

Rachel
Carson
Center

Perspectives

Rachel Carson's *Silent Spring*

Encounters and Legacies

Edited by

LAWRENCE CULVER

CHRISTOF MAUCH

KATIE RITSON

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RCC Perspectives

Rachel Carson's *Silent Spring*

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Introduction

Perhaps no other US book has caused as strong a stir as Rachel Carson's *Silent Spring*. Like a tsunami, it shattered established worldviews not just in the United States, but around the globe. The book's message about the threat of pesticide abuse reached a wide audience; there is evidence that the so-called ecological revolution was caused in no small part by the 1962 publication of Carson's book. *Silent Spring* became an immediate bestseller and remained on the *New York Times* list for 31 weeks. Several years before Paul Ehrlich (*The Population Bomb*, 1968) and Barry Commoner (*The Closing Circle*, 1971) predicted the threat to humanity through overpopulation and resource exploitation, *Silent Spring* led to new environmental awareness and a vision that translated into tangible political action.

The scholarly legacy of *Silent Spring* is felt not just by biologists and ecologists charged with monitoring the health of the natural world, but also by historians who research the interactions between human societies and their environments. The Rachel Carson Center for Environment and Society (RCC) in Munich is a research institute devoted to precisely this kind of scholarship; its choice to adopt the figure of Rachel Carson in its name, despite its location far from the Atlantic shores where she lived and wrote, also says something about the global importance of Carson's books. It is increasingly clear that Rachel Carson's career was not purely a feature of the North American postwar political landscape, but a significant rallying point for environmental awareness around the world.

With the international response to Rachel Carson in mind, the RCC organized three events in 2012 to commemorate the fiftieth anniversary of the book's publication. The first was the launch of a digital exhibition detailing Rachel Carson and her *Silent Spring*; the exhibition is freely accessible on the internet, hosted by the Environment & Society Portal (environmentandsociety.org). The second was the co-sponsorship of the plenary session of the conference of the American Society of Environmental History (ASEH), held in Madison, Wisconsin in March 2012. The keynote address and the panel of the session discussed the legacy of *Silent Spring* for today's generation of environmental scholars. And the third event was an essay competition, with the call for submissions in junior (under eighteen years of age) and senior categories circulated around the world. An

Jenny Price is a writer and historian, Los Angeles Urban Ranger, and research scholar at the UCLA Center for the Study of Women. She's the author of "Thirteen Ways of Seeing Nature in L.A." and *Flight Maps: Adventures with Nature in Modern America*.

Katie Ritson studied at the University of Cambridge and at LMU Munich and has an MA in comparative literature. She is managing editor at the Rachel Carson Center for Environment and Society.

Lisa Sideris is an associate professor of religious studies at Indiana University. She is author of *Environmental Ethics, Ecological Theology, and Natural Selection* (Columbia, 2003) and editor (with Kathleen Dean Moore) of a volume of interdisciplinary essays on the life and work of Rachel Carson titled *Rachel Carson: Legacy and Challenge* (SUNY, 2008).

The volume also draws on the insights of entrants in the Silent Spring essay competition, held in November 2011 by the Rachel Carson Center for Environment and Society.

Christof Mauch and Katie Ritson

Introduction

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inspiring breadth and variety of responses arrived in Munich from every corner of the globe: from Canada and Western Australia, Sicily and the Philippines, from Reunion Island off the coast of southern Africa and from Japan, from Korea and Brazil, Macedonia and Taiwan, Indonesia and Nepal, and others besides. In cooperation with our partners, the International Consortium of Environmental History Organizations (ICEHO), the American Consulate in Munich, and the British Council, the RCC provided a panel of judges from three continents, who each read every entry: and while the two entries printed in full in this volume are deserving of their winning status, the diversity of views and opinions that the essay competition provided overall was a dazzling tribute to Rachel Carson's capacity to inspire and impassion.¹ If we had been able to add other languages besides English into the competition, we are sure we would have received an even greater and richer collection of writing.

This volume is the direct result of the ASEH panel and the essay contest, and just as Rachel Carson was able to unite academics and laypeople, scientists and housewives and farmers in her writing, so this volume has brought together a set of responses quite different in origin and interest that serve to highlight the different ways in which Carson's writing can be read and interpreted. The keynote address at the ASEH conference by the environmentalist and writer Jenny Price is reproduced here, as are the responses by Nancy Langston, Christof Mauch, and Lisa Sideris. Further insights are provided by the contributions of scholars of environmental history Lawrence Culver and Maril Hazlett. The two competition essays printed in full are by Joan Maloof, a retired biologist from the United States, and by Akrish Adhikari, a schoolboy from Nepal.

The *RCC Perspectives* is a free publication, designed to nourish discussion and dialogue on environmental questions and provide a forum for scholars and thinkers engaged in a broad spectrum of topics related to society and environment. This volume is conceived as a commemoration of the encounters with and legacies of Rachel Carson's *Silent Spring* fifty years after it was originally published; we hope that over the coming half-century, the figure of Rachel Carson, her writing, and the many responses they engender, will continue to inspire reflection on the state of the natural world and our place in it.

1 Our thanks go in particular to Jane Carruthers (ICEHO, South Africa), Leila Ones (US Consulate, Munich), and Julia Rawlins (British Council, Berlin), who made up the panel of adjudicators together with the authors of this introduction; and to Arielle Helmick and Agnes Kneitz at the RCC, who helped with the organization of the essay contest.

We act as if the oceans and other natural elements were only resources, not living beings like us. We act as if they could never end. The current predatory model, which puts us at war with Nature, can make us very rich. But what will we do with money in a devastated world?

Elenita Malta Pereira, Brazil

Carson warned against the loss of sentiment, of forgetting man's mystical relationship with nature, of distinguishing, dissecting, and dividing the relationship with nature. Ecologists understand the balance of science and sentiment, the fate of the environment depends on it.

Andrew Mackenzie, Great Britain

Rachel Carson explains how it is arrogant for people to assume superiority over nature. Nature is both fragile and powerful.

Soo Yean Ahn, South Korea

My thoughts have turned to wonder—not simply to the “sense of wonder” as it exists in those of us who are predisposed to wonder, but to how such wonder or predisposition arises in the first place. . . . We are nature observing itself. We are nature thinking about itself. We are nature wondering about nature.

Laurent Laduc, Belgium / Canada

Trees do not talk. But when they are gone, one will realize their voice. This is the silence of the tree.

Melvin Jabar, Philippines

Keynote address at the plenary session of the American Society for Environmental History
29 March 2012, Madison, Wisconsin.

Jenny Price

Stop Saving the Planet!—and Other Tips via Rachel Carson for Twenty-First-Century Environmentalists

Rachel Carson was a visionary. She's a towering figure in the modern environmental movement. She's widely considered to be its founding voice, and she has remained its conscience. In love with nature since she was a child, she went on to a career as an aquatic biologist with the US Fish and Wildlife Service—which she had to break down many gender barriers to do—and then to write best-selling science and natural history books about the sea. Her writing combined remarkable factual accuracy with remarkable lyricism. In 1962 her fearless book *Silent Spring*, which exposed the widespread dangers of DDT and other pesticides and forthrightly attacked the chemical industry, helped ignite widespread environmental awareness, and in the ensuing decade not only led the Environmental Protection Agency (EPA) to ban the domestic use of DDT, but also led to the founding of the EPA itself, the Clean Water Act, the Clean Air Act, and Earth Day. After she died, two years later, of breast cancer, her last, posthumous book *The Sense of Wonder*, about her nature outings with her grandnephew Roger, would celebrate the importance of introducing children to the joys of nature to nourish their capacity for wonder.

But you already know that. This room is full of environmental historians, and I bet nine out of ten of you know everything I just said, and more: That in the wake of *Silent Spring*, the chemical industry attacks her as a hysteric, a spinster, a Communist. That President Kennedy directs his Science Advisory Committee to launch a report on pesticide safety. That Congress convenes a hearing at which Carson testifies. You know all that. There's a very sizable literature on Rachel Carson—biographies, children's books, commemorative anthologies, documentaries—by historians, as well as by scientists, writers, and activists. In 1980 Roger accepts the Presidential Medal of Freedom on her behalf. By 1996 she appears on *Time*'s list of the hundred most influential people who shaped the century. In A&E *Biography*'s TV special on the hundred

most influential people of the millennium, which they count down in order of importance, she's number 87—more significant, apparently, than Eleanor Roosevelt, Suleyman I, and Steven Spielberg and only eleven slots behind the Beatles. And in the 1993 PBS *American Experience* documentary, Meryl Streep does Carson's voice—*Meryl Streep*—with an uncanny Rachel Carson accent.

Okay. Rachel Carson *is* a hero. I'm sure many of you agree with me on that. We've seen a lot of books since 1962 that have brilliantly exposed a lot of environmental messes, but *Silent Spring* still stands out. It blows me away for what it accomplished, but I'm a writer, and it also blows me away with its precision, its poetry—and, again, because it is just utterly without fear.

Still... Right now I've got a pile, more like five piles, of books about Rachel Carson on my coffee table at home. And when you read this literature, one of the things that really fascinates me is how consistently, or really wholly and entirely, hagiographic it is. Almost relentlessly hagiographic. In fact, I don't think I've ever seen anything quite like it. Certainly not for John Muir, Aldo Leopold, or any other figure I can think of in environmental history. Or Gandhi? Mother Teresa? Oh yes, there's a lot of criticism.

Yes, in the 1960s, the chemical industry and its many defenders attack her and say she wants the Russians to win and the insects to take over the world—or maybe both—and the industry, though it's gotten more polite, has continued to spew skepticism. And in the recent renewal of the debate over DDT, some self-appointed bloggers on the extreme right-wing end claim she's murdered 35 million Africans who have died of malaria, and Hitler killed a lot fewer people, and so forth. But among the environmentalists and historians and writers? The mainstream literature on her life and legacy? Well, this is the most G-rated, wholesome biography I've ever seen—but what really intrigues me most is that there are almost no hard questions about her. I'm generalizing a bit, but the literature is almost all about what we might learn from her life and work. Granted, I haven't unearthed all the journal articles. But while the most prominent works ask questions about Rachel Carson, they don't, to my knowledge, really *question* her decisions, her writing, her beliefs, her motives.

And that should jolt any historian awake. First of all, no one lives a G-rated life. What really seems odd here, though, is that Rachel Carson was born in 1907—fully 105

years ago. That's 12 years before my father, who was forty years old when I was born, and I'm now profoundly middle-aged (which I'm actually not allowed to say in L.A.). *Silent Spring* was published in 1962, and her first book *Under the Sea-Wind* appeared in 1941. In the ensuing 50 to 70 years, has there been anything—anything at all—that we might have determined we *shouldn't* learn from her?

History—to paraphrase my favorite quote—is the art of making the strange familiar and the familiar strange. That's our power, right? We recognize the past as strange, and then we try to understand its logic. We thereby render the present—the things we take for granted—fully historical, a little bit strange, and then we can question the present, and make it seem not so inevitable, and thereby know that we can shape the future. It seems to me, though, especially as I read about Rachel Carson's beliefs and ideas, that we're making the familiar familiar. Rachel Carson herself, and especially I think her ideas, aren't quite *in history*.



Left:
The author's
father, Elmer Price
(Courtesy of the
author).

Right:
The author and her
father (Courtesy of
the author).

Here's my Dad—who's actually my hero, to be honest. He had as much integrity as anyone I'll ever know, or will ever know of, and I like to think that anything that's right about my ideas and values comes from my father. As a lawyer, he defended people on the blacklist during the McCarthy era, and he fought hard for desegregation. But did I find any of his ideas problematic—say, about capitalism—which were forged through his experiences in the Depression, World War II, and the postwar middle-class expansion? *Oh, yeah.* I used to tell him that my politics were the same as his, but just if you

took his politics to their logical conclusion—and my Dad, of course, who was born in 1919, thought that pronouncement from his beloved baby-boomer daughter was... well, that it was a load of crap.

My guess is that almost everyone in this room is both a historian and an environmentalist. So tonight, I want to take a stab at making Carson's ideas not so timelessly right, and not so inevitably *ours*. Not to debunk Carson—not at all—and not to deconstruct because it's so fun or because I can. Rather, I'll try to use the powers of history to ask questions about contemporary environmentalism and the things we most deeply believe in.

And when I read the literature about Carson, along with Carson's work itself, I find that I keep asking a few questions. There are three questions, really, that just nag at me. The first is: Why the sea? Actually, this question has been asked a lot, but I think we can ask more questions about the answers. So my first question is: Why the sea? And after that: What did *Roger* think? And finally: Why no criticism?

My own attempt to interpret Rachel Carson, in history, comes from trying to answer these three questions. I'll hazard my own emerging interpretation quickly, at least initially—I'll confess, I'm a little scared to do this—but my own stab might go something like this:

Rachel Carson has a difficult childhood—a solitary and often painful childhood. Her only close relationship is with her mother, who in the early 1900s, when Carson was born, was a disciple of the nature-study movement. And as a child, Carson finds much beauty and wonder in the wilds of nature, and also great solace, a refuge—especially from very painful and frequent twists of fate in her family. And this will continue into what will in many ways become a painful adulthood, marked by a degree of social isolation along with frequent crises in her career and especially at home—and will lead, above all, to Carson's great love of the sea. And to Carson, the ocean becomes the part of the natural world where she finds the *most* solace—that's *least* human, that's outside human control and governed instead by timeless eternal rhythms, and that's so vast that humans can't possibly change it. And when she writes *Silent Spring*, her only political book, and the only one that's *not* about the sea, she does do it in part out of real concern for people and other

living things and the ecosystems they share—but her real, fundamental motive is that after World War II, with the one-two punch of first, the bomb and nuclear fallout, and second, the dangerous spread of toxic pesticides, she concludes that in fact no part of nature is outside our control or the power of humans to alter or degrade or outright destroy it, and she in fact mostly writes *Silent Spring* out of the depths of heartbreaking disappointment and real anger that even her beloved sea is not inviolable. And then, after the publication of *Silent Spring*, the specific circumstances of her personal and professional life as a woman stir up a kind of perfect storm of the intertwined meanings of women, nature, virtue, authenticity, and history, in which Rachel Carson is the perfect apostle for the idea of nature as authentic and timeless—an idea that has so often rendered the idea itself outside of history and also resistant to critique, and which, in turn, can render its perfect apostle resistant to historicization and immune to criticism.

How many of you are thinking: well, that's a load of crap. And how many of you are thinking, but what about Roger? What happens to Roger?—which I'll get to later.

Was Rachel Carson a superb scientist? Yes. Was she a singularly gifted writer? Yes. Was *Silent Spring* important? We might not have the EPA, or bald eagles for that matter, without it. Do I admire Rachel Carson? OMG, she rocks! This is the rather slight woman who says, "I can offer no excuse for not being what people expect," in response to people who assume that any woman who writes a book like that must be absolutely huge. The woman who *knows*, as she's writing *Silent Spring*, that she'll be viciously attacked for being emotional and hysterical and a female know-nothing. And who, in the prefeminist era of the early 1960s, when the agricultural scientist who's the major spokesman for the chemical industry gives 28 speeches in the three months after *Silent Spring* is published and essentially froths at the mouth, well, she, calmly and coolly, while she's dying of cancer, grants CBS one interview and blows the other guy out of the water by coming off as a clearly knowledgeable scientist and as the quintessential voice of reason.

Was Rachel Carson a saint, or a prophet? No. She was human. And 50 to 100 years later, her legacy is, and must be inevitably, mixed.

I'll step away from Rachel Carson for now—but I'll come back.

Maybe a few years ago, I started to think about a new project, about what seems to be a new, twenty-first-century brand of environmentalism—the green this, green that, green everything explosion. On one hand, this “green” revolution seemed to move in a direction that many of us (including historian William Cronon and writer Michael Pollan, who in particular have influenced my own thinking) had been arguing for. The twentieth-century focus on the preservation of wilderness as the real, authentic counterpoint to the artifice of modern life doesn’t seem to define the heart and soul of this environmentalism. Rather, it pays a lot of attention to everyday life—to what we do in our everyday environments. And yet, it seemed to inherit, at least to a frustrating degree, the twentieth-century persistent blindness to environmental inequities—to the dramatic inequities in the distribution of environmental problems, and also in the distribution of the solutions. And also, some of it just seems *weird*. I kept reading newspaper and magazine articles about the great things people were doing to achieve ultimate Green-itude, and a lot of it just felt somehow wacky. It just felt kind of “off”—such as replacing all five of your cars with Prius hybrids (though I do live in L.A., where we specialize in 17,000-square-foot, LEED-certified houses).¹ Or throwing out all your old lightbulbs and buying new ones. Or refusing to let your son play on a baseball team because the nearest one is 20 miles away and that’s too much global warming entirely. *Really?* Or becoming a devout locavore and blogging and tweeting about it all the time on an iPad and iPhone made in China. I mean, seriously? Your kid can’t play baseball? *That’s* how you want to stop global warming?

All this stuff sounded vaguely wacky, and I wanted to understand why. And to my dismay, my new project led me back to my old project on twentieth-century environmentalism. I’m dismayed in part because I’m apparently right in line to become one of those people who has one idea in an entire career. Still also, *seriously?*—because these wacky green acts, as well as the persistent blindness to inequities, still, again, for God’s sake, seemed to me, as I kept pushing at the logics behind them, to be rooted in this persistent, powerful American definition of nature as a place that’s separate from humans, and as the real world and the authentic counterpoint to modern life.

1 LEED (Leadership in Energy and Environmental Design) certification verifies that a building is built according to a list of “green standards.” In the United States, the average single-family house is around 2,400 square feet.

And while historians have tracked this idea through the heart and soul of twentieth-century environmentalism, I think, and I'm dismayed to suggest, that we now really need to track it through the twenty-first-century movement—when we're all, apparently, trying to save the planet. And when we all, I think, desperately need to stop saving the planet.

I think there are two really big, common rhetorics that lie right at the heart of much of the green revolution—and that both are rooted squarely in this definition of nature. I think they play out in both action and policy in very real ways. I think they're at the heart of a lot of the wackiness, as well as the class divide—and that the class divide is itself connected to the wackiness. And I'll call these two big rhetorics the “I Problem” and the “We Problem.” (And I should be clear that I'm not critiquing all of environmentalism—every solar panel, every local food market, every wetlands regulation. I'm just tracking these particular, powerful cultural currents.)

So: the green revolution's I Problem, and the Green Revolution's We Problem. I'll leave my script—I'd like to do a medium-sized and kind of more informal sidebar—and then I want to return to Rachel Carson.

What's the I Problem? It's the rhetoric that emphasizes the importance of individual virtuous acts. You see the I-centered rhetoric *everywhere*. It's the conviction that I, personally, can save the earth. That if only each of us, individually, can possibly find it in our hearts to care, and to do the right thing, well, then, couldn't we save the world? It's the “change your lightbulbs *now*” approach—and in fact, I think the humble compact fluorescent light bulb has come to shine as one of the chief icons for this way of thinking.

And what do energy-efficient light bulbs have to do with the historically powerful definition of nature as a place that's separate from humans? As the estimable critical theorist Raymond Williams has helped us understand, there's a long Western tradition of seeing nature as a realm that's separate from corrupt human society. And once you set a natural world apart from the human world, it can then become a realm above and outside human judgment. It becomes the ultimate source of moral authority—the “natural,” and not relative, source of truth and virtue. (In fact, Williams's great insight is to show how the concept of what's “natural”—say, as applied to human values such as gender norms—draws its authority from this concept of nature.) And if nature is the

real and absolute source of truth and virtue, then what could be more virtuous than protecting it? In fact, there's been a long association of American environmentalism with personal virtuous acts. Which is why I give myself a little pat on the back every single time I throw something into the recycling bin—about seven to eight times a day—and think I'm queen for the day when I screw in a weird-looking light bulb.

Individual virtue, I think, plays out in the Green Revolution very concretely. You can track it very tangibly, I'll argue, through the common acts of wackiness—and also through the class divide—in a few different disturbing ways.

The author's advice column, "Green Me Up, JJ," on *LA Observed: Native Intelligence*, website, 25 February 2010 (Courtesy of the author).

Green Me Up, JJ

Jenny Price • February 25 2010 6:09 PM

"Advice for Greenies in a Complicated World"

Dear JJ:

I've been trying in vain to locate guns and ammunition with less toxic materials, to use at work. Can you help me? I can't tell you what I do exactly (or I might have to kill you), but I can say that I work alone, that I use guns in a lethal manner on a regular basis, and that despite my commitment to "reduce, reuse, and recycle," I often have to discard a gun after I've used it.

J.N.

No home address

Dear J.N.:

Wow. Seriously, wow. A hit man?



Here's the first way: acts of Greenitude to protect nature have commonly become acts of ultimate virtue. Green acts, in other words, can trump other values and other kinds of virtuous acts—say, such as making your child happy by letting him or her play baseball. You can't do that because you absolutely have to stop global warming?—even though you could reduce your energy use in a thousand other ways (such as not living in an exurb² in the first place).

Green acts can commonly shine as the *most* virtuous acts—and this, of course, is the logic behind greenwashing, right? Greenwashing has generally referred to the use of green acts (say, printing iTunes cards on recycled paper) to cover up much larger environmental sins (say, spewing air pollution from factories in China). It can rightly, though, refer as well to using green acts to cover up much grander social and economic sins (say, slave-labor-like conditions in those factories).

Here's the second way that the obsession with personal virtue plays out in very concrete ways: In a society in which we readily identify ourselves and our values by what we consume, and in which we consume to be virtuous, well, we consume to be virtuous Greenies. And consume and consume. So we buy the new light bulbs and throw out the old ones. We junk or trade the old car (or the three old cars) and buy Prius hybrids—and if you buy five Priuses, you'll save five times as much energy as if you buy one Prius. As if the more energy you use, the more you can save. As if all Priuses sail into the sky at night, under cover of darkness, to gobble up carbon whenever President Obama, or maybe Al Gore, flashes the green bat signal. Obviously, some of these virtuous acts of consumerism actually create more environmental problems than they solve. If you junk your perfectly good Toyota Corolla for a new Prius, for example, you'll have to drive 41,630 miles just to erase the carbon debt that manufacturing that Prius creates. Or to quote the surprisingly honest slogan in the recent ads for the Chevy Volt: "Electric when you want it, Gas when you need it." The light bulb or the energy-efficient car can actually be a marker of *virtue* as much as, or more than, a purchase that will actually make a real difference.

Which plays out very concretely in policy as well: In 2009, for example—hard on the heels of the economic crash—the federal Cash for Clunkers program offered a rebate of up to \$4500 to trade in any car that got 18 miles or less per gallon (mpg) for any

2 "Extra-Urban:" the prosperous commuter towns beyond the suburbs.

new car that got at least 22 mpg. Or, if you traded in an SUV, the new one had to get at least 2 mpg or more than the old one. *Two miles per gallon*. The program almost certainly increased emissions overall. It was really an economic recovery measure, but it was packaged as an environmental measure. And while it likely didn't do a thing to reduce energy consumption—in fact, very much the opposite—it assured stressed-out Americans that this particular way to spend money would be particularly virtuous.

Here's a third way that the I Problem, or the obsession with personal virtue, plays out—which is, in fact, that it just flat-out encourages an overemphasis on the actual importance of individual action, especially compared to systemic or regulatory action. It emphasizes changing your light bulbs versus transforming the national energy grid. It focuses on buying nontoxic paints and carpets versus banning toxic paints and carpets. Not that individual action can't be important—but there's a lopsided faith in its effectiveness, and in personal versus more collective kinds of virtue. While you see the “50 simple things (or 10 things, or 24 things) you can do to save the earth (or the planet)” lists all the time, none of them ever says, Vote!, or Pay your taxes!, or Stop fudging your deductions, for goodness sake!—which would likely be a lot more effective than changing your light bulbs. Much less: Hold Apple accountable! Or: Buy low-VOC paint for the people who work for you! Or, especially: Pay more to the people who clean and paint your houses, so that they can buy low-VOC paint!

In fact, if you look at what all three of these concrete manifestations of the I Problem share—whether praising green acts as über-virtuous, or consuming to save the planet, or overemphasizing the importance of individual acts—well, what they all have in common is that all three of them encourage the underlying assumption that every individual enjoys the equal or same ability to do all of this stuff. In other words, what the I problem makes invisible is that not all individuals can afford to buy new light bulbs or green up their houses—and, in general, and more important, that not all individuals contribute equally to environmental messes, and also that not all individuals suffer the consequences equally.

At the same time, the notion of green virtue really and actively relies on these differences. We say, “if everyone would just change their light bulbs.” Yet if everyone *did*—which is what we need to happen, and why we need regulation—then using the energy-efficient light bulbs wouldn't be virtuous. I wouldn't be queen for the day. It'd

just be what everyone does—just as, for example, we don't really think about how our cars adhere to federal emissions standards. The culture of individual green virtue—which is often about virtue as much or more than environment—really depends on everyone *not* engaging in green acts.

All in all, what tends to happen is that the people who can least afford the low-VOC paints and organic foods get, well, how should I put it . . . triply screwed. As an example, consider the most basic problem of air pollution. On average, the folks with the lowest incomes contribute least to air pollution. They breathe the worst air both at home and at work. And they have the fewest resources to green up their houses and yards—and thereby to become virtuous environmentalists.

And we wonder why there's a cultural class divide in environmentalism—and why there's so much cross-class resentment. And why so many people think that environmentalism is not about them. Not that you shouldn't use the new light bulbs if you can—but rather, the cultural association with virtue gets extremely problematic.

So what is the We Problem? It's captured by the mantra, We are all in this together. It's the incredibly powerful Man and Nature rhetoric. Man screwed up the planet, and now Man has to save it. You see this rhetoric, too, *everywhere*. Al Gore, after all, named his initial campaign against climate change the We Campaign.

The We Problem, too, is very obviously rooted in the vision of nature as separate from the human world. Man has screwed up that world, the *real* world. If you think about the daily environmentalist mantra—Save the Planet—what does it really mean? It doesn't mean the *whole* planet. If it did, we wouldn't be recycling; we'd be building a very large machine that can fight off asteroids. The Planet, or the Earth, really means Nature—the real and enduring part of the World. It means the World that's not us.

This “Man-and-Nature” rhetoric of course encourages us to think of the environment as one unitary thing—the major icon for this way of thinking and seeing, of course, being the image of Earth from Space. And seeing nature as one, unitary thing plays out, too, in everyday culture and in policy in very concrete ways. To begin with, it, too, encourages the association of virtue with environmentalism. The Earth from Space icon suggests a small, fragile planet, which you can hold in your palms—and in

environmentalist iconography, one of the most recurrent images is, in fact, of human hands cradling the earth.

What I mostly want to talk about here, though, is that the We rhetoric—or seeing nature as unitary—encourages a decidedly weird fungibility. In other words, it can encourage us to see all green acts—no matter what you do or where you do it—as accomplishing the same goal. So perhaps I own an SUV (I need it for the kids!—and I do like Range Rovers, they’re sleek), but I recycle, and I’ve got an energy star DVR, and I eat local broccoli. These actions may all address very different sets of problems—but they all save the planet. Again, this, too, is how greenwashing works, right?—which is to say, we’re screwing things up *there*, but we’re madly saving the planet *over here*. So Apple screws up the environment all around China, but the company redeems itself with its new data center in North Carolina that’s LEED-certified platinum—and after all, they do print the iTunes gift cards on 100% recycled paper.

The acts you engage in to save the planet, then, become interchangeable—but also exactly *where* you do them becomes not very important. There’s a kind of geographic cluelessness to the Save the Planet environmentalism—by which anything you do here or there benefits the whole planet



..... Have you considered that for every person you shoot, you might make a substantial donation to the Brady Campaign to Prevent Gun Violence? When one family grieves anywhere, it's enormously important that another should be spared anywhere else. Your personal actions in one place should in no way increase the total number of homicides across the globe. And more, if you donate enough to prevent more than one homicide for each one you commit, then you can actually even save lives every time you carry out a contract....

The author's advice column, "Green Me Up, JJ" on *LA Observed: Native Intelligence*, website, 25 February 2010 (Courtesy of the author).

And again, the geographic cluelessness in this rhetoric plays out in very real ways in policy—most obviously perhaps in the enduring enchantment with offsets and trading programs. Such programs tend not to be geographically specific. And the many critics of offsets and trading have made trenchant economic and political arguments—but what we’ve missed, I think, is that these programs at once are rooted so powerfully in enduring cultural assumptions. We’ve missed the cultural and rhetorical power of

the idea, rooted in our Man-and-Nature definitions of nature, that you can trade an environmental mess here for a clean-up there.

The We rhetoric, then, entirely ignores that not all environmentalist acts accomplish the same thing, and also that these acts don't clean up environmental messes to the same degree. Even more important, though, I think, is that, again, the rhetoric almost entirely makes invisible that some people are more responsible for those messes than others. And it also makes invisible that some places are a lot dirtier than other places. *A whole lot.* The Man-and-Nature way of thinking blinds us to the extreme, dramatic inequities in where environmental problems *are*, specifically. It also then inevitably blinds us to dramatic inequities in the solutions, which so often fail spectacularly to address the geography of where the messes actually are (and who creates them).

Environmental justice activists, not surprisingly, almost universally object to trading programs. While advocates of carbon trading argue that carbon itself is not toxic, most carbon emissions come with other emissions that *are*—and if a program allows industries to pollute as much or more in some places if they pay to reduce pollution elsewhere, then it's just not that difficult to predict that these “some places” will most likely be the low-income areas that already suffer the worst industrial pollution. Historically, we know, the lower-income communities in this country—those with the least economic and political power—have borne the brunt of the consequences of environmental problems. Horrible air, and tainted water, and toxic working conditions, and no green space: We have consistently sacrificed these communities. And yet, in 2009, California's cutting-edge plan to reduce carbon emissions, widely hailed as the model for a federal plan, relied on cap-and-trade to make the largest share of the cuts—despite vehement objections from a parade of health professionals, community activists, and, to no avail, the Air Resources Board's own internal environmental justice advisory committee.

Again, no wonder environmentalism—both in everyday culture and often in sanctioned environmental policy—alienates and fosters resentment in lower-income communities.

Yet one can argue that one of the great perpetuating factors of these environmental messes (just one) has been the sacrifice of some communities to benefit others. In other words, if you really want to clean up the whole planet, well, wouldn't it make a lot more sense to clean up the biggest messes *preferentially*? Shouldn't we now focus

on the sacrifice zones? Again, I'm generalizing, and yet, environmentalism, I think, too often historically has been about making the cleanest places cleaner. It's shown a stubborn blindness to inequities, and too often has encouraged a kind of trickle-down environmentalism—which works about as well as you would expect. Addressing environmental inequities is important for reasons of justice—which is what the environmental justice movement has focused such a bright light on—and clean air should in fact be a basic right. *And also*, we will never—*ever*—clean up the air in Los Angeles, or any other mess, as long as we tolerate sacrifice zones. Similarly, everyone should have the basic right to parks and green space—and at the same time, you can't create a healthy urban watershed, *or* clean up the air anywhere, if you only have parks and green space in affluent communities.

Environmental justice has to be about justice—but I'd argue vociferously that it has to be about environment too. If you really want to address the ways in which we really *are* all in this together, on just this one planet, then you have to fundamentally understand and take seriously—and your solutions have to address—the ways in which we are decidedly not all in this together.

In sum, these two rhetorics—the I Problem and the We problem—are rooted deeply in the historically powerful vision of nature as separate from humans. They commonly play out in everyday action and in policies. And they encourage a blindness to inequities that not only alienates essential public support for environmentalism, and often works actively against the health and interest of people, but also often works against the health of the environment.

I've come to believe that the tenacious cultural class divide in environmentalism is the biggest barrier that environmentalism faces—to achieve such essential goals as slowing climate change, revitalizing watersheds, preserving park space, eating healthy foods, breathing clean air, and drinking clean water. And that to break down the class divide, we have to stop saving the planet and start inhabiting it. We have to start using and altering and transforming *and* preserving it, with each other, sustainably and equitably, for the health of people, communities, and ecosystems. And that to do that, we have to dislodge these rhetorics.

So: Why the sea? What did Roger think? And why no criticism? And what do these three questions tell us about Rachel Carson's legacy?

To stand at the sea . . . is to have knowledge of things that are as nearly eternal as any earthly life can be. These things were before man ever stood on the shore of the ocean. . . . they continue year in, year out, through the centuries . . . while man's kingdoms rise and fall. - Rachel Carson, *Under the Sea-Wind*, 1941.

Why the sea?—and I'll slow down a bit this time for these questions.

. . . And to Carson, the ocean becomes the part of the natural world where she finds the most solace—that's least human, that's outside human control and governed instead by timeless eternal rhythms, and that's so vast that humans can't possibly change it. And when she writes *Silent Spring*, her only political book, and the only one that's not about the sea, she does do it in part out of real concern for people and other living things and the ecosystems they share—but her real, fundamental motive is that after World War II, with the one-two punch of first, the bomb and nuclear fallout, and second, the dangerous spread of toxic pesticides, she concludes that in fact no part of nature is outside our control or the power of humans to alter or degrade or outright destroy it, and she in fact mostly writes *Silent Spring* out of the depths of heartbreaking disappointment and real anger that even her beloved sea is not inviolable. . . .

. . . in the days before Hiroshima I used to wonder whether nature . . . actually needed protection from man. Surely the sea was inviolate and forever beyond man's power to change it. . . . But I was wrong.

- Rachel Carson, from *Scripps College Bulletin*, July 1962 (3 months before the publication of *Silent Spring*).

Carson wrote her first book *Under the Sea-Wind*—said to be her favorite—entirely from the point of view of the sea and its creatures, with no human presence. In her second book, *The Sea Around Us*—the book that made her famous—a few scientists and explorers appear briefly, and she includes a few pages on oil exploration. According to historian Gary Kroll, she did write a full chapter on *using* the sea—“The Ocean and a Hungry World”—that addressed the debate at the time about whether to harvest plankton and fish as major food sources. She decided to cut this chapter. Her last sea

book, too—*Edge of the Sea*—is all natural history. As she worked on *Silent Spring*, she ran through a number of possible titles, which included *The Control of Nature* and *Man Against the Earth*.

The beauty of the living world I was trying to save has always been uppermost in my mind—that, and anger at the . . . brutish things that were being done. I have felt bound by a solemn obligation to do what I could—if I didn't at least try I could never be happy again in nature.

- Rachel Carson, from a letter she wrote to friend and nature writer Lois Crisler in the wake of *Silent Spring*, 1962 (quoted in Linda Lear, *Rachel Carson: Witness for Nature*, 1997).

Why the sea? Where does that question lead? Rachel Carson is one of the great American apostles for the vision of nature as the real and timeless world outside the troubled human world. The book's legacy, I think, is indeed mixed. It's double. Much of what *Silent Spring* set in motion is acutely invaluable. It awakened public awareness about real and frightening environmental dangers, and it led to groundbreaking and foundational institutional structures to grapple with these dangers. Why did Carson write *Silent Spring*, though? Well, Carson generally helped cement this problematic vision of nature at the very core of modern environmentalism. And that, I think, is a more troubling part of her legacy.

What did Roger think?

Roger Christie, the famous boy in the book *The Sense of Wonder*, isn't an easy guy to find, or to find out about as an adult—which is itself interesting. He's not thanked in the biographies. The literature does say that after Carson dies, her editor Paul Brooks, not her family, takes him in—though Roger doesn't appear in the acknowledgments for the biography Brooks writes, or in the index and even barely in the book. Reading this literature, you have to begin to wonder. Where's Roger? Is he alive? Is he, like, in prison? Or worse than that, does he maybe work for DuPont or something?

He's not highly google-able, but you can get a few hits. In 1980, he accepts the Presidential Medal of Freedom on Carson's behalf. But where does he live? What does he do? In 1993, he shows up as one of the talking heads in the PBS *American Experience*

documentary—but not one of the main ones. He says, “I never forgot that I had another mother who was a real mother, but, you know, Rachel was my mother too.” He clearly loved Carson and admired her. He also says, “She would find something interesting and call me over . . . She was a great one for getting down and hearing under the rocks.” Nice, but he doesn’t say, Hey, we got under the rocks together!—or Wow, those outings were amazing! And what *does* he do? If he were a biologist, or a scientist or conservationist of any sort, the PBS documentary would say, wouldn’t it? Finally, in 2007, the centennial of Carson’s birth, his local newspaper publishes a feature on him. He lives in Harvard, Massachusetts. He’s married and has two sons. He’s a recording engineer. That same year, the *Washington Post* quotes him in an article about a rescreening, which he’ll attend, of the 1963 CBS special. He says, “She would lie for hours on a blanket in the woods . . . and see what would come and go.” Some of the outings, he says, “were a little too boring for me.”

There is something infinitely healing in these repeated refrains of nature, the assurance that after night, dawn comes, and spring after the winter.

- Rachel Carson, in *This Week Magazine*, 1952.

Roger must have had such a painful childhood. He lost two mothers by the age of twelve. He was, according to Carson’s chief biographer Linda Lear, a somewhat difficult and undisciplined child. One wisp of critique I find in this literature is that Carson, while she loved Roger and devoted a great deal of time to him, might not have been the most skilled indoor parent.

Carson herself was close to her mother, but I can just infer from the silence in the biographies—though I don’t know for sure—that she was not close to her father, or to her much older sister and brother. Her father doesn’t seem to have been around a lot. As adults, her siblings both left bad marriages. She had to drop out of graduate school at Johns Hopkins University to help support her family, and when her father died shortly after, she became the main breadwinner for her mother, as well as for her sister and two nieces, who had all moved in with them. Her sister died soon after *that*, leaving Carson and her mother with the two young nieces to raise, and her adult brother was by all accounts a real piece of work. Then one of her nieces dies, which leaves her with Roger. All these constant crises prevent her from pursuing a PhD and then hinder, first, her progress in a career in science, and then, time and again, her ability to focus

on her writing career. Throughout, she takes refuge in the natural world. I wonder, though, if nature offered the same consolations for Roger; surely to some degree—but maybe not as much.

What did Roger think? Where might that question lead? In the modern era, the wild places and things in nature can hold great beauties and wonders—for which Carson was a supremely eloquent voice. These places and things hold ecological truths that, Carson conveyed passionately, we need to understand to inhabit the ecosystems we do inhabit. They can also offer real refuge and solace from the pace and demands and social complexities of modern life—including anxieties about modern life itself. Not for everyone, however, and not necessarily for other societies or in other eras. Carson is one of our great apostles for the oh-so-problematic *idea* of nature as a timeless refuge from the relativism and vicissitudes of the human world—and again, she helped cement this idea, so far almost un-dislodgably, at the very core and center of modern environmentalism. But this idea of nature as timeless—and herein lies one of the ways it's so deeply problematic—disguises that the idea, in fact, has a history. It has served both general social needs throughout American history, and specific social needs for every generation, and, I think, fulfilled very specific and very personal needs for Rachel Carson.

Why no criticism?

*. . . And then, after the publication of *Silent Spring*, the specific circumstances of her personal and professional life as a woman stir up a kind of perfect storm of the intertwined meanings of women, nature, virtue, authenticity, and history, in which Rachel Carson is the perfect apostle for the idea of nature as authentic and timeless—an idea that has so often rendered the idea itself outside of history and also resistant to critique, and which, in turn, can render its perfect apostle resistant to historicization and immune to criticism.*

Here's the thing. We know that being a woman opens Carson and *Silent Spring* to attack—but it also deeply informs the defense. Carson is single. She never marries. Her closest relationship is with her mother. Her other major close relationship as an adult, apparently non-sexual, is with a woman, her friend Dorothy Freeman. And yet, she still raises children. Lovingly. She sacrifices dearly to do so. She dies of breast cancer.

She's the paragon of a virtuous woman—through no intent or fault of her own. That women are the caretakers of a society's virtue and morals might be one of the few ideas historically that can rival, in power and persistence, the idea of nature as the authentic *source* of virtue. It's as if Rachel Carson stands between the meanings of women and the meanings of nature, and both radiate virtue towards and around her in a kind of closed system. Again, through no choice of her own. (I'd actually love to hear what she'd have to say about her sainthood, and I expect it'd be quite funny.) She also successfully pursues a career against all odds in a male-dominated profession, and she readily out-argues the men—which resonates in the feminist era. And in this postfeminist era, she does all that *and* she raises three children.

Why no criticism? Rachel Carson's life and vision both personify ideas about both nature and women that radiate timeless virtue and authenticity. And this biography, along with Carson's exceptional ability and passion, helps make this self-reinforcing idea of nature—for which she's such a great apostle, and which she helps cement firmly at the core of environmentalism—exceptionally hard to dislodge and to critique.

When I googled up a 2009 CBS special on the legacy of *Silent Spring*, and clicked to play the video, guess what advertisement popped up: BP's ode to what a fantastic job they've done to clean up the 127 million gallons of oil they spilled in the Gulf.

The environmental movement clearly still has a great deal of work to do. Carson's crusade, against omnipresent and poisonous toxics, is not even close to finished. And this powerful vision of nature, as the central environmentalist trope—as what we talk about when we talk about environmentalism—has gotten us far. But it is long past time to move it away, to dislodge it, from the center of environmentalism. We owe so much to Rachel Carson. But I don't think that her vision of nature can ultimately sustain a culture of environmentalism that will effectively arm us to create the clean, healthy world, full of healthy wild things and places, as well as healthy people, that she wanted to create for Roger.

When one-time Republican presidential candidate Rick Santorum questioned whether President Obama had the proper Christian values—just one of his famous pronouncements, which would have been startling if they hadn't been so frequent—it turned out that he was talking about Obama's *energy policy*. And later on *Face the Nation*, when moderator Bob Schieffer asked him to elaborate, he explained, “I was talking about the

radical environmentalists”—of which, apparently, Obama is one—who all believe that “man is here to serve the Earth.” And Santorum might be an extremist—the sweatier version of Glenn Beck, the polite Rush Limbaugh—but the Republicans are exploiting this class divide, which has long plagued environmentalism, fiercely. More than any cultural, social, or economic issue, environmentalism is the Number One right-wing bogeyman. It’s *the* codeword for “they don’t care about you.” *They*. Environmentalists. The people who want you to be able to breathe clean air and drink clean water. And we make it so easy for people like Santorum—every time we say we’re trying to save the planet.

I do know that environmentalism is changing. I know that a new and more inclusive culture of environmentalism, that breaks down the class divide, is happening in a lot of places. I see it in projects in Los Angeles, for example, in not a few newfangled cross-class coalitions to preserve park space, to clean up the air, to revitalize and re-imagine and intensively re-manage the phenomenally messed-up watershed that L.A. inhabits. And I’m sure you see it, too, in the places where you live. Yet the established twentieth-century rhetorics can seem ineradicably powerful, and so persistently counter-productive. And shouldn’t we fight as fiercely as we can to change them—with all the skill, passion, and rock-solid integrity that Rachel Carson brought to the cause?

Left:
Elmer Price (Courtesy of the author).



Right:
Elmer Price’s grandchildren (Courtesy of the author).



Here’s my Dad. These are his grandchildren. They are very much, in all the best ways, their grandfather’s grandchildren. My father loved history. He believed in its power, so I have to think he would agree that the most powerful thing historians can do with their heroes is to make them stranger, and then to make that strangeness familiar—Why did their ideas make sense to *them*? And how do these ideas make sense and not make sense for us now?—so that we can achieve the perspective that we absolutely need to move into the future.

Lawrence Culver

Reading *Silent Spring* as a Challenge for Contemporary Environmentalism

Jenny Price asks us why Rachel Carson—arguably the single most important figure in the history of the environmental movement—has been remembered and studied so uncritically. She argues that a more complete assessment of Carson and her work will help us better understand her, and her work. I concur, and wish to pose a related question about the environmental movement since Carson's death: Why, fifty years after *Silent Spring*, has there been no other book that has come even vaguely close to matching its impact? No other environmentally minded scientist, academic, or public intellectual has achieved a similarly successful intervention into US or global environmental issues since 1962. Why? More to the point, is this a question of the movement, or of the moment?

It is not as though there are no comparable issues to the use of DDT. The most successful similar effort to combat a chemical has been the effort to eliminate the use of chlorofluorocarbons in coolants, aerosols, and other products, and that effort has been largely successful. Yet efforts to combat the greatest environmental threat of our time, greenhouse-gas-induced climate change, have been largely unsuccessful. The United States, China, and the world as a whole have already surpassed all the worst-case predictions for carbon dioxide emissions. It is probably too late to prevent climate change, and instead now we must cope with an increasingly unpredictable world. Nine of the ten hottest years on record have occurred since 2000. In the United States, 2012 is the hottest year on record. More and more Arctic sea ice is disappearing in summer, and we may be on the brink of triggering natural feedbacks that will warm the climate further. It seems increasingly clear that if Carson warned us of a silent spring, we now all face a planetary hot summer.

In light of such grim facts, one has to ask why the environmental movement has not produced another figure such as Carson, and why it has thus far failed to successfully effect the political and economic changes necessary to make serious progress to combat climate change. Price offers several critiques of the environmental movement, at least in the United States, since Carson. According to Price, US environmentalism has centered on personal virtue, and much of that virtue was defined by consumption, from hybrid cars to organic food. This alienated poorer Americans, who could not

afford virtuous consumption. It also ignored production and labor, and environmental regulations, blamed for putting Americans out of work, most definitely played a large role in creating working-class hostility to environmentalism. Until recently, major environmental organizations paid scant attention to issues of environmental justice and environmental racism in urban areas and poor or nonwhite communities. On a global scale, this remains the case. Americans were horrified by the BP *Deepwater Horizon* oil disaster in the Gulf of Mexico in 2010, but very few Americans know about the ongoing dreadful ecological consequences of oil extraction in places such as Nigeria. At a more basic level, while the environmental movement has done a great deal to warn us of the dangers we face, it has not necessarily made a convincing argument that combating climate change is not merely a matter of avoiding disaster, but could in fact result in a better, more equitable, and potentially more prosperous world.



CBS reporter Eric Severeid interviews Carson for *CBS Reports* in 1963 (Source: CBS Photo Archive).

So, is it the movement itself that is the problem? Or is it instead the moment? Did Carson succeed in part because 1962 was a different world than 2012? Carson certainly operated in a much smaller and more civil media environment. With a frenetic 24-hour

news cycle, it seems unlikely that *Silent Spring* would receive the same sustained attention today. We can hope that Carson's gender would not be an issue in 2012, as it was in 1962. At the same time, however, our current media would have no compunction about delving into her personal life, or her role as a surrogate parent, and those, perhaps, might have been used against her. US politics were charged and polarized in the 1960s, as they are today. One ominous change, however, is the aggressive politicalization of science, especially climate science, in the United States. While Carson faced great hostility from the US chemical industry, their resources pale in comparison to the resources Exxon, BP, or Shell have at their disposal. Carson also had a more straightforward story to tell. A human-created poison aimed at mosquitoes had been unleashed into the world, with dire consequences. DDT was one pesticide, which could be banned, or at least used more judiciously. Climate change, in contrast, requires a reengineering of transportation, energy, agriculture, and other vast portions of the global economy. It is a far larger problem, and the science behind it is much more complex and uncertain. The fact that a single poison could kill and spread through an ecosystem was easier to accept, and harder to refute.

That prudence should prevail over recklessness seems such a plain truth that it goes without saying. Nevertheless, that plain truth, elegantly written in *Silent Spring*, galvanized the world.

Andy Jacoby, New Orleans, USA

Yet, to make these observations is emphatically not meant to lessen Carson's legacy. She wrought a vast transformation of the environmental movement, particularly in the United States. That movement had been dominated by men, from John Muir, to Theodore Roosevelt, to David Brower. It had also been focused on the preservation of romantic landscapes that were imbued with patriotic American sentiment, from the Grand Canyon to Yosemite. Carson forced Americans—and people around the world—to see the nature in their own cities and backyards, and to begin to understand that they, and the choices they made, were part of a larger ecological system. Nature is not “out there”—it is right here, and even inside us. The role she played in heightening global ecological awareness is incalculable.

The fact remains that Carson was a wonderfully gifted author who could write with remarkable clarity about complex issues. That gift, which she used to such effect, is her greatest legacy. Environmentally minded writers of our own era must follow her lead to achieve environmental change in the twenty-first century. The world we live in, and the problems we face, are far more complex than those of fifty years ago. We must recognize this not as a lament, but as a challenge. If twenty-first-century environmentalists can find ways to express their scientific knowledge and ecological values with the same lyrical clarity, and if they can make a compelling case to a global public despite the slowly grinding gears of politics, the public relations campaigns of energy companies, and the chatter of our media, we might yet discover an abundance of new *Silent Springs*, and a world led by a new generation of Rachel Carsons.

Lisa Sideris

A Fable for Bloomington

Spring 2012. Bloomington, Indiana.

Something strange is happening in my hometown this spring. Maybe in yours too. I live in Bloomington, Indiana, a town named for spectacular vernal displays. Spring announces its arrival in vernaculars of yellow—daffodils and forsythia. After a brief lull, magnolias bring forth bowl-sized pink and white flowers. A purple fringe of redbuds soon graces our hillsides; then come the crabapples and dogwoods. Other characters appear in this annual procession and there are slight variations, subject always to the whims of spring. This year, as temperatures topped out in the high 80s in mid-March, spring resembled one of those time-lapse nature films we watched in grade school, where the plant unfurls, flowers, and dies in seconds. Students who went away for spring break missed much of this highly compressed spring. Upon returning, they bake themselves on front lawns, glad for the opportunity to deepen their spring break tans. Virtually everyone, in fact, seems glad.

My hometown newspaper runs a story urging gardeners to hold off, not to be seduced by what it calls a “false spring.” Its author did not intend to weigh in on debates about the social construction of nature, but merely to warn that cold weather will return. It doesn't return; it gets hotter. The Indianapolis 500—a perfect symbol of the excesses of fossil fuel culture—commences its annual run in record heat on 27 May, Rachel Carson's birthday. Race-fans are advised to keep cold drinks on hand; they are happy to oblige. My newspaper features a front-page article that finally makes official something gardeners have suspected: Bloomington has migrated from hardiness zone five to six in a couple of decades. The story emphasized that no clear connection can be established between our local warming trend and climate change.

The false spring, it seems, is now our *new* spring—officially the *real* spring—though it seems unreal to me.

Silent Spring begins with a fable about a small town in which spring's arrival reveals that something has gone terribly awry—a story not unlike the one I've just told. Only

in Carson's fable, the townspeople are bewildered and concerned, whereas folks in my town seem mostly jolly—and tan. Readers have always been put off by Carson's fable. Some believe that a book with scientific content has no business beginning with a story that isn't true; others take the fable to signal that the entire book is hyperbolic, as though by beginning with an imagined tale, Carson was announcing: "What follows is based on an untrue story."

Some took Carson to be predicting the end of the world. This line of interpretation has been revived by right-wing bloggers who liken Carson to mass murderers, ranging from Hitler, to Pol Pot, to bin Laden (pick your favorite). They charge that Carson's apocalyptic fear-mongering about DDT has resulted in millions of deaths from malarial mosquitoes in the developing world. It's a good illustration of how environmentalism has become code for *not* caring about vulnerable humans. But it's an unfair rejoinder to *Silent Spring*. A more novel feature of these attacks is that many align Carson's warnings about chemical pesticides with current fears about climate change. Carson's dire predictions never came true, critics contend, and nor will Al Gore's or Bill McKibben's. Carson's fable unwittingly opened the door to charges that she was making stuff up—like those climate scientists who fudge the data, just so they can scare us and take away our SUVs. When the alarm sounds this time around, we should all hit the snooze button.

And so, in some strange way, the legacy of *Silent Spring* would seem to be Climategate.

These bloggers may have given me a distorted picture of how dismissive US culture beyond the academy really is of Rachel Carson, and environmentalism. I might be wrong to think of Carson as a good person perennially under fire, rather than someone whose sainthood is blithely affirmed again and again by people who ought to know better (i.e., academics). But at a time when 69 percent of Americans—surely not all of them Fox News ideologues—say it's "likely" that scientists falsify climate data, I admit, I'm reluctant to provide grist for that mill by casting doubt on Carson's credibility or values. This is a culture war. The attacks aren't all on the fringe, and they sure as hell aren't fair. On the centennial of Carson's birth, the *New York Times* ran an op-ed calling *Silent Spring* exaggerated, apocalyptic junk science. (The junk science charge has been around for decades, and it is less persuasive as time passes. Is there any scientist whose work is not considered incomplete half a century later?) *Silent Spring*, in any case, is fundamentally a social critique, and as an ethicist, I can't find much wrong with Carson's worldview. Granted, I can't

speak to her “indoor parenting skills,” which may have been slightly suboptimal. I leave that to the right-wing bloggers with their unassailable family values.

Carson did indeed defend a conception of nature as the “real world,” the “authentic counterpoint to modern life,” as Jenny Price contends. (My six-year-old son, who recently overheard me talking about whether or not nature is the *real world*, remarked to me: “If nature isn’t real, then neither are we.” I’m not sure if this makes him a materialist or a romantic. Carson was both.) Scholars today can congratulate themselves on being more sophisticated than Carson—and my kindergartener. But when summer begins in March in Indiana, is there something *unreal* about that? I think there is. When human activity re-creates the seasons, is this a *moral* transgression? I’m inclined to say yes. It’s important to retain some normative leverage here.



Rachel Carson testifying before the Senate Government Operations subcommittee studying pesticide spraying, 4 June 1963 (Source: ddp images).

Somehow, Carson’s defense of nature as authentic *reality* gave rise to a critique of environmental threats of any sort as largely unreal—a matter of fiction or faith. Her decision to open *Silent Spring* with a fable seems partly to blame. Carson blended fact with fable in ways that confuse and alarm readers who apparently have difficulty sifting through the book’s unusual mix of genres. So, were I to fault Carson, I might say that she was *too* good a writer, with *too* much faith in her readers’ intelligence. It falls to us to prove that Carson’s faith in us was justified. It seems we have a long way to go.

I don't mind admitting that I shed a tear at that swallow, or perhaps for us, for that little piece of inspiration for poetry in English, or any other language for that matter. The returning spring migrants always evoke for me Ted Hughes's famous and oft-quoted line (from his poem *Swifts*): "They've made it again, which means the globe's still working." He captures, in ten words, the thrill of these birds, the message of hope that they carry, that they symbolize. Only it's more than symbolic, it is what they are, not just what they mean. Planet health.

Conor Mark Jameson, Great Britain

I am lucky that I can still see eagles, the migratory raptors flying over my head at Hawkhill, in the Pacific Flyway at Golden Gate Park. . . . We must safeguard our natural environment, with its diversity of life, for present and future generations. The world we live in is real, but not violent. And, there is always reason for hope.

Kevin Huo, Junior Prize Entrant, California, USA

Nancy Langston

Rachel Carson and An Ecological View of Health

In her critique of Carson, Jenny Price writes that “Rachel Carson is the perfect apostle for the idea of nature as authentic and timeless”¹—an idea of nature separated from humans. I certainly agree with Price that the belief that humans are separate from nature has profound problems, particularly for environmental justice. But my own response to Carson is quite different than Price’s, perhaps because I’m most familiar with *Silent Spring* rather than with Carson’s early works on the sea.

When I first read *Silent Spring* in high school, I found it frustrating—precisely because it did *not* evoke the idea of nature isolated from human influence that Price critiques. At the time, I was a backpacker and climber devoted to wilderness experiences in Alaska, and the ecstasies of John Muir and the astringent commentaries of Henry Thoreau were much more to my taste. *Silent Spring* dwelled on pollution, and as a teenager, I did not want to read about all those depressing links between people and nature. I wanted to exalt in the ineffable power of wild nature, not learn the complexities of pollutant chemistry.

In 2000, when I finally reread *Silent Spring* in order to teach several chapters from it, I realized how much I had missed by avoiding Carson’s writings. That week, I invited a graduate student named Maria to visit with my undergraduate class when we discussed *Silent Spring*. Maria had grown up along the Fox River in Wisconsin, where paper mills lined the shore. During her childhood, the stench from the mill waste in the river had been so bad that the city of Green Bay had dumped perfume in the water. But perfume could not mask the toxic contamination. In the 1960s, the paper companies had manufactured carbonless copy paper coated with industrial chemicals known as polychlorinated biphenyls (PCBs). Few scientists had suspected the potent hormonal effects that PCBs could have on developing fetuses and children, and the chemicals had gone essentially unregulated. Many of the PCBs used by the paper companies had made their way into the Fox River, where they had accumulated in the fatty tissues of fish.²

1 Jenny Price, Plenary, “Stop Saving the Planet!—and Other Tips via Rachel Carson for Twenty-First-Century Environmentalists,” *RCC Perspectives, Rachel Carseon’s Silent Spring: Ecounters and Legacies*, 7 (2012): 15.

2 Revised to include citation to Jenny’s essay in this issue. This paragraph and the three that follow are from my earlier work, *Toxic Bodies: Hormone Disruptors and the Legacy of DES* (New Haven: Yale University Press, 2010), used with permission. I am grateful to Yale University Press for permission to reuse several paragraphs from my book.



The popular Dutch weekly *Elseviers Weekblad* serialized selections of *Silent Spring* over several issues. Elseviers was the only periodical to commission its own illustrations, which were strikingly dramatic and even lurid (Source: *Elseviers Weekblad*, 1963).

Every Friday night, Maria's family had participated in the Wisconsin tradition of the fish fry, going to a tavern to eat their fill of local fish. On hot summer days they had splashed in the cool waters of Green Bay, where the Fox River empties into Lake Michigan. And now, decades later, the river was a toxic waste site where various groups contested responsibility for cleaning up the PCBs, chemicals that had become notorious for their toxic properties, particularly their ability to disrupt hormone systems.

Maria knew from her research that, as an infant, her child was particularly vulnerable to chemicals that had accumulated into more concentrated and toxic forms. Breastfeeding

would reduce the concentration of PCBs in Maria's own body, accumulated over decades lived along the Fox River. But she would pass on those chemicals to her daughter, with unknown and potentially tragic effects. Knowing that her own body was a toxic waste site, how could she breastfeed her child? At the same time, knowing that breast milk offered many health benefits to babies, how could she deny those to her daughter?

Maria's dilemma brought Rachel Carson's arguments in *Silent Spring* into sharp relief for my class. Maria's story, like Carson's *Silent Spring*, revealed the intimate links between ecological health and human health. Since World War II, synthetic chemicals in plastics, pharmaceuticals, and pesticides have permeated bodies and ecosystems throughout the United States, often with profound health and ecological effects, yet the government has largely failed to regulate them. Why? Carson argued that the core reason was a modern belief that humans could isolate themselves from nature and then control it. Carson called instead for an ecological approach to health that would place the burden of proof for safety on those who wish to profit from chemical exposures.³

As Carson argues in *Silent Spring*, our bodies exist in dynamic ecological relationships to ourselves and to the worlds in which we are embedded. In Carson's vision, humans are intimately linked to the natural world, and our health emerges in relationship with larger natural processes. She showed how synthetic chemicals change the network of genetic, immunological, neurological, hormonal, and environmental interrelationships that lead to environmental health.

Above all, Carson reminded us that humans and the rest of nature cannot be separated. We are all in this together. A hormonally active drug taken by a woman finds its way through her body, into sewage systems, and into the river, where it may be altering the sex of fishes. A bit of manure dropped by a cow finds its way into a river, and the steroids fed to that cow end up in the river as well. A fish swims in the chemical soup, downstream from where that cow had grazed—and then pelicans or people eat those fish. When biologists go to sample the health of the river, they find aquatic systems transformed by mysterious side effects of chemicals that act as endocrine disruptors

3 Maril Hazlett, "Voices From the Spring: Silent Spring and the Ecological Turn in American Health," in *Seeing Nature through Gender*, ed. Virginia Scharff (Lawrence: University of Kansas Press, 2003), 103–28.

in wildlife and in ourselves.⁴ *Silent Spring* told us that rich or poor, urban or rural, human or nonhuman, we are all exposed to toxic chemicals that move through our watersheds, crossing boundaries between generations, linking land and water, fish and fowl, environments and people.

It's over a very intricate pattern of politics, corruption, mafia gangs, and rubbish that the illegal dumping of extremely hazardous chemicals (and possibly nuclear waste) was woven and added a color of its own to the Italian tapestry: black, the color of death. . . . Now an area of about 15 square kilometers is heavily contaminated with the famous volcano, Mount Ver-suvius, looming only a few kilometers away, ready to shift the landscape and reexpose the dangerous poisons that were illegally discarded there.

Aurélie Marie Thérèse Labbé, Isle de Réunion / Australia

In today's maritime world, it's not hard to go back to 1962. Just take a core of the sediments at the bottom of an estuary or bay and a short distance down from the surface, where they settled in 1962, you'll find some of the pesticides that Rachel wrote about in *Silent Spring*.

Stephen S. Hale, Rhode Island, USA

Rachel Carson's book had an impact in the Carribbean. . . . In an interview conducted in Trinidad in September 1999, Trinidadian naturalist Victor Quesnel told me that *Silent Spring* started the local conservation movement. "After *Silent Spring* was published, the [Trinidad Field Naturalist's] Club became a member of the Blue River Action Committee working to prevent the transportation of liquid pro-gas by the Pelican gorge along the river in the Caroni Swamp. The Club also spoke out against excessive quarrying."

Cheryl Lans, Trinidad / Canada

4 This paragraph is from my earlier essay, "Gender Transformed: Endocrine Disruptors in the Environment," in *Seeing Nature through Gender*, ed. Virginia Scharff (Lawrence: University of Kansas Press, 2003), 129–66.

Silent Spring Essay Competition Senior Prize Winner

Joan Maloof

Rachel Carson's Daughter

"Dear Lynn, Jane, Sheryl, Joan, Jean," the letter begins. It is a letter from my father. It is typewritten, which is a good thing, since my father's handwriting was notoriously difficult to decipher. The letter is addressed to his daughters—all five of us, named in order from oldest to youngest. It is the only letter he ever wrote to us as a group. And the topic of this formal looking, one-of-a-kind letter? DDT.

I am certain this is the only father-daughter letter ever written that begins: "Many times in the past, especially during your high school and early college years, we've had discussions regarding my involvement with the manufacture of DDT and Lindane (the gamma isomer of benzene hexachloride), another highly persistent, inexpensive, broad-spectrum insecticide." Sent along with the letter was an article titled "The Mosquito Killer" from the 2 July 2001 issue of *The New Yorker*.

Reading along, it soon becomes clear that the purpose of the letter, and its supporting article, are to exonerate my father, Jack Lukas, for his role in producing untold tons of pesticides: pesticides of the type that accumulate in the food chain and persist for decades, and are therefore still in our bodies and in the environment surrounding us. These chemicals have been linked to low sperm counts, miscarriages, and premature births,¹ making him—some would argue—a metaphorical baby-killer. But that is precisely the reputation he wanted to avoid. In the letter, it is clear that he would rather be remembered as a *hero* in a *war*. The enemy was malaria, the weapon of choice was DDT, and he was the dashing young chemical engineer responsible for saving hundreds of thousands, maybe millions, of lives.

Malaria is a disease caused by microscopic one-celled organisms carried from person to person by mosquitoes. It kills about a million people a year,² most of them African

1 The US Centers for Disease Control and Prevention, and the Agency for Toxic Substances and Disease Registry agrees that there is an association of elevated DDT levels with premature births and low birth weight infants. See also "Endocrinology: DDT Linked to Miscarriages," *Science News* 166, no. 20 (2004): 318.

2 Estimates vary widely from 800,000 to 2.7 million.

children under the age of five. That's more deaths *per year* than the total of all the Americans killed in all of the wars so far. DDT both repels and kills mosquitoes, so its use drastically reduces deaths from malaria.

My father's involvement with DDT began the year I was born, 1956, and continued until I was 12 years old. He was in charge of DDT production for Allied Chemical's Marcus Hook plant in Pennsylvania, USA, and he did his work well. As he explains in the letter: "By means of tricks, shortcuts, and minor equipment changes—a bigger pump here, a larger diameter pipe there, we raised output to 80 thousand pounds per day by 1960. That's 28 million pounds per year—at twenty-five cents per pound."

I have preschool memories of riding with my mother to drop him off at the plant so she could use the car for grocery shopping. I remember exactly what he wore to work: the khaki pants, the thick wool socks with a red band around the top, and the tan lace-up boots. I also remember my mother hanging his work clothes to dry on the line in the yard—alongside my little dresses. No doubt they were washed together and DDT was pervasive in my home, in my backyard, and in the air and water of my community. I was two years old when Rachel Carson started writing *Silent Spring*. I was six when it was published. Although I have no clear memory of household discussions about Carson, I did have the general sense that she was disliked, along with the government regulators. At the dinner table I heard the 60s manufacturing mantras: "the solution to pollution is dilution" (in response to concerns about the chemicals that were sent through pipes into the Delaware River) and "the soil filters out impurities" (in response to concerns about chemicals leaching into the groundwater from unlined pits). I remember talk about chloroflourcarbons being restricted because of the hole in the ozone layer. Dad was against the restrictions.

Up to this point any one of my sisters could have written this story, but here is where it becomes uniquely my own, because I am the one who became an environmentalist. I am the child who grew up to side with Rachel Carson, the one who voted for Barry Commoner,³ the one with a PhD in ecology, the one who has a plaque in her yard declaring it a "pesticide-free zone." I hug trees, I eat organic food.

3 Barry Commoner was a well-known environmentalist who wrote books such as *The Closing Circle*. He ran for President of the United States on the Citizens Party ticket in 1980.

“You think you’ve got problems?” my father was known to reply to colleagues complaining about the tattoos, drug use, or legal problems of their children. “My daughter’s an *environmentalist*.”

In the letter, my father’s animosity toward Carson is evident. If he was a hero engaged in a war, she was a traitor—a double agent working from the inside to prevent victory.

Depending upon your point of view it may seem either utterly improbable or eminently logical that I grew up to become an environmentalist. Was my choice of careers a result of rebellion against parental values, that time-honored tradition? Or was it more mystical: Mother Nature seeking the balance she is so well known for? Rachel Carson never had a daughter, but if she did would her daughter be someone like me? Both Carson and I first loved the world as naturalists; in college we both studied the world as scientists; later, we both communicated what we knew as writers. My worldview is closer to Rachel Carson’s than it is to my own father’s.



The author
and her father
(Courtesy of the
author).

Or would Carson’s daughter be completely different—perhaps an industrial capitalist, more like my father? Carson, had she lived long enough, might have had to explain to her friends that her daughter chose to become one of the many attorneys defending Monsanto.

Despite our differences my father and I kept a warm love burning, one for the other. His letter closes: “With love and much hope for your comments on the article.”

I have a feeling I am the only daughter who responded with articles for *him* to read; articles that pointed out how the fast rate of insect reproduction, combined with the selection pressure from pesticides, resulted in insect species that quickly develop pesticide resistance. Deadly elixirs alone could never solve the insect-vector disease problem. The solutions to malaria are all multidimensional and include physical barriers, such as mosquito netting; other species, such as insect-eating bats and birds; and preventative medicine. *The war will not be won with bullets alone*, was my message to him.

Left:
Plant in Marcus Hook, Pennsylvania, USA, where the author's father manufactured DDT. Wing of the plane can be seen at the top of the photo (Courtesy of the author).

Right:
Another view of the chemical plant with the Delaware River in the foreground (Courtesy of the author).



The year before he died my father gave me the records he had been saving from his years of making DDT. They were the only personal items he gave me. In the files were copies of requisition forms for larger pumps, maintenance schedules, performance reports, and aerial photos of the plant. When he gave me this bundle he pointed out on the aerial photos where the large pipe led from the manufacturing facility into the Delaware River. As he described how once a week they had to stop production so a man could go into the pipe and scrape loose the waxy yellow DDT residue, I felt as though I were listening to a confession, and I tried to be as calm and compassionate as a priest in receiving it.

Why had he chosen me, out of the five, to be the recipient of this information?

The remains of both my father and Rachel Carson have been incinerated. The elements that made up their bodies have returned to the Earth and the sky to become new forms. But that waxy substance still remains in the bottom of the Delaware River and in every long-lived carnivore on the planet. Last year both my mother and my sister were diagnosed with breast cancer. Yesterday, I got a letter telling me the results of my recent mammogram showed irregularities. Perhaps this has nothing to do with my father's work, but perhaps it does. Research shows that a high level of DDT in the blood of young women predicts a fivefold increased risk of breast cancer developing later.⁴

The month after my father died, a local environmental group asked our state legislature to declare 27 May 2007 "Rachel Carson Day" in honor of her centennial birthday. I spoke in favor of the bill, but a portly State Senator, sounding much like my father's ghost, spoke up to extol the virtues of DDT. The skirmish for and against DDT continues. Those in favor of resuming domestic production always cite the young African children who are malaria's primary victims, but a close look at the record shows that those speaking in favor of DDT tend not to be healthcare workers or social workers. Frequently they are economists.⁵

Why would economists bother with this DDT battle? Free market economists, such as the members of the Competitive Enterprise Institute, tend to be critical of environmental regulations, because they are viewed as restricting the growth of industry. These are the same folks who questioned the research showing that smoking was bad for one's health. They believe that if US plants are not making as many cigarettes, or any DDT, then we are less competitive economically. Instead of admitting this reasoning, however, they have been known to cloud the argument by accusing Rachel Carson, and the environmental activists who followed her, of being insensitive to the needs of the communities suffering from malaria. (Those poor African children!)

Our world views couldn't be more different, my father and I: he of the Fox-News, Atlas-Shrugged, Chemical-Solution mindset. But, like him, I am a tough one: willing to work

4 BA Cohn, MI Wolff, PM Cirillo, and RI Sholtz, "DDT and Breast Cancer in Young Women: New Data on the Significance of Age at Exposure," *Environmental Health Perspectives* 115, no. 10 (2007): 1406–14.

5 Pesticide Action Network, "Who's promoting DDT?" <http://www.panna.org/ddt/promoting>; accessed 11 August 2010.

hard and stand proud for what I believe in. Carson shares that with us too. What I believe in can be summed up by Barry Commoner's first law of ecology: Everything is connected to everything else.⁶ There is one ecosphere for all living organisms and what affects one, affects all.

My father's legacy to me was a strong mind, a good education, and an almost frightening tenacity. But I will not use those gifts to support his vision of the world. I will use them instead to say that the solution to pollution is *not* dilution; we should *not* be manufacturing bioaccumulative chemicals; and cancer *prevention* is more important than a cancer cure. Rachel Carson was right.

Silent Spring is rightly credited with spurring the global environmental movement. Less recognized and celebrated are Rachel Carson's contributions to the nascent feminist movement. By inspiring dedication to environmental protection, *Silent Spring's* message to question traditional authority profoundly empowered women.

Nancy Unger, California, USA

6 Barry Commoner, *The Closing Circle: Nature, Man, and Technology* (New York: Knopf, 1971).

Christof Mauch

Saint Rachel

In her sparkling and provocative talk, Jenny took issue with the largely uncritical reception of Rachel Carson in the books written about her. “Was Rachel Carson a saint, or a prophet?” Jenny asked. “No,” she concludes, “she was human.” Jenny didn’t use the word saint lightly; Rachel Carson has been referred to as the “nun of nature” and in Margaret Atwood’s 2010 novel, *The Year of the Flood*, the feast day of Saint Rachel Carson is celebrated. What is it about Rachel Carson, and her pivotal work *Silent Spring* in particular, that inspires this kind of reverence?

Of course Rachel Carson was not a saint. But the often mentioned reasons for the phenomenal and lasting success of her book—that she was able to draw on the anxiety of the US public in the nuclear age and that Carson’s language is so compelling—do not quite work as sole explanations. The political context has changed over time, and Carson’s language has changed across world regions and through translation. The answer is more complex, and more global.

█ *Silent Spring* was truly the messiah that nature had been desperately waiting for.
David Baltazar, Junior Prize Entrant, USA

Certainly, the impact of *Silent Spring* was felt far beyond North America. In the British House of Lords, *Silent Spring* was debated for more than four hours, an unprecedented thing for a book; and in Sweden, a new word, *biocid*, entered the language as a direct result of Rachel Carson’s writing. In Cuba, Fidel Castro started a book series for university education called “Ediciones Revolucionarias,” with *Silent Spring* becoming the first volume in the collection; and in Trinidad, as I learned from a submission to the essay competition organized by the Rachel Carson Center for Environment and Society in early 2012, the age-old Field Naturalists’ Club changed its hiking-club agenda and spoke out against excessive quarrying after its members read *Silent Spring*.

The responses from the essay competition illustrate the way in which Rachel Carson’s words speak to people across the globe, five decades after they were first put to paper.

Reading through the more than fifty essays from all over the world, I was struck by the incredible plurality and diversity of insights that *Silent Spring* has sparked. There are thought experiments that make us appreciate and wonder about our environment (“Imagine that you are an inhabitant of the Moon rather than of Earth”); there are ethical tracts; and essays about the closeness of humans and parrots, and about caring (caring for nature and caring for family—and Rachel’s care for Roger!), about oceans of plastic and hydro-fracking. About landscapes with poisons hidden in the ground—such as the foot of Mount Vesuvius where an eruption would reexpose the dirty soil. There are very personal essays too: one written by the daughter of a man who fought the “war against DDT” in a chemical plant in Pennsylvania, and another one written by a US student who lived on a farm in Japan, where he discovers *Silent Spring* in Japanese and began to read it, a book that had changed the life of the farmer.



In its 12 October 1962 issue, *Life* magazine included this photo of Carson talking with children in the woods by her home (Source: Alfred Eisenstadt, *Time & Life Pictures*).

Language was indeed one reason why Carson’s arguments were so compelling—a language that manages to be, in equal measure, both gentle and insistent. The first chapter, which describes a town “in the heart of America” struck by “mysterious maladies,” sets the tone for the whole book. Her writing style is as clear as it is hauntingly poetic. Carson

captivated her readers not just by reciting facts, but by subtly alerting them to the implications of her analysis. Not many scientists are able to present their research in such a gripping way. Unlike George Perkins Marsh, whose magisterial *Man and Nature* was published a century earlier, Carson did not see nature and man as separate from one another. Humanity and its environment are both part of a delicate system of living organisms. Some of the more famous photos of Rachel Carson depict her bent over a microscope; others show her at the beach or in the forest with binoculars. This ability to move between the microscopic and the macroscopic—from manipulated atoms to Texan farmers, from egg to reptile, from fish to bird to flower to food, from land to water to air—is what characterizes many of Carson's observations. Her view is one of the world as a complex organic system, in which everything is connected to everything else—a comprehensive and dynamic view that one could call ecoscopic. Other scientists may have had similar views. But nobody else revealed the role of humans in manipulating nature in such a powerful way. Nobody else showed so clearly that the composition of the chemicals “in the tissues of the unborn child,” the fate of future generations, and of humanity as a whole, lies in the hands of those who have the authority to define risk today.

Rachel Carson wasn't a saint, but she was, as Jenny said, a hero: a hero *par excellence*, because she displays courage from a position of weakness—against fierce attacks from powerful opponents in the shape of big agriculture, the pesticide industry, and the reputation of a Swiss Nobel prize laureate. The balance of power between Carson and her opponents seems so uneven that it invokes the biblical story of David and Goliath; or perhaps, since gender matters here, the legends of the early Christian martyrs, such as Saint Katharine of Alexandria.



Rachel Carson poses in her study with *Silent Spring* for *Life* magazine (Source: ddp images).

So Rachel Carson was not a saint, but her story invokes the courage of early Christian martyrs: indeed, I could argue that saints and prophets were also human. And wasn't

Rachel Carson as much a prophet as a writer or a scientist, a *poeta vates*, as the Romans might have called her, a creative writer with the energy and with an inspiration to imagine the future? Indeed, the way Carson structures her arguments is reminiscent of biblical prophecy: she presents a problem, identifies the causes, provides illustrative examples, and ends with an exhortation to avert future calamities. Her warnings are both vivid and universal. Because the idyllic town in the opening pages of her book is fictional, it could be anywhere and anytime. When we read Carson's book today it is not only about DDT: it is the story about everything that has ever come out of spray guns; more broadly, it is about the human "assaults on the natural world." Tellingly, she dedicated her book to Albert Schweitzer and his ominous lament that "man has lost the capacity to foresee and to forestall." That, to me, is a lament about the lack of prophets in the world, a lack that Carson is trying to address in her work.

She opened the book with a fable. She borrowed Aesop's style, pacing and wry, light touch; she even provided an explanation at the end, as Aesop did for his slower listeners. But her fable was like Biblical stories too, like ancient wisdom-tradition paradoxes and some of Jesus's parables: the words have to sit for a while in the heart before meaning emerges, strong and vibrant enough to give us moral direction in shaping our relationships with the created world around us . . . and with each other.

Jean Terepka, New York City, USA

These elements are key in understanding how *Silent Spring*—a very US book using almost exclusively US examples—resonated and continues to resonate around the globe, fifty years after its initial publication. Prophecy and courage from a position of weakness are ideas that are amongst the most enduring in human culture, and this is how Carson's stories can be retold and reinterpreted time and time again, never losing their power and immediacy.

So perhaps the hagiographies of Rachel Carson are not so unjustified. *Silent Spring* is alive and seemingly so timeless because it doesn't just impart knowledge. It provides orientation. It is about a way of seeing and listening and exposing that everything is connected, from manipulated atoms to reptiles to air, and of revealing subversively that every voice—especially the disadvantaged ones—should be heard.

Voices from the Silent Spring Essay Competition

If Rachel Carson were alive today. . .

Were she alive today, she would be appalled. She would be focusing much of her scientific study, writing, and advocacy on ending the nuclear age—its nuclear weapons, nuclear power plants, and nuclear wastes.

Robert K. Musil, Washington DC, USA

If she was alive today, she 100 percent would be writing about these external hormones and their usage in agriculture, this potential danger is likely to remain in our lives if we cannot stop it.

Turgay Çelik, Junior Prize Entrant, Turkey

If she were alive, she would have written another story. Another story of *Silent Spring* with sad ending. . . . Sad endings, perhaps, are the usual thing now because of the many disasters on our earth. People are accustomed to crying and hopelessness.

Wipti Eka Prahadipta, Indonesia

If she was alive today to advocate for the preservation of trees, she would certainly advocate with the school systems. It is the responsibility of our schools to teach the importance of conservation and to advocate for recycling.

Emma Harney, Junior Prize Entrant, USA

She would advocate for nature appreciation. She would teach us to appreciate the beauty of our environment. When we are able to appreciate our nature, we will be responsible enough to maintain its bounty and beauty.

Melvin Jabar, Philippines

She would have been stunned—excited and unnerved—by discoveries and advances in fields as varied as biochemistry, genetics, astrophysics, neurobiology, astronomy, geophysics, meteorology, computer and communications technology, and information management. And she would have been intuitively alert to the creative possibilities and ethical dilemmas presented by each.

Jean Terepka, New York City, USA

If she were alive today she would be able to lend her talents to reenergizing the green movement. . . . Global warming stands on par with pesticides as a threat to the natural world, and yet people do not feel the same immediacy.

Alex Wolfrum, Kansas, USA

If she were alive, maybe she would write about the DOMINATION by men of women in Arabia. Perhaps she would change the life of these women.

Hristina Nikolovska, Junior Prize Entrant, Macedonia

Rachel Carson is, in fact, alive today. . . her teachings follow us throughout our lives and are brought to the forefront in situations that demand a critical understanding of the complex nature of life.

Karly Burch, Hawaii, USA / Japan

Silent Spring Essay Competition Junior Prize Winner

Akrish Adhikari

Carson Survives through the *Silent Spring*

When Rachel Carson first exposed the world to the dangers of the overuse of pesticides, she had no idea that she was starting an environmental movement that would span over decades. She may have initially written *Silent Spring* to make people aware of the dangers lurking behind the use of DDT and to discourage its consumption, but her book's main message is rooted in the subtleties behind her words: we, as humans, should protect this planet's environmental assets, not just by paring down the use of pesticides but by being environmentally conscious in each and every thing we do in our lives. Whether it be recycling plastic to reduce pollution or taking the bus rather than driving our shiny limousine to help reduce the effects of global warming, we need to keep the world as natural and environmentally untouched as it was when we were given the chance to live in it.

Silent Spring may have called to attention the need to reduce the use of DDT and other pesticides, but it also shed light on the existence of other environmental issues. While global warming may not have been a very well-known issue in the fifties and the sixties, it would probably not have been looked into as seriously as it has been now if it hadn't been for the organizations that were spawned by the environmental awareness Carson incited. Today, these organizations (for example the World Wildlife Fund, WWF), are working hand-in-hand to make people aware of these environmentally damaging issues, and Carson's *Silent Spring* remains one of the catalysts that influenced how organizations are dealing with these issues. Global warming is just one issue though—from pollution to deforestation, the issues that adversely affect the environment are countless, and if the audacious and continuous publishing of the *Silent Spring* had not been carried out, despite the countless tirades and threats Carson received for it, the organizations and people that are working and debating to eliminate those issues and to create a more natural world would possibly not exist today.

Carson's efforts in discouraging the use of DDT have lead to a lot of developments as of today—DDT is banned in most countries, but Carson's legacies (us environmentalists

and environmental organizations) are still working and fighting to expunge the use of DDT completely. Even today, some countries permit the use and import of DDT, for example India and Nepal, which are both South Asian countries and concentrate on agriculture as a main industry. The WWF in Nepal is attempting to put an end to it by making the people aware of how pesticides are affecting the fishes in the rivers, and is making an effort to reduce the amount of DDT used to a moderate level, if not eliminate it. If Rachel Carson had not written *Silent Spring*, perhaps today our world would be adversely affected by the overuse of DDT, and attempts to reduce its consumption, such as the WWF is undertaking, would possibly be negligible.

Lava heron
with freshly
captured
fish in beak,
Galapagos Is-
lands, Ecuador
(Photograph
courtesy
of Richard
Roscoe).



Carson's work inspired an environmentalist movement that has helped so many people research freely and allay the environmentalist problems that surround their homes. One of the greatest examples of a person who exercised this freedom is Erin Brockovich, who, like Carson, researched on the misuse of chemicals. Brockovich was central in the discovery

that a chemical company intentionally allowed toxic hexavalent chromium to be mixed with groundwater, which affected several people surviving on that water to suffer from cancer. She participated in a legal case against the chemical company, which won a settlement of over \$333 million to help the victims. She, like Carson, helped to keep the environment preserved, and helped remove the blight that poisoned groundwater by mixing artificial toxic chemicals into it.

Although Carson's untimely death impeded her from issuing more books on environmental issues, it is very probable that Carson would have had a lot to say about all the environmental problems hovering around us today. Passion for keeping the environment as natural as it should be drove Carson to pen a book, and today, if she were alive, Carson would possibly be writing on all issues that are hampering the existence of an environmentally balanced world. With that drive of passion, Carson might have been able to make the people of the world actually care about what they are doing to the environment

when they throw out a piece of plastic or cut too many trees. *Silent Spring* catapulted the nascent environmental awareness in the world to the high level it is at today, and it is very, very possible that Carson would tackle every environmental issue with that same passion she did to diminish the use and effects of DDT, not only making environmentalists and organizations aware, but just about everyone.

Even though Carson is not around today, her spirit lives through the words she carefully assembled in her eternal, globally influential book, which has brought change beyond what she imagined. We environmentalists today are her legacy to keep the world environmentally sound. Through *Silent Spring* we discovered our own drive of passion to keep the world natural and environmentally balanced, and through us, the spirit of Rachel Carson, the *Silent Spring*, survives to keep the world environmentally aware.

Maril Hazlett

Rachel Carson Scholarship—Where Next?

Critical scholarship, or uncritical adulation? My Rachel Carson obsession—and probably that of many environmental scholars—wavers a bit uncomfortably on the edge. Either way, once the Carson bug has bitten you, it's pretty hard to shake. Even after I finished my environmental history degree and started a consulting career, the study of Carson's life and writings has remained my touchstone.

These days, my favorite projects involve environmental messaging and communications. My passion is ethnographic-based research and analysis on how specific cultural groups understand issues like climate change, renewable energy, air and water quality, etc. My specialty is helping environmentalists understand target audiences who are not environmentalists themselves.

This is not a traditional career path for an environmental historian—but I didn't have a typical beginning, either. With an undergraduate degree in cultural anthropology and an addiction to people-watching, I'm a bit more of a natural ethnographer. I actually never even took an undergraduate history course.

So, several years ago when I first wandered into one of Donald Worster's seminars, I didn't know the discipline of environmental history existed. Graduate school in history was not on my original plan. Our family cattle ranch lies only five miles from the University of Kansas and after a farming injury involving a heifer who ripped the cartilage off my sternum, manual labor became a bit tough. I figured I'd sit down for a semester or two, until I could breathe and laugh without pain.

Within a couple of Don's classes, I had to confess my ignorance. Who was this Rachel Carson he kept talking about? I'd never heard of her.

Don just . . . looked at me. Then he walked over to his bookshelf and handed me his own copy of *Silent Spring*.

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The rest is pretty much history. Since then I have spent countless hours immersed in Carson writings and archives. Ultimately she is why I stayed in graduate school; she is why I earned a PhD. I suspect that “Carsonophilia” is a phase that many environmental scholars go through, and I have simply never progressed out of mine.

I’m still obsessed with Carson because I think her story holds the answer to a problem I wrestle with daily in my life and work here in the American Midwest. Environmentalism does a great job at preaching to the choir, its longtime supporters. However, it is much less effective at mobilizing new and critical audiences to take environmental action, especially my typical target audiences of agriculture and energy producers. As Jenny Price also points out in her essay, environmental rhetoric likewise often fails to resonate with low-income urban communities and others affected by environmental justice issues.

It’s hard for a Carson devotee to admit, but maybe the message of ecology can only go so far. I suspect that shortly before her death, the backlash against *Silent Spring* made even Carson realize that her basic communications strategy (at least as her various audiences had interpreted it) actually faced some pretty major limits. For example, while her approach convinced many readers who identified with the spheres of consumption, home, and a vulnerable body, it was less successful with audiences who identified more with the sphere of production. Immigrant farmworkers, a population very intimately affected by pesticide use in industrial agriculture—Carson pretty much missed them entirely.

My concern is that neither environmentalists nor environmental scholars often consider Carson or *Silent Spring* from this perspective, that is, not just how the book hit the target but also how it missed. In part the problem is that we are all understandably dazzled by *Silent Spring* and thus we only view Carson through a narrow window. Where so much of history sprawls and is difficult to untangle, the *Silent Spring* controversy, its immediacy, its tight, compelling, simultaneously tragic and triumphant narrative, is comparatively simple to study and seemingly also simple to understand. Most Carson scholarship I am familiar with tends to try and add to the existing story as known, rather than reconsider the underlying arc and conclusions.

As a result, too many of us sum up Carson and *Silent Spring* in a fairly simplistic nutshell. In my own dissertation, I certainly repeated such dogma; through her work in popular ecology, Rachel Carson helped inspire a broad environmental movement, transcending the more narrow perspective and appeal of conservation.

On one hand, I see this point. On the other hand . . . no. I have come to believe that this interpretation lacks adequate context and complexity. Perhaps I also resist not necessarily the explanation itself, but the significance so often drawn from it. This version of Carson's story has become inherently rooted in an implicit sanction. My fear is that this sanction seems to entitle the environmental movement with moral superiority, and even with moral licensing over other forms and types of environmental action.

Such as conservation itself, which actually never went away.

At least, this was my own turning point. I finally realized that in my own work, I felt most compelled by the conservationist side of Carson's story, especially her outreach to hunters and outdoorsmen in *Silent Spring*. I also realized that these groups are now largely missing from the contemporary environmental movement. Likewise, after the buzz of my dissertation had worn off, I found myself less compelled by Carson's ecological messaging.

Why did the conservation side of Carson's story eventually emerge as more powerful for me? I tend to notice conservation, because where I live in rural Kansas, conservation is the strongest form of environmental action we have. I see a form of conservation at work every time a farmer shifts from till to no-till cultivation, practices contour tilling or re-terraces a field, moves a cattle feeding station away from a water source, and lets a vegetative buffer strip take root. I have also watched as many local and regional environmentalists have to had put on their own conservationist hats, respecting multiple land uses and negotiating for wildlife and habitat conservation easements, and mitigation for wind farms, transmission lines, and other projects.

That insight into conservation has helped me see that this form of environmental action extends far past the farm, far past the thickets where hunters sit patiently waiting for wild turkey and deer. I have also noticed that people who identify with conservation

practices rather than with environmentalist ideas often also identify with entirely different environmental narratives, ranging from the pastoral and production agriculture to energy independence and security. In turn, for additional audiences, a related conservationist ideology provides a viable alternative to environmentalism.

As a reviewer recently cautioned me on a water quality messaging project, agricultural conservation and environmental conservation are not synonymous. However, I see many conservation concepts as all still powerfully related through strong historical and ethical threads. They are linked through themes like multiple use, fairness, and stewardship. They share roots in deep experiences and interactions with the physical environment, most often based around work and labor.

Such fundamentally conservationist messaging formed a subtext in *Silent Spring*. It still holds great potential today, and provides an eminently pragmatic solution for reaching certain audiences when environmentalism falls short. In particular, conservation often helps provide convincing economic reasons for taking certain environmental actions. This approach appeals to many key stakeholders otherwise firmly entrenched against anything overtly linked to environmentalism.

However, all too often I see contemporary environmentalism overlook such messaging strategies. Rather, mainstream environmentalism today seems to follow a model based on the veneration of *Silent Spring* as an unqualified triumph of popular ecology. Thus it has defined itself according to a paradigm that reaches only limited audiences.

One distinction I have noted: Conservation-based environmental messaging tends to work from the bottom up, is fairly compatible with producer cultures, and is embedded in a sense of place. By contrast ecologically-based environmental messaging is famously consumer-friendly, focused on body and home yet disengaged from modes of production. A half century after *Silent Spring*, this latter messaging style often appears to come down from on high, the pronouncements of experts, intellectuals, and regulators telling others what to do. I'm not saying there is no place for this approach (or even that it is as simple as I have just made it sound), but I am saying it does not move all audiences. In some audiences, it even creates substantial resistance.

Whatever the differences, the point is this: Environmental messaging needs more diversity in order to reach new audiences and convince them to take meaningful environmental action. Conservation, environmental justice—we could explore these messaging avenues and more. Along these lines, I suggest that environmental scholars should reconsider Carson and develop a more fully realized story of both Carson and *Silent Spring*.

To this end, I would encourage a new generation of scholars to unpack this story once more and to ask different questions. Start with Rachel Carson herself, a highly complicated woman with plenty of internal contradictions (as have we all). You don't even have to dig too far back—the intense wave of reader responses to her earlier *The Sea Around Us*, paired against the lackluster responses to the later *Edge of the Sea*, likely were on her mind as she revised *Silent Spring*. Carson's messaging was never perfect; throughout her life she constantly triangulated between multiple tensions, with conservation, evolutionary science, and the world of the spirit among them; and she reformed uneasy compromises anew every time.

Even the oft-told tale of *Silent Spring*—by no means do we know everything about it. We must unsettle a few assumptions: It is not heresy to say that Carson's message of ecology did not reach everyone. Likewise, essentially dismissing her opposition as special interest bad guys is too simplistic. We must also beware of focusing too much on the immediately available sources, in particular that wonderful collection of Carson papers at the Beinecke Library at Yale University. Last, we must beware of hagiographic eulogies that are less about Carson than about putting our own words and agendas in her mouth.

Instead, look beyond the controversy's easy extremes, obvious narrative, and most visible sources. Ask instead, what about *Silent Spring's* readers who remained unmoved or undecided? What about those audiences whom Carson did move at least emotionally, yet they made few changes to their actual way of life? Raising awareness of an issue is not the same thing as convincing people to take concrete actions, let alone to sustain them. With this in mind, what environmental messaging obstacles and challenges can we learn about from this moment in history?

And for the audiences that Carson (and her supporters; their approaches were not identical) either left behind and/or antagonized, to whom do those audiences listen to now? Who filled the messaging gap? How did they succeed? To what extent did *Silent Spring* function as a foil for this counter-messaging strategy as it evolved over the decades? And a question that has always greatly troubled me: Did the backlash actually succeed in portraying Carson as a radical, to the extent that even the environmental movement itself perhaps now sees her as more radical and idealistic (and less moderate and pragmatic) than she actually was?

Answering such questions will entail new sources, new methodologies, new thinking. I firmly believe that environmental scholarship has a critical role to play in helping to re-frame larger cultural discussions and paradigms of environmental messaging, and that the humanities are essential to this effort. Without putting words in Carson's mouth, I doubt she would be satisfied with the state of environmental messaging today, and I think she would likely have some serious questions about the extent to which we have involved *Silent Spring* in sanctioning our current approaches. Perhaps we should be more critical as well.

Maybe the big story of *Silent Spring* and its aftermath is not just that environmentalism gained a new audience. Maybe part of the story is also that the controversy lost environmentalism a great deal of potential support, as well as left other major audiences largely unmoved, untouched, and/or undecided. Whatever the answers, the outcome will not be as simple as flipping the traditional Carson narrative on its head. Rather, it will mean recovering its complexity.

I suspect this. I do not know.

But I think it's time to find out.

■ We demand future, and we absolutely need nature for that.

Turgay Çelik, Junior Prize Entrant, Turkey

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Rachel Carson Center for Environment and Society
LMU Munich
Leopoldstrasse 11a
80802 Munich
GERMANY

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Fifty years have passed since the publication of Rachel Carson's *Silent Spring*, the influential work that many credit with launching the modern environmental movement. This issue of *RCC Perspectives* takes a sweeping look at encounters with and legacies of the book, examining the global impact of *Silent Spring* over its half century of existence, and taking a critical look at the ways in which Rachel Carson's ecological worldview equips us to understand and confront current and future challenges to our planet.



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