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Wonders with the Sea: Rachel Carson's Ecological Aesthetic and the Mid-Century Reader

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ABSTRACT Recent scholarship on the work of the great nature writer, Rachel Carson, posits that her landmark book, Silent Spring (1962)—often credited with igniting the modern environmental movement—is best understood in the context of her earlier, extraordinarily popular publications on the natural history of the oceans, which helped establish her as a talented and trustworthy translator of scientific concepts into literary prose. This essay builds upon that idea, showing how Carson's The Sea Around Us (1951) and The Edge of the Sea (1955) not only shaped public understandings of ocean ecology, but also spurred a public passion for all things oceanographic, best embodied in a wave of "Carsonalia"—consumer items and experiences ranging from hats, to Book of the Month Club editions, to liner notes for the NBC Symphony's recording of Debussy's La Mer. While these items inspired and expressed the "sense of wonder" that was critical to Carson's ecological aesthetic, I argue, they also subsumed the new "frontier" of the world's oceans into the technological imperialism of the post-World War II United States. As new technologies allowed military and scientific researchers to see deeper into the oceanic depths than ever before, images of the open ocean were domesticated through consumer markets into viewable, readable, and even wearable forms. This commodification of the ocean, and of Carson's ecocentric message, both enabled and frustrated her attempts to promote ecological literacy. Yet they also reveal much about our contemporary relationship to the world's oceans, which remain sites of both enduring wonder and extraordinary exploitation.

Silent Spring, Rachel Carson's ground-breaking literary exposé about the dangers of synthetic pesticides, turns 51 this year. It is a work celebrated for many things: its deft blending of science and poetry, its trenchant analysis of the corporate-sponsored research that encouraged Americans to spray first and ask questions later, and the critical role it played in catalyzing the environmental movement in the United States. Its author, who was hailed in her time as everything from a modern-day Harriet Beecher Stowe to a dangerous communist threat, has been the subject of numerous biographies which have described her variously as a "witness for nature" (Linda Lear, 1997), a "gentle subversive" (Mark Lytle, 2007), and, most recently, an unlikely literary crusader caught up in a political earthquake of postwar politics (William Souder, 2012).¹ Lear's epithet seems particularly apt since, as she points out, Carson's entire

¹ See Linda Lear's Rachel Carson: Witness for Nature (New York: Henry Holt and Company, 1997); Mark Hamilton Lytle's The Gentle Subversive: Rachel Carson, Silent Spring, and the Rise of the Environmental Movement (New

literary career—including the three bestselling books on marine life she published before *Silent Spring*—was devoted to articulating and championing an ecological worldview to which few of her readers had ever really been exposed. But amid the discussions of Carson's extraordinary influence and reputation, an important question often goes unexplored: what did Carson's readers actually do with her books? Alex Lockwood's recent article, describing *Silent Spring*'s powerful mobilization of "public feelings" against a mid-century culture which relentlessly individualized affect, speaks powerfully to Carson's ability to link the private world of reading with the public realm of politics. But the unarticulated assumption in most critical readings of Carson is that her words reached readers very much like ourselves, all too ready to hear and to believe in the ecocentric message that we find so deeply engaging in her work.²

However, a cartoon that appeared in the 15 January, 1956 edition of the New York Times Book Review, suggests that the environmental awakening created by Carson's oeuvre in the 1950s may be surprisingly different from what we have previously imagined. Following closely on the heels of two lyrical meditations on the ecology of the shoreline—Carson's The Edge of the Sea (1955) and Anne Morrow Lindbergh's A Gift from the Sea (1955)—cartoonist F. Zimmer throws a humorous light onto the often all-too-stern subject of American nature writing.³ The image shows two women on the deck of a cruise ship facing a picturesque sunset. One, clad in the outlandish hat and dress of a socialite, cradles a few books in her arms as the other, in a less glamorous ensemble of trench coat, baseball cap, and sunglasses, contemplates the horizon. The latter figure, in fact, resembles publicity images of Carson that had been circulating on book jackets, advertisements, and magazine profiles ever since the 1951 publication of The Sea Around Us. Such images often showed the author outdoors, in the process of beachcombing, birding, or tide-pooling. The cartoon seems to suggest the comedic possibility of Carson encountering one of her many fans, who leans enthusiastically toward the author she has failed to recognize and croons, "My, haven't Rachel Carson and Anne Lindbergh done wonders with the sea."

In one sense, the cartoon plays upon a familiar stereotype: the urbane reader who appreciates *not* nature itself, but the powerful discourse of nature created through nature writing. But the notion of "wonder" upon which the punch line hinges is an especially loaded one: Carson's literary persona was, by 1956, closely identified with the idea that a wide-eyed attention to natural commonplaces such as birdsong, sea shells, or thunderstorms could produce an uplifting "sense of wonder," especially for modern readers who had become disengaged from the natural world. Indeed, in a widely admired essay published later that year, Carson would advise parents that wonder, rather than "a diet of facts," was the most important ingredient in the education of young scientists.⁴ For wiser readers—including recent critics who have attempted to resurrect the Carsonian sense of wonder as an aesthetic ideal and a pedagogical

York: Oxford University Press, 2007); and William Souder's *On a Farther Shore: The Life and Legacy of Rachel Carson* (New York: Crown Publishers, 2012).

² Alex Lockwood, "The Affective Legacy of Silent Spring," Environmental Humanities 1 (2012): 123-140.

³ Image by F. Zimmer. *New York Times Book Review*, 15 January, 1956. Retrieved from the Rachel Carson Papers, Beinecke Library at Yale University (RCP/BLYU).

⁴ Rachel Carson, "Help Your Child to Wonder," Woman's Home Companion July (1956): 46.

approach to ecological literacy—the word "wonder" signals a powerful means of resisting the privatization and specialization of scientific knowledge. Yet the cartoon also offers a third interpretive possibility, in that "doing wonders for" is a genteel way of describing the transformation of something uncouth into something tasteful. In "doing wonders with the sea," the cartoon implies that Carson's and Lindbergh's books—both of which were pitched toward a well-educated, middle class, and largely female audience—were not simply imparting new information about the ocean, but actually making the sea a more fashionable milieu.

One lesson we might learn from this cartoon is that in order to understand the impact of Silent Spring we must first understand the impact of Carson's earlier work, which included three books—Under the Sea-Wind (1941), The Sea Around Us (1951), and The Edge of the Sea (1955)—as well as a host of articles, television and radio scripts, and educational materials for her one-time employer, the U.S. Fish and Wildlife Service. I am certainly not the first to suggest this strategy: Lear's biography, along with the anthology of Carson's shorter works, speeches, and correspondence that Lear published as The Lost Woods (1998), gracefully demonstrates the development of the "ecological concept" throughout Carson's literary career.⁵ But as the cartoon also suggests, some of Carson's early readership received this notion in ways that a 21st century audience—an audience living after the rise of the modern environmental movement—would not anticipate. This disparity can be seen in the remarkable ways in which Carson's message was digested and reinterpreted by mid-century readers, including the thousands of letters and reviews generated by her books, an Oscar-winning film, and, harkening back to our literary socialite, a few Carson-inspired ensembles in the pages of fashion magazines. If Carson's work advocated a perspective of wonder with regard to the intricate workings of the natural world, then her readers chose to express that wonder in a wide variety of ways, not all of which reflected the environmentalist sensibility we now credit to Carson's books.

In fact, there was often a palpable strain between the ecological lessons in Carson's oceanic work and the cultural field into which her books were introduced. Carson wrote for a public that was already deeply fascinated both with narratives of oceanic exploration and with the sounds and images of marine life recently made available by advances in oceanographic photography and sound recording. The "sea books" circulated in the same current that brought Jacques Cousteau's riveting accounts of undersea life, Thor Heyerdahl's rediscovery of Polynesian seafaring, and a new market in lavishly illustrated natural history books for the pleasure and instruction of the burgeoning middle class. Carson herself was, at times, a savvy exploiter of these very trends; in her speech at the *New York Herald Tribune*'s Book and Author Luncheon in 1951, she captured her listeners' attention with underwater recordings of shrimp, fish, and whales from the Woods Hole Oceanographic Institute, charming them with sounds they could previously only have imagined. Carson worked tirelessly in her oceanic writings to avoid the human bias that she felt marred so many accounts of the natural world,

⁵ Linda Lear, ed., *The Lost Woods: The Discovered Writing of Rachel Carson* (Boston: Beacon Press, 1998).

⁶ As Carson explained in the speech that followed: "We always used to think of the deep sea as a place of silence. The idea that there could be sound under water had not entered most people's minds. Nor had the idea that fish or shrimp or whales had voices. When Navy technicians began listening for submarines during the war, they heard the most extraordinary uproar. In fact, the tumult of undersea voices was so great that whole fleets of submarines could have passed by undetected." Rachel Carson, "New York *Herald-Tribune* Book and Author Luncheon Speech," in *Lost Woods*, ed. Linda Lear (Boston: Beacon Press, 1998), 82.

and she succeeded in inspiring a powerful feeling of wonder for the sea in many of her readers. But she also worked against the background of the United States' growing geopolitical expansion into the world's oceans—and with it, the assumption that the sea was a virtually unlimited resource, as well as a readily available dumping ground, for the growth of American industries.⁷ These contrasting ways of imagining the ocean suggest a remarkable paradox: for many of Carson's mid-century readers, wonder for the sea occupied the same emotional spectrum as an imperialist impulse to exploit its once-impenetrable reaches.

To that end, this essay will sift through contemporaneous responses to Carson's work, focusing on a few of the surprising ways in which her books were received, her ideas filtered through the imaginations of mid-century readers. Though this could easily be the subject of a much larger study, these few examples suggest that Carson's more experimental books, *Under the Sea-Wind* (1941) and *The Edge of the Sea* (1955), were less widely praised, though the passionate response they garnered from some readers much more closely reflects our own received readings of Carson's work. More typical was the popularity of Carson's first bestseller, *The Sea Around Us* (1951), whose acclaim derived from the authoritative perspective it provided: its masterful use of scientific theory, gained from Carson's position in the world of federal oceanographic research, and enabling her readers a privileged glimpse into the mysteries of the deep. To read Carson's *oeuvre* in this way is to read against the Carson we want to see—against the notion that Carson's work modeled a politically progressive, passionately ecocentric way of understanding the natural world. But it might present a more precise way of understanding how readers' faith in the author of *Silent Spring* came about, and how that faith structured environmental thought and policy in the wake of Carson's work.

Fish Stories: Biological Biographies in *Under the Sea-Wind*

In a 1938 letter to Hendrik Van Loon, Carson—then an aspiring young writer working for the U.S. Bureau of Fisheries—expressed her hopes for the project that would soon become her first book, *Under the Sea-Wind: A Naturalist's Picture of Ocean Life* (1941). "The principle thing the book must accomplish," she wrote, "is the creation of undersea *atmosphere*." Unlike more conventional treatments of ocean life, she believed,

the entire book must be written in narrative form ... The fish and the other sea creatures must be central characters and their world must be portrayed as it looks and feels to them—and the narrator must not come into the story or appear to express an opinion. Nor must any other human come into it except from the fishes' viewpoint as a predator and destroyer. You understand I am not trying to make this a series of bedtime stories or to

⁷ Ironically, the *New York Times* recently reported on the record levels of noise pollution in the ocean depths and its implications for the health of marine animals: "The causes," William J. Broad notes, " are human: the sonar blasts of military exercises, the booms from air guns used in oil and gas exploration, and the whine from fleets of commercial ships that restlessly crisscross the global seas ... Marine experts say the clamor is particularly dangerous to whales, which depend on their acute hearing to locate food and one another." Broad, "A Rising Tide of Noise Is Now Easy to See," *New York Times*, 10 December, 2012.

create any plot as such—that will be supplied by the normal but always strange and sometimes incredible every day lives of sea dwellers.⁸

For its author, *Under the Sea-Wind* was a self-conscious gesture toward a new kind of nature writing, one that relied upon an ecological aesthetic, foregrounding the idea of an interdependent community of living species. Carson created in her first book a series of biological biographies, featuring in turn an intimate look into the lives of a skimmer bird, a mackerel, and an eel. Taken together, the three intertwined stories form a narrative in which, as Linda Lear points out, the ocean itself becomes the "central character" of the piece. This effect is frequently achieved by the displacement or fragmentation of the human presence in *Under the Sea-Wind*. From this narrative innovation follows the ethical assertion that human beings should reevaluate the significance of the human presence on earth in ecological terms.

While it is an exception to the creaturely stories that characterize *Under the Sea-Wind*, one of the few scenes in the book that does feature a human character is indicative of the book's philosophy. In telling the story of Scomber, the mackerel whose dramatic birth and maturation form the dominant theme of *Under the Sea-Wind*'s middle section, Carson offers a violent anthropogenic interruption: Scomber's school is ensnared in a seine net. Unlike the book's other, more fragmentary portrayals of human agents, this encounter is sympathetically narrated through the eyes of a young fisherman who has yet "to forget, if he ever would, the wonder, the unslakable curiosity he had brought to his job—curiosity about what lay under the surface." This "wonder" opens, on the occasion of Scomber's capture, into quiet speculation about the significance of human action in the ancient patterns of undersea life:

He sometimes thought about fish as he looked at them on deck or being iced down in the hold. What had the eyes of the mackerel seen? Things he'd never see; places he'd never go. He seldom put it into words, but it seemed to him incongruous that a creature that had made a go of life in the sea, that had run the gauntlet of all the relentless enemies that he knew roved through that dimness his eyes could not penetrate, should at last come to death on the deck of a mackerel seiner, slimy with fish gurry and slippery with scales. But after all, he was a fisherman and seldom had time to think such thoughts.¹¹

The fisherman's wonder is powered not just by his acquired knowledge of the mackerel's life cycle, but importantly, by his inclination to imagine, to *wonder* about the unseen life of the fish in his net. Though he dismisses that line of thought in order to get on with his business, the odd collision of worlds continues to resonate. The "incongruity" he perceives in the fishes'

⁸ Rachel Carson to Hendrik Van Loon, 5 February, 1938 (RCP/BLYU). Carson's correspondence with Van Loon began as a result of the publication of "Undersea," a lyrical essay on marine life that appeared in *The Atlantic Monthly* in September 1937. The story of its publication would be seen, in later accounts of Carson's life, as an important turning point in her career: having submitted the piece originally to fulfill a routine assignment at the Bureau, Carson was advised by her supervisor, to publish elsewhere. It was, Higgins explained, far too good for the Bureau's purposes.

⁹ Lear, Witness.

¹⁰ Rachel Carson, *Under the Sea-Wind: A Naturalist's Picture of Ocean Life* (New York: Oxford University Press, 1952 [1941]), 200.

¹¹ Carson, Under the Sea-Wind, 200.

life in the sea and the fishes' death amid the grime of previous catches juxtaposes a kind of freedom—the fishes' ability to see "things he'd never see; places he'd never go"—with fishes' sudden captivity. But it also recalls the fisherman's own limitations, confined to the floating shelter of the boat, only vaguely aware of the manifold forms of life in "that dimness his eyes could not penetrate." In this moment, the fisherman finds himself at a crossroads of not only space—of undersea and of surface—but also of time. His quotidian work of hauling in mackerel suddenly has implications for the eternal rhythm of changing seasons by which the fish live.

What *Under the Sea-Wind* does most effectively is to postulate a new ground for considering the significance of human life relative to the life of the ocean, forging for its readers a new kind of ecological literacy—one based heavily on our capacity for imagination, our love of storytelling. This effort was met with great enthusiasm from Carson's readership when *Under The Sea-Wind* was reissued in 1952: as one review in the Providence *Journal* opined, "As the world becomes more and more complicated, as scientists make greater strides and open even vaster fields of knowledge, we find a crying need for writers who can interpret our world not only precisely, but in terms that the average reader can comprehend." Somewhere between the objectivity of the naturalist and the passion of the prophet, Carson struck "a feeling of some mystic controlling power that directs the instincts of these creatures into a definite, relentless pattern of spawning, feeding, and migrating ... a feeling of a wonderfully ordered world, far beyond human comprehension." ¹²

Notably, though, *Under the Sea-Wind* failed to make an impact until well into Carson's writing career. The book was to go virtually unnoticed at its 1941 publication, which was, as many critics note, promptly swept out of the headlines by the bombing of Pearl Harbor on 7 December of that year. The book's relative obscurity was also a result of its challenging philosophical premises, particularly in terms of its creature-driven perspective. The text ends with the sea's reclamation of the land—"and once more all the coast would be water again, and the places of its cities and towns belong to the sea"—a gesture which masks a profoundly inhumanist statement with deceptively gentle words, reflecting an ecocentric preference for the survival of species over the welfare of individual lives.¹³ Under the Sea-Wind, in other words, offers a serious challenge to any positivist notion that science will deliver human civilization from want and suffering. This was not the message that American readers at the close of the Depression were ready to receive, faced as they were with the threats of famine and displacement, and all too aware of the power of nature to alter the course of a species' life story. Though the book did achieve critical success with its 1952 reissue, reviews frequently link its merits with the success of Carson's bestseller, The Sea Around Us (1951), suggesting that something in the latter made the stark message of Under the Sea-Wind a bit more

¹² Reviews include: Frank Pemberton, "Along the Seaboard," Providence *Journal*, 13 April, 1952, and "The Mysterious Deeps," Los Angeles *Mirror*, 11 April, 1952. RCP/BLYU.

¹³ Carson, *Under the Sea-Wind*, 271. Inhumanism was Robinson Jeffers' word for the work that poets might do to challenge the anthropocentrism of human thinking and, especially, human culture. His famous lines from "Carmel Point"—"We must uncenter our minds from ourselves / We must unhumanize our views a little, and become confident / As the rock and the ocean that we are made from"—beautifully articulate the transformation in consciousness that *Under the Sea-Wind* attempts to create.

appealing. This palliative, I argue, was a new perspective on the ocean enabled by the rapid development of oceanographic science that the war itself had spurred.

The Next Frontier: The Sea Around Us

When The Sea Around Us debuted in the summer of 1951, it was before an American reading public already caught up in a literary "rapture of the deep": in 1950, National Geographic had featured undersea photographs—some of the first of their kind—taken by the immensely daring and talented Frenchmen Jacques-Yves Cousteau and Frédéric Dumas, who had pioneered the new technology of the "aqua-lung" (later to become the SCUBA: self-contained underwater breathing apparatus) in the late 1940s.¹⁴ Not only a bold explorer, but a patriot who had partnered with the British and U.S. navies and Résistance forces to disrupt Italian espionage operations in France, Cousteau captured, perhaps more than any other figure of his time, the libratory spirit of marine explorations and the thrilling potential of the technologies which supported this course of discovery: "The gist of my life's work," he reflected in 1963, "had been to free man from the bondage to the surface, permit him to escape beyond natural boundaries, breathe in an irrespirable medium, and resist pressure of ever-increasing immensities. And not only to put man there but to help him adapt, explore, subsist, survive, and learn."15 Cousteau's credo neatly summarizes the thrust of many of the mid-century's popular works on the ocean, which blended marine settings with a focus on the significance of sea power in the expansion of culture: Herman Wouk's 1951 Pulitzer Prize-winning novel, The Caine Mutiny, brought the lives of servicemen aboard a somewhat obsolete minesweeperdestroyer to life in a dramatic way, and Thor Heyerdahl's The Kon-Tiki Expedition: By Raft Across the South Seas (1950), later to appear as an Academy Award winning documentary, provided breathtaking adventures for its readers and viewers, while doing much to revise popular thinking about prehistoric explorers' capacity for mobility and technological adaptation.¹⁶

Carson, too, understood that the appeal of her oceanographic work lay in the promise of discovery—what Lear describes as readers' "yearning for knowledge about the natural world as well as for a philosophic perspective on contemporary life." Carson found in her fan mail "an immense and unsatisfied thirst for understanding of the world about us," and that "every drop of information, every bit of fact that serves to free the reader's mind to roam the great spaces of the universe, is seized upon with almost pathetic eagerness." Even with its substantial freight of scientific theory and fact, *The Sea Around Us* conjures an ocean whose chief characteristic is the ability to inspire wonder. In the opening pages of *The Sea Around Us*,

¹⁴ Photographs and text would later appear in Cousteau and Dumas's *The Silent World* (New York: Harper Brothers, 1953), with editor James Dugan of *Yank* (the United States Army's weekly magazine).

¹⁵ Jacques Cousteau, *The Living Sea* (New York: Harper Collins, 1963), 318. Quoted in Elizabeth S. Bell, "The Language of Discovery: The Seascapes of Rachel Carson and Jacques Cousteau," *College English Association Critic* Fall (2000): 11.

¹⁶ See Herman Wouk, *The Caine Mutiny* (New York: Doubleday, 1951); Thor Heyerdahl, *The Kon-Tiki Expedition: By Raft Across the South Seas* (London: George Allen and Unwin, Ltd, 1950); and *Kon-Tiki*, Directed by Thor Heyerdahl (1950; New York: Artfilm/Janson Media, 1997). DVD.

¹⁷ Lear, Witness for Nature, 205.

¹⁸ Lear, *Witness for Nature*, 205. The quote derives originally from an annotated copy of Carson's National Book Award speech, delivered 25 January, 1952.

Carson was careful to emphasize the enduring "mystery" of the sea, even in the light of new oceanographic knowledge. "Beginnings are apt to be shadowy," she wrote,

and so it is with the beginnings of that great mother of life, the sea. Many people have debated how and when the earth got its ocean, and it is not surprising that their explanations do not always agree. For the plain and inescapable truth is that no one was there to see, and in the absence of eyewitness accounts there is bound to be a certain amount of disagreement. So if I tell here the story of how the young planet earth acquired an ocean, it must be a story pieced together from many sources and containing whole chapters the details of which we can only imagine.¹⁹

As described here, the narrative of the sea's birth is partially articulated, and its reconstruction is, like the scientific method itself, an ongoing process of theorizing and experimenting. For Carson, the protean nature of the sea invites conjecture, not presumption, a "wonder and curiosity" not just about the origins of the ocean, but about humankind's own marine beginnings and its role in the grand epic of the earth's natural history. Stranded on the shore, unable to return to the sea "as the seals and whales had done," human beings relied upon poetic means to understand the sea: "over the centuries, with all the skill and ingenuity and reasoning powers of his mind, [man] has sought to explore and investigate even its most remote parts, so that he might re-enter it mentally and imaginatively." Projections of the sea, Carson insists, shift like the tides themselves, alongside our understandings of humanity's place in nature. ²¹

But the cultural critics of Carson's era were inclined to see the ocean's new literary fame in a different light. In his review of *The Sea Around Us*, Paul Flowers cited Yale University President, A. Whitney Griswold, who—at the same National Book Award luncheon at which *The Sea Around Us* was honored—had recently pronounced television "a vast wasteland." What would happen, Griswold had pondered, "when our ways of life and work, combined with the substitutes for reading now in mass production and use, finally conquer our taste for reading as well as our belief in its utility?" As Flowers retorted, "Miss Carson's book has answered Dr. Griswold's question":

The planet has shrunk, thanks to technological advances in transportation, communication, and electronics; whether we like it or not, we are beginning to regard this as one world, and even far in the interior people are aware of, and interested in, the great forces of nature, which affect the daily lives of individuals ... "The Sea Around Us" won immediate acclaim, because it narrated scientific truths in language the layman could comprehend; it explained the birth of continents from the sea's womb; it told graphically how climate, even far from salt breezes, comes from the vast production line of the marine two-thirds of our planet; it related in dramatic language of how life began in the sea and came ashore only when life

¹⁹ Rachel Carson, *The Sea Around Us*, (New York: Oxford University Press, 1951), 3-4.

²⁰ Carson, The Sea Around Us, 5.

²¹ Elizabeth Bell suggests that Carson's sea evinces a certain marine inertia: the sea is both "a sentient life participating fully in human destiny," and yet also "complete within itself, indifferent to passing eons and machinations of humanity." See Bell, "The Language of Discovery: The Seascapes of Rachel Carson and Jacques Cousteau," *College English Association Critic* 63, no.1, Fall (2000): 8, 10.

had developed complexities adequate to enable living creatures to survive out of the water.²²

Here the sea provides an immense canvas for re-imagining the new relationship of humankind and the natural world in light of the "technological advances" of modern industrial society. The ocean becomes a breeding ground for metaphors—such as the industrial imagery of "the vast production line" of the marine environment—which express that novel condition. Flowers's response does not just address the cultural literacy (or lack thereof) of which Griswold complained, but actually models a new way of reading—a technocratic lens now turned upon the wonders of the ocean.

We might argue, then, that mid-century readers understood the ocean's creative capacity as both a literary and—as the metaphor of the factory implies—an economic phenomenon. Indeed, in the years following World War II, the ocean came under prospect for numerous new ventures including petroleum extraction, nuclear submarines, water desalinization, and underwater defense systems. These developments were aided by President Harry Truman's extension of the littoral state 200 miles out to sea (in violation of centuries of freedom-of-the-seas doctrine) and the annexation of Micronesian territories. As Elizabeth DeLoughrey observes, "this new territorialism tripled the size of the United States." As one of the postwar United States' chief national security concerns, the sea was nothing short of a new frontier. As much as we may wish to distinguish Carson's literary intentions from the political machinations that sought to territorialize the world's oceans, ecological knowledge and political will to power are all too often entwined.

Historian Thomas Robertson has argued that the science of ecology, which had just begun to emerge as a professional field in the United States in the years before World War II, played an unwitting role in the military objectification of nature. Theories of population growth and environmental collapse, proffered by postwar ecologists such as Fairfield Osborn, found their way into American foreign policy in the United States' increasing desire to control and manage global resources in such a way as to insure the nation's hegemony. Accordingly, the feelings of ocean-inspired wonder Carson observed in her audience may have been intimately related to other, less ecocentric sentiments, including technological boosterism, an obsession with economic growth, and even national pride. As both an imagined province and an economic reality, the sea belonged to that shifting category that Amy Kaplan defines as "the foreign" in narratives of imperial expansion. As Kaplan argues, the domestic and foreign are mutually constitutive, locked in a continuous and unstable correspondence with one another. "Domesticity," writes Kaplan, "refers not to a static condition, but to a process of domestication, which entails conquering and taming the wild, the natural, and the alien."24 Thus, as new knowledge about the sea changed its shape in the national imagination, it also changed the ways in which American homes absorbed and rearticulated their knowledge of the sea,

²² Flowers, Paul, "1951 Winner Prescribes Remedy for Ailing Book Trade," Memphis *Appeal*, 3 February, 1952. RCP/BLYU.

²³ Elizabeth Deloughrey, "Heavy Waters: Waste and Atlantic Modernity," *PMLA* 125, no. 3, May (2010): 705.

²⁴ Amy Kaplan, *The Anarchy of Empire and the Making of U.S. Culture* (Cambridge, MA: Harvard University Press, 2000), 25.

reframing American marine expansionism as part of a larger narrative of scientific discovery, technocratic control, and industrial expansion.

The conflict embodied here—between science as the writing and revision of plausible narratives versus science as the production of an authoritative script—becomes especially fraught when it bears on environmentalism, which is a movement premised on science's ability to measure the impact of human activity on the working of ecological systems. In Politics of Nature, Bruno Latour points out that voices on all sides of the environmental debate, including scientists, politicians, and environmentalists, have attempted to deny the inherent volatility of ecological understandings in order to further their own agendas. "Ecology," as he writes, "has no direct access to nature as such; it is a 'logy'—an evolving representation, rather than the material community it represents."²⁵ Similarly, the recovery of an ecological message from *The* Sea Around Us depends on the reader's understanding of what science is. If science is an ally in the fight for preserving the integrity of natural systems against the incursions of an economic model that does not recognize their limits, then The Sea Around Us illuminates the critical role that the oceans play in creating those systems and supporting what seems, by comparison, the new and fragile enterprise of human life. But if science is a tool for extending and strengthening political control through the cultivation of new resources and the advancement of new technologies, then the ecological implications of the book are less important than the larger project of discovery and development that it aided and represented.

In many ways, *The Sea Around Us* does invite such a technocratic reading. In replacing the narrow, third person limited storytelling of *Under the Sea-Wind* with a narrative omniscience that approaches, chapter by chapter, various aspects of the "encircling sea," it creates a privileged, more distanced subject-position for its reader. Similarly, the realist texture of *Under the Sea-Wind*'s marine life-stories transforms into grand, encyclopedic treatments of ecological and geological processes such as the formation of the moon, the emergence and disappearance of islands, the movement of tides, and the ocean's influence on global climate.²⁶ Rather than teaching ecological principles through flights of fiction, Carson attempts to provide a comprehensive scientific account of the sea from the earliest era of the earth's existence, to the development of life forms that emerged from its waters, to the human urge and effort to explore the sea. Her writing reflects the influence of not only new oceanographic theory, but the new research methods that were changing what could be known about the ocean: a significant portion of the research for *The Sea Around Us* was conducted aboard the *Albatross III*, a Fish and Wildlife Service vessel specially designed for deep sea study. Synthesizing field

²⁵ Bruno LaTour, *Politics of Nature: How to Bring the Sciences into Democracy*, trans. Catherine Porter (Cambridge, MA: Harvard University Press, 2004), 4, 10. Once again, I find Elizabeth Bell's insight helpful in describing the interdependent operations of science and technology Carson portrays in her text. Citing from Isaac Asimov's essay, "Pure and Impure: The Interplay of Science and Technology," Bell collapses "the false dichotomy that separates the respect with which science is held in the modern world from the casual devaluation that technology garners." The two are mutually dependant: one must have instruments and means with which to make the discoveries that lead to the theories of science. See Bell, "The Language of Discovery," 22-24.

²⁶ One reviewer seems to have felt Carson's broad scope to be a bit disconcerting: "Miss Carson's two books have no element of personal adventure in their narration. There seem to be no human beings on the scene. The pervading feeling is one of disembodiment. The reader is a participant in the seething life of the ocean." From Harvey Dembe, "Books on the Sea," *Bayonne Times* 13 May, 1954. RCP/BLYU.

notes and scientific papers with a highly literary style, *The Sea Around Us* performed "an outstanding job of popularization," bringing ocean life into the purview of readers everywhere.²⁷

Carsonalia: The Sea Around Us and Rachel Carson's Legacy

The marine enthusiasm that surrounded the publication of The Sea Around Us was further encouraged by the sheer number of reprints that surged onto American library shelves between the first and second editions of The Sea Around Us in 1951 and 1960.²⁸ Excerpts from the book appeared in many favorite middlebrow magazines, often with a special distinction for their intellectual merit. In January of 1952, Pageant carried a chapter ("The Birth of an Island") as its end of the year "Best Science Story." One year later, the book made a rather unlikely appearance in the Saturday Review's "What Businessmen Read" column—not, admittedly, in the listing of the Top 25 books, but in the "Read with Special Interest" category. 29 The New York Herald Tribune noted in February of 1952, that The Sea Around Us made all 60 of the nomination lists for the American Library Association's Notable Books of 1951—the only title ever to have reached that distinction.³⁰ The author herself was profiled in such general interest magazines as Look (11 September, 1951) and Newsweek (17 December, 1951), and in women's magazines such as Independent Woman (October 1951), with ample praise for her ability to produce "science writing for the everyday citizen." The Sea Around Us even found its way into academe as required reading in oceanography classes and in literature and composition classes that hailed it as an excellent example of clear and evocative non-fiction writing.32

Carson, along with her agent, Marie Rodell, tried to build upon the popularity of her book in order to deepen the impact of its message. In 1951, RCA Victor Records approached Carson about authoring a set of liner notes for a new NBC Symphony recording of Claude Debussy's *La Mer*. In them, Carson (not surprisingly) divines a motive of scientific curiosity behind the composition: "Debussy has suggested the mysterious and brooding spirit of the deep and hidden waters." The composer must, she concludes, have held "an intuitive perception of the mysterious inner nature of the sea, of truths that science of the ocean, in its infancy in Debussy's time, had not yet discovered. We, who know some of these truths today

²⁷ See "The Sea," Scientific American June, 1952. RCP/BLYU.

²⁸ Interestingly, this was also a wave with an undertow, bringing the tokens of previous oceanographic studies into the leisure-oriented space of bookstores. In one particularly salient example, an "outstanding window display" featured at New York's Brentano's displayed "coral, seashells, and mounted fish, borrowed from the American Museum of Natural History," lending the mass market book an air of the scientific elite. See *Publisher's Weekly*, 14 July, 1951. RCP/BLYU.

²⁹ See "Best Science Story," *Pageant January*, 1952 and "What Businessmen Read," *Saturday Review* 24 January, 1953. RCP/BLYU.

³⁰ "Librarians' View," New York Herald Tribune 17 Feb., 1952. RCP/BLYU.

³¹ See Look 11Sept., 1951; Independent Woman October,1951; and Newsweek 17 Dec., 1951. RCP/BLYU.

³² In a 28 October, 1960 letter to Jon W. Boardman, Jr. of Oxford University Press, Carson recalled "a number of letters from people in universities or in the various oceanographic institutions saying that they had made the book required reading in the courses. Some have actually used it almost as a text ... I gather that it is used pretty widely in high schools in both English and science courses and I have even had letters from children in some of the lower grades telling me that their classes had built oceanography projects around the book." RCP/BLYU.

can discern them in this exquisitely beautiful evocation of the spirit of the sea."³³ Once again, while Carson emphasizes the legibility of the sea—the "truths" we have "discovered" since Debussy's time—she also insists on the primacy of the imagination that gives meaning to scientific discovery. That same year, at a benefit luncheon for the National Symphony Orchestra, Carson would argue that this imaginative capacity was necessary for saving a world drastically changed by technological progress. That "brief speech," according to biographer Linda Lear, "marked the beginning of her effort to develop an environmental philosophy that would provoke her audience to consider the consequences of environmental destruction"—a hint of the skepticism with which Carson would later regard the technological blessings of the era. Though, as she argued, her books had helped readers redefine the scope of human life and the turbulent process of human evolution—aiding them to "gain some sense of confidence that … new ways of life are natural and on the whole desirable"—her readers' many letters had also proven "that people everywhere are desperately eager for whatever will lift them out of themselves and allow them to believe in the future."³⁴

Yet the success of The Sea Around Us was also built on an important shift in the cultural status of reading itself—a development that was, ironically, all about making inspiration into a commodity. As the domestic ideal of the nuclear family came to dominate American conceptions of home life, so too did the practice of leisure reading, offering the rising numbers of the middle class an entryway into cultural sophistication. A hint of the place The Sea Around Us occupied in the readerly culture of its time can be seen in its selection as a Book of the Month Club alternate book in the fall of 1951. As one of a small selection of books to be delivered to club members' doors that season, The Sea Around Us became an instrument for demonstrating a particular sense of taste. An advertising circular bearing a listing of *The Sea Around Us*—titled "A True Picture of Yourself as a Book-Reader"—conjures the following scene: a handsome husband and wife are seated in matching wing chairs in their well-appointed home. Their backs are partially turned, but thanks to the mirror above the mantle, the viewer can easily see that each is absorbed in reading a book. The mirror, which also reflects back onto the viewer, suggests that her image belongs squarely in the middle of this elevated scene. The blurb describing The Sea Around Us emphasizes its genteel qualities, describing Carson's interest in the literary and intellectual dimensions of the ocean, rather than its value to science and industry: Carson's main interest, it claims, "is not in the sea's utility, but in the immense challenge it offers to our imagination. The sea, lightless or luminous, changeless or variable, lies deep in all of us, water-folk and inlanders alike."35 The ad is careful to distance industrial interests in the sea from the aesthetic motives a leisure reader might evince, though the flowering of the latter, of course, depended very much on the development of the former.

The oceanic enthusiasm generated by *The Sea Around Us* began with reading, but it did not end there. Carson's literary sea also filtered into an even more protean realm of production and consumption: women's fashion. In January of 1952, *Glamour* magazine featured the theme of "The Sea Around Us—with a smart curtsey to Miss Rachel L. Carson,"

³³ Carson's jacket notes are reproduced in full in Linda Lear's *Lost Woods*, 83-89.

³⁴ Lear, Lost Woods, 89.

³⁵ Book of the Month Club, "True Picture of Yourself as a Book Reader," Undated. RCP/BLYU.

highlighting a full ensemble of shore-themed accessories including a belt with miniature fishing creel, shell bracelet and earrings, and a sun hat decorated with fishing flies. Similarly, the Plotkin Bros. milliners offered—with less than perfect orthography—a line of "Gay and imaginative hat designs by Russ Russell, inspired by the Rachel L. Carlson [sic] best seller, 'The Sea Around Us." "The hats," ran an advertisement, "are in delightful colors and shaped taking their theme from the romance and beauty of the Seven Seas." One design, the "Sea Rhythm," boasted "one of the new space brims, of black shantung bakou, draped with sand colored Florentine cloth, marked by two golden urchins," and came in at just under \$40 (approximately \$350.00 in today's terms).³⁶ This rich assemblage of materials, as well as the hefty price tag, suggests that Carson's literary capital could translate directly into a kind of cultural capital—a marine-themed "romance and beauty" that could be captured directly from Carson's pages and embodied by the wearer of this smart chapeau. Even Saks' Fifth Avenue, a trendsetter in the world of high fashion, clambered to cash in on the Carson craze sweeping the nation. In 1956, just after the publication of Carson's third book, The Edge of the Sea, the retailer featured "a whole series of windows built around 'The Edge of the Sea'," featuring mannequins wearing ensembles "suitable for a vacation by the 'edge of the sea'" and "a copy of the Rachel Carson book published by Houghton Mifflin."37 This striking combination of beachwear and a "beach book" implies that the serious ecological message behind so much of Carson's ocean writing was sometimes received in a rather different spirit—as an accessory to the leisured enjoyment of the beach. Behind these fashionable creations lies a powerful suggestion that Carson's ideas about the ocean could be transformed into a kind of visual commodity: sea-themed hats and accessories allowed their wearers to miniaturize and display the imaginative perspective Carson had developed in The Sea Around Us, while signaling their own readerly sophistication.

Irwin Allen's cinematic adaptation of *The Sea Around Us* (1953) is another revealing reappropriation of Carson's literary ocean. The film claimed an Academy Award for Best Documentary Feature, but it failed to live up to Allen's ambitious plans for it, as well as to Carson's expectations. Originally conceiving of the film as a rousing epic of natural history, Allen had hoped to use original camerawork and animations in a series of narratives based around different episodes in the book, but quickly found that his budget would allow for only a fraction of the film to be produced. What resulted instead was an introductory scene based loosely upon Carson's first chapter on the formation of the sea, with significant quotation from the book of Genesis, followed by nearly an hour of footage Allan was able to string together from the donations of 2,341 different universities, libraries, expeditions, and marine research institutions all over the world.³⁸ The effect, as many reviews noted, was a sense of narrative disjunction, a series of images poorly connected by commentary. As William Souder notes, Carson actually considered suing RKO Pictures after viewing the first cut of the film, largely due to the shocking number of factual inaccuracies in the film that the studio had failed to

³⁶ "Plotkins Proudly Presents: The Sea Around Us Millinery" (Advertisement). RCP/BLYU.

³⁷ Saks Fifth Avenue Advertisement. RCP/BLYU.

³⁸ The Hollywood Reporter's review is more effusive, describing Allan's "skillful use of miniatures" to invoke the origins of the planet, when "earth was a flaming ball of fire." "From then on," the review exclaims, "it's the real thing." See "Sea Around Us a Thriller: Ocean Documentary Awesome Spectacle," The Hollywood Reporter 14 January, 1953. RCP/BLYU.

correct. Though she and Allen were eventually able to resolve their differences over the script, Carson was still eager to distance her name from the film, later refusing Oxford University Press's proposal to reissue the book with a new dust jacket adapted from the movie.³⁹

Even so, all the reviews, positive and negative, evinced a fascination with the film's images—the privileged glimpse into worlds that were becoming visible for the first time to mass audiences. In this regard, The Sea Around Us was part of what Paul Nathan at Publisher's Weekly called a "subaqueous cycle" of films featuring photographic images of undersea denizens and locales, including Disney's Wonder of the Deep and an adaptation of Jules Verne's Twenty Thousand Leagues Under the Sea filmed in the Bahamas and Jamaica. 40 One review highlights the importance of spectacle in the audience's enjoyment of these films: "The facts of sea life prove as fantastic as a Jules Verne romance. An octopus-shark battle is far more thrilling than a Marciano bout. The manta-ray, a forbiddingly wicked denizen of the deep, is better to meet from a comfortable seat at the Kenmore than in its own locale. One of the most entertaining scenes," the writer opines, "has to do with the newly born turtles rushing to the safety of the sea, while hungry birds await them."⁴¹ From classic novel, to boxing match, to the so-called entertainment of watching baby turtles race for their lives, this series of comparisons links the watching of ocean films to other forms of public amusement, making "nature" an object of spectacular consumption akin to anything else one might enjoy "from a comfortable seat at the Kenmore."

While Carson's readers seem to have appreciated her attempt to bridge scientific exploration with their own curiosity about the meaning of the sea, this does not necessarily mean that they partook of the environmentalist sensibility that now seems so apparent in *The Sea Around Us*. In fact, the wild proliferation of responses to the book, and of Carson-themed products, that followed publication suggests that what impressed many readers was not so much ecological awareness as, in Christopher Connery's words, an "oceanic feeling"—an inspiring sense of expansion that was as much about the ongoing story of human progress as about the extraordinary complexity of marine ecosystems.⁴² Sometimes this sense of progress took on a peculiarly patriotic flavor, as when, in 1963, the United States Information Agency began shipping copies of *The Sea Around Us* and other representative books to developing

³⁹ Souder, On a Farther Shore, 162-163.

⁴⁰ Disney actually proved a formidable competitor for the same audience *The Sea Around Us* might have tried to reach. Between 1948 and 1960, its *True Life Adventure Series*, produced in the newly created Buena Vista Studios, produced 17 nature shorts and won eight Academy Awards. Some more famous titles include: *Nature's Half Acre* (1951), *The Living Desert* (1953), and *Mysteries of the Deep* (1959).

⁴¹ "New Film: The Sea Around Us Superb at the Kenmore," Undated Advertisement. RCP/BLYU

⁴² Christopher Connery, "The Oceanic Feeling and the Regional Imaginary," in *Global/Local: Cultural Production* and the *Transnational Imaginary*, ed. Rob Wilson and Wimal Dissanayake (Durham: Duke University Press, 1996), 284-311. Connery characterizes the ocean as both "an oft-invoked source of inspiration" in narratives of technological progress and, at times, an unstable metaphor: "Perhaps, though, the ocean is *too* external: its assimilability, even to the flexible and contingent pragmatism of American sublimity, is always in doubt. The solidity of even the vastest American prairie or deepest Adirondack mountains allows conversion into images of sublimit that the ocean does not." This metaphor seems particularly apt for the Atomic Era, premised as it was on the power of extraordinarily dangerous and volatile new technologies.

nations in order to bolster American interests abroad.⁴³ For readers at home, however, the oceanic feelings Carson inspired were intermingled not just with national pride, but also with the desire for leisure, the promise of technological superiority, and aspirations of cultural refinement. In this sense, the Louisville *Courier-Journal*'s wry assessment of the new vogue for nature-wonder that Carson had sparked is revealing: "Rachel Carson's wave of success with *The Sea Around Us* has prompted the publishers to release a bunch of other nature books, hoping apparently that they will ride in on the wave's crest like Waikiki surfboarders." Carson's readers, like the books in this improbable analogy, were also striking a precarious balance on the crest of a wave that brought new wonders, new dangers, and new worlds to the very heart of American life.

Beach Reading: The Edge of the Sea

Carson's third book—an extraordinarily existential meditation on the life forms that struggle for existence on the ocean's shores—was a dramatic departure from *The Sea Around Us*. When Houghton Mifflin editor Paul Brooks offered Carson the job of creating a field guide to shore life, a book to be found "in every cottage, picnic basket, and beachrobe pocket," Carson equivocated.⁴⁵ "My quarrel with almost all seashore books for the amateur," she explained to him,

Is that they give him a lot of separate little capsules of information about a series of creatures, which are never firmly placed in their environment. He still doesn't know where to look for them, not really how to identify them except by matching them with pictures ... I think even such a small book could go beyond merely finding and identifying to suggest, albeit subtly, such things as what life may be like in terms of a fiddler crab's existence, or a barnacle's; that it should suggest, again unobtrusively, how the particular environmental setting (kind of shore, currents, tides, waves) determines what creatures will be found in any particular place.⁴⁶

While this sketch, focused on "what life may be like" for marine animals, strongly recalls the biological biography of *Under the Sea-Wind*, the setting she imagined for her new book—the harsh world of the intertidal zone—marked a critical difference from her earlier sea writing. Brooks's interest in the shore was premised on the idea of the beach as a space for the leisurely enjoyment of nature, but Carson envisioned the beach as a stage "where the drama of life played its first scene on earth and perhaps even its prelude; where the forces of evolution are at work today, as they have been since the appearance of what we know as life; and where the spectacle of living creatures faced by the cosmic realities of their world is crystal clear."⁴⁷ Writing about the ever-changing shores allowed Carson to clarify her evolving ecological philosophy in ways that the global focus of the open ocean never could. In one sense, this was because of the difference in the agents that would populate the book: gone were the mighty

⁴³ Raymond Walters, Jr, "It's Been a Time of New Heights, New Hopes and Upsets," *Sunday Times* 7 April, 1963. RCP/BLYU.

⁴⁴ "Non-Fiction Leads Book Selections for '51," Louisville Courier- Journal 25 November, 1951. RCP/BLYU.

⁴⁵ Paul Brooks to Rachel Carson, 20 July, 1950. RCP/BLYU.

⁴⁶ Rachel Carson to Paul Brooks, 28 July, 1950. RCP/BLYU.

⁴⁷ Rachel Carson, *The Edge of the Sea* (Boston: Houghton Mifflin Co., 1955), 7.

volcanoes, the enormous fields of plankton, and the other titanic entities that drove the action of *The Sea Around Us*, replaced instead with the tiny but tenacious creatures that inhabited the tidal zone. Where the former book often lapsed into epic intonations about the forces shaping earth's atmosphere and ocean, *The Edge of the Sea* specialized in the delicate art of portraiture, detailing the small adaptations that enabled a handful of species to survive in the extreme conditions of sun and surge on the shore. This narrow focus, Carson felt, could help readers to understand, "the delicate, destructible, yet incredibly vital force that somehow holds its place amid the harsh realities of the inorganic world."⁴⁸

But even more importantly, the seashore offered a readerly accessibility that the ocean deeps—a realm nearly always mediated by the words, images, and other contrivances of experts—could not. The text itself feels only one step removed from the careful field notes that Carson collected as she clambered over rocks and peered into tide pools, and the narration is punctuated by her personal accounts of scrambling, straining, and sitting still in order to make her observations. Carson's physical adventures make way for the intellectual adventure that each trip to the beach becomes. "The shore," she writes, "is an ancient world, and each time I enter it, I gain some new awareness of its beauty and its deeper meanings, sensing that intricate fabric of life by which one creature is linked with another." Readers are invited to follow suit. Houghton Mifflin's full-page ad for *The Edge of the Sea* underscores this point: "As the tide goes down we can see for ourselves. Here at the edge of the sea, we do not have to wait for some scientist to return in his submarine space-suit. Here all men can make their own voyage to another shore ... Here the sea around us,"—a subtle reference, perhaps, to Carson's earlier book—"draws back and lets us touch its depths."

This new narrative focus not only opened an evolutionary perspective on a familiar locale, but also brought text and terrain together in an extraordinary way. In her 1955 letter to Carson, a reader named Elizabeth Fried described this miraculous change, painting herself as a "living example" of the new awareness Carson's book generated.

The beach which heretofore has been, for me, a place on which to loll and sunbathe, to drop one's towel before plunging into the water, has now become a new world to me—a mysterious place with something to look for and wonder about every minute—a place teeming with life—so much so—that I have developed the typical 'beachcomber's stroll'—with head bent down—looking, looking—to be sure not to miss anything of interest the sand may hold.⁵¹

In her "beachcomber's stroll," Fried adopts the posture of Carson's ideal reader. As she demonstrates, beachcombing, like reading, is an intensely private and focused activity, one that brings the coordinated movements of the body into slow and deliberate service to the mind. In reading the shore, Fried forgoes the normal beachside practices of swimming,

⁴⁸ Carson, The Edge of the Sea, 5.

⁴⁹ Carson, The Edge of the Sea, 2.

⁵⁰ Houghton Mifflin advertisement for *The Edge of the Sea*. RCP/BLYU.

⁵¹ Elizabeth Fried to Rachel Carson, 8 November, 1955. "Fan Mail for *The Edge of the Sea*." RCP/BLYU. It is worth noting that this passage may have been of special significance to Carson herself; in her files, this section of the letter is underlined.

sunbathing, and lugging beach gear, and by extension, valuing the beach as more than simply a sandy platform for leisure activities.

But the notion of play remains important. The beach itself becomes the object of a pleasurable pursuit: "a mysterious place with something to look for and wonder about every minute," a space that requires its viewer to adopt the more measured pace of the "stroll." The subject position suggested by Fried's beachcombing is at once *proximate*—close to, but not directly involved in the drama of survival playing out around her—and *situated*—far more contingent to her surroundings than the wide-angle lens that frames *The Sea Around Us*. Neck craned, eyes and ears attentive, feet readily carrying her to the next object of contemplation, Fried's stance becomes a useful way to think about how Carson's environmental ethic was received by her mid-century readers: though she maintains a certain psychological distance from the shore environment, her movements and her attention—her entire attitude—have attuned themselves to the wonder of the shore. Carson's third and most ecologically-aware book, attributed by more than one review with "something of the wide-eyed wonder of a child," had succeeded in both "doing wonders" for *and* inspiring a deep wonder about the sea.⁵²

Conclusion

While the lessons of ecology in Carson's "sea books" and the other writings of the 1950s laid the ground for Silent Spring's more urgent call to action, these lessons typically found their way into the home through the channels of bourgeois consumption: through books, fashions, television programs which were the products of both a desire to connect with the earth and the imperialist environmentalism of the industrial economy. When the ecological message that we now celebrate in Carson's work did manage to reach mid-century readers, it often did so in the remarkable ways in which we saw Elizabeth Fried, the "beachcomber," affected—by reaching a solitary reader who felt herself deeply changed by this new way of looking, to the point of gently defying social conventions in order to commune with nature. As much of the contemporary criticism on Carson's ocean books has argued, this sense of wonder can be a tool of extraordinary power in literary visions of nature. For Carson, critics emphasize, wonder stood for a resistance to scientific positivism, a bridge to environmental literacy, and even a personal philosophy of great importance as she fought both the twin battles of living with cancer and drafting Silent Spring. Wonder is now understood by many as a keystone in Carson's ecological ethic, underlying and at times outweighing the remarkable ability to synthesize and philosophize about scientific discourse.⁵³

⁵² William Hogan, "The Strange World at the Water's Edge," San Francisco *Chronicle* 6 November, 1955. RCP/BLYU.

Lisa Sideris and Kathleen Dean Moore's collection *Rachel Carson: Legacy and Challenge* (Albany: SUNY Press, 2008) is emblematic in this regard. Sideris's essay, for instance, concerns the influence of the Presbyterianism in which Carson was raised, as well as Maria Carson's practice of the Nature Study method of outdoor education with her children ("Secular and Religious Sources of Rachel Carson's *Sense of Wonder*"). Moore, on the other hand, notes Carson's unrealized plans to write a book on the subject of "wonder" ("The Truth of the Barnacles: Rachel Carson and the Moral Significance of Wonder"); Carson's posthumous book, *The Sense of Wonder* (1965), was created from her earlier essay in part to help fulfill those plans. Kaiulani Lee's *A Sense of Wonder: Two Interviews with Rachel Carson* (Bullfrog Films, 2010) features Lee, playing the part of Carson, performing two long, reflective monologues constructed from Carson's speeches and letters.

With so many progressive readings of Carson's "sense of wonder" now circulating, one might well ask, why bother to resurrect an earlier audience's interpretations, particularly if they seem less likely to promote a positive change in environmental awareness and behavior? What good are these outdated ways of reading and responding to Carson's oceanic work in a world already awakened by Silent Spring's electrifying call to action? In short, it is because our cultural constructions of the world's oceans still, to a surprising extent, reflect a duality of wonder and waste that has not changed much since the era of *The Sea Around Us*. In a recent issue of the PMLA, ecocritics gathered to survey the prospects for "oceanic studies" in the 21st century, and their reports repeatedly emphasized the need to interrogate the familiar trope through which "colonial narratives of maritime expansion have long depicted the ocean as blank space to be traversed."⁵⁴ A closer look at the supposedly empty medium of ocean waters, Elizabeth Deloughrey claimed, reveals everything from the human remains of the Middle Passage to the residue of nuclear arms testing, reminding us of all the figurative and literal "waste" dumped into the world's oceans in the name of making our "progressive models of capitalist time" function. Guest editor Patricia Yaeger took her critique of our oceanic optimism even further. Citing a laundry list of environmental problems that Carson and the scientists of her time had only begun to dream of-including ocean acidification, the Pacific garbage gyre, and the enduring presence of industrial and metropolitan pollutants—she proclaimed that "our relation to the sea is always already technological" (526), and urged ecocritics to examine the ways in which poetic work "mean[s] in and through the resources that oceans provide" (538), often reflecting a false sense that these resources are beyond our ability to alter.

Both of these examples imply that 21st century approaches to the ocean—both as a literary formation and a *topos* for studying our political and ecological relationships to the sea—must focus on *salvaging*. We can no longer remain, as so many interpretive analyses of Carson's "wonder"-works do, uncritical of the role that technocratic expansion—the projects of discovery, resource development, and national defense in the world's oceans—played in inspiring and popularizing Carson's work. To do so would not only narrow our historical sense of who Carson was to the readers who loved her work, but also make us dangerously blind to the contradictory uses of the ocean, as a trope and as trash pile, in our own time.

By the 1960 publication of a second edition of *The Sea Around Us*, Carson's longtime belief that "the sea, at least, was inviolate, beyond man's ability to change and to despoil" had begun to erode. New oceanographic research had proven that even the deepest reaches of the ocean were subject to the circulation of tides, thus tying human activity along the shore to environmental conditions in the abysmal plains. In her preface for the new edition, Carson would worry in particular about the disposal of nuclear waste, which was conventionally packaged in drums, then dropped on the sea floor. Through the process of bioaccumulation residues of this waste were building up in the bodies of highly mobile marine animals. Sea the sea of the sea of

⁵⁴ See Elizabeth Deloughrey, "Heavy Waters: Waste and Atlantic Modernity," *PMLA* 125, no. 3, May (2010): 703-712, and, in the same issue, Patricia Yaeger's "Sea Trash, Dark Pools, and the Tragedy of the Commons," 523-545.

⁵⁵ Rachel Carson, *The Sea Around Us* (Revised Edition) (New York: The New American Library, 1960), x.

⁵⁶ In this case, Carson explains "bioaccumulation"—the same phenomenon that lends additional power to the spread of pesticides throughout the ecosystem in *Silent Spring*—as the process through which marine life, in

"What happens then," her preface asks, "to the careful calculation of a 'maximum permissible level' [of radioactivity]? For the tiny organism is eaten by larger one and so on up the food chain to man." Carson's research into the bioaccumulation of toxic materials—the same process which made the virulent pesticides documented in *Silent Spring* all the more dangerous—added a new note of urgency to the narrative of ecological interrelation depicted in the sea books. This reasoning ultimately led her to the ominous paradox "that the sea, from which life first arose, should now be threatened by the activities of one form of that life. But the sea, though changed in a sinister way, will continue to exist; the threat is rather to life itself."⁵⁷

The threat to the world's oceans remains; or, as we now begin to understand the impacts of overfishing, greenhouse gas pollution, and mercury poisoning on the health of the marine ecosystem, we might more accurately say that the threats have multiplied. regrettably, we seem to be caught in the same misleading idea of the sea's vast productive powers, caught in the illusion that the sea can and will tolerate an infinite amount of exploitation and abuse. In such a situation, an eco-aesthetic that emphasizes the cultivation of personal wonder seems far less appropriate than one that forces us to confront all that must be abjected—or jettisoned, as it were—into the sea in order for us to carry on with our landlocked lives. Such, for instance, has been the mission of artists such Chris Jordan, whose photographic series Midway depicts the entrails of dead albatross chicks literally littered with the remains of plastic objects they have eaten from beaches and so-called "trash islands." In this sense, the ocean truly remains the last frontier: not just the half-material, half-imagined territory that supplies the strength of our political bodies, but an ethical dilemma that will require us to find creative new ways of relating to its vast array of life forms and life rhythms. Rachel Carson's ecocentric vision is more important than ever to our continued survival, but so too is a cleareyed understanding of the technological and political contexts through which our wondrous visions are mediated.

environments lacking certain vital minerals, will instead metabolize radioactive isotopes of those same minerals, "sometimes concentrating it as much as a million times beyond its abundance in sea water." Significantly, she points out that "tuna over an area of a million square miles surrounding the Bikini bomb test"—the first ever test of a hydrogen bomb, conducted by the U.S. in 1954—"developed a degree of radioactivity enormously higher than that of sea water," xii.

⁵⁷ Carson, The Sea Around Us (Revised Edition), xxi.

The *Midway* series can be viewed at http://www.chrisjordan.com/gallery/midway/#CF000313%2018x24. Jordan's commentary on *Midway* and its film adaptation (currently in production), drawn from a 14 June, 2012 interview with *Outside*, speaks to a need for something more than amazement: "The birds on Midway are like messengers, the canary in the coal mine. When the canary dies, the miners don't run over and try to save the canary— they receive the message that bird just gave its life delivering, and then act quickly to save themselves. That approach resonates with me because it doesn't view the birds as helpless victims that we passively observe; it places a duty on us to receive their message, and be changed by it (or not)." See Adventure Lab, "A Love Story on Midway Island," *Outside* 14 June, 2012.

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Bibliography

Adventure Lab. "A Love Story on Midway Island." Outside. 14 June, 2012. Outside Online.

Accessed 5 November 2012. http://www.outsideonline.com/blog/outdoor-adventure/nature/a-love-story-on-midway-island.html

Bell, Elizabeth S. "The Language of Discovery: The Seascapes of Rachel Carson and Jacques Cousteau." College English Association Critic Fall (2000): 5-13.

"Best Science Story." Pageant. January,1952. RCP/BLYU.
Carson, Rachel. "Undersea." Atlantic Monthly. September, 1937.

Letter to Hendrik Van Loon. 5 February, 1938. RCP/BLYU.

Letter to Paul Brooks. 28 July, 1950. RCP/BLYU.

The Sea Around Us. New York: Oxford University Press, 1951.

Under the Sea-Wind: A Naturalist's Picture of Ocean Life. New York: Oxford University Press, 1952 (1941).

The Edge of the Sea. Boston: Houghton Mifflin Company, 1955.

"Help Your Child to Wonder." Woman's Home Companion July (1956): 24-48.

Letter to Jon W. Boardman, Jr. 28 October, 1960. RCP/BLYU.

The Sea Around Us (Revised Edition). New York: The New American Library, 1960.

Silent Spring. Boston: Houghton Mifflin Company, 1962.

The Sense of Wonder. Photographs by Charles Pratt and others. New York: Harper and Row, 1965.

Connery, Christopher. "The Oceanic Feeling and the Regional Imaginary." In *Global/Local: Cultural Production and the Transnational Imaginary*, edited by Rob Wilson and Wimal Dissanyaka. Durham, NC: Duke University Press, 1996.

Cousteau, Jacques and Frédéric Dumas. *The Silent World*, edited by James Dugan. New York: Harper Brothers, 1953.

Cousteau, Jacques. The Living Sea. New York: Harper Collins, 1963.

Deloughrey, Elizabeth. "Heavy Waters: Waste and Atlantic Modernity." PMLA May (2010): 703-712.

Dembe, Harvey. "Books on the Sea." Bayonne Times 13 May, 1954. RCP/BLYU.

"The Edge of the Sea" [Review]. Christian Science Monitor. December, 1955. RCP/BLYU.

"The Edge of the Sea" [Advertisement]. Houghton Mifflin. Undated. RCP/BLYU.

"The Edge of the Sea" [Advertisement]. Saks Fifth Avenue. Undated. RCP/BLYU.

Flowers, Paul. "1951 Winner Prescribes Remedy for Ailing Book Trade." Memphis *Appeal* 3 February, 1952. RCP/BLYU.

- Fried, Elizabeth. Letter to Rachel Carson. 8 November, 1955. RCP/BLYU.
- Heyerdahl, Thor. *The Kon-Tiki Expedition: By Raft Across the South Seas*. London: George Allen and Unwin, Ltd., 1950.
- Hogan, William. "The Strange World at the Water's Edge." San Francisco *Chronicle*. 6 November, 1955. RCP/BLYU.
- Jeffers, Robinson. "Carmel Point." *Poets.org*. Academy of American Poets. 2012. Accessed 5 November 2012. http://www.poets.org/viewmedia.php/prmMID/15739.
- Jordan, Chris. *Midway: Message from the Gyre*. Chris Jordan: Photographic Arts. 2012. Accessed 5 November 2012. http://www.chrisjordan.com/gallery/midway/#CF000313%2018x24
- Kaplan, Amy. *The Anarchy of Empire and the Making of U.S. Culture*. Cambridge, MA: Harvard University Press, 2000.
- Kon-Tiki. Directed by Thor Heyerdahl. 1950. New York: Janson Media, 2006. DVD.
- Latour, Bruno. *Politics of Nature: How to Bring the Sciences into Democracy*. Translated by Catherine Porter. Cambridge, MA: Harvard University Press, 2004.
- Lear, Linda. Rachel Carson: Witness for Nature. New York: Henry Holt and Company, 1997.
- Lear, Linda, ed. *The Lost Woods: The Discovered Writing of Rachel Carson*. Boston: Beacon Press, 1998.
- "Librarians' View." New York Herald Tribune. 17 February, 1952. RCP/BLYU.
- Lockwood, Alex. "The Affective Legacy of *Silent Spring." Environmental Humanities* 1 (2012): 123-140.
- Lytle, Mark Hamilton. *The Gentle Subversive: Rachel Carson*. Silent Spring, and the Rise of the Environmental Movement. New York: Oxford University Press, 2007.
- "The Mysterious Deeps." Los Angeles Mirror. 11 April, 1952. RCP/BLYU.
- "New Film: The Sea Around Us Superb at the Kenmore" [Advertisement]. Undated. RCP/BLYU.
- "Non-Fiction Leads Book Selections for '51." Louisville Courier-Journal. 25 November, 1951. RCP/BLYU.
- Pemberton, Frank. "Along the Seaboard." Providence Journal. 13 April, 1952. RCP/BLYU.
- "Plotkins Proudly Presents: the Sea Around Us millinery." Advertisement. 1952. RCP/BLYU.
- "Sea Around Us a Thriller: Ocean Documentary Awesome Spectacle." The Hollywood Reporter. 14 January, 1953. RCP/BLYU.
- A Sense of Wonder: Two Interviews with Rachel Carson. Directed by Kaiulani Lee. 2008. Oley, PA: Bullfrog Films, 2008. DVD.
- Sideris, Lisa and Katherine Dean Moore. *Rachel Carson: Legacy and Challenge*. Albany: SUNY Press, 2008
- Souder, William. *On a Farther Shore: The Life and Legacy of Rachel Carson*. New York: Crown Publishers, 2012.
- "True Picture of Yourself as a Book Reader." Book of the Month Club circular advertisement. 1951. RCP/BLYU.
- "What Businessmen Read." Saturday Review. 24 January, 1953. RCP/BLYU.
- Wouk, Herman. The Caine Mutiny. New York: Doubleday, 1951.
- Yeager, Patricia. "Sea Trash, Dark Pools, and the Tragedy of the Commons." PMLA May (2010): 703-712.
- Zimmer, F. "My, haven't Rachel Carson and Anne Lindbergh done wonders for the sea" [Cartoon]. New York Times Book Review.15 January, 1956. RCP/BLYU.