study, the assistance provided by Dr. Beverly Paigen made her a target for reprisals and marked a significant breach among scientific experts.⁴⁰ She helped certify the health studies done by the Love Canal Homeowners' Association and this brought her into conflict with her superiors at the Roswell Park Memorial Institute, and cancer research foundation funded by New York State. Paigen's essay influenced environmental studies rather than the fields of philosophy or ethics.

Because of Love Canal, the major topics of interest for academics studying environmental illness included the limits of medical knowledge, the emergence of contested illnesses, and lay individuals' response to claims of expertise, all issues addressed in Paigen's essay. The 1990s saw a whole new body of literature appear that addressed these concerns. Works like Steven Kroll-Smith and H. Hugh Floyd's Bodies in Protest: Environmental Illness and the Struggle Over Medical Knowledge (1997) and Illness and the Environment (2000), an edited volume of essays, suggested that the chemically polluted landscape had produced a new kind of illness that medical professionals refused to recognize, much less treat. In one sense, this literature continued in the tradition of a much older one that included the works of René Dubos, The Mirage of Health (1959), and Rachel Carson's Silent Spring (1962). The newer works, based in part on the real-life case studies of Love Canal, Times Beach, and Woburn, went beyond commenting on environmental causes to directly linking the contaminated environment to

physical illness. These works challenged traditional understandings of disease with their consideration of multi-causal etiologies and unclear and sometimes undetectable symptoms.

Taking Care of the Earth: Post-feminism Maternalist Activism

The pivotal and visible involvement of women at the Love Canal disaster contributed to an emerging field in environmental philosophy: eco-feminism. The movement's historical origins come directly from two other movements of the 1970s, the environmental movement and second-wave feminism.⁴¹ The philosophical underpinnings of the movement most significantly linked the subordinations of women and the natural world. Some proponents argued that women were innately more sympathetic to the natural world. In addressing the problems associated with women's natural affinity for nature, Carolyn Merchant wrote an essay, "Earthcare: Women and the environmental movement," that appeared in a June, 1981 issue of Environment. Merchant firmly placed Love Canal within the eco-feminist tradition, but argued that these activist housewives protested over the harm done to the lived environment rather than out of concern.⁴² Merchant identified four "linkages" between feminism and ecology. They included ideas of system parts equality, the Earth as a home, the primacy of process, and a dissolution of private and public spheres and sharing of labor. Merchant used housewives generally as a key example of the women undertaking such environmental tasks.⁴³ She also included a case study of Lois Gibbs and the Love Canal women as an example of women's environmental activism, along with their involvement in anti-nuclear and pesticide protests.

Other works continued to cite the Love Canal episode as evidence of women's involvement in grassroots environmentalism, and as proof of a feminist environmental philosophy. Joni Seager's Earth Follies: Coming to Feminist Terms with the Global Environmental Crisis was published in 1993. Seager considered the Love Canal activists as a "leading example of women's effective community-based environmental organizing . . ." and credited it as introducing the "'NIMBY' movement" (Not In My Backyard).⁴⁴ In her 1997 book, Feminism and Ecology, Mary Mellor cited Love Canal as exemplary of eco-feminism as a social movement. "[C]ertain struggles seem to illuminate issues and concerns that lie at the heart of those campaigns and the way in which women's relationship to the natural world has been both revealed and constructed through them."⁴⁵ Mellor addressed the question whether all women involved in grassroots movements can be considered "feminists," admitting that the answer depended upon a narrow or broader definition of identification. She quoted Lois Gibbs on women's politicization in the process of their protests, which she claimed supported the idea that even women who did not proclaim themselves feminists still acted radically in response to ecological threats.⁴⁶ Some eco-feminists link Gibbs with Ellen Swallow and Rachel Carson as a key player in the American environmental movement.⁴⁷ All the works viewed the successful grassroots activism of Love Canal women as emblematic of two particular aspects of eco-feminism: women's role within homes meant they were often the first to recognize the harm being done to their surrounding environment and that recognition led to political action.

The use of the Love Canal women as representative of eco-feminism, however, presents some problems. Reviewer Adam Weinberg complimented Feminism and

Ecology for fusing environmental theory with activism. He cited Mellor's Love Canal example as a "wonderfully rich historical sketch of the role of women in the key grassroots struggles . . ." ⁴⁸ An examination of Love Canal women's arguments as presented in this work shows a consistent use of maternalist rhetoric and understandings in how the women organized and defined the problems they confronted. While these housewives were politicized and gradually aware of gender conflicts, they did not see themselves as feminists. In the introduction to her memoir, Murray Levine described Gibbs as someone who "stayed home, cooking, cleaning, gardening, and sewing. Women's liberation was a subject for raucous humor among her friends." ⁴⁹ Gibbs may have been the most sensitized to feminist critiques of power structures, especially as applied to political decision-making, but she consistently invoked motherhood and the defense of the home in her arguments against the state. ⁵⁰ If anything, her awareness developed over time and with exposure to academics who connected the Love Canal women's activism with environmental feminism. Neither Gibbs, or the other women involved in the Homeowners' Association, saw themselves as offering a critique of social and political structures based upon feminist principles. While their concern for themselves and their families empowered them to take action, their rhetoric depended upon an assumed, natural, link between women, children, and protection of the home.

More broadly, Love Canal activists actually extended the maternalist argument to the community as a whole. This can be seen in the arguments made by Love Canal men and other community activists. The understanding that innocent children should not be asked to pay the price for environmental contamination, or any condition not of their

making, has consistently appeared in American politics throughout the twentieth century.

Love Canal marked a moment when concerns about the safety of children and the home became the responsibility of women and *men*. Contestations over masculinity and traditional gender roles resulted in changed expectations for men, even as the community's women reclaimed a powerful role as mothers protecting their families. The best contrast to the kind of activism seen at Love Canal can be seen with the anti-nuclear and anti-war activism seen in the 1960s.⁵¹ This previous activism took place slightly before and concurrently with the women's liberation movement, an important point to remember when assessing the Love Canal women's activism. In a time after the women's liberation movement, Love Canal women reasserted a very traditional feminine role, one easily understood in their claims for state recognition and response.

Love Canal became a signal moment in the newly emerging grassroots environmental movement. For several generations it represented a stunning example of the threat posed by toxic chemicals and their disposal. It may also be a slowly forgotten reminder of humanity's greed and ignorance. Many young people, even those from nearby Buffalo, no longer recognize the name Love Canal.⁵² The legacy of activism, media coverage, uncertain science and questionable government action seeped its way into the broader American consciousness much the same way the chemicals leaked from the original site. If it has been forgotten, it has been deliberate, as Americans refuse to address the problems caused by the conspicuous consumption of the twentieth century. By 1989, a main character's obsession about garbage barges in Steven Soderbergh's 1989

film, Sex, Lies, and Videotape, signified her unproductive and unhealthy life. Love Canal's mixed legacy continues, as the 2000 presidential campaign shows.⁵³

Like the event the itself, Love Canal's cultural manifestations continue to cause confusion, misrepresentation, and political woe. In November of 1999, Candidate Albert Gore, Jr., the vice-president and a noted environmentalist, was campaigning for the Democratic nomination in New Hampshire. He appeared before the media literacy class of Concord High School to speak specifically about school violence. During the Question and Answer session, a student asked Gore about getting young people involved in politics. Gore gave a lengthy answer that discussed campaign finance reform, voter apathy, and ended with a story of a high school student who made a difference. A young woman in Toone, Tennessee wrote a letter to then-Congressman Gore twenty years ago. The letter told about her concern with her family's ill health and water that tasted funny. Gore told the students he called for Congressional hearings and "looked around the country for other sites like that." Gore then went on to say: "I found a little place in upstate New York called Love Canal, had the first hearing on that issue and Toone, Tennessee that was the one you didn't hear of, but that was the one that started it all." Two reporters, one from the New York Times and the other from the Washington Post, covering the event changed one word and made the last part of the sentence read "I was the one that started it all."⁵⁴ Sarah Vowell, a reporter documenting the error, described one problem with the media. "Representatives of the news media carry around stories of the candidates in their heads," Vowell noted, "and reporters light up when reality

randomly corroborates these pictures.”⁵⁵ For reporters, Gore confirmed what they all thought – he was like “Pinocchio,” always getting caught telling fibs.⁵⁶

The media’s inability to get the story right cost Gore politically, and more troubling, corrupted the positive story he was trying to tell about Love Canal and making societal change. Gore garnered scorn and disgust when it was reported he had claimed to be responsible for the discovery of Love Canal. Both papers published corrections shortly thereafter, but the harm had been done. By then pundits from weekly political shows like George Stephanopolous to comedian David Letterman had mocked Gore’s supposed gaffe. Students present at the talk were interviewed afterwards and expressed their dismay. They admitted to being shocked that Gore’s positive message of empowerment had been perverted into one of self-aggrandizement. One student thought Gore’s message told students how great they could be, not how great he was. Ashley Pettingale explained why the media’s mistakes mattered: “You’re focusing on one little itty bitty microscopic thing that when misquoted can mean something completely different but when quoted correctly it means a great thing for democracy and things like that.”⁵⁷ Getting the legacy of Love Canal right means great things for more than just the political process, but as chance to avoid a return to Love Canal.

Endnotes

1. For instance, the ETF and other regional environmental groups supported the amendment to NYS' Environmental Conservation Law which eliminated an exemption that allowed pre-existing hazardous waste sites to continue to expand their disposal facilities. See correspondence between state senator Joseph Pillittere and Sister Margeen Hoffmann, Executive Director of the Ecumenical Task Force, June 1987, Folder "CECOS Documents, June 1987," Box 2, ETF Collection.
2. Citizen's Clearinghouse for Toxic Waste, "Five Years of Progress, 1981-1986," Fifth Anniversary Convention, Arlington, VA, May 31 – June 1, Folder "Conferences, CCHW," Box 51, ETF Collection.
3. Ibid.
4. Ibid., 8, 9, 15, 17. The picture of the girl having her blood drawn is discussed in detail in Chapter Two. It is interesting to note that the two photographs from Love Canal – the small girl and Gibbs holding her daughter – are not captioned. The photo of the girl with Jessie Fuchs-Simon has no explanation of who she is, nor are the people in the Lowell protest. Other illustrations most often depict women and children.
5. Ibid., 18. The proceedings make no mention of the Ecumenical Task Force of the Niagara Frontier and their faith-based activism at Love Canal, except to list members who attended the convention.
6. Patricia Townsend, "Case Study Three: Clark Fork River Superfund Site, Montana," Society for Applied Anthropology (SFAA) draft paper, March 2001, 24. Townsend's research was funded by a collaborative arrangement between the SFAA and the United States Environmental Protection Agency to examine public participation in Superfund hearings, specifically the role churches and religious groups play in helping the community reach a consensus on public policy issues. The other case studies Townsend examined included the North Hollywood Dump in Memphis, Tennessee and Love Canal in Niagara Falls, New York.
7. Mary Joy Breton, Women Pioneers for the Environment (Boston: Northeastern University Press, 1998), 141.
8. Rich Newman makes this point in his essay, "Making Environmental Politics: Women and Love Canal Activism," Women's Studies Quarterly, Volume 29, nos. 1 & 2 (Spring/Summer 2001): 65-84.
9. Lois Gibbs, Love Canal: My Story as told to Murray Levine (Albany: State University of New York Press, 1982), 172.

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10. See Craig E. Colten and Peter N. Skinner, The Road to Love Canal: Managing Industrial Waste before EPA (Austin: University of Texas Press, 1996), 67, 68. Colter and Skinner argue that contrary to the claims of industry, the landfill solution to chemical wastes did not represent the best alternative. The decision was based on the fact that low-control landfills were less expensive. For an outline of CECOS' history, see Box 2 "CECOS Documents," Folder "CECOS Documents, August 1987—EPA Evaluation of CECOS," ETF Collection. The site was sold to Niagara Recycling Incorporated in 1972 and became CECOS International in 1979. Browning Ferris Industries acquired it in 1983.
 11. Secure Chemical Residue Facilities provide an excellent example of the ways those in power use euphemisms to mask what they are doing. See James C. Scott, Domination and the Arts of Resistance: Hidden Transcripts (New Haven: Yale University, 1990).
 12. Among the groups were: LaSalle and Niagara Demand (LAND), the Necco Park/CECOS Citizens Committee, Great Lakes United, Help Eliminate Lawn Pesticides (HELP), Great Lakes United, Canadians for a Clean Environment, Greenpeace, Oil Chemical and Atomic Workers Local #8-23516, and the Love Canal Homeowners Association (under new leadership).
 13. Sister Margeen Hoffmann, "Speech," April 21, 1987 (Location unknown), Box 2, Folder "CECOS Documents, April 1987," ETF Collection.
 14. Therese M. Mudd Testimony, Public Hearing, March 25, 1988, Folder "CECOS Documents, [March 1988?]," Box 2, ETF Collection.
 15. Progress Report, August 1, 1980, Ecumenical Task Force of the Niagara Frontier, iv.
 16. e/sa, October 1984: 3, Box 16, ETF Collection.
 17. Peter Tarnawskyj Statement, "CECOS Application for Permit to Construct and Operate Secure Chemical Residue Facility Number 6," submitted to the New York State Department of Environmental Conservation, June 2, 1987, 2, Folder "CECOS Documents, June 1987," Box 2 "CECOS Legal Files, 1980 [1987-90]," ETF Collection.
 18. Neil D. Williams statement, c. August, 1988, LCC Box 2 "CECOS Legal Files, 1980 [1987-90]," Folder "CECOS Documents, [August 1988?]-[DEC] Testimony of Dr. V.T. Corvello on the Psychological Impacts of SCRF 6."
 19. Sheet, c. March 18, 1988, with attendees to attorneys meeting and assigned responsibilities, Folder "CECOS Documents March 1988," Box 2 "CECOS Legal Files, 1980 [1987-90]," ETF Collection. For discussion about visual rhetoric and context, see the article by Rosalind Petchesky where she examines the visuals used by anti-abortion advocates isolating the fetus from the mother and blurring the issue of fetal viability; Rosalind Petchesky, "Fetal Images: The Power of Visual Culture in the Politics of

Reproduction,” in Reproductive Technologies, edited by Michelle Stanforth (Minneapolis: University of Minnesota Press, 1987), 57-80. With these visuals, the ETF sought to restore the CECOS facility within a context of the Niagara Falls community.

20. John L. Kieffer, S.J., Statement, “CECOS Application for Permit to Construct and Operate Secure Chemical Residue Facility Number 6,” submitted to the New York State Department of Environmental Conservation, June 2, 1987, Folder “CECOS Documents, June 1987,” Box 2 “CECOS Legal Files, 1980 [1987-90],” ETF Collection.

21. Letter from Brent Olsson, counsel for Concerned Citizens, to Pat Brown, Executive Director of the Ecumenical Task Force of the Niagara Frontier, July 29, 1988, Folder “CECOS Documents, April 1988,” Box 2 “CECOS Legal Files, 1980 [1987-90],” ETF Collection. Olsson notes in his letter that special judge Andrew Pearlstein’s rulings excluded citizen testimony on psychological stress.

22. “Intervenor Concerned Citizens Organizations Prefiled Testimony of Psychological Impact Issues.” Gerald M. Goldhaber, PhD. (New York: Milbank, Tweed, Hadley & McCloy, 1988), hereafter called the CECOS Survey, Folder “CECOS Documents, August 1988?”-DEC Intervenor Concerned Citizens Organizations Prefiled Testimony of Psychological Impact Issues/Goldhaber,” Box 2 “CECOS Legal Files, 1980 [1987-90],” ETF Collection.

23. Ibid., , 56.

24. Ibid., , 73.

25. Michael R. Edelstein, Contaminated Communities: The Social and Psychological Impacts of Residential Toxic Exposure (Boulder: Westview Press, 1988), 13.

26. Edelstein, “The Psychology of Stress,” 80, 81. Having visited the CECOS site, the landscaped SCRF’s do indeed “loom” over Niagara Falls. They appear tall enough as to make excellent sledding hills or even training ski slopes.

27. See Sheila Jasanoff, Science at the Bar: Law, Science, and Technology in America (Cambridge: Harvard University Press, 1995), 21.

28. Corvello’s involvement also continues a sad legacy of public health officials appearing as paid expert witnesses for industry. A work that provides an excellent historical context for this is Claudia Clark’s Radium girls, women and industrial reform: 1910-1935 (Chapel Hill: University of North Carolina Press, 1997).

29. V.T. Covello, “Testimony of Dr. Vincent T. Covello on the Psychological Impacts of SCRF 6,” in the Matter of the Application of CECOS INTERNATIONAL, INC. for a Certificate of Environmental Safety and Public Necessity, a Permit to Construct and

Operate a Hazardous Waste Management Facility, and a Permit to Construct and a Certificate to Operate an Air Contaminant Emission Source, with respect to proposed Secure Chemical Residue Facility #6, located in the Town of Niagara, Niagara County, New York, Application No. 90-85-0551, 12, 13, File "CECOS Documents, □August 1988?□-□DEC□ Testimony of Dr. V.T. Covello on the Psychological Impacts of SCRF 6, Box 2, ETF Collection.

30. Ibid.

31. Email correspondence with Buffalo EPA field office, April, 2002.

32. These interviews compose a major portion of the Levine Collection at the Buffalo and Erie County Historical Society and were substantially used in previous chapters of this work.

33. In Levine's transcription of her interview with Lois Gibbs, she acknowledges: "I had a feeling that there's a book buried there inside of Lois. I got to think of the best way to get it out. Can I get it out? Shall I ask? (can't understand) with me? What should I do?", Box number and file number withheld for confidentiality, Adeline Levine Collection (Buffalo and Erie County Historical Society, Buffalo, New York), hereafter cited as the Levine Collection. Two of the graduate students working with Levine gained enough experience and material to write their own dissertation projects: Penelope D. Ploughman, "The Creation of Newsworthy Events: An Analysis of Newspaper Coverage of the Man-Made Disaster at Love Canal," unpublished Ph.D. dissertation (Buffalo: State University of New York at Buffalo, 1984) and Sharon Kay Masters, "Life Stage Response to Environmental Crisis: The Case Study of Love Canal, Niagara Falls, New York," unpublished Ph.D. dissertation (Buffalo: State University of New at Buffalo, 1986), both in sociology.

34. John M. Wilkes, "Case Studies: A Promising Way to Assess Technological Impacts?," 4S Review, vol. 1, no. 2 (Summer 1983), 13. Lee Clarke reviewed Levine's book in the March 1983 issue of Contemporary Sociology. Clarke did question what sociological question Levine had asked.

35. Kai T. Erikson, Everything in Its Path: Destruction of Community in the Buffalo Creek Flood (New York: Simon and Schuster, 1976). The book won the 1977 Sorokin Award, given to outstanding contributions to the progress of Sociology. Erikson's ideas on trauma were based in part on the works of Robert J. Lifton.

36. Stella M. Capek, "Review," American Journal of Sociology, vol. 96, no. 1 (July 1990), 215.

37. Frederick H. Buttel, "New Directions in Environmental Sociology," Annual Review of Sociology, vol. 13 (1987), 479.

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38. Adeline Levine, "Comment on review of Love Canal," Contemporary Sociology, July 1983, vol. 12, no. 4, 357.
39. Beverly Paigen, "Controversy at Love Canal," Hastings Center Report, June 1982, 29.
40. Ibid.
41. Mary Mellor, Feminism and Ecology (New York: New York University Press, 1997), 1.
42. Carolyn Merchant, "Earthcare: Women and the Environment," Environment, vol. 23, no.5, June, 1981. It later appeared as the title essay in a book. See Carolyn Merchant, Earthcare: Women and the Environment (New York: Routledge: 1995). Merchant's essay also provided the title for the Ecumenical Task Force's manual.
43. Merchant, Earthcare, 146-148.
44. Joni Seager, Earth Follies: Coming to Feminist Terms with the Global Environmental Crisis (New York: Routledge, 1993).
45. Mary Mellor, ibid., 17. Social historian Temma Kaplan examines Love Canal as a grassroots social movement case study in her book, Crazy for Democracy: Women in Grassroots Movements (New York: Routledge, 1997).
46. Ibid., 39, 40.
47. See H. Patricia Hynes, "Ellen Swallow, Lois Gibbs and Rachel Carson: Catalysts of the American Environmental Movement," Women's Studies International Forum, vol. 8, no. 4, 1985.
48. Adam S. Weinberg, "Review: Feminism and Ecology," Contemporary Sociology, vol. 28, no. 4 (July, 1999): 452.
49. Murray Levine, "Introduction," Love Canal: My Story (Albany: State University of New York Press, 1982).
50. She does so to this day. I attended a panel session at the American Society for Environmental History 2003 conference in Providence, Rhode Island, where Gibbs spoke. Her speech used both maternalist and environmental justice – linked especially to racial issues – in her rhetoric against environmental contamination and government responsibility.
51. See Amy Swerdlow, Women Strike for Peace: Traditional Motherhood and Radical Politics in the 1960s (Chicago: University of Chicago Press, 1993).

52. This actually happened when I was doing research for this project. A summer student worker born and raised in Buffalo did not know anything about Love Canal or what had happened there. Students (and colleagues) in my classes at Michigan State University have never heard about the chemical disaster.

53. Sarah Vowell, "Eliminate the Middleman," This American Life, hosted by Ira Glass (Chicago: WEBZ, 1999) Episode 151, aired January 28, 2000.

54. Katharine Q. Seelye, "Gore Borrows Clinton's Shadow Back to Share a Bow," December 1, 1999, New York Times, Section A, 20, column 1. The correction was printed in the December 10 issue of the paper.

55. Vowell.

56. As one commentator labeled him when discussing the incident on This Week With Sam Donaldson and Cokie Roberts, quoted in Vowell.

57. Ibid.

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