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Rachel Carson's Silent Spring: A Brief History of Ecology as a Subversive Subject

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Description

This essay by Gary Kroll discusses the role of Rachel Carson's Silent Spring in briefly articulating ecology as a "subversive subject" by taking aim at the overly mechanical and reductive sciences and by critiquing the cultural authority of science and technology to control nature.

Body

In the late 1960s Paul Shepard, a human ecologist and philosopher, wrote the introduction for Subversive Science - a book that offered an interdisciplinary perspective on what was then termed "the ecological crisis." Shepard noted that a change in western perspective was absolutely necessary: "where now there is man-centeredness, even pathology of isolation and fear...ecology as applied to man faces the task of renewing a balanced view." Ecology was less important as a scientific discipline than for its holistic perspective. There is, Shepard maintained, much that is radical in ecology: "The ideological status of ecology is that of a resistance movement. Its Rachel Carsons and Aldo Leopolds are subversive (as Sears recently called ecology itself)." He concluded by noting that the ecological crisis could not be ameliorated by technical and scientifically engineered quick-fixes, but rather by

invoking "an element of humility which is foreign to our thought, which moves us to silent wonder and glad affirmation.[1] While the point is debatable, one could certainly argue that Shepard's, Leopold's, and Carson's revolution never took place, at least not in the manner that they had hoped.

Rachel Carson's *Silent Spring* played a large role in articulating ecology as a "subversive subject" - as a perspective that cut against the grain of materialism, scientism, and the technologically engineered control of nature. But ecology's subversive moment proved all too brief, and by the first Earth Day in 1970, American environmentalism was headed in a very different direction. I want to examine briefly the subversive nature of ecology in the 1960s and demonstrate Carson's participation in that dialog; I also want to offer a few explanations for why this subversive vision never materialized. But if a subversively ecological perspective was not the legacy of *Silent Spring*, then what was? My claim is that an important legacy of *Silent Spring* is the adoption of a very healthy and widespread skepticism concerning the scientific control of both the body and the environment.

Silent Spring laid bare a curious split within science that had its origin in the disputes between naturalists and experimental biologists of the early twentieth century. On the one hand, Carson speaks with the authoritative voice of ecology - a rational discipline by the 1960s wholly accepted by the scientific community at large for its rigorous and falsifiable methods of interpreting nature. On the other hand, Carson speaks as the critic of science; she did this in two ways. First, she takes aim at the overly mechanical and reductive sciences - economic entomology and organic chemistry in this instance - that isolate nature to the neglect of interconnections. Secondly, she critiques the wider - and perhaps more nebulous - cultural authority of science and technology to control nature. The two come together in the often-quoted final paragraph of *Silent Spring*.

> The "control of nature" is a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man. . . . It is our alarming misfortune that so primitive a science has armed itself with the most modern and terrible weapons, and that in turning them against the insects it has also turned them against the earth.[2]

The point was more graphically presented in the CBS News Reports documentary, "Rachel Carson's *Silent Spring*." The program created a clear dichotomy between laboratory science - accompanied by shots of factories and dams - and the "softer" side of Carson's ecology that had a strange ability to speak as a science while at the same time appearing very other than the stereotype of science. Many of my students, for example, are surprised to hear that Carson had a graduate degree from one of the premier universities for experimental biology.

It was precisely this ambiguity that Shepard and Sears were articulating when they called ecology a "subversive subject." Radical ecology emerged from the disciplinary matrix of academic ecology. The Leopold of *Sand County Almanac* emerged from the Leopold of the U.S. Forest Service. Similarly, Carson's subversive ecology emerged from the laboratories of Johns Hopkins University and the offices of the U.S. Fish and Wildlife Service. The voices of Carson, Sears and Leopold merged with other critical currents in the postwar era. In 1958 a concern over the dangers of nuclear test fallout led Barry Commoner and others to organize the St. Louis Committee for Nuclear Information. Echoing Carson's critique, Commoner noted that the Committee emphasized "the balancing of social judgment against cost," decisions that "should be made by every citizen and not left to the experts."[3] Murray Bookchin criticized the uses of pesticides and preservatives in his treatise on human ecology, Our Synthetic Environment (1962). Like Carson, he noted that "neither science nor technology, however, is a substitute for a balanced relationship between man and nature." Though the laws that define that relationship are the laws of ecology.[4] Other subversives, like Paul Goodman, took aim at the entire complex of the scientific-industrial-technocratic and consumer-oriented west. Herbert Marcuse added fuel to the New Left fire by claiming that "authentic ecology flows into a militant struggle for a socialist politics which must attack the system at its roots, both in the process of production and in the mutilated consciousness of individuals." [5] While Carson rarely waxed on reforming the entirety of western society, there is an element of critical theory in *Silent Spring* that begins to contemplate a wholly new relationship between humans and nature.

This message was lost to popular environmentalism of the 1970s. The cultural history of *Silent Spring* as an appropriated text has yet to be written. But one can start by looking at Peter Matthiessen's brief *Time* biography for an index to the co-opted *Silent Spring*. Matthiessen makes no reference to Carson's calls for humility; he says nothing about the fundamental choices that humans would have to make

'Silent Spring's "Other Road"; there is no mention of the ecological interconnectedness of the world that made the threat of toxins so dire. Carson's key contribution, in Matthiessen's estimation, lie in blowing a whistle on the pesticide industry. "True, the damage being done by poison chemicals today is far worse than it was when she wrote the book," Matthiessen tells us. "Yet one shudders to imagine how much more impoverished our habitat would be had *Silent Spring* not sounded the alarm."[6] Carson would have shuddered. *Silent Spring* was so much more than an anti-pesticide tract. It was an essay of ecological radicalism that attempted to wake up a populace quiescent to the techno-scientific control of the world.

This "radical ecology," as Carolyn Merchant calls it, quickly flagged in the early 1970s. Indeed, Marcuse's essay on "Ecology and Revolution" noted that the ecology movement had been co-opted by commercial capitalism. For example, a Schlitz malt liquor advertisement appeared in the *New York Times* on the first Earth Day; it shows a man and a woman, hand in hand, strolling along a beautiful and deserted shoreline. Below the photograph is the copy that a Schlitz advertising team carefully constructed to fend off Earth Day criticism. "You've found a beautiful spot? Take us along. We were made for each other. Leaving? Take us along. Drop us off. The nearest trash can'll do. A thing of beauty is a joy forever. We'd like to help keep it that way." Earth Day itself seems to have been artfully orchestrated as a centrist issue by Wisconsin senator Gaylord Nelson and Harvard law student Denis Hayes.

As environmentalism became a matter of political consensus dominated by professional environmentalists, ecology lost its subversive edge. Environmental science departments mushroomed in academia over night and embraced the mantra of ecology-but instead of Marcuse, Commoner, Leopold and Carson's subversive and radical ecology, such programs were largely developed with an emphasis on the trophic-dynamic systems of engineered environments.[7] Academic ecology most certainly became one of the conceptual cornerstones of mainstream environmentalism. But it was not a subversive ecology that questioned fundamental values of economics, consumer habits, and techno-scientific control. It represented an engineering mentality in which problems of waste, pollution, population, biodiversity and the toxic environment could be solved scientifically.

So if the ecological revolution never materialized in the way that Carson had hoped, what was her legacy to the history of science and society? Over the past thirty years green philosophies like eco-feminism, social ecology, and deep ecology have illustrated increasingly sophisticated systems of thought that attempt to reconfigure

the relationships between humans, environment, and the role of science and technology in mediating the human-nature dialectic. The growth of sociology and ethics programs that scrutinize science, technology, and society is especially impressive. While it is doubtful that scientific authorities ever had free reign to do whatever they wished, today they are held to a high degree of accountability. The press actively keeps the public wary with news of genetically engineered organisms, terminator seed manipulations, irradiated food, and new pesticides. While we might question the efficacy of such initiatives in creating real and widespread changes in values, we have come a long way in questioning the epistemic sovereignty of science. Carson was not the first to do this; but she was among the first to bring the debate into the public sphere.

Paralleling these initiatives among America's empowered classes has been the remarkable growth of the environmental justice movement. Since the 1970s, people of color - often living at or below the poverty level - have come together at the grass roots level to mount campaigns against the environmentally racist policies of American industrialism. These points of resistance often arise from degraded urban spaces whose inhabitants have felt particularly victimized by the nonarbitrary placement of incinerators and pollution-producing factories. They have marshaled scientific evidence -often under incredible duress- to oppose these policies of indiscriminate environmental racism. For instance, the "Principles of Environmental Justice" written at the First National People of Color Environmental Leadership Summit in 1991 declares the rights of people of color to develop social, political, cultural, and economic communities - collaborative groups that define their own ecology of existence in opposition to the technocratic top-down directives of modern business, government, and - most notably - the professionalized environmental lobby.8 In one sense, the environmental justice movement has moved beyond Carson's own vision for a democratically based subversive ecology. Seen from another perspective, it was precisely these social movements that Carson envisioned, and it would be easier for us to recognize the fact if *Silent Spring* was not part of the conservative co-option of the 1970s.

The hope for a resurrected subversive ecology that incorporates a vision of both human and natural diversity seems to be on the rise. But the United States is sitting in the backseat - with some notable exceptions - as world leaders, scientists, and social advocates hash out a new vision of sustaining human existence within nature. This year's World Summit in Johannesburg boasts a truly visionary program in which

the environmental sciences will partner up with social and economic justice advocates. Leaders are coming to realize that there will be no technological quick-fix for the global environmental crisis. Global warming is now being conceived of as less a scientific and technological problem than a social and cultural problem, and it is the perspective of ecology, to invoke Shepard again, that lies at the core of this social. Whether or not there is a direct link between *Silent Spring* and the World Summit is besides the point; the Summit promises to be a full realization of Carson's desire to humble humanity into a relationship of equanimity with nature - an overdue actualization of ecology's subversive potential.

Footnotes

- 1 Paul Shepard, "Introduction: Ecology and Man - a Viewpoint," in Paul Shepard and Daniel McKinley (eds.) *The Subversive Science: Essays Toward an Ecology of Man* (Boston: Houghton Mifflin Company, 1969), pp. 1-10.
- 2 Rachel Carson, *Silent Spring* (New York: Houghton Mifflin Company, 1962), p. 297.
- 3Barry Commoner, *The Closing Circle: Nature, Man and Technology* (New York: Alfred A. Knopf, 1971), p. 56.
- 4Lewis Herber, *Our Synthetic Environment* (New York: Alfred A. Knopf, 1962), p. 201.
- 5Herbert Marcuse, "Ecology and Revolution," *Liberation* 16 (September 1972), p. 12.
- 6Peter Matthiessen, "Environmentalist: Rachel Carson" in Time Magazine. (March 29, 1999), 187.
- 7On the rise and fall of radicalism see Robert Gottlieb, *Forcing the Spring: The Transformation of the American Environmental Movement* (Washington D.C., 1993).
- 8See Gottlieb and Giovanna Di Chiro, "Nature as Community," in William Cronon (ed.) *Uncommon Ground* (New York: Norton, 1995), pp. 298-320.

Notes

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