

he tumor was the size of an orange by the time they found it wedged between Jon's heart and lungs. He had gone to the doctor with symptoms that seemed like pneumonia, but it was quickly realized that his prospects were far worse. He told me the rare lung cancer he was diagnosed with had a 9% survival rate. That was in February 2012. He died three months later, on Mother's Day. He had just turned 26.

Jon was the heart of our house at 560 Allen Street—a three-story, ten-bedroom collective house, founded by environmental activists and filled with non-conformist twenty-somethings and larger than life murals. Whether he was organizing a house dinner, a group acid trip, or a homemade

paper-making party, Jon was always bringing people together around something joyful and beautiful.

Shortly after I met him, I climbed on the back of his motorcycle and took a short ride to Clark Reservation just outside of our city. He showed me a cave in the rocky cliffs above a trailer park and I-481. We squeezed down and through several "rooms," as spelunkers call them, and huddled together in the deepest accessible space while bats flew around us. We recorded our names and a greeting in a notebook that stays there in a plastic bag.

Everyone who knew Jon had seemingly shared at least one similar adventure. When news of his sickness was shared among friends, we all stepped up to support him. A



Environmental Movement

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roommate took charge of his nutrition and his social schedule. He was in and out of the hospital that spring as he underwent chemotherapy to try to get the tumor under control. I spent several evenings in St. Joe's one-on-one with Jon and with other friends. We sang for him, brought artwork for his walls, listened, talked.

When Rachel Carson wrote about the dangers of pesticides in the early 1960s, she looked at childhood cancer rates as an indicator of the toxicity of these chemicals. She reasoned that children don't drink, smoke, or engage in other behaviors that expose them to higher risks of cancer, so drastic increases in childhood cancer rates must be attribut-

able to something more general in our lifestyles. I think about her line of reasoning in relation to Jon's case. Jon wasn't a child when he was diagnosed with lung cancer, but he was a twenty-five-year-old who had never smoked. What could explain the development of cancer in his body?

On Mother's Day in 2012, there was a grand party at 560 Allen Street. I was no longer living there, but many of Jon's friends and people from the community came to celebrate him, listen to live music, and raise money to support him. It had been planned a few weeks prior and there was no way of knowing how he would be doing when the day came. The party was stopped short midway through the

afternoon. Everyone who did not live at the house was sent away. Jon was coming home. It was his wish to die at 560 Allen, our beloved house, and that is what he did.

The funeral came a week later, on my partner Seth's birthday. We took his children to stay with their grandparents and drove twenty minutes out of town to the church Jon had been raised in. The auditorium was filled with at least 100 people, probably more. I had never been in a room where so many people were openly crying all at once, and I was one of them.

During one part of the service, people stood up and shared stories about Jon. Seth stood up and spoke about the Fukushima meltdown in 2011 which was, over a year later, still spewing radioactive waste into currents in the Pacific Ocean and the atmosphere that were traveling toward California, the "salad bowl" of the U.S. He asked, "What are we going to do about this?"

At the time, I worked for the local chapter of Peace Action. Our chapter focused exclusively on lobbying against nuclear power because of the dangers it poses to human health. When I got the job, the year before Jon's illness and funeral, a board member interviewed me for the organizational newsletter. One of her questions was, "What gives you hope?" I didn't know what to say. I didn't think I had much hope. I simply felt called to be doing work for good. It was important to me to be engaged in a process that was moving things in the right direction, even if I couldn't see immediate effects or know for sure that I would be successful.

When Seth and I drove back to pick up his kids, we sat in the car talking outside of his father's house. I felt a hopelessness about the state of the world that I had never felt before. I thought about what he had said at the funeral—about all the nuclear power plants in the world and all the nuclear waste they had already produced. I realized that even if nuclear power stopped that day, even if the waste could be safely stored for the next thousand years, there was already a huge amount of radioactive pollution in the world causing cancer that no one could stop.

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In the fall of 2018, I visited a friend whose son's story was different but all too similar to Jon's. Last fall, Shay had gone to the doctor with pneumonia-like symptoms, and a large tumor was discovered wedged between his heart and his lungs. I thought about Jon but did not share my thoughts with Shay's parents.

He initially responded well to the chemo, but a few months later, he and both his mothers moved to New York City to be near the most advanced specialists. He'd had a bad reaction to one treatment, but there were other options. His health was never really the same, but as summer approached, he considered the possibility of returning to college the next fall for the senior year he'd had to skip. He died in July—another funeral service in a crowded room with heart-wrenching stories of a wise, warm soul whose life had ended too soon.

When I visited my friend Carole, about a month after the funeral, she asked me, "Why isn't this at the forefront of the environmental movement?" She continued, "I know the information is out there. Someone needs to put it together in an appealing way and galvanize people. It's not going to be me though."

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Jon wasn't the first person I had seen die from cancer, but his death was the first one that shocked and terrified me—the first that made me look at the world in a new way. Just the year before he died, I watched my maternal grandmother decline due to lung cancer, but nothing was shocking about that. She had smoked and drank heavily for sixty years. It was almost laughable to me that she quit smoking when she was diagnosed, about a year and a half before she died—as if quitting would save her then.

More shocking and heart-wrenching cancer deaths would soon follow. My mother-inlaw fought a good fight against metastasized breast cancer for at least two years before finally succumbing to its grip, when my first child was eight months old. Unlike the other cancer patients I have known, my mother-inlaw Marcia opted out of chemotherapy and did quite well for a time with a robust protocol of nutritionally-based and other alternative treatments. But when the cancer came back, it came back strong, and her health deteriorated quickly.

One beautiful spring day in April, close to her birthday, she was feeling better than usual and ventured out of the house by herself. She told the friends caring for her that she was going to the grocery store, but she didn't return and no one could get in touch with her all day and night. She'd gone to a hotel and tried to kill herself by swallowing all of the prescription pain pills she had in stock. She didn't want to endure, or have her family and friends endure, the slow and painful death that cancer often deals.

The overdose didn't do her much harm. The following evening, I was at her house with my partner, his brother, and Marcia, who was still quite loopy. She asked me to take my daughter to a psychic friend of hers to talk to her after she died. A few weeks later, she was in hospice care.

Add to this list Seth's cousin's wife—a mother in her thirties who left behind a two-year-old son—and a friend of our family who was close to Marcia's age. These are the deaths. There are several others in my life who are fighting the disease right now.

When I got the news of the most recent friend, in her late sixties, to be diagnosed with an advanced and aggressive cancer, I couldn't help but think, This is not right. I cannot help but wonder, if this is how many people I have seen die prematurely from cancer at this point in my life—thirty years old—how many more will I lose by the time I reach old age? Will I even reach old age? Will my children's father be struck? Will I bury my own child like Carole did?

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Beyond the questions of who come the questions of why. Why is this happening? Some will say that it is simply due to more advanced cancer detection methods. Some will say that we get more cancer because we live longer. Some will say environmentalists who point to culprits like industrial contamination, pesticide residues, and nuclear waste are alarmist, anti-business luddites who can't accept progress. But there is very strong evidence for looking at carcinogens in our environment.

First, take Rachel Carson's argument cited above. Children, who have experienced a spike in leukemia and brain cancer in the past century, are not older than children in prior centuries, and improvements in detection can't account for the increase in incidence rates. What is different in the past cen-



tury is the forward march of industrialization reaching every corner of our lives. We know that many chemicals involved in industrial manufacturing and food production either cause cancer or make cells more susceptible to damage from carcinogens. And we know that cancers whose prevalence have increased most sharply in recent decades are tied to specific, known carcinogens.

Now, look at how cancer rates change for individuals as they move around the world. In her landmark work *Living Downstream*, Sandra Steingraber cites statistics showing that when an immigrant moves from a less industrialized country to a more industrialized one, their chance of developing cancer will soon match the population they have moved into. This dispels the idea that cancer rates are somehow

intrinsically tied to race or ethnicity. The same goes in the other direction—move to a place with lower cancer rates and you will reduce your chance of developing cancer. What can explain this except that there is a link between the environment you are in and your chances of developing cancer?

Known carcinogens, in the form of both commercial and home-use pesticides, industrial chemicals like degreasers and solvents, commercial products like dry-cleaning chemicals—and the list goes on—are entering the waterways where we get our drinking water, evaporating off of fields and entering the atmosphere, staying locked in the soil for years, and entering our lungs as specks of dust from dried up soil. Our exposure to these chemicals is constant, unmeasured,

and all mixed up. That makes it virtually impossible to prove a definitive causal link between any of these individual chemicals and any particular form of cancer.

Steingraber compares this situation to the time before tobacco was confirmed to be linked to lung cancer, which was quite recent. She argues that there was reasonable and strong suspicion of the link decades before it could be proven, and society benefited from the collective decision to begin curtailing cigarette smoking in public spaces. Think of how many people's health was protected by that precautionary action, she instructs us. She asks us to take the same approach to carcinogenic environmental contamination.

Steingraber also traces the life and work of Carson who, like herself, was a scientist, a writer, and a cancer patient. Steingraber writes that Carson was an extraordinary human being but an ordinary victim of breast cancer. On average, breast cancer cuts a woman's life short by twenty years, and Carson died almost exactly twenty years before reaching the average life expectancy for her time. My mother-in-law, Marcia, died at 59. The latest data, from 2015, pegs life expectancy in the U.S. at 79. So, she was ordinary in that way, too. Still, I can't say how many times I have wondered what it would have been like for my children to have had their grandmother for another couple of decades.

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Onondaga Lake, at the heart of what we now call Syracuse, was the most sacred site for the Haudenosaunee people. Today, bald eagles are starting to roost on its shore again. The bald eagle, the national symbol of the U.S., was also a national symbol of pollution when DDT contaminated waters and collected in the flesh of fish. When bald eagles ate the contaminated fish, DDT inhibited the hardening of eagle eggshells, preventing the next generation of eagles from developing. At Onondaga Lake, the return of the bald eagles is similarly an auspicious symbol for the health of the environment at a site which was once one of the most polluted lakes in the country.

Yet Murphy's Island, a small area of shoreline near the mall, is still classified as a Superfund site by the EPA, meaning it is full of extremely toxic compounds. The Onondaga used to survive eating fish from the creek and the lake. Today, it is not safe to eat fish out of the lake because of mercury still circulating in the water despite the dredging project.

We don't eat fish out of Onondaga Lake because they are considered too poisonous, but what about produce grown with pesticides? What about just about every processed food product that has wheat, corn, or soy in it that has been drenched with Round-Up? One of the most potently harmful pesticides—DDT—has been banned, but myriad other poisonous pesticides are incorporated into the food we eat and contaminate the surrounding land, water, and air. Today, we don't have the weak eagle shell as a symbol, and the people on the growing list of those I have loved who have died too early are not as galvanizing a symbol. But they need to be.

Works Cited

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