



Silent Spring Project

POINTS OF DEPARTURE

To follow up on the extraordinary success of the 2011-2012 Henrietta Lacks Project, the Center for Ethics in Science and Technology is coordinating a parallel effort for 2012-2013 that will celebrate the 50th anniversary of the publication of Rachel Carson's landmark book, *Silent Spring*. These projects are designed to meet the Ethics Center's mission of bringing the public and scientists together to explore how science can best serve society.

Like the Lacks project, the *Silent Spring* project will involve an unprecedented regional alliance of six universities and colleges, the Ethics Center, the Reuben H. Fleet Center, and CONNECT. It will address themes relevant to diverse academic disciplines, including but not limited to arts and humanities, social sciences, writing and journalism, economics, law, gender studies, ethnic and minority studies, urban studies and planning, environmental and biological sciences, public health and medicine, chemistry and biochemistry. Some examples include:

1. **Moral Courage:** Rachel Carson was outside the scientific mainstream because she was a woman and because the discipline of biology was not as respected as those of chemistry before the 1960s. In addition, she was privately struggling with breast cancer, from which she died less than 2 years after the publication of her book. Despite these challenges, Carson persevered in making her case that pesticides are pollutants, which became the starting point for an international environmental movement.
2. **Roles and Responsibilities of Scientists:** Carson used her expertise and stature as a biologist as a platform to speak out in a way that was accessible to the general public. Not all scientists agree that this is their role or responsibility.
3. **Roles and Responsibilities of Science Journalists:** Although she was trained as a scientist, Carson chose to focus her career on science journalism. In that context, she became a passionate spokesperson advocating against our increasing use of chemicals of unknown safety.
4. **The Public as Scientific "Court of Last Resort":** Many scientists believe that scientific disputes should be raised for resolution in the scientific community, not in the public domain. *Silent Spring* appears to be a case in which a lack of traction in the scientific community necessitated an appeal to the public.
5. **Pesticide Risks and Benefits:** *Silent Spring* focused on the detrimental effects of pesticides, and of DDT in particular. This issue balances competing concerns: the risks to the environment on the one side, and agricultural productivity and restriction of malaria-carrying mosquitoes on the other.
6. **Environmental Causes of Disease:** Links between human-created toxins and disease have become more pervasive in the 50 years following publication of *Silent Spring*. The public health and medical implications are significant in such cases as lung disease due to asbestos, an association between paraquat and Parkinson's disease, links between pesticides and childhood diseases, or innumerable agents and increased risk of cancer or heart disease.
7. **Environmental impact:** Although it seems self-evident to many, it wasn't as clear as recently as 50 years ago that there are things that we can do as humans that will have a profound impact on the world in which we live. That is particularly clear now as we talk not only about the possibility that our production of greenhouse gases is promoting climate change, but that we are looking at the possibility of geo-engineering to cool the planet if it warms up too much.

8. **Sustainability:** Carson's writings often return to the concern that choices we make today can limit our future options and diminish the world we live in and the quality of our lives. This early recognition of the need to focus on sustainability appears prescient 50 years later.
9. **Biological Diversity and Interconnectedness:** *Silent Spring* is fundamentally about the interconnectedness of life on our planet. Those connections are one of the primary themes of much of biological science, and they underscore the importance of maintaining biological diversity.
10. **Limits of Technological Progress:** Carson was clearly concerned about the double-edged sword of technological advances. While much can be gained from new developments in health sciences, agriculture, telecommunications, etc., many of these technologies also carry risks and harms that may outweigh their potential or actual benefits.
11. **Underrepresented Groups:** Ironically, because we are now so much more aware of the dangers of various pollutants, we face tough choices about where pollutants will be released or discarded. The results often produce a disproportionate impact on underrepresented and socioeconomically disadvantaged communities
12. **Gender Bias:** Criticism of Carson often involved gender discrimination. Up until the publication of her book, women were remarkably underrepresented in academia and science in particular. The result was a devaluing of her contribution based on her gender rather than on the substance of her work.
13. **Writing:** As noted by Linda Lear in the introduction to the 40th anniversary edition of *Silent Spring*, "science not only engaged her mind but gave her something to write about" Questions of the ethical challenges embedded in science and technology are an ideal and important opportunity to hone and make use of rhetorical skills.
14. **Human Flourishing:** The perspectives of Carson's biographer (Linda Lear) and Carson's writings make a strong case for the importance of connecting with the natural world for a full and meaningful life. This is reminiscent of the concerns raised by the San Diego journalist and author Richard Louv, who has coined the term "nature-deficit disorder."
15. **Human Responsibility and Sustainability:** Carson clearly envisioned humans as having a distinct responsibility that can be defined by the characteristics synonymous with what it means to be human. As she wrote, "Only within the moment of time represented by the present century has one species - man - acquired significant power to alter the nature of his world. ... The human race is challenged more than ever before to demonstrate our mastery - not over nature but of ourselves." Although *Silent Spring* was published 50 years ago its underlying message is as important today as it was in 1962. As we look ahead to the next 50 years, and consider the adaptive challenges we face—climate change, water shortages, loss of biodiversity, and extreme poverty, for example—Rachel Carson's eloquently expressed vision of our place on this planet provides us with questions we need to ask ourselves daily. *Silent Spring* begins with "A Fable for Tomorrow," in which Carson implicitly asks, who and what will become? This classic work reminds us that these questions are as important today as they were in 1962.

We hope you'll join us this coming year in exploring this extraordinary opportunity for academic engagement by students, faculty, and the community with this book, its themes, and many related events. All are welcome.