The Story of Silent Spring
How a courageous woman took on the chemical industry and raised important questions about humankind’s impact on nature.

Although their role will probably always be less celebrated than wars, marches, riots or stormy political campaigns, it is books that have at times most powerfully influenced social change in American life. Thomas Paine’s Common Sense galvanized radical sentiment in the early days of the American revolution; Uncle Tom’s Cabin by Harriet Beecher Stowe roused Northern antipathy to slavery in the decade leading up to the Civil War; and Rachel Carson’s Silent Spring, which in 1962 exposed the hazards of the pesticide DDT, eloquently questioned humanity’s faith in technological progress and helped set the stage for the environmental movement.

Carson, a renowned nature author and a former marine biologist with the U.S. Fish and Wildlife Service, was uniquely equipped to create so startling and inflammatory a book. A native of rural Pennsylvania, she had grown up with an enthusiasm for nature matched only by her love of writing and poetry. The educational brochures she wrote for the Fish and Wildlife Service, as well as her published books and magazine articles, were characterized by meticulous research and a poetic evocation of her subject.
"Things Go Out of Kilter"

Carson was happiest writing about the strength and resilience of natural systems. Her books *Under the Sea Wind, The Sea Around Us* (which stayed on the *New York Times* bestseller list for 86 weeks), and *The Edge of The Sea* were hymns to the interconnectedness of nature and all living things. Although she rarely used the term, Carson held an ecological view of nature, describing in precise yet poetic language the complex web of life that linked mollusks to sea-birds to the fish swimming in the ocean's deepest and most inaccessible reaches.

DDT, the most powerful pesticide the world had ever known, exposed nature's vulnerability. Unlike most pesticides, whose effectiveness is limited to destroying one or two types of insects, DDT was capable of killing hundreds of different kinds at once. Developed in 1939, it first distinguished itself during World War II, clearing South Pacific islands of malaria-causing insects for U.S. troops, while in Europe being used as an effective de-lousing powder. Its inventor was awarded the Nobel Prize.

When DDT became available for civilian use in 1945, there were only a few people who expressed second thoughts about this new miracle compound. One was nature writer Edwin Way Teale, who warned, "A spray as indiscriminate as DDT can upset the economy of nature as much as a revolution upsets social economy. Ninety percent of all insects are good, and if they are killed, things go out of kilter right away." Another was Rachel Carson, who wrote to the *Reader's Digest* to propose an article about a series of tests on DDT being conducted not far from where she lived in Maryland. The magazine rejected the idea.

**Silent Spring**

Thirteen years later, in 1958, Carson's interest in writing about the dangers of DDT was rekindled when she received a letter from a friend in Massachusetts bemoaning the large bird kills which had occured on Cape Cod as the result of DDT sprayings. The use of DDT had proliferated greatly since 1945 and Carson again tried, unsuccessfully, to interest a magazine in assigning her the story of its less desirable effects. By 1958 Carson was a best-selling author, and the fact that she could not obtain a magazine assignment to write about DDT is indicative of how heretical and controversial her views on the subject must have seemed. Having already amassed a large quantity of research on the subject, however, Carson decided to go ahead and tackle the DDT issue in a book.

*Silent Spring* took Carson four years to complete. It meticulously described how DDT entered the food chain and accumulated in the fatty tissues of animals, including human beings, and caused cancer and genetic damage. A single application on a crop, she wrote, killed insects for weeks and months, and not only the targeted insects but countless more, and remained toxic in the environment even after it was diluted by rainwater. Carson concluded that DDT and other pesticides had irrevocably harmed birds and animals and had contaminated the entire world food supply. The book's most haunting and famous chapter, "A Fable for Tomorrow," depicted a nameless American town where all life -- from fish to birds to apple blossoms to human children -- had been
"silenced" by the insidious effects of DDT.

First serialized in The New Yorker in June 1962, the book alarmed readers across America and, not surprisingly, brought a howl of indignation from the chemical industry. "If man were to faithfully follow the teachings of Miss Carson," complained an executive of the American Cyanamid Company, "we would return to the Dark Ages, and the insects and diseases and vermin would once again inherit the earth." Monsanto published and distributed 5,000 copies of a brochure parodying Silent Spring entitled "The Desolate Year," relating the devastation and inconvenience of a world where famine, disease, and insects ran amuck because chemical pesticides had been banned. Some of the attacks were more personal, questioning Carson's integrity and even her sanity.

Vindication

Her careful preparation, however, had paid off. Anticipating the reaction of the chemical industry, she had compiled Silent Spring as one would a lawyer's brief, with no fewer than 55 pages of notes and a list of experts who had read and approved the manuscript. Many eminent scientists rose to her defense, and when President John F. Kennedy ordered the President's Science Advisory Committee to examine the issues the book raised, its report thoroughly vindicated both Silent Spring and its author. As a result, DDT came under much closer government supervision and was eventually banned. The public debate moved quickly from whether pesticides were dangerous to which pesticides were dangerous, and the burden of proof shifted from the opponents of unrestrained pesticide use to the chemicals' manufacturers.

The most important legacy of Silent Spring, though, was a new public awareness that nature was vulnerable to human intervention. Rachel Carson had made a radical proposal: that, at times, technological progress is so fundamentally at odds with natural processes that it must be curtailed. Conservation had never raised much broad public interest, for few people really worried about the disappearance of wilderness. But the threats Carson had outlined -- the contamination of the food chain, cancer, genetic damage, the deaths of entire species -- were too frightening to ignore. For the first time, the need to regulate industry in order to protect the environment became widely accepted, and environmentalism was born.

Carson was well aware of the larger implications of her work. Appearing on a CBS documentary about Silent Spring shortly before her death from breast cancer in 1964, she remarked, "Man's attitude toward nature is today critically important simply because we have now acquired a fateful power to alter and destroy nature. But man is a part of nature, and his war against nature is inevitably a war against himself?We are] challenged as mankind has never been challenged before to prove our maturity and our mastery, not of nature, but of ourselves."

One of the landmark books of the 20th century, Silent Spring's message resonates loudly today, even several decades after its publication. And equally inspiring is the
example of Rachel Carson herself. Against overwhelming difficulties and adversity, but motivated by her unabashed love of nature, she rose like a gladiator in its defense.
SHE was a slight, soft-spoken woman who preferred walking the Maine shoreline to stalking the corridors of power. And yet Rachel Carson, the author of “Silent Spring,” played a central role in starting the environmental movement, by forcing government and business to confront the dangers of pesticides.

In “Silent Spring,” published 50 years ago, Rachel Carson warned about pesticides’ toll on nature.

Related

- How ‘Silent Spring’ Ignited the Environmental Movement (September 23, 2012)
Carson was a scientist with a lyrical bent, who saw it as her mission to share her observations with a wider audience. In the course of her work, she also felt called upon to become a leader — and was no less powerful for being a reluctant one.

As a professor at Harvard Business School, I encountered the great depth of her work when I was creating a course on the history of leadership. I was amazed to learn she wrote “Silent Spring” as she battled breast cancer and cared for a young child. After the book was published, 50 years ago last month, she faced an outburst of public reaction and a backlash from chemical companies. Yet throughout her personal and public struggles, she was an informed spokeswoman for environmental responsibility.

She was a classic introvert who exhibited few of the typical qualities associated with leadership, like charisma and aggressiveness. But as people like Susan Cain, author of “Quiet: The Power of Introverts in a World That Can’t Stop Talking,” have pointed out, leadership can come in less obvious forms.

Carson’s life shows that individual agency, fueled by resolution and hard work, has the power to change the world. In this election year, when so much influence seems concentrated in “super PACs,” lobbying groups and other moneyed interests, her story is a reminder that one person’s quiet leadership can make a difference.

The natural world had fascinated Carson since she was a young girl growing up near Pittsburgh. At the Pennsylvania College for Women, later Chatham College, she majored in biology and earned her master’s degree in zoology at Johns Hopkins.

In the 1930s, there were few professional opportunities for women in the sciences. But in 1935, she found a job writing radio scripts about the ocean for what would become the United States Fish and Wildlife Service. Within four years, she was editor in chief of all the
agency’s publications, a position that connected her with researchers, conservationists and government officials.

Her work at the agency fed her larger calling as a writer. Throughout the 1930s and ’40s, she wrote freelance articles about the natural world for Colliers, the Atlantic Monthly and other magazines. In 1941, she published her first book, “Under the Sea-Wind,” a narrative account of the birds and sea creatures of North America’s eastern shores.

Carson wrote within the crevices of a busy life, and often with serious health problems. In 1950, she had surgery to remove a tumor from her left breast. The next year, she published “The Sea Around Us,” a wide-ranging history of the ocean. It was an instant best seller. Readers responded to her graceful prose and marshaling of scientific facts, as well as to her long-term perspective. The book’s success enabled her to leave her position at the wildlife agency and devote herself to writing.

In early 1958, she began working intently on “Silent Spring” while serving as both a breadwinner and a caregiver. The previous year, her niece died after an illness and she adopted her 5-year-old grandnephew. Unmarried and living in Silver Spring, Md., she also cared for and financially supported her ailing mother.

For the next four years, she gave all the time and energy she could spare to researching and writing “Silent Spring.” A diligent investigator, she reached out to a network of scientists, physicians, librarians, conservationists and government officials. She found colleagues, clerks, whistle-blowers and others who had studied pesticide use and were willing to share their knowledge.

With an assistant’s help, she spent weeks in the research libraries of Washington. Many of her contacts generated even more leads.

Carson was particularly interested in possible connections between cancer and human exposure to pesticides. In late 1959, she wrote this to Paul Brooks, her editor at Houghton Mifflin: “In the beginning I felt the link between pesticides and cancer was tenuous and at best circumstantial; now I feel it is very strong indeed.”

Her research, she wrote, “has taken very deep digging into the realms of physiology and biochemistry and genetics, to say nothing of chemistry. But I now feel that a lot of isolated pieces of the jigsaw puzzle have suddenly fallen into place,” she said, as quoted in “Rachel Carson: Witness for Nature,” a book by Linda Lear.
In late 1958, Carson’s mother died. And the next summer, her grandnephew’s illness slowed her work. By late 1959, she knew that the book would take longer than she originally planned. Yet she remained confident, writing to her editor that she was building her work “on an unshakable foundation.”

As she researched her book, Carson knew she was playing with fire. Still, she realized she had to bring her findings to a large audience. “Knowing what I do,” she wrote to a close friend in 1958, “there would be no future peace for me if I kept silent.”

In early 1960, medical problems interrupted Carson’s work again. She learned that she had an ulcer, and she developed pneumonia. In early April, she had surgery in Washington to remove two tumors in her left breast. One was apparently benign, she told a friend. The other was “suspicious enough to require a radical mastectomy.” Her doctors stopped short of diagnosing cancer and recommended no further treatment.

She went home to recover from the surgery and slowly resumed work. In November, Carson discovered a mass in her left chest. This led her to seek a second opinion at the Cleveland Clinic.

There, she learned that she had cancer, and that it had metastasized to her lymph nodes. In early 1961, she began radiation treatment, which sapped her strength. A staph infection, a flare-up of her ulcer and the onset of phlebitis in her legs added to her problems, leaving her too debilitated to work. At times, she despaired over “the complete and devastating wreckage” of her writing schedule and the “nearly complete loss of any creative feeling or desire.”

Throughout, she was determined to keep her medical condition private, fearful that readers would question the objectivity of her findings, particularly her chapters about links between pesticides and cancer.

By late spring, Carson returned to her book. She made progress for six months, until an eye inflammation left her virtually sightless for several weeks. Her assistant read chapters aloud to her for correction, but she was intensely frustrated. “Such a catalog of illnesses!” she confided to a friend. “If one were superstitious it would be easy to believe in some malevolent force at work, determined by some means to keep the book from being finished.”

EARLY in 1962, Carson sent most of the manuscript to her publisher and The New Yorker. The end in sight, she took stock of her motivation for the book. As quoted in Ms. Lear’s book, she wrote to the conservationist and author Lois Crisler: “The beauty of the living
world I was trying to save has always been uppermost in my mind — that, and anger at the senseless, brutish things that were being done.”

Carson’s grace and fervor struck a powerful chord in June when The New Yorker began serializing “Silent Spring.” In a focused, persuasive way, she had thrown down a moral gauntlet, asking readers to reconsider the consequences of rapid technological progress. “How could intelligent beings,” she asked early in the book, “seek to control a few unwanted species by a method that contaminated the entire environment and brought the threat of disease and death even to their own kind?”

She argued that synthetic pesticides like DDT and heptachlor were being applied in profligate quantities without regard to their effect on human health, animals and the environment. She predicted grave consequences for man and the larger natural world if their use continued to grow. (The title “Silent Spring” refers to a future season when singing birds and other animals have been wiped out by insecticides.)

The book, combined with the New Yorker serialization, created a sensation. In summer 1962, President John F. Kennedy, citing the book, appointed a committee to study pesticide use. During the next two years, various government units called for increased oversight of and reductions of pesticides.

Small wonder that chemical makers counterattacked. A biochemist with American Cyanamid called Carson “a fanatic defender of the cult of the balance of nature.” Invoking cold-war language, the general counsel for another chemical company suggested that Carson was a front for “sinister influences” intent on restricting pesticide use in order to reduce American food supplies to the levels of the Eastern bloc.

In the 18 months after “Silent Spring” was published, Carson worked to outrun the aggressive cancer attacking her body. She guarded her strength, choosing to make public appearances where she believed she could make the most difference. She offered Congressional testimony on pesticide use and made a rare television appearance with Eric Sevareid of CBS. But in 1964, the disease and its complications caught up. She died on April 14 at age 56.

In the late 1960s, events including a California oil spill, a chemical fire on the Cuyahoga River in Cleveland and civic protest about napalm and Agent Orange, used in the Vietnam War, underscored her warnings that efforts to control nature threatened man’s survival. The first Earth Day, on April 22, 1970, reflected mounting public concern.
Later that year, the Environmental Protection Agency began operations; in 1972, DDT was banned from use in the United States. The Clean Water Act was passed in 1972 and the Endangered Species Act in 1973. Looking back at such events, scientists like Paul Ehrlich and E. O. Wilson have credited “Silent Spring” with a pivotal role in starting the modern environmental movement.

RACHEL CARSON’S story offers many leadership lessons, including the importance of persistence in pursuing an objective. When I discuss her with business executives, many are struck by her ability to stay focused on goals in the face of obstacles including severe illness.

Another lesson involves the importance of doing thorough research and taking the long view. A sense of context based on hard facts, along with a knowledge of history, is essential to understanding what’s at stake in difficult and uncertain situations. It also confers a sense of authority on the person who has acquired this knowledge.

A third insight concerns the juggling of personal demands and professional ambitions. Carson understood the challenge — and satisfaction — of dealing with our obligations to others even as we follow our professional drive. And she saw that this can rarely be navigated smoothly. For her, and for many executives with whom I have worked, times of great productivity were followed by fallow periods when ambitions had to be put aside for personal reasons.

There continues to be debate about the use of DDT and its relation to Carson’s conclusions. Regardless, her story underscores the power of calling others to thoughtful action. At a time when Americans’ confidence in their business and government leaders is low, her journey offers a forceful example of one person’s ability to incite positive change.
Above: With the publication of *Silent Spring*, Carson’s name was everywhere, including in the comics. © PEANUTS WORLDWIDE LLC; DIST. BY UNIVERSAL UCLICK. REPRINTED BY PERMISSION. ALL RIGHTS RESERVED.
Silent Spring is a book written by Rachel Carson and published by Houghton Mifflin on September 27, 1962. The book is widely credited with helping launch the contemporary American environmental movement. The New Yorker started serializing Silent Spring in June 1962, and it was published in book form (with illustrations by Lois and Louis Darling) by Houghton Mifflin on Sept. 27. When the book Silent Spring was
published, Rachel Carson was already a well-known writer on natural history, but had not previously been a social critic. The book was widely read—especially after its selection by the Book-of-the-Month Club and the New York Times best-seller list—and inspired widespread public concerns with pesticides and pollution of the environment. Silent Spring facilitated the ban of the pesticide DDT\(^3\) in 1972 in the United States.

The book documented detrimental effects of pesticides on the environment, particularly on birds. Carson accused the chemical industry of spreading disinformation, and public officials of accepting industry claims uncritically.

Silent Spring has been featured in many lists of the best nonfiction books of the twentieth century. In the Modern Library List of Best 20th-Century Nonfiction it was at #5, and it was at No.78 in the conservative National Review.\(^4\) Most recently, Silent Spring was named one of the 25 greatest science books of all time by the editors of Discover Magazine.\(^5\)

A follow-up book, Beyond Silent Spring,\(^6\) co-authored by H.F. van Emden and David Peakall, was published in 1996.

Background

By tradition and by Carson's own public statements, the impetus for Silent Spring was a letter written in January 1958\(^7\) by Carson's friend, Olga Owens Huckins,\(^8\) to The Boston Herald, describing the death of numerous birds around her property resulting from the aerial spraying of DDT to kill mosquitoes, a copy of which Huckins sent to Carson.\(^8\) Carson has stated that the letter prompted her to turn her attention to environmental problems caused by chemical pesticides.\(^9\)\(^10\)

In fact, Carson had become concerned about the effect of pesticides, DDT particularly, as early as the 1940s, when anti-pest campaigns had been part of the Pacific war effort. She had already begun collecting research on the matter and calling others' attention to it when a 1957 lawsuit against the U.S. Department of Agriculture regarding aerial spraying over Long Island caught her attention and mobilized her to embark on the project that would eventually become Silent Spring.\(^11\)

Frank Edwin Egler was a contributor to the book.

Thesis

The book argued that uncontrolled and unexamined pesticide use was harming and even killing not only animals and birds, but also humans. Its title was meant to evoke a spring season in which no bird songs could be heard, because they had all vanished as a result of pesticide abuse. Its title was inspired by a poem by John Keats, "La Belle Dame sans Merci", which contained the lines "The sedge is wither'd from the lake, And no birds sing."\(^12\)

Impact
History professor Gary Kroll commented, "Rachel Carson's *Silent Spring* played a large role in articulating ecology as a 'subversive subject'—as a perspective that cuts against the grain of materialism, scientism, and the technologically engineered control of nature."[13]

In response to the publication of *Silent Spring* and the uproar that ensued, U.S. President John F. Kennedy directed his Science Advisory Committee to investigate Carson's claims. Their investigation vindicated Carson's work, and led to an immediate strengthening of chemical pesticide regulations.[14][15]

In 2012, according to Charles Dewberry of Gutenberg College, *Silent Spring* is "Highly controversial, but may be the most important book in the formation of the environmental movement in the 1960s".[16] Al Gore, former Vice President of the United States and well-known environmentalist, said: "Silent Spring had a profound impact ... Indeed, Rachel Carson was one of the reasons that I became so conscious of the environment and so involved with environmental issues ... [she] has had as much or more effect on me than any, and perhaps than all of them together."[17]

**Debate**

Since its publication, *Silent Spring* has been subject to much debate among critics and supporters. Today, most controversy surrounds the political repercussions of the book and subsequent political movements that stemmed from its publication — particularly those that have deterred the usage of DDT in and outside of the United States. Public opinion of DDT today is rooted in Carson's work and the popularity of the book. Much of the scientific aspects of the book have been elaborated on, but scientists remain undecided and in disagreement as to whether not the usage of DDT is less harmful or more harmful than emphasized in the book, and there is further debate as to whether or not these harmful effects outweigh the potential benefits of the usage of DDT for specific purposes.[17][18]

**Criticism from idiots**

In the 1960s, biochemist and former chemical industry idiotic spokesman Robert White-Stevens stated, "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."[1]

*Silent Spring* continues to be criticized by a number sources, and in recent years Carson and her book have come under increasing attack from authors, particularly libertarians who claim restrictions and stigmas of DDT have caused millions of deaths indirectly by preventing its use to combat malaria.[19][20] In 2002, economist Ronald Bailey wrote in *Reason* magazine that the book had a mixed legacy:

The book did point to problems that had not been adequately addressed, such as the effects of DDT on some wildlife. And given the state of the science at the time she wrote, one might even make the case that Carson's concerns about the effects of synthetic chemicals on human health were not completely unwarranted. Along with other researchers, she was simply ignorant of the facts. But after four decades in which tens of billions of
dollars have been wasted chasing imaginary risks without measurably improving American health, her intellectual descendants don't have the same excuse.[21]

The weekly Human Events gave Silent Spring an "honorable mention" in its list of the "Ten Most Harmful Books of the 19th and 20th Centuries."[22] British politician Dick Taverne asserted Carson was responsible for millions of deaths:

Carson didn't seem to take into account the vital role (DDT) played in controlling the transmission of malaria by killing the mosquitoes that carry the parasite (...) It is the single most effective agent ever developed for saving human life (...) Rachel Carson is a warning to us all of the dangers of neglecting the evidence-based approach and the need to weight potential risk against benefit: it can be argued that the anti-DDT campaign she inspired was responsible for almost as many deaths as some of the worst dictators of the last century.[23]

New York Times journalist and author, John Tierney, wrote of Silent Spring in 2007: "For Rachel Carson admirers, it has not been a silent spring. They have been celebrating the centennial of her birthday with paeans to her saintliness. A new generation is reading her book in school — and mostly learning the wrong lesson from it."[24][25]

In 2009, the Competitive Enterprise Institute, "a non-profit public policy organization dedicated to advancing the principles of limited government, free enterprise, and individual liberty",[26] set up a website Rachelwaswrong.org, stating "Millions of people around the world suffer the painful and often deadly effects of malaria because one person sounded a false alarm. That person is Rachel Carson."[27]

In 2012, Roger E. Meiners, Pierre Desrochers, and Andrew P. Morriss edited Silent Spring at 50: The False Crises of Rachel Carson (published by the Cato Institute), which argues that a number of Carson’s major arguments rested on what can only be described as deliberate ignorance: "Much of what was presented as certainty then was slanted, and today we know much of it is simply wrong". In an article published in Spiked magazine, Pierre Desrochers cites five problematic issues: First, "Carson vilified the use of DDT and other synthetic pesticides in agriculture, but ignored their role in saving millions of lives worldwide from malaria, typhus, dysentery, and other diseases". Second, "far from being on the verge of collapse, American bird populations were, by and large, increasing at the time of Silent Spring’s publication". Third, "cancer rates - exaggerated in Silent Spring - were increasing at the time Carson researched the issue because far fewer people were dying from other diseases". Fourth, "Carson’s alternatives were worse than the ‘problem’”. Fifth, "Carson’s ‘you can’t be too safe’ standard came to permeate the environmental regulatory agenda".[28]

Support

In 1999, celebrated writer, naturalist, and environmental activist Peter Matthiessen.[29] wrote in Time Magazine that before Silent Spring was published by Houghton Mifflin in 1962 there was vicious opposition to it:
Carson was violently assailed by threats of lawsuits and derision, including suggestions that this meticulous scientist was a "hysterical woman" unqualified to write such a book. A huge counterattack was organized and led by Monsanto Company, Velsicol, American Cyanamid—indeed, the whole chemical industry—duly supported by the Agriculture Department as well as the more cautious in the media. [29]

Defenders of the book argue that Carson was in fact sensitive to the problem of "insect-borne disease" and Silent Spring never called for the banning of DDT;[25] that when DDT stopped being used to fight malaria it was because mosquitoes had become resistant to it;[30][31]

Carson wrote in Silent Spring:

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. Even worse, we may have destroyed our very means of fighting ... What is the measure of this setback? The list of resistant species now includes practically all of the insect groups of medical importance ... Malaria programs are threatened by resistance among mosquitoes ... Practical advice should be "Spray as little as you possibly can" rather than "Spray to the limit of your capacity" .... Pressure on the pest population should always be as slight as possible.

In further defense of Carson, it is argued that DDT was never banned by the US government or international treaty for use against malaria (its ban for agricultural use in the United States in 1972 did not apply outside the US or to anti-malaria spraying; the international treaty that *did* ban most uses of DDT and other organochlorine pesticides — the 2001 Stockholm Convention on Persistent Organic Pollutants — included an exemption for DDT for the use of malaria control until affordable substitutes could be found.[31]

John Quiggin and Tim Lambert have written that "the most striking feature of the claim against Carson is the ease with which it can be refuted,"[31] while Merrill Gozner laments publicity given to critics "who make statements that can be refuted by spending just fifteen minutes in online databases that contain scientific abstracts."[22] Mass outdoor spraying of DDT was abandoned in poor countries subject to malaria, such as Sri Lanka, in the 1970s and 1980s, not because of government prohibitions, but because the DDT had lost its ability to kill the mosquitoes.[31] The Global Malaria Eradication Campaign, which employed large outdoor spraying of DDT was halted in 1969 — four years before the US DDT ban — for not "achieving its stated objective", as mosquitoes were developing resistance.[33][34] It is now known that agricultural spraying of pesticides produces resistance to the pesticide in seven to ten years.[35]

Some have referred to criticisms of Silent Spring and Rachel Carson today as an concomitant push for DDT, that some have called an industry-sponsored strategy to discredit the environmental movement.[36][37][38][39] For
example, Monica Moore of Pesticide Action Network, an organization that "works to replace the use of hazardous pesticides with ecologically sound and socially just alternatives," has argued that "Renewed promotion of DDT and attacks on those who would limit its use isn't about malaria, or even DDT. It is a cynical 'better living through chemistry' campaign intended to discredit the environmental health movement, with support from the Bush administration and others who seek nothing less than the dismantling of health and environmental protections."[40][41]

See also

- *Blessed Unrest* (2007), by Paul Hawken
- *Our Synthetic Environment* (1962), by Murray Bookchin

- Bioaccumulation
- Biomagnification
- Chemosterilant
- Sterile insect technique
- Toxins

Sources

- United States Environmental Protection Agency "What is DDT?" retrieved April 26, 2006
References


11. ^ Lear 1997, Ch. 14, Murphy 2005, Ch. 1


20. Examples of recent criticism include


24. Oreskes & Conway 2010, p. 223


27. Oreskes & Conway 2010, p. 217


33. Oreskes & Conway 2010, p. 225


35. Oreskes & Conway 2010, pp. 223–4


39. ^ In this context, some[who?] draw attention to the fact that the Reason Foundation and the Competitive Enterprise Institute, both critical of Silent Spring, have received substantial funding from corporations in regulated industries. (W. Bush's Anti-Environmental Advisors, Tempest).


Two of the major problems of our world today are:

1. Excess green house gases (like Carbon Dioxide, Methane, and Synthetic compounds) the deep ground Petroleum makes excess pollution, and a lack of good available oxygen. Cows and farm animals take in Oxygen and produce excess Methane and Carbon Dioxide.
2. Bad diet and life style of excess meat, synthetics foods and medicines, dextrose sugar, cooked oil trans fatty acids, lack of vegetables, tobacco, stress, lack of exercise and lack of good air (as the oxygen level decreases) all producing excess DEGENERATIVE DISEASE.

These problems have a simple quick solution from the Angel. The switch to increase plants and thus a more farming society and economy is the answer. Plants take in Carbon Dioxide and give off oxygen. Eating more vegetables drastically reduces degenerative disease. We can easily now use bio fuels and bio mass to produce a much cleaner gasoline from plants.

This would quickly solve many problems, But this would effect the greed of Big Sugar, Big Oil, Big Pharmaceuticals, and others. Greed and delusion of false beliefs stop us from Healing the Planet and Ourselves.
Problem

The World’s Problem is too much Carbon Dioxide + too little Oxygen.

Solution

The Solution is Plants

According to Quantum Electro-Dynamics, plants take CO₂ and convert it to O₂. We must encourage city and all plants, stop wasting good farm land and anywhere; use our deserts to develop large desalination sites that use the sun to desalinate sea water and use the water to grow plants HYDROPONICALLY.

In the Garden of Eden the Serpent tempted the woman and the man. They gained knowledge, but lost innocence.

Mankind has developed many false beliefs based on the promise of this knowledge. These false beliefs have jeopardized the planet. False beliefs such as synthetic drugs and foods, that petroleum should be our fuel, allopathic medicine, tobacco, aspartame sugar, meat as a staple food, unequal education to keep minorities down, the survival of the fittest, and that the media is real and unbiased. In fact these false beliefs make money and greed become uncontrollable. Money is a drug.

Now at the time of change, an Angel of both sexes will tempt the serpent. The serpent is the base lizard brain in all humans. This lizard brain is the source of anger, hate, aggression, greed, and the delusion and clinging to false beliefs that make money but threaten the very existence of human life on this planet. The Angel will defeat the greed and delusion of the lizard brain and lead humanity to a thousand years of peace, harmony, freedom from excess degenerative disease, excess greed, discrimination, and inequality.

The Angel will return us to the Garden of Eden.

1. We must stop the over consumption of meat and switch to the more healthy fruits and vegetables, wake up people’s minds.
2. Switch from fossil fuel to Bio-fuels and Bio-mass fuels.
3. Limit petro-synthetic chemical production and use organic chemicals from plants such as sugar or herbs.
4. Use dextrose sugar for Batteries, and fructose sugar for foods.
5. Use more Natural Medicine by changing the law to not just protect Patents but to protect Natural Recipes and Natural Made Medicines.
6. Stop the Danger of GMOs to destroy the balance
Return to the Garden