

Introduction

*Lisa H. Sideris
and Kathleen Dean Moore*

LEGACY

Rachel Carson has been credited with founding the modern environmental movement. *Silent Spring*, published in 1962, provoked a public outcry against the dangers of indiscriminate pesticide use and chemical toxins in the environment. The book was a catalyst for the creation of extensive environmental legislation of air and water pollution and endangered species, and led to public interest in environmental issues that culminated in the first Earth Day in 1970. Carson identified and attempted to bridge what she saw as dangerous gaps in communication between scientists and laypeople, corporations and citizens; she cleverly drew on a discourse of citizens' rights and government and corporate responsibility that still resonates strongly with American ideals and sensibilities. She has inspired generations of environmental activists and animal rights and welfare advocates. Her private battle with breast cancer, one she lost less than two years after the publication of *Silent Spring*, has made her an icon of women's health movements and others seeking to draw attention to the links between cancer and the environment.

It is difficult to overestimate the importance of *Silent Spring* in shaping our environmental consciousness. Yet, as profound as that impact was and is, *Silent Spring* is only one part of Rachel Carson's legacy. Carson produced three major and highly acclaimed works of nature writing prior to *Silent Spring*. These three books, *Under the Sea-Wind* (1941), *The Sea Around Us* (1950) and *The Edge of the Sea* (1955), established Carson as one of America's most admired and respected science writers long before she became embroiled in the pesticide controversy. Her final work, *The Sense of Wonder*, was published posthumously, though Carson had considered writing such a book at least a decade earlier. A small, beautifully illustrated work intended to help parents teach their children about the natural world, *The Sense of Wonder* reflected Carson's conviction that instilling knowledge and enchantment of nature in young children is as fundamental as instruction in reading and writing.

In the twenty-first century, as debate still rages over the risks and benefits of DDT as an antimalarial agent; as calls for environmental justice are heard in

cities worldwide; as populations of marine organisms decline, fisheries collapse, and toxic wastes wash up on our shores, Rachel Carson's work appears remarkably relevant and even prescient. Yet, Carson did not set out to be an "environmentalist" or an "environmental writer" in the modern sense. *Silent Spring*, with its detailed documentation of the dangers of pesticides and explicit warnings against their indiscriminate use, was in many ways a departure from the genre of writing Carson knew and loved best. Carson was first and foremost a nature writer, someone with an extraordinary gift for translation and an ability to evoke in rich detail the fluid boundaries, the tastes and sounds, the pains and pleasures, of the world as experienced by nonhuman forms of life.

Carson believed that protection of the environment would flow automatically from knowledge and appreciation of nature's ancient rhythms and intricate functioning. She resorted to direct arguments for nature protection somewhat reluctantly, when the signs of an impending environmental crisis made it necessary. As she once remarked, science gave her "something to write about;"¹ and later, the pesticide issue would give her a clear imperative. But her first and most enduring love was literature. As several of the pieces in this volume illustrate, Carson's style as a writer was something she deliberately and painstakingly developed and honed from early childhood. Just as she was deeply influenced by a pantheon of authors and poets whom she admired and often consciously emulated, countless writers today look to Carson's work for clues to perfecting their own craft.

Carson had faith in that often-elusive audience of "general readers," average people with innate curiosity about the things they see every day and the things they will never see. An overarching concern, apparent in much of her writing as a whole, was the danger of fragmentation and compartmentalization of knowledge—the gaps between experts and average citizens, but also those among specialists from different disciplines. Carson envisioned cooperative endeavors among specialists from diverse disciplines "all pouring their knowledge and their creative inspirations" into responses to environmental problems.² When the various branches of knowledge are cut off from one another, they lose their vitality and cease to grow. This theme is most explicit in *Silent Spring*, where Carson laments the fragmentation of knowledge that attends life in "an era of specialists,"³ but it runs through much of her work.

Carson did not oppose specialization per se but only the narrowed vision, the inordinate confidence in one's perceptions that sometimes comes with focusing on a small part of the picture for too long. Throughout her writing, over and over again, she presents us with another option to narrowed or fragmented perception. Attempting to convey an almost ineffable sense of these more wholesome and holistic alternatives, she draws upon a set of recurring phrases and metaphors that are familiar to readers of Rachel Carson—an expanded vision; the real world around us; nature as a vast "web" or "stream" of life; the "other road" that beckons us away from destruction. She offers

these in the spirit of an invitation, and always with a promise that if we look at the world and our place in it through a different lens, we will be richly rewarded, deeply humbled, and forever changed.

Carson worried about the damage that occurs to nature, and to the human spirit, when experts from different fields of study fail to communicate with one another or, when they try to communicate, find they have no terms in common. Carson hoped that if humans could first come to terms with nature as the shared reality and source of all life, the discovery of a common language, a shared conversation, would follow. Once fully grasped, nature's interconnectedness and integrity would be reflected in the creative connections forged among different areas of knowledge. Rachel Carson's work remains a wellspring of environmental thought, as well as a source of inspiration for interdisciplinary endeavors more generally.

CHALLENGE

In collecting the chapters for this book, we have been guided in part by Rachel Carson's own decisions as a thinker and writer. Sharing her concerns about the effects of compartmentalized vision on understanding, sharing her enthusiasm for the confluences where various currents of knowledge come together, we have gathered essays about Carson from a variety of genres and disciplines. As Carson was a scientist who wrote like a poet, we have chosen to include material ranging from scientific reports to personal narrative. As Carson drew inspiration from many disciplines and traditions, we have chosen pieces from a poet, an ecologist, a philosopher, an entomologist, a historian, a writer, and many others whose work informs our understanding of the whole person who was Rachel Carson, the whole of her work, the wholeness of her view of the earth.

Rachel Carson played many roles in her too-short life, many of them difficult. She was an activist before there was a concept of environmental activism. She was an ethicist, although it took other ethicists a long time to admit her to the club. She was a woman at a time when science and public affairs were dominated by men. She was a scientist who, as she was dying of cancer, warned against the indiscriminate use of pesticides, one of the great "scientific advancements" of her time. In the end, she was a human being, standing at the edge of the sea in wondering gratitude for the world's beauty and mystery. The chapters in this book have been chosen and arranged to honor the fullness of Carson's life work. Each of Carson's roles is explored in turn in each of the five parts of the book: "A Legacy of Activism and Advocacy," "Ethics on Land and at Sea," "Reflections on Gender and Science," "An Ongoing Toxic Discourse," and "A Legacy of Wonder."



In her work, Rachel Carson issues a practical and moral challenge to her readers to find a way to live on earth with care and respect, acknowledging the complex interconnectedness of all life, and taking responsibility for the well-being of the natural systems that sustain us. Perhaps even more than in Carson's time, our generation faces ecological challenges that require our best thinking and writing and our deepest moral resolve. Part I, "A Legacy of Activism and Advocacy," brings together the voices of Jane Lubchenco, a marine ecologist; Peter List, an environmental philosopher; and Terry Tempest Williams, an activist and essayist. All of these authors probe their discipline and conscience for answers to this critical question: What can we learn from Rachel Carson about the responsibility of citizens, and especially scientists, to speak out to prevent damage to the natural systems upon which our lives depend?

In a democracy, where policies ideally serve the commonweal and rest on shared values, citizen activism and scientific advocacy have a complex role to play. Williams calls Rachel Carson a "true patriot," explaining that her life's work links democratic and ecological principles by holding government and corporations accountable for the well-being of communities, both cultural and wild. Because human well-being depends on thriving ecosystems and ecosystem services, *Silent Spring's* ecological arguments are also a declaration of human rights.

Inspired by Rachel Carson's chronicle of the connections between environmental changes and human well-being, Lubchenco calls for better stewardship of the oceans through marine reserves managed as a public trust—for the common good and in perpetuity. She calls on scientists to "renew their social contract," by taking responsibility for communicating their findings to the public and to policy makers. Government and agency scientists have a particularly important, though profoundly contested, role in managing resources for the common good. List navigates through the government scientist's competing duties to the profession, the public, and the natural world, pointing out that scientists often have not only the right, but the duty, to speak up. This duty is based on their "implicit contract" with society to use their knowledge for the public good. Rachel Carson is a "towering example within American democracy," Williams writes, "of how one person's voice can make an extraordinary difference."

But what is the relation between scientific facts and social action? How can information create change? Logical positivism has left us a legacy that divides facts from values, List argues—the first supposedly the provenance of scientists, the second the provenance of policy makers. But the relationship is far more complicated: Carson is, he says, a "paradigm case of a scientist who became a compelling champion of environmental conservation." With *Silent*

Spring, Carson moved beyond sharing her love of nature, Lubchenco agrees, and became passionately determined to save what she loved.

But the communication of information doesn't always lead to change, or if it does, the process can be excruciatingly, dangerously, sometimes disastrously slow. As Lubchenco notes, scientists often aren't trained to communicate effectively. And as List points out, the powerful communication machinery of government and industry can create a deafening noise. The genius of Rachel Carson's activism was to tell a scientific story so powerfully, and impart a moral lesson so compellingly, that people felt moved to action. Williams calls attention to "a conscientious and directed soul who believed in the eloquence of facts...Rachel Carson did not turn her back on the ongoing chronicle of the natural history of the dead. She bore witness." And because she loved language as much as landscape, Williams argues, her readers respond with both hearts and minds, with the full power of the human imagination to envision a better way of living on earth.

Yet, for many years, environmental ethicists and philosophers largely ignored Rachel Carson's writing as a source of ethical thought. While reflecting on why this might be so, the authors whose pieces appear in the next section, "Ethics on Land and at Sea," help to correct this mistake. They explore the nature and ramifications of Carson's environmental ethic, especially the beginnings of an ocean ethic that can be found in her work prior to *Silent Spring*. Although they approach her work from a variety of angles, these authors converge on respect for Carson as an environmental ethicist.

The chapter by Philip Cafaro represents one of the first treatments of Carson as an environmental ethicist. Cafaro argues that Carson eschewed sustained treatment of metaethical reflection—use of formal principles or foundations for ethics—in favor of appeals to common sense and common values. Carson saw no tension between a human-centered ethic concerned with public health issues and a nonanthropocentric ethic that granted moral considerability to other life forms regardless of value or utility to humans. Although Carson embraced Albert Schweitzer's reverence for life, there was no overtly religious or spiritual dimension to her environmental ethic, Cafaro argues (a claim challenged by Lisa Sideris' piece in the final section of the volume). Cafaro concludes that Carson's work points the way toward a number of ethical insights and developments, whether or not *Silent Spring* presents us with a formal framework of the sort philosophers often seek.

Susan Power Bratton identifies what she calls a trans-ecotonal or trans-boundary ethic in Carson's sea writing. Comparing Carson's sea ethic to conservationist Aldo Leopold's land ethic, Bratton concludes that Carson did not understand humans as members of the sea community in the way that Leopold described humans as "citizens" of the biotic (land) community. Rather, Carson allowed her readers to cross the boundary between the familiar human terrestrial world and the world of the sea through the power of

imagination. As humans, we are not and cannot be fully integrated with the sea. Nonetheless, Carson's writing presents this world to us from the perspective of the sea creatures themselves, in contrast to Leopold's account of terrestrial communities, which retains a human perspective. By such means, Carson invites readers to extend their perceptions and foster a sense of identity with sea creatures, even without the sense of *place* central to an ethic such as Leopold's. A harsh Darwinian struggle prevails in Carson's ocean world, unlike the relative harmony of the land community, Bratton argues.

J. Baird Callicott and Elyssa Back further pursue the question of whether Carson's sea writing contains an ethic of the sort that philosophers have located in Leopold's *Sand County Almanac*. They agree with Cafaro that Carson is simultaneously concerned with biocentric and human values and that her work has been strangely overlooked by environmental philosophers. Callicott and Back return to the question Cafaro raises of whether there are foundational ethical principles in Carson's work. Like Bratton, they compare and contrast Carson's sea ethic to the land ethic of Leopold. They conclude that while both writers drew on a Darwinian worldview, Carson largely embraced the competitive, predatory Darwinism of the *Origin of Species*, while Leopold constructed his arguments, at least implicitly, upon the more cooperative and community-oriented Darwinism of the *Descent of Man*. Cooperation, they note, is more evident in terrestrial life than in aquatic communities, and the sea organisms in Carson's writing are portrayed as solitary and not "affectionally bonded." They perceive Carson's sea ethic as postmodern in its celebration of otherness and difference, rather than sameness, as the basis for moral considerability. While it is true that this emphasis on difference and diversity also creates a different sense of "place" than Leopold's biotic community, one still finds an emergent, holistic harmony in Carson's sea world.

Gary Kroll acknowledges that it is tempting to read Carson's sea writing, particularly *The Sea Around Us*, "backward" through the lens of *Silent Spring*, but contends that it would be a mistake to assume a similar ethic connects these works. Rather, Kroll identifies a form of "ocean-centrism" in Carson's *The Sea Around Us*, typical in some respects of much of postwar sea writing. Carson portrays the ocean as vast, indomitable, and omnipotent. Humans, by contrast, are depicted as small and somewhat insignificant, as unable to control and master the ocean's power and to harness it for our own ends. This contrasts sharply with Carson's later vision of humans in *Silent Spring* as wielding God-like (albeit arrogant and shortsighted) power over the natural world.

However, Kroll points out, a chapter Carson ultimately deleted from *The Sea Around Us* before it went to print offers some clues to Carson's growing concerns about the ocean's resiliency and the possibility of humans plundering the seas as they have plundered and polluted the land. Kroll speculates

that Carson may have chosen to leave out this chapter, which discussed the ways in which a “hungry world” might gain food security by harnessing marine resources, for fear of encouraging overfishing and other destructive uses of the sea. Thus Carson’s sea ethic is perhaps most apparent not in what she wrote in *The Sea Around Us* but in what she chose to omit.

Carson’s writing must be understood in the context of the Cold War and the positivism toward science and technology it fostered, but it would be naive to overlook the gender politics of the era in which she was writing. The gender-inflected criticism of Rachel Carson after *Silent Spring* (the portrayals of her as a “hysterical woman,” usually pictured birdwatching or surrounded by children; the criticisms of “sentimental” appeals and “high-pitched sequences of anxieties”) has by now become legendary. What to make of it is still contested.

In broad strokes, the usual story of gender and science in Rachel Carson’s work goes like this: Carson introduced readers to an organic view of the world in which all life is deeply interconnected, humans—and particularly human children—sit squarely within that web of natural connections, and science and industry are well advised to adopt an attitude of humility and precaution in the face of humankind’s terrible power to disrupt the systems on which their lives depend. This is a feminine view of the world, the usual story goes, and when Carson adopted it, she set herself squarely against the entrenched, masculinist, view of the world: The world is a machine, often a machine arrayed against human interests, and the role of humans is as adversary and conqueror, apart and superior to the natural world, which it has the power, through objective science, to control.

No wonder the chemical industry and scientists regarded her as a danger. Not only did she threaten the freewheeling chemical industry and the scientific establishment allied with it, but she threatened to usher in a paradigm shift that would undermine their very base of political and economic power. Those who believed that nature unrestrained threatened humankind found themselves battling also a woman unrestrained and threatening.

Each of the chapters in the section “Reflections on Gender and Science” complicates this story line and by that means enriches the discussion of the meaning of gender and science in Carson’s work and the responses to it. Lisa Sideris argues that Carson found a middle ground between an ecological, organic model of science that views the world as subject rather than object, and the “objectifying, manipulative, and disengaged kind of knowledge” criticized by feminists. For Carson as a scientist, controlling and caring for the environment were not mutually exclusive imperatives, and in fact Carson did not call for abandoning the effort to control insect pests, but for an open, dispassionate, fully informed discussion of the best way to do so. As she was writing *Silent Spring*, Carson’s thinking about the natural environment was influenced by her reflections on the inner ecology

of the human body—particularly the body as it battles cancer. All the more poignant, then, is the struggle Carson waged against silence—the silence of a spring without birdsong, the attempted silencing by her critics, and the lethal silence of her doctor who did not disclose the progress of cancer in Carson’s own body.

Maril Hazlett agrees with Sideris that *Silent Spring* signaled a new synthesis in Carson’s understanding of nature and the human body. As Carson incorporated the human body into “ecology,” she also began to resolve a long-standing tension between two distinct narrative voices with which she had experimented in her major works on the sea: the “heavily masculine” voice of the scientist who coolly organizes, interprets, and summarizes reams of information, and the more feminine voice of the “appreciative nature writer,” the close observer and participant, expressing wonder and enchantment with nature’s mysteries. As her writing evolved, Carson struggled to make sense of her own dual perspective, sometimes subordinating the feminine voice to the masculine one. Hazlett argues that Carson eventually found resolution in grounding her writing in a new sense of the environment. The pesticide issue forced Carson to abandon her view of humans as relatively insignificant compared with nature, unable to dominate and control its forces. With *Silent Spring*, Carson understood humans as inextricably part of nature, yet capable of destroying it as no other life form could. As she confronted the new reality of human-induced destruction of the environment, this “shift in content and focus changed her writing voice as well.”

That shift in Carson’s writing voice—the merging of the scientist and the unapologetic nature devotee—provoked a fierce backlash. The balanced voice of reason and emotion that Carson sought to present in *Silent Spring* was heard by many of her male critics as a hysterical rant. Michael Smith examines how and why critics took such strong measures to silence Rachel Carson, including the “extraordinary” use of gendered language to discredit her. In contrast to Sideris, Smith more closely allies Carson with the “organic” view of nature, later articulated by Carolyn Merchant and championed by ecofeminists, as a “living, feminine organism requiring a special kind of stewardship.” He places this view in contrast to male scientists’ views of nature as “an unpredictable harridan in need of constraint and mastery.” The contest between Carson and her detractors took on all the color and urgency of the contest between the ideas of the balance of nature and the dominance of nature, and the struggle for who would control the power to shape society through scientific authority. Just as her work augured a different relationship between men and women, it pointed toward a radically different relationship between humankind and the natural world.

How are we to construe that relationship today, nearly half a century after Carson wrote? Like other well-known conservationists such as Aldo Leopold, Carson came to see humans as part of an interdependent commu-

nity. We are not isolated and alone. Our lives, like the lives of all animals, are braided into the complex interactions of water, chemicals, and time. The poisons we scatter on suburban lawns, soak onto fruit, spray over neighborhoods and fields are not isolated to a particular place, particular effect, particular time. They reach through the natural ecosystem, affecting not just the “target species,” but humans and the animals in which we rejoice and the habitats on which our lives depend. Their effects reach not only across the land, but through time into future generations; toxins flow into eggs, through amniotic fluid and breast milk, into the tissues of developing children and the young of other species. The interdependence of life links us inextricably to the death-dealing effects of toxins.

What are the moral and policy consequences of these facts? Do humans and other animals have the right to be protected from commercial poisons introduced into the landscape for economic gain? How are those rights weighed against the putative rights of corporations to maximize profits, or the rights of children to be safe from diseases like malaria that could be prevented by insecticide spraying? What of the well-being of future generations—how does that count against current needs? Should we design policies that take precautions against possible harms or provide recompense once the harms have occurred?

This is the legacy of Rachel Carson: an understanding, in the heart and the mind, that pesticides are at the center of a web of entangling consequences that affect entire ecosystems, now and in the future. This is her challenge: Can humans find ways to contain “the devils of their own creation?”⁴ Can we find the practical solutions, the reverence for life, and the moral and political resolve that will prevent us from making the world toxic to our children? In the fourth part, “An Ongoing Toxic Discourse,” authors from very different backgrounds address Carson’s responses to these questions.

David Pimentel begins with a deeply discouraging statistic: Since the publication of *Silent Spring*, “pesticide use has increased ten-fold to about one billion pounds annually,” and “the toxicity of pesticides has increased ten to twenty times.” More than 99 percent of pesticides miss their target, with unintended, sometimes unknown, and often harmful or deadly consequences to ecological (including human) systems. If Carson were today to write a sequel to *Silent Spring*, it could begin with the same grim story and end with the same urgent warning to use pesticides sparingly and with concern for “the integrity of the natural world that supports all life.”⁵

One of the factors that complicates our efforts to follow Carson’s advice is that DDT has become a highly charged and strongly contested icon, as has Rachel Carson herself. DDT, a war hero that saved American soldiers from malaria, leads the charge in the war of man against nature, protecting children from disease-carrying insects. Or DDT, the invisible agent of silence and death, insinuates itself into the aeries of spring and the wombs of women

from the ice fields to the jungles. Steve Maguire tracks the contest to create the meaning of DDT and to revise the meaning of Rachel Carson, contests that may be seen as skirmishes in a larger battle to control the meaning of humanity vis-à-vis nature.

One of the factors that makes DDT such a potent icon, Maguire argues, is that it impacts the very symbols of ongoing life—the fragile egg, the child in the womb, milk in a mother’s breast. These symbols become real and meaningful to Christopher Merrill, who writes of walking the beaches of Rachel Carson’s island, carrying his newborn child on his chest while his daughter dances along beside him. It is a parent’s love for his children, his felt obligations for their well-being, that is so deeply at odds with the barrel of toxic waste that washes up on the shore. The image of a man on a poisoned shore, watching his wife nurse their baby, the mother’s body curved around his child, brings urgency to Carson’s challenge to find a way to reduce pesticide use.

Sandra Steingraber, an ecologist, mother, and author of environmental literature, took up Carson’s challenge in her own books, *Living Downstream* and *Having Faith*. There, she relates stories of her own diagnosis with cancer, her pregnancy, and her daughter’s birth, even as she tracks the invasion of pesticides and other industrial toxins into the human body and chronicles the possible effects. Here Steingraber reflects on the parallels between her life and Rachel Carson’s, as a cancer patient and biologist investigating the links between chemical toxins in the environment and human health. As a kind of postscript to her two books, Steingraber concedes in her piece that knowledge of our current, decades-old pesticide problems does not necessarily generate outrage and action among all readers; many respond with depression and despair. Her piece ends with a deeply hopeful challenge to readers, detailing “exactly how we are going to divorce our economy from its current dependency on cancer-causing chemicals.”

Carson understood the importance of maintaining hope for the future, even while facing squarely the present threats to humans and other life forms. Her own sense of hope and happiness was sustained by exploration and celebration of the natural world, habits engrained in her as a child. But she knew that physical and biological descriptions of nature did not tell the whole story. As she stood at the edge of the dark mystery of the sea or at the dark limits of her own life, as she felt the comfort of the repeated seasons and rejoiced at returning life each spring, Carson felt also that the natural world held a deep spiritual significance. “Underlying the beauty of the spectacle there is meaning and significance,” she wrote. “It is the elusiveness of that meaning that haunts us, that sends us again and again into the natural world where the key to the riddle is hidden.”⁶

What religious, aesthetic, or moral meanings did Carson find in nature? What are the sources of Rachel Carson’s sense of spiritual connection to the

natural world? How is a scientist's spirituality expressed in her sense of wonder? What is the moral significance of a sense of wonder? In the final part, "A Legacy of Wonder," Lisa Sideris, Vera Norwood, and Kathleen Dean Moore explore the sense of wonder that was so central to Carson's own spirituality and so much a part of the legacy she wished to impart to future generations.

Carson's story, Sideris argues, provides clues to the theological, literary, and moral influences that shaped her spirituality. Carson was raised in the Presbyterian church, which was steeped in a Calvinism that had mixed views about natural science. Calvinism held that the scientific study of nature could lead to arrogance and pride, a reckless narrowing of vision that hides both reality and mystery. But science could also be a means of glorifying divine creation, a study that promotes reverence, humility, and an expansive vision of a world that was made neither by us nor entirely for us. Although Carson did not often attend church as an adult, her last works evoke her theological legacy: *Silent Spring* decries narrow, prideful, arrogant science; *The Sense of Wonder* celebrates the joy of understanding what can be known and reverence in the face of ultimate mystery.

As a child, Carson was well versed in literature of the nature-study movement. These stories were designed, Sideris points out, to nurture a love of the common things in direct experience of the natural world—not dry facts, but sea anemones blooming underwater and crickets singing at night. As children smell, see, touch, even taste the living world, a sense of wonder will grow in them, as will the moral imagination that allows them to experience the world from the point of view of an organism other than themselves. How exquisitely Carson developed this ethos in the close, loving observation in her sea books and the moral fire in *Silent Spring*. No wonder then, that Carson embraced Albert Schweitzer's ethic of "a true reverence for life" and the "impulse to action" that true reverence requires.

If a true reverence for life—awe, wonder, and indeed love for the natural world—creates the impulse to act in its protection, then what is sometimes called a sentimental or romantic relation to the natural world is significantly related to the hard political work of achieving environmental justice. In fact, Vera Norwood tracks Carson's love for flowers in order to make this argument. It is not an accident that the person who wrote of her deep happiness in the "loveliness that is in nature,"⁷ who explored tide pools to find hydroids blooming like flowers in the bitter sea, is the same person who began the environmental movement, launching a powerful blast against the "progress of science and industry" and empowering all people to defend their right to healthy air and water.

Carson's life demonstrated that a deep emotional, aesthetic, and moral appreciation of nature is essentially connected to the fight for social and environmental justice. She wrote, "a world that is no longer fit for wild plants,

that is no longer graced by the flight of birds, a world whose streams and forests are empty and lifeless is not likely to be a fit habitat for man himself, for these things are symptoms of an ailing world.”⁸

For just this reason, Moore argues, a sense of wonder has profound moral significance. Rachel Carson’s essay version of *The Sense of Wonder* (“Help Your Child to Wonder”) appeared between the publication of *The Edge of the Sea*, a scientific exploration of the intricately interdependent lives in the land and sea, and the publication of *Silent Spring*, a moral plea for their protection. Moore argues that a sense of wonder bridges the world of fact and the world of value, closing the distance between “this is wonderful” and “this must remain.” A sense of wonder is an antidote to the view that the elements of the natural world are commodities to be disdained or destroyed. Rachel Carson’s life work shows us how a sense of wonder can be a virtue, perhaps a keystone virtue in our time of reckless destruction, a source of decency, hope, and restraint.

Our hope is that the chapters in this volume testify to the enormous influence of Rachel Carson’s work and the many facets of Rachel Carson as a person. We honor and affirm Carson’s belief that science and poetry, facts and values, academics and advocacy can, and in some cases must, go hand in hand. And just as Carson wrote for the general reader and found that her words drew the attention of specialists as well, our hope is that this volume will inspire and inform a variety of individuals—students and scholars, activists and ethicists, women and men, cancer patients and chemists, creative writers and all among us who wonder at nature. In a world changed by human hands in ways more dramatic than Carson could have fully imagined, where—despite Carson’s warnings—humans are unsettling and may be destroying the habitats upon which their lives depend, Carson’s vision and her example call us to reflect on our own vision of how humans might live on earth with appreciation and good care.

NOTES

1. Rachel Carson, “The Real World Around Us,” in Rachel Carson, *Lost Woods: The Discovered Writing of Rachel Carson*, ed. Linda Lear (Boston: Beacon Press, 1998), 149.
2. Rachel Carson, *Silent Spring* (Boston: Houghton Mifflin, 1994 [1962]), 278.
3. *Ibid.*, 13.
4. Albert Schweitzer as quoted in *ibid.*, 6.
5. *Ibid.*, 13.

6. Rachel Carson, *The Edge of the Sea* (Boston: Mariner Books, 1998 [1955]), 7.
7. Rachel Carson to Dorothy Freeman, Letter, Jan. 23, 1962, in Rachel Carson, *Always, Rachel: The Letters of Rachel Carson and Dorothy Freeman, 1952–1964*, ed. Martha Freeman (Boston: Beacon Press, 1995), 394.
8. Rachel Carson, “A Sense of Values in Today’s World,” Speech, New England Wildflower Preservation Society, Jan. 17, 1963, Rachel Carson Papers, Beinecke Library, Yale University. As quoted in Linda Lear, *Rachel Carson: Witness for Nature* (New York: Henry Holt, 1997), 440–41.