Book Review

E. G. Vallianatos (with McKay Jenkins)

Poison Spring: The Secret History of Pollution and the EPA

New York, NY: Bloomsbury Press, 2014

Reviewed by Howard A. Doughty

Confronted with global, national and even local problems that are said to betoken "existential" crises—in the literal physical and not merely the psychological or Sartrian philosophical sense—it is sometimes difficult to keep calm in the face of apparently imminent calamities and inexorable trends toward terrestrial cataclysms. Ecological degradation and the "war on terror" compete for attention in politics and space in the media with systemic economic inequity and atrocious human rights violations. Dramatic global warming and protracted peace initiatives demand our notice at conferences where negotiations are too often reduced to banal sound-bites and staged photo-ops promoting mostly government and occasionally opposition leaders. Countless elected officials and the legions of public servants and lobbyists who accompany them to interminable summits are loath to admit that they have little idea about what to do and less confidence that they could do what is minimally necessary to resolve any single difficulty, much less to address the complexity of almost hopelessly interrelated troubles.

For example, the "file" commonly called the "environment" is multifaceted. Intertwined issues of technology and toxic waste, human demographics and habitat destruction, industrial development and resource depletion, political denial and good old-fashioned corporate corruption are all implicated—and that is far from a complete list of even the most general categories of collusion and confusion. E. G. Vallianatos worries about chemical pollution.

The story doesn't end there. Similarly well-informed and well-meaning advocates and experts periodically make efforts to enlighten us. They usually succeed only in producing broad jeremiads that are predismissed as excessively pessimistic or are shrugged off as utopian delusions. Meanwhile, somewhere between utopianism to catastrophism, it becomes easy to ignore the patient and thoughtful counsel of people who have penetrating diagnoses, reasonable prognoses and rational therapies to recommend in order to bring specific elements of the cacophony of surrounding doom into something approaching harmony. The stage seems closed to the civil and open only to the shrill. Yet, although the book under review deals with matters of the utmost importance and with issues of political, administrative and corporate irresponsibility of the highest order, the work is delivered in something more respectable than the breathless prose that often accompanies "exposés"—especially those with subtitles using the unfortunate phrase "the secret history of ..." which, I am sorry to say, is present here, but too often betokens a book that comes closer to the content and style of a supermarket tabloid than a serious inquiry into a serious subject. Make no mistake. E. G. Vallianatos has written cogently and well.

Poison Spring is a serious book about a serious subject, and it is written with appropriate *gravitas* by a talented writer, a relentless historian and a scientist of evident integrity (with assistance from McKay Jenkins, another writer of skill and well-controlled intensity.

I

It is worth observing that critiques and manifestoes which once seemed shrill sometimes appear in retrospect to be somewhat less harsh and actually rather restrained. Critics of tobacco smoking, asbestos insulation and polychlorinated biphenyls, for example, were once called "cranks," peremptorily dismissed and subjected to harassment and abuse by the industries that profited from these carcinogens. Today, however, they are well recognized as health hazards and their manufacturers have been successfully prosecuted and civilly sued in a number of courts for the willful dangers to which they exposed their customers and the general public.

"Part of the trouble with talking about something like DDT is that the use of it is not just a practical device, it's almost an establishment religion." – Gary Snyder, 1974

On the matter of agribusiness and the related chemical industry's initiatives in pesticides, herbicides, genetic modification and the like, concerns have grown enormously since Rachel Carson made her impact over fifty years ago. Her book, *Silent Spring* (1962) resulted in vicious personal and professional attacks from the private sector. Ms. Carson, the Audubon Society and Houghton Mifflin, her Boston-based publisher, were threatened with legal action; however, thanks in part to the fact that *Silent Spring* had already been serialized in the *New Yorker* magazine and in part to the open support she received from US Supreme Court Justice William O. Douglas and then-president John F. Kennedy, the book got widespread and largely favourable publicity. Accordingly, it had a profound effect on the public consciousness. Condequently, Ms. Carson has often been credited with almost single-handedly launching the modern environmental movement. Moreover, her work survived her and she is now commonly given recognition for inspiring the Executive Order signed by President Richard M. Nixon that established the United States Environmental Protection Agency in 1970. It was a moment of posthumous triumph.

Of course, Ms. Carson's legacy is incomplete. Her preoccupation was with DDT (dichlorodiphenytrichloroethane), a powdery pesticide that I vividly recall my mother dusting on the vegetables in our garden a decade or more before Ms. Carson's book arrived to explain the perils. Despite the banning of DDT in developed countries, however, it is still being used in the "third world" to prevent malaria under the terms and conditions of the Stockholm Convention of 2001 which restricts the use of DDT to vector control. Meantime, DDT has been replaced by biopesticides such as Monsanto's "Roundup" which is even more toxic (Mesnage et al., 2014). In addition, industrial farming in developing countries has direct links to soil degradation, deforestation, the loss of biodiversity and takes a tremendous toll on indigenous plants, animals and aboriginal peoples in locations from Brazil to Indonesia. So, her noble struggle has not produced altogether whole or completely healthy fruit (so to speak). She has, however, set a standard against which more recent environmental scientists and activists may judge their work.

Obstacles to accessing safe food and water, of course, are not all put in place *directly* by chemical producers, food processors and distributors of farm, ranch and fish products most of which depend to a greater or less degree on biochemicals and, more recently genetic engineering.

They can also be erected by people charged with establishing enforceable safety standards. Additional culprits can be found among elected politicians, senior government officials and public sector workers who may be given "incentives" (bribes) or may become ideologically committed to the interests of the corporations whose profits are protected and enhanced in a business atmosphere in which regulations are kept to a minimum and rarely enforced.

"Reagan's Office of Management and Budget also set about demolishing environmental protection, justifying such vandalism by the self-serving mythology of the 'cost-benefit analysis,' which masked a naked ideological shift toward pesticide merchants and agribusiness." – E. G. Vallianatos

It would be foolish to claim, of course, that people in either the private sector or the public sector actively seek to harm consumers by marketing toxic products or using toxic processes. There have, however, been ample examples of administrative incompetence and indifference to make a provisional case that negligence has occurred far too often, or that cost-benefit studies of profit margins show the preservation of human lives is too expensive for corporations to sustain.

For example, until recently, Canadian public servants have laboured under Stephen Harper, the former Prime Minister who famously called the Kyoto Accord on global warming "a socialist scheme to suck money out of wealth-producing nations" (CBC, 2007). So, he slashed the budgets of federal research scientists inquiring into environmental issues, and banned government scientists from revealing their results. Such suppression of scientific knowledge so important for evidence-based policies shows the kind of willful neglect of information that has done and will do extensive damage to people and their environment. The pattern is more common than we would choose to believe.

III

In *Poison Spring*, Evaggelos Vallianatos takes up the torch for Rachel Carson. Since her death, just two years after *Silent Spring* was published, the case against DDT and many other toxic chemicals used in agriculture and industry has been made so repeatedly and with such precision and irrefutable evidence that the list of banned substances has grown enormously. Environmental scientists and activists have been diligent in exposing the methods and morals of the chemical industry. Some of the most lethal concoctions have been removed. At the same time, however, the economic power and political influence of such major chemical corporations such as Monsanto, Dow and Union Carbide have increased even more. So, despite solid campaigns by scientists, consumer groups and environmentalists, the fate of the environment in general and the food system in particular has not followed a path that Rachel Carson would have expected or liked.

Since Carson, public opinion, expert outrage and social protest have largely focused on the Monsanto Corporation and especially on one of its innovations, the previously mentioned Roundup, which is one of the most popular "weed killers" in North America. Vallianatos lists its toxic effects including cancer, endocrine disruption, DNA damage and malformations of reproductive and neurological systems. They have, he says, long been known by Monsanto and government authorities, but "both the industry and regulators have kept the public in the dark." The other is genetically engineered organisms, which play a role in this book, but involve issues less directly related to Vallianatos' main theme which remains chemical pollution and government culpability in its regulation by a "fatally compromised EPA."

"The time is long overdue for a global citizens' tribunal to put Monsanto on trial for crimes against humanity and the environment." – Ronnie Cummins, President, Organic Consumers Association, at the COP21 UN Conference on Climate Change, December 4, 2015

Dr. Vallianatos does not limit his account to one or two (or even dozens of) lethal chemicals. And he is certainly in a position to know. Evaggelos Vallianatos worked for the American Environmental Protection Agency from 1979 to 2004, mainly in the area of risk analysis. He is intimately familiar with both the scientific evidence and with the organizational system that has defined the EPA during five administrations from Jimmy Carter, through Ronald W. Reagan, George H. W. Bush, Bill Clinton and on to George W. Bush. He has also kept up to date with subsequent happenings and offers some especially sage, if unavoidably pessimistic, insights into the once-hopeful administration of President Barack Obama.

The book is efficiently organized. After an informative "Preface" that explains the background of the EPA and a little of Dr. Vallianatos' background as well, the reader moves into an opening chapter that sets up the political realities behind the construction and evolution of the EPA. We are then treated to a theme-based, chapter-by-chapter account that shifts effortlessly among lucid explanations of the chemistry of Dioxin and DDT, critical assessments of the merchandizing of pesticides, the corporate distortion of science and the politics of whistleblowing which, we are not surprised to learn, does not often end well for the whistleblowers. The technical aspects of the stories will not daunt an intelligent reader lacking a formal scientific education. Dr. Vallianatos has a strong academic background in Zoology (Illinois), a doctorate in History (Wisconsin) and has done postdoctoral work in the History of Science (Harvard). He has one foot firmly planted in biology and another in the humanities. Furthermore, he compliments both with a formidable record of publications including six books and a considerable journalistic portfolio including excellent contributions to Alternet.org, Truth-Out.org and The Huffington Post. With his co-author, McKay Jenkins, an esteemed environmental journalist and Professor of English, Journalism and Environmental Humanities at the University of Delaware, he writes engagingly, explains technical matters clearly and instills the passion of his convictions without resorting either to pretentious, if convenient, moralisms or the hectoring style that tempts too many aspirant reformers.

In other hands, *Poison Spring* might have been weighed down with the particulars of biochemistry. Unfamiliar terminology might have distracted readers to the detriment of the larger narrative. In the alternative, *Poison Spring* might have degenerated into a partisan harangue. It could also have put undue emphasis on the many (often quietly heroic) characters, who populate

the book, turning it into a personality-based "tell-all" of the sort preferred by tabloid newspapers and pulp non-fiction. Instead, Vallianatos acts as informed guide as he digs into the depths of public sector processes in each of the administrations in which he served. Balancing personal experience, reports from laboratories and legislative committee hearings, and descriptive assessments of the ways in which bureaucratic and corporate interests have come (mostly) wittingly but (occasionally) unwittingly to subvert both the spirit and the letter of the EPA mandate, he provides a well-reasoned, inclusive indictment of the agency which was ostensibly created to protect citizens and nature alike, but which has generally failed to fulfill its mission.

Industry power either corrupts or silences EPA scientists, who ... find themselves working in a roomful of funhouse mirrors, plagiarizing industry studies and cutting and pasting the findings ... as their own. These are the behaviors of traumatized organizations. – E. G. Vallianatos.

No one who reads this book with an open mind should leave it dissatisfied. *Poison Spring* is scientifically sound, politically insightful and personally compelling. Vallianatos has seen the history of the poisoning of America from inside the regulatory agency purportedly dedicated to help keep Americans safe. He did his job well, but has also born witness to political, bureaucratic and corporate malfeasance. *Poison Spring* explains its subject matter in detail, but with neither unnecessarily opaque scientific pretense nor the breathless prose of a cheap exposé. It paints a complex picture of a culture of hypocrisy, deception and fraud, administrative malfeasance, corporate greed raised (or lowered) to the level at which the costs are far more than financial and impose immense human loss as well.

Public sector administrators, professional employees and workers may find it a cautionary tale or, if locked into a similar circumstance, may find it sufficiently stirring to tempt fate and bring unsavory matters to public attention. Ordinary citizens, as well, can learn the subtleties of misusing science, covering up environmental disasters and allowing industry to get away with murder. At the very least, those Canadian public employees who openly complained about being stifled and who risked opprobrium from the champions of a politically neutral civil service when they cheered the recent change of government (Petrou, 2015), may learn (if, incredibly, they didn't know already), that they were not alone.

Finally, it is incumbent on anyone who writes so forcefully about what is wrong, regardless of the institution or the alleged infraction, to set out an answer to the inevitable cynical question: "So what?" supported by the even more cynical prediction that "nothing's going to change." Here, Dr. Vallianatos doesn't reply with the ordinary rhetoric of vague optimism and a measure of hope that almost no one can believe in. Rather, he sets a practical question: How do we make the EPA work? And, incidentally, he *means* "we" for nothing less that citizen engagement can alter the rules of a fixed game. He then makes specific recommendations for the reorganization and regulation of the EPA itself. "If," he says, "these ideas seem utopian, it can only be because we have become so numbed (or defeated) by the stranglehold that industry has had on our economic, agricultural and energy systems."

The same, I know, can be said for education, health care, aboriginal affairs and the criminal justice system. The same, I suspect, applies to many if not most other fields of public policy. Evaggelos Vallianatos makes a plea for democracy in his field of expertise and experience, the American EPA. Its organic seeds should be widely sewn.

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