

# moment

INDEPENDENT JOURNALISM FROM A JEWISH PERSPECTIVE

A JEWISH LIFE

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## A Crusader Rising

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As a young girl, Devra Lee Davis, her brother Sam and her parents would sit out in lawn chairs on warm summer evenings to watch the fiery spray of sparking dust and gases shoot up out of factory smokestacks into the night air. “It was

a fiercely hypnotic sight,” she says, one of many lovely memories of her childhood in the steel mill town of Donora, Pennsylvania. To Davis, Donora was an idyllic place to grow up. Nestled in the Monongahela River valley and surrounded by steep bluffs, it was a factory town where neighbors cared for one another and children roamed freely. The Jewish community was close and warm: the town’s 50 Jewish families, including Davis’s, shared the same Orthodox shul and cheder, no matter what their religious convictions.



Davis and her family never spoke about the fact that few trees or plants grew in the clay that clung to the hills or that grime accumulated on window blinds, bikes and cars. It wasn’t until years later, after her family had moved to Pittsburgh and she was in college that Davis came across a book that mentioned a town called Donora that was severely polluted. “I could not imagine that what I read had anything to do with where I had grown up,” Davis says. “I’d never heard anything about our town being anything other than a wonderful place. I had never heard of pollution.”

The Donora described in the book was a factory town where fumes from the mills, coke ovens, coal stoves and zinc furnaces were often trapped in the valley by the surrounding hills. On one fateful day in 1948, when Davis was two, tragedy struck: A massive still blanket of cold air had filled homes and streets with fumes, turning the air a mucky yellow-gray, killing 18 people within 24 hours, 50 people in the following month and unknown others who died later but before their time.

On her next visit home, Davis asked her mother: “Is there another town called Donora?” Her mother sighed. “We didn’t know,” she told her daughter. In a sense there was another Donora. There adults never spoke about the fact that they and their families might be victims of lethal chemicals—out of fear of losing the steel, coal and zinc factories that brought jobs to their town.

Davis’s grandmother, her mother Jean and her two uncles and aunts were to develop chronic heart and lung problems. Her father, Harry, died of multiple myeloma in 1984, her mother of stomach cancer in 2003. Even after they left Donora, says Davis, “they carried Donora with them in their hearts and lungs.”

**Toxic fumes. Asbestos. Pesticides.** Fire retardants in children’s pajamas. Aspartame. Ritalin. Radiation from X-rays and CAT scans, microwaves, even cell phones. These are among the items in our daily lives that Davis, now 61 and director of the world’s first Center for Environmental Oncology, located at the University of Pittsburgh Cancer Institute, examines for their capacity to

harm us. Sometimes she can tell you that studies say they are not safe. Sometimes all she can say is that no study says they are. “The fundamental right I believe in is the right to know,” she says.

Davis has dark flashing eyes and burns with a fervor that could be described as religious. “When the war on cancer started,” she proclaims from the university auditorium stage where she is talking about her newest book, *The Secret History of the War on Cancer*, “much of it was the wrong war, with the wrong weapons, against the wrong enemies.” Her lean figure draped in a long, fringed scarf evokes the image of a rabbi wrapped in a tallit, exhorting her congregation from the bima.

In fact, as a child, Davis once aspired to become a rabbi. Instead, she became an epidemiologist—a scientist who studies the patterns of disease in time and place. Armed with a doctorate in science from the University of Chicago and an epidemiology degree from Johns Hopkins University, she is a researcher with a righteous mission: *tikkun olam* (to heal the world). In a career that has included stints at the U.S. Department of Health and Human Services, the United Nations and the World Health Organization, she’s been fighting a battle with government and industry for the minds of an information-overloaded and confused public.

To Davis, the “war on cancer”—launched in 1971 by President Richard Nixon—has paid insufficient attention to cancer’s environmental causes. “Throughout the industrial world the war on cancer remains focused on commercially-fueled efforts to develop drugs and technologies to the tune of more than \$100 billion a year in the United States alone,” she says. “Meanwhile the struggle basically ignores most of the things known to cause cancer, such as tobacco, radiation, sunlight, benzene, asbestos, solvents and some drugs and hormones.”

Nearly all scientists agree that most cancer is not born but made, says Davis. Look at identical twins. “They start life with amazingly similar genetic material but as adults they do not develop the same cancers. As with most of us, where they live and work and the habits that they develop do more to determine their health than their genes do.”

Davis agrees that advances have been made in the fight against some cancers—for the first time cancer-related deaths in the United States are dropping, mostly, she says, because of belated and poorly supported efforts to curb smoking, reductions in the levels of some pollutants and significant advances in the control of cancers of the breast, colon, prostate and cervix. But new cases of cancer not linked to smoking or aging are on the rise—such as cancer in children and non-Hodgkin’s lymphoma in people over 55. Bone marrow, bladder and liver cancers doubled from 1950 to 2001. And cancer is the number two killer of children and the middle-aged, second only to accidents, according to the Centers for Disease Control.

“No matter how much our efforts to treat cancer may advance,” she says, “the best way to reduce cancer’s toll is to keep people from getting it.”

**Davis’s exhortations bring to mind** biologist, writer and ecologist Rachel Carson, who died in 1964. Davis’s 2002 book, *When Smoke Ran Like Water*—which told the story of Donora and was nominated for the National Book Award—was compared to Carson’s *Silent Spring*, which documented the toll of pesticides on the environment and the chemical industry’s related disinformation campaign. Both grew up in little river towns in Pennsylvania, received degrees from Johns Hopkins and faced attacks for challenging what they viewed as the scientific-industrial complex.

In *The Secret History of the War on Cancer*, Davis accuses the scientific and industrial communities of complicity. Their actions, she believes, are responsible for some 1.5 million preventable cases of cancer over the past 30 years caused by environmental and workplace chemicals, in addition to the nine million preventable cancer cases from smoking. The book, based at times on unpublished documents she has tracked down, chronicles some of the most egregious cover-ups. Although many are familiar to the scientific community, Davis's strength lies in her ability to blend her skills as a scientist and a storyteller to inform the public about the forces that have distorted cancer research.

Take benzene, a chemical first distilled in the 19th century, and used as an ingredient in gasoline and as a solvent. It was recognized almost immediately as highly toxic but because it has multiple industrial uses, research on the chemical became in Davis's words, "a sophisticated game of scientific hide and seek." But sometimes, industry tactics have been more blunt. In 1989, Myron Mehlman, the chief of toxicology of Mobil Oil and a respected scientist, was fired after he called attention to extremely dangerous levels of benzene in Japanese gasoline. He was later awarded nearly \$10 million under a New Jersey whistleblower law. This game of hide and seek, Davis believes, continues. "Right now, the American Petroleum Institute is spending \$25 million dollars to study people in China who are using benzene at levels that are higher than we use in the United States. They want to find that benzene is safe."

Davis has uncovered cases of outright scientific collusion with industry. "We have incredible documentation of the duplicity and manipulation of the science," she says angrily, "of the way in which eminent scientists, unfortunately, much to my shock and dismay, were for sale." She recounts the story of vinyl chloride, an ingredient in heavy duty plastic that releases dioxin when burned. "The late Oxford University epidemiologist Sir Richard Doll was hired by Monsanto (the chemical conglomerate) in 1979," says Davis. "He published a paper in a scientific journal concluding that vinyl chloride was less dangerous than the World Health Organization had warned. He never disclosed that he was being paid for this work." Davis discovered the information in documents in the Oxford archive: "I was shocked to learn this. Doll was someone I looked up to."

She skewers the American Cancer Society, the American Medical Association and the American and British governments for their efforts to prolong and exaggerate scientific dispute about the harmful effects of tobacco. Eminent doctors and scientists discounted results from animal studies, blamed lung cancer on air pollution, promoted smoking for weight control, and continued to call for more research "long after the basic issues had been resolved scientifically."

Still, Davis bristles at the frequent accusation that she is anti-industry. "My work is not anti-business; it's anti-lying," she says. "And sometimes, some businesses did lie." But she believes that business can be a force for good. "Look at the greening of health care, of buildings, and even fashion. Green is moving at the fastest rate of growth of any sector right now."

Not surprisingly, she has many critics. The American Council on Science and Health (ACSH), a group funded by a number of major chemical companies, calls claims in Davis's new book "patently false or misleading." Biochemist Bruce Ames, who invented the widely used "Ames test" for toxicity, told *The Washington Post* that Davis has "gone completely overboard" in blaming trace chemicals. And Oxford epidemiologist Richard Peto, whose work Davis criticizes in her book, says, "I doubt whether environmental pollutants are going to be found to be big factors in causing cancer."

When Ronald Herberman, director of the University of Pittsburgh Cancer Institute, invited Davis to found the Center in 2004, he knew he was hiring an outspoken figure. Herberman, a tumor immunologist who fundamentally agrees with her stance, believes she's a careful scientist. "She's

willing to take on a variety of major figures or organizations related to cancer and call it as the evidence she accumulates indicates, say it the way she sees it," he says. Herberman believes the scientific community will eventually shift toward seeing cancer the way Davis does.

Herberman isn't alone in supporting Davis. "She is a great scientist, a great human being," says Eli Richter, a noted epidemiologist at Hebrew University, "with courage and passion for the truth and for protecting the weak." Mehlman, the Mobil Oil whistleblower, says that *The Secret History* "sheds light where there is darkness."

**Donora's last factory closed** in the mid-fifties, and today, its windswept bluffs are covered with grasses and trees. The story is similar throughout Pennsylvania: The state has begun to come to terms with the dark side of an economic history tied to coal and steel. The new growth industries are health care and high-tech. Pollution is decreasing and progress, slow as it is, is being made.

In Davis's cozy office, just 20 miles up the Monongahela River from Donora, a stained-glass window depicts the town's smokestacks. The office is also filled with gifts and mementoes of a full life. A string of colorful Tibetan prayer flags line two walls, one inscribed with a note of thanks from a close friend who later died of breast cancer. And there are photos of her husband Richard Morgenstern and their two grown children, their daughter-in-law and grandchildren.

Davis and Morgenstern raised their children on Capitol Hill in Washington, DC, where they still own a home. Together, they constitute an environmental-policy power couple. Morgenstern, an economist with the think tank Resources for the Future, travels the world for work, and both shuttle between Washington and Pittsburgh. "We both work on simple problems," Davis notes with a wry grin. "He's working on global warming and I'm working on cancer. We have a lot of empathy for each other because of that."

There are also photos of Davis, who looks younger than her years, climbing mountains in her beloved Wyoming, where she and Morgenstern own a townhouse. She is an advocate of a healthy lifestyle, including regular exercise, yoga and meditation. At the Center, Davis puts out pamphlets with health tips that go far beyond the usual "eat more fiber, exercise more" advice: How to treat lice and fleas without putting your children at risk, an inventory of household products that are toxic for pets, pollutants in freshwater fish. The Center also publishes a lot of warnings that people may not want to hear: Aspartame in diet sodas could cause cancer. Hair-care products for African-Americans that contain hormones could lead to the early onset of puberty and cancer. "No tears" baby shampoo may contain harmful chemicals. CAT scans can subject children to dangerous amounts of radiation. Children should use cell phones only for emergencies because they may cause brain cancer.

On her office bookshelves, alongside hundreds of scientific volumes, Davis keeps the *Pentateuch* and *Haftorah* and the *Siddur sim Shalom*, the prayer book of the Conservative Movement. She is active in four chaveras, two in Washington, one in Pittsburgh and a fourth in Jackson Hole.

Her work, she says, is informed by rhetorical poles of Jewish learning—anecdotes and enumeration, midrash and Kabbalah. "The idea in the Torah that every single person counts, that inspires me. And also the idea that he who saves a single life saves the entire world."

Davis, one of those people who seems to move as fast as she thinks, admits to often feeling frustrated. She finds patience and persistence in Judaism. Its message that you must strive for the truth, even if you cannot reach a conclusion, drives her on.

She recounts a favorite story, one told by Rabbi Tarfon, a second century Talmudic sage. Some workers are complaining to their master about the task at hand. “We do not have the right tools,” they say. “The task is enormous. We will never be able to get it done.” The master responds, “It is not for you to complete the task. But you must begin.”

