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Rachel Carson

Mary A. McCay

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Frank Day, Editor
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Rachel Carson near her summer home in Maine. ©1961 by Eric Hartmann. Used by permission of Rachel Carson Council, Inc.

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Mary A. McCay

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For Douglas

and for Ellen Powers and John Swan

Preface

Most studies of Rachel Carson take the view that the research and writing of *Silent Spring* (1962) is the most compelling feature of her life and work. On the surface, this, her last book, strikes a dissonant cord with her benign earlier books about the sea and seems out of character with pictures of the petite, reserved woman wading through tide pools or holding binoculars too large for her small hands. *Silent Spring* was not just a single act of courage, however, it was the natural outcome of all the work Carson had done both as a scientist and as a writer. Her ecological stand in her last book is the natural outcome of Carson's earliest wish to teach people about the sea so they would respect its creatures and would understand that the oceans could not be exploited endlessly without terrible cost. She was from childhood – when she criticized her brother's rabbit hunting – to her last days a woman who believed that people had to understand their relationship with nature, not simply to preserve the natural world but to save themselves.

At the core of Carson's writing are the themes of interconnectedness and material immortality, as evidenced in the following passage from "Undersea," an article published in the *Atlantic* (1937) that became the heart of her first book, *Under the Sea Wind:* "Individual elements are lost to view, only to reappear again and again in different incarnations in a kind of material immortality. Kindred forces to those which, in some period inconceivably remote, gave birth to that primeval bit of protoplasm tossing on the ancient seas, continue their mighty and incomprehensible work. Against this cosmic background the life span of a particular plant or animal appears, not as a drama complete in itself, but only as a brief interlude in the panorama of endless change." Carson illustrates in that early article a pattern that persists in her writing. As it had for Melville and Conrad, the sea became Carson's focus and finally her greatest symbol. Its creative power and destructive force, its magnitude and infinite variety drew her. The ocean became the medium through which Carson spoke to the world.

The success of Carson's next book, *The Sea around Us* (1951), enabled her to retire from government work and devote all her time to research on the tidal areas that became the focus of her next book, *The Edge of the Sea* (1955). Carson wanted the book to be more than a seashore guide, Bob Hines, its illustrator, recalls. A book about the seashore, she believed, needed to do more than simply list flora and fauna. She wanted to show the way in which all the shore species were a part of a force at once creative and destructive, powerful and vulnerable, but never random. A small crab became symbolic of the delicate balance of all species in nature: "The little crab alone with the sea became a symbol that stood for life itself – for the delicate, destructible, yet incredibly vital force that somehow holds its place amid the harsh realities of the inorganic world."

The precarious balance of life in the natural world was to impress Carson again and again as she struggled with *Silent Spring.* Clearly, some species were not surviving the onslaught of DDT and other toxins contained in the herbicides and pesticides used widely in the two decades following World War II. Carson, in a sense, found herself in the position of the crab. In failing health, she held on, conducting her research, writing to colleagues, gathering more evidence, so that when the book was finished, though the writer would be nearly spent, the work would be unassailable. Her goal in *Silent Spring* was to document the destructive side effects of DDT on the natural world in language laypeople could understand and thereby change the way they thought about that world.

Carson planned to set the danger to humans from indiscriminate pesticide and herbicide use within the larger structure of danger to the whole ecosystem. Human control of nature for human comfort or efficiency did not always work to the advantage of the people who believed they were in control; ironically, efforts to control crop damage by insects and weed growth were inflicting unintended damage on the surrounding environment and on human beings. By 1959 Carson was beginning to document not just casual or careless poisonings but a cumulative toxic buildup with the potential to alter the function of nearly every living cell. DDT was not just killing birds; it could eventually kill us all.

Shirley Briggs, Carson's co-worker and the director of the Rachel Carson Council, has pointed out that Carson's message applied "to far more than just pesticides." Indeed, it applied to the attitude that

Americans, as citizens of an industrialized nation, had adopted toward nature. This message links all the earlier books to *Silent Spring.* The crude and brutish treatment of the environment for profit had long been a concern for Carson: she observed it in coal mining enterprises in her native Pennsylvania, and she observed it in the fishermen off Georges Bank when she was researching her books about the sea. Finally, she observed it in the U.S. government's policies on pesticides and weed killers. What Carson's books do, besides speaking eloquently on behalf of nature, is to highlight the ways in which humans fail to appreciate it.

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Chronology

1907	Rachel Louise Carson born 27 May in Springdale, Pennsylvania, the third child of Robert Warden Carson and Maria Frazier (McLean) Carson.
1913	Enters Springdale Grammar School. Teachers note frequent absences, but Carson still excels.
1918	Publishes prize-winning first story in *St. Nicholas* magazine; others follow.
1921	Enters Springdale High School.
1923	Transfers to Parnassus High School (New Kensington).
1925	Graduates from Parnassus; enters Pennsylvania College for Women (later named Chatham College).
1927	Changes her major from English to biology.
1929	Receives a bachelor of arts, magna cum laude, in biology; attends Marine Biological Laboratory at Woods Hole, Massachusetts, on a summer study fellowship. Enters Johns Hopkins University in the fall.
1930	Becomes teaching assistant at Johns Hopkins summer school (a job she holds through 1936). Carson's parents come to live with her in Maryland.
1931	Begins teaching at University of Maryland, College Park.
1932	Receives master of arts degree in marine zoology from Johns Hopkins.
1935	Father dies. Carson applies for a job at the U.S. Bureau of Fisheries; is hired temporarily to write radio scripts on marine life, then edit them for publication.
1936	Takes civil service examination, scores higher than any other examinee, and is given a full-time civil service ap-

pointment as junior aquatic biologist. Publishes nature and conservation articles in the *Baltimore Sun.*

1937 "Undersea" published in *Atlantic Monthly.* Carson's sister, Marian, dies, and Carson and her mother assume responsibility for Marian's daughters, Marjorie and Virginia Williams.

1941 *Under the Sea Wind,* based on "Undersea," published shortly before the Japanese attack on Pearl Harbor.

1942 Moves with family to Chicago, where she is assistant to the chief of the Office of Information in the Fish and Wildlife Service. Writes pamphlets encouraging Americans to eat fish.

1943 Returns to Washington.

1945 Suggests to *Reader's Digest* an article on DDT's effects on the natural world, which is rejected.

1945-1947 Named general editor of Conservation in Action, a series of pamphlets on wildlife refuges.

1948 Named editor-in-chief of Fish and Wildlife Information Division.

1949 Wins Eugene F. Saxton Memorial Fellowship to work on *The Sea around Us.*

1950 "Birth of An Island" (chapter from *The Sea around Us*) published in *Yale Review* and wins $1,000 Westinghouse award for best science writing in a magazine.

1951 *New Yorker* serial publication in June of excerpts from *The Sea around Us. The Sea around Us* published. Carson wins Guggenheim Fellowship to work on another book about the sea.

1952 First woman to receive the Henry G. Bryant Medal from the Philadelphia Geographical Society; receives honorary doctorates from Drexel Institute of Technology, Oberlin College, and Chatham College (her alma mater). *Under the Sea Wind* reissued. Resigns from the Fish and Wildlife Service to devote all her time to writing.

1955 *The Edge of the Sea* published. Begins children's book for her grandnephew, Roger, whom she adopts in 1957, after the death of his mother, Marjorie.

1956 Publishes "Help Your Child to Wonder," in *Women's Home Companion.*

1958 Carson agrees to write article for the *New Yorker* and a book for Houghton Mifflin on the subject of DDT and other toxic pesticides. Mother dies.

1962 *New Yorker* serial publication in June of excerpts from *Silent Spring. Silent Spring* published.

1963 "The Silent Spring of Rachel Carson" aired on CBS. President John F. Kennedy's Science Advisory Committee supports Carson's findings. Carson receives the National Audubon Society's medal and the American Geographical Society's medal, and is elected to the American Academy of Arts and Letters.

1964 Rachel Carson dies of cancer and heart failure.

1965 *A Sense of Wonder* published (reprint of "Help Your Child to Wonder"). Rachel Carson Council founded.

1969 Coastal Maine Wildlife Refuge renamed the Rachel Carson Natural Wildlife Refuge.

1980 Posthumously awarded President's Medal of Freedom.

1981 Rachel Carson stamp issued.

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Chapter One

The Making of a Naturalist

Had Rachel Carson not written *Silent Spring* (1962) her biography would be simpler to write. The world would see her as a dedicated, literate marine biologist whose life and work was focused on the wonders of the sea. No one would have thought that this quiet woman, whose poetic passages in *Under the Sea Wind* (1941), *The Sea around Us* (1951), and *The Edge of the Sea* (1955) put her on the best-seller list for hundreds of weeks, was capable of generating the controversy that greeted the publication of her last book, *Silent Spring.*

Carson was always fascinated by the sea and by sea stories. Her interest in marine biology, her graduate thesis on catfish, her summer research at Woods Hole, her teaching assistantships in zoology labs at Johns Hopkins and the University of Maryland, and her job writing for the U. S. Bureau of Fisheries all set the stage for her writing about the sea. But what enabled her, a seemingly conventional, middle-aged woman, to confront the American scientific and business establishments and tell the world that we were destroying the planet we shared with other species? The answer to that question is that Carson's last book is not worlds apart from her earlier nature writing; it is the logical and integral conclusion to everything she did before. And it connects Carson with naturalists and conservationists writing both before and after she did.

Springdale

Springdale, Pennsylvania, approximately 18 miles from Pittsburgh on the Allegheny River, was a town of 1,199 people in 1910, when Rachel Carson was three; by 1920, the population had more than doubled.[1] It did have some industry, and during Carson's childhood a coal mining company tried to buy the mining rights under her

father's land. Her father refused to sell those rights not only because the value of the land he hoped to sell as house lots would have been lowered but also because he did not trust the mine owners. He often suspected that they were tunneling and possibly mining underneath his property, ignoring his prohibition. While the Carsons still kept a horse and buggy, the automobile was coming to Springdale, as were streetcars, new businesses, and factories. Although the Carson property remained relatively rural and out of the bustle of the rapidly growing industry around Pittsburgh, changes were noticeable: the Allegheny valley was no longer the beautiful valley the first settlers had seen. Pittsburgh's industries had already destroyed much of the landscape not far from where Carson lived, and during the course of her childhood the ugliness moved closer to her home.

When she returned from college for the summer, before leaving for Woods Hole and then Johns Hopkins University to do graduate work, Carson noted that Springdale was no longer very pretty. Her father's acres were not as unspoiled as she remembered them from her woodlands walks with her parents, and the Allegheny River had become polluted by industrial waste. It was from this farewell to her childhood and its much-changed setting that Carson left home to view the ocean for the first time.

Early Years

Born 27 May 1907, Carson was the youngest of the three children of Maria McLean and Robert Warden Carson. Maria McLean Carson, the daughter of a Presbyterian minister, had studied classics at Washington Female Seminary, a Presbyterian school, and had taught before her marriage. She met Robert Carson when a church quartet, of which he was a member, came to town. Members of the United Presbyterian Church, Robert and Maria Carson continued to sing in the church choir, and Maria instilled in all her children a love of music. Eight years younger than her closest sibling, Robert, Carson had many advantages of an only child – a close relationship with her mother, a comfortable companionship with her siblings, and plenty of time on her own. Her mother, fearing the tendency toward illness in the family, often kept Carson out of school for long periods of time to avoid contagion when infectious diseases were in the area. Carson began Springdale Grammar School in 1913, but was only pre-

sent "sixteen days in the first three months of the fall 1914 term" (Sterling, 16). Her spotty attendance throughout grade school would have failed a weaker student, but Carson's intelligence and her mother's encouragement helped her make up the lost time. When she wasn't at school, she was reading, writing, and developing a reverence for the world around her. The time she spent at home with her mother was rich with learning. The enforced absences from school, spent wandering in the orchards and woods, had a positive impact on Carson's development as a naturalist, an impact she was to recall in *A Sense of Wonder* (1965). In it, she takes her grandnephew, Roger Christie, out into the woods of Maine in much the same way that her mother took her into the woods of Springdale.

Carson's childhood was one that fostered a sense of herself and a sense of respect for the natural world. She often wandered in the family orchards looking for birds and other animals. She was unhappy with her brother's penchant for hunting rabbits and told him that, while he might enjoy it, "it can't be much fun for the rabbits" (Sterling, 20). Eventually, the gentle persuasions of the conservationist in the Carson family won out over the hunter, and Robert stopped. While this tale might be apocryphal, a part of family mythology, it reveals an interesting similarity with Henry David Thoreau's growing sense of shame at hunting and offers a window on the Carson family's sensitivity to the natural world.

Rachel was not the only one in her family who was sensitive to the creatures of the natural world. Her mother would not kill the insects that entered the house; rather, she would collect them and put them outside. Her father, while he would happily sell apples from his orchard for far less than the going rate, was always upset by people who would break the tree branches to get free fruit.

While not well off, the Carson family was land-rich. Robert Carson had bought 65 acres to sell as house lots and then added another 10 to that. Because he was unable to sell many of the lots, the Carsons always lived in what seemed to be a rural setting. They kept a pig, some chickens, and horses. Their house was outside Springdale, so Rachel spent a lot of time alone or with her mother. It was in many respects a self-sufficient and comfortable existence.

In this setting Carson began to write. She wrote poems and stories for her family, and at the age of 10 sent one to *St. Nicholas* magazine and won $10. She sent another story and won again.