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From Calm Leadership, Lasting Change

By NANCY F. KOEHN

SHE was a slight, soft-spoken woman who preferred [walking the Maine shoreline](#) to stalking the corridors of power. And yet [Rachel Carson](#), the author of “Silent Spring,” played a central role in starting the environmental movement, by forcing government and business to confront the dangers of [pesticides](#).

Carson was a scientist with a lyrical bent, who saw it as her mission to share her observations with a wider audience. In the course of her work, she also felt called upon to become a leader — and was no less powerful for being a reluctant one.

As a professor at Harvard Business School, I encountered the great depth of her work when I was creating a course on the history of leadership. I was amazed to learn she wrote “Silent Spring” as she battled [breast cancer](#) and cared for a young child. After [the book was published](#), 50 years ago last month, she faced an outburst of public reaction and a backlash from chemical companies. Yet throughout her personal and public struggles, she was an informed spokeswoman for environmental responsibility.

She was a classic introvert who exhibited few of the typical qualities associated with leadership, like charisma and aggressiveness. But as people like Susan Cain, author of “Quiet: The Power of Introverts in a World That Can’t Stop Talking,” [have pointed out](#), leadership can come in less obvious forms.

Carson’s life shows that individual agency, fueled by resolution and hard work, has the power to change the world. In this election year, when so much influence seems concentrated in “[super PACs](#),” lobbying groups and other moneyed interests, her story is a reminder that one person’s quiet leadership can make a difference.

The natural world had fascinated Carson since she was a young girl growing up near Pittsburgh. At the Pennsylvania College for Women, later Chatham College, she majored in biology and earned her master’s degree in zoology at Johns Hopkins.

In the 1930s, there were few professional opportunities for women in the sciences. But in 1935, she found a job writing radio scripts about the ocean for what would become the United States Fish and Wildlife Service. Within four years, she was editor in chief of all the agency’s publications, a position

that connected her with researchers, conservationists and government officials.

Her work at the agency fed her larger calling as a writer. Throughout the 1930s and '40s, she wrote freelance articles about the natural world for *Colliers*, the *Atlantic Monthly* and other magazines. In 1941, she published her first book, "Under the Sea-Wind," a narrative account of the birds and sea creatures of North America's eastern shores.

Carson wrote within the crevices of a busy life, and often with serious health problems. In 1950, she had surgery to remove a **tumor** from her left breast. The next year, she published "The Sea Around Us," a wide-ranging history of the ocean. It was an instant best seller. Readers responded to her graceful prose and marshaling of scientific facts, as well as to her long-term perspective. The book's success enabled her to leave her position at the wildlife agency and devote herself to writing.

IN early 1958, she began working intently on "Silent Spring" while serving as both a breadwinner and a caregiver. The previous year, her niece died after an illness and she adopted her 5-year-old grandnephew. Unmarried and living in Silver Spring, Md., she also cared for and financially supported her ailing mother.

For the next four years, she gave all the time and energy she could spare to researching and writing "Silent Spring." A diligent investigator, she reached out to a network of scientists, physicians, librarians, conservationists and government officials. She found colleagues, clerks, whistle-blowers and others who had studied pesticide use and were willing to share their knowledge.

With an assistant's help, she spent weeks in the research libraries of Washington. Many of her contacts generated even more leads.

Carson was particularly interested in possible connections between **cancer** and human exposure to pesticides. In late 1959, she wrote this to Paul Brooks, her editor at Houghton Mifflin: "In the beginning I felt the link between pesticides and cancer was tenuous and at best circumstantial; now I feel it is very strong indeed."

Her research, she wrote, "has taken very deep digging into the realms of physiology and biochemistry and **genetics**, to say nothing of chemistry. But I now feel that a lot of isolated pieces of the jigsaw puzzle have suddenly fallen into place," she said, as quoted in "[Rachel Carson: Witness for Nature](#)," a book by Linda Lear.

In late 1958, Carson's mother died. And the next summer, her grandnephew's illness slowed her work. By late 1959, she knew that the book would take longer than she originally planned. Yet she remained confident, writing to her editor that she was building her work "on an unshakable foundation."

As she researched her book, Carson knew she was playing with fire. Still, she realized she had to bring her findings to a large audience. "Knowing what I do," she wrote to a close friend in 1958, "there would be no future peace for me if I kept silent."

In early 1960, medical problems interrupted Carson's work again. She learned that she had an ulcer, and she developed **pneumonia**. In early April, she had surgery in Washington to remove two **tumors** in her left breast. One was apparently benign, she told a friend. The other was "suspicious enough to require a radical **mastectomy**." Her doctors stopped short of diagnosing cancer and recommended no further treatment.

She went home to recover from the surgery and slowly resumed work. In November, Carson discovered a mass in her left chest. This led her to seek a second opinion at the Cleveland Clinic.

There, she learned that she had cancer, and that it had metastasized to her lymph nodes. In early 1961, she began radiation treatment, which sapped her strength. A staph infection, a flare-up of her ulcer and the onset of **phlebitis** in her legs added to her problems, leaving her too debilitated to work. At times, she despaired over "the complete and devastating wreckage" of her writing schedule and the "nearly complete loss of any creative feeling or desire."

Throughout, she was determined to keep her medical condition private, fearful that readers would question the objectivity of her findings, particularly her chapters about links between pesticides and cancer.

By late spring, Carson returned to her book. She made progress for six months, until an eye inflammation left her virtually sightless for several weeks. Her assistant read chapters aloud to her for correction, but she was intensely frustrated. "Such a catalog of illnesses!" she confided to a friend. "If one were superstitious it would be easy to believe in some malevolent force at work, determined by some means to keep the book from being finished."

EARLY in 1962, Carson sent most of the manuscript to her publisher and *The New Yorker*. The end in sight, she took stock of her motivation for the book. As quoted in Ms. Lear's book, she wrote to the conservationist and author Lois Crisler: "The beauty of the living world I was trying to save has always been uppermost in my mind — that, and anger at the senseless, brutish things that were being done."

Carson's grace and fervor struck a powerful chord in June when *The New Yorker* began serializing "Silent Spring." In a focused, persuasive way, she had thrown down a moral gauntlet, asking readers to reconsider the consequences of rapid technological progress. "How could intelligent beings," she asked early in the book, "seek to control a few unwanted species by a method that contaminated the

entire environment and brought the threat of disease and death even to their own kind?"

She argued that synthetic pesticides like DDT and heptachlor were being applied in profligate quantities without regard to their effect on human health, animals and the environment. She predicted grave consequences for man and the larger natural world if their use continued to grow. (The title "Silent Spring" refers to a future season when singing birds and other animals have been wiped out by insecticides.)

The book, combined with the New Yorker serialization, created a sensation. In summer 1962, President John F. Kennedy, citing the book, appointed a committee to study pesticide use. During the next two years, various government units called for increased oversight of and reductions of pesticides.

Small wonder that chemical makers counterattacked. A biochemist with American Cyanamid called Carson "a fanatic defender of the cult of the balance of nature." Invoking cold-war language, the general counsel for another chemical company suggested that Carson was a front for "sinister influences" intent on restricting pesticide use in order to reduce American food supplies to the levels of the Eastern bloc.

In the 18 months after "Silent Spring" was published, Carson worked to outrun the aggressive cancer attacking her body. She guarded her strength, choosing to make public appearances where she believed she could make the most difference. She offered Congressional testimony on pesticide use and made a rare television appearance with Eric Severeid of CBS. But in 1964, the disease and its complications caught up. She died on April 14 at age 56.

In the late 1960s, events including a California [oil spill](#), a chemical fire on the Cuyahoga River in Cleveland and civic protest about napalm and Agent Orange, used in the Vietnam War, underscored her warnings that efforts to control nature threatened man's survival. The first [Earth Day](#), on April 22, 1970, reflected mounting public concern.

Later that year, the Environmental Protection Agency began operations; in 1972, DDT was banned from use in the United States. The Clean Water Act was passed in 1972 and the Endangered Species Act in 1973. Looking back at such events, scientists like Paul Ehrlich and E. O. Wilson have credited "Silent Spring" with a pivotal role in starting the modern environmental movement.

RACHEL CARSON'S story offers many leadership lessons, including the importance of persistence in pursuing an objective. When I discuss her with business executives, many are struck by her ability to stay focused on goals in the face of obstacles including severe illness.

Another lesson involves the importance of doing thorough research and taking the long view. A sense

of context based on hard facts, along with a knowledge of history, is essential to understanding what's at stake in difficult and uncertain situations. It also confers a sense of authority on the person who has acquired this knowledge.

A third insight concerns the juggling of personal demands and professional ambitions. Carson understood the challenge — and satisfaction — of dealing with our obligations to others even as we follow our professional drive. And she saw that this can rarely be navigated smoothly. For her, and for many executives with whom I have worked, times of great productivity were followed by fallow periods when ambitions had to be put aside for personal reasons.

There continues to be debate about the use of DDT and its relation to Carson's conclusions. Regardless, her story underscores the power of calling others to thoughtful action. At a time when Americans' confidence in their business and government leaders is low, [her journey offers](#) a forceful example of one person's ability to incite positive change.



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