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*Silent Spring* Book Review

The book I chose to review is *Silent Spring* by Rachel Carson. It is an informative non-fiction book about the dangers of the newfound chemicals at the world’s grasp, especially our indiscriminate use of pesticides. Out of these pesticides, Carson primarily focuses on Dichlorodiphenyltrichloroethane (DDT), and how it is used in our own country. The book was written in 1962, a time where government controls and public awareness of these dangerous chemicals was at an all-time low. This meant that the central message of this book–that our scientific inventions are increasing at such a rate to outpace our complete understanding of them and their impact on us and the environment–was a foreign concept to the majority of the American public at the time. This book really began the major shift in public consciousness to warily regard widespread usage of chemicals, and to furthermore seek to use government to curtail the relentless and reckless expansion of chemical usage. I chose this book because I had heard so much about how this book had influenced our awareness of chemicals and how it had been the catalyst for major legislative change; I wanted to see if it was worth its hype.

Though the book heavily focuses on and is known for its critique of DDT, the book as a whole focuses on our haphazard, non-selective spraying of pesticides. These new substances–often used as trivially as we would use substances such as Lysol or wet wipes–had hidden insidious effects upon the environment and upon our health. An example of the triviality and lack of proper safety for these chemicals is shown through our extreme contact and exposure with them. Playgrounds would often be dusted with dangerous insecticides (sometimes with the children still present), entire towns would have their food and water contaminated with it, and everyday people would use them to kill common pests such as termites or cockroaches in their own houses–with the chemicals coming into contact with their own family as much as the intended pest. These chemicals were often so deadly that “If dropped to the floor by a child or careless adult everyone nearby could be splashed with the same chemical that has sent spraymen using it into convulsions” (94). Carson thought that the term “insecticide” or “pesticide” was not nearly accurate enough for the effects these chemicals were having. She thought a better name was “biocide”, for these substances killed everything it came in contact with (the intended target be damned). The crossfire of these chemical wars often did as much harm as it did good. As people would spray a landscape to remove it of a specific plant or pest (usually from a plane), nothing was left unscathed in the ensuing biological barrage. Entire ecosystems of living organisms would be destroyed.

Carson not only explained how dangerous these man-made chemicals were, but also just how ineffective they were as well. The widespread spraying of these “biocides” killed the intended pest’s natural predators just as often as it killed the pest itself. This led to the target pest’s numbers often growing, not shrinking. Furthermore, in a natural ecosystem when a population has a collapse of its members (from spraying or other causes), they often rebound larger than before due to the collapse of competition from its fellow species (from untaken food) and natural predators (who many died as a result of its prey disappearing). Even further, the primary target of our campaign of taming nature–insects–are incredibly resistant creatures. At least, far more resistant than us. They are able to adapt and evolve far faster than we can to our synthetic pollutants and insecticides such as DDT. This means that while the first time an area is sprayed with DDT, mosquitoes may be virtually gone for years. Yet when they inevitably rebound back, the second spraying will not kill as many and will not last as long as the first spraying; the durations between sprayings inevitably become shorter and the chemical inevitably becomes weaker against them. This principle is easily demonstrated through this example:

Probably the first medical use of modern insecticides occurred in Italy in 1943 when the Allied Military Government launched a successful attack on typhus by dusting enormous numbers of people with DDT. This was followed two years later by extensive application of residual sprays for the control of malaria mosquitoes. Only a year later the first signs of trouble appeared. Both houseflies and mosquitoes of the genus Culex began to show resistance to the sprays. In 1948 a new chemical, chlordane, was tried as a supplement to DDT. This time good control was obtained for two years, but by August of 1950 chlordane-resistant flies appeared, and by the end of that year all of the houseflies as well as the Culex mosquitoes seemed to be resistant to chlordane. As rapidly as new chemicals were brought into use, resistance developed. By the end of 1951, DDT, methoxychlor, chlordane, heptachlor, and benzene hexachloride had joined the list of chemicals no longer effective. The flies, meanwhile, had become ‘fantastically abundant’.

There are so many flaws with this approach to taming nature to make it hardly worth the effort at all. Ironically, there often exists far safer solutions to pest problems than our chemical warfare. For example, when aiming to protect a certain agricultural crop such as corn or apple trees from pests, the problem usually arises as a result of the extreme homogenization of vegetation imposed on the ecology by the growers, an invasive species, or a combination of both. While nature is balanced and varied, man is not. This means that pests (previously held in check by the natural environment), now have ample room to multiply to never before seen numbers. In an understanding of the preexisting constructions of nature, growers have seen lots of success simply importing natural predators of the pest species. In other cases, they diversify their crops so that there is not as extreme of a homogenization of the plant ecology.

Carson proved to not only the scientific community but also the public that our “biocides” were not only incredibly dangerous but also incredibly ineffective in the long run. How could we be so foolish to do something like this, to endanger our planet and ourselves, to put so much on the line and to risk so much, for something that offered so little gain? Carson herself sums it up best “TO HAVE RISKED so much in our efforts to mold nature to our satisfaction and yet to have failed in achieving our goal would indeed be the final irony”(128). Carson showed the world in ways never before articulated that our endeavors to tame nature would ultimately leave only a desert in its wake. She revealed the utter madness of it all.

I give this book 10/10. I give it this rating because not only was the information presented in the book detailed, rigorous, and scientifically accurate but the rhetoric and language Carson uses is very pleasant to read. Out of the hundreds of books I have read, I think she is one of the most skilled authors I have encountered. Carson did a very good job of never letting the scientific details (of which there were many) bog down the book for the average reader with no background scientific knowledge. I would recommend this book to anyone I meet, regardless of whether they even care about the environment, because of my confidence in this book to make them care and to teach them how we can be better custodians of our planet.

References

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