**Love Your Mother**

**It would have been easier for Rachel Caron not to write *Silent Spring*. In fact, she tried hard to find another author to take on the job. Her mother had just died; her eyes were failing. She was undergoing radiation to treat her own growing cancer. Trying to unravel the intricate biochemistry of DDT and explain its dangers to a non-technical audience was undoubtedly going to be the toughest assignment of her life. She also knew that she would have powerful enemies ready to pounce on any error in her work as evidence that she was unqualified and hysterical, a woman and therefore not to be taken seriously. And she doubted if the average reader was really eager for the information she was presenting. The chemical companies were accustomed to feeding the public “little tranquilizing pills of half-truths,” in her words, to maximize profits and keep the customer satisfied.**

**She was portrayed as the enemy of progress. The insecticide she wrote about, dichloro-diphenyl-trichloroethane, was first synthesized in the nineteenth century, but came into widespread use during the Second World War when the army began using it to control malaria and typhus among the troops. A temporary, emergency measure was then quickly adapted for peacetime use. The World Health Organization initiated a campaign of global spraying in 1955 to knock-out diseases spread by mosquitoes, as Americans welcomed the industry promise of “better living through chemistry.” Few people now or then would want to ban pesticides altogether, and in her book, Carson wrote:**

***No responsible person contends that insect-borne disease should be ignored. The question that has now urgently presented itself is whether it is either wise or responsible to attack the problem by methods that are rapidly making it worse. The world has heard much of the triumphant war against disease through the control of insect vectors of infection, but it has heard little of the other side of the story—the defeats, the short-lived triumphs that now strongly support the alarming view that the insect enemy has been made actually stronger by our efforts … Practical advice should be "Spray as little as you possibly can" rather than "Spray to the limit of your capacity.”***

**Despite this sensible caution, one biochemist on the payroll of American Cyanimid corporation prophesied that "If man were to follow the teachings of Miss Carson, we would return to the Dark Ages, and the insects and diseases and vermin would once again inherit the earth." A former U.S. Secretary of Agriculture from the Eisenhower administration speculated on the basis of her good looks and unmarried status that Carson was probably a Communist. But Carson’s research was solid, and President Kennedy’s Science Advisory Panel recommended a gradual phaseout of the poison.**

**Someone had to document the downside of DDT, which has been associated with breast cancer and spontaneous abortions, neurological disorders in children, and malformed genitals in boys. With her Ph.D. in biology Carson had the credentials required. Yet temperamentally, she was more poet than provocateur, more mystic than muckraker. If she became an activist, her social engagement grew from her heart: from her profound love for this world of stars and sunlight. If she was an agitator, it was not a role she relished. As this godmother of the modern environmental movement once said, the gift she would impart to every child is an indestructible sense of wonder–glad appreciation the everyday miracles of singing birds and silver rain--for “it is not half so important to know as to feel,” in her words.**

**Wonder is inseparable from religion, which has been described as the “oceanic feeling.” Apart from dogma or creeds or institutions or belief systems, religion is an experience of the eternal, the boundless, the infinite, the unsearchable. And the ocean itself was where Rachel discovered that oceanic feeling, describing her sensations in books like *The Sea Around Us*. She wrote lyrically of exploring the beach at night, finding a small ghost crab in the beam of her torch, “lying in a pit he had dug just above the surf, as though watching the sea and waiting. The blackness of the night possessed water, air and beach. It was the darkness of an older world,” before the dawn of human witness. “I had seen hundreds of ghost crabs in other settings, but suddenly I was filled with the odd sensation that for the first time I knew the creature in its own world–that I understood, as never before, the essence of its being. In that moment time was suspended; the world to which I belonged did not exist and I might have been an onlooker from outer space. 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.” For Rachel, even a lowly crustacean could be a Thou, a divine subject rather merely an object of study, a being to whom she might feel emotionally bonded and spiritually akin.**

**She was one of the first nature writers to spin her yarns from the animal’s point of view, as in her first title *Under the Sea Wind*, where she followed the fate a little sandpiper she named Blackfoot on his annual migration from the Canadian Arctic to Patagonia 12,000 miles away. To do so, she had to enter imaginatively into the bird’s reality, asking “how does a breaking wave (a) sound and (b) look to sanderlings?” For her, the ocean was never a desolate or lonely place, but one filled with soaring thoughts and enlivening companions.**

**Yet like the bird guided surely on its long flight, Carson had a homing sense for truth and her science was dead on. Her appetite for mystery never diminished her hunger for the facts. She demolished what she considered maritime myths like the lost continent of Atlantis and the Sargasso Sea that trapped wayward sailors in tangling weeds. For her, the ocean held plenty of real marvels without resort to fiction.**

**Fascinating, for instance, that nearly sixty years ago, Carson observed that “now in our own lifetime we are witnessing a startling alteration of climate ... The frigid top of the world is very clearly warming up.” Without being able to pinpoint the precise cause, she reported on icefields like Alaska’s Muir Glacier receding over ten kilometers in the space of a dozen years. But she reasoned it must have something to do with changing currents and warming water, calling the ocean’s the earth’s great thermostat. Hers was an intellect as restless and roving as the sea itself.**

**Science and faith–or least a certain kind of faith--fit together in her way of looking at things, for both ask insistent questions about our universe. For religion, the riddles have no final solutions. Whether there’s a God, the whole question of evil, what happens when we die, why there’s something instead of nothing are perplexities that haunt the mind, and even without any definite resolution make us think more seriously on the meaning of our lives. Science may tell us about the physics of the atmosphere or the dynamics of wave action, but can never tell us what makes the sunset beautiful or why the pounding surf stirs the soul. Yet religion needs science precisely to challenge our assumptions, to disrupt received opinion and the day’s conventional wisdom, driving knowledge to the limits of understanding so that we can all the more appreciate the vast extent of the unknown.**

**In her essay “The Real World Around Us,” she wrote that “There is one quality that characterizes all of us who deal with the sciences of the earth and its life – we are never bored. We can't be. There is always something new to be investigated. Every mystery solved brings us to the threshold of a greater one. I like to remember the wonderful old Swedish oceanographer, Otto Petterson. He died a few years ago at the age of 93, in full possession of his keen mental powers. His son, also a distinguished oceanographer, tells us how intensely his father enjoyed every new experience, every new discovery concerning the world about him. “He was an incurable romantic,” the son wrote, “intensely in love with life and with the mysteries of the Cosmos which, he was firmly convinced, he had been born to unravel.” When, past 90, Otto Petterson realized he had not much longer to enjoy the earthly scene, he said to his son: “What will sustain me in my last moments is an infinite curiosity as to what is to follow.”**

**Our particular faith is better at questioning our answers than answering our questions. So it was appropriate as her own death approached fifty years ago for Rachel Carson to request that her final farewell take place at the All Souls Unitarian Church in New York, where the minister, Duncan Howlett, had companioned her through her final illness. She wanted a simple ceremony, without fanfare, attended by her closest friends. Sadly, her estranged brother Robert seized control, and the official funeral was held at the National Cathedral in Washington, D.C., with U.S. Senators for pallbearers and eulogies from an Episcopal bishop she’d never met. The following day, the more genuine, intimate parting took place in the Unitarian chapel, where the minister read from Rachel’s own reflections, watching the flight of butterflies as they set out on a migration from which none would ever return. “For the monarch,” Carson mused, “that cycle is measured in a known span of months.” For ourselves the measure is something else, the span of which we cannot know. But the thought is the same: when the intangible cycle has run its course it is a natural and not unhappy thing that a life comes to its end.**

**Not unhappy, if the mind has been alert, not unhappy, if the work has been real, not unhappy, if the heart has loved, not unhappy if we have lived with a sense of unquenchable curiosity, for then we might approach our last moments with a sense of gratitude for what’s been and wonder for whatever follows.**

**A child’s world is fresh and new and beautiful, full of wonder and excitement. It is our misfortune that for most of us that clear-eyed vision, that true instinct for what is beautiful and awe-inspiring, is dimmed and even lost before we reach adulthood. If I had influence with the good fairy who is supposed to preside over the christening of all children I should ask that her gift to each child in the world be a sense of wonder so indestructible that it would last throughout life, as an unfailing antidote against the boredom and disenchantments of later years, the sterile preoccupation with things that are artificial, the alienation from the sources of our strength.**

**If a child is to keep alive his inborn sense of wonder without any such gift fairies, he needs the companionship of at least one adult who can share it, rediscovering with him the joy, excitement and mystery of the world we live.**

**I sincerely believe that for the child, and for the parent seeking to guide him, it is not half so important to know as to feel. If facts are the seeds that later produce knowledge and wisdom, then the emotions and the impressions of the senses are the fertile soil in which the seeds must grow. The years of early childhood are the time to prepare the soil.**

**What is the value of preserving and strengthening this sense of awe and wonder, this recognition of something beyond the boundaries of human existence? Is the exploration of the natural world just a pleasant way to pass the golden hours of childhood or is there something deeper?**

**I am sure there is something much deeper, something lasting and significant. Those who dwell, as scientists or laymen, among the beauties and mysteries of the earth are never alone or weary of life. Whatever the vexation or concerns of their personal lives, their thoughts can find paths that lead to inner contentment and to renewed excitement in living. Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts. There is symbolic as well as actual beauty in the migration of the birds, the ebb and flow of the tides, the folded bud ready for the spring. There is something infinitely healing in the repeated refrains of nature — the assurance that dawn comes after night, and spring after the winter.**