Revisiting *The Sea Around Us* in our moment of anthropogenic climate change, when both ecocritical scholarship and environmental policy are increasingly turning to more oceanic and planetary modes of thinking, compels responses both startling and familiar. I am struck, for one, by how often Rachel Carson invokes deep time not just as a geological fact, but as a theoretical and interpretive rubric. Such all-too-piercing lenses now used for viewing our present moment were not quite available to my eye upon first reading the book nearly twenty years ago. In a textual instantiation of geology that anticipates work on rocks as anthropocenic media presently being done by Dana Luciano, for example, Carson proposes that “the story of how the young planet Earth acquired an ocean...is founded on the testimony of the earth’s most ancient rocks” (1991, 3). In a similar vein, the sedimentary layer of the sea floor, which in Carson’s quietly moving image accretes as if the longest imaginable snowfall, likewise bears witness, this time in verse: “The sediments are a sort of epic poem of the earth. When we are wise enough, perhaps we can read in them all of past history. For all is written here. In the nature of the materials that compose them and in the arrangement of their successive layers the sediments reflect all that has happened in the waters above them and on the surrounding lands” (76). Not a metaphor, “the book of the sediments” provides its own thin leaves to the skilled interpreter—much as ice core samples do for glaciologists and paleoclimatologists tracking global warming trends, or atmospheric evidence recorded in the earth’s stratigraphic record does for geologists determining epochs of geological time.
Deep time provides a way for Carson to comment upon contemporary trends in global warming and sea level increases as well. Consider the cool observational pleasure that she takes in documenting warming temperatures and rising seas before 1951, the year *The Sea Around Us* was published. This tone is characteristic of her luminous yet spare prose: a systems thinker, interested in cycles, Carson notes the function of the oceans as a “global thermostat” and finds that “the evidence that the top of the world is growing warmer is to be found on every hand” (182). What is more, she writes, “[W]e live in an age of rising seas” (97). This, she finds, “is an interesting and even an exciting thing because it is rare that, in the short span of human life, we can actually observe and measure the progress of one of the great earth rhythms. What is happening is nothing new” (97). What is arresting about rereading this argument in 2017, in which rising seas are projected to overwhelm major coastal cities around the world within the next one hundred years, is in part its seeming prescience. Will soon “the surf . . . break against the foothills of the Appalachians,” Carson wonders? With a shrug, she says simply, “[N]o one can say” (98). What is equally startling to realize about her meditation on the rising seas, however, is that the logic of rhythmic return (“nothing new,” another cycle of planetary time) is also the rejoinder made by climate change deniers (nothing new, natural variability) to the alarms about global warming raised by the very environmental activists and climate scientists to whose movement and research Rachel Carson has been foundational.

I sense the impress of Carson’s oceanic figurations of planetary consciousness in a recent interview that Ursula Le Guin gave to the *New York Times*, in which the writer reflected on longstanding themes in her works about troubled homelands and ambiguous homecomings. Le Guin herself, of course, has long been invested in environmental justice in her writing, and in the fall semester I taught her novel *The Dispossessed*, first published in 1974, in an undergraduate class on cli-fi or climate fiction. The students were drawn to a passage in which the self-exiled protagonist Shevek muses on the impossibility of homecoming: “You shall not go down twice to the same river, nor can you go home again” (2015, 54). Shevek speaks not of permanent dispossession, but of the ongoing change that is visited upon both a traveler and his or her place of origin: any return finds both voyager and homeland sufficiently evolved, transformed, eroded, or hollowed out as to render both the “home” and its denizen alien to each other. They must become reacquainted on new terms. In the *Times* interview, Le Guin
revisits the same point using not an image of water, but of the planet’s orbital ellipses: “We say the Earth has a circular orbit around the sun, but of course it doesn’t. You never come back to the same place, you just come back to the same point on the spiral” (Streitfeld 2016). Here Le Guin refers to the fact that the entire universe is moving through interstellar space. The sun may be the object around which the planets revolve, but it is not itself fixed in place, and therefore when the Earth has returned to its orbital start point, it has moved far through interstellar space from its starting position—thus the spiralizing point.

Carson’s vision of the sea “around” us, in its encompassing, lapping relationship to terrestrial Earth and its poetic human occupants, might take shape more as a circle than a spiral, although in *The Sea Around Us*, too, a consciousness remains that one cannot return to the waters of birth, to home. Writing of the evolution of life forms on the planet, Carson identifies another cycle, one in which Homo sapiens are called back to the waters of our primordial emergence:

> [M]an, too, found his way back to the sea. Standing on its shores, he must have looked out upon it with wonder and curiosity, compounded with an unconscious recognition of his lineage. He could not physically re-enter the ocean as the seals and whales had done. But over the centuries, with all the skill and ingenuity and reasoning powers of his mind, he has sought to explore and investigate even its most remote parts, so that he might re-enter it mentally and imaginatively. (1991, 14)

I wish to set aside the psychoanalytic readings this passage makes available, as well as the jarring “man” who stands in for the human throughout this book by “Miss Carson,” as the 1951 edition identifies the author. (If this short essay took a different approach—an intellectual autobiography, instead, and/or a scholarly feminist awakening—the revolution my thinking has taken in response to that “man” would be more central to the story.)

Let us imagine instead fluid dynamics. Throughout *The Sea Around Us*, as the title itself suggests, Carson is operating from what oceanographers call a Eulerian perspective. The social geographer Philip Steinberg has usefully summarized this approach for the humanities scholar: Eulerian researchers “measure and model fluid dynamics by recording the forces that act on stable buoys . . . compar[ing] the presence and characteristics of these forces at different points in an effort to identify general patterns across space and time” (2013, 160). Steinberg speculates that the Eulerian
model remains dominant in oceanography “because it mimics the terrestrial spatial ontology wherein points are fixed in space and mobile forces are external to and act on those points.” The sea is around us; Carson’s “man” reenters it only imaginatively, remaining fixed on the shore. In Le Guin’s example of a spiraling Earth in orbit, however, the planet is operating instead on a Lagrangian model of oceanography. In Lagrangian fluid dynamics, to return to Steinberg’s deft gloss of the concept, “movement, instead of being subsequent to geography, is geography . . . objects come into being as they move (or unfold) through space and time. Conversely, space ceases to be a stable background but a part of the unfolding” (160). Every unit of analysis in Lagrangian fluid dynamics is itself in motion, and “from this perspective, movement is the foundation of geography” (160).

In The Sea Around Us, Rachel Carson envisioned a world in symbiosis, land and sea, and this world was necessarily circular in its boundedness. Whatever perspectival point one chooses to occupy in Carson’s world—whether squid or Globigerina ooze, petroleum bank or fossilized shell on a mountain top—the sea and thus the world organizes itself around that point, in turn, in a roughly Eulerian sense. In recent years the urgency of climate change and the Anthropocene, and their irreversible effects on the nonhuman world, have decentered the human perspective, loosed it from its fixed point. Le Guin’s model of planetary perspective, in its more Lagrangian sense of continual, decentered motion, offers us a new way to position both our sense of the environmental humanities and Carson’s deeply rewarding work alike. Estranged from the cyclical renewal of an Earth that in Carson’s time was in less overtly cataclysmic climate crisis, we now find that we cannot count on an idealized terrestrial home, an engulfing Mother Earth. This does not make our planet an utterly alien one, although we need to form new relationships to and with the earth, to inhabit new forms of stewardship and perspective.

In one particular moment in The Sea Around Us, Carson does not turn to her customary figures of circularity, but instead finds an ongoing, obdurate process, however attenuated. Why is sea water salt? As she explains: “From the moment the rain began to fall, the lands began to be worn away and carried to the sea. It is an endless, inexorable process that has never stopped—the dissolving of the rocks, the leaching out of their contained minerals, the carrying of the rock fragments and dissolved minerals to the ocean” (1991, 7). It is difficult, rereading The Sea Around Us in 2017, not to attach unintended meaning to Carson’s words: that the leached minerals
stand in for oil and gas resource extraction in the Arctic Ocean, or that the fragments carried to the sea substitute for plastiglomerates or other waste. These very minerals have brought salt to the sea, “and over the eons of time,” Carson writes hauntingly, “the sea has grown ever more bitter with the salt of the continents” (7). The very practices of resource extraction that have helped demarcate the Anthropocene have accelerated the processes by which the salt tang of the seas has become instead something too warm, too polluted, too bitter to contemplate. The seas, human and non-human life itself, may be spiraling out of our grasp; do we still recognize or revere our earth, and the sea around us, as our home? For how much longer will humans exist to call it such?

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