
Michael R. Edelstein Ph.D.
Ramapo College of New Jersey

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Does Time Bring Perspective?
Love Canal at the Age of Twenty

A Book Review of
A HAZARDOUS INQUIRY: THE RASHOMON EFFECT AT LOVE CANAL

Michael R. Edelstein, Ph.D.*

The title of Allan Mazur’s recent work introduces two threads of thought about the seminal events at Love Canal in the late 1970s. He presents an inquiry that seeks to offer balance and insight into the realities of this contamination event by giving different points of view; and he tests whether those events can be illuminated in the same way achieved by Kurosawa in his epic movie Rashomon.

The plots of the stories differ radically. Love Canal is a section of Niagara Falls’ LaSalle neighborhood. From 1978 through 1981, a riveting drama was played out there after contaminants were discovered beneath an abandoned canal bed around which residences and schools had been developed. Questions of risk from the contaminants, relocation of families, causes of health problems, responsibilities of polluters, reactions of citizen activists, and responses of government were played, given active press coverage, to an international stage. On its part, Rashomon is a crime story set in classical Japan. A samurai is killed and his wife raped. A bandit is captured. The court is given multiple versions of the crime by the three protagonists—the spirit of the slain samurai, the wife and the bandit, as well as by a witness. All versions differ. What is the truth?

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* School of Social Sciences and Human Services, Ramapo College of New Jersey, Mahwah, N.J. Dr. Edelstein is Professor of Environmental Psychology at Ramapo College of New Jersey, where he is an associate of the Institute for Environmental Studies. Since 1979, he has conducted a continuous program of research on the psycho-social impacts of environmental contamination. Dr. Edelstein has served as an expert witness in toxic tort litigation and administrative hearings. He is also President of a non-profit environmental organization based in Orange County, New York, Orange Environment, Inc.
Thus, Rashomon serves first as a metaphor, representing the realization that reality is not a constant, but a chameleon phenomenon that changes according to every involved party's perspective. Thus, Kurosawa poses a phenomenological dilemma. For him there is no way to access the actual events without becoming trapped in the way those events were understood and remembered by the actors; one can only recreate the events from the subjective evidence at hand. Subjective and objective are scrambled egg and yolk. Mazur correctly underscores the importance of this relativism in approaching a complex post-modern issue of contamination at Love Canal.

However, Mazur is not content to accept Kurosawa's dilemma. Beyond his homage to relativism, he also admits in the introduction to a belief that the facts can be determined if one only examines the evidence clearly. For example, measuring the wound in the dead samurai would discern the murder weapon, providing objective evidence to clarify the inconsistent accounts and supercede this relativism.

Mazur is at heart an empiricist. He yearns for such superseding evidence that will allow stepping beyond relativism. As a result, while Kurosawa left his viewers wondering and debating, in Mazur's narrative, the viewer will be given a conclusion based upon Mazur's judgment. It is this departure from Kurosawa's model, I will argue, that indeed makes this a "hazardous" inquiry.

Secondly, Rashomon is a method of inquiry. Kurosawa uses the testimony of the four individuals to show the differing realities of the rape/murder. Mazur adopts this same format, presenting an account based upon the viewpoints, respectively, of polluter Hooker Chemical, land developer Niagara Falls School Board, Love Canal residents, citizen activist Lois Gibbs, the New York State Department of Health, and reporter, Michael Brown, who broke the Love Canal story. As a talented sociologist who has written particularly about the role of the press in establishing meta-events, such as Love Canal, Mazur is well-qualified to research and present these relative viewpoints.

He begins with Hooker's account, as drawn from various sources, including testimony at trial. Here we see the nexus of
industrial rationalization for the legacy of pre-RCRA-regulated waste disposal. Hooker was using accepted methods of waste disposal at the time, both in terms of legal frameworks and industrial standards of the day. The motives and reasoning used by Hooker for transferring the landfilled site to the Niagara Falls Board of Education are also probed. Mazur concludes that the Board initiated the transfer and that Hooker properly indicated that wastes were buried at the site and warned against disturbing them. Much of the resulting spread of pollutants resulted from the Board’s ignoring of these warnings. Mazur’s treatment of Hooker, overall, is thus quite sympathetic. In my own visit to the Canal in 1979, when I spoke with a former Hooker employee who served as a whistleblower against the company, I came away thinking that the company’s story was a bit more complex than that presented by Mazur. However, there is no doubt that the social comprehension of the consequences of Hooker’s actions were substantially different in the historical context within which the dumping occurred than they are now.

This historical context subsequently provides the basis for Mazur’s conclusion that the School Board’s decision to locate a school on the canal and to subsequently develop housing adjacent to it can be accounted for by the prevailing naivete about the consequences of these actions. Mazur was hampered by the paucity of direct surviving sources. Still, it is too simple to dismiss the School Board’s actions—or for that matter Hooker Chemicals’—by claiming ignorance. During my interviews there in 1979, angry residents of the Canal suggested that these decisions were influenced by “good old boy” politics, favoritism and greed, not naivete. While I have no proof of the veracity of these accusations, they will not appear

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Dr. Edelstein visited Love Canal in spring 1979, conducted interviews, was given a tour by members of the Love Canal Home Owner’s Association, and met with staff of the Niagara Falls Mental Health Center. Subsequently, he visited the Canal and the surrounding area several times and conducted research on Niagara Falls for his testimony in the CECOS hazardous waste facility hearings in the mid-1980s that examined the impact of Love Canal on what Dr. Edelstein calls the community’s “eco-history.”
implausible to anyone familiar with how local land use decisions have sometimes been made. And Mazur fails to deal with an important fact. Whether or not its members had any idea of the hazards attending their decisions, the School Board still ignored clear warnings by Hooker amounting to an attempted prohibition of what they actually did. Even if its members lacked knowledge of what the consequences might be, we see both here and with Hooker, a systematic disregard for information about environmental threat. There is clearly much more complexity in what actually occurred than is indicated by Mazur's presentation. At the very least, there is a story here about how corporations and institutions overlook adverse information in the search of personal or institutional objectives.

Placed awkwardly amongst these accounts of the Love Canal event, Mazur offers a fascinating digression into the history of environmental risk concern in the U.S. He contrasts the fears of the left about atmospheric radioactive testing with those of the right about fluoridation of local water resources. The discussion harkens back to the solid turf of Mazur's excellent previous book, The Dynamics of Technical Controversy. Mazur brilliantly weaves together several of the key influences on environmental risk thought emerging from the 1950s and 1960s that laid the foundation for how Love Canal was viewed in the late 1970s and early 1980s. Sympathetic to the questions raised in the battle against adding fluoride to water, he uses the subsequent arguments of Rachel Carson against widespread pesticide use to legitimate concerns of the anti-fluoridationists.

Mazur spans the decade between fluoridation and Carson's attack on overuse of pesticides by considering the Delaney Clause of the Food, Drug, and Cosmetics Act, which banned use in cosmetics or processed foods of known cancer-causing chemicals. We learn that Delaney's work on cancer was a personally motivated liberal act by

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4 RACHEL CARSON, SILENT SPRING (1962).
an otherwise conservative politician who had supported and learned from the anti-fluoridation issue. Scientific testimony presented in Delaney's hearings included a statement by Dr. Wilhelm Hueper of the National Cancer Institute which projected a major epidemic of cancers caused by changes to the environment. This testimony, Mazur notes, subsequently proved a major influence on Carson's thinking.

While the historical connections are dazzling, Mazur hardly holds back on his own opinions. Mazur's biased line of argument presages his eventual judgments about risk at Love Canal. Thus, Mazur debunks the cancer epidemic, perhaps a bit too cavalierly, emphasizing the prevalence of natural carcinogens over synthetic, and effects of greater general longevity and reduced deaths from heart disease on the explosion of diagnosed cancers. And, while he accords great importance to Carson's *Silent Spring*, her claims of overuse of pesticides and her subsequent influence, he also seeks to debunk her key basic findings: that synthetic chemicals are a major source of cancer, that DDT causes human cancers, and that robins would become extinct due to DDT and other pollutants. If one can look past these judgmental positions that tarnish his attempt at objective analysis, one finds a key integrative argument buried behind them. Thus Mazur correctly notes that the sensitivity to trace doses of chemicals inspired by Carson in the 1960s serves as a key explanation for why the School Board might have been unconcerned in the 1950s about issues that inflamed fear in the 1970s.

Having introduced this contextual divide between the early reasoning of Hooker and the School Board, on one hand, and the later thoughts of residents and regulators, on the other, Mazur proceeds to give a brief account of the events of summer 1978 that transformed the local mind set from ignorant denial to informed alarm. In brief, press coverage and local activism served to force government to investigate the community. Enough was then learned for the Commissioner of the Department of Health to order remediation and temporary relocation of parents of young children and pregnant

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6 *CARSON, supra* note 5.
women. This relocation, in turn, set the stage for the subsequent government purchase of inner ring homes nearby the canal. Response to this sequence of events inspired extensive organizing within the community. Although lacking the detailed analysis of the participant observation of Adeline Levine's classic, *Love Canal: Science, Politics and People,* Mazur does a competent job here in setting the stage for a following chapter which gives the account of citizen leader Lois Gibbs over the next two years.

As distinguished from initial activism to address the inner ring residents living immediately around Love Canal, the decision to relocate this neighborhood set the stage for residents of the surrounding areas to subsequently organize for their own relocation. In sharing the tale of Lois Gibbs, organizer extraordinaire and leader of the Love Canal Homeowners Association, Mazur recounts perhaps the most oft-told story of American grass roots activism. While this account is less personal than Gibbs’ own version, and less detailed than that of Levine, Mazur gives a good flavor of Gibbs’ battle for relocation. He acknowledges key issues along the way, including the swale theory, Gibbs’ brilliant reconceptualization of how illnesses would cluster given exposure patterns based upon movement of contaminants into wet areas throughout the community. And he shares the story of the botched feedback of a key chromosome study by the Environmental Protection Agency that led Gibbs to kidnap two EPA scientists, prodding President Carter to finally offer relocation to outer ring residents.

Gibbs’ battles with the New York State Department of Health offer a segue into Mazur’s consideration of health officials’ perspectives. He does an insightful job of explaining how Gibbs and her science adviser, Beverly Paigen, differed in their assessments from state officials. Of perhaps greatest interest, however, is the description of how the Department of Health, itself, changed

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positions over time. Comparing DOH booklets from 1978 and 1981, Mazur demonstrates how the agency sought to alter its public assessment of the disaster. In the first case, Love Canal was a "time bomb." In the second, it just was there, to be described in non-dramatic summary statistics. Mazur’s interviews suggest that the change reflected more complete scientific findings which failed to show serious health effects that were suggested by earlier preliminary data. This shift of findings, and thus of concern, creates a fascinating change in agency pronouncements that could not appear to residents as anything but disingenuous. The fact that residents had collected their own data, which did not fit with the state’s efforts to minimize the threat, intensified distrust.

Was the state motivated in qualifying the threat merely by new evidence that showed a lessened effect? Mazur does not address Levine’s very detailed critique of the workings of the “Thomas Commission,” the panel of five prestigious scientists named by the governor of New York in 1980 to serve as an impartial body evaluating conflicting scientific data about the health effects of Love Canal. Levine provides a clear example of what I called “strategic distortion.”

Despite the prestige of the members, the final report’s conclusion of no evidence of acute health effects from Love Canal rested, Levine’s investigation concluded, on no firm evidence whatsoever. She discusses in detail the failure of the study to examine evidence of either acute or chronic health effects in a complete, professional, and competent manner. References are omitted, key literature is not cited, inadequate literature is used to make crucial arguments, other literature is selectively used or ignored, comprehensive research was not undertaken, and disconfirming results ignored. Perhaps most disturbing was the treatment of citizen scientist, Dr. Beverly Paigen, whose work showing excess miscarriage rates and other effects at Love Canal was dismissed by the commission based upon attacks on the author, the method and its

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political importance, disregard of a favorable federal review of the work, and without evidence of deficiencies. Levine rounds out her critique by citing conflicts of interest inherent in the social context of the review that undermine its independence. Under the active control of the New York State Department of Health, which regulated four of the five institutions from which panel members were drawn and where they served as administrators, she concluded that it was not surprising that the commission’s findings “provide a balm and a rationale for the DOH behavior.”

The failure to address Levine becomes a serious shortcoming for *A Hazardous Inquiry* because, in his most controversial chapter, entitled *Scientific Controversy*, Mazur pretty much accepts the Thomas Commission’s position. I will return to this chapter in a moment. Mazur also offers a brief chapter about journalist Michael Brown, who broke and made the Love Canal story. A second section of the book offers Mazur’s analysis. He begins here on safe ground, offering a thorough analysis of the role of news coverage, a topic Mazur has previously and often addressed in his published work. A second chapter offers an interesting if incomplete discussion of who pays the costs of Love Canal. For example, the costs of what I call “environmental stigma” are not addressed, even though real estate effects are well documented, including in areas affected by Love Canal. Mazur than steps off of safe ground.

In the chapter on Scientific Controversy, Mazur’s biases get in the way of his providing the kind of insight found in other chapters. Much as lawyers study the predilections of judges to anticipate their rulings, earlier hints have prepared us for Mazur’s conclusions. Down the line, he rejects the arguments of Gibbs and Paigen in examining what he terms the central question: “How much illness occurred among residents as a result of contamination?” Recalling Levine’s critique of the Thomas Commission, it is noteworthy that Mazur fails to address the issue of what kinds of proof would be needed to answer this question. Instead he offers a fairly detailed summary of Beverly

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11 Levine, *supra* note 8, at 165.
Paigen’s 1979 congressional testimony along with a blithering criticism.

At times his point could be made more clearly, as when he seems to be accusing Paigen of lying with statistics by drawing swamps and wet areas on her illness maps of the community. In thereafter reviewing the Thomas Study findings, he quotes at length from the report’s criticisms of Paigen. Rather than taking Paigen’s side, as does Levine, Mazur seems to swing in the direction of her critics; so much so, in fact, that Mazur appears to lose his objectivity in the discussion. He charges her with drawing from her findings “the most dire conclusions possible” and then using the findings to political advantage.12

This loss of objectivity is seen in the conclusion of Chapter 8 on Scientific Controversy, where Mazur notes that both Paigen and health department scientists identified greater fetal damage in wet areas of the canal than in dry. While this finding clearly supports the swale theory advanced by Gibbs and Paigen to account for exposure to toxins, Mazur dismisses this evidence. In doing so, he cites soil samples in the 1980s that found no unusual chemical contamination in the outer rings except in storm sewers flowing from the canal. From this, he concludes: “If there was no more contamination in wet than in dry areas prior to 1980, there is no chemical basis upon which to blame morbidity differences between people living in wet and dry homes.”13 This conclusion, however, does not follow from its cited basis. He relies on data taken after 1980 to draw conclusions about exposures before 1980. He admits that contaminants were found in storm sewers. And he fails to consider all possible exposure pathways, means by which residents might have received exposures.

Much safer ground would be to conclude, as I have, that the evidence of health effects at Love Canal was never definitive in any direction. However, there certainly were indications of possible effects that later evidence does not neutralize. To really answer the

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12 MAZUR, supra note 1, at 202.
13 Id. at 193.
question of effect posed by Mazur, much more timely and comprehensive research would have been required. The data that does exist cannot be used to rule out an effect. In short, Mazur’s central question cannot be answered definitively. Moreover, following the precautionary principle of evidence, now receiving considerable attention, a reasoned observer would still recommend protective action based upon the evidence record.

Mazur’s final chapter briefly revisits each of his focal characters, updating the reader on their most current activities. He congratulates himself on his balanced perspective and forgives the sins of all the protagonists. “I do not see Love Canal in terms of good guys versus bad guys....I believe that most of the parties involved in Love Canal acted reasonably well, under the circumstances, and despite some blatant lapses, Love Canal was a tragedy in the classic sense, not because evil or uncaring actors violated the public trust or trampled others in their greedy pursuits, but because actions that were—for the most part—personally moral or professionally acceptable combined in unexpected ways to produce inordinate misery.”

The hazard of Mazur’s inquiry is thus exposed. Mazur has elevated himself to judge and jury. He has made himself a supreme judge of epidemiological findings for which his qualifications are suspect. And, in Mazur’s morality, no one is wrong. One cringes at the result were he to write of other horrors of the last century, such as the holocaust.

Mazur could sustain his relativistic conclusions had he maintained a relativistic approach to the book. However, Mazur has pushed past Kurosawa’s method of open exploration of subjective accounts to offer his own judgments and conclusions. Many are provocative and insightful; some strike me as arbitrary and uninformed. He would have written a more powerful book had he been able to stay to Kurasawa’s path, letting the reader sort out the issues.

\[14\] Id. at 212.
Nearing the end of his book, Mazur admits that "the scientific study of Love Canal looks more like a prize fight than a search for truth." Indeed, in the end, one is left with a realization that contaminated communities represent a new type of battlefield in which highly stylized samurai of the Risk Society fight by rules that already seem archaic to post-modern people. As a Kurosawa buff myself, I cannot help but think that a better choice of metaphor for the material would have been the epic Seven Samurai rather than Rashomon.

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15 Id. at 192.