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The importance of Rachel Carson's *Under the sea-wind* as environmental literature

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Abstract

This study delves into the portrayal of environmental issues, ecocriticism, and nature writing within the literary works of Rachel Carson. As one of the pioneers of modern environmentalism, Carson's novels serve as significant contributions to the ecological discourse. Through an ecocritical lens, this research examines how Carson's writings, particularly her seminal works like "Silent Spring" and "The Sea Around Us," engage with environmental concerns and advocate for a deeper understanding of humanity's relationship with nature. In conclusion, this research underscores the enduring relevance of Carson's literary oeuvre in fostering environmental awareness and inspiring collective action. By examining the intersection of literature, ecology, and activism, this study contributes to a deeper understanding of the pivotal role that literature plays in shaping environmental discourse and fostering a sense of ecological responsibility.

Keywords: Carson's, Environmental, ecological, naturalist

Introduction

Academic, scientist, marine biologist, naturalist, environmentalist, journalist, and, less often, nature writer are just a few terms that define Rachel Carson's career in the media and academia. Linda Lear "biologist-writer-ecologist" describes Rachel Carson in her biography ("Rachel Carson's Biography" n.pg.). Carson actually spent fifteen years working for the United States Fish and Wildlife Service (previously the United States Bureau of Fisheries from 1935 to 1952). During that time, she held various positions such as radio scriptwriter, aquatic biologist, scientific writer, editor, and editor-in-chief of the service's publications. She did not resign until 1951, following the success of *The Sea Around Us*. (Lear, "Rachel Carson's Biography" n.pg.). As she became more aware of the destructive effects of human activities on the natural world, she committed her life to researching wildlife, especially marine life. *Silent Spring* (1962) is the most famous work by Rachel Carson, however her whole body of work demonstrates her devotion to the environment and her pleasure of writing about it. Not only did *Silent Spring* bring environmental concerns to the forefront of public consciousness in a level that had never been seen before, but it also urged political action by exposing the devastating effects of pesticide abuse and misuse, namely DDT, on living organisms. Many see this book as the first call to action for environmental protection in the US (Clark 77).

Silent Spring's far-reaching impact made it somewhat overshadow Carson's earlier works, even though *The Sea Around Us*, published over a decade earlier, was popular enough to make Carson financially independent and reawaken interest in her first book, *Under the Sea-Wind*. Linda Lear attributes the lack of interest in the book's 1941 release to its cohabitation with World War II, according to the "Introduction" to a current version of the book. The book is the first of a trilogy that provides a thorough scientific map of marine life (ix). When *Under the Sea-Wind* was first published, the author's critical tone was more in line with the prevailing ethos of the protesting sixties. However, this was still a long way off. But there are two things that make *Under the Sea-Wind* important for understanding Carson's work as a whole: first, it establishes Carson's stance on nature, which is consistent throughout her life and work and helped pave the way for environmental awareness through literature; and second, from a literary studies standpoint, the book's style and narrative development are noteworthy features that show how a work with mostly non-fictional and scientific subject matter can be literary.

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Literature Review

Sambhu Nath Banerjee (2024) ^[1]. The present decade has seen a dramatic increase in the number of anthropogenic activities, including industrial growth, which have been threatening the survival of both Mother Earth and human civilization. The depletion of natural resources is a direct result of human hunger for ever-increasing standards of life. Scientists and environmental activists aren't the only ones who should be worried about coming up with a good strategy to preserve our natural resources; reasonable people in the cultural and artistic spheres have also shown a lot of concern for the environment and a sense of caution, which will serve as an inspiration to generations to come. The abundance of Bengali forests and the beauty of nature are well depicted in literature from our nation. The creative trajectories of artists such as Rabindranath, Bibhuti Bhushan, Manik Bandyay, Buddhadeb Guha, and Sunil Gangopadhyay are characterised by a deep awareness of the natural environment and the forest as a central motif. This essay covers a lot of ground in Bengali literature's past to investigate the influence of those geniuses' unrestrained bondage with nature on human relations.

Laily Fitriani *et al.* (2023) ^[2]. There is a need to protect the environment for the survival of all forms of life on Earth, and this concern for the planet's natural resources has given birth to the environmental preservation movement. Both Mamat Samista's *Kang Sobri Ngusep Lauk di Walungan* and Kasturi's *Akibat Nuar Tangkal Papaduan* are examples of Sundanese short tales that depict environmental conservation efforts. The characters of Aki and Kang Sobri, in the two carpons (short stories), symbolise both the environmental conservation movement and the degradation of nature in Tatar Sunda. In light of the two carpons, this research intends to provide a description of the environmental protection movement in relation to environmental harm. A literary ecocritical method was used by the researchers. Findings from this research point to the *Akibat Nuar Tangkal Papaduan* carpon as a symbol of a conservation movement that seeks to protect native plant species by prohibiting practices like unlawful logging and tree cutting. However, the protection of wildlife is shown by the *Kang Sobri Ngusep Lauk di Walungan* carpon, which is part of a larger environmental effort to utilise sustainable fishing practices and prevent overfishing. Because of the mutually beneficial relationship between humans and the natural world, this study demonstrates that people play a crucial role in environmental preservation.

Giuseppe Giordano (2020) ^[3]. Reading and evaluating literature via an ecological lens is what ecocriticism is all about. The depiction of human characters' interactions, reciprocity, and intercommunication with natural elements, including animals, plants, and the environment, is its primary focus. Interactions between humans and the natural world may be complex, troublesome, and taxing, but they can also be very rewarding and enlightening. An ecocritical analysis of the Middle English chivalric romance *Sir Gawain and the Green Knight* is presented in this article. Much discussion has focused on the poet's literary techniques as they pertain to the poem's depiction of nature and humanity's place in the natural world.

Nivedita Bhattacharya (2019) ^[4] Earth is now facing one of the greatest threats in the form of an environmental catastrophe and the subsequent degradation of the natural world. They pick up new things quickly and are quite

perceptive by nature. They watch what's happening just where they are. Our children need to be taught to love and be sensitive of the environment from a young age if we want them to hang on to what is truly theirs—a world that can support them. This may be accomplished via reading, and reading to youngsters is the best place to start. More properly referred to as "green reading" or "eco-centric reading," this approach to literature is crucial for fostering this kind of consciousness in young readers. The term "ecocriticism" refers to the study of literature and the ways in which it portrays nature. Stories for kids often include elements from mythology, folklore, and fables. The Indian subcontinent is home to some of the world's oldest folktales. The five tantras, or books on policies or *nitis*, were compiled by sage Vishnushama from circulating Indian stories that had been around for generations. They were named *Pañcatantra*. The portrayal of the natural world in the *Pañcatantra* story is the subject of this study. Reading the *Pañcatantra* via an eco-centric lens may show kids how to learn about the natural world, how it works, and the beneficial impact it has on all forms of life.

Dr. Anil Manjhi (2022) ^[5] Climate Change due to anthropogenic factors and its repercussions in the form of disastrous environmental calamities is the burning issue in the current scenario. People of different fields are trying every possible means to bring awakening in the populace. The field of literature is also making contributions to this noble cause. Cli-fi or Climate Change Fiction is the newfangled branch of Ecocriticism from the field of literature, which is entirely dedicated to dealing with and bringing up climate change problems, global warming and likewise. The impact of this genre of literature has brought up the positive impact on the wider range of the population in simple language as compared to that of the technical language. Thus, this research study aims to bring forth the advancement of environmental concern employing Cli-fi or Climate Change Fiction by analysing James Bradley's work *Clade* as a prototype and inclusively quoting other key literary works in this genre and their primary contributions made in this field of operation. The narrative technique with vivid descriptions, the mapping of the psychological awakening of emotions towards environmental concern and the portrayal of environmental calamities will pave the way and establish the advanced approach of literature for environmental concern and climate change.

No more eternal as the hills of the poets on Rachel Carson, environmentalism, and the paradox of nature: Historical theory, environmental criticism, and the field of environmental history

Ecocriticism and environmental studies are like brothers and sisters; both fields would benefit greatly from working together within the environmental humanities' broader conceptual framework. That is the foundation of this collection of articles. The history of ideas is the area of study where the common ancestry of the two disciplines is perhaps most obvious. among others, for their contributions to the field. All of them looked at how people's views on nature changed over time and tried to connect those changes to broader social, political, or economic movements in the United States or, more generally, in Western modernity. Although their accomplishments should not be diminished, it might be said that these books now seem remote. The fact that they discussed nature with such confidence and comfort

is a big reason why it's hard to keep up with them now, especially in a scholastic setting. Their choice of the terms "ecology" and "environment" for their respective fields' self-designations-disregarding the word "nature"-is more than a mere historical coincidence; these fields would go on to successfully re-establish nature's place in the humanities.

Contemporary Thought and Nature's Divided Meanings

The first section of "On Nature" is a scathing attack on environmentalists by Luhmann:

If there was once a unified understanding of nature, it has been shattered by the environmental movement. According to scientific studies, the natural world is intolerable; it is either very hot or extremely cold, teeming with radiation, and can only sustain life under very specific circumstances. In contrast, there is a completely distinct understanding of nature held by nature lovers, who have been present since the early Renaissance and, most likely, the seventeenth century, when big cities like London and Paris were first described. As an opposing viewpoint to societal criticism, this idea is useful. Tourists who don't think it's essential to carry about guilt, or who don't even notice when they do, will like this description of a society-free outdoors, complete with flowers, birds, and trees. (9)

The essential point that Luhmann is trying to make in this passage should be readily apparent and hard to dispute if one ignores his cynical tone: the "nature" of the scientific sciences is different from the "nature" of the Romantics and the environmental movement that came after them. William Blake, a poet, and James Watt, a mechanical engineer, were already using terms like "nature" that were fundamentally at odds with one another by the late 18th century. The current semantics of nature revolves upon this division, according to Luhmann. A quick survey of today's news outlets proves that it has survived to the present day: It would be completely illogical to believe that a website like the "Mother Nature Network" is using the word "nature" in the same manner as the scientific magazine of the same name when it suggests that customers pick a "more natural deodorant" (Mother Nature Network). According to the rules of logic, there are no shades of naturalness in the scientific disciplines. There is no such thing as something that is "more" or "less" natural. Chemically synthesised substances behave in the same way as their naturally occurring counterparts. That is, they are just as much a part of nature as any other tree or rock—which, one might argue, is also part of the reason they can be so troublesome. Like marriage and death, the essence of the natural sciences follows a Boolean logic: either you're married or you're dead. There's no between ground, at least not from a legal viewpoint. Something is considered "natural" in the natural sciences if it can be seen empirically, or "perceived through the senses," as Alfred North Whitehead put it (3). This indicates that it exists in our planet. An "unnatural deodorant" would only be useful for phantoms or other fantastical beings if it existed. William Blake and the "Mother Nature Network" share the view that "nature" is in opposition to contemporary industrial society and all that it stands for. Nature is the opposite of the restless, vain, argumentative, and disaster-prone human spirit; it is the domain of wholesomeness, innocence, stability, and

simplicity. The first operates by differentiating between the real and the unreal in terms of empirical evidence. The second, within humans, differentiates between the natural and the human-made, or, to reiterate, between the natural and non-natural aspects of our own reality. While the second view of nature has substantial normative consequences, the first seeks only to describe.

The environmental movement's origins with Rachel Carson

In my opinion, a letter written by Rachel Carson to her lover and confidante Dorothy Freeman on February 1, 1958, at the beginning of her research for a book that would later become *Silent Spring* but was originally titled *Man against Nature*, is one of the best texts to support this claim. Carson began the letter by stating that she had a hard time accepting the reality of the issues she was about to write about, and then she went on to explain how she decided it was her responsibility to do so:

It was comforting to think that God owned the clouds, the rain, and the wind, and that man could only ever level forests and dam streams, but that much of Nature was eternally beyond his control. It was reassuring to think that the river of life would continue to flow through time according to God's plan, unstopped by the human race. The floodgates of my mind and eyes have been unlocked. Even if I disagree with what I see, ignoring it will get me nowhere, and harping on tired "eternal verities" that are as ephemeral as poets' hills is pointless. It is high time someone documented life as it really is, given what we know now. (Freeman 248–49)

Of all Carson's letters, this one is cited quite a bit. In addition to exemplifying her already-prominent status as a 1950s nature writer, this passage also exemplifies the rhetorical power that *Silent Spring* would gain from her stately, well-balanced syntax, her ability to assume authority and moral gravitas with ease, and—partially explaining this last effect—her strange knack for making it sound like she was quoting someone when she actually wasn't. For our purposes here, it is most crucial that Carson expresses the threat that ecological catastrophe presents to the split semantics of nature, and she does so rather clearly. Nature has to be seen as essentially ahistorical and apart from the social sphere for it to be considered as a normative counterpoint to contemporary civilization. This doesn't imply that nature should be seen as static, but it does mean that historical time is drastically separated from evolutionary time. While life is seen as a "stream" that flows through time, this change is seen as inessential because it is controlled by the unchanging principles of a unified evolutionary process that is guided by a higher power. It is clear from Carson's continuous capitalization of the word that she views life as more of a philosophical concept than an observable reality.

A critique of the environment by Rachel Carson

As a naturalist and scientist, Carson's primary role was paramount. However, she was driven to become a radical critic due to her awareness of the harmful ecological forces operating in contemporary society. The Gentle Subversive is the title of a new biography that aims to convey this. According to Carson, "the gods of profit and production" are

the main culprits behind environmental destruction. "In an era dominated by industry, in which the right to make a dollar at any cost is seldom challenged." This is the main reason why we can't have a sustainable relationship with the environment. The pesticide business was the target of *Silent Spring* because of the dangerous chemicals they produce. Carson had a remarkable impact in bringing public attention to this problem by combining the greatest scientific facts available at the time with her writing abilities. Even while Carson and her followers won some battles, the fight against synthetic pesticides-which she preferred to name "biocides"-was ultimately lost. The statement in the 1963 report on pesticides of the President's Science Advisory Committee, which she considered a "vindication" of her views, stated that "the elimination of the use of persistent toxic pesticides should be the goal." Despite acknowledging that there might be some situations where such chemicals might be appropriate, her belief remained unwavering. Whenever possible, biological control-organic approaches that depend on natural adversaries of the pests-had to substitute chemical control. In the last chapter of her book, she referred to this as "The Other Road." However, with the exception of the prohibition of some of the most lethal poisons like DDT, the chemical industry emerged victorious, seeing an increase in production of this category of chemicals.

A logical application of scientific knowledge has zero bearing on the exponential rise in the usage of synthetic pesticides. The chemical industry and its supporters tried to disprove Carson's claims that pesticides are more dangerous than they really are, but her research has mostly held up. Her concerns over the buildup of these harmful compounds in living things are, furthermore, more pertinent now than they were then. She was particularly worried about the far-reaching consequences of these biocides in the long run, as they were being used more and more, stayed in the environment for a long time, and wandered aimlessly, eventually settling on creatures in places far from where they were first introduced. She was spot-on when she said that organisms would quickly develop resistance to synthetic pesticides, leading to a pesticide treadmill whereby larger dosages or new biocides would be required to control the problem. "All life is caught in its violent crossfire," she wrote, "and the chemical war is never won." More than double the amount that was produced in the early 1960s, when Carson penned *Silent Spring*, by the late 1980s, the majority of which was bound for American farms and pesticide active components. More over one hundred million American families used pesticides on their gardens, lawns, and residences in 1999. Unfortunately, many of these substances still lack sufficient testing before they reach the market. At the same time, American agricultural companies have been making and shipping prohibited chemicals across the world. These chemicals are used in the cultivation of certain foreign foods that are imported to the US.

Radiation and Ecology

Previous scientific findings on radiation were a major source for Carson's analysis of pesticide impacts on living things. In *Silent Spring* and other works, she made several references to the work of American geneticist H. J. Muller, who in the 1920s found that radiation might cause mutations in animals' DNA. According to what she told the United States National Council of Women in October 1962, only two weeks after her book came out:

Environmental Radiation Previous scientific findings on radiation were a major source for Carson's analysis of pesticide impacts on living things. In *Silent Spring* and other works, she made several references to the work of American geneticist H. J. Muller, who in the 1920s found that radiation might cause mutations in animals' DNA. According to what she told the United States National Council of Women in October 1962, only two weeks after her book came out:

It was previously believed that germ cells were unchangeable and hence resistant to environmental impacts. Although the specifics of the modifications could not be managed, Muller's finding made it feasible for many to alter the trajectory of heredity, whether accidentally or on purpose. Not until much later did two scientists from Scotland find that some compounds may mimic radiation and cause mutations in a similar fashion. Mustard gas was the chemical of choice for these trials, which took place before the advent of contemporary synthetic pesticides. The ability of many pesticides and weedkillers to alter or disrupt chromosomal structure has been discovered to cause mutations in experimental organisms throughout the years.

In *Silent Spring*, Carson noted that "among the herbicides are some that are classified as 'mutagens,' or agents capable of modifying the genes, the materials of heredity ". How can we, after being horrified by radiation's impact on DNA, turn a blind eye to the same consequence in the chemicals we release into the environment? Nobel laureate in physiology or medicine for his work in 1946, Muller was a multifaceted individual with a history of socialist activism and critique of capitalism. Spark, named after Lenin's Iskra, was the National Student League newspaper that he helped fund and edit in the early 1930s while serving as a faculty advisor to the Texas chapter. In 1933, Muller travelled to the Soviet Union with the intention of working in the country's cutting-edge genetic facilities. However, he became embroiled in a battle with the government around the Lysenko issue and was personally opposed by Stalin. He collaborated alongside Canadian doctor Norman Bethune, who would go on to become a hero in Mao's China, while serving in the multinational brigades during the Spanish Civil War. Muller kept many of his critical views, including trust in socialism, even though he would become a fierce opponent of the Soviet Union under Stalin (as a result of the closure of the genetic institution he had helped establish and the murder of many of his close friends and colleagues). The importance of his earlier fundamental dialectical understanding, which he maintained, was to highlight "the complicated processes ('movements' in the Marxian sense) whereby...objects are interrelated to one another and undergo their development." He believed that this dialectical approach was vital for understanding the interconnectedness of matter, particularly living matter.

Conclusion

By delving into Rachel Carson's claims in *Spring Silent*, this research confirms her worries and calls for the elimination of dangerous pesticides in favour of more humane ways of controlling pests like crabgrass and other plant-harming insects. To better understand the problem and to bolster the case for protecting the planet from environmental deterioration, this research employs ecocriticism as a theoretical framework. The report presents a critical analysis

of the horrific efforts made by the chemical and medical companies, which are employing chemicals for various objectives without considering how they may impact future generations. The focus of ecocritics is on the interplay between humans and their natural surroundings, as shown by ecocriticism. Research supports Carson's Spring Silent's proposed replacements and highlights the need to find safer chemical substitutes. In the mid-eighties, there was a more consistent development of environmental literary studies (Glotfelty xvii), which brought environmental knowledge and concerns into the literary domain and subjected this link, in all its richness, to academic inquiry. As a result, ecocriticism as an academic discipline arose, often defined as "the study of the relationship between literature and the physical environment". As a reaction to the increasing environmental consciousness that began to permeate all parts of society, namely beginning in the 1970s and continuing ahead, ecocriticism has evidently developed from the tremendous changes occurring in nature.

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