

Week Four Reading Guide: The birth of environmentalism

This week we focus on the most person most responsible for the birth of the modern environmental movement, Rachel Carson. She was a marine biologist who might have become an academic researcher but for personal circumstances combined with a deep love of writing. She wrote several popular nature books before writing *Silent Spring*, the book that woke the public to the dangers of chemical pesticides and launched the environmental movement and which, a decade later, led to the banning of DDT. Perhaps no science book written in the last century has had greater impact on society.

September 30, 2019

Carson, R. 1962, *Silent Spring* (Houghton Mifflin), Chapters 1–3

How does Carson use the power of myth in Chapter 1? Contrast her style with Beckwith. He writes a memoir, she writes a science popularization. However, *Silent Spring* does not begin like a science book. Why not?

Chapter 2 begins with a comparison of chemical poisoning and fallout from nuclear explosions. An international ban on atmospheric testing of nuclear weapons went into effect in 1963 but the anti-nuclear movement was already well-known to the public in 1962. What future environmental concerns does Carson anticipate? To whom does she lay blame for the overuse of pesticides? Who is responsible for reversing this situation? How does she seek to stimulate this reversal?

Chapter 3 presents a frightening chemistry lesson. How does Carson prevent the deluge of scientific terminology and findings pass over the reader's head? How does she use myth in this chapter? Is there a common theme in her usages of myth? How does she end the chapter? Is this fear-mongering?

PBS American Experience, "Rachel Carson," [video](#), 113 min

This (almost) two-hour television special puts *Silent Spring* in the broad context of Carson's life and times. She wanted to become a scientist, but also loved writing, and was good at both. As her biographer William Souder notes at 19:00, "She has, at last, found this way to combine her two passions in life. Biology and writing merge.... From that time forward, she never thinks of them as being separate things."

As you watch this video, note the discussions of technological solutions to societal problems. What is journalist Deborah Blum (now at MIT) referring to when she says, "When you get something that looks like a magic bullet, you want the magic bullet." Later, Blum discusses the impact of nuclear weapons testing on Carson's writing. Compare historian Mark Lytle's comment "The people involved, the scientists... who are inventing pesticides, think they are doing God's work" with Hugh Gusterson's description of nuclear weapons designers at Lawrence Livermore National Laboratory (week 2).

Slightly more than halfway through the program, biographer Linda Lear notes, “Advocacy is not something scientists of the time were wont to do, but for Carson it became a crusade.” Why? Later Mark Lytle says, “All of these things [regarding corporations marketing and selling pesticides] are part of the Cold War consensus by which Americans live: the benevolence of corporations, the authority of science. Well, Carson’s challenging all of these things.” How does utilitarian ethics show up in the corporation’s arguments for the benefits of pesticides?

What role did sexism play in the attacks on Carson? How did she respond?

Beckwith, J. 2002, *Making Genes, Making Waves: A Social Activist in Science* (Harvard University Press), Chapter 5.

Beckwith chose to spend a sabbatical in Naples, Italy, due, in part, to a democratic, non-hierarchical culture that did not force him to leave his social identity outside the lab. Is there a comparable setting for you at MIT?

Beckwith found some features of Neapolitan life disconcerting, yet he came to regard them as inseparable parts of a whole culture. Give an example.

Does Beckwith write more enthusiastically about his science or his activism? Is one more important than the other to him? What role, if any, did his privileges impact his ability to pursue both science and activism? What might have been different if he were a woman or person of color?

October 2, 2019

Norwood, V. L. 1987, “The nature of knowing: Rachel Carson and the American environment,” *Signs: Journal of Women in Culture and Society* 12.4, 740–760; <https://doi.org/10.1086/494364>

Norwood’s essay begins with the analogy between environmentalism and traditional gendered views of “home.” The “economic household” refers to the once popular discipline of home economics founded by Ellen Swallow Richards (MIT’s first female graduate). Norwood argues that commentators have oversimplified Rachel Carson’s work by trying to fit it into preexisting models. Carson’s work evolves from early popular books on the wonder of nature, to *Silent Spring*’s “shadowy side of our dealings with nature.” Carson did not write as a feminist, yet Norwood concludes that she became “a major voice within contemporary discussions of gender and science as well.” Note especially Norwood’s reference to symbolic language and metaphor. Symbolism is critically important for establishing, reinforcing, and overturning social constructions such as essentialist ideas of gender. Comment on how, according to Norwood, “Carson becomes more than a nature writer; she raises fundamental questions about how human knowledge is constructed, questions that reveal the epistemological hubris underlying much human understanding.” What does this mean?

Norwood observes that Carson overturns a popular anthropomorphic warm and fuzzy view of nature by recognizing the alienness of ghost crabs. How does Carson’s evolution lead to her “polemic turn” (p. 752)?

Norwood describes the opening chapter of *Silent Spring* as “an arcadian fable in which a group of settlers has developed the ‘middle-landscape.’” Contemporary scholars might describe the “settlers’ attitudes of care toward their natural home and their management approach toward the environment,” as well as the chemical companies’ “exploitation of the home and household metaphors,” as an example of colonialism. Give arguments why or why not our attempts to reshape the environment are colonialist.

In a footnote, Norwood anticipates the modern Environmental Justice movement: “Carson’s deconstruction of the home metaphor not only suggests that human homes have been violated by our own poisons but further questions the anthropocentric stance that assumes human environments ever were separable from the rest of the environment.” Relate this to the work of Dr. Robert Bullard (do a web search).

Norwood notes, “Lack of adequate symbolism, not lack of knowledge, is the issue; we continue to look for simplicity and regularity instead of recognizing that nature cannot be conceptually tamed through metaphor.” How does Carson address this challenge? What are the “Neanderthal philosophies” that Norwood refers to? See especially the discussion on pp. 758—759.

Norwood quotes Evelyn Fox Keller, “Technology is fine, but the scientists and engineers only partially think through their problems. They solve certain aspects, but not the total, and as a consequence [nature] is slapping us back in the face very hard.” Is this the main conclusion of Norwood’s essay?

Di Chiro, G. 2006, “Teaching urban ecology: Environmental studies and the pedagogy of intersectionality,” *Feminist Teacher* 16.2, 98–109;
<https://www.jstor.org/stable/40545983>

Di Chiro’s article describes an environmental justice class taught at Mount Holyoke College that builds on ideas of intersectionality. In feminist theory, intersectionality (a term introduced by Kimberlé Crenshaw in 1989) refers to the combined effects of multiple forms of oppression. Environmental justice deals with the intersecting oppressions of environmental degradation, class and racial oppression, and more. It attacks the dominant idea that nature and culture are separate categories. What examples does Di Chiro give for their intersection in Holyoke, Massachusetts?

Mount Holyoke students live in a bubble in which they seek to learn about and make a better world while, for the most part, being unaware of the conditions in the city a few miles from their campus. How did they respond to the stories told by community organizers with *Nuestras Raices*? What opportunities do MIT students have for similar engagement outside the MIT bubble?

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