# THE DOMESTICATION OF U. S. ENVIRONMENTALISM, 1945-1962

By

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To my mother and father, Carol Cook Hagood and Thomas Daniel Hagood—

For each of the million reasons why

I could not have done this without you.

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#### INTRODUCTION

### **Building a State of Mind: From Environment to Environmentalism**

...even as it has been effectively contested and denied, a sense of unresolved, perhaps unresolvable, environmental crisis has become part of people's normality today. Faith in effective action has diminished at the same time that concern about the gravity of the crisis has sharpened. Debate about environmental crisis has suffused itself more widely than before throughout American culture and society and become entangled with the routines of more and more daily social and cultural controversies. No longer an apocalypse ahead, critical environmental problems and constraints help construct society's sense of daily normality. Far from going away, environmental crisis has become a regular part of the uncertainty in which people nowadays dwell.

-Frederick Buell, From Apocalypse to Way of Life<sup>1</sup>

Though penned nearly ten years ago, Frederick Buell's portrayal of the "sense of unresolved, perhaps unresolvable, environmental crisis" permeating "society's sense of daily normality" reflects, with stunning accuracy, the feelings now sweeping the United States in the wake—or indeed, in the continuance—of the "worst environmental disaster in American history," which began with the explosion of the Deepwater Horizon oil rig on April 20, 2010.<sup>2</sup> As the seemingly unpluggable leak of oil from the blown-out wellhead 5,000 feet under the surface of the Gulf of Mexico continues to gush, echoes of Buell's words can be heard in the frantic headlines and on the lips of the talking heads which are even now documenting the disaster and British Petroleum's blundered attempts to contain it. Bill Finch, director of the Nature Conservancy in the affected state of Alabama, wrote in the early days of the crisis:

<sup>&</sup>lt;sup>1</sup> See Frederick Buell, *From Apocalypse to Everyday Life: Environmental Crisis in the American Century*. New York: Routledge. 2003. Pp. xvii-xviii.

<sup>&</sup>lt;sup>2</sup> This designation was President Obama's own, made during his historic speech on the subject from the Oval Office June 15<sup>th</sup>. Transcript and video of the speech are available online at <a href="http://www.whitehouse.gov/the-press-office/remarks-president-nation-bp-oil-spill">http://www.whitehouse.gov/the-press-office/remarks-president-nation-bp-oil-spill</a>.

For those of us on shore, this slick is like one of those clever horror movies, where the terror is all the more intense because you never see the demon's face... For many of us, whatever lives we had have been absorbed into this amorphous, mysterious goo. But the truth is we can't actually see the slick any better than folks watching TV in Minnesota can. It remains offshore, well out of reach of small craft, and even if I had the gumption to get there in my 12-foot wooden fishing boat, this thing has apparently gotten so big, *it's too big to see.*<sup>3</sup>

While Finch and Buell would at first seem to offer two different perspectives the Deepwater Horizon disaster—one paints it as an extraordinary horror that is "too big to see," while the other might classify it as an example of the kind of persistent environmental hazards that color our "daily social and cultural controversies"—they nevertheless point to the same conclusion: everyday life in the United States has come to depend on technologies which are capable of virtually limitless ecological destruction. The Deepwater Horizon crisis, that is, overspills the bounds of the ecological and economic damage it will wreak—wherever those bounds may eventually fall—and into the underlying crisis of America's dependence upon fossil fuels that are increasingly difficult and dangerous to produce (and, with the onslaught of global warming, to consume). Like the dire images flashing upon the Minnesotans' television screen in Finch's analogy, the problem of our fossil-fuel-powered economy is rooted in the very hearths of our homes. Yet, even when it flashes up into visible disaster, it is received, like a TV show, at an epistemological distance from daily life—a horror film beaming in from a distant planet or far-off land. Worse still, in this critical juncture in the history of American energy policy, in which offshore drilling, mountaintop removal, and "fracking" the upper layers of the earth's crust have become necessary evils in our accelerating quest to satisfy our thirst for hydrocarbon fuels, the threat embodied in such projects—like the

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<sup>&</sup>lt;sup>3</sup> Finch wrote this post, "Alabama: A New Kind of Nightmare Every Day," for the Nature Conservancy's Cool Green Science Blog on May 5<sup>th</sup>, 2010 (emphasis mine).

still-growing uncertainty about the Deepwater Horizon—is far from over.<sup>4</sup> Indeed, that kind of risk has become the new normal.

The urgency of this moment and the tremendous scope of the clean-up that will be required might seem to indicate that this is, for American environmentalists, no time for looking back. But placed in a historical perspective, the Deepwater Horizon—and in particular, the reactions it seems to evoke among the perplexed American public—is eerily similar to many of the major environmental disasters which have struck the United States since the end of the World War II. The scenario of a new technology, mishandled by the experts who developed it, accidentally unleashing a battery of unprecedented "terrors" upon the land (or, in this case, the sea) has replayed itself a hundred times over in the American imagination (and the American media), perhaps most memorably in Rachel Carson's vivid introduction to her 1962 bestseller *Silent Spring*—a text which is often credited with catalyzing the modern environmental movement. In the shocking "Fable for Tomorrow" that opens *Silent Spring*, Carson conjures a tranquil town "in the heart of America" that suddenly and mysteriously begins to wither away, struck, as we

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<sup>&</sup>lt;sup>4</sup> The mountaintop removal method of coal mining—whose use, ironically, has been accelerated since the 1990's by the amendments to the Clean Air Act and the rising demand for low-sulphur, cleaner-burning coal—has received a great deal of attention recently, with such documentaries as Jen Giloman and Sally Rubin's Deep Down: A Story from the Heart of Coal Country, originally broadcast on Kentucky Educational Television (a PBS affiliate) April 22<sup>nd</sup> (Earth Day) of 2010, and Catherine Pancake's *Black Diamonds*: Mountaintop Removal and the Fight for Coalfield Justice (2007). The practice is fraught with ecological risks, from the disruption of ecosystems of remarkable biodiversity, to the "valley fill" method of waste disposal which sends tons of sediments into hollers and streams surrounding the mine, to the toxic ponds in which waste products from washing coal are accumulated. Hydraulic fracturing is the less well-known practice of injecting high pressure fluids and solid "propants" (such as sand) into crevices surrounding oil or natural gas seams in order to stimulate the flow of these resources. Though this process has been in use since the late 1940's, its associated hazards—including groundwater contamination, air quality reduction, and, less commonly, the triggering of "seismic events" in the geological formations under process—increased usage and higher-volume projects have recently resulted in more accidents. As recently as June 3<sup>rd</sup>, 2010, a blowout in Clearfield County, Pennsylvania, triggered a 35,000 gallon eruption of fracturing fluids over the surrounding forest. See "Marcellus Blowout Sprays Gas in Clearfield County" (Tim Puko, Pittsburgh Tribune-Review, Saturday, June 5, 2010).

later learn, by creeping tides of the highly toxic pesticides developed and widely deployed in the postwar period.<sup>5</sup> The specter of a "silent spring" robbed of the abundant bird and fish life this new pollution endangered—perhaps not so different from the "silent sea" many now predict the Gulf of Mexico could become—created a national outcry in its own time. It also created a precedent for public understanding of environmental disaster which has continued to this day. Carson's 1962 assessment that "until very recently, the average citizen assumed that 'someone' was looking after these matters and that some little understood but confidently relied upon safeguards stood like shields between his person and any harm" rings as true now as it did then, and captures the conundrum in which environmental disaster places private industry, public oversight, and the citizen. This three-way dynamic of failure to manage ecological risk—from industrial, governmental, and individual behaviors—has resurfaced time and again since Carson's day.

The Domestication of U.S. Environmentalism, 1945-1962 proposes that in order to understand what Bruno Latour has called this "stagnation" of green movements—their failure to bring about the "renewal of public life" they once promised, let alone the sustainable society to which they aspire—looking backward is precisely what we need to do. Indeed, this project reverses the familiar story of the popular environmental movement, whose beginning is often dated to the landmark publication of *Silent Spring*,

<sup>&</sup>lt;sup>5</sup> See Carson, *Silent Spring*. Boston: Houghton Mifflin Company. 1962. Pp. 1-2.

<sup>&</sup>lt;sup>6</sup> Carson wrote these words in 1962, in a post-Silent Spring piece for the Christmas 1962 edition of the New York Times Book Review entitled "On Writing Silent Spring." This short essay is available in the Beinecke Rare Book and Manuscript Library's extensive Rachel Carson Papers collection at Yale University. I am grateful to the Beinecke for access to this unique collection—the most comprehensive archive of Carson materials in the world. I will sample from a variety of the collection's materials, and, for brevity's sake, will indicate that I am doing so with the abbreviation RCP/BLYU.

<sup>&</sup>lt;sup>7</sup> See Latour, *Politics of Nature: How to Bring the Sciences into Democracy*. Trans. Catherine Porter. Cambridge, MA: Harvard University Press. 2004.

to argue that American environmentalism is ideologically rooted in the postwar era. I contend that the "environment" which came to shape environmentalist discourse was produced by midcentury conceptualizations of the domestic—of private property, suburbanization, and consumerism which were themselves the result of substantial changes in the material condition of American life following World War II. These profound shifts in the texture of everyday life were deeply imbued by a sense of the war, unprecedented in size and scope, which had preceded them, and overshadowed by the sense that a national disaster on the scale of Hiroshima or Nagasaki—or, indeed, much larger—might, at any time, occur on American soil. In working to normalize this "imagination of disaster," these cultural innovations, and the writers who documented and discussed them, also fed a growing sense that the relationship between nature, science, and society had undergone a seismic and irreversible shift. A new conception of the "environment"—"nothing less," as Michael Bess puts it, "than the reinvention of nature as a fragile and finite space"—was underway.9

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<sup>&</sup>lt;sup>8</sup> In his monumental history, *Postwar: A History of Europe Since 1945*, Tony Judt describes how an altered sense of geopolitical security in the postwar years became sublimated in "domestic affairs" including nationalist polemics, racial prejudice, class confrontation, and civil war. Though Judt claims that the European postwar experience was entirely different from that of Americans—"for whom the twentieth century taught rather different altogether more optimistic lessons"—I argue that the continual threat of nuclear war, and the memory of the Bomb's deployment in Japan, left a lasting mark on America's domestic affairs creating and embattled sense of identity that manifested itself in the domestic affairs that constituted American home life. (See Judt, *Postwar*. London: William Heinemann. 2005.

<sup>&</sup>lt;sup>9</sup> See Bess, *The Light Green Society: Ecology and Technological Modernity in France, 1960-2000.* Chicago: University of Chicago: University of Chicago Press. 2003.

### **Defining the Domestic: From the Family Foxhole to the Kitchen Debate**

A key example of the U.S. environmental movement's roots in postwar life can be found in what might at first seem a decidedly *un*environmentalist phenomenon: the nuclear fallout shelter. Strange relics of the Atomic Era, fallout shelters came into vogue during the early 1950's, as escalating geopolitical tensions between the United States and the U.S.S.R. made a nuclear attack upon U.S. soil, or even a global nuclear war, an increasingly palpable possibility. <sup>10</sup>





Figure 1. An artist's rendition of a temporary fallout shelter (ca. 1957). Photograph of a basement family fallout shelter (ca. 1957). "Teaching with Documents: Photographs and Pamphlet About Nuclear Fallout." Records of the Federal Emergency Management Agency, 1956-2005.Online. <a href="http://www.archives.gov/education/lessons/fallout-docs">http://www.archives.gov/education/lessons/fallout-docs</a>.

<sup>&</sup>lt;sup>10</sup> This statement should be qualified, however, with an acknowledgement that nuclear weapons had made a decidedly "palpable" debut on the world stage with the bombing of Hiroshima and Nagasaki in August of 1945. Any consideration of postwar anxiety around the possibility of nuclear war should take into consideration that Americans already witnessed, to some extent, the object of their fears. It is also worth remembering that, although it may be less apparent, nuclear war still remains a worrisome possibility.

Many cities and towns across the country prepared community shelters, often retrofitting the basements of municipal buildings, as part of their civil defense preparedness plans. But these gloomy public cellars had a surprising counterpart in the home fallout shelter. A midcentury home owner of sufficient means might have a private bunker installed, or, if he was of a do-it-yourself disposition, he might construct his own from kits available in common catalogs and department stores (Figure 1). As nuclear paranoia steadily increased throughout the 1950's—the years which saw not only the proliferation of atomic bombs on both sides of the Iron Curtain, but also the successful testing of the hydrogen bomb—suburban developments began to offer new model homes with fallout shelters already installed. Ever the optimist, one such developer marketed these Armageddon-ready homes as "country properties for the Nuclear Age." By the end of the decade, the private fallout shelter had evolved from a spare and to-the-point refuge into something more like a scaled-down living quarters featuring many of the comforts of home—even equipped, in some cases, with a television.

The part of the world where my father grew up—a well-worn sandstone plateau stretching 101 miles through northeastern Alabama, known locally as Sand Mountain—is full of fallout shelters, cinderblock boxes wedged incongruously into the softly rolling green countryside around them. As a teenager, I found myself inexplicably drawn to these mossy monsters of what seemed a bygone time. Their stark angles stood out boldly against worn hillsides and their cool, enfolding darkness offered shelter against the

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<sup>&</sup>lt;sup>11</sup> Elaine Tyler May cites this advertisement in her excellent analysis of postwar family life, *Homeward Bound: American Families in the Cold War*. New York: Basic Books. 1988. Pp. 110.

<sup>&</sup>lt;sup>12</sup> In her discussion of the rise of television culture in the United States, *The Electronic Hearth*, Cecelia Tichi draws this example from a sample home fallout shelter—"a 'spare room' converted to family fallout shelter that was designed, at the request of the federal government, by the American Institute of Decorators"—pictured in a 1960 edition of *Life* magazine. (See Tichi, *The Electronic Hearth: Creating and American Television Culture*. New York: Oxford University Press. 1991. Pp. 57-58).

endless sunlight of summer days. Inside, moldering shelves were still stocked with boxed and bundled oddities over which I would brood, trying to visualize what the cramped days of waiting out the nuclear emergency would look like. Far more than the ruins themselves, what stirred my imagination was the fallout shelters' grim projection of the future. The canned water, for instance—each can meted into an "individual daily allowance"—spoke of a baffling patience, a precision, an extraordinary capacity for outlining and institutionalizing each detail of the coming nuclear disaster. Beyond the obvious question of why the Soviets would ever want to bomb the pastures, farmsteads, and small towns of Sand Mountain—the relative proximity of the Marshall Space Flight Center in Huntsville, Alabama seemed a reasonable explanation in this case—lay the question that haunted me: just what kind of tomorrow were the builders of these shelters imagining? Even assuming one could survive the hell-fury of a nuclear attack, how could a few cans of water and four cinderblock walls even begin to prepare anyone for the aftermath of blasted earth, deadly atmosphere, shattered infrastructure, and scattered community that a nuclear bomb would impose? What kind of logic could accommodate the massive disjunction between a poisoned ecosystem and these tiny retreats of selfsufficiency?

As these early questions evolved into the premises scholarly research, I discovered that even in its own time, the fallout shelter had many outspoken critics. The idea that one might simply shut the shelter doors against a nuclear attack was, according to Columbia University industrial engineer Seymour Melman, a "futile, desperately

futile" survival strategy. 13 These "family foxholes"—as one how-to article in the March 1951 Popular Science Monthly deemed them—were perhaps more to those that built them than a bodily refuge. Over and above the shelter they provided, they became for their builders a crucial strategy in the frontlines of the ideological battle against the enemies of America. "By building your family foxhole," the *Popular Science* article persists, "you will also be building the state of mind that can resist the pressures of aggression as well as the shocks of actual atomic war." The fallout, shelter, then, signals a kind of paradox: an idea—more than a solid structure—that could hold the all-tooapparent risks of living in the nuclear age at a safe distance, demonstrating Americans' growing sense that disaster, even the kind that compromised the very health of the earth itself, could be managed, if not overcome. Fallout shelters did not so much banish the threat of nuclear holocaust as they domesticated it, annexing that anxiety it into the territory of daily life. They eased the creeping feeling that the land might become suddenly and irreparably contaminated, a loss of extraordinary magnitude, by promising one last safe refuge of livability and control—an escape pod into the postapocalyptic world.

But what is perhaps most striking of all about the development of the fallout shelter over the postwar years is its growing resemblance to the domestic space it supplemented. Not only in its material details, but in the psychosocial role it played in the very concept of the home, the fallout shelter which ostensibly served as a *substitute* for

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<sup>&</sup>lt;sup>13</sup> "A bomb equivalent to 20 million tons of TNT would cause an intense fire called a 'fire storm' in an area about 2,000 square miles around the center of the blast," Melman concludes. "And in such an area it would be futile, desperately futile to construct what are called 'fallout shelters'." (Melman's comments are featured in Jayne Loader and Kevin Rafferty's documentary *Atomic Café*. Archives Project, Inc, 1982). <sup>14</sup> Amrine, Michael. "How to Build a Family Foxhole." *Popular Science Monthly* 158:3 (March 1951). 113-119.

the house in the event of a nuclear emergency also played a significant part in the norms of safety and security the home itself represented. <sup>15</sup> Indeed, the history of the fallout shelter tells us much about the domestic as a physical space, a social structure, and an adaptive process in this anxious period. It suggests that environmental disaster—even on such a previously unimaginable scale as that of a nuclear war was something with which most Americans were becoming increasingly, in every sense of the word, "at home."

The multifaceted significance of the fallout shelter sheds light onto the larger role that the concept of the domestic comes to play in the making of modern environmentalism, for the domestic is, at heart, a complex of ideas and practices which mediate relationships between subject and environment. This project visualizes the domestic as a nexus of the built environment and social investment, as denoting both a material home and the cultural field through which objects, ideas, and practices are made familiar and acceptable, where the uncanny is made familiar. The idea of domestication—in the sense of manipulating the environment for human benefit—is arguably as old as permanent human settlement itself. But the "synthetic" revolution of everyday life which immediately followed World War II—the same shift which removed more Americans than ever before a step further from living on the land and, less directly, produced the phenomenon of the fallout shelter—marked a major milestone in the history of human adaptation to the environment and dramatically changed Americans' beliefs about the relationship between nature, culture, and society. The now-famous food-politics writer

<sup>&</sup>lt;sup>15</sup> I use "supplement" here in a Derridean sense—for more on the "supplement" as a discursive structure, see Jacques Derrida's *Of Gramatology*. (Trans. Gayatri Chakravorty Spivak. Baltimore: The Johns Hopkins University Press. Pp. 141-164). With this statement, I do not mean to imply that no suburban home could function without a fallout shelter—for indeed, most did. Rather, I mean that the fallout shelter was symbolically as well as physically significant in the ideology of the home.

Michael Pollan finds a strikingly mundane example of this tectonic tremor in attitudes toward the natural world in his 1991 book, *Second Nature*: the suburban lawn. Pollan declares, somewhat counter-intuitively, that "lawns are a form of television." While widely touted as part of the pristine rural-esque landscape that drew millions of Americans away from the cities and into the suburbs in the 1940's and 1950's, lawns

depend for their success on the *overcoming* of local conditions. Like Jefferson superimposing his great grid over the infinitely various topography of the Northwest Territory, we superimpose our lawns on the land. And since the geography and climate of much of this country is poorly suited to turfgrasses (none of which are native), this can't be accomplished without the tools of twentieth century industrial civilization: its chemical fertilizers, pesticides, herbicides, machinery, and often, computerized irrigation systems. For we won't settle for the lawn that will grow here; we want the one that grows *there*, the dense, springy supergreen and weed-free carpet, that platonic ideal of a lawn featured in Chemlawn commercials and magazine spreads, the kitschy sitcom yards, the sublime links and pristine diamonds. Our lawns exist less here than there; they drink from the national stream of images, lift our gaze from the real places we live, and fix it on unreal places elsewhere. <sup>16</sup>

Pollan's insistence that homeowners "superimpose" the "platonic ideal" of this cherished domestic space onto existing ecosystems maps closely onto a more contemporary notion Hannah Arendt developed in her 1958 *The Human Condition*— "human artifice":

...earthly nature, for all we know, may be unique in the universe in providing human beings with a habitat in which they can move and breathe without effort and without artifice. The human artifice of the world separates human existence from all mere animal environment, but life itself is outside this artificial world, and through life man remains related to all other living organisms. For some time now, a great many scientific endeavors have been directed toward making life also "artificial," toward cutting the last tie through which even man belongs to the children of nature.<sup>17</sup>

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<sup>&</sup>lt;sup>16</sup> Michael Pollan, Second Nature: A Gardener's Eduction, New York: Delta: 1991, Pp. 75-76.

<sup>&</sup>lt;sup>17</sup> Hannah Arendt, *The Human Condition*. Chicago: The University of Chicago Press. 1958. Pp. 2. For a more thorough discussion of Arendt's concept of "human artifice," see Chapter One.

Arendt's very language, inflected by the ideas of home and parenting, captures the central dilemma at the heart of the idea of the domestic: while the purpose of domestic structures and practices—to shelter, foster, and perpetuate life—aligns human activity with all other "children of nature" in a kind of earthly household, the domestic—from front lawn to backyard fence—is also one of the most thoroughly refined products of human culture. Indeed, even from humankind's first efforts to tame plants and animals, each domestic act contains a ghostly reflection of "cutting the tie" that Arendt describes.

The domestic can therefore be understood as both a material phenomenon and a conceptual space, a set of walls and windows through which "human artifice" makes culture of nature, defines out of the "mere animal environment" that which is distinctly human. To grasp this interdimensional nature of the domestic, it is necessary to conceive of it as an ongoing process of domestic ation: something both openable and closeable—like the house itself—the domestic marks a continual course of inclusion and exclusion, a circulation (or stagnation) of matter between an external environment and an intimate interior. Thus the domestic—and domestication, can become a critical instrument in the hands of theorists who seek to understand a culture's rule for governing the limits of body and environment, self and non-self, human and non-human.

Giorgio Agamben, expanding upon Arendt's work, has examine the treatment of "life itself" in Western political theory in ways that have wide implications for the sense of domesticity that created the nuclear fallout shelter—that which typified the postwar period. Drawing from classical texts, Agamben distinguishes between two very different understanding of life: "bare life" (*zoë*), the biological baseline of all "living things" prior to—and prerequisite to—the advent of politics, and the "way of life" (*bios*), the self-

conscious and principle-driven life of human beings living under political systems (or the polis). 18 These two different modes of life, and the types of power they represent, remained separate in political philosophy for centuries. Aristotle, for instance, insisted that the owner of an estate (oikonomos) and the head of a household (despotes) were not political figures: in this sense, domestic life marked a complete exclusion from public life. This sharp distinction between private biological life and public political life, however, began to break down with the emergence of the modern state. In a Hobbsean entrusting of their political distinctiveness to the Sovereign, the new subjects of the state retained only their biological identities—their "bare lives"—before the state power. Now charged with safeguarding the lives of its subjects, but also granted the right to kill them, if necessary, for the health of the state, the Sovereign quite literally assumed the power of life and death over its subjects. According to Agamben, this historic transformation—the "entry of 'zoë' into the 'polis'— "constitutes the decisive event of modernity," indicating the pivotal "point at which the species and the individual as a simple living body become what is at stake in society's political strategies" (3-4). This transformation also, I argue, changed the character of the decisive demarcations which once marked the domestic, making the margins between public and private life semi-permeable.<sup>19</sup>

Bridging the gap between "bare life" and "way of life," the domestic plays a key role in the transformation Agamben describes, which is in many ways precisely the

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<sup>&</sup>lt;sup>18</sup> Giorgio Agamben, *Homo Sacer: Sovereign Power and Bare Life*. Trans. Daniel Heller-Roazen. Stanford, CA: Stanford University Press. 1998. Pp.3.

<sup>&</sup>lt;sup>19</sup> The other interlocutor in Agamben's analysis is Michel Foucault, whose writings on biopower in *The History of Sexuality* and in the lectures of his *Security, Territory, Population* series trace the same confabulation of biological science and political power. Though I engaged with Agamben and Arendt, the transitions in material and political life I describe also articulate with Foucault's understanding of biopolitics. The nexus of biopolitics and ecocriticsm is indeed a fertile field for exploration. (See Foucault's *Security, Territory, Population: Lectures and the Collège de France 1977-1978*. Ed. Michel Senellart. Trans. Graham Burchell. New York: Palgrave. 2004).

historical shift in consciousness Arendt attempts to document in *The Human Condition*. In her articulation, however, the decisive point of modernity comes when the realm of the political, once distinct from the activities of mere survival or subsistence, becomes "naturalized" into the ideas that "politics is nothing but a function of society," and "that action, speech, and thought are primarily superstructures upon social interest." "This functionalization," she continues,

makes it impossible to perceive any serious gulf between the two realms: and this is not a matter of theory or an ideology, since with the rise of society, that is, the rise of the 'household' (*oika*) or of economic activities to the public realm, and all matters pertaining formerly to the private sphere of the family have beomce a 'collective' concern. In the modern world, the two realms indeed flow constantly into each other like wakves in the never-resting stream of the life process itself. (33)

Both theorists imply that what is lost in the assumption of political being into biological discourse is not only the range of freedom of the political agent (who now becomes part of a statistically ordered population), but also a kind of priority of, as Arendt puts it, "life itself"—in the sense of life's claims of both coming first and taking precedence. The domestic (as referenced by both writers' interest in the *oikos*) is no longer a habit which allies human beings with other species in nature's family, but becomes the emblem of political economies, a means to demonstrate superior cultural achievement—or, in Agamben's language, a superior "way of life"—by showing the ways in which the basic problem of how to survive—the struggle of life itself—had been technologized, managed, and ultimately" overcome."

But, one might argue, the fallout shelter is only one example of the ways the domestic was leveraged to geopolitical ends. Another, more visible instance occurred with the notorious "kitchen debate" between the U.S.S.R.'s Premier Nikita Khrushchev and

then Vice President Richard Nixon, as the two toured the American National Exhibit in Sokolniki Park in Moscow on July 24, 1959. Televised over the following day in the United States (and, some days later, in the U.S.S.R.), footage showed the two dignitaries examining the gadget-filled interior of a typical modern suburban home in the United States—one which, as Nixon was careful to point out, could be purchased for the modest price of \$10,000-\$15,000—then falling into a lively debate over the merits of the American consumerist lifestyle. As Elaine Tyler May points out, Nixon masterfully used the opportunity as a means to present the American home itself as a kind of ideological weapon: suburbia was "the locale of the good life, the evidence of democratic abundance" which the Soviet lifestyle lacked. 20 At one point, Nixon actually compared his country's advanced development of household technologies to the Soviet's well-known proficiency in spacecraft: "There are some instances," he told Khrushchev, "where you may be ahead of us—for example in the development of the thrust of your rockets for the investigation of space. There may be some instances, for example, color television, where we're ahead of you."<sup>21</sup> That such a comparison could (in Nixon's mind, at the very least) hold any kind of significance, particularly in this forum of global importance, is testament to the United States' profound investment in its way of life. Indeed, *Time* magazine hailed Nixon's performance as a major diplomatic accomplishment, claiming that he had "managed in a unique way to personify a national character proud of peaceful accomplishment, sure of its

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<sup>&</sup>lt;sup>20</sup> See Elaine Tyler May, "The Commodity Gap: Consumerism and the Modern Home." In *Consumer Society in American History: A Reader.* Edited by Lawrence B. Glickman. Ithaca: Cornell University Press. 1999. Pp. 298.

<sup>&</sup>lt;sup>21</sup> Vice President Richard Nixon and Soviet Premier Nikita Khrushev in 'The Kitchen Debate.' U.S. Embassy, Moscow, Soviet Union, 1959." Transcript. Available online: <a href="http://130.18.140.19/stennis/kitchendebate.html">http://130.18.140.19/stennis/kitchendebate.html</a>

way of life, confident of its power under threat."<sup>22</sup> As this incident suggests, midcentury Americans' fixation with domesticity was based on more than simply satisfying basic needs; the domestic space—from the patriotic optimism of the kitchen to the apocalyptic nightmare of the fallout shelter—had also become a hot front in the Cold War.

### A Voice for Life Itself: The Environmental Impulse

But for all the "technological enthusiasm" embodied in the postwar home—that "ebullient, self-confident, yet also deeply pragmatic attitude that sought technological solutions to the manifold social and economic problems of modernity"—a set of increasingly intractable problems began, in the same period, to emerge in the environment which surrounded and supported the suburban home. From the mid-1950's onward, substantial qualities of chemical wastes from industrial production, synthetic pesticides from the bounteous fields of American farmers, and radioactive fallout from nuclear testing began to be discovered in everything from major rivers to the nation's milk supply. Even more terrifying than the presence of these chemicals was the growing recognition that such harmful substances might endure in the chemical and biological systems that constitute the environment, long after visual or other sensory traces of them have disappeared. After the 1960's, indeed, common usage of "environment" or of

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<sup>&</sup>lt;sup>22</sup> "Better to See Once." *Time*. Monday, August 3, 1959. Available online: http://www.time/magazine/article/0,9171,825793-1,00.html

Bess's *The Light Green Society* actually treats the history of the environmental movement in France, but he borrows this term "technological enthusiasm" from Thomas P. Hughes's study, *American Genesis: A Century of Invention and Technological Enthusiasm, 1870-1970.* (New York: Viking. 1989). See Bess, pp. 22

<sup>&</sup>lt;sup>24</sup> In her book on the reception of *Silent Spring*, *What a Book Can Do*, Patricia Coit Murphy sites one particularly salient example of this public awakening: the so-called "cranberry scare" of fall 1959. Only

"environmental"—words which had once been used to denote a variety of concepts in art, anthropology, architecture, and linguistics—pertained more and more to the natural world, and quite often referenced the manmade pollution thereof. A plethora of new terms describing various strategies of managing ecological problems—including "environmental engineer," "environmental audit," or "environmentally friendly"—began to appear. This troubled sense of "environment" not only linked increasingly evident ecological trauma with the threats to public health they posed, but also, in a far more enduring way, recalibrated Americans' sense of nature as something marked by limitations upon resources, populations, and the resiliency of environmental commons such as air and water. Deeply disturbing discoveries about the quantities and effects of anthropogenic pollution in the 1950's and 1960's, in other words, lead to an America in which, by the early 1970's, most American at least recognized, if not professed, some environmentalist values.

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weeks before Thanksgiving, a scientific study revealed that aminotriazole, a pesticide commonly used in cranberry growing operations, was linked to the development of cancer in lab rats. This incident, and the resulting industry recall, not only caused a considerable panic and a disastrous year for cranberry growers, but, as Murphy notes, lead to a widespread sense that "the government had a mandate to protect consumers." (See Murphy, *What a Book Can Do: The Publication and Reception of <u>Silent Spring</u>. Amherst: University of Massachusetts Press. 2005.* 

<sup>&</sup>lt;sup>25</sup> "Environment," originally derived from the substantive form of "environ" (to surround or encircle), had acquired a range of meanings from "a structure designed to be experienced and enjoyed as a work of art with all one's senses, while surrounded," to uses in psychology, linguistics, and architecture describing how "subjects" are influenced by their surroundings. (See "Environment." *Oxford English Dictionary Online*. Oxford University Press. 2010. Available online at <a href="http://dictionary.oed.com">http://dictionary.oed.com</a>).

<sup>&</sup>lt;sup>26</sup> My reading of this etymological history—as well as all the quotations in the preceding paragraph—derives from the *Oxford English Dictionary*'s extensive entries on the words "environ" and "environment." (See "Environ." and "Environment." *Oxford English Dictionary Online*. Oxford University Press. 2010. Available online at <a href="http://dictionary.oed.com">http://dictionary.oed.com</a>.)

<sup>&</sup>lt;sup>27</sup> As Senator Gaylord Nelson—who took the lead in planning the first national Earth Day celebration for April 22, 1970—explains, it would have been difficult *not* to have recognized the ubiquity of environmentalist feeling in that era. He notes: "My primary objective in planning Earth Day was to show the political leadership of the National that there was broad and deep support for the environmental movement. While I was confident that a nationwide peaceful demonstration of concern would be impressive, I was not quite prepared for the overwhelming response that occurred on that day. Two

But decades before the environmentalism developed a language and a praxis of its own—and indeed, years before the publication of Silent Spring—an array of postwar writers began a related, but far more dispersed, critique of the American way. These authors, including science fiction novelists such as Judith Merill, children's writers like E.B. White and Dr. Seuss, social critics such as David Reisman, Vance Packard, and Betty Freidan, and—perhaps more obviously—nature writers such as Rachel Carson, understood the rise of American technocracy and the way of life it created as a problem of both ecological and social dimensions, frequently juxtaposing the modern "way of life" with the exigencies of "Life" itself. This generalized sense of "life" was, on one level, an expression of domestic purposes deeper than the nationalistic thrust of the "American way of life," as in Freidan's complaint that the housewife-ifacation of American women "was a byproduct of our general confusion lately of means with ends; just something that happened to women when the business of producing and selling and investing in business for profit—which is merely the way our economy is organized to serve man's needs efficiently—began to be confused with the purpose of our nation, the end of life itself." Yet on another level, this understanding of "life" was also inflected through an ecological sensibility, and tuned to a longer view of human life on earth, as in E.B. White's criticism that the acceleration of the nuclear arms race reflected the dangerous misconception that nations "could damn well rise *above* planetary considerations, as though we were greater than our environment, as though the national verve somehow transcended the natural world." White concluded: "We are in a vast

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thousand colleges and universities, ten thousand high schools and grade schools, and several thousand communities in all, more than twenty million Americans participated in one of the most exciting and significant grassroots efforts in the history of this country." (See Nelson's "Earth Day '70: What It Meant." *EPA Journal*. April, 1980).

<sup>&</sup>lt;sup>28</sup> Freidan, *The Feminine Mystique*. New York: Norton. 1963. Pp. 207-208

riddle, all of us—dependence on a strength that is inimical to life—and what we are really doing is fighting a war that uses the lives of future individuals, rather than the lives of existing young men."

The common ground upon which each of these writers struck in their studies of "life itself" was what another contemporary, socialist critic Murray Bookchin, labeled "social ecology"—summed up in Bookchin's premise that "Man has produced imbalances not only in nature, but, more fundamentally, in his relationship with his fellow man and in the very structure of his society. The imbalances man has produced in the natural world are caused by the imbalances he has produced in the social world."<sup>29</sup> Though ecology, the interdisciplinary science which explores the relationships between various species and populations within a biotic community, and their relationships to the inorganic environment, was at the time a fairly young science, at least in terms of its institutional grounding, its impact at this moment of budding cultural crisis was extraordinary. <sup>30</sup> Anchored in its own conception of the domestic—German biologist Ernst Haeckel, who christened the emerging science of "oekologie" in 1866, borrowed

<sup>&</sup>lt;sup>29</sup> See Bookchin, *Post-Scarcity Anarchism*. Edinburgh: AK Press. 2004. Pp. 23. Bookchin's study of social ecology derived in part from a related field which was also coming to the fore in the mid-twentieth century—that of human ecology. As a branch of social science, human ecology employed ecological principles, but attempted to broaden the questions of how human culture impacts ecological systems often pursued by ecologists (and environmentalists) into a broader inquiry of how human beings, as part of ecological systems, both effect and are effected by their environments. For a more complete treatment of this topic, see Chapter One.

<sup>&</sup>lt;sup>30</sup> By calling ecology a "young science," I am referring more to its institutionalization in colleges, universities, and the realms of professional science than to the questions and ideas that drive the science itself. The notion that there is a "balance of nature" with discernable laws is as old as Herodotus, and many notable eighteenth and nineteenth century thinkers—including Alexander von Humboldt and Charles Darwin—contributed much to sharpen our sense of the systemic relations between species and their environments. Yet in a century characterized by the increasing specialization of the sciences, the interdisciplinary study of ecology, which draws from biology, the observational method of naturalists, chemistry, geology, hydrology, anatomy, and many more fields, was just beginning to be recognized. Indeed, one might even argue, somewhat ironically, that the dreadful realization that Americans were steadily poisoning their own environment was needed in order to give ecology the critical traction it merited.

the etymology from the Greek term *oikos* to envision a study which would help explain the inner workings of nature's "household" and the interrelations of its members—ecology served for its adherents as a powerful critique of the deep-seated notion that the private household might be hermetically sealed off from the effects of disaster, or even simply the risk of disaster, unfolding in the public world. Ecology, that is, destabilized the strategies of containment which gave the idea of self-enclosed private lives of private citizens such currency in the postwar context, suggesting that toxins in the atmosphere, in the groundwater, and in the living systems of plants and animals could—and frequently did—seep through the boundaries that separated the home from its environment, or the human body from its surroundings. As a means of discerning the systemic relationships between living things in a dynamic ecosystem, ecology provided a materialist method that melted the solid demarcations between self and context which defined the "environment" as an epistemological construct, giving insight into how human actions changed the biosphere, and how the biosphere, in turn, changed human beings.

Thus, while ecology made environmental concerns all the more apparent, it also, as a discourse, resisted the very idea that the world might be understood as an enclosed "environment" in the first place. For this reason, the challenges posed by this set of postwar writers—nearly two decades before the first nationally-recognized Earth Day made the "environment" a topic of national focus—offer a critique of more radical potential, forcing contemporary readers to think about "environmental" concerns as more than just a question of nature versus culture. Indeed, a close study of human ecology collapses this binary, teaching us that the source of large-scale ecological disruption is more frequently the struggle between or within cultures, mediated by cultural attempts to

describe, assign, and manage what is "natural." The authors whose texts this study recounts, parsing out the changed nature of life in the postwar world—or as Rachel Carson put it in a 1956 letter (about the text which would eventually become *Silent Spring*), "life in the light of the truth as it now appears to us"—found expression in a kind of ancestral form I will call the "environmental impulse."

For this notion, I am deeply indebted to Leo Marx's idea of the "pastoral impulse," articulated nearly 50 years ago in *The Machine in the Garden: Technology and the Pastoral Ideal in America*.<sup>31</sup> For Marx, the "pastoral impulse" marked an aesthetic tendency, best expressed, he felt, in American literature, to revert to idealized pastoral histories or locales in scenes which were inevitably interrupted by the incursions of technology and emblems of the technological present—what he labels the "machine in the garden." Thus the pastoral as a literary mode could serve either as "the starting point for infantile wish-fulfillment dreams, a diffuse nostalgia, and a naïve, anarchic primitivism," or, if it evaluates the full complexity of the relationship between nature, technology, and society, "the source of writing that is invaluable for its power to enrich and clarify our experience" (11).

Similarly, the "environmental impulse" finds itself trapped in the logical contradiction of the domestic—the exclusionary gesture which distinguishes a solid wall between self and environment on one hand, and the constant ecological reassertion that all such walls are, at best, porous and temporary, on the other. The "impulse" in question, then, is a recurring action whereby the texts I review return to environmental models,

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<sup>&</sup>lt;sup>31</sup> See Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America*. London: Oxford University Press. 1964

even as they struggle to sketch out the implications of an ecological way of knowing. As I trace the growth and development of this widely-felt impulse through midcentury science fiction films, dystopian novels, children's stories, and nature writing, I will show how ecology's potential for a radical critique of postwar culture was variously absorbed into, rejected from, and subsumed by the interpretive frame of the domestic—a conflict which continues to be a part of critical environmentalist projects to this day.

Like Marx's formation, too, my "environmental impulse" is a discursive phenomenon which operated in a literary context. The austere concepts of scientific ecology were mobilized by writers of the era in order to make legible a legacy of harm inflicted upon the earth (and, within it, other human beings). Though they were typically constrained by the paradigm of the postwar domestic—either in the form of the text itself or in the text's reception among its audience—these literary works laid bare the structural violences connecting the geopolitical realm of Cold War politics with the private sphere of the postwar home. In this last point lies the greatest significance of the environmental impulse: it heralds back to a time before the "environment" had become the reified object of the social movement ecological insight had begun to stir—before environmentalism became a way of defending "nature" without questioning the cultural conditions that define our sense of what "nature" is. Though marked by the profound anomie between environmental spatializations and ecological connections, the environmental impulse also opened a discursive space in which to undomesticate the marriage of technology and society which undergirded the American way of life.

#### The Domestication of Environmentalism: An Overview

This project is guided by the conviction that, in order to evaluate current environmentalist strategies and discourse, we need to understand how the sweeping changes in middle class material culture in the postwar era created a new sense of the relationship between technology, society, and the natural world. My first chapter, "The Dream House: The Suburbs, the Middle Class, and the Locus of Environmental Angst," examines sources which document this dramatic transition, including John Keats' satire The Crack in the Picture Window (1957) and Judith Merril's domestic science fiction novel The Shadow on the Hearth (1950), and to a lesser extent the work of Betty Friedan, E.B. White, and Murray Bookchin, to show that that these very changes helped make way for an altogether new sense of what the "environment" might mean. Decades before the rise of the environmental movement, as I argue, these writers articulated the growing discursive divide between human beings as characters in a far-ranging evolutionary history of life on earth and human beings as the shapers of wholly synthetic environment—a divide between what many of these writers referred to as "Life" and the emerging American way of life. The resulting "environmental impulse" demonstrated in many of the texts was, in this case, particularly concerned that the environmentalizing of the American household, the rise of the private, single-family home and its attendant modern lifestyle, was a problem of both social and ecological dimensions. Time and again, these authors express a wish for lost community—for a sense of ecological connection amongst human beings and between human beings and the natural world that the suburban lifestyle strove to elide.

My second chapter, "No Matter How Smallish: The Sense of Wonder and the Environmental Impulse in Postwar Children's Literature," begins a three-chapter enquiry into the various forms the environmental impulse took in literature of the postwar period, and the many new forms of ecological feeling this impulse created. The "sense of wonder" expressed in children's literature of the era—and perhaps most fully elaborated in Rachel Carson's 1956 essay "Help Your Child to Wonder" (republished posthumously as The Sense of Wonder)—worked through the ready sight and hearing of children to connect them to the natural processes, the plant and animal lives, unfolding all around them. The sense of wonder was, as Carson's original title suggests, proscribed to parents as a remedy for "the sterile preoccupation with things that are artificial, the alienation from the sources of our strength." As I argue, however, the popularity of "wonder" lay not simply in its educational value for children, but in the widely felt need to awaken the critical consciousness of adults; the rapid technological modernization of American culture and the equally precipitous relegation of scientific knowledge to the ranks of professional scientists left the average midcentury adult somewhat at the mercy of "experts" to, as Elaine Tyler May puts it, "make the unmanageable manageable." "33 Accordingly, then, the two major texts I review—Dr. Seuss's *Horton Hears a Who!* (1954) and E.B. White's *Charlotte's Web* (1952)—feature children who are at once fascinated by the stunning new worlds their acute senses allow them to see (or hear) and alienated from the figures of parental authority in their narratives who cannot or will not share in their revelations. Ultimately, the two texts offer very different resolutions to this

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<sup>&</sup>lt;sup>32</sup> Carson, Rachel. "Help Your Child to Wonder." *Woman's Home Companion*. 83:7 (July 1956). Pp.24-48. Pp. 46.

<sup>&</sup>lt;sup>33</sup> See Elaine Tyler May, "The Commodity Gap: Consumerism and the Modern Home." In *Consumer Society in American History: A Reader*. Edited by Lawrence B. Glickman. Ithaca: Cornell University Press. 1999. Pp. 26.

conflict of perception, with *Horton* proposing that the similarities between the human world and the imagined realm of the ecosystem demands a moralism of caring and protection on the part of human beings, while *Charlotte's Web* preferring an ethic of mature skepticism—a kind of adult "sense of wonder."

But wonder was not the only feeling ecological insight inspired. In my third chapter, "Giant Ants and Shrinking Men: Technology, Domesticity, and the Environmental Impulse in Postwar Science Fiction Cinema," I treat the sense of horror mobilized by representations of environmental crisis in science fiction films of the 1950's. Like the sense of wonder, this horror springs from the spaces where the domestic realm meets the world outside—where, for instance, an otherwise harmless insect creeps into Andre Delambre's home laboratory in *The Fly* (1958), insinuates itself into his experiments, and accidentally renders him a helpless, hideously misshapen insect-man. Each of the films I review portrays a struggle to use the domestic as a shield from an increasingly illegible environment of toxic pesticides, nuclear fallout, or other residues of technological modernity. Gordon Douglas's Them! (1954), for instance, hints at a "marriage" of Big Science and government in its portrayal of a top flight entomologist and an F.B.I. agent who join forces to save the world from a monstrous byproduct of the Trinity Test—a race of giant man-eating ants.<sup>34</sup> Jack Arnold's *The Incredible Shrinking* Man, takes the analogy a step further, pointing to the ultimate collapse of domestic institutions as the "man of the future"—in this case, homeowner and husband Scott Carey, who has been tragically caught in the deadly fallout of a nuclear weapons test—

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<sup>&</sup>lt;sup>34</sup> On July 16, 1945, the United States deployed the first nuclear bomb ever dropped outside Almagordo, New Mexico, in what would become known as the Trinity Test. Only weeks later, the new technology was mobilized for the attacks upon Hiroshima and Nagasaki.

begins to "shrink" out of his role as breadwinner and self-provider, becoming little more than an atom himself. In both films, home life and the house itself become the ways in which the more frightening technological possibilities of the future can be "domesticated," and normalized—or, in Scott Carey's case, abnormalized—in the form of the gender relations, consumer products, and identity formations that constitute the home.

In my fourth chapter, "Wonders for the Sea: Rachel Carson's Ecological Aesthetic and the Midcentury Reader," I explore the rich connections between ecological feelings, consumerism, and products which promised a new view of the natural world. Here, I revisit the work of an earlier Carson—one whose three books about the natural history of the world's oceans became bestsellers long before Silent Spring became emblematic of American environmentalism—to demonstrate a third species of the environmentalist impulse. In Under the Sea Wind (1941), The Sea Around Us (1951), The Edge of the Sea (1955), Carson developed what she called an "ecological concept," a literary explication of the new science of ecology designed to bring readers out of anthropocentric understanding of human life and connect them to the dynamic interrelations of all living things on earth. To do so, the author made use of increasingly more sophisticated technologies for viewing and understanding life in the deepest parts of the ocean and on ever subtler microbiological and molecular levels—technologies which also provided unprecedented access to the images and sounds of the most remote reaches of the world. I argue, however, that Carson's ecologically-inflected ethos was, in many cases, subsumed into a wider technocratic viewpoint which offered the role of consumer of, rather than participant in, the ecological sensibility which Carson develops throughout her work. Rather than absorption within the unfolding processes of nature, then, many of Carson's readers experienced her forays into natural history as a particularly fashionable brand of escapism or whimsy—a cruise-like jaunt into the comparatively simple world of nature.

Each of these forms of the environmental impulse depends upon a certain kind of experience of the great changes in the material conditions of everyday life after World War II—one shaped by the race, class, and gender of a readership which was primarily white, middle-class, and female.<sup>35</sup> My final chapter, "Ecology, Environment, and Environmentalists: Reading Backwards from *Silent Spring*," treats this theme in its exploration of Carson's last and most enduring book, arguing that, its radical claims about ecology and human action notwithstanding, *Silent Spring* spoke primarily to a readership which had learned to hold a healthy natural world at a distance as an "amenity": a highly desirable commodity, rather than a necessity for human (and all other) life.<sup>36</sup> Out of the significantly bounded environment of the suburbs, I argue, rose a popular environmental *ism* similarly concerned with bracketing off the clean and unclean spaces of the earth's surface, unable to fully assimilate the ecological causes that underlay, and continued to fuel, the environmental crisis. While many of those

<sup>&</sup>lt;sup>35</sup> Carson's readership was indeed broad, with book sales for *The Sea Around Us* and *Silent Spring* in the millions, but the record of her public engagements indicates a sphere of influence centered around conservationist efforts, leisure interests such as music and reading, and, in particular, women's concerns. Some of her major speeches include: a *New York Herald-Tribune* Book and Author Luncheon address (1951), a speech to the National Symphony Orchestra (1951); a National Book Award for Nonfiction acceptance speech (1952); talks before the National Women's Press Club and the Theta Sigma Pi national sorority of women journalists (1954), talks before the National Council of Women (1962), the Rod and Gun Association (1963), and the Federation of Homemakers (1963); and receptions speeches for the John Burroughs Award in nature writing (1952) and the Albert Schweitzer Award (1963).

<sup>&</sup>lt;sup>36</sup> Samuel Hays distinguishes between nature as "amenity" versus nature as "necessity" in his *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985* (Cambridge: Cambridge University Press. 1987. See Pp. 4), aligning "amenity" with the rise of a consumption—rather than production—ethic, and the growth of the suburbs.

professionally concerned with environmentalism—the climatologists, statisticians, biologists, and population scientists who gave us some of the earliest scientific perspectives on the environmental crisis—focused on the "limits" of the earth's resources and carrying capacity, the new assemblage of citizens concerned with environmental health were themselves limited in their response by the role of consumer (and sometimes voter), a situation which in many ways perpetuated the binary of postwar relationships between science and society. A great deal of *Silent Spring*'s most radical potential for social change—not to say that of the environmental movement itself—was thus foreclosed by the dominant paradigm of the citizen consumer.<sup>37</sup>

## Rethinking the Domestic: Toward an Ecological Literacy

Above all, *The Domestication of Environmentalism* is a project about literacy: about the ways in which the human interdependencies, both within our species and within a grand biotic context, have become legible—and the ways in which they have not.<sup>38</sup> Throughout the range of the texts which I review, I find a consistent recourse to environmentally-inspired feelings, be they of wonder, of horror, of delight or of frustration, as a means of revealing ecological truths that occur, often as not, within the

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<sup>&</sup>lt;sup>37</sup> Lizabeth Cohen describes the rise of the citizen consumer--as opposed to the purchaser consumer—in the economic shifts that accompanied the postwar boom. Citizen consumers understood themselves as "fighting to preserve the 'American Way of Life' rather than some lofty political ideal." (See Cohen, *A Consumer's Republich: The Politics of Mass Consumption in Postwar America*. New York: Vintage. 2004. Pp. 70-71).

<sup>&</sup>lt;sup>38</sup> There is already a substantial body of work on ecological literacy (or "ecoliteracy"), which Fritjof Capra defines as a means of "understand[ing] the principles of organization that ecosystems have developed to sustain the web of life" to the end that we may build "communities that are designed in such a way that their ways of life, business, economies, physical structures, and technologies do not interfere with nature's inherent ability to sustain life." (See "Ecological Literacy—Ecoliteracy." *Holitistic Education Network*. Online. http://www.hent.org/ecoliteracy.htm.

compass of everyday domestic life. Time and again, ecology promises a systematic means of reading and critiquing the relationship between human beings and the natural world, only to become, whether in the presentation of the text itself or in its readers reception of it, a children's story, a nameless angst, or a fashion statement. As sexist and elitist as we may now understand it to be, William J. Darby's 1962 criticism that Silent Spring—with its "high-pitched sequences of anxieties"—would chiefly appeal to "organic gardeners, the antiflouride leaguers, the worshipers of 'natural foods,' those who cling to the philosophy of a vital principle, and other pseudo-scientists and faddists," has an ironic ring of truth to it.<sup>39</sup> The divisions ecology created between would-be environmentalists and the *status quo* in Carson's time remain strong today, particularly in the United States. Popular perception still holds environmentalists on the less practical, more fanatical end of public debate, even as a more business friendly—thought not necessarily more "earth-friendly"—concept of "sustainability" has begun to displace or preempt environmentalism in many contexts. Similarly, environmentalism's long history of appealing to domestic purviews of personal choice, individual behavior, and changes in lifestyle has left a legacy of frustration, NIMBYism, and a national environmental policies and infrastructure perilously unprepared to absorb the blows of fossil fuel withdrawal (or, indeed, the ravages of climate change). 40 As a discourse, ecology still

<sup>&</sup>lt;sup>39</sup> William J. Darby, "A Scientist Looks at *Silent Spring*." Unidentified publication of the American Chemical Society. ("Responses to *Silent Spring*." RCP/BLYU)

<sup>&</sup>lt;sup>40</sup> NIMBYism, for the uninitiated, is the fairly common social phenomenon that tends to erupt around environmental and land use issues, centered on the familiar refrain that stakeholders generally do not want activities generating ecological risk to be located anywhere near their home communities: "Not In My Back Yard!". In his most recent book, *Eaarth*, Bill McKibben comments on the relative scale of the environmental movement's major achievements to the dimensions of the problem we now face with global climate change in full swing: "We fixed a few relatively easy environmental problems, like smog, or filth leaking into our rivers, and that was enough to convince us that we were making progress...But all the while the sheer growth in the size of our enterprise was making those old predictions from the 1970's come steadily, invisibly true. Global per capita production of grain peaked in the 1980's. Total global fish

treads an uneasy line between science and sentiment—a fact which has the counterproductive effect of alienating ecological scientists from their humanist counterparts, while emboldening environmental extremists.

In the face of the massive traumas inflicted on the earth and on its species in the past sixty years—of which the Deepwater Horizon is merely one of the latest and most appalling—feelings which express loss, fright, or even joy at "re-discovering" the earth seem both necessary and appropriate response. But so long as our ways to discuss relationships between humans and the earth remain solely in the mode of feeling, the rationales which wrought the damage in the first place will always seem more politically "practical." Similarly, if the very words we have for defining our place in the living world remain in the crisis-oriented lexicon which mobilized "environment," we may never be able to articulate what a normative relationship with the natural world looks like. In uncovering the ideological genealogy that provided the context for the more prominent forms of the American environmentalism, then, I ultimately hope to retrain our readings of environmental disaster: to push for more perceptive and creative interpretations of the environmental crisis and formulate new vocabulary which might lay the groundwork for—if not a solution—then a way forward.

#### **CHAPTER I**

# The Dream House: The Suburbs, the Middle Class, and the Locus of Environmental Angst

...the last vestiges of a community have disappeared. They are hardly anything else than an agglomeration of innumerable and isolated details, of human atoms and rows of boxes, called houses, interspersed between the industries. It is a total victory of a laissez-faire insensibility and recklessness over organic growth and even over organized development. Our towns are work-centered power stations of the National State. They are inhabited by human automata and they deliver the vast army of Experts, the grave diggers of our civilization.

-E. A. Gutkind, *The Expanding Environment* (1953)<sup>41</sup>

On the first of February, 1958, the highly-acclaimed U.S. nature writer, Rachel Carson, wrote a letter to her closest friend and confidant, Dorothy Freeman, regarding the book she was currently planning. Although she had wanted for many years to write a kind of philosophical text on "Life and the relations of Life to the physical environment," she had found herself "mentally blocked for a long time"; personal health, family troubles, and other writing projects had all played their part in this delay, but even more profound was Carson's ambivalence about an enormous cultural transition happening all around her in the U.S.—one that put the very basis of the "relations of Life to the physical environment" into question.<sup>42</sup> "I suppose my thinking began to be affected soon after atomic science was firmly established," she writes.

Some of the thoughts that came were so unattractive to me that I rejected them completely, for the old ideas die hard, especially when they are emotionally as well as intellectually dear to me. It was pleasant to believe, for example, that much of Nature was forever beyond the tampering reach of man—he might level the forests and dam the streams, but the clouds and the rain and the wind were God's.

<sup>&</sup>lt;sup>41</sup> E.A. Gutkind, *The Expanding Environment* (London: Watts and Co, 1953). Quoted in John Keats' *The Crack in the Picture Window*. Illustrated by Don Kindler. Boston: Houghton Mifflin Co. 1957. Pp. 176-177. <sup>42</sup> Rachel Carson to Dorothy Freeman, February 1, 1958. Carson and Freeman's letters are collected in a

volume edited by Freeman's granddaughter. See *Always, Rachel: The Letters of Rachel Carson and Dorothy Freeman, 1952-1964.* Ed. Martha Freeman. Boston: Beacon Press. 1995. Pp. 248-249

Carson draws an important distinction in her letter between two kinds of ecological degradation: the depletion of natural resources and encroachment upon North America's vast wilderness areas (as in leveling forests or damming streams) had been a public "issue" for nearly as long as European settlement patterns had become firmly established in North America. By the time Carson wrote, the problem had acquired a vociferous cohort of critics, not to mention a healthy body of public activism in various conservationist and preservationist movements of the twentieth century. 43 But Carson also points to a far more insidious, far more mysterious change stealing across American skies, waterways, and weather maps: the tides of substances such as radioactive fallout and chemical pollution which had begun to fill the American atmosphere since the final years of World War II. For Carson, the implications of this "tampering reach" of midtwentieth century technology were enormous. No longer could she "suppose," as she once had, "that the stream of life would flow on through time in whatever course that God had appointed for it—without interference by one of the drops of the stream—man," nor that "however the physical environment might mold Life, that Life could never assume the power to change drastically—or even destroy—the physical world." The book that emerged four years later out of these speculations, Silent Spring (1962), would document the disastrous ecological effects of chemical pesticides which had been

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<sup>&</sup>lt;sup>43</sup> The conservationist movement can be contrasted to the preservationist movement—despite the fact that both concern themselves with human relations and laws governing wilderness areas—in that conservationists believe in the careful use of natural resources, whereas preservationists emphasize the inherent value of wild lands in and of themselves. The debate between the two camps, both of which emerged around the turn of the twentieth century, is perhaps best exemplified in the legendary falling out of the well known naturalist and nature writer, John Muir, and his colleague, Gifford Pinchot. While Muir ultimately advocated holisitic preservation of wilderness, Pinchot, a graduate of one of the first schools of forestry in the United States, believed in exploiting the United States' remaining natural areas as resources. These differences nonwithstanding, both schools of thought were concerned with problems of depletion, rather than the proliferation of toxins which Carson addresses here.

aggressively marketed and deployed since the end of World War II, and would elaborate to a wide audience just *one* of the dreadful implications of this human "interference" with the ecosystem.<sup>44</sup>

In her letter, however, Carson says nothing about pesticides, and gives only passing mention to atomic sciences, a fact which suggests that it is not really the arrival of either of these two new technologies *per se* that troubles her. Instead, she focuses her anxieties, as did millions of her fellow U.S. citizens, on the Soviet satellite, *Sputnik*. Launched October 4<sup>th</sup>, 1957, *Sputnik* literally added a new dimension to humankind's hold on the globe, opening the extraterrestrial world to the possible grasp—and the politics—of the Earth's nations. "In pre-*Sputnik* days," writes Carson,

it was easy to dismiss so much as science-fiction fantasies. Now the most farfetched schemes seem entirely possible of achievement. And man seems actually likely to take into his hands—ill-prepared as he is psychologically—many of the functions of 'God.'

To Carson, this event meant more even than the technical possibilities of space travel or intelligence surveillance, but actually marked the grounds of a potential divorce between human science and human circumstances. Like nuclear weapons and synthetic pesticides, *Sputnik* was a philosophical as well as a material threat, occupying a dangerous territory in which human beings, still morally bound in a kind of terrestrial childhood, could *play* God with the earth—but not without enormous consequences.

The significance of the launch was not lost on Hannah Arendt, who began her 1958 *The Human Condition* by rating the event "second in importance to no other, not

<sup>&</sup>lt;sup>44</sup> It is worth pointing out just how wide *Silent Spring's* audience actually was: by December 1962, six months after its serial publication in the *New Yorker*, the book had sold 100,000 copies, and continues to this day to log nearly 30,000 sales per year in newer additions. (See Dermot McEvoy, "Rachel Carson at 100." *Publisher's Weekly*. May 24, 2007).

even the splitting of the atom."<sup>45</sup> "Curiously enough," Arendt finds, the launch was not greeted with the "unmitigated joy" in human achievement that one might have expected, particularly if there had been no "uncomfortable military and political circumstances" between the First and Second World nations to dampen spirits. Rather than joy, or even "pride or awe at the tremendousness of human power and mastery," the "immediate reaction, expressed on the spur of the moment, was relief about the first 'step toward escape from men's imprisonment on the earth." The unsettling energies of this historical moment suggested, in her analysis, a frightening trajectory for the future of humanity. She wonders: "Should the emancipation and secularization of the modern age, which began with a turning-away, not necessarily from God, but from a god who was the Father of men in heaven, end with an even more fateful repudiation of an Earth who was the Mother of all living creatures under the sky?" (1)

For Carson and Arendt both, what *Sputnik* ultimately demonstrated was a growing perception that humanity, like the satellite itself, had reached a point of liberation, or depending on one's point of view, alienation, seeming to look independently down upon an earth with which it shared no material connection. Proverbially, this is the situation of the "Archimedean standpoint," recalling the Greek philosopher's famous declaration that he might move the earth if he but had the proper place outside the earth to stand upon, and it is reflected in, as Arendt notes, the "universal viewpoint" from which modern science has "looked upon and treated earth-bound nature" (11). That both writers, one a founding figure of the American environmental movement and the other a key thinker in the field of political theory, should sense the same danger in the cultural shift that

<sup>&</sup>lt;sup>45</sup> Arendt, Hannah. *The Human Condition*. Chicago: The University of Chicago Press. 1958. Pp. 1.

surrounded *Sputnik* suggests two important things about the diverse body of language, sentiment, and practice we now call environmentalism.

First, it implies that the concerns the environmental movement would later voice—as in the anti-pesticide campaigns that would follow the publication of *Silent Spring*—actually stemmed from the deep social conflicts that characterized the Cold War period: quarrels over the role of science in society, fears about State control and human freedoms in a nation that was constantly mobilized for war, and an anxious sense that the world was becoming what we might now call posthuman. Environmental issues, in other words, were not—and *are* not—limited to the biological and ecological implications of chemical pollution, deforestation, or whatever issue may be at hand, but also reflect the societies that create and must live with the consequences of these facts. The "nature" environmentalists invoke is often a nexus of biological, social, and political significances. Second, Carson and Arendt's take on *Sputnik* shows that a wide array of issues we might not immediately identify as "environmental" are, in fact, deeply concerned with the ecological implications of human actions, with the relationships between human communities and the environments they fashion and share. The idea that

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<sup>&</sup>lt;sup>46</sup> By invoking the "posthuman" in this context, I mean to identify what Donna Haraway calls the "awful apocalyptic telos of the 'West's' escalating dominations of abstract individualism, an ultimate self united at last from all dependency" a condition upon which Carson, Arendt, and Haraway—with some degree of irony—regard with trepidation. Though Haraway seeks to reinvigorate the figure of the "cyborg" for the purposes of *disturbing* rigid categories of nature and culture which Carson and Arendt, in many senses, wish to stabilize, Haraway nevertheless chooses an image of alienation which is particularly striking in this context. The cyborg, she writes, is like "a man in space." (See Haraway, *Simians, Cyborgs and Women: The Reinvention of* Nature. New York: Routledge. 1991. Pp. 151)

<sup>&</sup>lt;sup>47</sup> In his now classic collection, *Uncommon Ground* (to which Haraway is also a notable contributor), William Cronon notes: "Far from inhabiting a realm that stands completely apart from humanity, the objects and creatures and landscapes we label as 'natural' are in fact deeply entangled with the words and images and ideas we use to describe them. ... As soon as we labeld something as 'natural,' we attach to it the powerful implication that any change from its current state would degrade and damage the way it is 'supposed' to be. But in fact we are rather selective about the parts of nature we choose to view in this way." (See *Uncommon Ground: Rethinking the Human Place in Nature*. Ed. William Cronon. New York: W. W. Norton & Co. 1996. Pp. 20).

Sputnik meant man's "escape" from his "imprisonment on earth" was a problem for Arendt precisely because it evinced a deluded belief that "men" no longer depended upon the earth for basic survival. In fine, for both writers, Sputnik showed the need for an "ecological" conscience—one that would trace "Life and the relations of Life to the physical environment," and perhaps reground human progress in the actual material conditions of life on earth.

The beginnings of Carson's response to this need, which can be traced in her letter, lay in creating for her readers a new narrative of life, in rescaling everyday existence to the long perspective of earth's history. This latter sense of life, which she often distinguished and personified as "Life," was nothing less than the intertwined geological and biological histories that created the conditions of the existing global ecosystem, the continuous "stream" which had come to a crucial and most unexpected turning point. In articulating this expanded scope of life, Carson and other "ecologists" who recognized the developing threat to the *ecosystem* that bound all species together forged a powerful discursive formation—"Life"—that opposed the American exceptionalism of the midcentury by asserting a unity deeper than nation: the continuity of life on Earth. <sup>48</sup>

<sup>&</sup>lt;sup>33</sup> In this case, I derive the term "ecologists"—meaning thinkers who brought ecological science to bear on the issues of human population, land use, and so forth—from James Ridgeway's 1970 *The Politics of Ecology*, which places Carson alongside the likes of anti-nuclear proliferation writer Barry Commoner in their overt crusade to change human behaviors for the benefit of planetary health. (See Ridgeway, *The Politics of Ecology*. New York: E. P. Dutton & Co., Inc. 1970. Pp. 198). Yet even those natural history writers not explicitly concerned with pollution or the worldwide "population explosion," such as Carson's contemporaries N. J. Berrill or Loren Eiseley, consistently referred to the anxious spirit of the scientific discourse of the age—what Berrill "an overwhelming revolution in ideas." (See Berrill, *Journey Into Wonder*. New York: Dodd, Mead & Company. 1952. Pp. 326-327). As the opening letter I have presented indicates, Carson's own sense of the nature of life was beginning to assume a somewhat embattled resonance, and change also has at least one source in a shift in the scientific discourse of ecology. As a

Though this emerging ideological conflict between "Life" and the American "way of life" would find its full expression in *Silent Spring* and play a crucial role in shaping the discourse of the American environmental movement in later years, this chapter will focus on the material circumstances which opened this fissure in the first place. Tracing the emergence of what I call an "environmental impulse" in texts as varied as John Keats' satire, The Crack in the Picture Window (1957), and Judith Merril's fictional rendering of the atomic war in Westchester County, The Shadow on the Hearth (1950), I show how many writers in the era before environmentalism articulated the growing discursive divide between human beings as characters in the geologically-scaled narrative of the earth and human beings as the shapers of a synthetic society as a problem of both social and ecological dimensions. While many postwar thinkers interested in the subject of human ecology approached the problem through anxious arguments about population growth—perhaps most memorably in Fairfield Osborn's book Our Plundered Planet (1948)—the writers I describe here understood ecology on both a biological and an ethical level, as a site where the changing social structure of the United States could be re-grounded and put into question. Their arguments, as I will show, centered on the domestic practices of the postwar United States. The domestic, both as the rapidly

graduate student in biology at Johns Hopkins, Carson was originally schooled in this little known science by the work of British naturalist-turned-ecologist Charles Elton, from whose *Animal Ecology* (1927) she derived the foundational concepts of the food chain, the niche, and the strength of biodiversity. But Elton's thinking had undergone a dramatic change during the 1950's, shifting from a model of slow evolutionary change in biotic populations to one of anthropogenic "population explosions" in the same populations, replete with "the quiet infiltration of commando forces, the surprise attacks, the successive wave of later reinforcements after the first spearhead fails to get a foothold, attack and counter attack, and the eventual expansion and occupation of territory." (See Elton, *The Ecology of Invasions*. London: Methuen & Co. 1958. Pp. 109). Carson echoes this unmistakably martial rhetoric in her treatment of chemical methods of pest control and resurgent insect populations in *Silent Spring*, citing Elton's warning that "We are hearing the early rumblings of what may become an avalanche in strength." (Elton, *The Ecology of Invasions* pp. 181. Quoted in Carson, *Silent Spring* pp. 265).

changing lifestyle of the expanding middle class, and, in the more philosophical sense as that which creates a fully human space, were envisioned as the root of—and the possible solution to—environmental problems. Time and again, these texts juxtapose the shrinking world of the private citizen in the single-family home with what this modern lifestyle seems determined to shut out: the idea of community.

## Postwar Suburbanization: A Kind of Life America Had Never Seen Before<sup>49</sup>

Historians such as Lizabeth Cohen have argued that the patriotic consumerism that typified postwar domesticity—somewhat ironically—from the ethos of frugality that marked the loyal American of the World War II period. Rationing, as she points out, was a largely community effort, with hundreds of volunteer rationing boards, largely staffed by women, cropping up throughout the nation as a result of the creation of the Office of Price Administration in 1941. "Suddenly," explains Cohen, "tasks which had been viewed as private and domestic were brought into the civic arena and granted new political importance" as the products which normally flowed through home and housework were redirected for military use. <sup>50</sup> Picturing themselves as, in one Newark woman's words, "home fighters" defending a domestic front, "citizen consumers" began to understand their buying habits as geopolitically significant. <sup>51</sup> At the same time,

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<sup>&</sup>lt;sup>49</sup> I draw this quotation from John Keats' *The Crack in the Picture Window* (Boston: Houghton Mifflin Co. 1957), a pseudo-documentary account of the middle class's massive shift into suburban living. I will review this book more extensively later in the following pages.

<sup>&</sup>lt;sup>50</sup> See Lizabeth Cohen, *A Consumer's Republic: The Politics of Consumption in Postwar America.* New York: Vintage. 2004. Pp. 67

<sup>&</sup>lt;sup>51</sup> The interviewee's full quotation, as cited in Cohen's text, expresses the idea of citizen consumer as engaged in a "total war" parallel to the one conducted oversea: "Everybody is in it. For every frontline fighter there are many home fighters." (Cohen, 83)

however, wartime sacrifices were seen as temporary measure in the name of guaranteeing peacetime prosperity: "Anticipating future consumption became part of how...Americans viewed the stakes of the war: fighting to preserve the 'American Way of Life' rather than some lofty political ideal. Fantasies of new cars, new washers, new toasters—even if virtually unavailable with the curtailed production of wartime—took on new patriotic significance and motivated citizens to save" (70-71). This new image of the prosperous postwar household, as promoted by "government publications, advertisements, and popular culture," was fundamentally different from the multi-generational, urban or rural pictures of home that characterized many Americans' actual experience. These sources, Cohen reports, "overwhelmingly depicted 'home' as a detached single family house in a suburban setting" (73).

Indeed, the powerful partnership of industry, technology, and government forces which had made the war effort a success would come, in the years after the war, to bear on countless aspects of postwar life, dramatically changing many Americans' standard of living. The housing crisis which quickly followed the postwar "baby boom" was answered with new legislation, including the G.I. Bill, which created a Federal Housing Authority and opened the way for an entirely new method for building and financing homes: the suburban "development." New mass-produced developments, one of the first and most famous of which was Levittown, New York, constructed between 1947 and 1951, were changing—and standardizing—the means of living for millions of citizens. By 1964, suburbs covered nearly six million acres of U.S. land, in veritable explosion that social critic Peter Blake would dub "Suburbia—anywhere!"

It might be Suburbia, California, or Suburbia, Illinois, or Suburbia, New York. In our egalitarian democracy, we have achieved the ultimate in making certain that

all men are created equal: we have just about empowered a branch of the government, the Federal Housing Administration (FHA), to specify the size and shape of the typical American suburban master bedroom (in which all Americans are thus created equal); to specify the size and shape of the typical family room (in which all American tots crawl around equal); to specify the size, shape, and style of the suburban house (in which all American youngsters grow up equal); and we have empowered the FHA to specify the width, length, straightness-or-curvature, surface, presence-or-absence of trees, sidewalks, telephone poles, etc., etc., of every single suburban street (on which all American teenagers play equal—to their considerable peril).<sup>52</sup>

As Blake's portrait implies, developments were rather notorious for leveling and utterly reshaping the sites upon which they were constructed, leaving what appeared to be a completely manmade moonscape in their wake. In his 1953 book on domestic design, Architect Robert Woods Kennedy would warn against this policy of total redesign, arguing that "To change every contour of a site is not only to strip it of every precious root, tree, and flower. It is to make an enemy of it. When sites are so violated, their injured subsurface drainage patterns break out in the forms of leaking basements, and their mangled topsoil departs with wind and water." <sup>53</sup>

As true as Kennedy's maxims may have proven—and indeed, in 1952 a House Select Committee investigating G.I. housing patterns found a veritable laundry list of structural and architectural faults common to many developments—it is nevertheless important to distinguish between what twenty-first century readers might see as problematic environmental disruptions, and what contemporaneous viewers saw as the shaping of a promising new way of life. John Keats' 1957 satire-exposé *A Crack in the Picture Window* tells the story of suburban dwellers John and Mary Drone as they cycle through a number of development houses and frightfully increasing debts. While the

<sup>&</sup>lt;sup>52</sup> From *God's Own Junkyard: The Planned Deterioration of America's Landscape*, by Peter Blake. New York: Holt, Rinehart and Winston. 1964. Pp. 17

<sup>&</sup>lt;sup>53</sup> See Kennedy, *The House and the Art of Its Design.* New York: Reinhold. 1953. Quoted in Keats, pp. 182.

Drones seem dimly aware that their various houses are too small, poorly designed, and detrimentally isolated from anything that could really be called a community— "somewhere deep inside her," Keats writes, "[Mary] knew perfectly well that the house she inhabited had helped spoil her day; that it was harming her marriage and corroding her life"—they nevertheless believe that the modernized, individualized homes of suburban life represent a dramatic improvement over pre-war living (43). They are, in other words, deeply invested in the idea of *remaking* environments, creating a controlled, carefully calibrated space in which to raise their children. Upon visiting Merrydell Acres, a new development being built near their current home, they find a few model houses and scene which might be interpreted as desolate: "behind these samples there rolled away as far as the eye could see an undulating red-clay plain studded with replicas of the sample houses, and beyond the rows and rows of houses, out on the horizon's rim, bulldozers were obliterating the last of the slash pines that had once covered the land." Yet for the Drones' "conditioned eyes," this blasted landscape holds the potential of a new and improved domesticity: "After nearly ten years in the Washington metropolitan area, they regarded the scene as completely normal. Progress was under way—man was once again bringing order and beauty out of Nature's mad chaos, offering a helping hand to God, as it were" (Keats, 108).

The Drones—and the historical population they are meant to represent—do not see themselves as shutting out "Nature's mad chaos" so much as they do dividing, privatizing, and regulating it. Environmental historian Samuel Hayes points out a key transformation in thinking about nature which the postwar generation underwent, correlating directly with increasing standards of living: as public health problems shifted

away from those concerning crowding, contagion, and death to quality of life issues, access to fresh air and open spaces became an "amenity"—one which drew Americans by the thousands to their own little piece of the country. He as Elaine Tyler May argues, suburban homes—including both indoor and outdoor spaces—encoded within their very architecture a "domestic version" of the ideology of "containment" which was coming to characterize the United States' foreign policy. "Within its walls, potentially dangerous social forces might be tamed, where they could contribute to the secure and fulfilling life to which postwar men and women aspired." From kitchen windows positioned directly over sinks so as to allow homemakers doing their endless dishes a point of supervision over children playing outdoors, to fenced back yards which ensured that every family experienced its outdoor leisure privately, the suburban home promised an environment which could be closely monitored, and by extension, a nature which could be owned, enjoyed, and managed.

Inside these new suburban homes, the novel combination of television, air conditioning (or "climate control"), and an architecture which emphasized the continuity of interior spaces worked to create what Lynn Spigel calls a "total environment"—"the room' that no one need ever leave, a perfectly controlled environment of mechanized pleasures."<sup>56</sup> This suburbanization of space did not necessarily lead to the exclusion of nature from the postwar home—quite the contrary, in fact, since affordable access to clean, healthy natural spaces was one of the features which drew families out of cities and

<sup>&</sup>lt;sup>54</sup> Samuel P. Hays, *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985.* Cambridge: Cambridge University Press. 1987. Pp. 4

<sup>&</sup>lt;sup>55</sup> Elaine Tyler May, *Homeward Bound: American Families in the Cold War*. New York: Basic Books. 1988. Pp. 14

<sup>&</sup>lt;sup>56</sup> Lynn Spigel, *Make Room for TV: Television and the Family Ideal in Postwar America*. Chicago: University of Chicago Press. 1992. Pp. 108.

into suburbia. But it did change the manner in which this "nature" was understood and could be experienced. As Spigel argues, the television, along with the picture window or sliding glass door ("window wall") that typically characterized the suburban interior, were "often figured as the ultimate expression of progress in utopian statements concerning 'man's' ability to conquer and to domesticate space." Drawing from Charles Siepmann's 1950 *Radio, Television, and Society*, she elaborates: "television provides a maximum extension of the perceived environment with a minimum of effort. Television is a form of 'going places' without even the expenditure of movement, to say nothing of money. It is bringing the world to people's doorsteps." Suburbanization, then, was not a means of erasing the environment but of imagining it differently: not as a hindrance to modernization but as a living production of it. The managed presence of nature in suburban homes demonstrated a new status quo in which technology had gained the ability to enhance the most basic functions of human lives.

Yet, as the John Keats' title suggests, there was a serious "crack" beginning to develop in the "picture window," that culturally shared illusion of a nature framed, contained, and aesthetically perfected. Interestingly, this flaw did not bear upon the natural environment as such—nor the ecological disturbances that suburban developments created within the rural landscapes they were beginning to choke out—but on the social and cultural anxieties which were repressed into the environment. This point, in and of itself, deserves some further explanation: David Mazel has carefully considered the history of the word "environment," showing that it actually derives from the verb, "to environ"—to surround or to encircle. Yet modern use of the word obscures

<sup>&</sup>lt;sup>57</sup> See Charles Siepmann, *Radio, Television and Society*. New York: Oxford University Press, 1950. Pp. 340. Quoted in Spigel, pp. 102.

the active sense of the environment as "that which encircles." "Thanks to a normalizing process that effaces both act and actor," Mazel argues, "we no longer speak of what *environs* us, but of what our environment *is*," a habit which has "the rhetorical effect of purging environmental discourse of that sometimes discomfitting history of penetration—of discovery, exploration, conquest—that constituted the American environment-asaction in the first place." In this particular context, understanding suburban environ*ment* as a process, rather than a static condition, reveals for Keats' characters a sickening schema of atomization. Mary Drone first understands this as she looks out her picture window of her new home

and for the first time became completely aware of the picture window across the treeless street. For a horrid moment she stood there, staring. Then she ran to her door and tore it open, looking up and down the block. And everywhere she looked, she saw houses exactly like her own, row on row of them, the same, the same, the same... (138)

For Mary, anxiety about the physical environment actually evokes anxiety about her individuality within the socioeconomic bloc that inhabits her development. The window meant to frame and domesticate nature *just* for her living room becomes a mirror onto the common condition she shares with each of her neighbors.

Eric Avila has put another name to the fear Mrs. Drone feels when regarding the dreadful repetition of her suburban street: the trend toward suburbanization, he argues, was fed by a deep-seated mistrust of public space. <sup>59</sup> As postwar circumstances began to

Environmentalism (Athens: University of Georgia Press. 2000).

<sup>&</sup>lt;sup>58</sup> See David Mazel, "American Literary Environmentalism as Domestic Orientalism." *The Ecocriticism Reader: Landmarks in Literary Ecology*. Ed. Cheryll Glotfelty and Harold Fromm. Athens: University of Georgia Press. 1996. Pp. 138-140. Mazel develops a similar argument with regard to United States National Parks and the history of Native American removal in his book, *American Literary* 

Appropriately enough, he articulates these arguments in a review of midcentury science fiction films, which often portray armies of oversized insects (many of which are, of course, "drones") overtaking middle class civilization ("Dark City: White Flight and the Urban Science Fiction Film in Postwar America."

change the racial composition of America's cities, white flight to the suburbs emerged not just as a socioeconomic process (exemplified by narratives such as that of the Drones), but as "an ideology rooted in both a historical preference for private rather than public life and in contemporary anxieties about subversion and deviance" (53). The very same Federal Housing Authority and Veterans Administration loan policies which helped white families such as the Drones find their place in suburban developments were systematically turned against their minority counterparts (a practice known as "redlining"), while tax dollars drained away from urban areas and into the burgeoning suburbs, effectively creating an "environment of poverty" for citizens of color left behind (57-58). These trends were driven, Avila claims, through a "mechanism of private property" which replayed the basic exclusionary gesture of postwar domesticity, isolating and insulating individual family units (in the sense of both houses and their occupants) to create developments which were homogenous in both race and class. <sup>60</sup> Avila's analysis deepens the critique of suburban life that Keats and others offer, showing how the social denominations of race and class functioned, under the aegis of private property, to create the "pristine" environments of the suburbs by shutting out any specter of difference. More fundamentally, however, these critiques help us understand how "nature" was levied by postwar culture to express social concerns: the "fresh air" which drew so many Americans into the suburbs, in other words, also concealed within itself the erasure of the

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Classic Hollywood, Classic Whiteness. Ed. Daniel Bernardi. Minneapolis: University of Minnesota Press. 2001). Though Avila's argument is primarily focused on the role race plays in the depiction of alien enemies, much of what he says can also speak to part class played in the making of the American bourgeoisie.

<sup>&</sup>lt;sup>60</sup> Avila gives the example of contract cities such as Lakewood, CA, which were founded after the war to host the influx of World War Two and Korean War Veterans. Through city charters and mortgage agreements, cities like Lakewood were able to prevent any families deemed inappropriate from buying homes within their municipal limits.

diversity, public space, and, often, the ethic of pluralism that characterized the environment of the city. Closing its doors to this urban environment, and drawing back its curtains to the suburban sunshine, postwar domesticity marked out a precarious place for itself between vulnerability and control—a place which writers concerned with the problem of the American environment had already begun to question.

## The Home Front: Domesticity in a Mobilized Nation

The new "human artifice" of postwar domesticity, with its attendant rhetoric of progress and prosperity, not only transformed material life for many citizens, but also, more subtly, linked the domestic realm with contemporary political realities in new ways. This was largely because the new material conditions of domestic life were byproducts of some of lethal new technologies developed for the war effort; indeed the "good life" that characterized the new synthetic human environments of the postwar period was increasingly premised on the ability to kill broadly and efficiently. The dynamics of warfare, forever altered by the powerful new technologies developed during the Second World War, had introduced new conceptual paradigms by which living populations could be understood. "The tragedy of our age," Ralph E. Lapp would write in his 1962 *Kill and Overkill*, "is that the very time when science has reached a position where it can enormously improve man's life, its main thrust has been turned to destructive applications." The deployment of the first atomic weapons in 1945 and the subsequent nuclear proliferation throughout the world had transformed the United States into "an

<sup>&</sup>lt;sup>61</sup> Ralph E. Lapp, *Kill and Overkill: The Strategy of Annihilation*. New York: Basic Books. 1962. Pp. 100.

arms economy and a weapons culture," and divided the populations of the world, along national lines, into resources of the state or menaces to the state (148). Many readers will be familiar with what Lapp calls the "dehumanized terminology" of nuclear war games— "55 megadeaths'," he quips, "does not sound as bad as 55 million American dead" —yet it is difficult to overestimate the sweeping social transformation compressed within the new presence of "the Bomb" (100).

According to Edmund Russell, however, the epistemological shifts which lead to the "nuclear age" stemmed not simply from discoveries in atomic physics, but from what he calls a "co-evolution" of the idea of modern warfare and the control of nature. He cites, on one hand, the development of potent new chemical pesticides for the use of U.S. servicemen who faced deadly and unfamiliar insect-borne diseases, such as typhus and malaria, overseas. He points, too, to the emerging strategy of eliminating entire populations of insects—rather than simply larval forms—with new technologies such as aerosol sprays or "bug bombs." Taken together, Russell argues, these new techniques gave rise to a policy of "annihilation" against "enemy" populations of insects that carried, analogically, into military strategies against Axis powers. A cartoon published in the U.S. Marine magazine *Leatherneck* in 1945, for instance, demonstrates the emerging semiotic interdependence of human and insect enemies. Portraying a louse-like creature with stereotypically slanted eyes and fearsome buck teeth—labeled "Louseous Japanicas" the cartoon reads:

<sup>&</sup>lt;sup>62</sup> See Edmund Russell, *War and Nature: Fighting Humans and Insects with Chemicals from World War* Two to Silent Spring. Cambridge: Cambridge University Press. 2001. David Kinkela ("The Ecological Landscapes of Jane Jacobs and Rachel Carson." American Quarterly 61:4 (December 2009). Pp. 905-928) describes Rockerfeller foundation scientist Fred Soper: "Soper introduced the idea of insect eradication as a viable method of public health, claiming that the campaign 'should be organized as an anti-mosquito service rather than as an anti-malaria service'" (from letter to Wilbur Sawyer, November 23, 1938) (Kinkela, 912).

The first serious outbreak of this lice epidemic was officially noted on December 7, 1941, at Honolulu, T.H. To the Marine Corps, especially trained in combating this type of pestilence, was assigned the gigantic task of extermination. Extensive experiments on Guadalcanal, Tarawa, and Saipan have shown that this louse inhabits coral atolls in the South Pacific, particularly pill boxes, palm trees, caves, swamps and jungles. Flame throwers, mortars, grenades and bayonets have proven to be an effective remedy. But before a complete cure may be effected, the origin of the plague, the breeding grounds around the Tokyo area, must be completely annihilated.<sup>63</sup>

As Russell notes, "A month after the cartoon appeared, the United States began mass incendiary bombings of Japanese cities, followed by atomic blasts that leveled Hiroshima and Nagasaki," targeting not just enemy forces, but the entire population which supported them. "Although *Leatherneck*'s cartoonist surely intended his cartoon to be humorous and hyperbolic," Russell continues, "annihilation of human enemies had, by the end of the war, become realistic" (119). From this vantage, the "Louseous Japanica" can help us understand how biological war against lice—which did, indeed, plague U.S. servicemen in new overseas environments—can be translated into the language of the political war against the Japanese, and vice versa. A political war *is*, in this case, a biological war, because enemy ideology—the "way of life" against which one fights—interpolates the bodies, the bare lives, of those living in the enemy State. By the same token, maintaining one's own "way of life" against enemy "pestilence"—that is, maintaining the social and political codes by which life *must be* conducted to assure survival as a distinctive culture—becomes an act of war in and of itself.

Russell, however, makes the critical point that the idea of annihilation—along with the strange conflation of insidious enemies, both human and insect, which it

<sup>&</sup>lt;sup>63</sup> This image is displayed in Russell, 120, and originally derives from an article by Sgt. Fred Lasswell, USMC, titled "Bugs Every Marine Should Know." *Leatherneck* 28 (Mar. 1945). Pp. 37.

carried—became more, rather than less, established within the U.S. cultural imagination after the war years had ended. Another cartoon Russel cites—this time from a chemical industry magazine, Soap and Sanitary Chemicals—represents the remarkable convergence of battle front and home front as the United States reconfigured its postwar identity. The ad demonstrates insecticides for home use, boasting products which provided Super Ammunition for the Continued Battle of the Home Front. Mixing the rhetoric of war and peacetime, the ad pictures a housewife clad in apron, high heels, and an army-issue helmet, armed with spray gun. She holds two surrendering insects at bay by her kitchen sink. Three lie dead at her feet, and others peer out from trashcans and cabinets. As this image indicates, the chemical industry was now seeking ways to retrofit its new products for a peacetime economy, and this new vision of economic transformation was centered around the home.

In fact, new chemical compounds such as DDT (dichlorodiphenyltrichloroethane) did continue their terrific wartime boom in production and sales as they were successfully repackaged for commercial and industrial markets in pest control. Similarly, programs to control the infestation of subversive pests at home took on a pre-emptive character, spawning a novel branch of biological science, with institutional appointments often sponsored by industrial interests: "preventative entomology." This new discipline sought to eliminate insect populations before they became threats to agriculture or public health. Synthetic pesticides began to appear everywhere from farmers' fields to kitchen cabinets,

<sup>&</sup>lt;sup>64</sup> Russell also cites Winston Churchill's comparison of Communists and "white ants" (or termites) in a 1946 address at Columbia University (see Russell, pp. 137). According to this line of thought, just as termites worked in mechanistic ways to undermine the structural integrity of homes and other buildings, Communism's denial of liberal freedoms could, according to this logic, subtly attack the foundations of democratic society.

<sup>&</sup>lt;sup>65</sup> "Super Ammunition for the Continued Battle on the Home Front." *Soap and Sanitary Chemicals* 22 (Aug. 1946). Pp. 115. Displayed in Russell, 169.

infused into lumber and into the fibers of blankets and clothes, leaving traces on lawns treated in city and state-sponsored spray campaigns and on produce and canned goods coming into U.S. homes. Indeed, as Russell argues, these powerful new compounds—known collectively as chlorinated hydrocarbons, or simply "synthetics"—not only came to represent human beings' hard-won ability to redesign the environment in their favor, but also a new era of health, prosperity, and what *Reader's Digest* called in its May 1944 edition a "total victory on the insect front." Pest control, in effect, had become a metaphor for the way in which military and scientific innovations of World War II had redesigned the relationship of nature, culture, and power in geopolitical, commercial, and cultural terms. This new American "way of life" was premised on a survivalist politics of continuous mobilization—a politics based on scarcity, disaster, and want—but the violence of its origins was supplemented by the outward expression of the wealth, contentment, and prosperity of postwar domesticity. 67

### **Human Ecology and the Environmental Impulse**

The powerful combination of industry, science, and government had thus changed public expectations for what technology could do in the realms of defense, public health, and private living—a new sensibility perhaps most memorably summarized by the Dupont Corporation's famous motto, "Better Things for Better Living...Through Chemistry." But for all the popularity of this cultural consensus, there were already many

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<sup>66 &</sup>quot;Coming: Freedom from Insect Pests." Reader's Digest, May 1944. Pp. 44. Cited in Russell, pp. 155.

<sup>&</sup>lt;sup>67</sup> Once again, I use supplement here in the Derridean sense—meaning that while the picture of postwar prosperity may seem an addition or a complement to the conflict which preceded it, it is in fact incomplete without the politics of war.

critical voices calling from many arenas for a reexamination of American way of life in the name of a more universal principle, which many of them termed, simply, "life." For many of these thinkers, the crux of the argument was not only that the new technologies that made U.S. living what it had become could radically alter the nature of life on earth, but that they had already begun to erode the social foundations of cities and neighborhoods across the United States. Though arguments about life frequently invoked what might—twenty years later—have been seen as an environmentalist sensibility, their claims about non-human nature were part and parcel of parallel assertions about the health of human communities.

Analysts such as John Kenneth Galbraith and Betty Friedan, though less interested in the kinds of ecological questions a nature writer like Rachel Carson might have tackled, did understand the economy as a species of environmental problem; they leveled their critiques at the kinds of shared communities the new commodity capitalism was working to create, and at the changing, often dwindling role the citizen was given to play in these interrelationships. Galbraith's highly influential *The Affluent Society* argued in 1958 that the central problem of the United States' economy was not, as "conventional wisdom" (a term which Galbraith coined in the same book) argued, the need to keep up production—which, since World War II, had expanded dramatically in both scope and scale. Rather, Galbraith suggested, the "imperative" of production was itself a product of

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<sup>&</sup>lt;sup>68</sup> I have already provided one example of the way in which Carson uses life as a general term. As I will demonstrate in subsequent chapters, Carson's use of the term in her 1958 letter is exemplary of a long practice of discussing "life" in a kind of natural-historical manner in which individual lives merge with the evolutionary story of life on earth. E.B. White's 1956 essay "Sootfall and Fallout" characterizes the nuclear proliferation crisis as "a vast riddle...dependence on a strength that is inimical to life." "What we are really doing," White quips, showing his sense of the directionality of "life," "is fighting a war that uses the lives of future individuals, rather than the lives of existing young men." (See White, "Sootfall and Fallout." *The Points of My Compass: Letters from the East, the West, the North, and the South.* New York: Harper and Row. 1962. Pp. 88).

production, with the private sector spending much of its time and energy creating a demand for the products it produced, and the public sector, as a consequence, suffering from everything from an inadequate school system to not enough parking spaces. <sup>69</sup> This intensification of the production and consumption arms of the economy lead to a "social imbalance" that locked citizens into a consumerist lifestyle, with few alternatives for expressing social or political identity.

Betty Friedan shared this bleak assessment of the new citizenship from a feminist perspective, and in her 1963 The Feminine Mystique she observed that the plethora of time saving products—from household cleaning devices to processed foods—made available to United States homemakers had, contrary to their promise to enhance quality of life, actually reduced these women to the role of chief conspirators in the consumerization of American life. This situation, she claimed, "was a byproduct of our general confusion lately of means with ends; just something that happened to women when the business of producing and selling and investing in business for profit—which is merely the way our economy is organized to serve man's needs efficiently—began to be confused with the purpose of our nation, the end of life itself. No more surprising," she concludes, "is the subversion of women's lives in America to the ends of business, than the subversion of the sciences of human behavior to the business of deluding women about their real needs."<sup>70</sup> In this confusion of "business" and "life itself," then, the problem of the environment becomes relational—a question of how to bring individuals into right relation with the networks of which they are a part. In attempting to domesticate the politics and economics of war through the consumerization of the

<sup>&</sup>lt;sup>69</sup> John Kenneth Galbraith. *The Affluent Society*. London: Hamish Hamilton. 1958.

<sup>&</sup>lt;sup>70</sup> See Betty Friedan, *The Feminine Mystique*. New York: Norton. 1963. Pp. 107-108

American citizen, Friedan's comments suggest, the united forces of industry, science, and government had misappropriated the true function of the domestic space—to foster and further life itself.

Similarly, Jane Jacobs' seminal *The Death and Life of Great American Cities* (1961) examined the social and structural evolution of what David Kinkela has called the "ecological landscape" of the United State's cities. Both Jacobs—and, as Kinkela argues, Carson—"embraced ecology as an alternative model for human development," one that critiqued the landscape of modernity "forged by social reformers and modernist thinkers who...embraced rationality, efficiency, cleanliness, and order to reshape U.S. lands and reinforce the boundaries between cities and nature" in the first half of the twentieth century. 71 Jacobs, together with architectural historians such as Lewis Mumford, could be linked in their shared sense that the built environment—at least the one currently under construction in the postwar years—no longer reflected the social principal of community, but a warlike process of annihilation and reconstruction. Kinkela links their critique not only to "the ideology of suburban dreamers, who transformed agricultural lands into prefab bedroom communities," but to "pest control specialists, many of whom embraced eradication as the most effective and efficient means to annihilate insects" and "city planners, whose wrecking-ball approach to urban design destroyed what Herbert Gans called 'urban villages'" (912).<sup>72</sup>

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<sup>&</sup>lt;sup>71</sup> Kinkela, David. "The Ecological Landscapes of Jane Jacobs and Rachel Carson." *American Quarterly* 61:4 (December 2009). Pp. 905-928. See also Jane Jacobs, *The Death and Life of Great American Cities*. New York: Random House. 1961.

<sup>&</sup>lt;sup>72</sup> Kinkela also cites from a letter from Mumford to Jacbos, dated July 22, 1958. Mumford writes: "I suppose when I suggest that if anything survives this age it will be known, retrospectively, as the age of wreckers and exterminators." (See Kinkela, pp. 12)

Perhaps the most thorough treatment of "human ecology"—the study of the relationships between human beings, human societies, and their natural, social, and created environments—was Murray Bookchin's Our Synthetic Environment, published in 1962 under the pseudonym Lewis Herber. <sup>73</sup> Bookchin was among the first to suggest that a study of chronic illnesses associated with pollutants, rather than the acute effects of laboratory exposures on animals or of accidental exposures, would reveal the public health cost incurred by pesticides. Bookchin's sense of "environment" as land, water, and sky that "remember" human behaviors and change in reaction to them—say, for example, in storing up pollutants that can then become a serious public concern—contributed significantly to early ecological thinking, though Bookchin would later claim that Synthetic Environment never achieved the iconic status of Silent Spring because it too incisively attacked postwar America's "forthright belief that we need to 'grow or die'" (xxxiii). He shares a key assumption with Galbraith and Friedan, however, in his conviction that it was not just "fraud" on the part of the military-industrial-scientific complex, but the culture's well-intentioned belief in a certain kind of capitalist principle, which threatened the health of ecological and social communities.<sup>74</sup>

The success of each of these arguments, however, depended in part on a public which had found reason to suspect the new culture of convenience and plenty. In a very

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<sup>&</sup>lt;sup>73</sup> See Lewis Herber (Murray Bookchin), *Our Synthetic Environment*. New York: Knopf. 1962. The field of human ecology originated in the beginning of the twentieth century when social scientist began to apply the science of ecology—itself a relatively new field—to the study of human impact on the biotic world, and the vice versa. Human ecologists, tend to regard environmental problems in conjunction with social problems. Despite its being (arguably) a more complete and provocative text on the effects of anthropogenic chemical pollution, *Our Synthetic Environment* was almost completely overshadowed by the publication of *Silent Spring* in the same year.

<sup>&</sup>lt;sup>74</sup> This is a claim which, in the analysis of *Silent Spring*'s popularity, bears more attention than it receives here. The role which capitalism might play in a more environmentally sound society continues to be a serious point of debate in the modern environmental movement. I will attempt, however, to address some aspects of consumerism and environmentalism in the fourth and fifth chapters.

broad sense, the multiple "food scares" which occurred in the late 1950's, largely as a result of the mechanization of American food production, were beginning to reveal previously unimagined dimensions of the "synthetic environment." These scares had their origins in the profound changes in U.S. agricultural methods that began to sweep across American farmers' fields during the era. The chemical cacophony of pesticides commercially available after the war also brought with it many innovations in fertilizers, promising a bountiful new era of high-yielding, pest-resistant crops. Both pesticides and fertilizers depended on a plentiful supply of petroleum, from the details of their molecular composition to the fuel needed to power the large machines used in their application. This was an acceptable provision for a country concerned equally with being able to feed its rapidly growing population and with the astounding rate of global population growth. At the same time, many American farmers found the transition to large-scale industrial farming prohibitively expensive, and a "farm crisis," quietly cited in hundreds of farming community newspapers around the country, began to develop. Patricia Murphy notes that "the rise of agribusiness reflected structural changes similar to those in the nation's other industries, as large overtook small and technology encroached on labor.",77

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<sup>&</sup>lt;sup>75</sup> Given the recent rash of food scares America has experienced in the past five years—with dangerous bacterial strains resulting in the recall of raw spinach (2006), tomatoes (2008), and peanut butter (2007), to name a few—the problem of the "synthetic environment" appears to have taken a dreadful new turn. What remains the same, however, is the disjunction between corporate practice and consumer safety.

<sup>76</sup> In his comments upon the connections between environmentalist discourse and a "neo-Malthusian" concern over global population growth, James Ridgeway not only notes that the noted conservationist, Fairfield Osborn, had a professed interest in eugenics (*The Politics of Ecology*, 181), but that the 1950's were indeed the era of the formation of such non-governmental organizations as Planned Parenthood and the Population Council (183).

<sup>&</sup>lt;sup>77</sup> Most of the coverage of the issue was, as Patricia Murphy notes, "sentimental," addressing "the impending doom of the family farm." (See Murphy, Patricia Coit. *What A Book Can Do: The Publication and Reception of Silent Spring.* Amherst: University of Massachusetts Press. 2005. Pp. 11). But Gerry Walter's study of farming magazines in the era, which were heavily funded by pesticide, fertilizer, and

As the public would soon learn, the farm crisis had another dimension, both more alarming and more immediate, with which to reckon. In November of 1959, only weeks before Thanksgiving, Secretary of Health, Education, and Welfare Arthur S. Sherwood advised consumers of the potential contamination of U.S. cranberry crops by aminotriazole, a weed killer recently shown to cause cancer in rats. The resulting panic caused a catastrophic collapse in cranberry sales, and the industry's slow attempts to distinguish between tainted and untainted lots did little to allay the "public panic" that ensued. More importantly, as Patricia Murphy notes, "The memory of that scare would be held in the public mind as a message that pesticides could harm humans, that they could find their way into the food supply, and that the government had a mandate to protect consumers." A similar outcry occurred in the late fifties over the discovery of strontium-90—as well as pesticide pollutants—in cows' milk. A radioactive byproduct of nuclear weapons tests, strontium-90 was shown to drift to earth in fallout dust and to be consumed by dairy cows in pasture, only to pass into the milk they produced and, from there, into the bones of those who consumed the milk. This unlikely connection between the products of global war and the particular food that served, as Journal of Agricultural and Food Chemistry put it, "as the principle item in the diet of infants, the infirm, and the aged" sharpened the public's understanding of bioaccumulation—the process whereby substances in the environment make their way up the food chain, becoming ever more

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agricultural equipment producers, reveals the new "ideology of success" the industries attempted to promote through articles telling the "stories" of innovative farmers. "In the early decades of post-WWII industrialization," Walter writes, "the narrative's focus on productivity and growth largely separated the successful farm business from the rest of family and community life" (604), and the virtues most often cited by such articles included "productive," "business-oriented," "controlling nature," "analytical," and "efficient." (See Walter, Gerry. "The Ideology of Success in Major American Farm Magazines, 1934-1991." *Journalism and Mass Communication Quarterly*. 73:3 (Autumn 1996). Pp. 594-608)

78 See Murphy, What a Book Can Do: The Publication and Reception of Silent Spring. Pp. 15-16.

concentrated and potent as they do. <sup>79</sup> But it also touched a sensitive place in the American psyche, suggesting that the weapons of annihilation could be subtly and powerfully turned against their wielders, *through* the previously unacknowledged continuity of life forms. The domestic had become visibly united with Cold War politics through the insights of ecology. So pressing did the need for a more ecological understanding of the effects of pesticides, fallout, and other environmental toxins become that in 1957 the U.S. Fish and Wildlife Service initiated Operation Life, a program to investigate the biological effects of contaminants at all levels of the food chain "sufficiently to manage it in accordance with the best interest of our expanding population."<sup>80</sup>

## The Nuclear Family: Judith Merril's Shadow on the Hearth

One of the most radical and complex critiques of the ascending technocracy in the postwar United States came both surprisingly early and in a decidedly *un*-expository form: Judith Merril's 1950 novel, *Shadow on the Hearth*.<sup>81</sup> Merill is typically listed among the ranks of the New-York based science fiction authors of the midcentury, including J. G. Ballard and Isaac Asimov, and is still remembered as formative figure in

<sup>&</sup>lt;sup>79</sup> Decker, George C. "Significance of Pesticide Residues in Milk and Meat." *Journal of Agricultural and Food Chemistry*. 7:12 (December 1959) Pp. 823

<sup>&</sup>lt;sup>80</sup> See Buhs, Joshua Blu. "Dead Cows in a Georgia Field: Mapping the Cultural Landscape of the Post World War Two Pesticide Controversies." *Environmental History*. 7:1 (January 2002) Pp. 101-102.

<sup>&</sup>lt;sup>81</sup> See *Shadow on the Hearth*. Garden City, NY: Doubleday & Company, Inc. 1950. I do not mean to claim that Merril was alone in the critique she made of midcentury middle class society. A recent reminder of such critical consciousness can be seen in Sam Mendes' 2008 adaptation of Richard Yates' domestic novel, *Revolutionary Road* (1962). Indeed, such a comparison begs the question of what separates Merril's novel from other, more conventional meditations on domestic life. One could argue that the only significant difference in Merril's novel is that the "bomb"—that emblem for the explosive end of quotidian society—has already been dropped.

this largely male milieu. Her most important contribution, one might argue, was her sense of what science fiction as a genre could accomplish in the way of cultural work. In her estimation, science fiction could provide not only a medium of dissent—a "widely-read medium for protest and dissent in a witch-hunted country"—but, with its distinctly inventive quality, a critical tool for imagining what might otherwise be. "Science fiction," as she wrote, "is not about science, but fiction which endeavors to find the meaning in science and in the scientific technological society we are constructing."

Accordingly, Shadow on the Hearth recreates in all its quotidian detail the domestic life of an average suburban family of the 1950's—the Jon Mitchells of Westchester County—but under one rather extraordinary condition: the Mitchells unwittingly find themselves, along with millions of their fellow Americans, the victims of a full blown nuclear attack against the United States. Indeed, the book's first chapter features a striking collision of the banal and the catastrophic as we find Gladys Mitchell, the homemaker of the Mitchell house, inadvertently witnessing the disaster from the relative safety and comfort of her laundry room. Upon hearing the air raid sirens meant to warn citizens of the impending danger, Gladys mistakes them for a more familiar, but equally evocative sound—the factory whistle which once called Jon and her to their shifts:

...the sound had fitted perfectly into her memories, but it had no place in lower Westchester. Even as she listened the sound died away, too short-lived for a factory call. And the timbre of it was different. In spite of its shrillness it could almost have been mistaken for thunder, if the brilliant sunshine streaming through the high window hadn't just then redoubled in its intensity, bathing the whitewashed cellar walls with a deluge of red-gold light. She shook her head and

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<sup>&</sup>lt;sup>82</sup> This quote derives from Merril's introduction to *Science Fiction: The Best of the Best*. New York: Delacourt. 1967. Pp. 5. Quoted in Dianne Newell's "Home Truths: Women Writing Science in the Nuclear Dawn." *Journal of American Culture*. 22:3 (2002). Pp. 193-203.

tried to dismiss the whole thing, but for some reason the sound, dead now in reality, lived on inside her head, eerie and almost frightening. Then, as if to fit her change in mood, the small window darkened and the reassuring brightness of the sun disappeared. (11-12)

For Gladys, clearly, the more apparent nightmare is not the threat of nuclear catastrophe which, as in the book's actual historical context, has lain over the United States since the end of the war, but an unexpected return to her family's recent past "in a rooming house near Fort Bragg," or "in a series of Manhattan walkups, each with its identical small dark kitchen, each with the same stained double-duty sink" (11). That the siren should evoke this stream of memories, rather than the immediate panic one might reasonably expect, or even a more distant recollection of other cities recently terrorized in the previous war, speaks volumes to the psychosocial condition of the postwar middle class which Merril portrays. The *real* enemy, for Gladys Mitchell, is not a foreign combatant, but the domestic situations—the rented rooms and cramped quarters—which lacked the privacy and privilege of her Westchester home, the ways of life through which she and her young family struggled before achieving the "dreams that had since come true" (7). So embedded in the ideology of the domestic has Gladys become that, as Merril subtly suggests, even the heralds of nuclear doom are now filtered for her through the sights and sounds of the suburbs. The detonation of a nuclear bomb registers as the "thunder" of a passing storm, and the lethal nuclear flash assumes the form of "brilliant" sunshine" on whitewashed walls. White-washing, indeed, becomes a grimly apt metaphor to capture a protagonist who, as we later learn, forbade her children to discuss nuclear war or nuclear weapons because "I never really believed any nation would use it this way"—in spite of the fact that, as another character irately points out, "We did... We used it in 1945. In Japan" (24, 57).

But Merril's method is not merely to satirize, or to expose Gladys and her family as ignorant Americans in the thick of postwar complacency. *Shadow on the Hearth* is as much about demonstrating the collapse of the insular suburban world created by postwar prosperity as it is about reconstructing new webs of dependence and survival within the technological nightmare-come-true that is the dark side of the atomic era. In this sense, the domestic filter on Gladys' senses can be reversed, through Merril's deft handling of her protagonist, to help us understand not only her insulation from the obvious signs of danger in a geopolitically volatile world, but her active desire to reassemble the household so thoroughly shattered by the attack. In the process, the home and family structure which had once been defined by *exclusion*—by shutting out the city, the poverty, and the socioeconomic vulnerability of the Mitchell's former lives—transforms into an inclusive assembly of domestic workers, harbored dissidents, and neighbors, a kind of *makeshift* family.

Though I have already alluded to a kind of claim for "community" at work in the writing of Keats, Merril, and the social critics I reviewed in earlier sections, I want to avoid making an uncomplicated argument for the benefits of this oft-summoned virtue. As Miranda Joseph has usefully noted, "Rather than simply referring to an existing collectivity, invocations of community attempt to naturalize and mobilize such a collectivity: on both left and right community is deployed to cover consciousness of difference, hierarchy, and oppression within the invoked group." My choice to describe the group which eventually comes to populate the Mitchell home as a "makeshift" family, then, is very deliberate: it draws upon Michel De Certeau's conviction that the

<sup>&</sup>lt;sup>83</sup> Joseph, *Against the Romance of Community*. Minneapolis: The University of Minnesota Press. 2002. Pp. xxiv.

"innumerable practices by means of which users reappropriate the space organized by techniques of sociocultural production" can reveal important counter-narratives to the discourses which appear to rule our everyday lives. <sup>84</sup> Specifically, in the case of Merril's novel, the assembly of characters who come to live in Mitchells' house in response to the disaster create an improvised "household" which exposes the idealized nuclear family—the precise set of conditions which the Mitchells have worked long and hard toward—as precisely the formal construction that it is. In this sense, "community" is the model of cooperation and social cohesion that suggests itself in lieu of a more traditional domestic structure. It does not refer to just *any* collectivity, but to a working—if temporary—arrangement of partners whose material survival depends upon one another. This "community," as I will show, is distinguished by the "clandestine forms taken by the dispersed, tactical, and makeshift creativity of groups or individuals already caught in the nets of 'discipline'" (De Certeau, *xiv-xv*). <sup>85</sup>

The metamorphosis from domestic to communitarian occurs both in Gladys' thinking and, more broadly, in the critical consciousness the book develops. It culminates in two critical moments: first, Gladys' decision to renounce the special place offered to her and her children on an evacuation train. Eschewing the chance to escape the grim reality that her dream home has become, Gladys chooses instead to remain behind with the possibility that her husband—last seen on his way to work in the City—might eventually return, and with the motley crew of characters that has become her household.

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<sup>&</sup>lt;sup>84</sup> See Michel De Certeau, *The Practice of Everyday Life*. Vol One. Trans. Steven Rendall. Berkeley, CA: The University of California Press. 1984. Pp. *xiv*.

<sup>&</sup>lt;sup>85</sup> As this last word suggests, De Certeau is responding directly to Michel Foucault's concept of "disciplinary technologies" as elaborated in *Discipline and Punish: The Birth of the Prison (Surveiller et Punir: Naissance de la Prison*, 1975). In fine, De Certeau attempts to detect the libratory possibilities in the gaps, the loopholes, of the institutionalized world Foucault describes.

The real value of the domestic, Merril seems to assert here, is in the human relationships it fosters, and not necessarily in the privilege that the appliance-filled, two-car-garaged, ranch style home had come to fetishize in the midcentury cultural imagination. The second, and equally stunning revelation at the books' conclusion comes with the insight that the radiation sickness which has been troubling both of Gladys' daughters, Barbie and Ginny, rode into the house on none other than Pallo, Ginny's toy horse, which was left outside in the atomic "rain" that followed the detonation of the bomb. The shock of this discovery—which thoroughly darkens Gladys' "clear picture" of "the worn blue horse and the pink and white girl safe on the pillow together"—undermines any sense that even the soundest structures that separate the domestic realm from its environment can guarantee the safety of the loved ones within if *the environment itself* is not equally well cared for (275). Merril's conclusion, then, points toward a frightening future in which a drastically altered environment poses a serious threat to human health, but also showcases the potential for new social networks to negotiate the new dangers together.

Initially, Merril conjures a world for Gladys that is—almost claustrophobically—bounded by the confines of home and neighborhood; beyond these strictures lies not only the physical reality of the City, but the lingering specter of her family's less "comfortable" past, as clearly shown in a scene in which Gladys, while doing her dishes, looks out through her "casement window": "She could never look out this way, across the clean green sweep of the broad back yards, her and her neighbors', without a sharp contrasting memory of crowded dim-lit flats and furnished rooms in the city" (7). In fact, it is precisely Gladys' decision to stay home, rather than attend a luncheon in the City, that effectively shelters her from the worst of the attack, as witnessed in the scene I have

already described. Even after the bombing has taken place, however, Gladys' profound attachment to her domestic space continues to manifest itself in a number of ways. When Barbie and Ginny arrive home from school for instance, Gladys devotes her efforts not only to keeping them safely indoors (as emergency radio announcements have instructed her to do), but to control their knowledge—particularly Ginny's understanding—of the disaster. Though Barbie, a teenager, has a somewhat clearer grasp on the situation (perhaps even more so than her mother), Gladys nevertheless works hard to maintain the sense that everything is normal, safe, and in good order: "She switched on the radio, loud, and turned it down again immediately, keeping the rush of words locked up in the room with her, not letting them get out to do their damage upstairs" (19). While these may be interpreted as appropriate actions for the mother of a small child, they are carried out with an almost obsessive diligence, with a frustrated Gladys at one point berating her elder daughter, "Don't scare her. Don't tell her she can't go out. Just keep her interested in something in here" (18). Gladys becomes, in effect, a personification of the house itself, closing doors and shuttering windows, regulating movements, and creating a hermetically sealed space of safety for her children while the public world is in chaos.

In the neighborhood outside the house, a similar condition prevails with, as Merril puts it, "danger locked out and fear sealed in" (218). Civil defense patrol trucks range the streets, ensuring the citizens remain in their homes, taking urine samples to test for radiation sickness, and dispensing packets of instructions for survival. Gladys finds herself in the slightly awkward position of facing a neighbor—Jim Turner, whom she has suspected of cheating on his wife during the numerous "business trips" he had taken over the years—who had been secretly training as a civil defense agent. From beneath his

bulky safety suit, Turner explains, in the beefiest of American dialects, "When you want to win you got to keep a poker face and play it close to the vest. And any time the government let out any information about what we were doing some scientists would start yelling about warmongers, or some reds would have a demonstration" (54). The State's management of the populace also extends to radio and telephone services, as Gladys finds herself unable to find any information about her husband's whereabouts; her household, along with each address on every street, and all the numbers in the directory, have been atomized into individual units in the State's disaster recovery schema, receiving information from authorities but unable to communicate fully amongst themselves. Each is caught, as she soon realizes, in an enormous "one way connection" (21). The text's most dramatic image of this alienation occurs as Gladys and her children, accompanied by a newly-befriended civil defense agent, Doctor Spinelli, make their way through a largely evacuated suburb to take Ginny to the hospital. This scene, one might argue, dramatizes the logical extreme of the ideology of postwar domesticity, stripping the neighborhood of the various souls that gave it life, and leaving only the bare, unlighted architecture of the suburbs—hundreds of dream houses now shuttered or empty:

Every familiar pattern of the suburban night was gone. There were no late cars coming back from town, no lonely men out walking in the night, no hastily dressed women pulling on the leashes of their dogs...Throughout the five-mile drive there was nothing to stop the car, hardly anything to slow it down. The headlights pushed a golden fan ahead, to underscore the darkness all around, picking out blind street lamps and dead traffic lights in their glare. The only signs of life they passed were squad cars and trucks parked here and there on neighborhood patrols. And when they hit the highway, even the trucks were gone. (241-242)

Merril's point seems all too clear: the technological modernity which underwrote the comfort and security of the suburban lifestyle was only one step removed from the threats

it sought to block out. In their truest light—the "shadow on the hearth" cast by the realization of nuclear age's worst fear—the suburbs are revealed as the triumph of form over function, of the modern design of neighborhoods over the lives of those who actually dwell in the homes.

But even as Merril tests the supposed self-sufficiency of the Mitchell home and the suburban lifestyle it embodies, her plot loosens the rigid structure of the nuclear family, configuring new sources of aid and support in what becomes, by the close of the book, a new community. Jon Mitchell, of course, finds himself stranded amidst the ruins of his workplace in Manhattan, badly shocked and disoriented, but otherwise unharmed. His quest to return home—which might, in a more traditional science fiction text, have dominated the plot—is documented in rather oblique, hazily-narrated vignettes which precede three of the major sections of the book. While this technique does, in one sense, marginalize Jon as a figure peripheral to the household itself, it also demonstrates that the household reaches beyond the seemingly closed borders of the private sphere, not only into the city, but into the chaotic wreckage thereof.

Similarly, the Mitchells' son Tom, away at college on an ROTC scholarship, expands the family's network of affinity beyond mere civilian life. As we later learn, Tom has always been interested in the science of nuclear defense, and an official telephone call alerts Gladys that he has been recruited as a technician for the war effort. Far from a tragic separation between family and son, Tom's sister Barbie views his mobilization as a thrilling kind of fulfillment: "He always knew it would happen," she tells her mother, "but you never let him talk about it, and he was always wishing it would wait till he was old enough and now he's *in* it, don't you see?" (24). Importantly, too, it is

Tom's old school books and science magazines to which his mother and sister first turn in order to try to learn more about what to expect from the post-apocalyptic environment. Though Merril's focus remains steadily on the world behind the walls of the Mitchell house, she is careful to show that the household itself depends upon, and contributes to, the massive structures of national economy and national defense. The central "ecological" insight of Merril's text comes to bear in the narrative threads which connect the domestic space with these vital life signs of the state. 86

Another reel of the Mitchells' plot entwines their neighbor, Edie Crowell. A well-heeled socialite, whom Gladys first glimpses as "a tall graceful figure in tailored slacks, floppy hat, and worn gardening gloves, perfectly in place in the well-planned flower garden back of the big white colonial house," Edie is at first something of an agonistic character, ever trumping Gladys in terms of wealth, graces, and social connections her neighbor has only recently "earned." As Merril puts it, Gladys is hounded by the notion that Edie's "tea-table conversation" tones make her own voice sound "like a fishwife's cry" in comparison (8). But after the disaster, the balance begins to shift. Receiving a number of "hysterical" phone calls from Edie (who, like Gladys, finds herself stranded in her home, her husband's whereabouts unknown), Gladys reluctantly agrees to take her in. At close quarters, much of the fine veneer which has distinguished Edie falls away; Gladys discovers that Edie has dealt with the pressures of the attack by drinking heavily ("she's nothin'," retorts the Mitchell's maid, Veda, "but stupid drunk"), and even finds

<sup>&</sup>lt;sup>86</sup>Mick Jackson's 1984 film *Threads* documents the rapid deterioration of life in Sheffield, England, after the working-class city is destroyed by a nuclear bomb. As the title indicates, the film pivots upon the metaphor of the "threads" which once bound Sheffield into a working unit—threads which begin to thin into a ragged fabric indeed, after the emergency. "Threads" have indeed proven a useful trope for exploring the social and political effects of environmental catastrophe.

herself the object of veiled appeals for comfort (115). Most difficult to endure are Edie's constant avowals that she is both a victim of radiation sickness and that she has been continually ignored by the civil defense authorities who might help her—all while Gladys struggles to conceal the fact that the disaster has occurred in the first place. "I told you I was," cries Edie, after stumbling clumsily into the Mitchells' house:

"I told you and told you, and I told them, and nobody would believe me.' Still that elegant painstaking enunciation of each syllable. 'Nobody!'" (114)

Surprisingly, however, blood tests reveal that Mrs. Crowell is precisely right, and the steady confidence of her convictions plays a key role in dislodging the faith that Gladys had, up to that point, invested in civil authorities. Indeed, no sooner does Edie depart the scene—trucked off, at last, to the hospital she so badly needed to visit—than Gladys discovers a shocking symptom of radiation sickness in her younger daughter: when she brushes Ginny's hair a large mat of it simply falls out (213). Ultimately, Edie's skepticism, imitating the very disease she bears, "infects" Gladys, leading her to doubt the integrity of the ideology in which she has become entrapped. While the trope of infection was often mustered in U.S. political discourse to describe a pathological infiltration of Communist sympathies in the U.S. populace, Merril invokes the same mechanism to a very different end. This contagion does not distance its victims from their fellow Americans, but places them ever more in sympathy with them; this knowledge does not alienate those to whom it is communicated, but reveals the powerful new danger to which all, regardless of class or creed, are now subject.

The next addition to this widening picture of the domestic sphere is Veda Klopak, the Mitchell's longtime housekeeper. Interestingly, it is Veda who begins the novel, as we find her lying in sick—unaware, just like all her fellow citizens, of the danger to

come—on the morning of the attack. Carefully "sealed off from the world" behind the "weather stripping" in her room and under a "double comforter," Veda miraculously survives a blast that showers the Bronx (where her boardinghouse is located) with "a big dose of hot rain," only to find herself under suspicion with the authorities, dragged first to the Emergency Headquarters as a suspected "saboteur" and then, between two squad men, to the Mitchell's house for the verification of her identity (93). Veda, a black woman who somewhat ironically completes the Mitchell's portrait of white middleclass domesticity in her capacity as a domestic servant, brings with her not only the "usual" spectrum of differences—in terms of race, class, geographical context—that would mark her difference in the Mitchell household, but now, an official charge of subversion. Once, in other words, Veda's presence only *hinted* at the porosity of the suburban domestic unit by illustrating its dependence on the urban labor market; now, thanks to Merril's plot twist, Veda explicitly links a "legitimate" suburban family with her "illegitimate" status in the eyes of the State—blurring the divisions that separate citizens from "second-class" citizens in the United States.

But even more importantly, Veda brings with her a different sense of morale, a studied conviction that she "never saw the time yet the truth wasn't good enough" that disrupts Gladys' family drama of subterfuge and prevarication (119). While this is in one sense simply a difference in parenting styles—Veda prefers to be as straightforward as possible with the children (and everyone else) about what has occurred, whereas Gladys carefully conceals much of what she knows to be true in order to preserve the children's sense of safety—it also reflects each woman's position with regard to the dominant ideology the text criticizes. Veda's own destroyed neighborhood, along with her rough

handling at the hands of officials in the Emergency Headquarters, gives her a perspective from outside the warm domestic world that Gladys struggles to maintain—a provenance which has been abandoned, and even pathologized, by the same authorities that serve and privilege Gladys' neighborhood. This authorized and evident binary of care and neglect does not, for Veda, constitute an argument against domesticity itself; indeed, her first action upon being "returned" to the Mitchells' house is to change into her maids' uniform and start making breakfast for the family. But it does suggest the need to invest her energies in a different kind of domesticity, one which is both more practical—that is, centering on human needs, rather than an abstract conception of household units—and more particular—focused on the care of a specific community of persons—than the concept of care leveraged by the central authorities.

Veda enacts this new practice of domesticity from the moment her official escorts leave, as Gladys attempts to wash up a coffee kettle that has quietly boiled over during the "interrogation":

Veda came through the swinging door and brushed past her, the ridiculous overalls flapping as she walked. Almost at the door of the little back room, she turned back to the sink and deliberately turned off the hot-water faucet.

"I was rinsing that pot!" Gladys said too sharply, and immediately regretted it. There was no sense taking out her feelings on Veda.

"Thought you might be wanting to save yer hot water." Veda's stony assurance was so normal it was incredible. "There's no tellin' how long you'll have it," she finished patiently, as if explaining matters to a small child.

"No telling...? Yes, of course." Gladys looked curiously at the other woman. "Veda, how are things...outside?"

<sup>&</sup>lt;sup>87</sup> It is worthwhile to remember that the era of middle class suburbanization was also the era of the related phenomenon of "white flight," when not only middle class whites, but tax dollars—and therefore infrastructural services—began to drain from formerly thriving inner city narratives.

"Purty bad," she said laconically. "If you don't mind, Missus Mitchell, I'd like to kinder change my things, an' we kin talk afterwards." (95)

Veda's tone in this exchange is both "laconic" and "patient"; she speaks from an experience "outside" that Gladys does not share, but with the recognition that they are both, for the moment at least, in the same boat. Even behind the stereotyped dialect with which Merril asserts Veda's difference from the Mitchells, the meaning in Veda's words, and indeed the prioritization of her knowledge and experience, bring an end to the myopic frame of reference to which the novel has adhered up to this point. <sup>88</sup>

Finally, the Mitchell home is drastically changed by Gladys's decision to harbor an illicit guest: Garson Levy, a local high school math teacher and, as we come to learn, an outspoken critic of the nuclear armaments race. Gladys' acquaintance with Garson begins when she finds him lurking on her porch, late into the first night of the attack; after grudgingly deciding not to scald him with a kettle of hot water, she learns that he has come to warn her of the possibility that her elder daughter, Barbie, might have been exposed to radioactive fallout during a class trip that morning. This is merely the first in a number of favors Levy is able to provide the Mitchells, from helping to fix a leaky gas pipe to teaching Barbie to perform the vital blood transfusions that will enable her to save her younger sister's life. Indeed, over his time with the Mitchells, Doc Levy assumes the role of a surrogate husband and father, providing much of the technical know-how and the listening ear that Gladys sorely needs, and teaching Barbie and Ginny the skills they need to survive under altered wartime conditions. But Levy, like Veda, also needs the

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<sup>&</sup>lt;sup>88</sup> In a more sociological sense, this moment also marks the end of what John Keats described as the limited sphere of postwar homemakers' sources of practical knowledge, a condition which could lead to profound boredom and frustration for the ladies in question. Like a somewhat less inspired Betty Friedan, he argues against the plethora of ladies magazines and for-hire experts who schooled middleclass women in every detail of their lives: "If she simply follows fads, or relies on outside advice for everything from boiling water to buying new drapes, she is well on the way to nonentity." (168)

"endorsement" of the Mitchell family. As a well-known dissident (of "minority" status, as his Jewish surname hints), Levy must constantly hide from the authorities who now patrol the neighborhood day and night, and his plight is made even worse by the radiation sickness from which he suffers. Gladys' decision to take him in—made after she discovers that Barbie has been hiding him in the cellar anyway—marks another important juncture in her movement away from a "desperate housewife"—in the postapocalyptic sense—to a member of a makeshift, but fully functioning community.

Levy's "adoption" into the Mitchell family also marks the apogee of the novel's dramatic relocation of the household relative to its society. In an ever-evolving schema of relationships, the text has revealed the family's link to the national economy and to national security through its own members, shared in moments of citizen complaint through its neighbor, vouched for a suspected enemy operative through her longstanding domestic relationship with them, and, at last, harbored a known and blacklisted enemy of the state within their home—not necessarily in the name of dissent, but as a kind of dissent-through-affinity. The networks into which they have introduced themselves combat the notion that the private sphere *can* or *should* remain apolitical in a situation which threatens public welfare. At the same time, these networks suggest a new medium of citizenship based on recalibrating the domestic instinct to account for not just home, but community.

Indeed, as Gladys Mitchell finds at the close of the text, her decision to aid and abet Doc Levy has gained her the support of more allies than she knew. The young Dr. Spinelli, who began the novel as a reserved civil defense worker, has taken a particular interest in the Mitchell family as more than just clients, but as friends, carefully

explaining the radiation sickness that troubles the girls, rushing the family to the hospital, and turning a blind eye to the contraband blood testing equipment Levy has brought into the house. He does so, as he later explains,

"Partly because you took Gar Levy in. Maybe mostly because of that. You don't know what that means to me. I've been going around with Turner from house to house, going back to headquarters, calming hysterics, taking urine samples, making blood tests, giving first aid—and all the time knowing it's come at last—the whole bloody mess is really here, and we've just been sitting on our backsides all this time, letting it come." (272)

For Spinelli, the Mitchells' gesture of harboring Levy runs deep into the narrative of his own formation as a political subject, an identity which runs parallel with the history of the Bomb. "After all," he recalls, "I was a high school senior, and a science major in Year One of the atom bomb. And I was a college freshman the year Gar Levy was making big noises in the papers with his Survival Kit." Inspired by Levy, Spinelli "had planned on biochemistry...in connection with radiation therapy. Unfortunately the work you can do in that field is negligible unless you can pass a loyalty check. I got turned down for an atomic scholarship because of my—ah—unfavorable associations, Gar Levy among others" (236). Spinelli helps the Mitchells, then, less because their politics cohere—though this is increasingly the case as the Mitchells are plummeted into the dark side of the postwar prosperity they have enjoyed—and more because they have so readily shown the instinct for care. They have, in other words, reversed the valuations of private property and nuclear family which characterized American domesticity before the disaster into a community of neighbors, teachers, friends, and employees in an alternate—and improvised—family structure.

### The Web of Life—Or Death<sup>89</sup>

Ultimately, what makes Merril's book so startling—both as a testament to a kind of proto-environmentalism over a decade before the publication of Silent Spring, and as an object-lesson to the contemporary environmental movement—is the way it folds a concern with the health of public resources such as air and water in with its apprehension about the stability of the human community that constitutes the public in the first place. Instead of reducing the pattern of the nuclear family home to its logical conclusion in the event of disaster—the fallout shelters which dotted the map of the United States in great numbers by the end of the decade—Merril's narration of nuclear war actually demonstrates the Mitchell family expanding, thickening its complex of associations and building new, sustaining connections. When Jon Mitchell finally returns to his home staggering through the door because he has been shot by civil defense authorities who took him for a looter—the event falls into the narrative as a denouement rather than a climax. The dazed "It's Jon, you know. He came home," which Gladys utters upon finally seeing her long-lost husband can barely be heard over the strident echo of the internal questions she was asking herself only a page before: "Isn't anything safe? Not the rain or the house? Not even a little blue horse?...Would anything ever be safe again?"

I draw this section title from a chapter in Carson's *Silent Spring* in which, after tracing the effects of pesticides through the earth's rivers, forests, and weather systems, as well as through the bodies of birds, mammals, and on to human beings, Carson makes the fully ecological nature of the problems she describes apparent. "For each of us," she writes, "as for the robin in Michigan or the salmon in the Miramichi, this is a problem of ecology, or interrelationships, of interdependence...We spray our elms and the following springs are silent of robin song, not because we sprayed the robins directly but because the poison traveled, step by step, through the now familiar elm leaf-earthworm-robin cycle. These are matters of record, observable, part of the visible world around us. They reflect the web of life—or death—that scientists know as ecology" (189). This passage is most striking, I think, for the same reasons as Mitchell's book: it is interested in tracing out the material causes behind the phenomenonlogy of fearful effects through which the "silent killers" nuclear fallout and chemical pollution operate. In uncovering these narratives and the dynamics of power they reveal, it seems, lie the libratory projects of both books.

(275-277). In other words, the completion of the nuclear family which the plot of this domestic novel seems to call for from the very first becomes secondary to the revelation that the idea of the domestic itself is badly in need of rethinking.

Instead, Merril offers her readers a group of plucky survivors, bound by the domestic structure of the Mitchell's house, who share what might be called an affinity rather than an affiliation. Catriona Sandilands has recently discussed the role that group identities play in current struggles over environmental issues, particularly in regard to what she calls "motherhood environmentalism": the "disturbingly common discursive chain" within which "women's concerns about nature, even if they have eventual public appearance and impact, boil down to an obvious manifestation of natural protective instincts toward home and family." This type of identity depends upon the affiliation of families—their genetic relationship—to make claims about why the environment should be protected. Sandilands continues:

It is all about threats to the children and self-sacrifice for the sake of future generations...It is all about immediate, selfish interests (which, if we are good mothers, are supposed to be identical to those of our children) and nothing to do with commitment to abstract principles like self-determination or democracy or liberty or inherent value or equality or even (bizarrely) ecology. (xiii)

In this regard, Merril's book depicts what appears—even sixty years later—to be a radical transformation in the Mitchell household, from concerning itself only with the safety of its members, to adopting various members of the community (sometimes at great risk to themselves), and finally to a deep concern with the political and ecological ramifications of the war. All together, this new constellation of individuals transforms

<sup>&</sup>lt;sup>90</sup> Catriona Sandilands, The Good Natured Feminist: Eco-Feminism and the Quest for Democracy. Minneapolis: University of Minnesota Press. 1999. Pp. xiii

around a shared affinity—as political subjects displaced by the circumstances of the war—that takes environmental health as part of a broader social concern.

The proto-environmentalist discourse I have described in this chapter, then, formed an important precursor to the more recognizable environmentalist language which came to the fore in the late 1960's and early 1970's. It shared its era's deep investment in the domestic as a means of organizing and giving meaning to human life, but more often than not, it emphasized the porous nature of the human home. What was outside, these ecological thinkers insisted, would find its way inside. Most important—and closely related to this last point—the insights of ecology suggested that the newly perceived environmental problem of pollution had a deeply social dimension, and that any attempts to reckon with the one would have to wrangle with the other as well. Even so generally pithy a commentator as E.B. White grew noticeably earnest on this point. In his 1956 essay, "Sootfall and Fallout," White complained that even the authoritative figures of then Presidential candidates Dwight Eisenhower and Adlai Stevenson

tend to speak of national security as though it were still capable of being dissociated from universal well-being; in fact, sometimes in these political addresses it sounds as though this nation, or any nation, through force of character or force of arms, could damn well rise *above* planetary considerations, as though we were greater than our environment, as though the national verve somehow transcended the natural world.<sup>91</sup>

For White, the particular kind of pollution brought on by postwar industrialism, a witches' brew of "dust," "strontium additive," "industrial poisons," and "chemicals" that added up to a "creeping contamination of the planet" (80), heralded a call to reality more fundamental than ideological, economic, or geopolitical concerns. The "universal

<sup>&</sup>lt;sup>91</sup> See White, "Sootfall and Fallout." In *The Points of My Compass: Letters from the East, the West, the North, the South*. New York: Harper and Row. 1962. Pp. 81

pollution" of the earth swallowed national borders, rendering the nuclear arms race, in material fact, a self-defeating enterprise. Moreover, the business-like metaphors used to describe the postwar globe—as in White's quip, "I hold one share in the corporate earth and am uneasy about the management" (80)—suggested in its irony just how myopically the problem of pollution was being viewed. What White and the other writers discussed here points to is a kind of precursor to more recent turns toward the idea of sustainability; they all suggest, in one way or another, that the war-as-usual paradigm at work in both public and private life in the midcentury had become so maladaptive as to threaten the security it purported to maintain. In his protest against the idea of the "universal pollution" of the environment lies White's assumption that all persons, indeed, all living things, are related *through* the ecology that constitutes the environment. In this equation, "way of life" becomes subject to larger questions of the health and integrity of life itself.

#### CHAPTER II

# No Matter How Smallish: The Sense of Wonder and the Environmental Impulse in Postwar Children's Literature

Children, be curious. Nothing is worse (I know it) than when curiosity stops. Nothing is more repressive than the repression of curiosity. Curiosity begets love. It weds us to the world. It's part of our perverse, madcap love for this impossible planet we inhabit. People die when curiosity goes. People have to find out, people have to know. How can there be any true revolution till we know what we're made of?

Graham Swift, Waterland 92

Though *Silent Spring* is usually remembered as Rachel Carson's boldest—if not her only—contribution to what would become the U.S. environmental movement, ecocritics and Carson fans alike have long treasured an earlier piece, far smaller and scope and dazzlingly lyrical, as expressing what Kathleen Dean Moore calls "the keystone virtue of an environmental ethic": *The Sense of Wonder*. Originally published as "Help Your Child to Wonder" in the July 1956 edition of *Woman's Home Companion*, the essay takes a remarkably different tack toward eliciting its readers' interest in the

<sup>&</sup>lt;sup>92</sup> Swift, Graham. *Waterland*. New York: Vintage. 1992. Pp. 206. Though Swift's text is quite distant in provenance, from the postwar American texts I will be discussing in this chapter, it is rooted in a similar context—World War Two era Britain. The resemblance between his exhortation to "be curious" and the "sense of wonder" the texts I describe is remarkable.

<sup>&</sup>lt;sup>93</sup> See Kathleen Dean Moore, "The Truth of the Barnacles: Rachel Carson and the Moral Significance of Wonder." In *Rachel Carson: Legacy and Challenge*. Ed. Lisa H. Sideris and Kathleen Dean Moore. Albany: State University of New York Press. 2008. Pp. 267-280. Pp. 269. Carson's text was, as I note, originally published as "Help Your Child to Wonder" (*Woman's Home Companion*. 83:7 (July 1956). Pp.24-48). After Carson's death in 1964, *The Sense of Wonder* was compiled from Carson's notes for expanding the article—a project which was delayed by the years of work which Carson poured into *Silent Spring*—and set around photographs by Charles Pratt and others. The result was a gift book featuring, in its own language, "Words and pictures to help you keep alive your child's inborn sense of wonder, and renew your own delight in the mysteries of earth, sea, and sky." (Carson, *The Sense of Wonder*. Photographs by Charles Pratt and others. New York: Harper & Row.1965) Because I am most concerned with the "sense of wonder" conceived as a pedagogical technique for postwar parents, I will treat the only original (1956) version here—however, an investigation into the editorial changes that shaped *The Sense of Wonder* as an object of Carson's legacy would be a fascinating project.

natural world, working less through scientific rationalism than through the emotional investments which, it claims, *precede* scientific inquiry. As the title suggests, Carson encourages parents to use their children's affective responses to the beauty and mystery of the natural world as a kind of teaching tool. "Once the emotions have been aroused," she claims, "—a sense of the beautiful, the excitement of the new and unknown, a feeling of sympathy, pity, admiration, or love—then we wish for knowledge about the object of our emotional response." Carson addressed herself most pointedly to parents who felt themselves deficient in the knowledge and resources needed to give their children a proper "education" with regard to the sciences:

If you are a parent who feels he has little nature lore at his disposal there is still much you can do for your child. With him, wherever you are and whatever your resources, you can still look up at the sky—its dawn and twilight beauties, its moving clouds, its stars by night. You can listen to the wind, whether it blows with majestic voice through a forest or sings a many-voiced chorus around the eaves of your house or the corners of your apartment building, and in the listening, you can gain magical release for your thoughts. You can still feel the rain on your face and think of its long journey, its many transmutations, from sea to air to earth. Even if you are a city dweller, you can find some place, perhaps a park or a golf course, where you can observe the mysterious migrations of the birds and the changing seasons. And with your child you can ponder the mystery of a growing seed, even if it be only one planted in a pot of earth in the kitchen window.(46-47)

Only four years before, in the speech she delivered upon receipt of the National Book Award, Carson had addressed what she saw to be the growing imbalance between the American public's scientific literacy and the elite, institutionalized circles of scientific research which Bruno Latour has since characterized as a kind of capital-S "Science." 95

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<sup>&</sup>lt;sup>94</sup> Rachel Carson, "Teach Your Child to Wonder." *Ladies Home Companion*. July 1956. 25-48. Pp. 46. <sup>95</sup> For LaTour, the difference between "Science" and "science" (or more properly "the sciences") is the difference between and ideological construction and a material practice. While the sciences are, as LaTour acknowledges, a dense network of methodological procedures, funding structures, and researchers organized around the idea of adding knowledge to a changing conception of how the world works, "Science" is—in a variation of Big Science—"the politicization of the science through epistemology in

Carson cautioned against the conventional wisdom of the "scientific age" which recited, somewhat ironically, that "science is the prerogative of only a small number of human beings, isolated and priestlike in their laboratories." Instead, she argued, "the materials of science are the materials of life itself. Science is part of the reality of living; it is the what, the how, and the why of everything in our experience. It is impossible to understand man without understanding his environment, and the forces that have molded him physically and mentally." As the passage above demonstrates, Carson believed that the fundamental principles of science were as audible as the "many-voiced chorus" of the wind heard in city or forest, or as tangible as "the rain on your face," for both of these sensory perceptions linked everyday experience to the long chains of hydrological, climatological, and biological processes, the "transmutations" and "migrations" that created the enduring patterns of life on earth. The ability to perceive in these ways, and even the emotions one felt in doing so, would open the way for the more traditional conception of scientific learning. More importantly, approaching science in this fashion would elicit a continued affective investment in the living things and changing environment that constituted the "materials of science"—a "sense of wonder" that could serve as "an unfailing antidote against the boredom and disenchantments of later years,

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order to render ordinary political life impotent through the threat of an incontestable nature." (See LaTour, *Politics of Nature: How to Bring the Sciences into Democracy*. Trans. Catherine Porter. Cambridge, MA: Harvard University Press. 2004. Pp. 10). Like Carson, LaTour is warning not against science or even the institutionalization of science, but the pervasive perception that science ("Science") provides an uncontestable representation of nature, a "natural" in which environmentalist arguments might be unequivocally grounded, and which privileges scientific evidence as unassailable.

<sup>&</sup>lt;sup>96</sup> Carson, "Remarks at the Acceptance of the National Book Award for Nonfiction." (1952). Reprinted in Linda Lear's *The Lost Woods: The Discovered Writing of Rachel Carson*. Boston: Beacon Press. 1998. Pp. 90-92.

the sterile preoccupation with things that are artificial, the alienation from the sources of our strength" (46).<sup>97</sup>

The Woman's Home Companion had first solicited an article from Carson in the early months of 1956, on the heels of the publication of her second best-seller, The Edge of the Sea, a book detailing the complex ecology of tidal pools and other seashore ecosystems, much as her 1951 The Sea Around Us had done for the open ocean. Taken together, the two books cemented Carson's reputation as a natural history writer with a literary flair, one who brought the depths of the sea eloquently to life in her audience's living room. Though the editors had originally intended the article to be a biographical feature—illuminating the famous, but notoriously soft-spoken Carson for their readers— Carson and her agent, Marie Rodell, were able to turn the opportunity to what Carson felt was a more important (and less personally intrusive) purpose: "encouraging children's awareness of nature." <sup>98</sup> Carson was also concurrently engaged in a similar project, writing the script for an episode of CBS's arts and cultural variety program, *Omnibus*, intended to educate young viewers about atmospheric weather patterns. The resulting episode, "Something About the Sky" takes a remarkably similar pedagogic approach to "Help Your Child To Wonder," urging viewers to think of clouds as "the writing of the wind in the sky"—an entryway to reading the intricate interactions of wind, water, and

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<sup>&</sup>lt;sup>97</sup> For a fascinating historical perspective on wonder, curiosity, and the development of the sciences, see Lorraine Datson and Katherine Park's *Wonders and the Order of Nature 1150-1750*. (New York: Zone Books. 1998). Datson and Park describe the transformation of wonder in the Middle Ages as an appropriate and reverent response to natural phenomena seen as part of Creation, to a matter of vulgar and conventional wisdom, displaced by scientific "curiosity" in the age of Enlightenment. Clearly, this history puts Carson's attempt to recuperate "wonder" as a scientific virtue into a much longer story riddled with class and gender assumptions.

<sup>&</sup>lt;sup>98</sup> See Linda Lear's comprehensive biography of Carson, *Rachel Carson: Witness for Nature*. New York: Henry Holt and Company. 1997. Pp. 280.

land. <sup>99</sup> These two efforts mark an important strategy on the part of a writer (and an agent), who felt ever more insistently that basic ecological literacy needed to become part of their readers' common knowledge. Departing into the more extensive media of women's magazines and television, these two pieces could reach an even wider audience than Carson's books had found. <sup>100</sup> In their own small way, "Help Your Child to Wonder" and "Something About the Sky" attempted to reverse the growing specialization of scientific knowledge that had become part of the Cold War era's cultural milieu, opening up the study of nature as a significant component of family education. Yet in doing so, they were leveling their critique of modern technology precisely through one of the technocracy's most pervasive manifestations: the domestic sphere of the 1950's.

Not surprisingly, then, "Help Your Child to Wonder" centers as much around a particular idea of parenthood as it does around childhood. It envisions, for instance, the "apartment buildings," "golf courses," and "kitchen windows" that would constitute the landscape of urban or suburban lifestyles with which the *Companion*'s readers would have been most familiar, and the restricted access to wilderness areas these situations would supposedly entail. The article also labors to emphasize the openness of children's perception while dispelling its adult reader's anxiety that she cannot see restrictively enough—that is, through the lenses of "nature lore," biological classifications, or

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<sup>&</sup>lt;sup>99</sup> The teleplay for "Something About the Sky" (1957) is quoted in full in Lear's *Lost Woods*, pps. 175-186. <sup>100</sup> This is not to say, however, that her Carson had not already made something of a name for herself. While her first book, *Under the Sea Wind*(1941), did not and would not ever sell widely, her second book, *The Sea Around Us* (1951), had already sold 1.5 million copies and had been translated into 28 different languages by the time a revised edition was released in 1961. (Houghton-Mifflin advertisement for *The Sea Around Us* Revised Edition, *New York Times*, February 28, 1961. Rachel Carson Papers/ Beinecke Library Yale University). These subsequent projects, then, helped to disseminate the expertise bound up in Carson's authorial image ever deeper into popular culture. I will make a more extensive argument about the popularization of Carson in Chapter Four, "Buying In to Nature: Rachel Carson's Ecological Aesthetic, the Fashionability of Nature, and the Midcentury Reader."

ecological concepts that would govern the expert's eye. It frames the issue of the "awareness of nature" as a vital part of a child's maturation, while gently hinting that the adult, too, may come to recognize the full extent of her perceptual powers and emotional connection to the earth in teaching her child. <sup>101</sup> In so doing, the article develops its own distinct philosophy about the relationship of the natural world, the human imagination, and the value of living things, a theory which marshals parenting advice to the larger project of an ecologically-inflected critique of postwar synthetic material culture. As I will argue, "Help Your Child to Wonder," together with children's classics such as Dr. Seuss's *Horton Hears a Who!* and E. B. White's *Charlotte's Web*, spoke to both children and parents with the dual object of educating the former while awakening the latter to a critical consciousness. <sup>102</sup>

Central to my logic is the fact that these texts addressed a crucial cultural concern of the postwar era: the role of the environment in shaping children's moral and

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traces of the very gendered kind of teaching practice Carson describes here, which is itself part and parcel of the dimorphic gender roles that characterized the midcentury domestic space. Carson had earlier specifically addressed the connection she saw between women and teaching about nature in her 1954 speech to Theta Sigma Pi (a sorority for women in journalism): "Women have a greater intuitive understanding of such things. They want for their children not only physical health but mental and spiritual health as well. I bring these things to your attention tonight because I think your awareness of them will help, whether you are practicing journalists, or teachers, or librarians, or housewives and mothers" (Reprinted in Lear, *Lost Woods*. Pp. 147-163). Carson's own experience in mothering is interesting to consider here: though she never married, Carson did assume primary responsibility for the care of her nephew, Roger Christie, upon the death of her niece; in fact, the opening pages of "Help Your Child to Wonder" set the parenting advice Carson offers in the context of the many walks on the Maine shore that she and a very young Roger enjoyed. So while the pedagogical models Carson sets out in both article and speech may seem to essentialize femininity, it is important to remember that Carson came to her role as parent in a distinctly un-heteronormative fashion.

<sup>&</sup>lt;sup>102</sup> Those well acquainted with Doctor Seuss will know him as Theodor Seuss Geisel, author of several enduring children's books, all written under his curious nom de plume. I have elected to remain consistent with Geisel's own choice of authorial persona, referring to him as Dr. Seuss here and throughout the chapter. As the discussion moves from pedagogy, to parenting, to the role of expert opinion in the everyday life of postwar America, I hope the pen name will begin to acquire a touch of irony—a trick which, indeed, might not have been completely unintended on Geisel's part.

intellectual being. This "environment" was most typically conceived of in domestic terms as the conditions created by everything from the layout of the home, parenting styles (often highly gendered), and dinnertime nutrition, and to a lesser, but still quite significant extent, as more public spaces such as schools and neighborhoods. In this era caught between American psychoanalysis and behaviorism, and punctuated by constructivist and sociological approaches to explaining human behavior, "environment"—a complex amalgamation of factors—was thought to play the predominant role in the healthy and well-rounded development of the child. Where the writers I discuss made their interventions, however, was in suggesting that "home environments" existed within the matrix of the wider biosphere, and in developing the ecological consciousness to do so. Though, as I discussed in the previous chapter, great effort was made during this period to naturalize the non-natural home—that is, to embrace the new American Way of Life while cutting ties with the stark material realities so evidently visible in pre-World War II life—these writers sought to infuse a rich complexity of living things into domestic environments. While Carson does so in the name of democratizing scientific knowledge with a sense of wonder, Seuss and White extend this "keystone virtue of the environmental ethic" in order to pursue a more complex point. Their stories dramatize the social and epistemological position of children in postwar domesticity, featuring young protagonists who hear and see their surroundings differently than the adults around them. The disjunctions these characters encounter challenge the certainty of adult seeing, hinting at the ethical dilemmas that emerge when an ecological perspective is fully realized. These portrayals of strangely sensitive children and animals, I argue, reflect the era's larger concerns with the

technocratic schematization and regulation of human life—the "environmentalization" of American living space. The environmental impulse they represent is one of resistance, bringing the American home, fast becoming a Space Age "machine for living in," back down to earth. <sup>103</sup>

### The Home Environment

The pegagogy of "wonder" was, even in Carson's time, certainly not new to American nature writing. In his 1848 essay on climbing Mt. Katahdin ("Kttadn"), Henry David Thoreau—whom both Carson and White read and admired—exemplifies this tradition, telling a riveting tale of assent much in the style of Wordsworth's "Prelude" or Shelley's "Mont Blanc." The power of this kind of wonder lies, as Thoreau's portrayal indicates, in nature's ability to turn the human consciousness against itself, fully possessing the senses while overwhelming the logical capacity. "Some part of the beholder," Thoreau writes, "even some vital part, seems to escape through the loose grating of his ribs as he ascends...There is less of substantial thought and fair understanding in him, than in the plains where men inhabit. His reason is dispersed and shadowy, more thin and subtile, like the air." Yet even as a soul divided, Thoreau discovers a sense of ecological exhilaration, a longing to connect with the earthly materials that compose himself as well as the mountain: "Think of our life in nature—daily to be shown matter, to come into contact with it." His now famous cry for "Contact!"

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<sup>&</sup>lt;sup>103</sup> I draw this description from David Harvey's definition (in *The Condition of Postmodernity* (Oxford: Basil Blackwell. 1989)) of the 1950's as a time "when houses and cities could openly be conceived of as 'machines for living in'"—a summary that owes much to prominent architectural conceptions of the period including those of Le Corbusier. Cited in David Kinkela's "The Ecological Landscapes of Jane Jacobs and Rachel Carson." *American Quarterly* 61:4 (December 2009). Pp. 905-928. Pp. 909.

Contact!" leads not to abject silence or renunciation, but to questions which ache to connect the known self with the unknown world: "Who are we? where are we?" 104

Thoreau—and to much the same extent later writers such as John Muir and Edward Abbey—provide many of the better known literary examples of how a "sense of wonder" can support the environmentalist claim that, as Don Scheese puts it "mystery, not mastery, must be our relation to nature." However, wonder in American nature writing has been an evolving tradition, shifting with the historical and material circumstances of those who wrote. Scheese, for instance, describes writers such as Mary Austin and Aldo Leopold as turning the sublime conceptions of Thoreau's "Ktaadn" on their heads, demonstrating that encounters with vast and ungraspable nature could evoke quiet love rather than sublime raptures, and foster—rather than defy—human reason. Austin's Land of Little Rain (1903), for instance, depicts a desert land which appears harshly indifferent to human survival, but it also reveals the culturally constructed quality of that appearance. For the Native American cultures Austin writes about, the desert is not a wild space—be it a barren wasteland or a blooming paradise—but a land which centuries of inhabitation and adaptation have turned into a home (Scheese, 89). For Leopold, writing thirty years later, experiments with the restoration of prairie ecosystems displaced by intensive Midwestern agriculture similarly marked the emergence of a redemptive knowledge which was nourished, rather than frustrated, by the wilderness,

<sup>&</sup>lt;sup>104</sup> See Thoreau, "Ktaadn." *The Maine Woods.* New York: Thomas Y. Crowell Company. 1961. Pp. 83 <sup>105</sup> Scheese, Don. *Nature Writing: The Pastoral Impulse in America*. London: Twayne. 1996. Pp. 56. Scheese actually cites John Muir's account of ascending Cathedral Peak in *My First Summer in the Sierra* (1911) as a parallel to Thoreau's experience on Kahtahdin, save that unlike Thoreau, Muir is able to ""establish contact with a benevolent nonhuman world" (72). Writing half a century later, Abbey expresses in *Desert Solitaire* (1968) a kind of wonder with a distinctly masculinist edge to it, "a hard and brutal mysticism in which the naked self merges with a non-human world and yet somehow survives intact, individual, separate" (See *Desert Solitaire: A Season in the Wilderness*. New York: Simon & Schuster. 1990. Pp. 6).

and which provoked "humility" rather than anxiety in its assessment of humankind's place in the natural world (Scheese, 105). A third school of "wonder" writing—and one which influenced Carson directly—was the Nature Study movement of the early twentieth century. Propagated in and by such texts as Anna Bostford Comstock's *Handbook of Nature Study* (1911), this movement taught that through the use of their senses, and through creative exercises such as drawing and writing from nature, young people could unlock an intuitive appreciation for and understanding of nature which would better support scientific learning than more traditional approaches. Recuperative from the start, Nature Study was originally designed to popularize scientific knowledge for those who, due to gender, youth, family finances, or other circumstances, might not have access to formal training in the sciences—including the young Rachel Carson herself. In this way, the sense of wonder described in "Help Your Child to Wonder" marks a full reversal of the paradigm of knowledge receding before feeling—with feeling, instead, leading the way to knowledge.

It is also important to note how changes in the aesthetic use of wonder correspond to transitions in the material circumstances of American readers. While voices such as that of Mary Austin or the Nature Study writers were responding to the increasing urbanization of the American population, or to the edging out of the frontier, Carson's America was subject to a dramatic rise in standards of living featuring unprecedented

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<sup>&</sup>lt;sup>106</sup> Linda Lear notes that Carson's mother, Maria, "was a perfect nature-study teacher. She welcomed the Comstock readers that Marian and Robert [Carson's siblings] brought home from school. Each one suggested outdoor lessons that parent could do with their children, and Maria Carson had a sixty-four-acre laboratory to work in. She and the children were outdoors every day when weather permitted, and she shared with them her knowledge of natural history, botany, and birds...Maria impressed her respect and love for wild creatures on all her children. When they returned from their woodland adventures with treasure to show her, Maria instructed the children to return them where they had been found. This kind of care for the natural world had a spiritual dimension that at least her youngest daughter [Rachel Carson—who else?] embraced and would practice all her life." (*Rachel Carson*, 14-15)

new rates of home ownership, suburban development, and disposable income. For many Americans, concerns about the environment were quickly shifting from questions of necessity and dependence to questions of quality of life, with the new notion that the home should include as a basic feature regular access to healthy, rejuvenating outdoor spaces for leisure use. Where land ownership had once facilitated the necessity to work (or to put someone else to work), it now denoted the ability to exercise and play. Nature, with all its suburbanized connotations, accordingly became a key component in the moral and intellectual development of young Americans of the bourgeoisie.

This new cultural significance of outdoor environments, as reflected in texts like "Teach Your Child to Wonder," echoes postwar child psychologists' belief that children learned, predominantly, from their environments. These new theories embraced the idea that children should be allowed to play an active role in the shaping of their educations rather than, as older theories went, being pressed like so much warm wax into the moral and social molds that shape fully-formed human beings. Benjamin Spock—the widely famed "Dr. Spock" of *The Common Sense Book of Baby and Child Care* (1946, 1957)—would cite the example of a young son experimenting with his father's tools at a home carpentry bench:

What usually works best is for the father to outline a few rules at the start ("You can uses these tools by yourself; when you want to use this one I will help you; that one you can use when you are older") and then let the boy select and work out his own project, with only a minimum of suggestions and criticism. It's surprising what good judgment most children develop in estimating their abilities, and they are usually quite happy about the results they achieve, even though the finished product is clumsy and ill-proportioned from an adult point of view. 107

<sup>&</sup>lt;sup>107</sup> See Spock, Benjamin. *The Common Sense Book of Baby and Child Care*. New York: Duell, Sloan, and Pearce. 1957. Pp. 124.

In Spock's model, the child's intelligence, abilities, and self-confidence are nurtured by a carefully delineated measure of independence. Rather than viewing the child's wide-ranging attentions as a handicap to learning, Spock encourages parents to harness the seemingly limitless energies of the child's imagination within a few simple structures, which will in turn become a self-perpetuating set of behaviors. Carson, steering this notion of limited independence toward the fostering of children's relationships to their environments, encourages parents to guide the free play of the young child's imagination with a cautious minimum of scientific "facts":

If facts are the seeds that later produce knowledge and wisdom, then the emotions and the impressions of the sense are the fertile soil in which the seeds must grow. The years of early childhood are the time to prepare the soil...It is more important to pave the way for the child to want to know than to put him on a diet of facts he is not ready to assimilate. ("Help Your Child," 46)

These two open-ended approaches to pedagogy parallel contemporary developments in cognitive psychology which suggested that children learn less from objective codes of behavior that parents could provide, and more from the mental patterns or constructions they created based upon ongoing interactions with others and with their environments. In other words, these new theories proposed that experience, rather than didactics, played a greater role in shaping the development of children; as such, they suggested to parents that mediating their children's environments was the most effective means of educating their children. As developmental psychologist Jean Piaget notes, this theory of constructivism argues for the reciprocity between "the subjects to be educated" and "society": "the child no longer tends to approach the state of adulthood by receiving reason and the rules of right action ready-made, but by achieving them with his own effort and personal experience; in return, society expects more of its new generations than

mere imitation: it expects enrichment."<sup>108</sup> From a parental perspective, too, constructivist theories of child psychology open up the idea of childrearing not as a repetitive process, but as open-ended, cumulative practice which makes room for the veracity of children's different perspectives, for new epistemologies.

These theories all suggest to some degree that "environment" is, as a concept, a good thing. Provided the proper resources, parents could set the boundaries around and subtly manipulate home environments, thus producing favorable conditions under which their children could grow. But some critics, perhaps most notably David Reisman in his classic sociological study The Lonely Crowd (1950), felt that the environmentalization (in a social sense) of American homes could be equally frustrating and disruptive to effective parenting. 109 Reisman contrasted the parents of the postwar generation with those of the first half of the century; while the latter were "inner-directed," driven by internalized and individualizing standards of behavior and achievement, the former were "other-directed," endlessly concerned with how they appeared to others, how they measured up to an externalized ideal of behavior and achievement which they assumed they shared with their peers. For other-directed parents and children, Reisman argued, the suburban environment served to magnify the already prominent self-consciousness from which many suffered. The typical suburban child grew up in a small family, often endured a lack of privacy in the close quarters of her home and her neighborhood, bore claustrophobic witness to any marital difficulties her parents may have encountered, and, having been raised "beyond deprivation," no longer harbored aspirations to a life of ease

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<sup>&</sup>lt;sup>108</sup> See *The Essential Piaget: An Interpretive Reference and Guide*. Ed. Howard E. Gruber and J. Jacques Vonèche. New York: Basic Books. 1977. Pp. 696

<sup>&</sup>lt;sup>109</sup> Reisman, David. *The Lonely Crowd: A Study of the Changing American Character.* New Haven: Yale University Press. 1950.

and pleasure that drove previous generations. Parents, for their parts, either traveled an increasingly large distance to get to work, or, in the case of suburban homemakers, found the work environment of the home virtually inescapable; either way, adults were palpably isolated from interactions beyond their own families (49). The home became, in Reisman's assessment, a toxic environment of its own.

But the problem did not stop there. In addition to a "loss of old certainties in the spheres of work and social relations," postwar parents suffered a generational lack of "self-assurance" in parenting. No longer feeling themselves, a strict moral code, or a particular tradition to be the dominant model by which to raise their children, parents sensed a great ambiguity in their knowledge of and skill at parenting. "In this change of parental attitude," Reisman notes, "the mass media of communication" played a critical role:

From the mass media—radio, movies, comics—as well as from their own peers, children can easily learn what the norm of parental behavior is, and hold it over their parents' heads. Thus a kind of realism is restored to the child which was his property much more simply in the societies depending on tradition-direction: the other-directed child is often more knowing than his parents—like the proverbial Harvard man, there is little they can tell *him*. (51)

Parents, too, turned "in their uneasiness as to how to bring up children" to the "books, magazines, government pamphlets, and radio programs" in which experts advertised their opinions on the subject. "These," Reisman notes, "tell the already anxious mother to accept her children. She learns that there are no problem children, only problem parents; and she learns to look into her own psyche whenever she is moved to deny the children anything, including an uninterrupted flow of affection" (52). This dual dependence upon the media and the objective standards it appeared to uphold indicates a more public

analogue to the home "environment" which writers like Spock attempted to model for eager parents: a virtual space, powered by the suggestions of the media and the attentive imagination of its viewers and listeners, which applied its own strong pressures upon those whom it surrounded. So while environment could, as a parenting concept, denote a beneficial kind of isolation and manipulation taking place within the private sphere, it could also, as in Reisman's assessment, be deployed socially to denote an amalgamation of influences that left parents as a category feeling displaced and unsure of their own power.

## Hearing Things and Seeing Things: Horton Hears a Who!

Doctor Seuss's 1954 picture book *Horton Hears a Who!* phrases the problematic of environment as a question of scale and perception: set in a jungle full of elephants, monkeys, and kangaroos, the story begins with a day-dreaming elephant, Horton, who relaxes "in the cool of the pool" one hot spring day. Hearing a "small noise" like "a very faint yelp" that seems to emanate from a speck of dust drifting past, Horton comes to a rather stunning conclusion: "Why, I think there must / Be someone on top of that small speck of dust! / Some sort of creature of a *very* small size, / Too small to be seen by an elephant's eyes...." (3-7). Seuss's opening illustrations, which juxtapose the tiny mote of dust with the elephant's enormous eye, underscore what will become a divisive conflict in the story: not everything that matters can be *seen*, at least not at first (Figure 2). Here, *seeing* is equated with certainty, a kind of epistemological confidence that to

<sup>&</sup>lt;sup>110</sup> Dr. Seuss, *Horton Hears a Who!* New York: Random House. 1954. Pp. 3.

perceive is to know and to know is to know completely. What Horton's story suggests, however, is that perception does not translate to total certainty; rather, *hearing* a tiny hint of life triggers an emotional response and an ethical instinct in Horton. Though he cannot know for certain *what* might be making the noises he hears, he recognizes even in doubt



Figure 2. Horton spots the speck of a "very small size." Illustration by Dr. Seuss. Pp. 6

that the noise is a voice issuing from something ethically significant—something he immediately identifies as a "person" like himself, if smaller. This recognition in turn demands action—in this case catching the speck before it becomes submerged in the pool—and prompts Horton to declare what will become his credo throughout the plot: "I'll just have to save him. Because, after all / A person's a person, no matter how small" (8).

Indeed, Horton's certain uncertainty prompts him into an extravagant act of what might best be described as sympathetic imagination. His vision of the world of the Whos grows rapidly, building upon itself, in much the same way as Piaget suggested cognitive constructions grow, and often in a kind of vigorous resistance to the disbelief others

 $<sup>^{111}</sup>$  That is, "...some poor little person who's shaking with fear / That he'll blow in the pool! He has no way to steer!" (Seuss, 8).

around him display. From a single, insect-like Who crawling across the blank face of the speck, Horton expands to a vision of a family, largely in response to the "sour" Kangaroo's derisive "A person on *that*? Why, there never has been!" (14) (Figure 3). Horton counters, "I *know* there's a person down there. And what's more, / Quite likely there's two. Even three. Even four. / Quite likely...a family for all that we know! A family with children just starting to grow" (15). Seuss's illustrations grow in emotional intensity with Horton's speculations, and here he pictures a mother, a father, two toddlers, and a babe in arms, with hands joined and with all appearance of running from a disaster (Figure 4). A tiny flower, too, has sprung up from the ground, as if to suggest the productive potential of this imagined soil (Figure 5). 112



Figure 3. "...some poor little person who's shaking with fear / That he'll blow in the pool! He has no way to steer!" Illustration by Dr. Seuss. Pp. 8

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There is an interesting visual resonance between this tiny detail of Seuss' illustrations and John Hersey's arresting account of the dropping of the atom bomb over Hiroshima on August 6, 1945 in his book, *Hiroshima*. Hersey notes that in the months after the bombing, residents witnessed the rather bizarre phenomenon of *accelerated* plant growth in the rubble of buildings which had been destroyed by the bombs—likely a result of atmospheric radiation. (See Hersey, *Hiroshima*. New York: Alfred A. Knopf. 1946). Much more might be said about the vague but persistent resemblances to be found *Horton* and various accounts of the nuclear bombings, particularly given the fact that Seuss's political leanings shifted dramatically from pro-war after the bombing of Pearl Harbor to notably skeptical of militarism after Hiroshima and Nagasaki. (For more information on Suess's political thought, see Philip Nel's *Dr. Seuss: American Icon*. London: Continuum. 2004).

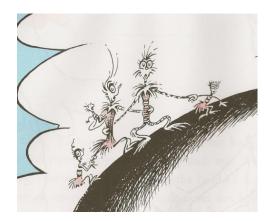


Figure 4. "...a family, for all that we know! / A family with children just starting to grow." Illustration by Dr. Seuss. Pp. 14

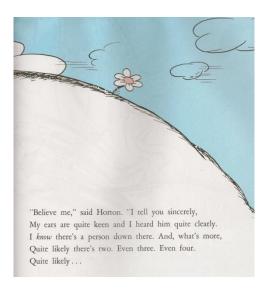


Figure 5. Illustration by Dr. Seuss. Pp. 15

After incurring the wrath of the other jungle creatures, Horton is finally able to hear the distinct voice of Who-ville's mayor, and the full spectrum of life on the speck shines forth. He discovers that Who-ville is "a town that is friendly and clean. / Our buildings, to you, would seem terribly small / But to us, who aren't big, they are wonderfully tall" (23). In an image which marries the best of modern suburbia with the best of an older pattern of small-town America, Seuss depicts a long row of houses enclosing a green space of yards and playing fields, with a Town Hall in the center. Whos

play tennis and football, carry shopping bags and mow the lawn, and one elaborately coiffed Who promenades with a pramfull of baby Whos arranged in order of ascending size (Figure 6). From its tiny beginnings, Who-ville as an imagined—or only half-imagined—construct has grown in biological order and ethical complexity, ranging an evolutionary history from a lone Who, to a family, to a large population dependent upon a democratic system of government. The mayor's words also offer a key for reading Who-ville (as a real or fictive construction) which Horton seems intuitively to understand: the scale of signification is relative. Though the building of Who-ville might seem "small" to those who dwell outside the speck, they are impressively "tall" to those who dwell within it. Similarly, though Whos may seem so small to other jungle creatures as to be insignificant—even to the point of not registering in the field of perception—they are, ethically speaking, person-sized. Their very existence gives them, if not rights, then a certain gravity in the considerations of the other animals.



Figure 6. "My town is called *Who*-ville, for I am a *Who /* And we *Whos* are all thankful and grateful to you." Illustration by Doctor Seuss. Pp. 22-23.

The sense of responsibility that comes with "hearing" the voices of the Whos increases along with the magnitude of the Who-ville Horton envisions. Having "picked up" the role of caretaker, he discovers himself unable to put it down: "Should I put this speck down...?' / Horton thought with alarm. / 'If I do, these small persons may come to great harm. / I can't put it down. And I won't!" (18). Horton's concerns surround a serious ethical dilemma in Seuss's story: that of the who-ness of non-human, or in this case of non-animal, others. Horton struggles throughout with how to translate what he senses—that Whos have existence, identities, a vital interdependence with animalkind—into something that can be known, all to avoid the moral disaster that would result from ignoring the Whos. His conundrum is made all the worse by his fellow jungle creatures, whose desire to destroy what Horton imagines, by throwing it into a "hot steaming kettle of Beezle-Nut oil" no less, seems to grow alongside his idea of the complexity of it (40).

It is not difficult to sense the shadows of a Cold War consensus of moral and political dimensions at work in *Horton*, particularly in the response of the other jungle creatures to Horton's unsettling discovery. The fiendish Wickersham Brothers are a gang of monkeys who first steal and hide the clover bearing Horton's treasured speck only to turn it over to one very bad eagle known as "Vlad Vlad-i-koff." Vlad, in turn, flies off with Horton in close pursuit, only to drop the beloved clover "somewhere inside / Of a great patch of clover a hundred miles wide!" (31). It is easy to see this rather Russkyish-sounding bird and his enormous field of identical clovers—visually supported by Seuss's illustration of an enormous field of pink flowers spilling over the limits of the page—as an allusion to the vast menace of the Soviet threat.

But if Horton's jungle kingdom represents the American home front, the situation is not much better there. After confiscating Horton's speck—again—the animals tie up and cage Horton himself and prepare to deep fry the Whos. While the overtones of censorship, blacklisting, and other models of political disenfranchisement practiced by the U.S. government in the period are clear, so is the dreadful transformation of the Wickersham brothers—or, perhaps, the Wickersham Bros.—into a corporate body. Seuss illustrates them preparing the rope with which to bind Horton: each monkey bears the same malicious smile on his face, identical expressionless eyes, and a synchronized two-handed grip on the long rope with which they encircle Horton (Figure 7). This gregarious gang of "Wickersham brothers and dozens / of Wickersham Uncles and Wickersham Cousins, / And Wickersham In-Laws" works quickly and efficiently to weed Horton's "nonsense" out of the economy of the jungle (40).

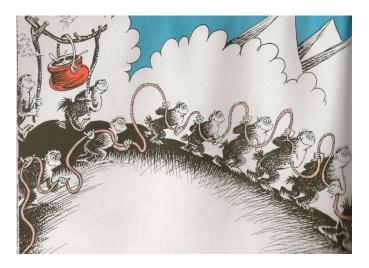


Figure 7. "You're going to be roped! And you're going to be caged! / And as for your dust speck...hah!" Illustration by Doctor Seuss. Pp. 40.

Their rationale for doing so is founded not only on Horton's lack of usefulness or productivity as he "walked, worrying, for almost an hour" over his speck of dust, but on

the deeper implications of Horton's discovery—a sense that there is a reality beyond the one they espouse: "What *rot*!" they declare. "This elephant's talking to *Whos* who are *not!*" (18, 24). Horton's uncertainty and inaction correspond directly to fears suffered by many postwar economists that the lagging of American consumption would threaten the United States' role as a "last bulwark" of democracy. In other words, while Horton is occupied with preserving the Whos, he does nothing to fulfill the role of citizenconsumer which had become expected of middle class Americans in the midcentury. <sup>113</sup>

Aiding and abetting the Wickershams, the "sour kangaroo" and the "young kangaroo" in her pouch suggest midcentury understandings of how family structures reinforced the larger economic schema into which they fit. The joey, for instance, constantly copies the gestures of its mother, or adds an emphatic "humphf," "Me too!" or "Me neither!" to her comments. This pattern suggests in a broad sense that adult behaviors and beliefs serve as important models for their children, and in the particular case of this jungle, that children may choose between conforming to an environment of norms or being marked, like Horton, as a—possibly insane—disturbance. While the Wickersham brothers do the actual legwork of stealing the clover and restraining Horton, the kangaroo provides the moral justification for what is happening: "For almost two days," she scolds Horton,

...you've run wild and insisted On chatting with persons who've never existed.

My sense of the role of the "citizen consumer" derives from Lizabeth Cohen's study, *A Consumer's Republic*, which I have previously discussed in Chapter One. Annie Leonard's short internet film, *The Story of Stuff* (Free Range Studios), provides not only some vital insight into how the material processes whereby consumerism became central too—if not the avowed purpose of—American life, but also an important update as to the global environmental effects of American consumerism. Leonard's film can be viewed online at <a href="https://www.storyofstufff.com">www.storyofstufff.com</a>, and her recent book, *The Story of Stuff: How Our Obsession with Stuff Is Trashing the Planet, Our Communities, and Our Health—and a Vision for Change* (2009), is based upon questions Leonard encountered in her travels with the film.

Such carryings on in our peaceable jungle!
We've had quite enough of your bellowing bungle!
And I'm here to state," snapped the big kangaroo,
"That your silly nonsensical game is all through!"
And the young kangaroo in her pouch said, "Me too!" (38)

This cooperation of economic motive and moral validation creates a seamless relationship between corporate entities and the figures of social authority who condone the *status quo*; this is, in other words, Reisman's picture of the other-directed society taken to its logical, if murderous, extreme. The existence of any creature—or any ethical demand such an existence might entail—cannot be allowed to shatter the self-enclosed peace of the peaceable kingdom.

Read in this fashion, the ultimate conflict in *Horton Hears a Who!* seems to be the social and moral vertigo which comes from a sudden change in ontological scale, from the discovery that life occurs on unforeseen levels, and the often troubling recognition that moral codes must adjust to fit new circumstances. Horton and his friends, the quarrel centers on the detection of the Whos and the magnitude of the moral imperatives that seem to emanate from their discovery, Carson spins this sense of disorientation into a joyful discovery. In "Help Your Child to Wonder," she advises that the "recognition of something beyond the boundaries of human existence" leads to a "renewed excitement in living" and "reserves of strength that will endure as long as life lasts" (48). What both texts share, in effect, is the attempt to model these processes of learning and discovery in the pedagogical way, directing children and parents toward a feeling of connection with life in *all* its forms—not just the extraordinarily narrow definition of life fetishized in postwar domesticity. Both texts seek to expand the bounds

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<sup>&</sup>lt;sup>114</sup> Interestingly, many activists have adapted Horton's catch phrase—"A person's a person, no matter how small!"—as a battle cry for pro-life concerns. Seuss has disavowed all such readings of his text.

of individual perception in ways which push against postivisitic economic or social forms, somehow forming families of affinity between their protagonists and the creatures with whom they share the earth.

Sensitive, big-eared soul that he is, Horton needs no help with imagining the world of the Whos, or even the possibility that this world might be worth protecting, but his jungle compatriots are not so easy to convince. Ultimately, Seuss, through Horton's urging, engineers a plot through which the Whos can demonstrate their *similarity* to the jungle animals, thus asserting not only their existence, but their right to exist. What saves the Whos, then, is their ability to make *themselves* heard, to reverberate—literally—in the register which is audible to the jungle animals. The Mayor of Who-ville musters every voice in town, but to no avail: "*Everyone* seemed to be doing his best / *Everyone* seemed to be yapping or yipping! / *Everyone* seemed to be beeping or bipping! / But it wasn't *enough*, all this ruckus and roar! / He HAD to find someone to help him make more" (54). After a desperate search, he discovers a "shirker"—Who-ville's tiniest citizen, Jo-Jo, who has somehow missed the commotion—and adds his voice to the fray, to great effect. "That one small, extra Yopp put it over! / Finally, at last! From that speck on that clover / *Their voices were heard!* They rang out clear and clean" (56-60).

Taken literally, this moment is rather improbable (which, within the context of this book, is saying quite a lot); the idea that one extra voice would add enough intensity to make the otherwise inaudible population heard by this angry and unsympathetic mob rings false. Symbolically, however, this unification of *all* the voices in Who-ville, this transformation of shirker into worker, and—perhaps above all—the relationship between the Mayor as a parental authority and Jo-Jo as a child maturing into his duty as a citizen,

suggest the similarities between Who society and the peaceable jungle. In other words, it is less the sheer accumulation of the voices, and more the Whos' demonstration of consensus politics, which, as Horton puts it, has "proved they ARE persons, no matter how small," almost magically making the Whos legible to the jungle creatures (60). Indeed, Seuss's illustration of this breakthrough moment is telling: perched atop the highest pinnacle of the "Eiffelberg Tower," the Mayor holds Jo-Jo confidently up in the air as both shout skyward, while countless Whos sprinkled over the surrounding hillsides follow suit (Figure 8). In this moment, the domestic relationship between father and son figures is quite literally put up on a pedestal—or to be more precise, an achievement of modern Who architecture—to be greeted with cries of compliance and approval.



Figure 8. "'This,' cried the Mayor, 'is your town's darkest hour! / The time for all *Whos* who have blood that is red / To come to the aid of their country,' he said. / 'We've GOT to make noises in greater amounts! So open your mouth, lad! For every voice counts!" Illustration by Dr. Seuss. Pp. 58.

This startling voice from an invisible world has an almost miraculous effect on the jungle animals, transforming their desire to quash what they had perceived as Horton's delirium into a wholehearted zeal to defend their tiny, newly-discovered neighbors. As the Wickershams line up eagerly to take a closer look at the wondrously Who-inhabited clover, the "big kangaroo" declares her intent "to protect them with you!" (60). Perhaps even more astounding, though, the little kangaroo, making his first independent gesture, extends a sheltering umbrella over Horton's clover and proclaims, "ME TOO! / From sun in the summer. From rain when it's fall-ish, / I'm going to protect them. No matter how smallish!" (62). In this closing image, Horton still retains the clover in the crook of his sensitive trunk, but now shares his responsibility in a double-grip with the big kangaroo, who clasps his trunk and the clover. Both of their faces beam with pride (Figure 9). What began as a sinister conspiracy to destroy the Whos, nameless identities who threatened jungle society with the mere idea of their existence, has become in closing an inspired accord—an almost family-like sense of connection organized around protecting and preserving the lives of the Whos. The animals' moral behavior is no longer guided by what can be definitely seen and understood, but by an ecologicallyinflected sense that life on all levels ties directly into the lives of "persons," and is similarly valuable as life-in-itself.



Figure 9. "...ME TOO!" Illustration by Dr. Seuss. Pp. 62

Interestingly, Jimmy Hayward and Steve Martino's 2008 adaptation of *Horton Hears A Who!* (2008) addresses the ecological subtext of the original quite directly, extending it thematically to the debate over global warming which began to "heat up" in 2006 and 2007. Like Seuss' original, Hayward and Martino's film dramatizes the difficulty of putting ecological messages into a language which can be understood or taken seriously by a society which believes itself to have moved beyond interdependency with other species. The double plot-line not only recreates Horton's dilemma of convincing his society that there something inherently valuable about his unusual flower, but also re-envisions the problem from Who-ville's point of view, making the drifting, bumping, and falling of their speck-world appear as an inexplicable series of winds, earthquakes, and even, in one case, snow. The Mayor of Who-ville, who, like Horton, is in communication with a mysterious voice from another dimension (Horton himself), has the unenviable task of trying to convince a City Council that is chiefly concerned with its

<sup>&</sup>lt;sup>115</sup> Horton Hears a Who! Dir. Jimmy Hayward and Steve Martino. 2008. Distributed by 20<sup>th</sup> Century Fox.

Who Centennial celebration, and which proudly and repetitively declares that "nothing in Who ville had ever gone wrong," that there is a mysterious problem of life-altering dimensions currently threatening the town. The film reframes the Cold War science-andsociety conflict Seuss portrays for a twenty-first century audience, informing the plotline with just a touch of chaos theory, some vague but dire predictions about the "ramifications" of there being a universe outside Whoville from the resident scientist, Dr. LaRue, and a even a postmodern jab at the 1950's pseudoscience of flying saucerdetection—when the Mayor exhorts the Whos to "Keep watching the skies!" This complex rendering of the Horton story, indeed, argues even more pointedly for the lessons an ecological sense of wonder can teach modern technonological society. The film places its viewers on both sides of the catastrophe at hand: identifying with Horton as agents who can destroy or preserve other species, sometimes unknowingly, through their actions, yet also identifying with the Mayor of Whoville in their vulnerability to just such a disaster. What remains the same in both tellings, however, is the emphasis on familial relations: in both cases, it is the Mayor's relationship to young Jo-Jo—who, in the film, also happens to be his son—which enables the ecological point to come through, quite literally, loud and clear.

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the film's opening credits feature a sequence that "explains" Who-ville's unstable situation through the much vaunted butterfly effect—that emblem of chaos theory which links subtle, localized changes to spectacular shifts in weather and climate worldwide. Many of the things Dr. LaRue predicts—including "dramatic changes in the weather" and a loss of climactic stability are, of course, quite similar to the shifts that climatologists predict in the wake of global warming. "Keep watching the skies!" is the closing line of Christian Nyby's 1951 breakthrough science fiction film, *The Thing from Another World*. This reference points to another interesting way to read *Horton*: the extraterrestrials that haunted science fiction typically posed a threat to human civilization because their existence placed the Earth within the context of a much larger and unpredictable universe. The jungle creatures and the Whos, in this case, pose a mutual threat to one another's insularity—their understanding of themselves as, physically and culturally, the center of the universe.

# "What Trouble a Pig Can Be"

E. B. White's classic chapter book *Charlotte's Web* (1952) also frames an ecological lesson with a sense of wonder, detailing the story of Wilbur, a young pig whose life is saved from the autumn slaughter by his friend Charlotte, a common gray spider. Though, like Seuss, White is not typically acknowledged in the canon of environmentalist writers, his essays on ecological issues, among his regular contributions to *The New Yorker*, had drawn sufficient attention to make White among the first people Rachel Carson contacted about the idea of writing an article on the deleterious effects of industrial pesticides. <sup>117</sup> Though he ultimately declined to take up the issue—despite his admission that "the whole vast subject of pollution" spanned a spectrum of significance that "starts in the kitchen and extends to Jupiter and Mars"—Carson still chose to marshal his sentiments as an epigraph to *Silent Spring*: "We would stand a better chance of survival if we accommodated ourselves to this planet and viewed it appreciatively instead of skeptically and dictatorially." <sup>118</sup> It is precisely the nature of this appreciative view of ecology which White explores in depth in *Charlotte's Web*.

After overhearing Wilbur's miserable musings on the death farmer Zuckerman plans for him, Charlotte contrives to write messages about him into her web, astounding and delighting the locals, who take these correspondences as "a miracle and a sign" that

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<sup>&</sup>lt;sup>117</sup> Linda Lear describes the episode in her biography of Carson, pp. 316-318, and notes that this decision on Carson's part actually lead White to recommend the issue to the attention of *New Yorker* editor Wallace Shawn, who ultimately serialized *Silent Spring* in the summer of 1962. While White typically did not treat ecological issues in a direct fashion, some of his essays—including "Sootfall and Fallout" (1956) which I treated in Chapter One—offer fascinating insights on ecological problems.

<sup>&</sup>lt;sup>118</sup> The first of these quotes derives from a letter from White to Carson, dated Feb. 7, 1958, cited in Lear's *Rachel Carson: Witness for Nature*. Pp.547 n. 23. The second can be found in the front matter of *Silent Spring* (Boston: Houghton-Mifflin Co. 1962. Pp. *vi*).

"we have no ordinary pig." Her messages, which generate state-wide fame, eventually convince Zuckerman to spare Wilbur's life. Yet *Charlotte's Web* is a text of many layers, and while the "miracle" of the web brings on an ecological revelation in the sense that it ascribes an inherent value to Wilbur's life—as a member of an ecosystem, rather than as marketable meat—there is another, more commonplace but less easily defined sense of wonder that the book attempts to communicate throughout its length. As the story's wizened pediatrician, Dr. Dorian, declares, "When the words appeared, everyone said they were a miracle. But nobody pointed out that the web itself is a miracle" (109). The book divides its characters, both animal and human, along the lines of who is attuned to this deeper appreciation of the workings of life, and who will fall for Charlotte's trick—ultimately suggesting an outlook on human sensitivity and intelligence which seems, at times, rather cynical. Yet, as in *Horton Hears a Who!*, the reader occupies a privileged epistemological position that allows her a clear view into both worlds and leaves her, at least in theory, with a healthy dose of skepticism regarding each.

Nowhere is this distinction so evident as in White's disposition of those persons who can "hear" the animals of the barnyard talking versus those who cannot. In the book's first pages, the reader meets Fern Arable, a young girl with an instinctive sense of justice that leads her to stop her father from slaughtering the runt pig who will eventually grow into Wilbur. This dramatic opening scene is worth exploring not only because it initiates the reader into the ecological ethics White turns over throughout the story, but

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hings forth a related issue which I will not discuss here, but which is of some interest to ecocritics: What are the ethical implications of personifying or ventriloquizing animals, even if one does so in order to advocate for the value of their lives? The layered acts of writing, speaking, and interpretation in *Charlotte's Web* might provide a rich reading on this subject.

also because it asserts, from the start, that the nexus of these moral dilemmas lies in the domestic economy:

"But it's unfair," cried Fern. "The pig couldn't help being born small, could it? If *I* had been very small at birth, would you have killed *me*?"

Mr. Arable smiled. "Certainly not," he said, looking down at his daughter with love. "But this is different. A little girl is one thing, a little runty pig is another."

"I see no difference," replied Fern, still hanging onto the ax. "This is the most terrible case of injustice I ever heard of."

A queer look came over John Arable's face. He seemed almost ready to cry himself.

"Alright," he said. "You go back to the house and I will bring that runt when I come in. I'll let you start it on a bottle, like a baby. Then you'll see what trouble a pig can be." (3)

John Arable's remark "a little girl is one thing, a little runty pig is another" typifies a domestic economy in which the value of animal lives is measured differently than human lives—in terms of energy, expense, and profit. Conversely, his daughter's response "I see no difference" exemplifies a domesticity in which the lives of human beings and animals are themselves inherently valuable, an ideology she will later bear out in bottle-feeding the piglet, nestling him in her pram with her baby dolls, and otherwise playing with the idea of the piglet as her own human baby. Yet White is careful not to weight either end of the argument too heavily. Just as Mr. Arable will eventually concede to his daughter's demand—with a world-weary "Then you'll see"—Fern's claim that she "sees no difference" subtly suggests that her *perspective* is narrowed by her youth and inexperience.

As in *Horton*, seeing is once again code for knowledge, for the belief that one can apprehend a situation completely. But White, unlike Seuss, does not anchor either

character in the certainty of the moral high ground: rather, the two Arables' positions define two sides of the problem that is the value of life. Just as in the Garth Williams illustration which accompanies this episode, their arguments are locked in contest over the killing axe, both claiming the power



Figure 10. Illustration by Garth Williams. Pp. 2.

to administer or withhold death, forming with their bodies a temporary, but illusory balance (Figure 10). This dramatic bifurcation, occurring in the first pages of the book, gives the reader a key to understanding the text that follows: the perspectives created on either side of the barnyard fence—between characters who "hear" or understand the animals, and those who do not—are incomplete in and of themselves. *Charlotte's Web* does not necessarily argue for the unification of these perspectives into one ecological

awareness, but rather schematizes them into its own pattern of growth and maturity, folding human consciousness into the larger story of life on the farm.

## A Sense of Wonder, a Reverence for Life

Fern Arable, then, assumes what I will call a childlike perspective—a viewpoint which is receptive, indeed which thrives upon White's own version of the "sense of wonder." In a narratological sense, the key component in Fern's perspective is her ability to "hear" the conversations which pass between the animals in her Uncle Zuckerman's barn, where Wilbur the piglet eventually goes to live. Many critics have commented upon the dramatic transformation which comes over Fern between the first chapters and the remainder of the book; from an active figure who lavishes motherly attentions on Wilbur in the first two chapters, she metamorphoses after his removal to the Zuckerman farm into a remarkably passive listener: "She sat quietly during the long afternoons, thinking and listening and watching Wilbur...All the animals trusted her, she was so quiet and friendly" (15). While some have accused Fern of essentially "dropping out" of the story, Perry Nodelman suggests that the active Fern of the first two chapters is meant as an introductory model for the story's other female lead—Charlotte the spider. In Nodelman's scheme, White uses Fern's playful, even childish maternal relationship to Wilbur to prepare his readers for the more serious circumstance of Charlotte's mothering of Wilbur, thus transferring Fern's elementary conviction that runts have a right to live

and be loved to Charlotte's more strenuous efforts to insure that Wilbur does live and is loved. 120

In this sense, Fern serves as a human bridge into the animal world, leading readers into the ecological perspective of the barnyard. As a silent partner to Wilbur—a sister now, more than a mother—Fern overhears Charlotte's stories, which often effectively serve as lessons in ecology. After hearing Charlotte tell a dramatic story about a spider cousin who caught and killed a fish in her web, for instance, Fern muses, "Spiders have to eat, same as the rest of us" (106). This comment recalls an earlier one in a conversation between Charlotte and Wilbur in which Charlotte defends herself against Wilbur's charges that her insect-eating lifestyle is "fierce, brutal, scheming, bloodthirsty":

"Well, you can't talk," said Charlotte. "You have your meals brought to you in a pail. Nobody feeds me. I have to get my own living. I live by my wits. I have to be sharp and clever, lest I go hungry. I have to think things out, catch what I can, take what comes. And it just so happens, my friend, that what comes is flies and insects and bugs. And furthermore," said Charlotte, shaking one of her legs, "do you realize that if I didn't catch bugs and eat them, bugs would increase and multiply and get so numerous that they'd destroy the earth, wipe out everything?" (40-41)

Here Charlotte not only describes the food chain, but supports her entitlement to a place within it, claiming a moral necessity for her ecological significance. Moreover, this example becomes part of the broader philosophy of "life-lessons" the text teaches through Charlotte; she is equally matter-of-fact about the primacy of her duty to reproduce—calling her egg-sac "my great work—the finest thing I ever made"—and the inescapability of her death—"After all, what's life? We're born, we live a little while, we die" (145, 164). Narratively, these moments of biological insight are set within a pattern

<sup>&</sup>lt;sup>120</sup> See Nodelman, Perry. "Text as Teacher: The Beginning of *Charlotte's Web." Children's Literature* 13. 1985.109-127. Pp. 125. Nodelman's article is also reprinted in John Griffith's compilation *Charlotte's Web: A Pig's Salvation*. New York: Twayne Publishers. 1993.

of recurring passages that describe and gently praise the beauties of each passing season in a current of vitalism that runs from the "warm and soft" days, the newly mown hay, and the "jubilee" birdsong of early summer to the plenteous pumpkins, "bright colors," and the crabapples "thick on the ground" of late autumn (173).

White aligns this seasonal progress, and its open engagement in the processes of life, with the locus of Fern and Wilbur's education—the Zuckerman barn. In a passage he once labeled a "paean to life," White describes the barn as less of a particular place and more a platonic ideal, a womb-like space in which multifaceted functions of life are sheltered:

The barn was very large. It was very old. It smelled of hay and it smelled of manure. It smelled of the perspiration of tired horses and the wonderful sweet breath of cows. It often had a sort of peaceful smell—as though nothing bad could ever happen again in the world. It smelled of grain and of harness dressing and of axle grease and of rubber boots and of new rope. And whenever the cat was given a fish-head to eat, the barn would smell of fish. But mostly it smelled of hay being pitched down to the cows and the horses and the sheep.

The barn was pleasantly warm in winter when the animals spent most of their time indoors, and it was pleasantly cool in summer with the big doors stood open wide in the breeze. The barn had stalls on the main floor for the work horses, tie-ups on the main floor for the cows, a sheepfold down below for the sheep, a pigpen down below for Wilbur, and it was full of all sorts of things that you find in barns: ladders, grindstones, pitchforks, monkey wrenches, scythes, lawn mowers, snow shovels, ax handles, milk pails, water buckets, empty grain sacks, and rusty rat traps. It was the kind of barn that swallows like to build their nests in. It was the kind of barn that children like to play in. And the whole thing was owned by Fern's uncle, Mr. Homer L. Zuckerman." (13-14)<sup>121</sup>

Perhaps more than any other passage within the book, this description of the barn shows how White links the discourse of domesticity to the development of young minds: the

White made the "paen to life" comment in 1971, while describing his hopes for the animated film which was shortly to be made based on his book (*Charlotte's Web*. Dir. Charles A. Nichols and Iwao Takamoto (1973)). Interestingly, White wrote: "My feeling about animals is just the opposite of Disney's. He made them dance to his tune and came up with some great creations, like Donald Duck. I preferred to dance to *their* tune and came up with Charlotte and Wilbur." Quoted in Peter F. Neumeyer's *The Annotated* Charlotte's Web. New York: Harper Collins. 1994. Pp. 222-224.

barn is a place which constantly recalls the sensory memory of the lives of animals lived in part within the barn. It is a "nest" for young imaginations inspiring what Carson might have recognized as "a sense of wonder so indestructible that it would last throughout life" ("Help Your Child to Wonder," 46). The repetitive but ever-expanding syntax of the first paragraph begins with simple details and grows into a poem-like meditation upon the seasons of activity on the farm, a comforting and enclosing rhythm which gives the sense that "nothing bad could ever happen again in the world." The listing and categorizations which follow in the next paragraph also suggest completion, an organizing logic which fills every corner of the barn with its proper creature and a long succession of tools. Yet this world is also bounded—marked by the property designation of "Mr. Homer L. Zuckerman"—and this condition suggests the political economy which prevails in the "rest of the world" outside the barn, making the glowing order the narration conjures within the barn seem somewhat ambivalent. The animals, tools, and even the timbers of the barn itself are at once part of this peaceful "place" and the property of Uncle Zuckerman.

Accordingly, the sense of wonder White portrays in Fern is complicated by the fact that as she matures, Fern loses interest in the world of the Zuckerman barn and even in the campaign to save Wilbur's life. Far from committing the full-scale "abandonment" some critics have accused her of, Fern is actually fulfilling precisely the kind of biological mission of survival and maturation that Charlotte models—complete with a boy, a Ferris wheel, and the beginnings of a courtship. 122 Out of this receding outlook,

<sup>&</sup>lt;sup>122</sup> This model of the "natural" is, admittedly, a deeply heteronormative one—as, arguably, most models of what is "natural" and "unnatural" are. As a larger concern, this issue has recently been taken up by ecocritics in such texts as Catriona Sandilands' *The Good Natured Feminist: Ecofeminism and the Quest for* 

however, White crafts what might be called an adult perspective based on a more distanced, muted sensitivity to an reverence for life, and manifested in such characters a John Arable or Doctor Dorian. I derive my idea of reverence for life from the work of Albert Schweitzer, who shared White's place in the front matter of *Silent Spring*; dedicating the book to him, Carson cites his declaration that "Man has lost the capacity to foresee and forestall. He will end by destroying the earth." <sup>123</sup> In a philosophy based on the restraint of violence and destruction, Schweitzer conceived of the fundamental essence of human beings and all other life forms as their respective "wills-to-live." He characterizes this forward-tending, emotive and physical direction of all lives toward "yearning for more life, and for that mysterious exaltation of the will-to-live which is called pleasure," and away from "terror in the face of annihilation and that injury to the will-to-live which is called pain." Furthermore, Schweitzer argues that this common will and desire "obtains in all the will-to-live around me, equally whether it can express itself to my comprehension or whether it remains unvoiced." <sup>124</sup>

The sensibilities described in this passage reflect the experience of the more mature adult characters in *Charlotte's Web*. It should be remembered, for instance, that even though John Arable is presented in the book's opening pages as an axe-wielding, cold-blooded baby-pig-killer, he acts not out of cruelty but out of a well-attuned understanding of and practicality about the lives of domesticated animals. The runt, as Mr. Arable asserts, "would probably die anyway," and "a weakling makes trouble" for

Democracy and Simon C. Estok's "Theorizing in a Space of Ambivalent Openness: Ecocriticism and Ecophobia." (Interdisciplinary Studies in Literature and the Environment. 16:2. (Spring 2009). Pp. 203-225), which attempt to mesh the insights of queer theory with ecocritical inquiry.

<sup>&</sup>lt;sup>123</sup> Carson, Silent Spring. Pp. iv

<sup>&</sup>lt;sup>124</sup> See Schweitzer, Albert. *Civilization and Ethics*. Trans. A. Naish. London: Black. 1923. Reprinted in Louis P. Pojman's Environmental Ethics: Readings in Theory and Application. Fourth Ed. Australia: Thompson/Wadsworth. 2005. Pp. 110-117. Pp. 111.

those who raise it and for the other piglets whose resources it drains (White, 1-3).

Moreover, Mr. Arable—jokingly, at least—expresses a sensitivity to the "unvoiced" significance of the animals on Homer Zuckerman's farm that shadows Fern's attentive listening to the same animals. Responding to his wife's anxiety about the way Fern "ramble[s] on about the animals, pretending that they talked," he quips: "Maybe they do talk...Maybe our ears aren't as sharp as Fern's" (White, 54). Once again, the reader encounters a dichotomy in which the certainty produced through sight is undermined by the certain uncertainty of what can be heard, and in which ethical value is registered—however faintly—through a living voice.

Mr. Arable's perspective is further elaborated in a curious episode in which Mrs. Arable visits the family physician—Dr. Dorian—with her concerns about Fern's spending "entirely too much time in the Zuckerman's barn." "It doesn't seem normal," she reports. "She sits on a milk stool in a corner of the barn cellar, near the pigpen, and watches animals, hour after hour. She just sits and listens" (107). To her surprise, Dr. Dorian responds to the situation with a remarkable insouciance, particularly when it comes to explaining the emergent mystery of the words in the web. When asked if he "understand[s]" how such a thing could be, he replies: "Oh, no...I don't understand it. But for that matter I don't understand how a spider learned to spin a web in the first place. When the words appeared, everyone said they were a miracle. But nobody pointed out that the web itself is a miracle" (109). He then leads Mrs. Arable through a line of inquiry that elegantly delineates what might be described as an adult "sense of wonder":

"What's miraculous about a spider's web?" said Mrs. Arable. "I don't see why you say a web is a miracle—it's just a web."

"Ever try to spin one?" asked Dr. Dorian.

Mrs. Arable shifted uneasily in her chair. "No," she replied. "But I can crochet a doily and I can knit a sock."

"Sure," said the doctor. "But somebody taught you, didn't they?"

"My mother taught me."

"Well, who taught a spider? A young spider knows how to spin a web without any instructions from anybody. Don't you regard that as a miracle?"

"I suppose so," said Mrs. Arable. "I never looked at it that way before. Still, I don't understand it, and I don't like what I can't understand."

"None of us do," said Dr. Dorian, sighing. "I'm a doctor. Doctors are supposed to understand everything. But I don't understand everything, and I don't intend to let it worry me."

Mrs. Arable fidgeted. "Fern says the animals talk to each other. Dr. Dorian, do you believe that animals talk?"

"I never heard one say anything," he replied. "But that proves nothing. It is quite possible that an animal has spoken civilly to me and that I didn't catch the remark because I wasn't paying attention. Children pay better attention than grownups. If Fern says that the animals in Zuckerman's barn talk, I am quite ready to believe her. Perhaps if people talked less, animals would talk more. People are incessant talkers—I can give you my word on that." (White, 110)

What Dr. Dorian describes here, as he fills the role of "expert" so often turned to by midcentury parents, is a kind of ecologically-inflected willing acceptance of uncertainty. This is a state which, in Schweitzer's language, occurs when "my will-to-live has become cognizant of the existence of other wills-to-live"—but also admits that cognizance does not entail transparent understanding. For Schweitzer, too, this knowledge comes with an emotive imperative that is ethical in its implications—a "will-to-live" thus enlightened feels a powerful "yearning for unity with itself, a longing to become universal" that is never entirely possible to fulfill (112). White's more informed adults capture this divided perspective, living with eternal curiosity and concern inside an ecosystem that affords only partial glimpses into its full and evolving complexity. In a broad sense, this balance

of receptivity and speculation becomes White's best model for being "at home" in nature, a kind of domestic philosophy. 125

#### The Web of Life and the Web of Lies

The perspective which *Charlotte's Web* most vividly paints—and that for which it is best known—reflects an entirely different sense of what wonder is and how it operates. Charlotte's carefully woven words are the dominant figure of this story, accruing in church pulpits the significance of a "miracle" that "prove[s] that human beings must always be on the watch for the coming of wonders"—an appraisal which rather misses the point—and garnering at the state fair the designation of "supernatural forces" for which "we should feel proud and grateful." (85, 157). Yet as Charlotte points out, the fundamental principle by which the web's wonder works is humanity's "natural" gullibility. "If I can fool a bug," she reasons, "I can surely fool a man," thus opening the way for a literal and figurative web—if not of lies, then of well-intentioned misdirections

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<sup>125</sup> In the essay which is often cited as White's inspiration for *Charlotte's Web*—"The Death of a Pig" (1948)—the author finds himself negotiating his own uncertainties in the adventure of raising a pig. Having accustomed himself to the idea of "a tragedy enacted on most farms"—the slaughter at the end of the season—White is disappointed when "my pig simply failed to show up for a meal," that is, mysteriously grew sick. "I found myself," White writes, "cast suddenly in the role of pig's friend and physician—a farcical character with an enema bag for a prop. I had a presentiment, that very first afternoon, that the play would never regain its balance..." Through this interruption in the commonplace domestic cycle of raising and slaughtering an animal, White finds himself interrogating the killing which has become institutionalized within this cycle. He develops something very like the ever-renewing relation of reverence for life Schweitzer describes. When his pig ultimately dies, White notes significantly that "the loss we felt was not the loss of ham but the loss of a pig." (See White, "The Death of a Pig." Reprinted in Peter F. Neumeyer's *The Annotated* Charlotte's Web. New York: Harper Collins. 1994. Pp. 228-235).

(67). Indeed, as John Griffith points out, the mechanism of meaning the web deploys resembles nothing so much as an advertisement. 126

Charlotte's web, then, works not by drawing attention to itself, but by diverting the admiration it inspires onto Wilbur. When Mrs. Zuckerman points out, upon the discovery of those first gossamer letters in the web, that the incident might say more about the extraordinary qualities of the spider than of the pig, Mr. Zuckerman insists, "Oh no...It's the pig that's unusual. It says so, right there in the middle of the web." (White, 81). Charlotte's words, in this sense, mimic the structure of well-made advertisements, investing their product—in this case, Wilbur—with the virtues they themselves evoke. The vocabulary of Charlotte's messages, once broadcast, immediately becomes part and parcel of Wilbur himself—a Wilbur® brand—accreting meanings which do not necessarily reflect his actual substance. This semiotic process, almost miraculous in its rapidity and tenacity, is beautifully demonstrated when three characters, apparently quite unconscious of what they are doing, describe Wilbur by quoting three of Charlotte's webs in succession:

"That's some pig!" said Mrs. Arable.

"He's terrific," said Lurvy.

"He's very radiant," said Fern, remembering the day he was born (125).

It is not surprising, then, that White sends the barnyard rat, Templeton, rummaging through heaps of discarded magazines and produce packaging in order to find new words for the web, among which "crunchy" and "pre-shrunk" are notable rejections (98-99)(Figure 11).

<sup>&</sup>lt;sup>126</sup> See Griffith, John. *Charlotte's Web: A Pig's Salvation*. Pp. 6.

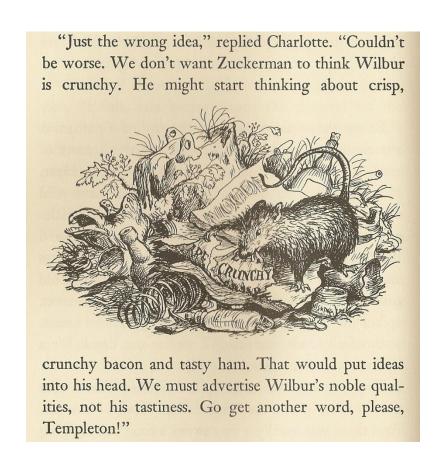


Figure 11. Illustration by Garth Williams. Pp. 98.

A parody White published in 1925 in *The New Yorker* drives at the same point, lampooning advertisers (and their all-too-credulous buying public) for their attempts to add value to a natural "product" while missing its already apparent natural value. Providing one of several examples of what an advertising copywriter might come up with if "handed the 'VERNAL' account," White writes:

## NEW BEAUTY OF TONE IN 1925 SONG SPARROW

Into every one of this season's song sparrows has been built the famous VERNAL tone. Look for the distinguishing white mark on the breast. 127

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<sup>&</sup>lt;sup>127</sup> Reprinted in Peter F. Neumeyer's *The Annotated* Charlotte's Web. New York: Harper Collins. 1994. Pp. xxi.

Like White's fictitious admen, through in a much graver scenario, Charlotte writes in order to "sell" the concept of Wilbur's value as a living thing, and her ploy works beautifully. By the end of the book, Wilbur not only "mean[s] a great deal to Zuckerman"—enough to guarantee his safety into old age—but also to his unnamed state, to whom he has, according to the announcer at the County Fair, attracted "many valuable tourists" (164, 157). In essence, the "voice" of the animals that the vast majority of the characters hear, as expressed through Charlotte's webs, works to make Wilbur's life rather than simply his flesh—register as valuable in the economy that governs the barnyard and connects it to the larger market. For White, however, this seems rather an ironic victory; it is neither through the sensitive perception of children nor the enlightened perspective of adults that Wilbur's life is ultimately honored and saved, but through an inspired piece of hucksterism and a public reaction akin to—however innocently—mass hysteria.

This may seem a rather too skeptical way to read a book which millions of readers treasured, and which master storyteller Eudora Welty hailed as "just about perfect" in its portrayal of "friendship on earth, love and affection, adventure and miracle, life and death, trust and treachery, night and day and the seasons." But at heart White's book, I want to assert, is all about the act of *critical* perception. In creating a world of multiple, even contradictory perspectives on the "wonder" of the natural world—what John Griffith calls a "barnyard of limited wonders"—White makes what we might now interpret as an ecocritical point (57). Like Horton, Charlotte's Web suggests the importance of an ecological awareness of nonhuman life and its impact upon human life.

<sup>&</sup>lt;sup>128</sup> New York Times, October 15, 1952.

However it also evokes an agrarian background which, though becoming ever more distant from the lived experience of White's urban and suburban readers, still held an important place in America's sense of its own history, and particularly in the mythology of the suburbs. This simplified time and place, as the text shows, can harbor our deepest feelings of identification with other life forms, our sense that human beings, too, are a part of, rather apart from, nature; however, as White warns, these feelings are also vulnerable to exploitation, commercialization, and other processes which totalize—and in totalizing, devalue—the life the agrarian mode exalts. To avoid the reduction of a life to a product or a catchy tagline, the text asserts, readers must remain ecologically *aware*, constantly open, like Dr. Dorian, to the both the insecurities and the interdependencies that constitute relations within ecological systems. Albert Schweitzer, quite unknowingly, offered perhaps the best reflection upon *Charlotte's Web* and the critical consciousness in his *Civilization and Ethics* when he wrote:

Man does not make ethical progress by assimilating instruction with regard to accommodation between the ethical and the necessary, but only by hearing ever more clearly the voice of the ethical element, by being ever more under the control of his own yearning to maintain and enhance life, and by becoming ever more obstinate in his opposition to the necessity of destroying and injuring life. (115)

## **Growing Up: Putting the Sense of Wonder into Context**

Taken together, *Horton Hears a Who!* and *Charlotte's Web* form an object lesson in environmentalist rhetoric: where *Horton* implies that in order for human society to see—or rather to hear—ecological connections in a meaningful way, the natural world

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<sup>&</sup>lt;sup>129</sup> As I demonstrate in a number of ways throughout the current work, evocations of a pastoral past played an important role in environmental thinking in the midcentury. See, for instance, Michael Pollan's thoughts on the frontier resonance of the suburban lawn (discussed in Chapter One), or my treatment of the "Fable For Tomorrow" chapter which opens Carson's *Silent Spring* (Chapter Five).

must be distinguished in its similarity to the human world, Charlotte's Web argues against a too-easy legibility of the relation between human and non-human (or morethan-human) worlds. 130 Translated into the terms which have guided this project so far, the ecological "lessons" each text tries to instill deal very differently with the environmental impulse that characterized their era. With its focus on the concentric, but enclosed spheres of the jungle and Whoville, *Horton* uses an environmental framework. It showcases the social anxiety (or more accurately, the murderous hysteria) that results from moving too close to these borders between separate worlds, while also suggesting that the way to a truly "peaceable" jungle lies in the protection of the tiny environment which Whoville embodies. White's text, on the other hand, illustrates the impermanence of environments as conceptual structures; while the Zuckerman barn will doubtless continue to exist in its plenitude of life itself, it will be in the minds of other children, or in a special place in the reader's imagination. Though this nurturing environment is equally the source of Fern's ecological education and the county's delightful mass delusion, these are both moments of insight which pass. What endures in the book are adults' creative engagements with the living world, their intellectual curiosity about their places within it. As a comparison of the two works suggests, the sense of the *collective* that ecology can sometimes conjure often needs a *corrective*, a critical edge; otherwise, it can all-too-easily fall into the pervasive mode of bounded environmental thinking.

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<sup>&</sup>lt;sup>130</sup> By using the designation "more-than-human," I simply mean to avoid the easy division of the world into a human and non-human binary, which is a bit of paradox in that all non-human perspectives are, perforce, the products of human imagination. A "more-than-human" world simply means one in which we acknowledge that human perspectives are limited—but that we can imagine the world from non-human perspectives

To that end, I close with two questions which, I hope, usefully temper the enthusiasm some ecocritics have recently shown for reanimating a Carsonian "sense of wonder" as pedagogical technique or, as is often the case, the *real* legacy that Carson left her readers. 131 Kaiulani Lee's recent bio-pic *The Sense of Wonder: Two Interviews with* Rachel Carson, for instance, portrays Lee in the role of a post-Silent Spring Carson, courageously enduring the agony of cancer even as she tries to formulate a more substantial text on the "sense of wonder"—one which would show how attention paid to the wonders and realities of the universe would point the way to a better world. <sup>132</sup> As I stated at the outset of this chapter, too, Kathleen Dean Moore has recently argued that "A sense of wonder closes the distance between 'this is wonderful' and 'this must remain,' between the 'is' and the 'ought.' It is a bridge of moral resolve that links the physical world and the moral world. And so I believe that a sense of wonder may well be a moral virtue, perhaps the keystone virtue of an environmental ethic." <sup>133</sup> I agree with both Moore's and Lee's sense that "wonder" offers us a way to articulate *positively* the lessons of ecology—the same messages which environmentalist discourse has tended to frame, as Frances Moore Lappé points out, in terms of limits and prohibitions. <sup>134</sup> But I believe it is

<sup>&</sup>lt;sup>131</sup> The other, more obvious choice for a Carsonian legacy would be, of course, *Silent Spring*. The impulse to replace this controversial book with the far more inviting notion of a "sense of wonder" comes, I believe, not only from a historiographically accurate feeling that the popularizing the "sense of wonder" was, for Carson, a fundamental project of which *Silent Spring* was merely a part; I think this impulse also reflects a desire to begin delineating the more affirmative aspects of environmentalist sentiment which, as many ecocritics have noted, have had less of voice in the movement. Wonder becomes, in this equation, the flip side of a discourse of loss (of resources, species, biodiversity), limit, and catastrophe, an early step in affirming what environmentalists *do* believe, rather than what they disavow.

<sup>&</sup>lt;sup>132</sup> A Sense of Wonder: Two Interviews with Rachel Carson. Dir. Kaiulani Lee. Bullfrog Films (2008)

<sup>&</sup>lt;sup>133</sup> See Kathleen Dean Moore, "The Truth of the Barnacles: Rachel Carson and the Moral Significance of Wonder." In *Rachel Carson: Legacy and Challenge*. Ed. Lisa H. Sideris and Kathleen Dean Moore. Albany: State University of New York Press. 2008. Pp. 269 (emphasis mine)

<sup>&</sup>lt;sup>134</sup> Lappé addresses what she calls the "Limits of Limits Thinking" in her most recent book *Liberation Ecology*. She writes: "the biggest drawback of the 'we've hit the limits of a finite earth' idea is this: It frames the problem *out there*—in the fixed quantity that is earth. *Its* limits are the problem. But, more

equally important to recognize this sense of wonder's historical context within the realm of postwar domesticity and a distinctly environmental frame of thinking, and not only to ask *who* this model of environmentalist thinking privileges, but also to reflect on *how* this child-oriented model of ecological learning has influenced or stifled the development of more adult perspectives.

Firstly, the "back-to-nature" direction in which the sense of wonder urges us assumes a more general trajectory of lifestyle and material conditions which not everyone shares. As the many context clues within "Help Your Child to Wonder"—not the least of which can be found in the title itself—indicate, the sense of wonder was designed for children who had come to experience nature as a "something extra," a kind of necessary-accessory to everyday living suffused with middle-class tones of leisure, play, and self-improvement. This is not to say that a sense of nature's wonder speaks only within certain class lines, but rather that the iteration of it which has become most exalted in the environmentalist imagination was originally shaped as a recuperative gesture for citizens of a modern technocracy which felt it had moved, in many ways, "beyond nature." The argument that we as a nation and as world-citizens need to realign ourselves mentally and physically with nature can be made in numerous and nuanced ways, but this particular version of it makes less sense to an audience struggling to meet its basic needs. As Bill McKibben asserts in his 2007 Deep Economy: The Wealth of Communities and the

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accurately and usefully, the limit we've hit is that of the disruption of nature we humans can cause without catastrophic consequences for life. In this frame the attention is on what we do. The first frame conjures up the notion of quantity, as in a fixed but overdrawn bank account. The problem is the darn limit of the account; and the solution is to cut back what we withdraw. The second frame focuses on human disruptions of the flows of energy in nature, which, if considered as systems, are ever renewing and evolving...In this frame, the challenge is not narrowly on cutting back, but on aligning with the laws of nature to sustain and enhance life." (Lappé, Liberation Ecology: Reframing Six Disempowering Ideas that Keep Us from Aligning with Nature—Even Our Own. Cambridge, MA: Small Planet Media. 2009.

Durable Future, there actually is a socioeconomic threshold beyond which moving deeper into a capitalist economy—and, according to conventional environmentalist wisdom, "away" from nature and necessity—makes for a happier life. <sup>135</sup> Part of the contradiction in this line of thinking lies in the middle class assumption that "environment" means simply nature, and not nature as shaped by human cultural constructions. If the sense of wonder is to become a truly ecological concept, then it will have to reflect the human ecology of diversely raced, classed, and gendered ways in which American lives (not to say those of other nations) articulate with the natural world.

Second, it seems worth asking why this particular model of ecological awareness, originally intended for children, has gained so much currency among an adult audience. In part, this new sense of the sense of wonder has to do with the recent rise of ecocriticism itself, which has from its beginnings taken an interest in pedagogical technique as well as praxis. The sense of wonder is a natural outlet for the experience-based approaches to teaching that typify eco-pedagogy and, as the texts I have reviewed here assert, is ideally a habit of learning that lasts into maturity. At the same time, there seems to be an inherent danger in framing our strategies for ecological understanding *solely* through the imaginations of children. Leo Marx and Annette Kolodny have each, in their classic studies, demonstrated the striking immaturity with which much of American literature—and literary heritage—have dealt with human relationships to the

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<sup>&</sup>lt;sup>135</sup> That point is, according to McKibben, at about \$10,000 per capita income. Drawing from psychological studies, he writes: "In general, researchers report that *money consistently buys happiness right up to about \$10,000 per capita income, and that after that point the correlation disappears*. McKibben, *Deep Economy: The Wealth of Communities and the Durable Future*. New York: Henry Holt and Company. 2007. Pp. 41.

natural world. More recently, Catriona Sandilands has demanded fresh alternatives to the "mother environmentalism" that has come to dominate the popular images of the environmental movement—the desire to make a better world for one's children, she argues, should not be the *only* motive for environmentalist action that is culturally recognized and validated (*Good Natured Feminist*, *xi-xiv*). In short, the sense of wonder, marking an important place to start interrogating and illuminating ecological relationships, is a good place to start; but building a sustained ecological critique also depends upon encountering our relationships to nature as adults.

To this end, my next chapter explores the manifestations of the environmental impulse, and the current of ecology, that run through a more mature form of cultural expression—though, to be sure, sometimes only *slightly* more mature. Chapter Three, "Giant Ants and Shrinking Men: Technology, Domesticity, and the Environmental Impulse in Postwar Science Fiction Cinema" concerns the phenomenon of "big bug" movies and other science fiction films which flooded the movie theaters in the postwar period, imagining environmental disasters of a global dimension as they did so. These films, as I will argue, employ an aesthetic of horror that parallels, but also reverses the ecological sense of wonder Carson, Seuss, and White develop. Nevertheless, they provide

<sup>&</sup>lt;sup>136</sup> As I explain in my introduction, Marx's conception of the "pastoral impulse" is partially based on his sense that the constant recourse to the pastoral in American culture is a social symptom of having not rigorously thought through our complicity in technological progress. (Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America*. London: Oxford University Press. 1964). In her *The Lay of the Land*, on the other hand, Kolodny argues: "Our continuing fascination with the lone male in the wilderness, and our literary heritage of essentially adolescent, presexual pastoral heroes, suggest that we have yet to come up with a satisfying model for mature masculinity on this continent; while the images of abuse that have come to dominated the pastoral vocabulary suggest that we have been no more successful in our response to the feminine qualities of nature than we have to the human feminine." (Annette Kolodny, *The Lay of the Land: Metaphor as Experience and History in American Life and Letters*. Chapel Hill: The University of North Carolina Press. 1975. Pp. 147)

an important insight into a much less explored side of environmentalist discourse—its roots in science fiction.

#### **CHAPTER III**

# Giant Ants and Shrinking Men: Technology, Domesticity, and the Environmental Impulse in Postwar Science Fiction Cinema

"It'd be funny if life weren't so sacred."

-Andre Delambre (David Hedison), *The Fly*<sup>137</sup>

Kurt Neumann's 1958 science fiction thriller, *The Fly*, might at first seem an odd place to begin a discussion of the emerging ecological consciousness of the 1950's. The film tells the story of an accomplished corporate scientist, Andre Delambre (played by David Hedison), who discovers a way to teleport matter through space using a machine he invented in his basement-laboratory. This "disintegrator-integrator," as he calls it, has world-saving potential. Breaking any object down to its atomic components, beaming them "at the speed of light" to a remote receptor, and reassembling them into their original form, this device could, he believes, speed global transit and spell the end of famine and want for a world in the throes of revolution and development.

But there are still a few kinks to work out: in an impulsive attempt to teleport a living body—as opposed to the ashtrays and other inert objects he has experimented with before—Delambre accidentally destroys the family cat, Dandilo, leaving only a forlorn, disembodied meow that lingers in the airwaves of his lab. Confessing the incident to his wife, Helène (Patricia Owens), he explains:

Andre Delambre: She disintegrated perfectly, but never reappeared.

<sup>&</sup>lt;sup>137</sup> The Fly. Dir. Kurt Neumann. 1958. (20<sup>th</sup> Century Fox)

If this moment sounds a little like something out of *Star Trek*—this is perhaps no surprise. As a kind of mass cultural dream what "the final frontiers" of technology and geopolitical/intergalactic relations might be, there is perhaps no better text than Gene Roddenberry's *Star Trek*, which ran from 1966-1969. What is most interesting about *The Fly* as a precursor to more developed visions like *Star Trek*, I think, is its anchoring in the domestic: nearly all of the action of the film takes place in the Delambre home, either in the living space or in the subterranean laboratory just beneath it.

Helène Delambre: Where's she gone?

<u>Andre Delambre</u>: Into space...a stream of cat atoms. [Sighs]. It'd be funny if life weren't so sacred

Despite the film's rather serious overtones, this moment is actually funny, not just in its conception—a molecularly dispersed cat at large in the universe—but in its rather wooden invocation of the "sacredness of life." This is a tenant to which Helène and Andre hold fast, as their brother-in-law François (Vincent Price) attests earlier in the film (and, as it turns out, ironically): "Helène and Andre believed in the sacredness of life. They wouldn't harm anything...not even a fly." Both moments read, and play, almost as if the "sacredness of life" is something which *must* be acknowledged, however stilted such an acknowledgement might be, however canned that particular chestnut. There is a palpable tension in the film between these earnest invocations of the sacredness of life and the terrifying consequences of Andre's "tampering reach" into the integrity of bodies. 139 Not long after this scene, Andre will attempt to transport himself, only to have his atoms horribly mingled with those of a fly who happened to wander into the disintegration station as he did so. The sacredness of life will become the profanity of an irreversible mixture: the scientist who now has the head and claw of a fly will beg his wife to help him die, while a fly with a human head and arm will fall victim to a horribly outsized garden spider. Life takes its terrible—and terribly corny—revenge.

But given the cultural context I have outlined in previous chapters, the film's bathos—particularly in its melodramatic rhetoric of the power of life—deserves a second

<sup>&</sup>lt;sup>139</sup> "Tampering reach" was Rachel Carson's way of describing the incursions of technology on nature-culture relationships. In a letter I discuss more extensively in Chapter One, Carson writes: "It was pleasant to believe, for example, that much of Nature was forever beyond the tampering reach of man—he might level the forests and dam the streams, but the clouds and the rain and the wind were God's."(Rachel Carson to Dorothy Freeman, February 1, 1958. In *Always, Rachel: The Letters of Rachel Carson and Dorothy Freeman, 1952-1964*. Ed. Martha Freeman. Boston: Beacon Press. 1995. Pp. 248-249.

look. First, the disintegration and reintegration of matter that forms the narrative premise of the film cannot help but recall the earthshaking discoveries in particle physics that gave rise to the Atomic Era. If atoms can now be isolated and manipulated, the story's logic runs, why cannot molecules be disassembled and reconstructed? In an attempt to settle Helène's doubts about the plausibility of the enterprise, Andre tries an analogy with the harmless, but pervasive, new medium of television: "A string of electrons, sound and picture impulses," he explains, "are transmitted through wires into the air. The TV camera is the disintegrator. Your set unscrambles or integrates the electrons back into the pictures and sound." Perhaps so, she rejoins, brandishing the ashtray he has just teleported, but the movement of solid objects—"real" things—is an ontologically different matter altogether, and one which leaves her with a creeping sense that "It's frightening. It's like playing God...The suddenness of our age." It is perhaps no accident that the dish in question was made in Japan, nor that the disintegration-integration process, as she soon discovers, has left it with a lasting mark, reassembling its origin stamp to read backward, "NAPAJ NI EDAM." The theoretical Relativity that enables Andre's machine to function becomes, for Helène, a metaphysical relativity that threatens the solidity and integrity of physical objects and living subjects. The lasting memory of Hiroshima and Nagasaki, two cities destroyed and remade in the "first moment of the atomic age," strains toward the surface of this conversation. 140

<sup>&</sup>lt;sup>140</sup> In *Hiroshima*, his graphic account of the bombing of Hiroshima on August 6, 1945 and its aftermath, John Hersey cites a moment that seems particularly relevant here. He describes Toshiko Sasaki, an office worker who was at crossing the hallway at work when the bomb fell: "There, in the tin factory, in the first moment of the atomic age, a human being was crushed by books." Hersey's implication—that the massive program of the Manhattan Project resulted in "books" killing people—is clear (John Hersey, *Hiroshima*. New York: Alfred A. Knopf. 1946. Pp. 23).

But in the universe of science fiction, this kind of historical memory does not speak. Rather, it appears silently, a subtext in the very material foundations of plots which can seem, at times, remarkably unhistorical and apolitical. Thus Susan Sontag could argue, only seven years after *The Fly's* début, that such films demonstrated a "strange apathy concerning the processes of radiation, contamination, and destruction"; this apathy, she reasoned, was neither ignorance nor negligence, but an almost deliberately "inadequate response to unassimilable terrors." Lacking or abnegating the means to protest the new technocratic regime of postwar life, these films, instead, explore the condition of "complicity with the abhorrent"—the ways in which the very way of life they portray contains the prospect of war, disaster, and annihilation.

In this sense, *The Fly* and other science fiction films of the era can serve to illustrate a kind of gothic tendency in midcentury thinking about the relationships of science and society. In so labeling these texts, I invoke Teresa Goddu's theory of the gothic as a genre which "disrupts the dream world of national myth with the nightmares of history." As she explains, "The nation's narratives—its foundation fictions and self-mythologiztions—are created through a process of displacement: their coherence depends on exclusion." Like the children's texts in my previous chapter, these films, and the books they were typically based upon, respond to a national culture built upon the mass displacement of bare life, but through an aesthetic of horror rather than wonder. This aesthetic was based on the growing sense that, as Sontag puts it, "Things, rather than

The only two immediate examples the film yields in this regard are the dish, as already stated, and the war wound by which Andre's body is ultimately identified.

See Sontag, "The Imagination of Disaster." *Commentary*. (October 1965). Pp. 42-48. Pp. 42, 48.
 See Goddu, *Gothic America: Narrative, History, and Nation*. New York: Columbia University Press. 1997.
 Though Goddu is primarily interested in manifestations of the gothic in nineteenth century
 American literature, I believe similar principal holds in these "modern" adaptations of gothic themes.

helpless humans, are the locus of values because we experience them, rather than people, as sources of power" (45).

Given these psychosocial considerations, it makes sense to claim that *The Fly* problematizes any easy relationship between scientific positivism and cultural progress by tracing the Faustian path of Dr. Andre Delambre. The doctor does eventually succeed in convincing his wife to crush the deformed parts of his body, including his head, in an industrial press, and one can easily connect him to Goethe's famous protagonist as a man whose lust for the power of knowledge puts him at odds with nature—makes him, indeed, a freak of nature. The case against technology, or more accurately, the suffocating of moral concerns that the technology in practice here represents, is clear. This reading supports, in part, critic Drew Cooper's assertion that sci/fi horror films of the era tend toward a "conservative ideology" that manifests a "negative view of science" and calls for a "return to traditional values." <sup>144</sup> Perhaps even more accurate to the feeling these films capture, however, is Paul Boyer's assessment that the technological leap from the pre-bomb world to the post-bomb world inspired a "deep seated horror, rather than complacency" about the role of science in society. In calling for a return to traditional values, these films, like the Cold War society that gave rise to them, were not ignoring the massive uncertainties of the nuclearized world, but developing an elaborate coping mechanism around them. 145

But the case the film actually makes *for* those "traditional" values—for the "sacredness of life" to which its characters so often defer—is not so clear. The only real

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<sup>&</sup>lt;sup>144</sup> See Cooper, *Postwar Cinema*: 1946-1962. Maiden, MA: Blackwell. 2007. Pp. 206

<sup>&</sup>lt;sup>145</sup> Boyer, *By the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age*. New York: Pantheon. 1985. Pp.335. Quoted in Elaine Tyler May's *Homeward Bound: American Families in the Cold War Era*. New York: Basic Books. 1988. Pp. 23.

agent of the principle of life in the film is the fly itself, who accidentally happens into Andre's disintegrator station in a kind of return of the ecological repressed, a diminutive reminder of the deterministic control nature exerts over human destiny. The fly, like Delmabre's disappeared cat, is a muted presence which disturbs the smooth narrative of technological achievement. The verbal treatment of "the sacredness of life"—the language which would bring Life into the realm of political discourse—remains trapped in the rhetorical. The "sacredness of life," so often repeated, reifies life for Life's sake. It suggests, too, an alternate reading of Sontag's diagnosis: alongside the "things" which we experience "as the sources of power" we can begin to discern in *The Fly* a "Life" which, similarly, maintains its sacrality because it acts in mysterious and disastrous ways to thwart human desire. Life, like technology, becomes ideological and dangerous, while the environment becomes downright fatal. 147

In this chapter, I will review a number of "giant bug" films from the mid-to-late 1950's—including Gordon Douglas' *Them!* (1954) and Jack Arnold's *The Incredible Shrinking Man* (1958)—to argue that these productions sublimate broad cultural concerns about rapidly changing human relations to the natural world into warring ideologies of

<sup>&</sup>lt;sup>146</sup> This situation brings to mind a relatively new field in ecocriticism—"dark ecology," pioneered by critics such as Timothy Morton—based on the idea that any conception of nature that does not include a human presence, or indeed is not marked by the presence of anthropocentric pollution, will not lead toward an effective resolution of the environmental crisis. *The Fly*'s persistent mixing of natural and human categories—not least of all in poor Andre himself—seems closely related to the kind of thinking Morton provokes. (See Timothy Morton, *Ecology Without Nature: Rethinking Environmental Aesthetics*. Cambridge, MA: Harvard University Press. 2007.

<sup>&</sup>lt;sup>147</sup> Richard Slotkin uses this conception in his classic study, *The Fatal Environment: The Myth of the Environment in the Age of Industrialization: 1800-1890.* New York: McMillan Publishing Co. 1985. The phrase literally refers to a line in Walt Whitman's poem "Death Sonnet for Custer" in which the General is surrounded and killed by Native American forces. But Whitman, argues Slotkin, means to suggest something more: the idea that Custer's death completes a meaningful "myth-historical design, a grand fable of national redemption and Christian self-sacrifice, acted out in the most traditional of American settings" (11) Similarly, *The Fly* documents the ruin of a bold conqueror—in this case, along the new frontier of particle physics, which seems almost inevitable—built into the nation's story of itself.

Science and Life. While often obscuring the true historical and political valences of these debates about new technologies and the making of synthetic environments, the films attempt to parse out a balance of technological boosterism and ecological caution, a balance sorely lacking in the films' diegetic level. As I will show, this resolution is typically projected through the forms and patterns of the domestic, which, in terms of the situations the films portray, offer a slightly more comfortable place—a foothold—for human agency between the two forbidding ideas of Technology and Life. This compromise may mean, as in Them!, a "marriage" of Science and government as portrayed through the romance of the daughter of a world-class entomologist (herself an up-and-coming researcher) and an F.B.I. agent who partner up to save the world from a race of giant man-eating ants that "evolved" from the irradiated soil of the Trinity Tests. Or it may, as in *The Incredible Shrinking Man*, take the rather bleak form of acknowledging that the "man of the future"—the devalued human being in an increasingly technocentric culture—will "shrink" slowly and painfully out of his role as breadwinner, husband, and self-provider, into the "infinitesimal" fabric of the universe. In both cases, the domestic—that intimate environment where politics and technology "come home" to Americans in the form of gender relations, consumer products, and the formation of individual identity—becomes the place in which new ideas are tested, their impacts felt in the most tangible and significant of ways. The home, and the life attendant upon it, becomes the real laboratory of cultural change.

In this sense, the conclusion of *The Fly* is no different: having discovered the human-headed fly that proves the hideous truth of Helène's story, François Delambre and Inspector Charas (Herbert Marshall) conspire to make Andre's flattening in the press

seem like a suicide. 148 In doing so, they are unknowingly fulfilling Andre's last request that "no one must ever know what I've discovered—it's too dangerous"—that is, that the capability to destroy and reshape matter he momentarily assumed must be forever placed out of the reach of human hands, that the fearful power be neutralized. With Andre and his terrible fate safely buried away, the film offers a final glimpse of Helène, released of the burdens of grief and concealment, happily playing croquet with her son, Philippe (Charles Herbert). François, having played the parts of both father to Philippe and standin husband to Helène during Andre's crisis, stands nearby, closing the family circle (now only slightly fractured by the incursions of Mad Science). When Philippe asks, perhaps not for the first time, why his father has died, François responds with an answer that both ennobles and domesticates the tragic tale we have just born witness to—"like an explorer in a wild country," Andre died in his "search for the truth," "the most important, the most dangerous work." François' words are double-edged: they align Andre's pursuit of Science with a teleology in which science leads to truth, but they also slice backward to strike upon the truism that the scientific method should never be employed to undermine the integrity of living bodies. Technological and ecological frontiers, François seems to suggest, are the frontiers of bold men—leading edges which can challenge and expand the known world, but which, most importantly, should always serve the cause of civilization.

## **Family Foxholes and Home Atom Labs**

<sup>&</sup>lt;sup>148</sup> Ironically, in terms of the cautionary stance the film takes against Andre's technological escapades, this seems an accurate assessment. According to *The Fly*'s logic, it was dangerous and self-defeating for Andre to pursue knowledge at the expense of living beings, including himself.

The thematic concerns of postwar sci-fi films have a clear parallel in the mode of production to which most films of this type were subject: put very simply, as "B" movies, most of them were made inexpensively, and were understood by their producers to be primarily a means of generating funds for other, more conventional titles. But a closer analysis reveals that the production and distribution of these films were intricately woven into the same dramatic shifts in lifestyle which were changing the face of the American landscape. As the rings of suburbs around urban areas began to grow, inner-city theaters experienced a significant dip in ticket sales. At the same time, the major studios which had lead in pre-war production were reeling from the 1946 divestiture suit, better known as the "Paramount Decrees," which broke up the vertical integration of studio, actors, and theaters which had assured their dominance of the market. The result of these extraordinary circumstances was that icon of postwar leisure—the drive-in cinema which provided an outlet not only for suburban movie-goers, but also for the productions of smaller independent studios. Indeed, it would not be until the early 1950's, with the making of big studio films such as Warner Brothers' *Them!*, that the old titans of Hollywood would catch on to this new trend. In the mean time, flocking to these new cinemas was the nation's newest marketing bracket: the teenagers with cars and disposable income that bubbled forth from the suburbs. Out of this strange marriage of cinematic history, suburban development, and technocratic imagination was born the "exploitation film"—pictures which deliberately catered to the new teen market. 149

<sup>&</sup>lt;sup>149</sup> Two good historical background texts for the changes in the film industry here described are Thomas Belton's *Wide Screen Cinema* (Cambridge, MA: Harvard University Press. 1992)and Tino Balio's *Hollywood in the Age of Television* (Boston: Unwin Hayman. 1990).

As Stephen King notes in *Danse Macabre*, the decisions made about the production of exploitation films often tended to be "money-making" rather than "meaningful" decisions—though in all fairness, this charge might equally be leveled at more conventional films of the era. The films' paper counterparts, similarly, tended to haunt the second rate realms of pulp magazines such as *Strange Tales* and cheaply-produced paperback novels. Indeed, science reporter John Lear would lament, in the August 1954 *Popular Science Monthly*, "the state of literary schitzophrenia in which SF writing is bogged today": so conflated had science fiction become with other popular genres such as Westerns and detective stories that it now consisted of little more than "dooming mankind by means of disintegrator buttons pushed by robots hot-rodding through space on comets," deeply expressive of a culture which had come "to loathe and fear science," at least as a truly intellectual pursuit. 151

The distinction Lear draws between the "bad" science fiction clogging the market and "good" science fiction—of which he provides such classic examples as the work H.G. Wells—is perhaps more usefully clarified by John Baxter's distinction between the genres of science fiction and of horror. In *Science Fiction in Cinema* (1970), Baxter argues that "in science fiction, curiosity is positive and the danger lies in the irresponsibility of a closed mind, whereas in horror, curiosity is negative, concerned as it is with the dreadful consequences of knowing." Accordingly, it is perhaps less a fear and loathing of science that Lear detects in the popular science fiction of his era than an

<sup>&</sup>lt;sup>150</sup> King is quoted in Kim Newman's *Apocalypse Movies: End of the World Cinema*. New York: St. Martin's Press. 2000. Pp. 93-94.

<sup>&</sup>lt;sup>151</sup> John Lear, "Let's Put Some Science in Science Fiction." *Popular Science Monthly*. 165:2 (August 1954). Pp. 135-248. Pp. 135.

<sup>&</sup>lt;sup>152</sup> Baxter, *Science Fiction in Cinema*. New York: A. S. Barnes &Co. 1969. Pp. 210-211

angst, a fascination with the unintended consequences of scientific positivism rather than with the freedoms and exhilarations of scientific discovery. This would explain, too, the mixing of science fiction and other genres which so annoys Lear; though this mixing indicates, as Lear points out, a profit motive on the part of science fiction producers, it also shows that popular science fiction, like the westerns and detective tales with which it intermingled, was beginning to probe questions of gender, history, and politics that lay beyond the purview of a strictly defined philosophy of science. By this measure, science fiction films of this era operated on a dialectic structure, blending narratives of experimentation and discovery with narratives of accident and aporia, engaging in science fiction's critique of the closed mind, but also insisting on the social horrors created by new technologies.

Science fiction films were enjoyed, moreover, not just for their speculative qualities, but for the very tangible ways in which they embodied the experience of a new technological era. In a culture of "technophiliacs," Drew Cooper suggests, the "intrigue with technology, experiments in rocketry, the mushrooming space industry, UFO sightings, and the youth market which had already made sci-fi pulp and sci-fi comic books successful literary enterprises explained, in part, sci-fi's appeal. Special effects, advances in model animation, stop-motion photography and traveling matte ensured this appeal" (12, 205). New film technologies, in other words, helped create new visual fields in which to animate and test the new possibilities of postwar modernity, form

<sup>&</sup>lt;sup>153</sup> Jane P. Tompkins, for instance, argues in *West of Everything : The Inner Life of Westerns* (New York: Oxford University Press. 1992) that behind the stoic faces and harsh landscapes of Western films, television programs, and novels, lies an intense negotiation of feelings that reflects a cultural crisis of masculinity.

<sup>&</sup>lt;sup>154</sup> Traveling matte is, in very simple terms, using matte—the technique of blocking out certain areas of a photographic image in order to superimpose another image on top of the first, with the appearance of only one complete images—for shots containing moving objects.

following function. Indeed, the producers of many such films, including *The Fly* and *Them!*, were able to borrow surplus equipment and personnel from the U.S. military for scenes which required elaborate lab sets or weapons, or scenes which portrayed the Army in action. This easy movement between real and fictional renderings of national disaster was about more than simply lowering production costs; it speaks to a kind of self-reflexivity of everyday culture through the medium of science fiction film. In viewing elaborate pseudoscientific visions of technological catastrophe, American audiences experienced the same position of complicity they occupied in everyday life—living amid a national fantasy both enabled by and descriptive of new technologies—but without the dire consequences attendant upon a real nuclear emergency.

These films were not only visual and mental exercises, but highly kinesthetic experiences. The combination of heavy orchestral themes, novel and startling sound effects, and iconic screams such as that of Helène Delambre when she discovers her husband's monstrous transformation (the image of which dominates the promotional poster for that film) gave the films a rich aural dimension. The intricate architecture of surprise—such as *Them!'s* building of suspense, its careful distribution of clues, before actually presenting the image of the giant ants—created a narrative pace which was breathtaking. Tania Modleski asserts, in *The Women Who Knew Too Much* (1988), that cinematic thrillers of the era actually created space for social interaction among their audiences, including the reassertion of gender norms. The idea of the theater (indoors or outdoors) as a place for men to be manly, women to be sensitive, and courtship to be

enacted seems particularly well founded in the case of science fiction films of this ilk. <sup>155</sup> Even as they created new technological nightmare worlds in the theaters and drive-ins, these films, both on screen and off, touched upon deeply entrenched norms which their audience, primarily youths, were in the process of inheriting.

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<sup>&</sup>lt;sup>155</sup> See Modleski, *The Women Who Knew Too Much: Hitchcock and Feminist Theory*. Second Edition. New York: Routledge. 2005. Modleski, obviously, is concerned primarily with the treatment of gender dynamics the films of Alfred Hitchcock, but I extend her argument to make a broader claim about midcentury filmgoing audiences and their expectations.

These new outlets for popular science—not only films, but other media such as novels, monthly magazines, and comics—focused, to a surprising degree, on the pressures that the U.S.'s new technological circumstance exerted on the form and content of U.S. homes, and the domestic relations that were housed therein. This is a point to which I shall return in my discussion of *The Incredible Shrinking Man*, but more broadly, magazines such as *Popular Science Monthly* explored the pleasures and dangers of technological modernity *primarily* through the lens of the homeowner, the homemaker, and the hobbyist. Articles that describe a "Labor-Saving Kitchen Designed By Doctors," or "Rolls You Buy, Then Bake" suggest the degree to which new technologies had come into the U.S. domestic scene in some very mundane ways, while the prediction that "Home Atom Labs Are Coming"—"Your own ten-year-old may take a peek into his future in the murky ball of a midget Wilson cloud chamber, while you borrow his Geiger counter to go prospecting for uranium"—envisions a (potentially) more incendiary meeting of domestic and scientific spheres (Figure 12). <sup>156</sup>

<sup>&</sup>lt;sup>156</sup> See George H. Waltz, Jr., "Labor-Saving Kitchen Designed by Doctors...You Can Build One Like It." *Popular Science Monthly*. 156:1 ( January 1950) Pp. 218-223; Joe Gregor. "Rolls You Buy, Then Bake." *Popular Science Monthly* 157:3 (Sept. 1950) Pp. 118-119; Kenneth M. Swezey, "Home Atom Labs Are Coming." *Popular Science Monthly* 157:1 (July 1950) Pp. 183-186.



Figure 12. Swezey, Kenneth M. "Home Atom Labs Are Coming." *Popular Science Monthly* 157:1 (July 1950). Pp. 183-186

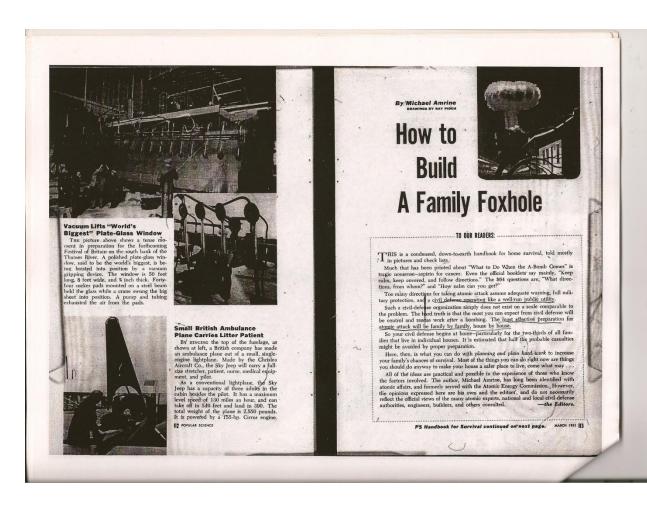


Figure 13. Amrine, Michael. "How To Build a Family Foxhole." Illustrations by Ray Pioch. *Popular Science Monthly*. 158:3 (March 1951). Pp. 113-119.

The latter, too, suggests an attempt to domesticate nuclear technology not only by producing a tiny, consumer-sized atom-lab kit, but also by imagining such a toy as vital to the development of future scientists who will grow up to support a republic whose strength is based in technological modernity, if not supremacy: "a nuclear engineer of tomorrow may soon be watching the behavior of atoms at your kitchen table."

<sup>&</sup>lt;sup>157</sup> Beginning in the late 1950's, *Popular Science* began printing a new column entitled "Straight Talk to Parents"--- "an Important Series of Articles for Parents." The subjects of these articles ranged from how to judge the quality of your youngster's high school science instruction to how fathers of scientifically inclined or gifted children might relate to them in such a way as to foster, rather than squelch, the talents

Perhaps the most extreme internalization of postwar technology in the home however, is represented in the March 1951 issue of *Popular Science Monthly*, with Michael Amrine's detailed and lavishly illustrated instructions on "How to Build A Family Foxhole"—a bomb shelter cum refuge room to defend individual families in the event of nuclear war (Figure 13). The metaphor of "family foxhole" is itself deeply telling, conjuring at once the idea of life under the constant threat of disaster—with a safe "foxhole" to retreat to ever at the ready—*and* the idea that nuclear holocaust survival is, in an ironic variation of the postwar ideal of family "togetherness," a *family* activity. Families, rather than civic or even state-wide bodies, are the unit of defense the article organizes itself around. Indeed, as Amrine argues,

Too many directions for taking atomic attack assume adequate warning, full military protection, and a civil defense organization operating like a well-run public utility. Such a civic-defense organization simply does not exist on a scale comparable to the problem. The hard truth is that the most you can expect from civil defense will be control and rescue work *after* a bombing. The most effective preparation for atomic attack will be family by family, house by house. (113)

In this line of thinking, the domestic becomes not just the realm in which new technologies are humanized and consumed, or even the nurturing place of new technocrats (and thereby a means of participating in the making of new technocratic power), but the major, of not the *only*, site for the resistance to the more deadly side of technological power. And what a limited resistance it is! Indeed, as Amrine hints, the real

of these unusual youths. The magazine did so, it claimed, in service of the very important goal of nurturing the next generation of scientists and technicians—a purpose not without its nationalistic resonances. The inaugural article notes: "Our most tragic waste of a natural resource is the neglect of the potentialities of our children. The neglect is rarely deliberate. Its result, however, is a national blight, a dwindling in the ranks of scientists, engineers and members of other highly skilled professions at the very time when the US needs them most—to bolster its defenses against Communism and to keep pace with the increasingly complex demands of its highly technical civilization." (See John Kord Laggeman. "How to Be a Good Father to a Gifted Child." *Popular Science Monthly* 170:3 (March 1957) Pp. 102-105).

158 See Michael Amrine. "How to Build a Family Foxhole." *Popular Science Monthly*. 158:3 (March 1951) Pp. 113-119.

strength in this kind of resistance lies not in any political valence the family unit might have, but in the state of mental preparedness a family cultivates in building a shelter: "In doing these things," he writes,

you and your family will be assuming an attitude and forming a habit more helpful to defense than Geiger counters. By building your family foxhole, you will also be building the state of mind that can resist the pressures of aggression as well as the shocks of actual atomic war. (115)

In a world where a positive family attitude was a better defense against nuclear apocalypse than a Geiger counter (which, as Amrine points out, "will probably only confuse" non-experts anyway), domesticating technology—bringing it into the home, shaping the home around its new capabilities and it new dangers—meant negotiating new structures of power and knowledge set in place by the technological reality of the midcentury. It meant joining the Nuclear Age where it could not be beaten. The shape of this new consensus, in which the individual or nuclear family participated as consumers, nurturers of future scientists, and amateurs, not to say the potential victims of environmental disaster, discouraged any political understanding these individuals might have of themselves, making the domestication of technologically-inspired fear a process of, as Robert J. Lifton described it, "nuclear numbing." This is what makes the domestic themes to which science fiction films resort so compelling and so frustrating: they seem to express a deep political desire to counter the ideology of Science with the voices of those living bodies that new technologies have mangled, destroyed, or

<sup>&</sup>lt;sup>159</sup> See Robert J. Lifton. *Broken Connection: On Death and the Continuity of Life*. New York: Simon & Schuster. 1979. Pp. 338. Quoted in Elaine Tyler May's *Homeward Bound*, pp. 23. The reference to Lifton's discussion of Civil Defense activities is part of May's larger argument that "the atomic bomb forced people to question one of their most deeply held beliefs: that scientitifc discoveries would yield progress" (May, 23).

incinerated, insisting that technology should fit the dictates of life, rather than life fitting the dictates of technology. But often as not, the clarity of these voices is lost in a wash of hysteria and melodrama—a fearsome ideology of Life—and the hapless humans caught in the action of the film resign all political agency, choosing instead a quiet life at home.

## Giant Ants: Them! and the Metaphor of Containment

Gordon Douglas' *Them!* (Warner Bros, 1954) was in many ways a first: one of the first "nuclear monster" movies and the first of the "big bug" films which would proliferate throughout the 1950's and 1960's, *Them!* tells the story of colony of common ants—insects, as one of the film's expert entomologists points out, that could easily be found in backyards, sidewalks, and other familiar human spaces—that has evolved, through high exposure to nuclear radiation—into a race of giants. The site of this horrible mutation is also a significant first, for the ants are believed to have transformed, over the course of a decade, in and around the deserts of Almagordo, New Mexico, the location of the first nuclear weapons tests ever conducted. Now grown to the formidable size of eight to nine feet in length, the ants are first discovered after they have ransacked the trailer of vacationing F.B.I Agent Ellinson and his family, looting the sugar supply and killing all but the young daughter, who wanders the desert in shock. It is only after hearing the eerie, tremulous squeak of the ants' high-pitched calls (an effect which won the film an Oscar for Special Effects and a Golden Reel Award for Best Sound Editing), and observing the young girl's terrified reaction to the smell of formic acid (the substance which produces the sting of an ant bite)—resulting in the exclamation which gives the

film its title—that Dr. Harold Medford (Edmund Gwenn) of the U.S.D.A. is able to put the pieces together and understand just who "Them!" are.

From this point, the action of the film becomes a struggle to contain the rapidly reproducing colony, which soon poses a threat to the sprawling city of Los Angeles. This effort is supported by the finest entomological minds in the country—Dr. Harold Medford and his daughter, Dr. Pat Medford (Joan Weldon)—and the most advanced in military technology, and presided over by Robert Graham (James Arness) of the F.B.I. It is worth drawing out the heavy significance the idea of "containment" bore in this early 1950's cultural milieu, with the memory of the Korean War still fresh and the shadows of other anti-Communist struggles on the horizon. Ants, it seems, were a particularly apt genus for this kind of comparison; in 1939, Caryl P. Haskins, Lab Director at Union College and Research Associate at both Harvard and M.I.T., had published an entire volume, Of Ants and Men, on the premise that the similarity in ant and human societies was irresistibly "worthwhile in its suggestiveness." Haskins was particularly interested in how ant species' modes of reproduction effected their social organization, and ultimately claimed an analogy between human Communism and some of the "higher orders" of ants whose "entire rearing" had become "a state affair":

In contrast to the care and individualized attention bestowed by the queen and her few daughters upon her brood in the primitive ant community, the queen of the large formicary sees but a small proportion of her offspring at any time during their development. Their entire care, while actually much improved over that given under more primitive conditions, has become a routinized and standardized affair. (134-135)

These same species, Haskins claimed, went on to manifest their "Communism" in terms of the social life they offered mature ants, showing a careful consideration for young

<sup>&</sup>lt;sup>160</sup> Caryl P. Haskins, *Of Ants and Men*. New York: Prentice Hall, 1939.

foragers and a perfunctory disposal for old and injured workers (136). Ultimately, he argued, ants were faced with the same dilemma that humans in the twentieth century faced: unable to "maximize" both reproductive quantity and the quality of social life, a species had to choose one goal or the other. Communists, clearly, had made their choice, but what of the "free world"?

More recently, film critics have tuned in to the same anxiety at work in the plot and imagery of *Them!* Perhaps most famously, Michael Paul Rogin draws a link between what he calls "maternal influence" and the individual's troubled relationship with the state as portrayed in postwar cinema. 161 According to popular belief, he argues, the public and private bureaucracies that supported the American government were also supposed to be allies to the free man, enabling the free enterprise system and defending it from Communism. "Still," he claims, "if the free man was the polar opposite of the subversive in one structure of difference, the national-security state was in another. And the New Deal, the war, and the cold war had all given that state an unprecedented presence in American life. The boundary separating the free man's state from its subversive twin was always in danger of collapsing in an implosion that would annihilate the free man" (240). This tension, Rogin finds, transforms from a matter of political consciousness to a matter of sexual unconscious on the screen, where Communist infiltration is constantly figured in terms of seduction or other forms of feminine subversion. Enter the ants: both *Them!* and another postwar science fiction film obsessed with reproduction, Invasion of the Body Snatchers, "evoke the nightmare of uncontrolled female generativity. The two films

<sup>&</sup>lt;sup>161</sup> See Michael Paul Rogin, *Ronald Regan, the Movie and Other Episodes in Political Demonology*. Berkeley: University of California Press. 1987.

join nature's revenge against man to mass society"—pairing, in short, infestation with invasion (266). 162

Rogin's criticism is precise up to a point. *Them!*'s plot is dominated by the search for two queens who have escaped extermination in the original nest outside Almagordo. Dr. Medford, Sr. notes that the normally-sized counterparts of the giant queens have been observed as far above the earth's surface as the stratosphere, and their spectacular flights lead in two trajectories which equally suggest their "subversive" potential, but in strikingly different ways. The first finds its way to an ocean-going freighter loaded with tons of sugar. After the queen bears her thousands of young, the new colony overruns the ship, killing the entire crew and, no doubt, devouring the sweet cargo. Once discovered, the ship is sunk by a U.S. Navy cruiser. The import of this episode seems fairly obvious: creeping Communism, which enslaves its dependants as the queen enslaves her brood, threatens to disrupt free trade's necessary circulation around the globe. U.S. military intervention will be needed.

The path of the second queen is less straightforward. As she speeds toward Los Angeles—the marvel of the United States' technological superiority in both the cinematic visions produced by Hollywood and the marvels of civic engineering that make the city itself possible—she is observed by a reformed drunk, Alan Crotty. The government has been listening with keen interest to any reports of "flying saucers" or other U.F.O.'s, trying to trace the path of the second queen, and Crotty's report is of particular interest

<sup>&</sup>lt;sup>162</sup> Invasion of the Body Snatchers (Dir. Don Siegel, 1956), for the uninitiated, portrays the small town of Santa Mira being overtaken—person by person—with perfect physical simulations of themselves generated from plant-like pods, seeds which have been drifting through space for years. The new townspeople, however, can be identified by their dull, complacent demeanors, and the plot evolves into a struggle for the remaining citizens to retain their individuality against the sweeping tide of conformity that overcomes Santa Mira.

since he insists that he cannot be sure what he has seen was merely a flying saucer. For proclaiming his doubts too loudly, Crotty has been isolated in the mental ward of a hospital—a strategy to which the elder Dr. Medford and Officer Graham acquiesce. The fear of a public panic drives the scientist, the intelligence agents, and the military (the same trio which, it should be remembered, enabled the production of atomic weapons in the first place) to conspire against the truth, revealing the reality of the situation only as martial law is declared over Los Angeles. The publicity poster Warner Brothers used to promote *Them!* drives this particular point home: featuring flames, falling skyscrapers, terrified citizens, and the requisite sexy broad being crushed in an ant's giant jaws—very little of which actually takes place in the film's footage—the poster seems more concerned with the well-recognized trope of a defenseless and disorganized public than with communicating anything specific about the film's plot or characters (besides giant ants, of course) (Figure 14). Put briefly, then, Rogin's point that science fiction films in the Cold War era test the stability of demarcations between the "free world" and the Second World by hurling the assaults of mechanical reproductivity at it is well taken; if Them!'s sensational poster is any indication, this is precisely the nightmare audiences were lining up to see.

But what Rogin does not take into his account of *Them!* is the prominent role that the social form of the domestic plays in the film. In a sense, the film presents two contrasting types of domestic relationships, one "good" and one "bad" in terms of technologically-based fears the



Figure 14. Them! Publicity Poster. June 1954.

movie expresses. The psychosexual relationships between the forms of state (Communist or Capitalist) and their individual citizens that Rogin delineates had a historical parallel in the midcentury ill of "Momism." First described by writer Philip Wylie in his *Generation of Vipers* (1942, 1955), Momism can be understood succinctly in Elaine Tyler May's neat formulation that "behind every subversive, it seemed, lurked a woman's misplaced sexuality" (*Homeward Bound*, 96). Wylie himself, of course, was more prolix on the subject of "Mom":

Like Hitler, she betrays the people who would give her a battle before she brings up her troops. Her whole personal life, so far as outward expression is concerned, is, in consequence, a mopping-up action. Traitors are shot, yellow stars are slapped on those beneath notice, the good-looking men and boys are rounded up and beaten or sucked into pliability, a new slave population continually goes to work at making more munitions for momism, and mom herself sticks up her head,

or maybe the periscope of the woman next door, to find some new region that needs talking over. This technique pervades all she does. In the matter of her affiliation of herself with the Daughters of some war the Hitler analogue especially holds, because these sororities of the sword often constitute her Party—her shirtism. 163

As Wylie's rather venomous portrait suggests, the midcentury institution of the domestic was understood to have a seditious underside in the person of mothers whose lack of sexual fulfillment was cast, in a rather smothering way, upon their children—particularly their sons. Though one might argue that "Momism" was simply an exaggerated outgrowth of the Oedipus complex in an age which reduced Freudian theory to ego psychology, this phenomenon was nevertheless thought, in both expert and popular circles, to have concrete effects on individuals raised by "Momist" moms. As May explains, motherly overindulgence was believed to result in "weak" adults—the same kind of weakness which was also linked to the "irresponsible, immature, and weak" sexual "deviant," who was considered particularly susceptible to political subversion (May, 94).

Rogin's thesis linking subversive state apparatuses with the surreptitious advancement of the ants who are brought into being by the bomb—and who, tellingly, decide to take up residence in the sewers of Los Angeles, the lower body stratum of the city—can be linked, then, to the *wrong* kind of domesticity. In their colossal size and "uncontrolled female generativity," the ants represent the power of Life gone amuck, a cancer that threatens to choke out the American way of life; but they are merely a reaction to the all-encompassing "Mom" of the state, who first risked the lives of its children when it brought nuclear weapons into the world. The battle of the two titans

Wylie, "Chapter IX: Common Women." From *Generation of Vipers*. New York: Pocket Books. 1955. Pp. 184-196. Available online at http://www.library.csi.cuny.edu/dept/history/lavender/momism.html.

rages, and the dependants of the state—the people—remain, for the most part, clueless and ineffectual, silenced or in shock. Dr. Medford, Sr. confirms its persistent dynamic with the words that close them film: "When Man entered the atomic age, he opened a door into a new world. What we'll eventually find in that new world, nobody can predict."

An antidote to this disastrous state of affairs, however, lies in the normative domestic relationship the film invokes between F.B.I. agent Robert Graham and the younger entomologist, Dr. Patricia Medford, who accompanies her father throughout the film. 164 Their figurative marriage begins as a merely flirty plot line when Pat, deplaning from the aircraft that has transported the two Dr. Medfords to New Mexico, makes her first appearance as a long, sexy, high-heeled leg descending a ladder to the tarmac. That every man (*particularly* Graham) within a fifty-foot radius stares, riveted, at this sight is at once a comic notion—as Graham quips, "If she's the kind of doctor that heals sick people, I think I'll get a fever *real quick*"—but it also suggests, more seriously, the potentially explosive danger of the female presence that the film elaborates elsewhere—most pointedly in the ants themselves. 165 As the full Pat emerges, however, we learn that she is the junior partner to her father, one of the country's most eminent entomologists (or, more specifically, myrmecologists—biologists who study ants). Our understanding of her is tempered, here and throughout the film, by her auxiliary relationship to her father.

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<sup>&</sup>lt;sup>164</sup> In Seeing Is Believing: How Hollywood Taught Us to Stop Worrying and Love the Fifties (New York: Pantheon Books. 1983), Peter Biskind compares Pat to the ants in her struggle for authority, though she is the more "appropriate" authority in what Biskind believes to be the film's centrist agenda. But in concentrating on her attempts at independence, he misses the degree to which Pat supports and enables her father.

<sup>&</sup>lt;sup>165</sup> To the point, May reports that the term "bombshell" (to denote an especially sexy woman) originated in the 1950's—since the functioning of society depended on the harnessing and taming of both female sexuality and the power of the atom.

She seldom appears without him, almost never speaks until after he has spoken, yet always works to carry out his wishes and clarify his words. She becomes, in effect, the interface through which her father, the great scientist, is able to cooperate successfully with government forces, particularly as represented through Agent Graham.

In one particularly telling scene, as the two Medfords, joined by Graham, Gen.

O'Brien of the U.S. Army, and police Sergeant Peterson (who discovered the first signs of the ants' rampage across the desert), scan the desert from helicopters in order to find the ants' nest, the elder Medford attempts to use the radio to communicate with his daughter. Holding the headset completely backward, Medford shouts: "Where's Pat?"

Petersen corrects him, explaining that one must address the helicopter, rather than the individual within it, and he tries again, only to hear Pat answer back with perfect military protocol. Medford then struggles with the correct way to continue the conversation—when he finishes a thought, he simply stops talking, rather than uttering the requisite "over." When Petersen tries to explain, saying "It's a rule, you've got to say it," Medford grows frustrated, exclaiming, "What good are rules when we are trying to locate...," and is stopped short by a glimpse of the enormous ant hill. Medford's impatience, if not incapacity, for military practice reflects a very real and well-recognized conflict between scientific and military goals, interests, and modes of operation.

In his 1946 *Dawn Over Zero*, William L. Laurence recalls the cultural differences between the "long-hairs" and the "short-hairs"—scientists and military personnel—at Los

Alamos, "who in normal peacetime used to growl at each other from a safe distance." <sup>166</sup>
"The welding together of long-hairs and short-hairs," he notes,

was given daily demonstrations at Los Alamos. In their cubicles the theoretical scientists would sit for many hours working with pieces of colored chalk on a black-board or with pencil on pads of paper. At frequent intervals one would hear the boom of great explosions on the various proving grounds in the distant canyons. These were in the true sense explosions of the ideas in the minds of men. The mathematic symbols on the blackboards and pads of paper were exploding in the canyons below. Thousands of such ideas exploded simultaneously over Almagordo, and over Japan.

This "welding together" of scientific and military mindpower is needed, Laurence implies, for the successful operation of the technologically modern state, but it can also result in the disturbing phenomena of "mathematical symbols" "exploding"—of pure science wreaking material destruction on a massive scale, with no calculation of moral cost. Laurence's formulation, indeed, shows how the logic of the military-scientific marriage elides both the human hands that shaped the atomic bomb and the human lives which the bomb destroyed. *Them!*, however, resists this outcome in positing Pat as a kind of interpreter for Science, helping to translate her father's single-minded focus on the technical facts of the giant ant case into behaviors more easily recognized by non-scientists. Pat makes Science, in other words, accountable.

This urge toward accountability is perhaps most visible in the scene which brings
Pat and her father, Robert, and the local police to the original scene of the Ellinsons'
wrecked trailer. The elder Medford, already holding the status of "expert" called in
expressly from the most powerful city in the country, has remained frustratingly vague
about what he thinks this mysterious danger might be, murmuring only something about

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<sup>&</sup>lt;sup>166</sup> Laurence, *Dawn Over Zero*. New York: Alfred A. Knopf. Pp. 183

whether a certain species would "turn carnivorous" under particular conditions. "What," cries Graham, losing patience, "would turn carnivorous?"

Pat Medford: My father will tell you.

Robert Graham: When?

Pat Medford: When he's positive.

Robert Graham: Now look, Miss...er...Doctor...

Pat Medford: If the 'Doctor' bothers you, why don't you call me Pat?

<u>Robert Graham</u>: I'd like to. But look, Pat, I've got a job to do, and I've got enough mystery on my hands already without that old...I mean your father...complicating things further.

<u>Pat Medford</u>: That old man, as you started to call him, is one of the world's greatest myrmecologists.

<u>Robert Graham</u>: Myrmecologists! You see, that's what I mean! Why don't we all talk English? Then we'd have some basis for an understanding.

Though Pat does not ultimately reveal the specific hypothesis she and her father are working with, she does acknowledge Graham's frustration with the meticulousness of their research, and endeavors to restore faith that their scientific method is working. She does so, notably, while flirting with him: her suggesting that he call her by her first name is both an invitation to intimacy and, more subtly, an attempt to conceal the hierarchies of knowledge and profession that separate the two of them. While this may seem a distastefully patriarchal moment to readers at the beginning of the twenty-first century, it is also important to recognize this exchange for the compromise it offers, even the cooperation it shows, between the figures of the State and of Science. This marriage-like give and take, the conversation implies, is the only platform which will provide the "basis for an understanding" needed to address the massive technological problems (eg. giant ants) that a post-nuclear world faces.

Pat is also able to act where her father cannot, thus bringing a Science which many accused of abstraction with her into the hands-on realm of disaster relief. Them! is at great pains to declare, in many ways, the inadequacies of even the newest of postwar weapons technologies to redress the very problems these technologies have created. After finding the Ellinsons' crushed trailer, for instance, Sgt. Peterson and his partner discover another "crime scene": the old town general store has been similarly wrecked, with walls stove in and goods—including sugar—scattered all around. This scene offers a key juxtaposition that throws the question of the scale of the problem these ruined structures represent into sharp relief: as the two troopers explore the wreckage, a radio still playing in the background proclaims the World Health Organization's declaration that, through modern pesticides and inoculation programs, both malaria and diphtheria will soon be eliminated worldwide. While this miraculous news, broadcast over a medium that now links the entire globe, suggests the hegemony postwar technology has assumed over the nations, the officers' discovery of the aged owner's shotgun—its muzzle bent sharply upwards and thus rendered powerless—suggests the limitations of technology. While the latest developments in public health launch a total war against insects, in other words, the byproducts of technological progress (the ants) are disempowering the self-sufficient individual who needed only his shotgun and his know-how to survive.

A similar problem is entailed in Medford, Graham, and O'Brien's strategy for destroying the nest of giant ants once it is discovered. It can't simply be bombed, as the Army's strategists suggest, because the tunnels must be left intact to insure that all the ants—including the young—are dead. Instead, Medford counsels, the surface must be heated with phosphorous to drive all the ants into the tunnels, the entrance sealed, and the

nest gassed with cyanide. The solution, in this sense, requires escaping the logic of the problem; nuclear weapons cannot undo the damage they have already done, and a different, more subtle kind of technology must be employed to restore the good life to the U.S. populace.

Unlike her father, Pat is able to lend a hand in the work of these reparations, able to don a gas mask, descend into the giant ant hill, and wield a flame thrower (the only hand-held weapon that seems able to discourage the ants) where her father cannot. Brave, capable, and armed with the same scientific expertise her father carries, she becomes, in effect, the practical counterpart to her father's theoritcal mode—precisely the kind of partner Graham needs to ensure the continuing security of the American homeland. Their "marriage," while never officially consecrated, is recognizable in the final moments of the film, when, having vanquished the arthropodal threat in Los Angeles, they turn to one another, suddenly realizing that for every nuclear bomb ever dropped on the surface of the earth, another catastrophe on the order of giant ants might be waiting. While the elder Dr. Medford pronounces on the dreadful "new world" opened by nuclear proliferation, the image focuses on Pat and Robert, side by side, like any other couple looking into the future. In effect, *Them!* is able to successfully translate the postwar United States' desire for stability and prosperity in an unprecedented cultural situation into a heteronormative family drama that features a new generation breaking away from the practices and priorities which gave rise to world catastrophe. This new family unit takes as a primary assumption a domesticity built around the idea of disaster. Aping the logic of mutually assured destruction, families could learn to "live with" the twin evils of the possibility of nuclear war at home and the capability to inflict the same kind of annihilation abroad.

As Elaine Tyler May argues, the constant presence of the idea of nuclear obliteration in the midcentury did not so much deaden Americans' sense of dread—as the title to Stanley Kubrick's famous title, *Dr. Strangelove: Or, How I Learned to Stop Worrying and Love the Bomb* (1964), suggests—as it changed the coping strategies with which they dealt with that threat. Psychologists and other experts lead citizens to embrace personally-inflected strategies to deal with the anxieties of everyday life, including fears about nuclear warfare, which emphasized each individual's ability to "feel better about their place in the world, rather than changing it" (14). *Them!*'s desire to sketch out a domesticated paradigm of the power structures which governed the lives of U.S. citizens, in this sense, mirrors this larger social impulse, and perhaps, might even have provided a margin of comfort to take home with its otherwise thoroughly grim message. Yet the meaning here is clear: in the epic struggle between technology—the powerful combination of forces represented by the military-industrial complex—and Life—the "natural" order technology disorders and dispossesses—the individual citizen can do little but duck and cover.

## ...And Shrinking Men: *The Incredible Shrinking Man* and the Metaphor of Contamination

Where *Them!* tries to project the domestic paradigm that dominated midcentury thinking on a grander scale, Jack Arnold's *The Incredible Shrinking Man* (1957) dramatizes the weakness of domestic conventions when exposed to the malignant influence of new technologies. In making a tragedy of the collapse of its protagonist's marriage and home life, it at once questions the "good" that militaristic technologies truly offer for American ways of life, while pointing towards the bleak future at the end of the

technological trajectory—one in which individuals are, quite literally, atomized. In *The Incredible Shrinking Man*, as opposed to *Them!*, the rhetoric of Life acts not by enlarging the threat that nuclear technologies pose to life on earth (into, say, the form of outsized ants), but by shrinking the powers of human beings—both men and women—and thinning out those very features which make them most human—their domestic practices.

The film opens as the handsome Robert Scott Carey (Grant Williams) and his equally svelte wife, Louise (Randy Stuart), sunbathe on Scott's brother's boat, in the midst of what appears to be a romantic vacation. A playful spat ensues over who should fetch a beer for whom—Louise is, as she declares, as much "on vacation" as Scott—and hints at a theme the film will return to again in more serious ways: the negotiable structure of domestic roles, whose demands do not seem so pressing in the midst of a sunny ocean retreat. To push his case, Scott first kisses Louise, then offers to marry her, to which she responds, rolling her eyes, that they have been married for six years. In a psychosocial sense, this is no joke: as May and others have shown, Scott's offers correspond precisely to the two major satisfactions—gratifying sex and financial stability—which postwar society promised women willing to leave the wartime workforce for the role of homemaker (May, 22). Isolated in an otherwise empty ocean, Scott and Louise become the iconic postwar couple, seemingly removed in their suburban home from all other family or social connections that might otherwise be "in the picture."

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Lynn Spigel argues in *Make Room for TV: Television and the Family Ideal in Postwar America* (Chicago: University of Chicago Press. 1992) that middle class politics of family and marriage in the postwar era are most productively understood as an uneasy *compromise* individual men and women made within a broad cultural consensus. This is at variance, she claims, with more traditional view of the period as one of mindless conformity to gender roles. Or, as May puts it, "[The 1950's] was not, as common wisdom tells us, the last gasp of 'traditional' family life with roots deep in the past. Rather, it was the first wholehearted effort to create a home that would fulfill virtually all its members' personal needs through an energized and expressive life" (11).

Yet their separation, like their vacation, is only transitory. The film will soon show, beginning with this adventure on a borrowed boat, how the fantasy of the nuclear family in the nuclear age was anything but solid. Indeed, as the tiff over who should bring the beer moves Louise into the galley of the boat, Scott is left to face an unexpected danger that blows in suddenly: a large, mysterious cloud wafting rapidly from the horizon.

Descending upon the sparsely clad man, the glittering dust forms a striking image of both human vulnerability and human potential. Scott has been engulfed in the unsourceable and unlimited power of the cloud in a scenario his audience would have easily recognized as exposure to nuclear fallout.

The widespread testing of nuclear armaments in the Pacific Ocean in the 1950's, which did indeed produce such potent clouds of radioactive dust, had not only built up a solid basis for anxiety over the potential of such encounters, but had actually furnished a few examples. In 1954, as a result of the test of the first hydrogen bomb over Bikini Atoll, fishermen on the Japanese boat *Lucky Dragon #5 (Daigo Fukuryū Maru)*, were unwittingly exposed to deadly levels of radiation, resulting in the death of Kuboyama Aikichi, a rash of permanently debilitating radiation sickness among the remaining twenty-two sailors, and the appearance of poisoned tuna in the San Francisco market to which the *Lucky Dragon* exported its cargo. <sup>168</sup>Ultimately, this incident not only showed firsthand the insidious damage fallout could wreak upon human bodies, but also raised the rather baffling problem of containing the effects of fallout. As E.B. White would

<sup>&</sup>lt;sup>168</sup> See Jayne Loader and Kevin Rafferty's documentary film, *Atomic Café*, which makes use of skillfully interconnected newsreel footage from the 1940's and 1950's, including reports about the *Lucky Dragon* (Archives Project, Inc, 1982).

write only two years later, the problem of this "death dust" had become pervasive, penetrating even the quiet realm of the domestic garden:

Tomorrow we will have rain, and the rain falling on the garden will carry its cargo of debris from old explosions in distant places. Whether the amount of this freight is great or small, whether it is measurable by the farmer or can only be guessed at, one thing is certain: the character of the rain has changed, the joy of watching it soak the waiting earth has been diminished, and the whole meaning and worth of gardens has been brought into question. <sup>169</sup>

The tragically changed "character of the rain" in White's reflection maps closely onto Scott's death-dusted body, a site in which bare humanity and technological accomplishment meet, and which will shortly become a proving ground for the role technology will take in his everyday life—and by extension, that of his viewers. In both examples, the rain and the human body are rhetorically contrasted to uncontaminated counterparts, to pure life-giving rain and to a sound, healthy human body, both the bearers of what *The Fly* would undoubtedly label "the sacredness of life." Yet here, as in The Fly, that logic of boundaried body, of body as irreducible environment—the conceptual opposite of the Relativity which enabled splitting of atoms in the first place will be acted out and tested. In other words, as Scott's body begins to attenuate, it will throw into question not only the technology that warped it, but also the assumption that remaining "natural" is probable—or even possible—in a world where technology has so radically altered the face of nature. Moreover, the fact that Scott's body—a male body becomes the compromised, contested ground of the technological future opens the film to a host of gender-related questions that point to the end of the stable categories of male and female that characterized postwar society. Where E.B. White envisions the

<sup>&</sup>lt;sup>169</sup> White, "Sootfall and Fallout" (1956). In *The Points of My Compass: Letters from the East, the West, the North, the South*. New York: Harper and Row. 1962. Pp. 88-89. For a more extended discussion of this essay, consult Chapter One.

"pervasive sadness" of "nuclear springtimes" in the figure of a "virgin earth having been the victim of rape attacks," *The Incredible Shrinking Man* foretells a world in which deadly technologies permeate every aspect of life—a world in which ecology, for better or worse, reigns. <sup>170</sup>

From film's opening, the scene is carried by Scott's retrospective narration which, projecting back from an unknown time and place, is a problematic idea in and of itself—to "an ordinary day, six months later." The strangeness of the cloud episode is almost completely forgotten, masked by the appearances of domestic regularity: a milkman strides briskly up the sidewalk, Louise appears at the door in dress and apron, and a pet cat appears for its daily share of the milk delivery. Inside, Louise prepares breakfast for Scott, who has only just begun to notice that his clothes do not quite seem to fit anymore. When Scott begins to wonder, with a quiet, inward, look, if he has somehow begun to grow smaller, Louise counters his unsettling question with a string of comments that insist on the impossibility of that far-fetched scenario, and rephrase Scott's problem as one that can be explained through the terms of domesticity: he simply isn't eating enough! When Scott wants only one egg for breakfast, she exclaims, "One! Now that's why your pants don't fit!" and only moments later, she directs him to "Eat your breakfast and forget about it." Lou's persistent attempts to feed Scott back to normal belie, as we shall see, an increasingly unstable reality that threatens to upend their domestic paradise.

<sup>&</sup>lt;sup>170</sup> Nathan H. Juran's *Attack of the 50-Foot Woman* (1958) forms an interesting counterpoint in this regard. For wealthy heiress Nancy Archer, her "expansive" encounter with an enormous alien becomes an opportunity for liberation: her new size becomes a vehicle for seeking revenge against her unfaithful husband and his mistress. In both cases, however, a new size becomes a means for the transgression—or transcendence—of domestic norms.

Similarly, the Careys' doctor attempts to abet Scott's growing anxiety (so to speak) with a perfectly logical explanation as to why he appears to have lost ten pounds in weight and two inches in height over the past few weeks, attributing his "shrinking" to the quintessential middle class male problem of "overwork." He explains that the three previous measurements of Scott's dimensions taken for the Draft Board, the Navy, and a life insurance application—episodes which, in themselves, sketch out a neat portrait of the midcentury's male bourgeois lifecycle of youth, soldier, family man—might have simply been incorrect. The doctor concludes, "People don't get shorter, Mr. Carey. They just don't get shorter." These characters' insistence on the predictability of natural phenomena resonates so loudly less because of what it tries to confirm—the will to normality upon which postwar society was built—and more because of what it seeks to deny—the potential for abnormality, the logical seams in the net of the social consensus. Scott and Lou both struggle to avoid acknowledging, as does Scott's parallel protagonist in the novel on which the film is based (Richard Matheson's 1956 The Shrinking Man), that "Reality was relative. He was more forcefully aware of it with every passing day." <sup>171</sup>

It is only when Scott pays a visit to the formidable California Medical Sciences

Institute that the nature of his problem becomes more clear. After exacting several rounds of examinations, many of which feature the new technologies made available through nuclear science, the doctors discover an abnormal chemical compound permeating

Scott's cells. Not a cancer, as Louise suggests, but "more like an anti-cancer," these anomalous cells overturn the growth process of Scott's body, leading to "a diminution of

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<sup>&</sup>lt;sup>171</sup> Richard Matheson, *The Shrinking Man*. Cutchogue, NY: Buccaneer Books. 1962. Pp. 17

<sup>&</sup>lt;sup>172</sup> Scott's tests use a variety of radioactive solutions, including barium and iodine. He is also subject to an examination with a Geiger counter and a paper chromatography test.

all the organs proportionally." Even more shocking, the doctors are able to pinpoint the trigger which spurred this remarkable change: not just his accidental exposure to the mysterious mist, but a far more prosaic sequence of events by which Scott, walking into a blind alley, crossed paths with a truck that was spraying his neighborhood trees with insecticide. The mutative power of the fallout, combined with the high toxicity of the pesticides, brought about "something fantastic and unprecedented...a deadly chemical reversal of the growth process," which remains, for the time being, incurable.

Fuzzy science notwithstanding, this episode has much to say about the interrelations of technology, domesticity, and the individual in the period it portrays. Scott's diagnosis evocatively brings together two major scientific innovations of the postwar period atomic technology and chemical pesticides—under the shadow of cancer, one of the most feared and least understood diseases of the era. As Susan Sontag has shown, cancer was to become closely associated with the metaphysical conditions of bourgeois life in the postwar United States: its "character type," in popular thinking, belonged to the unemotional, inhibited, repressed denizens of suburban lives, echoing a general sense of the loneliness and discontent of consumer culture. 173 More broadly, cancer, becoming a kind of cultural metaphor, was interlinked with "images that sum up the negative behavior of 20<sup>th</sup> century homo economicus: abnormal growth, repression of energy; that is, refusal to consume or spend,"; with the language of twentieth century warfare, featuring such terms as "invasive," "colonize," bodily "defenses," "rogue cells," and "radical intervention"; and with, intriguingly, a "rebellion of the injured ecosphere," now laden with carcinogenic substances (64-70).

<sup>&</sup>lt;sup>173</sup> See Sontag, *Illness as Metaphor*. New York: Farrar, Strauss, and Giroux. 1978. Pp. 39 and 51.

This powerful range of meanings is all the more resonant in the case of Scott Carey, who finds himself caught in the dense webs of technology and domesticity. While Science, on the one hand, forms the cause of Scott's malaise, it also, as the intricate battery of tests he is put through indicates, offers the only means by which he can understand, and perhaps overcome, his illness. His position as a husband and breadwinner, on the other hand, traps him in a pattern of behaviors and obligations he will no longer be able to fulfill as he grows smaller. On both fronts, Scott feels his very personality—his sense of completeness as an individual—eroding. When Louise avers that she will always love him, in spite of the illness, he cries, tellingly: "You love *Scott Carey*. He has a size and a shape and a way of thinking. All that's changing now..."

From this point onward, the Carey's home life rapidly begins to deteriorate: Scott's brother, Charlie (Paul Langton), loses a major account at work and is no longer able to send the "paychecks" with which he has been maintaining the couple since Scott's illness left him unable to work. Scott sells the story of his strange malady to the American Press Syndicate—hoping to, as Charlie says, "make it pay"—and finds his lawn and the sidewalks around his house suddenly invaded with reporters, policemen, and a selection of gawkers. The relations of visibility and privacy that govern the suburban neighborhood have effectively reversed, changing the Carrey's house from a comfortable retreat to a fishbowl open to the world's view. At one point, a toddler-sized Scott, shot in a forced perspective which makes Louise appear tall enough to fill the entire screen, angrily demands that she "use [her] influence" to obtain an unlisted telephone number. "I'm a big man!" he rages, "I'm famous!" The perfect domesticity which had once surrounded the couple has become, as Scott notes, "a caricature," and in its exaggeration, it reflects back

strangely on the social conventions which shaped it. Indeed, without the proper, socially-determined size and shape to define him, Scott's very identity falls into crisis, recalling the reigning ethos of the era, which dictated that "belonging" to the group of one's peers—being, as child psychologist Dr. Spock put it, "sociable and popular"—held the key to personal happiness and well-being. 174 "My relationships with the world," Scott laments,

had ceased with everyone except my wife. And I knew I was driving Lou from me. But burning inside, adding its own hideous pressure to everything else, was my desperate need for her. I felt puny and absurd. A ludicrous midget. Easy enough to talk of soul and spirit and essential worth, but not when you're three feet tall. I loathed myself, our home...I had to get out. I had to get away.

Perhaps not surprisingly, Scott's next stop (after fleeing the house to which he has been confined since his diagnosis), is a carnival: a gathering of freaks, gawkers, and the filthy lucre which binds them together. There he sees "Tiny Tina," a scantily clad woman who is precisely his height of thirty-six inches, on display amidst other "deformed" human beings. As the scene cuts back and forth between Tina in the spotlight and Scott cringing on the fringes of the crowd, it becomes clear that he flinches not only for the shame of Tina—on display, made available as an object of visual consumption—but for the resemblance her situation bears to his own. The selling of his story, and the crowd's fierce hunt for a "glimpse" of his image, has compromised Scott's once stable

<sup>&</sup>lt;sup>174</sup> According to Spock's description, a sense of belonging, cementing with similarities over differences, is crucial to personal happiness. "How happily a person gets along as an adult in his job, in his family and social life," Spock writes in *The Common Sense Book of Baby and Child Care* (1945), "depends a great deal on how he got along with other children when he was young. If parents give a child high standards and high ideals at home, these will form part of his character and show up in the long run, even though he goes through a period of bad English and rough manners in the middle period of childhood. But if parents are unhappy about the neighborhood they live in and the companions their child has, give him a feeling that he is different from the others, or discourage him from making friends, the child may group up unable to mix with any group or to make a happy life. Then his high standards won't be of any use to the world or himself" (See Spock, *The Common Sense Book of Baby and Child Care*. New York: Duell, Sloan, and Pearce. 1957. Pp. 319).

masculinity, taking from him the ability to govern representations of himself and removing the shield that domesticity once threw over the private matter of his body. The novel *Shrinking Man* is even more explicit on this point, adding to his adventure at the carnival an episode in which Scott is picked up on the roadside by a drunken pederast who, thinking he is a child, tries to seduce him, and another in which he is chased down and beaten up by a bunch of teenagers who repeatedly call him "bitch." In both cases, the author of the novel literalizes the threat the film only signifies: the emasculation of Scott's technologically altered body.

Scott's relationship with Tina, whose off-stage name is Clarice Bruce, provides him some temporary solace. The night he met her, the film Scott recalls, is the night "I got a grip on life again." He decides to return to the earlier-abandoned project of writing a book "telling the world of my experience." In a scenario in which masculinity and self-representation are so vitally linked, it seems fitting that Scott should find pursuing a relationship with the pretty Clarice and reassuming control of his image make his ordeal easier. Though this little reprieve ends with the shocking discovery that Scott is shrinking—again!—it not only raises questions about the crisis of masculinity in a technocratic society, but also shows important connections between science fiction and another wildly popular genre of midcentury narratives—the male melodrama. These narratives, broadcast in such men's magazines as *Male* and *Argosy*, dramatized the agonies and insecurities of the masculine soul in an era when the officious, staid, and distinctively white-collar "man in the grey flannel suit" was becoming the prevailing

.

<sup>&</sup>lt;sup>175</sup> In Matheson's novel, Scott's relationship with Tina takes a somewhat more prurient turn as Scott begs Louise to allow him to sleep with Tina in order to slake his growing lust. This detail, in all likelihood, would do little to improve the feminist assessment of the narrative.

model of American masculinity. <sup>176</sup> This link shows, importantly, how concerns about the changing relationship of "man and nature"—of humans within an ecological scheme—fit directly into widespread concerns about the social and political virility of men. The central place of the male body in both genres, too, opens a fascinating way to re-read Scott's dilemma, a possibility the second half of the film explores at length: that the uncontrollable shrinking of Scott's "anti-cancer" marks, rather than disorder or contamination, a subtle means of escape from the frustrations and limitations of postwar domesticity.

Scott's difference from his surroundings is never clearer than at the point when he, at less than a foot tall, takes up residence in a doll house, in what becomes a downright parody of his former, "normal" life. Scott paces the floor and flops on the tiny couch of a perfect, miniaturized version of the house he has lived in with Louise. Indeed, in the novel upon which the film was based, his four-year-old daughter—who has no counterpart in the film—even goes so far as to give him one of her dolls for a companion, whom he alternately insults and caresses. Things with his real wife are not much better; Scott recalls, "Everyday it was worse. Everyday I was smaller. And everyday I became more monstrous, more tyrannical in my domination of Louise." Here, the lines between the story's narrative and exegetical dimensions wears thin, as Scott's "true" monstrosity—his cruelty toward Louise—coincides with his apparent monstrosity. The film's key turning point comes when the doll-sized Scott is chased down by his own pet

<sup>&</sup>lt;sup>176</sup> This archetype derives from Sloane Wilson's 1955 novel, *The Man in the Grey Flannel Suit*. This realistic profile of a white-collar worker trapped between the stresses of devotion to his work, home life, and keeping up with the neighbors has made Wilson's protagonist, Tom Rath, a by-word for the "organization man." He also reflects a common perception in the period that it was—as Elaine Tyler May points out—men, rather than women, who were oppressed by the demands of their gender role (*Homeward Bound*, 20).

cat—the very emblem of domesticity—who takes him for an intriguing prey item. As Scott attempt to get away, dashing through the slightly opened door to the cellar, he is symbolically enacting his own eviction from the living spaces of the house, and as such, from the domestic realm as he has known it. This is a transition which cannot be reversed, and Scott is, henceforth, banished to life in the cellar.

## The Man of the Future

While the first half of *The Incredible Shrinking Man* works to challenge the institution of the postwar household, destabilizing the relationships that undergird it and opening its windows to the scrutiny of the public gaze, the second half of the film poses two even more radical questions: first, how, materially speaking, have the technological innovations of the war years changed the very *texture* of the home? As Scott begins to take up residence in the cellar, that *unheimlich* space upon which the living areas of the home are constructed, he is surrounded by a bewildering universe of junk: odds and ends, leftovers, unused tools and the sinister appliances—that is, the hot water heater—that keep the house running comfortably from their unseen posts. Scott sees the view of domesticity from exile, caught within its realm of influence but unable to participate in it, and the image it suggests is one of Marxian alienation.<sup>177</sup> Accordingly, then, the film's other major question at this point tries to envision what a truer, more immediate form of domesticity would look like. This new homemaking, eschewing women, children, and commodity culture, consists of Scott building a home (out of a matchbox), assembling

<sup>&</sup>lt;sup>177</sup> That is, Scott becomes intimately attached to a few important "modes of production," or ways of making a living. He finds himself outside the consumerist cycle—caught amid a baffling number of "things" floating around his home, none of which he shares any vital connection to.

clothes for himself, gathering food, and hunting down the "enemies" that lurk in the cellar. But, as the film's end warns, this is not necessarily the return to Luddite innocence it might seem; indeed, Scott Carrey is *the* man of the future, that Adam of the Atomic Age, and in his fate lies the key to a most unsettling future.

On first surveying his new "home," Scott assesses the cellar as a "gray, friendless area of space and time," and the perspective shot which juxtaposes his tiny figure with the great, shadowy room, suggest the relative truth of his description. The basement becomes a hostile territory for Scott: the familiar hallmarks of a suburban basement turn to enormous terrors as he is flooded out by a leaky hot water heater, puzzled by the challenge of climbing shelves to secure a few cake crumbs of sustenance, and murderously hunted by a black widow spider (or, in the case of the film, an enormous tarantula), a common resident in the darker recesses of human habitations. Indeed, given both the film and the novel's conception of female characters and bodies as a kind of expansive force that suffocates masculinity, it can be argued that the spider—the consummate maneater—is the most significant, and the most clearly defined, enemy Scott faces. The novel, particularly, stretches biological credulity to emphasize the spider's menace: "a creature with a highly developed nervous system, possessing memory. A creature whose poison was twelve times as deadly as a rattlesnake's" (22). As the most sentient piece of this environment, too, the spider challenges the notion of a setting which will simply stay in the background.

Even more interesting in that regard is the technical means by which the producers of the film created the illusion of this fantastic environment. Combining oversized set pieces—such as the enormous Fire Chief matchbox in which Scot sleeps—

with green screen technology, the film produces images which defamiliarize common objects, such as the enormous set of shelves Scott appears to be scaling. The viewer becomes suddenly aware of the cluttered quality of the Careys' basement, and experiences many of these objects, with Scott, as *obstacles* to living, rather than aids. Read one way, these juxtapositions of person and thing suggest the waning importance of individuals in a rapidly commercializing society, where identity is drawn in terms of one's relationship to consumer goods. A more complex reading, however, would attempt to calculate the *total effect* of these endless vistas of objects and un-lived-in spaces, this artificial and artificially bounded world from which Scott is now forced to make his living. 178 The sense of containment conjured by these propositions—an idea which, for historical reasons I have already touched upon, was so ready upon the tongue of the era's cultural vocabulary—also implies a mirroring sense of *environment*. Within the walls, floor, and ceiling of Scott's suburban basement, a full environment of domestic goods begins to function: one that is all-encompassing, one that responds to his wish to "dominate my world" with equal violence, and one that makes Scott, without any irony whatsoever, seem small and insignificant in comparison.

Alone, in a domestic space made wild by his dramatic change in perspective, Scott learns to scavenge for food and to clothe, house, and protect himself in far more immediate ways that his previous life ever allowed. The weeks spent in the basement force him into a new, spare, kind of domesticity; bereft, on one hand, of the "homemaker" who had once attended to these responsibilities, he is free, on the other

.

<sup>&</sup>lt;sup>178</sup> In one particularly telling scene, Scott finds himself standing next to a screened window—the mesh too narrow for him to pass through—gazing out at the "wild" world of the backyard to which he feels he most properly belongs. It becomes clear that he must shrink further toward atomization before he can be "free."

hand, from the controlling influence Louise once exerted over him. Indeed, conflating the role women played in postwar homes and the capitalist social structures which undergirded postwar domesticity—that is to say, blaming women and money for Scott's feelings of insignificance—the film imagines for Scott a futuristic domesticity without either. While this new domestic ethic points futurewards toward ever-smaller modes of living and surviving, it also reaches back towards a return to the "innocence" of the human species—a time (if ever there were such a period) when the relationships between human beings and the living world they manipulated in order to survive had not yet achieved the complication and moral complexity they would manifest in the atomic era. When Scott goes to do battle with the great spider that has been terrorizing him throughout his time in the cellar, for instance, he has neither guns nor bombs at his disposal. Instead, he takes up a pin, some thread, and a pair of scissors from Louise's sewing kit. Reclaiming these objects from their associations with both bourgeois femininity—in an earlier scene, Louise used these same objects to tailor a dress—and modern industrial society—pins, after all, were Adam Smith's prototype commodity for mass production in *The Wealth of Nations*—Scott endows them with new significance: "With these bits of metal, I was man again. I no longer felt hatred for the spider...No fear. Only weakness, instinct."

In its closing, *The Incredible Shrinking Man* articulates the tension between the atomization of (hu)mankind and the Adamization of Scott Carrey. As his shrinking brings him to, and even past, the point of invisibility, his image fading into a still shot of distant galaxies and nebulae, he recognizes rapturously that the "infinite" and the "infinitesimal" are linked at the closing of an enormous circle, that even while his "body dwindles,

melts" and stops struggling as "acceptance comes," he does not cease to exist, but begins existence in another form. Once paralyzed by the horror of atomic radiation's invasion into his body and home, Scott now appears to assume the privileged worldview of "a man of the future," a perspective that places the smallness of the atom and the vastness of space on the same spectrum of technological malleability. In this rather surprising turn, Scott manages to transform the atomization of men—whether through the standardizations of an increasingly technocratic world, or through nuclear technology's more literal contamination and disintegration of human beings—from a apocalyptic threat into the dawn of a new humanity in which he will play the part of Adam. Not with a bang, but with a whimper, the Scott Carey of the novel discovers the "wonderland" of an unknown dimension, as his film counterpart cries back from the same time and place "I still exist!"

But the (relatively) happy tenor of this ending belies the serious critique the film poses to the midcentury institutions of marriage, subjectivity, and technology. In a spectacular case of dramatic irony, Scott urges his audience to accept his fate even as he disappears into a profoundly disturbing ending, leaving a man-shaped gap in the social and personal networks of which he was once a part. He leaves a wife who is, needless to say, deeply distressed, but who is constantly told to put her husband's tragedy "out of your head" and to vacate the house she once shared with him—to remove, in effect, any trace of the *weirdness* of what she and Scott experienced. But it is precisely what we cannot forget about this film that makes it powerful, and precisely the film's weirdness—the ways it narratively and affectively refuses to fit Scott's story back into normality—that communicates its power. Like *Them!* and *The Fly*, *The Incredible Shrinking Man* 

asserts that the homefront has already been infiltrated by uncertainties, serious and frightening political, technological, and even environmental questions that, like killer giant ants, must be contained or managed if life is to go on as usual. But unlike either of these two films, *The Incredible Shrinking Man* interrogates the very premise that life *can* go on as usual: the cherished values of domesticity, it argues, will not serve as a retreat from the dangerous forces set loose in the world since the geopolitical revolution initiated by the atomic bomb, nor will they shelter anyone from implication in the powerful sweep of those forces. Domesticity, in this case, is not safe at home.

#### No Choice: Science Fiction and Environmentalist Discourse

As all three of the films I have described suggest, the practices and beliefs of postwar domesticity became, to those most interpolated within those structures, a means of mediating political issues with worldwide implications. Michel de Certeau's pivotal insight that "users" of commercially produced goods—including films—do not simply "consume," but actually "make" something of their experience with these products would suggest that these films were more than simple entertainment or embellishment upon the extreme psychological conditions of postwar life. 179 As de Certeau suggests, memory, in the very conditions of its production, plays a key role in how such experiences are shaped: memory "is mobilized relative to what happens—something unexpected that it is clever enough to transform into an opportunity." Encountering a structure imposed from

<sup>&</sup>lt;sup>179</sup> See Michel De Certeau, *The Practice of Everyday Life*. Berkeley: University of California Press. 1984. Pp. *xii*. As De Certeau notes, "Everyday life invents itself by poaching in countless ways on the property of others." (xii)

without, as in the viewing of a film in a public theater, the memory of each individual conjures "one little something, a scrap which becomes precious in these particular circumstances," that works to create "an unstable, makeshift harmony" between subject and circumstance (86). Film, by this logic, can be mediated through the shared history of its audience—in this case, through memories of an actual time of war, or through the United States' sensational initiation into the nuclear age—to change the terms upon which the values of the present are reckoned. In other words, films such as *Them!* and *The Incredible Shrinking Man* helped to provide the vocabulary through which new crises, including the environmental dilemmas which began to evince themselves in the 1950's would be understood and discussed.

As the progression of the three examples I have reviewed suggests, however, domesticity was becoming a less-than-satisfying recourse for Americans who were deeply uncertain about the future of their way of life. While *The Fly* neatly winds up Andre Delambre's predicament, with the domestic feelings and behaviors that he set aside reasserting themselves at the close of the film, *Them!* represents a more attenuated form of the domestic. Here, Dr. Pat Medford and Officer Robert Graham stand in for a conceptual marriage of scientific expertise and defense strategizing, making a couple expertly suited for running the household of the state. But the state, it should be remembered, is constantly at war, and the suspended rights of martial law leave little for the average citizen to do or say besides screaming in terror and taking cover. *The Incredible Shrinking Man*, the most complex of the three films, examines the role of the subject caught in the contradictions between the prosperous, comfortable aspirations of postwar domesticity and the psychological realities of a highly tense society constantly

mobilized for war. The shrinking Scott becomes, for his era, that odd creature that Dana Haraway famously named the "cyborg": "a hybrid machine and organism, a creature of social reality as well as a creature of fiction." Shot through with radioactive rays and contaminated with toxic pesticides, Scott's body is as much the product of technology as of nature, and he therefore blurs any distinctions we might wish to make between the two categories. But even more important, Scott, like Haraway's cyborg, is less remarkable—or "incredible"—for what he is than for the way he foregrounds a condition he shared with his viewers: his complicity, his embeddedness, within the social order created by the United States' technological ascendancy. It is in *The Incredible Shrinking Man* that the trope of the domestic finds its sharpest critical edge, showing how Americans both shelter in, and become trapped by, the way of life the second half of the twentieth century brought.

Indeed, upon close examination, these films are less concerned with the idea of *choice*—the assumption that political subjects may choose their behaviors, their affiliations, their votes—than with the notion that unmanageable forces unleashed by political and technological developments have left the American people with *no choice*. This is not to say that Andre Delambre does not willingly chose to continue his disintegration/integration experiments, or that Scott Carey does not achieve some measure of autonomy even as his body continues to shrink, but rather that the kinds of political choices offered within the social and material conditions created by the postwar consensus did not match those types of choices rightfully belonging to the liberal subject upon whom the society was supposedly based. Why, for instance, doesn't Scott Carey's

 $<sup>^{180}</sup>$  See Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge. 1990. Pp. 149

predicament lead him to write an earnest letter to his congressman about the curtailment of nuclear testing? Or how, turning to *Them!*, can the citizens of Los Angeles be expected to act anything but terrified and unruly when—without a single appeal to the rational mind that nominally characterizes them as citizens—martial law is imposed upon them with no warning? The worry that forms the troubled undercurrent of each of these films is the replacement of democratic choice with consumer choice, the transformation of American identity from democratic subject to suburban homeowner, the shift from free people to free market—all in a cultural climate of which the democratic notion of choice is a key descriptor. Through the nexus of the domestic, these films threatened to expose the inner workings of the machine of postwar consensus by illuminating the connections between nuclear weapons and consumer goods, research facilities and the laboratory of the home.

But to truly *uncover* these connections would be the work of a historical project, and this is not the mode of this kind of science fiction, which speaks a dreamlike language of sublimation and dark foreshadowing. Read backward from their projected future—from our historical moment—these films reveal much about collective fears, the logic of the choice/no-choice dilemma that trapped midcentury Americans into a narrow refuge of domesticity. And while this historical reading is important, it is also critical to recognize the power which these films' apocalyptic narrativizing held in its own time, and the degree to which the fear of a contaminated environment—the environment within the home *and*, increasingly, the biosphere outside the home, now recognized as an "environment"—influenced the work of early environmentalists. This process of familiarization and defamiliarization—revealing beneath the American dream of

domesticity the nightmare of American technocracy—would, by the beginning of the 1960's, become a hallmark of environmentalist literature as the problem of pollution grew more and more apparent. Some of environmentalism's most memorable texts—not the least of which was Rachel Carson's dystopian introduction to *Silent Spring*—owe a great deal of their efficaciousness to the aesthetic of horror these films perfected.<sup>181</sup>

As Sontag's "Imagination of Disaster" implies, however, this is a mixed legacy: environment narrated as apocalypse attests to the powerful feelings an ecological consciousness can stir, and speaks deeply to the sense of powerlessness environmental crises create among those who experience them. But, like any good apocalypse, the environmental cataclysm leaves little time for thinking about the everyday—for developing the critical consciousness that ecological awareness demands. In search of just what such a ecological sensibility might look like, and how literary texts of the postwar period sought to develop it, I turn in the following chapter to the three Rachel Carson books which preceded *Silent Spring: Under the Sea-Wind* (1941), *The Sea Around Us* (1951), and *The Edge of the Sea* (1955). This sea "trilogy," I will argue, combines aesthetics of wonder and horror into a sustained engagement with ecological science: an ecological aesthetic.

<sup>&</sup>lt;sup>181</sup> I will discuss the trope of apocalypticism in environmentalist writing—particularly in the introductory section of Carson's *Silent Spring*—in more detail in my fifth chapter.

## **CHAPTER IV**

# Wonders for the Sea: Rachel Carson's Ecological Aesthetic and the Midcentury Reader

"I'd never really thought about barnacles before—now I have. I felt like you must have when you saw the 'one small crab near the sea' on the Georgia coast. Your book certainly helped me understand the essence of the being of a barnacle."

-Frederick P. Gilliam, July 8, 1961<sup>182</sup>

From suburban material culture, to children's literature, to science fiction films, I have shown how some of the mainstay forms and genres of American postwar culture began to ask questions which the U.S. environmental movement would later—more self-consciously—phrase as moral and ethical demands. I now turn to a much more obvious source: Rachel Carson, whose bestselling books on the natural history of the ocean, alongside her iconic exposé, *Silent Spring* (1962), helped bring about "the full-fledged emergence of environmentalism as a topic of public concern in America." The legacy of Carson's lifelong effort as a "witness for nature" is well-documented by biographers and ecocritics interested in illuminating the history of the U.S. environmental movement, but the nature of her popularity—and the kinds of environmentalist sensibilities it helped to promote—is less frequently brought into question. As cartoonist F. Zimmer's entry for the January 15, 1956 edition of the *New York Times Book Review* 

<sup>&</sup>lt;sup>182</sup> Frederick P. Gilliam (Alexandria, VA) to Rachel Carson, July 8, 1961 ("Fan Mail for *The Edge of the Sea.*" RCP/BLYU)

<sup>&</sup>lt;sup>183</sup> See Lawrence Buell, *The Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture*. Cambridge, MA: The Belknap Press. 1995. Pp. 10

<sup>&</sup>lt;sup>184</sup> The phrase "witness for nature," for instance, comes from Linda Lear's definitive biography, *Rachel Carson: Witness for Nature*. New York: Henry Holt and Company. 1997. Much of the earlier ecocritical attention to Carson's work focuses on the impact of *Silent Spring*—Craig Wadell's collection *And No Birds Sing: Rhetorical Analyses of Silent Spring* (Carbondale, IL: University of Southern Illinois Press. 2000) and Patricia Coit Murphy's *What a Book Can Do: The Publication and Reception of Silent Spring* (Amherst, MA: University of Massachusetts Press. 2005) are good examples in this regard. More recently, critics have

demonstrates, however, presumptions about what early environmentalism might have looked can be rather misleading (Figure 15). 185



Figure 15. Cartoon by F. Zimmer. New York Times Book Review. January 15, 1956. Rachel Carson Papers/ Beinecke Library Yale University (RCP/BLYU)

"My, haven't Rachel Carson and Anne Lindbergh done wonders with the sea."

Following close on the heels of the publication of two lyrical but challenging meditations on life at the shore—Carson's *The Edge of the Sea* (1955) and Anne Morrow Lindbergh's *A Gift from the Sea* (1955)—the cartoon throws a light note into the often rather stern subject of American nature writing. The image shows two women at the stern of a ship undoubtedly meant to connote a pleasure cruise—the S.S. *Caribe*—facing a beautiful sunset. One, clad in the outlandish hat and boldly patterned dress of a socialite,

begun to consider the larger spectrum of Caron's *oeuvre*, as in Lisa H. Sideris and Kathleen Dean Moore's collection *Rachel Carson: Legacy and Change* (Albany: State University of New York. 2008). Even so, the impact of Carson's earlier work remains an under-researched area of study.

<sup>&</sup>lt;sup>185</sup> Cartoon by F. Zimmer. *New York Times Book Review*. January 15, 1986. ("Edge of the Sea Scrapbook." RCP/BLYU)

cradles a few books in her arm as the other, in a decidedly less glamorous ensemble of trench coat, baseball cap, and sunglasses, contemplates the horizon. Indeed, the latter so closely resembles photographs of Carson which circulated on book jackets, publicity displays, and magazine articles in the early and mid-1950's—many of which showed her outdoors, similarly equipped and in the midst of birding or beachcombing—that it seems altogether possible that Zimmer meant to suggest, if not represent, the famous author herself. Leaning enthusiastically over to her companion, the socialite happily croons, "My, haven't Rachel Carson and Anne Lindbergh done wonders for the sea."

In one sense, the humor of this joke is as old as Wordsworth: the more urbane, more cultured viewer fails to appreciate the unadulterated beauty of the sea because her eyes are filled with the words on the page, because her sense of how to see and experience nature comes from books. The other figure, like the poet-protagonist of "Expostulation and Reply," seems both mildly perturbed at her companion's interruption and eager to return to the "wise passiveness" of her contemplation. <sup>186</sup> The very "wonder" upon which the gag hinges, however, takes the cartoon's sentiments to a new level. While, as previously discussed, "wonder" had become a kind of byword in midcentury bourgeois parenting culture for a kind of awareness of nature that played a key part in the moral and intellectual development of children, "wonder" also assumes, in the context of the cartoon, the more stylish usage of a "doing wonders for"—of improving or managing

<sup>&</sup>lt;sup>186</sup> Specifically, the poet-protagonist replies: "The eye—it cannot choose but see / We cannot bid the ear be still/ Our bodies feel where'er they be, / Against or with our will. / Nor less I deem that there are Powers / Which of themselves our minds impress; / That we can feed this mind of ours / In a wise passiveness. / Think you, 'mid all this mighty sum / Of things for ever speaking, / That nothing of itself will come/ But we must still be seeking?" (William Wordsworth, "Expostulation and Reply." 17-28. *Literature Online*. Online. 6 April 2010). Of course, the cartoon, like Wordsworth's poem, works atop another layer of meaning—which is that the cognitive practices of reading (be it nature poetry or nonfiction about nature) *also* shapes our perception of the world.

the unseemly, of making it more appropriate and more tasteful. In "doing wonders" for the sea, then, Carson's volume—a series of essays-cum-guide book on the lives of animals and plants inhabiting the tidal regions—and Lindbergh's memoir—documenting her stay at a lonely beachside house and her thoughts on the role that intimate relationships, family, work, and creativity played in women's self-development—were not just teaching a new knowledge of and appreciation for marine environments. These books were actually making the sea, and by extension the study of Life in which both texts engage, more fashionable for a readership who might not otherwise have developed a taste for nature study of the kind upon which both books thrived. In effect, the cartoon points to an important transformation in beliefs about nature, culture, and leisure occurring in the postwar era, domesticating the sea—perhaps the most often invoked emblem of nature's vastness and intractability—into a portable, wearable, and quotable fashion statement.

As the slightly startled look upon the Carsonesque figure in the drawing implies, this is not necessarily a trend either author would have expected, nor is it one which fits particularly well with twenty-first century senses of what "environmentalism" means. But as a structure of feeling which "exert[s] palpable pressures and set[s] effective limits on experience and on action," the socialite's expanded sensibilities effect her in distinctive ways: the books she carries (and has presumably purchased and read) mark

The fashionability of environmentalist practices and beliefs has been at issue since the very inception of those beliefs. In her recent book, *It's Easy Being Green: A Handbook for Earth-Friendly Living* (Salt Lake City: Gibbs Smith. 2006), Crissy Trask lists a number of common assumptions—"green living myths"— about what it means to be a self-professed environmentalist at the beginning of the twenty-first century. In keeping with the contrasts of Zimmer's cartoon, Trask describes the fear that those displaying "green living" preferences" will be perceived as "cheap and eccentric"—as far from fashionable as one can imagine. This, she somewhat comically admits, is partially true, but "the manifestations of acute intelligence and enlightenment have always been perceived as a bit eccentric—right?"

her entry into and appreciation of a particular vision, a kind of ecologically-inflected good taste. Even more pointedly, the fact that she drops Carson and Lindbergh's names as a conversation-opener—paired with the slightly aggressive angle of her conversational posture—suggests that part of the point of partaking in the two authors' ecological visions was to signal a certain class status and intellectual taste to those with whom one socialized.

I will argue in this chapter that we must look beyond *Silent Spring* and into Carson's earlier career as a well-established oceanographic writer—the context to which this cartoon reacts—before we can understand the full significance of her contributions to environmentalist philosophy. <sup>189</sup> Tracing the emergence of what Carson called the "ecological concept" in her earlier work —the way she sought to translate the relatively unknown science of ecology into a vibrant, dynamic portrait of the interrelations of all living things on earth—I demonstrate how "ecology" as literary trope and a theoretical assumption would come to inform the more embattled rhetoric of *Silent Spring*. <sup>190</sup>

<sup>&</sup>lt;sup>188</sup> Raymond Williams, whom I quote above, uses the term "structure of feeling" to describe new social phenomena in their earliest recognizable stages—before they have left the matrix of cultural production to become acknowledged social forms. The structure of feeling is, for this reason, an interesting way to theorize the diverse "environmental impulse" before it assumed the more distinguishable form of environmentalism. (See Williams, *Marxism and Literature*. Oxford: Oxford University Press. 1977. Pp. 131-132).

<sup>&</sup>lt;sup>189</sup> I am not the first to argue that Rachel Carson's work should be considered as a united *oeuvre*. This is one of the central implications of Linda Lear's biography of Carson (*Rachel Carson: Witness for Nature*), and it has also been the inspiration for another important text from Lear—*The Lost Woods: The Discovered Writing of Rachel Carson* (Boston: Beacon Press. 1998), which reprints and contextualizes many of Carson's speeches and smaller writing projects.

<sup>&</sup>lt;sup>190</sup> Carson first uses the term "ecological concept" in her 1950 application to the Guggenheim Foundation, as she tries to describe the kind of research she plans to conduct for what would eventually become her third book, *The Edge of the Sea* (1955). "An ecological concept," she writes, "will dominate the book": specifically, this method will "show the relations of seashore animals to their environment—why each lives where it does, how it has adjusted its structure and habits to meet the conditions imposed" and, for each of the animals it features, "give a thumb-nail sketch which presents which presents it as a living creature, telling how it solves the problems of finding food and shelter, of producing young, or escaping

Carson's readers, in other words, would have come to Silent Spring fully trained in the ecological aesthetic she had labored to develop through the production of *Under the Sea* Wind (1941), The Sea Around Us (1951), The Edge of the Sea (1955), and numerous smaller projects, and which, over that time, had found expression in such divergent fields as parenting literature, scripts for television programs, cartoons, an Oscar-winning film, liner notes for a record, and even ladies' fashion. The ecological consciousness which had come, by the time Silent Spring was published, to characterize Carson's work had also become a powerful way to see and feel about nature, one that linked the everyday lives of Carson's readers directly to the enormous problems of social and ecological degradation she would eventually describe. 191

But as the cartoon suggests, there was often a palpable strain between the ecological "lessons" of Carson's work and the consumerist glee with which her products were received. As I will show, Carson worked in an era and for a readership which was deeply fascinated with narratives, sounds, and images of natural "wonder" recently made available by advances in oceanographic science, photography, and sound recording. These phenomena were ever more readily transmitted by the growing media of print, film, and television. The "sea books" circulated on the same tides that brought Jacques Cousteau's portraits of the undersea world, "wonder" films which documented the previously unseen movements of far away or microscopic life forms, and lavishly

enemies, and coping with the difficult conditions of its environment." (Rachel Carson, Houghton Mifflin Correspondence (1950), RCP/BLYU)

<sup>&</sup>lt;sup>191</sup> Carson was explicit about the importance of both knowing and feeling in understanding nature and ecology. In her 1956 article, "Help Your Child to Wonder," she writes: "I sincerely believe that for the child, and for the parent seeking to guide him, it is not half so important to know as to feel. If facts are the seeds that later produce knowledge and wisdom, then the emotions and the impressions of the senses are the fertile soil in which these seeds must grow." (Carson, "Help Your Child to Wonder." Woman's Home Companion. 83:7 (July 1956) Pp. 46, emphasis original)

illustrated books on natural history designed for the pleasure and instruction of the nuclear family. Indeed, Carson and her publishers were among the more savvy exploiters of these very trends, a fact which weighs equally with her great talent in accounting for her remarkable success as a writer. However, I will argue that there is a fundamental tension at work between the ecologically-inflected ethos which Carson develops throughout her work and the technocratic viewpoint which many of these texts and images (including, at times, Carson's books) enabled. Whereas Carson worked tirelessly to promulgate an ecological sensibility based on humankind's absorption within an everunfolding narrative of life on earth, she worked against a persistent barrage of visions which offered humankind the role of overseer—or more properly, *manager*—of a newly technologically colonized earth.

## The Ecological Narrative: Biological Biographies in *Under the Sea-Wind*

In 1938, Carson, an aspiring young writer in the employ of the U.S. Bureau of Fisheries (later known as the Fish and Wildlife Service), wrote to Hendrik Van Loon, a well-established Dutch author who had taken an interest in some of her early work, about the project that would become her first book, *Under the Sea-Wind: A Naturalist's Picture of Ocean Life* (1941).<sup>192</sup> The principal thing the book must accomplish is the creation of undersea *atmosphere*," she explained—a "picture of ocean life" on the ocean's own terms. To achieve this ambient effect, she felt,

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<sup>&</sup>lt;sup>192</sup> Rachel Carson to Hendrik Van Loon, Feb 5, 1938 (RCP/BLYU). Emphasis in the quotations which follow is mine. Carson's first professional publication (barring her work for the Fish and Wildlife Service and a few articles she published a child in *St. Nicholas Magazine*) was "Undersea," and article about aquatic life which appeared in the *Atlantic* in 1938.

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

For its author, *Under the Sea-Wind* was a self-conscious gesture toward a new kind of nature writing, one which relied upon an ecological aesthetic—foregrounding the idea of an integral, interdependent community of living species—long before this basic idea of ecology was widely understood or accepted. 193 In particular, Under the Sea-Wind develops three interrelated ideas, at once rendering scientific principles into narrative form and giving shape to a sense of the "nature of nature": first, the interconnection of all living things, a tenet Barry Commoner would later declare the "first rule" of ecology. 194 Second, and closely related, is the displacement of human beings—in the sense of both their fragmentary representation and their peripheral importance as characters in *Under* the Sea-Wind. Indeed, as Carson's biographer Linda Lear notes, the ocean itself is the "central character" of the piece (90). Yet most remarkable of all is the way in which Carson builds upon the linked ideas that humans are part—and merely a small part—of a vast ecosystem, to pose a third and more challenging principle: that human beings can and perhaps should—reevaluate the significance of their own presence on earth in explicitly ecological terms. Though these may seem fairly obvious claims to readers

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<sup>&</sup>lt;sup>193</sup> I discuss the origins of ecology as a science in my introduction, but it is perhaps worth restating that for Carson, the work of British ecologist Charles S. Elton's, whose *Animal Ecology* (1927) she first read as a biology student at Johns Hopkins University, was extremely influential. Elton helped to promulgate some basic ecological concepts such as the food chain, the ratio of predators to herbivores, and the ecological niche.

<sup>&</sup>lt;sup>194</sup> Commoner's actual formulation is "Everything is connected to everything else." (See *The Closing Circle: Nature, Man, and Technology*. New York: Knopf. 1971. Pp. 3). I cite Commoner's "four laws" of ecology in full in my introduction.

living on the latter side of *Silent Spring*, Earth Day, and other hallmarks of U.S. environmentalism, Carson's configuration of these ideas under the aegis of a kind of biological biography was, in its time, quite unusual.

A rather haunting image of Carson's first principle, the interconnection of multiple species, occurs in a section of *Under the Sea-Wind* which deals with the lives of aquatic birds—in this case "Pandion," the osprey. Describing the nest built over several years by "Pandion and his mate, who had been faithful to each other throughout life," Carson writes:

The nest was six feet across at its base and more than half as wide at the top. Its bulk would have overshadowed any of the farm carts that were drawn by mules along the dirt roads of the sound country. The two ospreys had repaired the nest and added to it during the years anything they could find washed up on the beaches by the tides. Now practically the whole top of a forty-foot pine served as support for the nest, and the great weight of sticks, branches, and pieces of sod had killed all but a few of the lower branches. In the course of years the ospreys had woven or worked into the nest a twenty-foot piece of haul seine with ropes attached that they had picked up on the shore of the sound, perhaps a dozen cork floats from fishing gear, many cockle and oyster shells, part of the skeleton of an eagle, parchmentlike strings of the egg cases of conchs, a broken oar, part of a fisherman's boot, tangled mats of seaweed... In the lower layers of the huge, decaying mass many small birds had found nesting places. That summer there were three families of sparrows, four of starlings, and one of the Carolina wren. In the spring an owl had taken up quarters in the osprey nest, and once there had been a green heron. All these lodgers Pandion had suffered good-naturedly. 195

Press. 1952. Pp. 84-85. There is a notable similarity between this passage and a much more famous paragraph in natural history writing—Charles Darwin's "entangled bank." "It is interesting to contemplate an entangled bank," writes Darwin, "clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through damp earth, and to reflect that these elaborately constructed forms, so different from each other, and dependant on each other in so complex a manner, have all been produced by laws acting around us...There is a grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been and are being, evolved." (See Darwin, *The Origin of Species*. Alachua, FL: Bridge Logos Foundation. 2009. Pp. 297-298). Reading Carson through the Darwinian perspective helps us detect the general principles of life—growth, change, evolution—that shine through the beautiful specificity of Carson's words.

What is perhaps most fascinating about this image is the way it links the lives of multiple animals together across species and across time. The massive pine tree, having borne the weight of the nest for many years, has slowly changed: its top branches have become more nest than tree. The twigs and branches with which the ospreys have layered their nest year after year reflect debris washed in by tides from other lands, bringing distant trees—and perhaps distant nests—into the very substance of the osprey's home. The fishing gear, and even more evocatively, the single boot and broken oar, conjure the image of high waves, a storm, and years spent on distant waters hunting for fish. These, combined with the odd leftovers of other lives—the shells, the skeletons, and the egg cases—that form the nest, suggest that both "natural" and "unnatural" objects are subject to the principle that Carson elaborates elsewhere in the book: "in the sea, nothing is lost. One dies, another lives, as the precious elements of life are passed on and on in endless chains" (101). The nest, too, as its multiple "lodgers" testify, marshals "the precious elements of life" in support of many lives. The "nature" of this passage is assuredly domestic, but it is not pristine, not hermetic. It is rife with life springing abundantly from decay, from dissolution. And while the nest as a diegetic object testifies to the physical truth of interrelation, showing how life gives on to life, the metonymical trickery through which Carson communicates this point—representing past lives with such remnants as a skeleton, a boot, or a shell—asserts a different argument: that individual lives can only be fully understood relative to other lives. Taken outside of their ecological framework, the image suggests, the individual becomes fragmentary, un-living. Finally, the great whole of the nest "overshadows" the passing mule-driven carts (themselves an exercise in

symbiosis—of a sort), suggesting a kind of primacy of the "natural" economy the nest represents over the manmade economy the farm cart serves.

In interconnecting the lives of her textual ecosystem—and even more so, in guiding her readers into the "viewpoint" of wild animals—Carson also clears the way for a kind of displacement of the human perspective and the human presence in her book. The text is actually full of references to human beings, who appear on the edges and the surface of the great sea that forms the background to all the book's action. As anglers and hunters, however, these humans appear only as marginal figures, violently breaking in to the narrative continuity of the textual ecosystem. Carson cites, for instance, the "gunners" who "picked off" migrating sanderlings, "defying the law for the fancied pleasure of stopping in full flight a brave and fiercely burning life"; or the mullet fisherman casting a giant seine net, whose "muscles crack and backs ache" as they "plunge out into water chin-deep, fighting the surf to tread the lead line and hold the net on the bottom" (74, 99). In each of these portrayals, the human body is notably dispossessed: depicted in fragments, pushed to the edge of the narrative, and immersed in watery and airy environments for which it is not built. These strangely disembodied parts recall the odds and ends of the ospreys' nest, but here they suggest interruption rather than continuity, as they clumsily disrupt the fluid motions of the flock or struggling to stand against surging tides.

The displacement of the human presence in *Under the Sea-Wind*, along with the narrative's careful balance of other animals' points of view (including that of "Rynchops" the Black Skimmer, "Silverbar" the Sanderling, "Scomber" the mackerel, and "Anguilla" the eel, among others), insists by implication on what might be called an ecocentric

perspective—one in which the ecosystem itself is taken as the center of ontological reckoning and the basis for ethical claims. Indeed, Carson's sense that the sea itself was the book's truest protagonist translates, more broadly, into a feeling that the ecosystem is narrating itself in the text. Her ecocentrisim owes much to the work of philosopher Albert Schweitzer, of whom she was a lifelong admirer, who pioneered the concept of "reverence for life" in his 1923 *Civilization and Ethics*. In it, Schweitzer claims that the material world is ethically neutral; rather than being driven by an "instruction with regard to accommodation between the ethical and the necessary"—to any staid ethical code—Schweitzer argues, our consideration for other lives stems from "hearing ever more clearly the voice of the ethical element," from "being ever more under the control of [one's] own yearning to maintain and to enhance life, and...becoming ever more obstinate in [one's] opposition to the necessity of destroying and injuring life" (115).

Schweitzer's is a philosophy of feeling, keenly aware that "the world is indeed the grisly drama of will-to-live at variance with itself. One existence survives at the expense of another of which it yet knows nothing" (112). One need only consider the many lives

Leopold, the great conservationist and nature writer of the 1940's who most enduringly delineated his position in a collection of essays called *The Sand County Almanac* (1949). Leopold describes a "land ethic"—a broadening of ethical concerns to encompass "the soils, waters, plants, and animals, or collectively: the land" *as well as* the farmers who worked the land—and famously argues that "a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise" (See Leopold, *The Sand County Almanac and Sketches Here and There*. London: Oxford University Press. 1968. Pp. 224-225). Leopold was developing his ideas during the time in which Carson wrote *Under the Sea-Wind*—as well as putting them into practice on Wisconsin farmlands reclaimed from years of intensive agricultural use—but as a student of forestry, he came to his ecocentric convictions through a different perspective on ecology, and not, perhaps, through the "sympathetic identification with individual creatures" with which Carson's biological training had equipped her (Lear, *Rachel Carson: Witness for Nature*, 103). In fact, Carson appears to have shown "a surprising lack of interest" in Leopold and the rights-based theory he articulated (Lear, 521).

<sup>&</sup>lt;sup>197</sup> All quotations are drawn from Schweitzer, *Civilization and Ethics*. Trans. A. Naish. London: Black. 1923. Reprinted in Pojman, Louis P. *Environmental Ethics: Readings in Theory and Application*. Fourth Edition. Australia: Thomson/Wadsworth. 2005. Pp. 110-117. For a discussion of Schweitzer's "reverence for life" in regard to another author—E.B. White—please refer to Chapter Two.

which quite literally support the osprey's nest in Carson's illustration to see her deep philosophical investment in this sentiment, as well as her remarkable ability to translate it into word images. For Schweitzer, it is an ever increasing awareness—a becoming "cognizant of the existence of other will-to-live" and "yearning for unity" with the same—which marks the ultimate good (112). This principle of awareness would come to play a critical role in the mission Carson developed in *Under the Sea-Wind*, and in the way the text would be received. In reviewing the 1952 re-issue of the book, the Morristown, Pennsylvania's *Times Herald* clearly detected Carson's motivation to "[make] the living seem more alive," declaring, "she opens the eye to unsuspected beauty; she kindles the mind with new awarenesses of the majesty of creation." <sup>198</sup>

Moments of human recognition, then, would come to play a climactic role in many of Carson's texts, perhaps nowhere more clearly than in the story of Scomber, the mackerel whose story forms the dominant theme of *Under the Sea-Wind*'s middle section. After spending six short chapters describing the birth, growth, and development of the young fish—a dramatic struggle for survival that takes place entirely in the great undersea world—the narrative is torn suddenly and violently into the world of humans when Scomber's school is ensnared in a seine net. Unlike the book's other encounters with humans, however, this one is 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" (200). This "wonder" opens, on the occasion of Scomber's capture, into quiet speculation about the significance of human actions in the ancient patterns of undersea life:

<sup>&</sup>lt;sup>198</sup> Morristown, PA *Times Herald*. April 8, 1952. ("More Promotional Materials for *Under the Sea-Wind."* RCP/BLYU).

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. (200)

The fisherman's wonder is powered not just by his acquired knowledge of the mackerels' life cycle, but, importantly, by his inclination to imagine. Though he ultimately dismisses this line of thought in order to get on with business, the odd collision of worlds his daydream opens continues to resonate. The "incongruity" he perceives in the fishes' life in the sea and the fishes' death amidst 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 the fishes' sudden captivity, but it also recalls his 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 not only of world, of undersea and of surface, but of time. His quotidian action of hauling in mackerel suddenly has implications in the timeless rhythm of changing seasons by which the fish live, and which Carson has, up to this startling point in the text, so lavishly detailed.

This episode points to the possibility of an expanded ethics, a philosophy in which life is recognized as valuable in itself, and "reverence for life" is the appropriate response. Later on in the same scene, we find the fisherman dreamily leaning over the gunwales, "seeing in his imagination what he could not see in fact—the race and rush and downward whirl of thousands of mackerel. He suddenly wished he could be down there, a hundred feet down, on the lead line of the net. What a splendid sight to see those fish

streaking by at top speed in a blaze of meteoric flashes!" (203). The obvious enthusiasm of the angler's daydream—the fact that he *almost* identifies with the fish he is working to catch in wishing to be "down there" in the very net with which he ensnares them—is a distinct and meaningful contrast from the text's other portrayals of humans, which are generally marked by their rapacious and destructive behavior. The insight that human life bears relevance beyond the scope of human lifetimes would prove central to the moral imperative Carson would later develop in her work: to consider the ecological impact of human actions. As she argues in *Silent Spring*, "The balance of nature is not the same today as in Pleistocene times, but it is still there: a complex, precise, and highly integrated system of relationships between living things which cannot safely be ignored any more than the law of gravity can be defied with impunity by a man perched on the edge of a cliff." 199

In *Under the Sea-Wind*, however, narrative itself remains, as per Carson's designs, for the most part free from its narrator's intrusion or "opinion." Her impersonal, but richly evocative style allows her reader to find herself inside the ecological ethos the text details, lacking the urgent didacticism of later projects. What the text does most effectively, then, is to form new ground for considering the significance of human life, relative to the scientific concept of the ecosystem Carson elaborates, and the "geological" time scale upon which the ecocentric perspective depends. <sup>200</sup> Carson, indeed, seems to be

<sup>&</sup>lt;sup>199</sup> Carson, *Silent Spring*. Boston: Houghton Mifflin. 1962. Pp. 246

<sup>&</sup>lt;sup>200</sup> It is worth noting that Carson closes the book, in a tribute of sorts to the sea, which presents a geologically-timed montage of the ocean's life. "As the eels lay offshore in the March sea," she writes, "the sea, too, lay restless, awaiting the time when once more it should encroach upon the coastal plain, and creep up the sides of the foothills, and lap at the bases of the mountain ranges. As the waiting of the eels off the mouth of the bay was only an interlude in a long life filled with constant change, so the relation of the sea and coast and mountain ranges was that of a moment in geologic time. For once more the mountains would be worn away by the endless erosion of water and carried in silt to the sea, and

developing a new voice of scientific literacy, one which spoke, with the book's 1952 reissue particularly, to a postwar sensibility of the growing gap between laymen and the world of scientists. As a Providence *Journal* review put it, "As the world becomes more and more complicated, as scientists make greater strides and open ever 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."<sup>201</sup> According to other reviewers, however, this new literacy was more than simply a popular appropriation of scientific discourse, but a distinct state of "fascination" with the elaborate ecology of sea life that went beyond the "sentimentality in which most 'nature stories' wallow." <sup>202</sup> Somewhere between the objectivity of the naturalist's observation 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.",203

From her original conception of this unconventional project in 1938, it would take some time for Carson to secure a suitable contract for it, eventually publishing with Simon & Schuster in October of 1941. In one of the great ironies of Carson's career, however, *Under the Sea-Wind* was to go virtually unnoticed at the time of its publication; many critics, including Carson herself, attribute the book's failure to its proximity to the

once more all the coast would be water again, and the places of its cities and towns belong to the sea."

<sup>&</sup>lt;sup>201</sup> Frank Pemberton, "Along the Seaboard." Providence, RI Journal, April 13, 1952. ("Reviews of Under the Sea-Wind Reissue." RCP/BLYU)

<sup>&</sup>lt;sup>202</sup> "Miss Carson and GKC Return." San Francisco Chronicle, April 10, 1952. ("Reviews of Under the Sea-Wind Reissue." RCP/BLYU)

<sup>&</sup>lt;sup>203</sup> "The Mysterious Deeps." Los Angeles *Mirror*. April 11, 1952. ("Reviews of *Under the Sea-Wind* Reissue." RCP/BLYU)

bombing of Pearl Harbor on December 7, 1941, which, not surprisingly, swept the headlines clear of other news.<sup>204</sup> It also seems worth arguing, however, that part of the book's relative obscurity is the result of the rather significant challenge it poses to readers in terms of its perspective. The text ends, after all, 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 moment which suppresses the extraordinary violence of its prediction in gentle words, while expressing the ecocentric outlook's studied indifference of the welfare of individual lives (271). *Under the Sea-Wind*, in other words, offers a serious challenge to any positivist notions that science will deliver human civilization from want and suffering, writing the end of humankind into its fundamental narrations of geological and ecological progress.

Likely as not, this was not the message that American readers at the close of the Depression decade, a time when mass starvation, drought, and displacement were an all-too-visible reality, would most wish to hear. Yet the socioeconomic and technological advances made by the United States in the decade between 1941 and *Under the Sea-Wind's* 1952 re-issue might, I contend, have done much to mitigate the injury of that particular outlook, repainting the endless struggles for survival the book portrays as a compelling, but more distant "drama" that "we want to watch." Indeed, the fact that *Under the Sea-Wind*'s 1952 reviews frequently seek to link the book's merits with the success of Carson's 1951 bestseller, *The Sea Around Us*, suggests that something in the

<sup>&</sup>lt;sup>204</sup> Lear notes, "Poised for the popular reception that she had every right to expect after such glowing evaluations, Carson's hopes were dashed by world events, which ultimately deprived her of commercial success...Carson later recalled her disappointment at the publication of *Under the Sea-Wind* with wry humor. 'The world received the event with superb indifference.'" (105)

<sup>&</sup>lt;sup>205</sup> Books Section, *New York Herald Tribune*. 1941. ("Promotional Materials for *Under the Sea-Wind*. RCP/BLYU)

latter makes the stark message of *Under the Sea-Wind* a bit sweeter. As I will demonstrate in the following pages, this palliative is, quite likely, the technologically-informed perspective *The Sea Around Us* offers—a view enabled by the rapid developments in oceanographic science spurred by the war itself.

## 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 kind of 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 self-contained underwater breathing apparatus, or SCUBA) in the late 1940's. 206 Not only a bold explorer, but a politically-engaged patriot who had partnered with the British and U.S. Navy, along with 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-

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<sup>&</sup>lt;sup>206</sup> Photographs and text would later appear in Cousteau and Dumas' *The Silent World*, with editor James Dugan of *Yank* (the Army's weekly magazine). (New York: Harper Brothers. 1953)

increasing immensities. And not only to put man there but to help him adapt, explore, subsist, survive, and learn."<sup>207</sup>

But Cousteau was not the only voice for the sea to surface in the early 1950's. Herman Wouk's 1951 Pulitzer Prize-winning novel, *The Caine Mutiny*, had brought the lives of servicemen aboard a somewhat obsolete minesweeper-destroyer to life in a dramatic way, and Ernest Hemingway's *The Old Man and the Sea*—his last major work of fiction and a significant factor in his selection for the Nobel Prize for Literature in 1954—appeared in 1952. Thor Heyerdahl's 1947 voyage on the *Kon-Tiki*, portrayed in both The Kon-Tiki Expedition: By Raft Across the South Seas (1950) and an Academy Award winning documentary film by Heyerdahl and Olle Nordemar, provided breathtaking adventures for its readers and viewers, but perhaps more importantly, did much to revise popular thinking about early Polynesian explorers' capacity for mobility and technological adaptation. <sup>208</sup> Less directly, *New Yorker* editor William Shawn's decision to give no less than three slots of the weekly "Profiles" section to advanced printings of *The Sea Around Us*—the first "Profiles" ever to concern a non-human subject—still argues for the era's interest in the sea as an agent in human history and events. 209

<sup>&</sup>lt;sup>207</sup> From Cousteau's *The Living Sea*. New York: Harper Collins. 1963. Pp. 318. Quoted in Bell, Elizabeth S. "The Language of Discovery: The Seascapes of Rachel Carson and Jacques Cousteau." *College English Association Critic* 63:1.( Fall 2000). Pp. 11. Notice how Cousteau's rhetoric here echoes the popular reactions to the 1957 launch of *Sputnik* which Hannah Arendt describes in my first chapter.
<sup>208</sup> See Herman Wouk, *The Caine Mutiny* .New York: Doubleday. 1951; Hemingway, *The Old Man and the Sea*. New York: Charles Scribners Sons. 1952; Thor Heyerdahl, *The Kon-Tiki Expedition: By Raft Across the South Seas*. London: George Allen and Unwin, Ltd. 1950; and *Kon-Tiki*, Dir. Thor Heyerdahl. (Artfilm, 1950).
<sup>209</sup> See "Profiles: The Sea. Part I: The Forgotten World," "Profiles: The Sea. Part II: Wind, Sun, and Moon," and "Profiles: The Sea. Part III: The Abyss." *New Yorker*. June 2-16, 1951. ("*The Sea Around Us* Excerpts." RCP/BLYU). Linda Lear points out the significance of this "first" in *Rachel Carson: Witness for Nature* (198).

Nor were critics at a loss to explain the sea's sudden popularity as a literary subject. In his review of *The Sea Around Us*, Paul Flowers cited Yale University President, A. Whitney Griswold, who had—at the same National Book Award luncheon at which *The Sea Around Us* was honored—recently pronounced television "a vast wasteland." What would happen, Griswold pondered, "when we are all too busy to read, 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"? "Miss Carson's book," Flowers retorted, "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 had developed complexities adequate to enable living creatures to survive out of the water.<sup>210</sup>

As Flowers' review eloquently reveals, the sea provided an immense canvas for reimagining the new relationship of humankind and the natural world in light of the
"technological advances" which had begun to change the shape and feel of that world,
and could even be a breeding ground for metaphors—such as "the vast production line of
the marine two-thirds of our planet"—which expressed that novel condition. Flowers'
response, in other words, is not just about the basic "literacy" (or lack thereof) of which
Griswold complained, but about the way that a new scientific literacy, supported by new

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<sup>&</sup>lt;sup>210</sup>Flowers, Paul. "1951 Winner Prescribes Remedy for Ailing Book Trade." Memphis *Appeal*. Feb. 3, 1952 ("Scapbook for *The Sea Around Us.*" RCP/BLYU)

technologies, furnished a new means for "reading" the world. Books like Carson's made nature—which had only recently revealed astounding new capacities in areas such as atomic physics—legible.

Carson, too, sensed that the appeal of her book lay in, as Lear puts it, "a deeper yearning for knowledge about the natural world as well as for a philosophic perspective on contemporary life" (205). 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." Carson would, in turn, rephrase her readers' evident desires into a philosophical position on the nature of science, perhaps most clearly in her acceptance speech for the National Book Award of 1952:

Many people have commented with surprise on the fact that a work of science should have a large popular sale. But this notion that "science" is something that belongs in a separate compartment of its own, apart from everyday life, is one that I should like to challenge. We live in a scientific age; yet we assume that knowledge of science is the prerogative of only a small number of human beings, isolated and preistlike in their laboratories. This is not true. The materials of science are the materials of life itself. Science is part of the reality of living; it is the what, the how, and the why of everything in our experience. 212

It was the impulse to teach—to illuminate "this long view of the 'stream of time'"—that characterized the encyclopedic effort of *The Sea Around Us*, and that would become, according to Lear, "the leitmotif of all of Carson's writing" (205).

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<sup>&</sup>lt;sup>211</sup> Cited in Lear, 205. The quote derives originally from an annotated copy of Carson's National Book Award speech, delivered January 25, 1952.

<sup>&</sup>lt;sup>212</sup> Carson, "Remarks at the Acceptance of the National Book Award for Nonfiction." (1952). Reprinted in Linda Lear's *The Lost Woods: The Discovered Writing of Rachel Carson*. Boston: Beacon Press. 1998. Pp. 90-92. For further discussion of this address, please refer to Chapter Two.

But it is also in this will to comprehension, I argue, that the tension between Carson's work and its reception lies. Even as the sea became a new imaginary and technological frontier, it also became enmeshed—as Paul Flowers' metaphor of the factory implies—in the economic and political structures which have historically governed all American frontiers. It would be no exaggeration to call the sea one of the United States' chief national security concerns during the postwar period, albeit less visible than the public outcry over nuclear preparedness. In the years following the Second World War, the ocean came under prospect for numerous new ventures including petroleum extraction, nuclear submarines, water desalinization, and underwater defense systems. 213 As a semi-colonized territory, the sea came to occupy in the American consciousness that shifting category that Amy Kaplan defines as the "foreign" of foreign versus domestic relationships under imperialism. In Kaplan's appraisal, 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." Thus, as new knowledge about the sea changed the shape of the sea in the national imagination, it also changed the ways in which American homes absorbed and rearticulated this knowledge, turning American expansion into marine ecosystems toward the larger narrative of wondrous discovery that characterized the significance of science

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<sup>&</sup>lt;sup>213</sup> In a 1963 *World Book Year Book* edition—in which excerpts from *The Sea Around Us* were also printed—Charles C. Renshaw reports: "Scientists who devote their lives to oceanography do not like to dwell on the military implications of their work, but marine research and marine warfare are now undeniably interdependent. The navy invests far more money into oceanography than does any other organization, and its future plans and present capabilities are vitally influence by developments in the ocean sciences." (Renshaw, "Our Stake In the Sea." *World Book Year Book*. Field Enterprises Educational Corporation. 1963) ("Mother of Life. The 1963 *World Book Year Book*." RCP/BLYU)

<sup>&</sup>lt;sup>214</sup> See Kaplan, Amy. *The Anarchy of Empire and the Making of U.S. Culture.* Cambridge, MA: Harvard University Press. 2000. Pp. 25.

and technology in the 1950's. Being conversant in this knowledge, according to this logic, became a means of expressing sophistication, modernity, and even national pride.

In many ways, The Sea Around Us—a very different book from Under the Sea-Wind—correlates with this trend. Gone is the tight, third person limited narrative focus and the realist texture of the earlier book, replaced with an omniscience that takes in, chapter by chapter, various aspects of a dominant figure—the "encircling sea"—covering everything from the origins of the sea in the formation of the planet, the emergence and disappearance of islands, tides, trade winds, sea life, and the ocean's influence on global climate. 215 Rather than pulling readers into the life of the ocean through the shifting perspective of aquatic animals, teaching ecological principles through flights of fiction, Carson attempts to provide a comprehensive scientific account of the sea from its formation in the earliest era of the earth's existence, to the development of life forms which emerged from its waters, to humankind's urge and efforts to explore the sea, driven, perhaps, by an "unconscious recognition of his [sic] lineage."<sup>216</sup> Carson synthesizes prevailing geophysical theories to portray the sea as both, in Elizabeth Bell's words, "complete within itself, indifferent to passing eons and machinations of humanity," and yet also "a sentient life participating fully in human destiny" (8, 10). Her blending of scientific discoveries with literary techniques ensured that *The Sea Around* 

<sup>&</sup>lt;sup>215</sup> One reviewer seems to have felt Carson's wide-angle focus on the sea 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 one 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*. Monday, May 13, 1954. ("Scapbook for *The Sea Around Us.*" RCP/BLYU)

<sup>&</sup>lt;sup>216</sup> Carson, *The Sea Around Us*. New York: Oxford University Press. 1951. Pp. 15

*Us* performed "an outstanding job of popularization," bringing ocean life and its direct connections to human life into the purview of readers everywhere.<sup>217</sup>

Along with an insistence on the readability of the sea, however, Carson is careful to emphasize its enduring "mystery"—the kinds of questions and musings it continually provokes even as other lines of inquiry are drawn to a close. This shifting understanding—a kind of imagining forward into the process of discovery—is not, she maintains, just characteristic of the sea, but of the scientific method out of which her study is drawn. "Beginnings are apt to be shadowy," opens the first chapter of *The Sea Around Us*,

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. (3-4)

The sea, in turn, becomes not merely the object of an explanation provided by the text, but the medium through which human beings, by means of their "wonder and curiosity"—and in a slightly Freudian fashion—return to an earlier phase of their evolutionary development, renegotiating their relationship as a species to the grand narrative of natural history. As Carson notes, mankind "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

Sea Around Us." RCP/BLYU)

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<sup>&</sup>lt;sup>217</sup> See "The Sea." *Scientific American*. June 1952. While the review praises *The Sea Around Us* as "literate, entertaining, and informative," it also finds that "its mannered word-painting and insistence on the Beauty and Mystery of the subject sometimes grows a trifle wearisome." ("Promotional Materials for *The* 

even its most remote parts, so that he might re-enter it mentally and imaginatively" (15). This imaginative re-entry is directly supported by the increased mobilities and sensitivities provided by postwar technologies—not the least *The Albatross III*, a Fish and Wildlife Service vessel specially designed for deep sea study upon which Carson and her colleague, Shirley Briggs, conducted some of the research upon which the book was based. But imagination, Carson insists, provides a shifting, rather than static, viewpoint from which to observe and judge humanity's place in nature.

While readers of Carson's work—no small number in themselves—were keenly perceptive to the gaps between the discourse of professional science and the knowledge of everyday life that Carson was attempting to bridge, *The Sea Around Us* was nevertheless received into the public's embrace largely by means of a purpose somewhat alien to Carson's own: it became a way to commodify *not just* nature, but a particular perspective—a way of feeling—toward nature. The comprehension offered by Carson's text in the sense of a literacy of ecological processes and their role in human evolution was turned back upon itself to reflect the comprehension, in the sense of grasping or mastering, of man's management of nature as enabled by new technologies, foreclosing the true power of Carson's open-ended readings of nature. This process is symptomatic of the larger trend Bruno Latour has identified in his recent *Politics of Nature*, in which the ever-developing course of scientific research becomes, for political reasons, congealed into the sense that science offers the static and definitive picture of nature. <sup>218</sup> "Ecology,"

<sup>&</sup>lt;sup>218</sup> See LaTour, *Politics of Nature: How to Bring the Sciences into Democracy*. Tras. Catherine Porter. Cambridge, MA: Harvard University Press, 2004. Pp. 10. For more information, see Chapter One, where I have already invoked this definition of science. 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

he writes, "has no direct access to nature as such; it is a '-logy'"—an evolving representation, rather than the material community it represents; and yet, scientists, politicians, and environmentalists alike have been guilty of forgetting this important distinction (4). Similarly, I argue, American technocracy in the postwar period afforded a feeling of mastery over "natural" conditions, and a related ability to quantify the laws of nature, that rendered Carson's portrait of the vast and endlessly complex sea into a map, a document denoting not only the wonders of a newly discovered country, but also, by its very existence, the technological colonization of the ocean, its environmentalization. The wild proliferation of Carson products that followed the publication of *The Sea Around Us* testifies, in part, to a broader cultural belief that nature—or more specifically, the sea—had become yet another product to be purchased in the great global mall.

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

In terms of the role *The Sea Around Us* played in popularizing a certain aesthetic of the relationship between humanity and the biosphere, the publication of the book itself was only the beginning. Between 1951 and 1960, when the book's second edition was published, a tidal wave of ocean-inspired products which directly credited *The Sea Around Us* for their inspiration hit the marketplace.<sup>219</sup> The book's selection as a Book of

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<sup>&</sup>quot;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 (22-24). <sup>219</sup> 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

the Month Club alternate option in the fall of 1951 is an interesting example in this regard: As the name suggests, the club sent subscribers one popular title (or one of a few alternate selections) each month, yet it billed itself less upon the merit of any particular book and more upon the image of readerliness that membership in the club would bestow on its readers. One 1951 circular bearing an advertisement for *The Sea Around Us* presents its readers with a "True Picture of Yourself as a Book-Reader": this "picture" portrays a comely husband and wife seated comfortably in matching wing chairs in their well-appointed home. Their backs are partially turned, but thanks to a mirror cleverly placed above the mantle, the viewer can easily see that each is absorbed in reading a book. Of course, the mirror, which also reflects back onto the viewer herself, also suggests that her image belongs squarely in the middle of this domestic scene, that the life of leisure-reading the ad conjures forms a "true picture" of the viewer.

The blurb featuring *The Sea Around Us* contributes to the ad's air of the genteel, emphasizing Carson's interest in the literary and intellectual dimensions of the ocean, rather than the prosaic facts that might interest the industrial or economic sector of society: "Miss Carson's main interest...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." At once exclusionary and inclusive, this ad folds bourgeois domesticity and the literary prominence of the sea into a new way of interpreting the relationship between human beings and the natural world—

scientific elite. See *Publisher's Weekly*. July 14, 1951. ("Promotional Materials for *The Sea Around Us.*" RCP/BLYU)

<sup>&</sup>lt;sup>220</sup> "True Picture of Yourself as a Book Reader." Book of the Month Club. ("Miscellaneous Materials Relating to *The Sea Around Us.*" RCP/BLYU)

one which, somewhat paradoxically, does not appear to be about class at all, but about natural instincts which lie "deep in all of us."

Excerpts from the book also appeared widely, indicating the surprisingly thorough appeal of Carson's message in many of the standards of bourgeois reading circles. In January of 1952, *Pageant*, a *Reader's-Digest* like monthly, carried a chapter ("The Birth of an Island") as its end of the year "Best Science Story," and in January of 1953, *The Sea Around Us* made a rather unlikely appearance in the *Saturday Review*'s "What Businessmen Read" review (not, admittedly in the listing of the Top 25 books, but in the "Read with Special Interest" category). <sup>221</sup> The New York *Herald Tribune* noted, in its "Librarian's View" for February 17, 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 to reach that distinction. <sup>222</sup> Carson herself was profiled in such general interest magazines as *Look* (September 11, 1951) and *Newsweek* (December 17, 1951) and women's magazines such as *Independent Woman* (October 1951) rounding out the image of a remarkable author and her "science writing for the everyday citizen." <sup>223</sup> *The Sea Around Us* even found its way into the educational sector—not just as required reading in

<sup>&</sup>lt;sup>221</sup> "Best Science Story." *Pageant*. January 1952. ("*The Sea Around Us* Excerpts." RCP/BLYU). "What Businessmen Read." *Saturday Review*. January 24, 1953. ("Promotional Materials for *The Sea Around Us*." RCP/BLYU).

<sup>&</sup>lt;sup>222</sup> "Librarians' View." *New York Herald Tribune*. Feb 17, 1952. ("Promotional Materials for *The Sea Around Us.*" RCP/BLYU).

<sup>&</sup>lt;sup>223</sup> See *Look* (Sept 11, 1951), *Independent Woman* (October 1951), and *Newsweek* (Dec. 17, 1951). ("Promotional Materials for *The Sea Around Us.*")

oceanography classes of all levels, but also in literature and composition classes which hailed it as an excellent example of clear, but evocative non-fiction writing.<sup>224</sup>

Even more striking were the ways in which Carson's literary sea began to filter into that most protean realm of consumer production: women's fashion. In January of 1952, Glamour took the theme of "The Sea Around Us—with a smart curtsey to Miss Rachel L. Carson" rather literally, featuring 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 are in delightful colors and shaped taking their theme from the romance and beauty of the Seven Seas." One of their models, the "Sea Rhythm," sported "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. 225 As this rich assemblage of materials, as well as the hefty price tag, suggests, Carson's literary capital could translate directly into a kind of cultural capital—a marine "romance and beauty" which could be embodied by the wearer of the sentiments Carson had created. The richness of Carson's

<sup>&</sup>lt;sup>224</sup> In an October 28, 1960 letter to Fon 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." ("Correspondence Regarding *The Sea Around Us* Revised Edition." RCP/BLYU). Another rather interesting example is the American Bar Association's 1955 recommendation—presumably to lawyers and law students and faculty—of the book as an example for learning to write well. See Harold G. Pickering, "On Learning to Write: Examples for Study and Practice." *American Bar Association Journal*. Dec. 1955. ("Miscellaneous Materials on *The Sea Around Us.*")

<sup>&</sup>lt;sup>225</sup> "Plotkins Proudly Presents: the Sea Around Us millinery." Advertisement. ("Promotional Materials for *The Sea Around Us.*" RCP/BLYU)

words was perhaps epitomized in a 1956 sales campaign at Saks' Fifth Avenue, which displayed "a whole series of windows built around 'The Edge of the Sea' theme"—that is, based on Carson's third book. Each window featured mannequins wearing clothes "suitable for a vacation by the 'edge of the sea'" and "a copy of the Rachel Carson book published by Houghton Mifflin," bringing the fashion industry and the book industry—with their interlinked connotations of leisure culture—together in a striking visual wav. 226

As highly portable and highly visible commodities, Carson fashions enabled their wearers to miniaturize and personalize the imaginative perspective Carson's book offered on the sea, transforming an ecological viewpoint that attempted to describe the intersubjectivity of individual beings into a fashion statement which emphasized the wearer's individuality. At the same time, it is important to remember that fashion is a two-way street, distinguishing subjects from—but also interpolating subjects into shared cultural communities. For this reason, it is interesting to read examples of Carson couture next to the press's often rather impertinent-seeming interest in Carson's personal appearance. Though many publicity images of Carson show her, as I have earlier commented, outdoors in the midst of exploration, she is most often described in personal profiles and interviews as "gentle," "quiet," and "attractive," and is typically praised for the elegant modesty of her dress at public appearances. These characterizations, whether consciously or not, serve to domesticate any eccentricity that might be perceived in this rock-scrambling, sea-gazing author, bringing her more in line with the model of bourgeois femininity—the same image, indeed, upon which the hats and jewelry inspired

<sup>&</sup>lt;sup>226</sup> Sak's Fifth Avenue Advertisement. ("Promotional Materials for *The Sea Around Us.*" RCP/BLYU)

by *The Sea Around Us* are based.<sup>227</sup> Though many critics have understood this impulse as a kind of sexist reductionism—particularly in reference to the later controversy over *Silent Spring*, in which Carson's femininity was often invoked explicitly to undermine the authority of her work—it is also important to recognize the inclusivity of this gesture, the way it attempts to adapt Carson's ecocentric message into the outlook of postwar bourgeois culture. This kind of domestication can work, then, both to marginalize ecological logic *and* to siphon it into the more secure realms of middle-class consumerism.

A more extreme—and, many would say, far less tasteful—example of the commodification of Carson's work came in the form of a 1953 documentary film adaptation of *The Sea Around Us* by RKO Radio Pictures, produced and edited by Irwin Allen. Though the film eventually claimed an Oscar for photography—a testament to the allure of underwater photography in an era when it was a fairly rare art—this recognition was perhaps the only aspect of the film that turned out well. Originally conceiving of the film as a rousing epic of biblical proportions, Allan had planned 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 ("The Gray Beginnings"), with

<sup>&</sup>lt;sup>227</sup> The World Telegram and Sun called The Sea Around Us "a gentle book" written by a "gentle woman" ("Sterling North Reviews the Books." Dec. 14, 1957) and a New York Times editorial later featured in Oxford University Press's promotional material for Under the Sea Wind called its author a "slender, gentle lady." ("Miscellaneous Materials Relating to The Sea Around Us" and "Promotional Materials for Under the Sea Wind." RCP/ BLYU). Incidence of describing Carson as "small," "attractive," and other such feminine qualities rose with the controversy that followed Silent Spring. Finally, the Anderson, South Carolina Independent noted in 1963 that Carson "is finally tired of being called gentle" ("Will There Ever Be a 'Silent' Spring?" March 25, 1963) ("CBS Reports Previews." RCP/BLYU).

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 universities, libraries, expeditions, and marine research institutions all over the world. 228 The effect, as many reviews noted (without necessarily understanding the circumstances under which the film was produced), was a sense of narrative disjunction, and some critics found the connective commentary rather suspect; Britain's Manchester Daily Mail, comparing it to "the corniest science fiction," called *The Sea Around Us* "a goodish nature film (if you like fish, and much magnified spawn) that is spoiled by an over-enthusiastic commentary and delusions of grandeur." Other representations of the film, however, highlight precisely the film's thrilling adventure narrative as what makes it appealing: the Ontario Theater ad declares a "2<sup>nd</sup> Big Week!" of screening *The Sea Around Us* and includes illustrations of three particularly exciting episodes, including one in which a "Daredevil in steel ball films marvels never before seen!"; another which pits an "Octapus' [sic] crushing tentacles vs. shark's slashing jaws!"; and a third which displays the "Vise-like coils!" and "Vicious fangs!" of the "Deadly moray eel in action!" as it attacks a hapless diver.

What all the reviews, positive and negative, have in common is a fascination with the film's images—the privileged, scientifically-licensed glimpse into worlds which 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

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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. January 14, 1953. ("News Clippings. Film Adaptation of The Sea Around Us."

<sup>&</sup>lt;sup>229</sup> Manchester *Daily Mail*. April 2, 1954. ("News Clippings, Film Adaptation of *The Sea Around Us."* RCP/BLYU)

which featured photographic images of undersea denizens and locales, and also included Disney's Wonder of the Deep—a documentary short similar to The Sea Around Us—and an adaptation of Jules Verne's Twenty Thousand Leagues Under the Sea, which was filmed in the Bahamas and Jamaica. <sup>230</sup> Much of the appeal of these new spectacles, however, lay in the manner in which they could be enjoyed: as spectacles, at a physical and epistemological distance from the raw nature they portrayed. One review quips: "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."<sup>231</sup> From classic novel, to boxing match, to the dubious "entertainment" of watching baby turtles race for their lives, the review draws a series of comparisons that link the consumption of nature documentaries to other forms of private amusement and public contest, placing the "nature" one would presumably partake of in such a situation in the same milieu as reading, attending a fight, or anything else one might enjoy "from a comfortable seat at the Kenmore." Nature, in this sense, becomes interpolated into a cultural form, and one which mirrors the newly perceived position of midcentury Americans relative to the natural world as viewers, consumers, and beneficiaries of a more manageable nature.

<sup>&</sup>lt;sup>230</sup> 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).

<sup>231</sup> "New Film: *The Sea Around Us* Superb at the Kenmore." Undated Advertisement. ("Scrapbook for *The Sea Around Us*." RCP/BLYU).

"Eat and be eaten seems to be the way of life in the ocean," as the review concludes, but the reality within the cinema is markedly different.

Though the documentary *The Sea Around Us* dramatizes a direction of popular interpretation of Carson's insights somewhat at odds with the author's professed intrests, it is also important to recognize some ways in which Carson actively tried to build upon the popularity of her book to deepen and enrich the impact of its message. In 1951, she was approached by a representative of RCA Victor records to compose a set of jacket notes for a new NBC Symphony recording of Claude DeBussy's La Mer. Though a fan of classical music, Carson had no relevant formal training, and RCA's offer might well have been based, as *Musical America's* reviewer put it, on the "assumption" that "what she writes will have better literary quality and be of greater interest than what some piecework drudge would be able to cull from his old edition of Grove and the handiest child's biography of Debussy." Carson, in other words, had become closely associated with the sea and its many resonances in the United States' cultural imagination. The writing of the jacket notes became, for Carson, an opportunity to elaborate upon a topic that was central to The Sea Around Us: the unique position which a scientifically advancing humankind occupied relative to its "mother sea." She spends much of the notes expanding upon how the musical qualities of each of La Mer's three sections correspond to newly discovered phenomena within the field of oceanography. Debussy 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," she advises, "can discern them in this exquisitely beautiful

evocation of the spirit of the sea."<sup>232</sup> Once again, while Carson emphasizes the new legibility of the sea—the "truths" we have "discovered" since Debussy's time—she also paints legibility as an ongoing process, insisting both that many truths remain undiscovered, *and* that we understand these truths through imagination as much as literal fact.

The same year, Carson was asked to address a benefit luncheon for the National Symphony Orchestra in Washington, D.C. 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 moment in which Carson's confidence in the technological blessings of the era first gives way to doubt. Though, as she argued, her books had helped readers redefine the scope of human life as well as that of the turbulent process of human evolution—aiding them to "gain some sense of confidence that the changes and evolution of new ways of life are natural and on the whole desirable"—her readers' many letters had also proven "very clearly..that people everywhere are desperately eager for whatever will lift them out of themselves and allow them to believe in the future" (Lost Woods, 89). Carson's statement is subtle, but rather frightening in the inverse it suggests—a world with no future, or at least not one worth believing in. "We need the inspiration that comes from hearing great music," she closed. "The symphony orchestras that present and interpret the music of the ages are not luxuries in this mechanized, this atomic age. They are, more than ever, necessities" (89). Carson articulates, for the first time in her career, the contradictions inherent in the new legibility of the natural world: that the

<sup>&</sup>lt;sup>232</sup>Carson's jacket notes are reproduced in full in Linda Lear's *Lost Woods: The Discovered Writing of Rachel Carson*.Boston: Beacon Press. 1998. Pp. 83-89. Pp. 84

"inspiration" provided by nature, or representations of it, is quickly becoming a luxury— a commodity divided along different ranks of price and quality, one that can be enjoyed only by those who can afford it.

By the time Carson wrote the preface to second edition of *The Sea Around Us* (1961), she had been hard at work on *Silent Spring* for two years, and her philosophy on the relationship between humankind and "mother sea" had changed drastically, reflecting the erosion of her belief that, "the sea, at least, was inviolate, beyond man's ability to change and to despoil."233 Recent work in oceanography 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." One particular activity—the disposal of nuclear waste, which was conventionally dumped into the ocean in drums—was now displaying the alarming effect of building up, through the process of bioaccumulation, in the bodies of marine animals, who were themselves highly mobile.<sup>234</sup> "What happens then," she wondered, "to the careful calculation of a 'maximum permissible level'? For the tiny organism is eaten by larger one and so on up the food chain to man." Carson's emphasis on the problem of containment dramatically disrupts the stasis upon which the technocratic world view depends, suggesting, in this case, that "disposal has proceeded far more rapidly than our knowledge justifies" (xii). Once again, Carson does not challenge the use or development of technology as such, so much as she

<sup>&</sup>lt;sup>233</sup> Carson, Rachel. *The Sea Around Us*. Revised Edition. New York: The New American Library. 1960. Pp. *x* <sup>234</sup> 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 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*).

questions the presumption that technology has obviated the need for science, for the continued exploration of the world around us feeding an ever increasing awareness. Yet here, her aesthetic of wonder begins to change as she raises the volume of the uncertainty it voices. She concludes: "It is a curious situation 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" (*xii*). The sea as a literary-ecological phenomenon has not ceased to be legible, but its story has become darker, its ending far more dubious.

## The Beachcomber's Eye: *The Edge of the Sea* and the Evolution of Carson as Environmentalist

In July of 1950, with one book near completion, Rachel Carson began to contemplate her next project, spurred by an offer from a new publisher—Houghton Mifflin—to write a "picture primer for the seashore," a book to be found "in every cottage, picnic basket, and beachrobe pocket." Carson was enthusiastic about the opportunity, but was careful to note, even then, that

My quarrel with almost all seashore books for the amateur 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, nor really how to identify them expect by matching them with pictures...Then I think even such a small book could go beyond merely finding and identifying and 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

<sup>&</sup>lt;sup>235</sup> Paul Brooks to Rachel Carson, July 20, 1950. ("Houghton Mifflin Correspondence, *The Edge of the Sea.*" RCP/BLYU).

unobtrusively, how the particular environmental setting (kind of shore, currents, tides, waves) determines what creatures will be found in any particular place. 236

This rough blueprint defines the book which would, I argue, become the apogee of

Carson's ecological aesthetic, *The Edge of the Sea* (1955). In describing the lives of seemingly primitive plants and animals along the edge of three different types of coastline, Carson was not only tracing out long chains of relationship between various elements in an ecosystem—as she had so successfully done in *The Sea Around Us*—but was also quite consciously returning to an ecotone of great significance. The shore of the ocean, as she wrote in the opening pages of her book, was "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." 237

In recounting the lives of shore animals—many of whom had persisted in similar form for millions of years—at the origin point for life on earth, Carson was also making a comment about the "spectacle of living creatures" itself. Unlike the vastness of the sea, which could only be conjured or made visible by advanced technological equipment, the beach was imminently accessible to the curious, a veritable wonderland waiting where many already chose to spend their leisure time. Such is the gist of Houghton Mifflin's full-page advertisement for *The Edge of the Sea*, which contrasts this "attainable other world" with the technocratic dream of space travel: "As the tide goes down can we see for ourselves. Here at the edge of the sea, we do not have to wait for some scientist to

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<sup>&</sup>lt;sup>236</sup> Rachel Carson to Paul Brooks, July 28, 1950. ("Houghton Mifflin Correspondence, *The Edge of the Sea.*" RCP/RLYLL)

<sup>&</sup>lt;sup>237</sup> See Carson, Rachel. *The Edge of the Sea*. Boston: Houghton Mifflin Co. 1955. Pp. 7

return in his submarine space-suit. Here all men can make their own voyage to another shore...Here the sea around us"—a reference, perhaps intended, to Carson's previous book—"draws back to let us touch its depths." This emphasis on the art and the act of observation underscores a sustained ethic of awareness that Carson develops throughout the text, one that posits attention as a means of enlivening the world and recognizing one's place within it: "The shore is an ancient world," she writes,

...each time that 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, and each with its surroundings. (2)

The Edge of the Sea is in many ways, then, a conscious step backward from the grand perspective offered by The Sea Around Us, and a step toward what we might recognize as a fully ecological consciousness.

It is perhaps no surprise, then, that the quality of the narration, the cast of characters, and the scope of the *The Sea Around Us* all tend toward the minute, the detailed, and the personal. Though most of the narrative reflects the third-person omniscient viewpoint of *The Sea Around Us*, the text is framed—and speckled—with patches of first person story-telling in which we find Carson scrambling over rocks, peering into tide pools, and reflecting on what she sees. In a larger sense, too, the entire text maps closely onto the field notes of firsthand explorations of U.S. shorelines Carson was able to conduct on funding provided by Guggenheim Fellowship she was awarded in 1952. Replacing the tides, volcanoes, fields of plankton and other titanic agents which enacted the plot of *The Sea Around Us* with the small, tenacious creatures that inhabit the harsh environment of the shore, *The Edge of the Sea* specializes in portraiture, detailed

<sup>&</sup>lt;sup>238</sup> Houghton Mifflin advertisement for *The Edge of the Sea*. ("Promotional Materials for *The Edge of the Sea*." RCP/BLYU)

recreations of individual plants and animals. Emblematic in this regard is Carson's encounter with a lone ghost crab on a nighttime beach, an episode which, according to many critics, forms a key by which to interpret the entire text:

Once, exploring the night beach, I surprised a small ghost crab in the searching bean of my torch. He was lying in a pit he had dug just above the surf, as though watching the sea and waiting. The blackness of the night possessed water, air, and beach. It was the darkness of an older world, before Man. There was no sound but the all-enveloping, primeval sounds of wind blowing over water and sand, and of waves crashing on the beach. There was no other visible life—just one small crab near the sea. I have seen hundreds of ghost crabs in other settings, but suddenly I was filled with the odd sensation that for the first time I knew the creature in its own world. That I understood, as never before, the essence of its being. In that moment time was suspended; the world to which I belonged did not exist and I might have been an onlooker from outer space. The little crab alone with the sea became a symbol that stood for life itself—for the delicate, destructible, yet incredibly vital force that somehow holds its place amid the harsh realities of the organic world. (5)

This scene dramatizes the kind of readerly focus *The Edge of the Sea* attempts to create, blacking out the grand proscenia of sand, sky, and water to spotlight the crab alone in its habitat, and focusing the power of human perception—the "searching beam" of the flashlight which, alone, allows Carson to see. It also asserts that while the scene is utterly commonplace—"I have seen," says Carson, "hundreds of ghost crabs in other settings"—it is also revelatory, a re-visioning of a familiar scene, but with a new epistemological context—"the darkness of an older world, before Man"—informing a new relation—not just Carson the biologist, observing with a trained eye, but Carson the "alien" life form, beholding a moment in the ongoing struggle of "life itself." Juxtaposing the tiny crab and the immense sea, the passage subtly develops an incarnational idea, in which the crab, whose individual life is marked by emergence from and return to the sea, embodies, for a time, the long story of "Life" that arose from the sea. Indeed, treating the life cycle of the ghost crab in more detail elsewhere in the book, Carson would surmise:

"The individual crab in its brief life epitomizes the protracted racial drama, the evolutionary coming-to-land of a sea creature" (159). Taking part in the struggle to survive, the crab becomes an agent of the "vital force" that negotiates the "harsh realities of the inorganic world"—a detail which, ever so subtly, hints at the embattled position Life will assume in *Silent Spring*.

The crab passage also illustrates, in detailing these "harsh realities of the inorganic world," the new significance that "environment" was coming to play in Carson's work. Though not quite the same as the other senses of environment I have detailed in the present work—not, for instance, the sanitized environment of the suburban home or the giant, surrealistic environment of Scott Carey's cellar in *The Incredible* Shrinking Man—the harsh environment of the shoreline Carson portrays is what gives the stories of the coastal dwellers its power. In *The Edge of the Sea*, Carson seems to appropriate some of the energy of environmental discourse to the rather different end of narrating environments back into the ecosystem, helping readers understand how natural conditions shape the lives of the life forms that dwell therein. While the book is suffused with the struggle of life and populated by animals—crabs, barnacles, the spiny, hardshelled creatures that inhabit tide pools—whose most obvious characteristic is their defensive adaptation, Carson creates a sense of environment which is porous, through which water, nutrients, air, and energy flow in a network. Though it lacks an explicit antipollution ideology, The Edge of the Sea can be understood as environmentalist in the sense that it trades in an ecology of limits, often making the environment itself the object of the narrative.

This environmental focus not only created a certain kind of reading experience, but also, for many of Carson's fans, transformed the living world into a kind of text. The story of Elizabeth Fried, who found herself curiously changed by her reading of Carson's text, is illustrative in this regard. In a passage of her 1955 letter to Carson, underlined and annotated in the author's files, Fried describes 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 'beachcombers' stroll'—with head bent down—looking, looking—to be sure not to miss anything of interest the sand may hold. The Rachel Carson style with all its beauty and poetry is in 'The Edge of the Sea'."<sup>239</sup>

The "beachcomber's stroll" Fried describes forms a kind of choreographical version of the environmental impulse which I have claimed, throughout the present work, as ancestor to modern environmentalism. Though the political ramifications of combing the beach remain unarticulated in Fried's letter, she nevertheless sketches a behavior which is private, somatic, and experiential to a degree which removes her from the "normal" practices of swimming, sunbathing, dropping towels, and so forth. The new movements correspond to a new sense of how the shore might be valued: not simply as a stage for leisure activities, but as the grounds for the leisured exploration of nature, "a mysterious place with something to look for and wonder about every minute." Taken together, the change in pace and in mentality create a kind of self-conscious posture—a

<sup>&</sup>lt;sup>239</sup> Elizabeth Fried to Rachel Carson. November 8, 1956 [?]. ("Fan Mail for *The Edge of the Sea."* RCP/BLYU).

"stroll"—that reflects the ethos of *The Edge of the Sea.*<sup>240</sup> Fried does not herself become the object of the kind of embodiment Carson witnesses in the ghost crab scene; as a viewing subject, she remains psychologically distanced from the environment through which she traverses. But she is nevertheless changed, with craned neck, quick eyes and ears, and feet that readily carry her toward the next object of contemplation. She is physically and intellectually *attentive* to the beach in an altogether new way. Her posturing becomes a useful way to think about the rhetoric and praxis which would later devolve from the environmental movement because, even as it maintains a sense that the "environment" is always somehow proximate, separate, and overpowering of human subjects, it also signals a deliberate shift in position, perspective, and attitude toward that environment.

But the "beachcomber's stroll" also throws some light onto the context in which the book was most commonly received—as "escape reading" to be enjoyed, as the tradition goes, on the beach. <sup>241</sup> Carson's most philosophically challenging text thus became paired, somewhat ironically, with the most leisured of bourgeois activities: the beach vacation. Many reviews tended to harp on escapist, almost fantastical qualities of the book, making the smallness, intricacy, and delicacy of Carson's text seem, at times, a bit precious. One proclaims: "Carson has something of the wide-eyed wonder of a child,"

<sup>&</sup>lt;sup>240</sup> Walking is not, to be sure, without its political implications. Walking recurs in several literary contexts as a metaphor for how subjects participate in history, negotiate their place in collectivities, and express subjectivity. In "Walking" (1861), Henry David Thoreau uses walking as a figure for the individual's semi-immersion in circumstance, perhaps only half aware of the influences to which one is subject. Michel de Certeau, too, adopts walking as a model for how one negotiates the imposed structures of modernity to "make" something out of the role of consumer. "Everyday life," writes Certeau, "invents itself by poaching in countless ways on the properties of others." (See Thoreau, "Walking." *The Thoreau Reader: A Project in Cooperation with the Thoreau Society*. Online. <a href="http://thoreau.eserver.org/">http://thoreau.eserver.org/</a>; and Certeau, *The Practice of Everyday Life*. Berkeley: University of California Press. 1984).

William Hogan, "The Strange World at the Water's Edge." San Francisco Chronicle. Nov 6, 1955. ("Reviews of The Edge of the Sea." RCP/BLYU)

fascinated by the strange and the new. She also has what is more to the purpose: the sensitivity of a poetic nature and an awareness of the great mystery of things."<sup>242</sup> Another accuses the *Edge of the Sea* of "mazy sentimentality," a lack of "the lyric quality that made *The Sea Around Us* a remarkable work." Both portray what is actually a rather technically informative book as a sentimental or poetic text, concealing the more educational and scientifically rigorous aspects of the book. The first, too, in endowing Carson with "the wide-eyed wonder of a child," works to domesticate the ecological sensibility Carson attempts to create, at once clearing a space for thinking about or discussing the ecological lessons Carson offers, but also relegating that particular viewpoint, in effect, to child's play. A third, advertising Edge of the Sea as a perfect Christmas present, links the two recreational and emotional poles of the bourgeois year— Christmas and summer vacation—into one shared reading experience: "A few passages read aloud and the whole family will find themselves on the shore, watching pea crabs, trumpet worms, ghost shrimps...spending a few hours of summer at Christmas time."244 The summoned image of a family circled around the Christmastime hearth, listening as Carson's words recall their collective experiences of time spent at the beach, is a powerful testament to the kinds of memories, associations, and aspirations that Carson's text was treasured for recalling. Carson's work, in other words, was not simply enjoyed by would-be environmentalists, but had also become firmly entrenched in the American leisure society's belief in nature as amenity—a belief which reflected as much about the

<sup>&</sup>lt;sup>242</sup> Richmond, VA *Times-Dispatch*. Dec 4, 1955. ("Reviews of *The Edge of the Sea.*" RCP/BLYU)

<sup>&</sup>lt;sup>243</sup> Farley Mowat. "Sea Shore Humbles Humans." Toronto *Telegram*, December 3, 1955. ("Reviews of *The Edge of the Sea.*" RCP/BLYU)

<sup>&</sup>lt;sup>244</sup> Christian Science Monitor. December 1955. ("Reviews of The Edge of the Sea." RCP/BLYU)

middle class' wish to escape the realms of necessity as it did about the changed material conditions of its reality.

While the lessons of ecology in the "sea books" and the other writings of the 1950's 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 *both* of a desire to connect with the earth and of the culture industry. When ecology did manage to overflow the consumer paradigm, it did so in the remarkable way in which we saw Elizabeth Fried, the "beachcomber," effected—by calling the human body into its service. Even in that case, though, this remarkable form of possession took place in an interstice, a place half way between the regimented behaviors of the middle class subject and the ecological bodies about which Carson so eloquently wrote. In the end, I believe, it is this half-embodied subject—caught between the extremes of having and body and being a body, of rigid domestication and utter wildness—that would become the protagonist of environmentalist discourse, the "I" around which environmentalist beliefs would center.

### **Reading the Earth**

As I have shown, Rachel Carson's first three books and her numerous contributions to magazines, film, and other media, challenged her readers to reassess their places as living creatures in terms of ecology, and to rescale human history in accordance with a sense of natural history. Often as not, however, her works were more readily received as domestications of scientific knowledge and the technologies that allowed that knowledge to expand. It is important to understand the impact of Carson's earlier work

for several reasons: first, because of how it shaped Carson's narrative authority among her audience. Before *Silent Spring*, Carson was known to both lay readers, and—to a slightly lesser extent, to her counterparts in professional science—as a scientist with the gifts of a poet, a translator of sorts with a remarkable capacity to decipher scientific fact into evocative word-pictures. The literary quality of her nature writing and her accrued status as a poet-scientist would eventually prove both an asset and a liability with the publication of her last and most controversial book, leading her critics, on one hand, to question her professional credentials. For loyal Carson fans, on the other hand, the author's style had, over the years, transmuted her into the voice of an ally, of a sensibility whose beauty and passion for the natural world spoke far more eloquently to them than the dry, obfuscating language of scientific experts. When *Silent Spring* placed these two discourses in conflict—most notably, by giving voice to the deadly side effects of pesticide campaigns which experts would not or could not discuss—it was Carson's reputation, just as much as the painstakingly crafted language of *Silent Spring* itself, which leant her credence.

But the problem I want to highlight here is larger than simply how Carson's earlier works shaped the public reception of *Silent Spring* and the movement it helped to inspire. What a close study of the "sea" trilogy reveals is the complex competition between ecological and domestic discourses, between making the earth "legible" and making the earth "human." While the "ecological concept" Carson worked to perfect gave readers a way to "read" nature, even a way to understand themselves as implied within its processes, the cultural context of the postwar era persistently pushed in the opposite direction, urging citizens to internalize nature, to consume and digest it as the

raw materials of *real* life—the American way of life. Rather than constructing a dialectical model of how one form might have displaced the other, I want to consider these two forms—literacy and domesticity—in what Caroline Levine calls "collision." "Literary forms," writes Levine, "trouble and remake political relationships in surprising, aleatory, and often confusingly disorderly ways."<sup>245</sup> I suggest here that the success of Rachel Carson's writing in the midcentury was the direct result of just such a collision, a clash between an emerging discourse of ecology and the postwar era's self-conscious project of making a new domesticity—an process I have also called "environmentalization"—which took the domination of the ecosystem as a given. For many readers, these discourses could be at least partially understood in a complementary fashion: the remarkable new scientific perspective Carson's books offered on the natural world could be seen as part of the technocratic worldview that grew in the wake of World War II. The kinds of freedom needed to "appreciate" nature in the beachcomber's fashion required the structural support of a society divided into public and private spheres, working and leisure worlds. The knowledge which undergirded the beachcomber's new ecological awareness was mined from the same seams which supplied the militaryindustrial complex. The enduring picture of the natural world Carson created, and the ecological aesthetic by which she taught her readers to interpret their world, changed the way people thought about nature in powerful ways. But a well-established precedent of consumption—not just of material goods, but of the material world from which they emanated—kept ecology from developing into the critical mode of thinking it might have become.

<sup>&</sup>lt;sup>245</sup> See Caroline Levine. "Strategic Formalism: Toward a New Method of Cultural Studies." *Victorian Studies* 48:4 (Summer 2006). Pp.625-657.

If it seems, at this point, like something is *missing* from the picture of postwar science and society I have painted, that is perhaps because there is. Ecology, thought fully through, pointed the way to conclusions about American material life that could not be assimilated, ideas which were either too terrifying to put into words or which literally had no place in the vocabulary of the domestic. Levine's paradigm of cultural forms in "collision" is so apt precisely because it helps us understand these moments of dissonance not as the dead-ends of our theory, but as productive of yet more social forms: ways of speaking and thinking that emerge out of the fractures in earlier forms as they become less and less adequate in their representation of the world. My next, and final, chapter turns to the landmark publication of *Silent Spring* to show not only how the book adapted itself to the environmental impulse to create an environmental ism that made sense to the citizen consumer, but also to speculate as to what became of ecology's critique of the American way of life, the new ability Americans possessed to comprehend the biosphere and the often deleterious effects their mode of life brought upon it. Far from simply disappearing—as Barry Commoner reminds us, everything has to go somewhere—ecology, I argue, assumed several new forms. It lived on in a direct way in the discourse of deep ecology, a doctrine that can be seen in the scientific conception of the Gaia hypothesis, the philosophy of environmentalist writers such as Edward Abbey, and in political protest of radical environmentalist groups such as Earth First!. 246 But I am

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<sup>&</sup>lt;sup>246</sup> Deep ecology, an ecocentric school of thought pioneered by Norwegian philosopher Arne Naess in the 1970's, proclaims among its central tenets the right of other species to live and thrive, and the belief that human beings occupy constitute only a small part of the history and meaning of life on earth. (See Naess, Arne. "The Shallow and the Deep, Long Range Ecology Movement." *Inquiry* 16. Pp. 95-100). The Gaia Hypothesis—now known in some circles as the Gaia Theory—supposes that the entire earth, including all the living things within it and the climactic conditions which support them, functions like a single living organism and maintains its own condition of homeostasis. Also a product of the late 1960's and early 1970's, the idea was first developed by independent researcher James Lovelock. (See Lovelock, *Gaia: A New Look at Life on Earth*. New York: Oxford University Press. 1979). Edward Abbey's *The Monkey Wrench* 

most interested a very different way in which ecology went "underground," insinuating itself into a vague but insistent feeling of ecological dread, a phenomenon one author recently called "eco-angst." Beginning with the dramatic public response to *Silent Spring*, I show how ecology became part of the prevailing Doomsday narrative—the everyday apocalpyticism—that already characterized the Atomic Era. I revisit this defining moment in American environmentalism to explore the ways in which nebulous feelings and fears, rather than articulated philosophies, became the readiest outlets for ecology when the problems modern technological pollution proved too great to ignore.

Gang, which debuted in 1975, portrayed a group of misfits who traveled the desert Southwest "monkey

Environmental Crisis in the American Century. New York: Routledge. 2003) that environmental apocalypse

superimposed itself onto the already bold outline of nuclear apocalypse.

wrenching" construction projects—that is, sabotaging machinery and blowing up train tracks—in order to protect the wilderness. (See Abbey, *The Monkey Wrench Gang*. New York: Harper Perennial. 2000).Interestingly enough, the radical environmental group Earth First! (founded in 1979 by Dave Foreman, Mike Roselle, Bart Koehler, Howie Wolke, and Ron Kezar) was directly inspired by Abbey's book, and adapted Abbey's characters' technique of "monkey wrenching" as a philosophy and a practice. Let it never be said the discourse cannot have a direct effect on readers' actions!

247 See Daniel Goleman's "The Age of Eco-Angst." [Weblog Entry]. Happy Days. *New York Times*. September 27, 2009. <a href="https://happydays.blogs.nytimes.com/2009/09/27/the-age-of-eco-angst/?scp=1&sq=eco-angst&st=cse">http://happydays.blogs.nytimes.com/2009/09/27/the-age-of-eco-angst/?scp=1&sq=eco-angst&st=cse</a>. September 27, 2009. Goleman defines eco-angst as follows: "the moment a new bit of unpleasant ecological information about some product or other plunges us into a moment (or more) of despair at the planet's condition and the fragility of our place on it."

248 I am deeply indebted to Frederick Buell for his argument in *From Apocalypse to Everyday Life*:

#### **CHAPTER V**

# Ecology, Environment, and Environmentalists: Reading Backwards from *Silent Spring*

"There is no 'environmental catastrophe.' The catastrophe is the *environment itself*. The environment is what's left to man after he's lost everything. Those who live in a neighborhood, a street, a valley, a war zone, a workshop—they don't have an 'environment'; they move through a *world* peopled by presences, dangers, friends, enemies, moments of life and death, all kinds of beings. Such a world has its own consistency, which varies according to the intensity and quality of the ties attaching us to all of these beings, to all of these places. It's only we, the children of the final dispossession, exiles of the final hour—who come into the world in concrete cubes, pick our fruits at the supermarket, and watch for an echo of the world on television—only we get to *have an environment*."

-The Invisible Committee, *The Coming Insurrection*<sup>249</sup>

When Rachel Carson's *Silent Spring* debuted as a three-part series in the pages of the *New Yorker* in the summer of 1962, it was to an audience of readers who, as I have previously argued, were no strangers to the notion of environmental catastrophe. Though few voices had spoken out as clearly as Carson's now did, the sweeping changes in American material life—including the sinister presence of deadly new kinds of pollution—had already begun to resonate in the ways Americans thought about their homes, educated their children, and dreamed about the future of their civilization. Carson herself had taught the American public much about the workings of ecological systems through an extraordinarily successful series of books on oceanography. Through each of these channels—and doubtless, through many I have neglected to report—the "nature" which had been annexed by the extraordinary cultural productions of postwar technology had begun, like weeds on a suburban lawn, to creep back into the picture of the American

<sup>&</sup>lt;sup>249</sup> See The Invisible Committee ("The Tarnac Nine"), *The Coming Insurrection (L'Insurection Qui Vient)*. Semiotext(e). 2009.

way of life. The stage was set for Carson, armed with her 297-page indictment of the deadly pesticides and practices that had played a major role in shaping the American way, to light the familiar world of the postwar domestic with a toxic glow—one that would link it irrefutably to the industrial substructure which supported it. It was time, at last, for the environmental movement to begin. Or so the story goes.

In fact, reactions to Silent Spring were not only extremely controversial, but also extraordinarily diverse. And while *Silent Spring* is rightly credited as a catalyst for several critical pieces of environmental policy, for the first national recognition of both Earth Day and environmentalism's status as a movement, and for a much-needed adjustment in the scientific community's alliance toward industrial growth, its effect on the general public was ambivalent. The same ideology of domestication which had helped to make problems such as nuclear fallout a familiar, if dreadful, part of life, had a remarkably similar effect on Silent Spring: the story of endangered ecologies it told was translated into a message about private homes, individual responsibility, and the threats posed by an "environment" which, conceptually, lay outside the bounds of home and self. George Litchy's July 1963 cartoon about Silent Spring is interesting in this regard, showing not only the momentum the polemic maintained—even a year after the book's publication—but the ways in which Silent Spring articulated with the everyday lives of readers. 250 Picturing a dinner table scene in a comfortable home, it captures a husband and wife in the midst of a squabble over their children, who sit between them, refusing to eat their dinners. Speaking over these stubborn heads, the mother replies, "...But if I bribe them to eat vegetables, I'll have to bribe them not to read Rachel Carson!"

<sup>&</sup>lt;sup>250</sup>Litchy's cartoon (part of a column called "Grin and Bear It") was printed in the Chicago *Sun-Times* July 5, 1963. ("Cartoons Relating to Rachel Carson Books." RCP/BLYU)

Silent Spring, as the cartoon suggests, straightforwardly reported what the environmental impulse in the United States had been hinting at for at least a decade: that its era's attempt to annihilate and recreate its own hermetically-sealed and regulated environments could backfire, posing a serious risk to public health—in this case through the pesticidal residues that rode into American homes on treated produce—and reflecting a deep social pathology. In the new and uncertain light of this knowledge, the cartoon suggests, it is no longer safe even to eat your veggies, and the managers of household behaviors (broccoli-pushing moms everywhere) can no longer fulfill their job descriptions. Carson, in bringing together a material analysis of postwar domesticity and the domestic form through which the environmental impulse had most clearly registered up to that point, created a powerful panic that would seem to have proven the need for readerly response.

But the image also suggests that the public was, in many ways, missing the point of *Silent Spring*. While the book represents the apogee of literary and philosophical ecology Carson had carefully cultivated in three previous books, this ecological insight was refracted, as the cartoon shows, through the consumerist lens with which its audience had become so familiar. The problem of pesticides, in other words, was understood primarily as a threat to—rather than an inherent criticism of—the American way of life. It heralded a call to defend the middle class home, but not to *question* the supports, material and ideological, upon which it was built. While deeply concerned with the dangers posed to the *environment*, this way of interpreting *Silent Spring* did little to acknowledge the patterns of human ecology which had created the toxic environment in the first place. This ambivalence is also clearly displayed in the cartoon's rhetorical

model: while seemingly posing a choice between two kinds of domestic peccadilloes—either bribing kids to eat their vegetables or not read Carson's book—the graphic also seems to profess that there are no good choices in this situation. The reader is left with a vague, not-so-comical sense that her agency is, at best, limited, and that the problem depicted here is far beyond her control. Given this psychological double-bind, it is perhaps no wonder that the ensuing decades have seen what Bruno LaTour calls a "stagnation" of the green movements, a failure to bring about the "renewal of public life" they had once promised. This effect, I contend, is grounded in the historical situation of the environmental impulse—in its deep attachment to middle class domesticity. <sup>251</sup>

In this chapter, I will begin by analyzing this particular connection: how, I will ask, was *Silent Spring* able to so powerfully motivate its middle class readership, and what forms did this fledgling "environmentalism" take? As I will show, certain parts of Carson's manifold text seem speak directly to the consumer's experience of American material culture, and while these passages highlighted the considerable dangers lurking on the shelves of the supermarket, they also empowered a less traditional female bloc of voters—including homemakers, mothers, and club women—to make a political call for change. Next, however, I turn to Carson's painstaking elaborations of bioaccumulation, the ecological process whereby toxins in the biosphere "climb" the food chain from plants to animals, creating alarming deposits of poison in the bodies of birds, fish, and

<sup>&</sup>lt;sup>251</sup>See LaTour, *Politics of Nature: How To Bring the Sciences Into Democracy*. Trans. Catherine Porter. Cambridge, MA: Harvard University Press. 2004. Pp. 1. A selection from quite a different source—one of the *Oxford English Dictionary*'s first citations of "environmentalism" as a "concern with the preservation of the environment, esp. the effects of pollution"—shows the profound association between environmentalism and its classed origins. The *OED* cites a disgruntled editorialist in the *Daily Telegraph* (July 16, 1976) grouping together "aggressive feminism, homosexualism, and environmentalism" as one of many "middle-class self-indulgences." (See "Environmentalism." *Oxford English Dictionary Online*. Oxford University Press. 2010. Available online at <a href="http://dictionary.oed.com">http://dictionary.oed.com</a>)

humans. It was this central tenet—one which poses a serious challenge to the status quo of any modern technocracy—that simply could not be assimilated by the vast majority of Carson's readership. Instead, I argue, these shocking implications of ecology went "underground," disappearing into, but not entirely replacing, an apocalyptic narrative which, with the advent of nuclearization, had become profoundly embedded in the American imagination. Ecology as Carson presented it, in other words, rang truer as a feeling than as a philosophy, and as the United States' newfound interest in the concept of "sustainability" indicates, ecology is only now being widely articulated as a logical narrative. As I practice this "backward reading" on the text of *Silent Spring*—that is, considering the cultural matrix which gave the text meaning, rather than simply tracing the discursive trajectories which the text put in motion—I will also be reading backward in a more literal sense, beginning with the chapters which are less frequently remembered and working up to the single chapter which has become iconic: the opening "Fable for Tomorrow."

### Poisons in the Grass, Poisons on the Shelf: Silent Spring and the Citizen-Consumer

In the years since its publication, *Silent Spring* has accumulated something of a heroic glow, often invoked as a book which, like Harriet Beecher Stowe's *Uncle Tom's Cabin* or Upton Sinclair's *The Jungle*, is significant because it "changed things." <sup>252</sup> The

<sup>&</sup>lt;sup>252</sup> Sen. Abraham Ribicoff may be credited with the most dramatic, if not the first, rendition of this comparison. In a June 1963 hearing before President Kennedy's Science Advisory Committee, he took the part of Stowe's Lincoln, identifying Carson as the "lady who started all this." (See Lear, *Witness for Nature*, Pp. 3). One might also argue that *Silent Spring* takes after *Uncle Tom's Cabin*, or *The Jungle*, in other, less fortunate ways, as it is more often remember for its great persuasive power and not for its extraordinary literary qualities. In the present work, I hope to demonstrate that it was in part the "poetry" with which

impact which Silent Spring had upon the reading public should not be underestimated, and its effect on the nation's environmental policy was quite simply enormous; enthusiasts credit it with a hand in creating no less than four landmark environmental laws, including the Clean Air Act, the Clean Water Act, the National Environmental Policy Act, and the Endangered Species Act, and in the establishment of the Environmental Protection Agency, in the late 1960's and early 1970's. 253 Even before that, the book created a considerable stir, selling over half a million copies in its first year as Carson herself appeared on a nationwide broadcast of CBS Reports ("The Silent Spring of Rachel Carson," televised April 3, 1963) and testified before President John F. Kennedy's Science Advisory Committee (May 15, 1963), specially appointed to look into the issue of pesticide use. As experts publicly weighed in on both sides of the polemic, hundreds of reviews in the nation's newspapers followed suit, and a surprising number of garden clubs, PTA's, and other local interest groups held public discussions of the book. Silent Spring had given way to what John M. Lee of the New York Times called "a noisy summer.",254

Silent Spring addressed its highly technical topic—and won so many readers over to its argument—that made it so controversial.

<sup>&</sup>lt;sup>253</sup> See *A Sense of Wonder: Two Interviews with Rachel Carson*. Dir. Kaiulani Lee. Bullfrog Films (2008). The Clean Air legislation originated as the Air Pollution Control Act in 1955, but has evolved with changing understandings of the problem of pollution, leading to the Clean Air Act of 1963, the Air Quality Act of 1967, the Clean Air Act Extension of 1970, and the Clean Air Act Amendments of 1977 and 1990, the last of which proposed the strategy of emissions trading and included provisions for acid rain and ozone depletion. Similarly, the Clean Water Act is a body of legislation comprised of the Federal Water Pollution Control Amendments of 1972, the Clean Water Act of 1977, and the Water Quality Act of 1987, all of which regulate the amount of synthetic toxins allowed in U.S. waters. The Endangered Species Act of 1973 has played a decisive role in many environmental struggles, protecting the habitat of nationally-recognized imperiled species from incursions of industry and development.

<sup>&</sup>lt;sup>254</sup>See John M. Lee. "'Silent Spring' is now Noisy Summer: Pesticides Industry Up In Arms Over a New Book, Rachel Carson Stirs Conflict—Producers are crying 'foul.'" (*The New York Times* July 22, 1962. Available online. http://www.mindfully.org/Pesticide/Rachel-Carson-Silent-Spring.htm#1). More information about the *Silent Spring* "reading groups" and public lectures can be found in the Beinecke

The book that caused such furor was of a fairly simple design: beginning with an alarming opening "fable" which depicts an idyllic country town withering mysteriously away from pesticide poisoning, the book delves in succeeding chapters which explain the prevalence of chemical pesticides, their types and composition, and the mass-destruction campaigns through which they had been distributed across the nation. Next, Carson describes the fish kills and bird die-offs which she believes are linked to these types of pesticides and their "indiscriminate" use, citing examples from specific campaigns carried on throughout the 1950's. Finally, she considers the "human price" of this quick and efficiently pest-free world, arguing that new toxins might be related to heightened rates of cancer, and might indeed be causing long term damage to human reproductive systems, pointing in a rather frightening direction for the future of the species. The book ends on a note of uncertainty, citing the need for long range studies to better understand the health effects of chronic exposure to these dangerous chemicals. Carson draws no definitive conclusions, but attempts to instill in her readers a "precautionary principle" which calls for "humility" rather than "arrogance" in attempting to alter or manipulate natural systems, as a means of preventing unnecessary damage to the ecosystem and the lives it supports. 255

Library's collection of newspaper clippings about public reactions to the book. (See "Discussion Groups for Silent Spring." RCP/BLYU)

Using some the text's strongest language, Carson opines about the decided *lack* of precautions industrial scientists have displayed in their attempts to "control" nature: "The 'control of nature' is a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man. The concepts and practices of applied entomology for the most part date from the Stone Age of science. It is our alarming misfortune that so primitive a scientist has armed itself with the most modern and terrible weapons, and that in turning them against the insects it has also turned them again the earth." (See Carson, *Silent Spring*. Boston: Hougton-Mifflin Co. 1962. Pp. 296)

As Vera Norwood has shown, however, alarm—and a keen sense of the need for action—was the mood that struck one of Carson's most supportive audiences: the homemakers and clubwomen who formed the backbone of household management and expertise. 256 Not surprisingly, one of Carson's most powerful concluding chapters, "Beyond the Dreams of the Borgias," is devoted to a critique of the familiar texture of consumer society and the home life it enabled, deconstructing everything from displays in the grocery store to images used in marketing pesticidal products. While describing the plethora of insecticidal shelf papers, "innumerable lotions, creams, and sprays for application on clothing or skin," poisoned floor polish, bug-poisoning strips, insecticide dispensers, and clothing sprays currently available in stores, she opines,

If a huge skull and crossbones were suspended above the insecticide department the customer might at least enter it with the respect normally accorded deathdealing materials. But instead the display is homey and cheerful, and, with the pickles and olives across the aisle and the bath and laundry soaps adjoining, the rows upon rows of insecticides are displayed. Within easy reach of a child's exploring hand are chemicals in glass containers. If dropped to the floor by a child or a careless adult everyone nearby could be splashed with the same chemical that has sent spraymen using it into convulsions. (174-175)

Here Carson visually reproduces not only the aisles of a store, but the continuum of products that constitute the working interiors of U.S. homes, along with the inherent dangers posed to "a child's exploring hand." Beyond merely questioning the "homey and cheerful" mien of pesticide displays, Carson brings the industrial specter of "spraymen" into a space clearly zoned commercial, linking the private, protected space of the grocery store with the more dangerous and less genteel world of industry.

North Carolina Press. 1993. I will return to Norwood's argument in more specificity in a few pages.

<sup>&</sup>lt;sup>256</sup> See Vera Norwood. *Made from this Earth: American Women and Nature.* Chapel Hill: The University of

Carson levies a similar attack on the advertisements and "descriptive literature" used in the purveying of pesticides. "The mores of suburbia," she writes, "now dictate that crabgrass must go at whatever the cost. Sacks containing chemicals designed to rid the lawn of such despised vegetation have become almost a status symbol." Yet the lethal nature of these products is concealed by both "brand names that never suggest their identity or nature" and the "exceedingly fine print on the least conspicuous part of the sack." "Instead," Carson complains, "the typical illustration portrays a happy family scene, father and son smilingly preparing to apply the chemical to the lawn, small children tumbling over the grass with the dog" (178-179). This paradoxical image suggests some of the deepest contradictions at work in the self-representations of the postwar middle class: the comfortable lawn, like a natural carpet upon which children can play, is actually an artificial rendition, a mark of its owner's triumph over nature and necessity, not unlike the dog with which the child tumbles—but different in that it is made possible with the aid of deadly technologies, which themselves assume the form of "status symbols."

Silent Spring, then, was at least partially framed by a concern for the localized environment of home, and bounded by the practices of American consumerism—and it was received as such. This trend can be perhaps most clearly identified in *Consumer Reports*' decision, "by arrangement with the publishers and as a public service project," to provide a special free edition of *Silent Spring* for all subscribers.<sup>257</sup> Importantly, the issue was not posed as a matter of what not to buy, but rather as an issue of improving consumer consciousness. In its January 1963 "Pesticides: Attack and Counterattack," the

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<sup>&</sup>lt;sup>257</sup> See *Consumer Reports'* circular letter to its subscribers, Sept. 18, 1962, published by the Consumers Union. ("*Silent Spring* Publicity." RCP/BLYU)

editors describe the pesticide industry's two-pronged campaign first to defame Rachel Carson's work—several prime examples of this strategy remain on file—and second to levy a tide of articles in various trade publications praising the effectiveness and simplicity of home-use pesticides.<sup>258</sup> While the article concludes that, due to the complicity between manufacturers and the various organs of public opinion and information, "the general consumer press cannot be counted upon to report such events reliably or to reflect the growing public concern," what it more broadly suggests is a burgeoning effort on the part of citizens-as-consumers to demand transparency and quality from producers in the style of Ralph Nader's *Unsafe at Any Speed* (1965).<sup>259</sup>

As Vera Norwood points out, the consumer-citizen reading of *Silent Spring* offered extraordinary potential for a kind of feminist response among some of Carson's most enthusiastic readers, who interpreted its warnings about a toxic world through the lens of the dangers pollution posed to home, family, and neighborhood. According to Norwood, Carson's particularly "fortuitous appearance [as] a woman trained in the new science of ecology—who described nature as a household" stirred the beginnings of "a political agenda rising from the congruencies between human homes and nature's household" (Norwood, 147). Much of the cohesiveness of this new constituency depended, she points out, on Carson's readers' willingness to reframe what might be understood as the singularly atomizing role of domestic caretaker to the nuclear family into a community of shared concerns. The "expressive" function that women were expected to exercise in their homes, calling upon their "aptitude for divining personal

<sup>&</sup>lt;sup>258</sup> See "Pesticides: attack and counterattack." *Consumer Reports*. January 1963. ("Effects of *Silent Spring*." RCP/RLYLL)

<sup>&</sup>lt;sup>259</sup> See Nader, *Unsafe at Any Speed: The Designed-In Dangers of the American Automobile*. New York: Grossman. 1965.

needs, supplying emotional support, and monitoring interpersonal relationships" could be extended into the public sphere through the kinds of social activities in which these women participated and even into the professions some of them were permitted to pursue—including teaching, professorships, journalism, and club work. Together, they formed a network of women concerned with the management and protection of the lives with whom they shared both their individual homes, and, as a kind of collective home, their communities.

A letter of September 29, 1962 to Carson from Ruth Desmund, Secretary of the Federation of Homemakers, lends support to Norwood's theory. "I just want you to know," Desmund writes, "that we homemakers who are aware dimly of the risks our families are subjected to because of thoughtless use of dangerous farm poisons and mass spraying programs are so very grateful for your wonderful book which has awakened so many complacent people into present (and we hope continued) action." 260 Ruth Scott with the Garden Club Federation of Pennsylvania, who helped to lead her organization in a campaign to change roadside brush removal policies that called for the mass application of toxic herbicides (and, simultaneously, destroyed an important feeding ground for several migratory bird species), articulated the need for a similar transformation in the knowledge and values typically apportioned to women: "It is difficult to attempt to build a conservation ethic that will lead to positive action. Garden Clubs are chiefly interested in Flower Show competition and the least in conservation." Yet, she notes, "I can do

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<sup>&</sup>lt;sup>260</sup> Ruth Desmund (Federation of Homemakers) to RC, Sept 29, 1962. ("Correspondence, Federation of Homemakers, 1962-1963." RCP/BLYU)

more as bird chairman because I can do it through the ecological approach."<sup>261</sup> Scott's sense that the "ecological approach" pioneered in Carson's work could deepen an interest in the aesthetics of flowers into an ethic of protecting the suburban ecosystems in which home gardens play such a critical role testifies to the power of "ecology" as a motivating idea, but it also sets the terms upon which much of the popular debate over *Silent Spring* occurred—that is, within the limits of domestic life. Indeed, as Norwood notes, the key innovation which Carson's work seemed to signify for its readers was to transfer the pattern of the domestic onto nature itself, extending the reach of "the restricted sphere of suburban homes into holistic nurturance of all earth's creatures."<sup>262</sup>

This domestic locus, however, failed to take account of the deeper implications of *Silent Spring*. In other words, much of the public response to the book, and many of the strategies developed as part of that response, were articulated through the same citizen-consumer framework that had enabled the rise of postwar domesticity in the first place, and concentrated much of their reforming effort on improving the workings of—while deepening their embeddedness in—the same economy. The conditions which created the phenomenon of the postwar "environment" were thus countered with a kind of environmental*ism*, a set of beliefs and practices that, paradoxically, reinforced the compartmentalization of the biosphere into separate spheres.

While the implications of Carson's ecological concept had finally hit home, spurring new kinds of empowerment and shattering the complacency of the American

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 $<sup>^{261}</sup>$  Ruth Scott (The Garden Club Federation of Pennsylvania) to Rachel Carson, June 16, 1961.

<sup>(&</sup>quot;Correspondence, Ruth Scott, The Garden Club Federation of Pennsylvania." RCP/BLYU)
<sup>262</sup> In an article entitled, "Make Sense?" (Oct 12, 1962), the Berwick, PA *Enterprise* tells of the Pennsylvania Federated Clubwomen staring a 'Project Alert' program "to call attention of the general public to the menace of unknown poisons in modern life." ("Effects of *Silent Spring*." RCP/BLYU)

consumer, in a different sense, *Silent Spring* had served to bar, rather than open, the doors of America's domestic life. While working to preserve the health and integrity of one's home, neighborhood, or even region became a possible—even necessary—goal for the newly enfranchised activists, the ecological analysis of everyday life which Carson's defamiliarizing text would seem to have called for remained largely unarticulated—but not, as I will argue, unnoticed. Before asking what became of ecology's critique, however, we must first understand the dimensions of that critique as outlined in *Silent Spring*. As I will show, the difference between *Silent Spring* and the earlier work her fans had come to admire was less about content than about mode; the ecological aesthetic which had once proven so compelling to Carson's readers now took on a distinctly persuasive purpose as Carson sought to turn ecology into a kind of argument—an ecologic.

### Returning to Mother Sea: Reading Silent Spring in Light of the "Sea Books"

In their essay "Silent Spring and Science Fiction," M. Jimmie Killingsworth and Jacqueline S. Palmer characterize Rachel Carson's use of ecology as follows: "not a throwback to a sentimentally conceived ideal past" but "a thoroughly modern conception, the biological equivalent of globalism in the political realm, the idea that no action is innocent of repercussions throughout the larger system, whether that system is an ecosystem or a political system." Ecology, indeed, becomes not just an embellishment in Silent Spring; it becomes the book's method as the chapters narratively trace the

<sup>&</sup>lt;sup>263</sup> See M. Jimmie Killingsworth and Jacqueline S. Palmer, "Silent Spring and Science Fiction: An Essay in the History and Rhetoric of Narrative." And No Birds Sing: Rhetorical Analyses of Rachel Carson's Silent Spring. Ed. Craig Waddell. Carbondale: University of Southern Illinois Press. 2000. Pp. 189.

bioaccumulation of chemicals from the soil, groundwater, and forests in birds, fish, and humans, and even into the cells and genetic material of the human body. In this sense, *Silent Spring* should be seen as the literary heir to the formal experiments Carson carried out in *Under the Sea-Wind*, *The Sea Around Us*, and *The Edge of the Sea*, but it also represents the product of a retooling process whereby Carson sought to argue, through her analysis of human ecology, that some of the fundamental premises of the American way of life were destroying the very substance of American life.

Like the well-loved *Sea Around Us*, *Silent Spring* uses a global framing and an encyclopedic voice, but with an important difference: ecology as Carson levies it in the later book is no longer a means of mustering the public's appreciation of the wonders of nature. Ecology is, instead, the medium of an urgent warning, made all the more imperative by the fact that the more established dialects of scientific discourse—the language of preventive entomology, toxicology, or chemical engineering—had no words for the frightening phenomena Carson documents. <sup>264</sup> Accordingly, the environment *Silent Spring* portrays changes from the nature *The Sea Around Us* conjures, a sort of enormous canvas upon which human life is a small, but central detail, to the shifting, unpredictable terrain rocked by the unprecedented interventions of humankind. This shift in perspective has a temporal element: "It took hundreds of millions of years to produce the life that

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<sup>&</sup>lt;sup>264</sup> Often as not, the industry's answer for public demands for more information about the dangers of pesticides was to admit that more research needed to be conducted. A good example, drawn from the 1963 *CBS Reports* broadcast of "The Silent Spring of Rachel Carson," brings Dr. Robert White-Stevens of American Cyanamid Co. into the public eye. "Miss Carson," opines White-Stevens, using the appellation most favored by her critics, "is concerned with every possibility of hazard and danger; whereas the agricultural school has to concern itself with the probability, the likelihood of danger, and to assess that against utility. If we had to investigate every possibility, we would never make any advances at all, because this would require an infinite time for experiment work, and we would never be finished." (A transcript of the broadcast is available in "Television Adaptation, 'CBS Reports: The Silent Spring of Rachel Carson'." RCP/BLYU)

now inhabits the earth," notes Carson, "eons of time in which that developing and evolving and diversifying life reached a state of adjustment and balance with its surroundings." Yet now the pace and the process of the evolution shaping nature are hastened by the disturbing presences of anthropogenic radiation and synthetic chemicals (7).<sup>265</sup> Gone are the steady, ancient rhythms of the ocean, replaced with a nature "on the one hand delicate and destructible, on the other miraculously tough and capable of striking back in unexpected ways" (297). Indeed, so inscrutable had the evolutionary narrative become that, as Dr. David Price of the United States Public Health Service put it, "We all live under the haunting fear that something may corrupt the environment to the point where man joins the dinosaurs as an obsolete form of life...And what makes these thoughts all the more disturbing is the knowledge that our fate could perhaps be sealed twenty or more years before the development of symptoms." 266

Ecology in *Silent Spring*, then, offers a kind of radical critique relative to the technocratic science, rather than the more complementary role it assumes in *The Sea Around Us*, but brings similar kinds of knowledge to bear. Ecological insight, tracing the progress of chemicals up the food chain, is what enables the observer to actually distinguish the presence of poisons which are, "for the most part," "unseen and invisible" within the environment; predominant scientific disciplines, focused as they were on narrow aspects of the pesticide problem, were unprepared to account for the reach of

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<sup>&</sup>lt;sup>265</sup> Carson elaborates: "The chemicals to which life is asked to make its adjustment are no longer merely the calcium and silica and copper and all the rest of the minerals washed out of the rocks and carried in rivers to the sea; they are the synthetic creations of man's inventive mind, brewed in his laboratories, and having no counterparts in nature" (*Silent Spring*, 7).

<sup>&</sup>lt;sup>266</sup> See Price, David E., "Is Man Becoming Obsolete?" *Public Health Reports* 74:8 (1959). Pp. 693-699. Quoted in Carson, Pp. 188.

toxins into the ecosystem, or for the alarming reaction in bird and fish populations. <sup>267</sup> Even so, the ecological worldview Carson creates would seem to demand a kind of literacy similar to that *The Sea Around Us* tries to teach—a means of "reading" the relationships between living organisms and the environment *over time*—and which more conventional, highly specialized sciences could not achieve. In one important example, Carson claims:

The contamination of the world is not alone a matter of mass spraying. Indeed, for most of us this is of less importance than the innumerable small-scale exposures to which we are subjected day by day, year after year. Like the constant dripping of water that in turn wears away the hardest stone, this birth-to-death contact with dangerous chemicals may in the end prove disastrous. Each of these recurrent exposures, no matter how slight, contributes to the progressive buildup of chemicals in our bodies and so to cumulative poisoning. (173-174)

Not only does Carson refute the idea that isolated exposure is the significant mode in which most bodies experience toxins—a premise upon which nearly all of the pesticide industry's claims to product safety were based. She also offers a nature metaphor—"the constant dripping of water" on "the hardest stone"—as a more accurate conception, naturalizing, in effect, the progress of the poisons through the human body. This tendency to explain biological fact through naturalistic metaphor, locking natural processes into an apparently unified whole, is, as Elizabeth S. Bell points out, central to the power of *The* 

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<sup>&</sup>lt;sup>267</sup> Carson writes: "Although the sudden death of thousands of fish or crustaceans in some stream or pond as the direct and visible effect of insect control is dramatic and alarming, these unseen and as yet largely unknown and unmeasurable effects of pesticides reaching estuaries indirectly in streams and rivers may in the end be more disastrous. The whole situation is beset with questions for which there are at present no satisfactory answers. We knot the pesticides contained in runoff from farms and forest are now being carried to the sea in the waters of many and perhaps all major rivers. But we do not know the identity of all the chemicals or their total quality, and we do not presently have any dependable tests of identifying them in highly diluted state once they have reached the sea..." (Silent Spring, 151-152)

Sea Around Us, and in both books, "teaches us important lessons about ourselves and our relation to the cosmos." <sup>268</sup>

Moreover, the passage's emphasis on the "day-by-day," the "constant," and the "birth-to-death" gestures of the "average citizen" turns the lens of *The Sea Around Us* backward, aligning the domestic—the seat of everyday life—with with the deadlier side of modern war technologies, with the annihilation which was indeed the original purpose of these "dangerous chemicals." These words cross the familiar rhythms of the everyday with the slower-tempoed conditions resulting from long-term poisoning—the "progressive buildups," the "cumulative poisoning," the "spreading contamination"—conjuring the condition of embodiment that presupposes the practice of the domestic. It is this vital relationship between embodied biological organism and the domesticated cultural being, a connection "lulled" into obscurity by "the soft sell," the "hidden persuader," and what Carson would elsewhere call "little tranquilizing pills of half truth," that the author hopes to reinvigorate (13).<sup>269</sup>

Silent Spring also draws an important narrative technique from The Edge of the Sea: recourse to the small, the intimate, and the fragile as a figure for the condition of life on earth. "Smallness" as a concept played an integral role in the narrative design of The Edge of the Sea, which Carson originally conceived of as a seashore guide book—with a difference. "My quarrel with almost all seashore books for the amateur," she wrote to her editor, Paul Brooks, in 1950,

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<sup>&</sup>lt;sup>268</sup> See Bell, Elizabeth S. "The Language of Discovery: The Seascapes of Rachel Carson and Jacques Cousteau. *College English Association Critic* (63:1) Fall 2000. Pp. 9.

<sup>&</sup>lt;sup>269</sup> In this passage Carson was likely referring to *The Hidden Persuaders*, Vance Packard's 1957 book about the increasingly invasive psychological techniques used by advertisers. (See Packard, *The Hidden Persuaders*. New York: Random House. 1957).

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...I think even such a small book could go beyond merely finding and identifying and 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.<sup>270</sup>

To conceive "of a fiddler crab's existence, or a barnacle's" required Carson to temporarily isolate a single unit of the ecosystem in its own particularity, then extend into the multiple intersections with other parts of the ecosystem such a creature might experience. *Silent Spring* utilizes the same technique in a number of different ways. David Kinkela argues that "smallness" played a key role in conveying the "interconnectivity" that is the central message of ecology in *Silent Spring*, as that which "refocused the ideological lens on the microcosm rather than the macrocosm—an ecosystem of a neighborhood, for instance—but also with an eye toward its connection to a larger whole. Small did not mean self-contained or isolated."<sup>271</sup>

Accordingly, the book's plotline scales up from very broad areas of concern—such as groundwater contamination or bird die-offs in chapters such as "Surface Waters and Underground Seas" or "And No Birds Sing"—to the microscopic topics of human cells, genetic material, and the threat posed to both by carcinogenic substances in "The Human Price." "Through a Narrow Window," and "One in Every Four." Killingsworth and Palmer place great emphasis on the narrative continuity between these diverse topics, arguing that Carson draws out a "green fuse running through all life, including the genetic heritage of humankind itself"—one that "transmits all too readily the explosive

<sup>&</sup>lt;sup>270</sup> Rachel Carson to Paul Brooks, July 28, 1950. ("Houghton Mifflin Correspondence for *The Edge of the Sea.*" RCP/BLYU )

<sup>&</sup>lt;sup>271</sup> Kinkela, David. "The Ecological Landscapes of Jane Jacobs and Rachel Carson." *American Quarterly* 61:4 (December 2009). Pp. 905-928. Pp. 917

poison of synthetic pesticides" (188). Though Carson clearly considers the subjects covered in each chapter uniquely significant, the narrative weight—and the urgency of the narration—lies especially heavy on the "narrow window" these chapters provide into the risk to human populations. Human genes come to embody both the vital value of, and the threat posed to, Life generally, beyond the lives of individual. Carson writes:

For mankind as a whole, a possession infinitely more valuable than individual life is our genetic heritage, our link with the past and future. Shaped through long eons of evolution, our genes not only make us what we are, but hold in their minute beings the future—be it one of promise or threat. Yet genetic deterioration through man-made agents is the menace of our time, 'the last and greatest danger to our civilization.' (208)

Through her "critical reading of the human cell" Kinkela concludes, "Carson cautioned her readers that the essential structure of life—the cell—was being threatened by the 'contamination of man's total environment,'" blurring any solid boundaries between part and whole into a matrix of interdependence. This remarkable rescaling also held important ramifications for readers of *Silent Spring* and the political reaction which was to develop in its wake, as "the concept of smallness encouraged local communities and grassroots activists to challenge the political authority and the grand schemes of the technological expert" (Kinkela, 917). Just as the enlivened vision of the lone fiddler crab in *The Edge of the Sea* helped an earlier Carson understand the individual organism's role in the immensity of natural history, so the smallest elements of the web of life in *Silent Spring* served as tools for critiquing the technological modernity was now shaping life on earth.

More than any other of her earlier works, however, *Under the Sea-Wind*—the first and least recognized of her books—reveals the foundations for the extraordinary impact of *Silent Spring*. Though it lacks the gripping realist prose style of *Under the Sea-Wind*,

Silent Spring returns, in a more expository form, to the ecocentric perspective the earlier book so vividly creates. Instead of immersing its readers in a series of interlocking narratives alternately viewed through the eyes of different sea creatures, it first defamiliarizes the predictable "nature" that is its primary subject, then plunges the reader into a web of case studies, statistics, excerpts from scientific reports, poetic and philosophic epigraphs, and impassioned diatribes—all supported by over forty pages of endnotes and principal sources. The resulting textual "ecosystem" is truly heteroglossic, and in the tensions between voices from multiple discourses and authors, documenting many seemingly unconnected phenomena, Carson creates an ecocentric argument—rather than, as before, an ecocentric narrative. 272 This argument hinges on the same ideas which shaped the literary ecocentrism of Under the Sea-Wind—the interdependence of all living things, the displacement of anthropocentric assumptions, and the charge to reevaluate humanity's place in the story of earth—but retools them as concepts in a philosophy.

The central figure in this system of knowledge, outlined carefully in one of Carson's concluding chapters, is the "balance of nature"—the very notion for which Carson was most fiercely attacked by her critics in the chemical industry. Although the idea of an overall balance achieved by concurrent natural processes dates back to Herodotus, Carson's articulation captures a dynamic equilibrium, a natural calculus of

<sup>&</sup>lt;sup>272</sup> Carson's textual "ecosystem" was composed of an extremely wide range of sources and correspondents she encountered over her five years of researching and composing *Silent Spring*. Her list of principle sources, which includes both scholarly articles and letters to various researchers and firsthand witnesses, tops out at 40 pages. In spite of this, Carson was not a collaborative writer; early plans to work with *Newsweek* science reporter Edwin Diamond on the project that would become *Silent Spring* ended in a bitter disagreement. (See Patricia Coit Murphy's chapter, "Author and Agent" in *What A Book Can Do: The Publication and Reception of Silent Spring*. Amherst, MA: The University of Massachusetts Press. 2005)

perturbation, correction, and change. It is not the static and staid concept that Carson's critics—sometimes even those inclined to agree with her—accused her of purveying. Carson explains: "The balance of nature is not the same today as in Pleistocene times, but it is still there: a complex, precise, and highly integrated system of relationships between living things which cannot safely be ignored any more than the law of gravity can be defied with impunity by a man perched on the edge of a cliff. The balance of nature is not a status quo; it is fluid, ever shifting, in a constant state of adjustment." Most importantly, Carson writes human activity into this balance, though it is often, as in *Under the Sea-*Wind, as blindly groping actors, with an all-too-narrow imagination of their place in the cosmic scheme. "Man, too," she writes, "is part of this balance. Sometimes the balance is in his favor, sometimes—and all too often through his own activities—it is shifted to his disadvantage" (246). From the dim inklings of fishermen watching the underwater creatures on their decks, Carson had brought forth a new concept of nature, an ecologically-informed epistemology which sought to relocate human life within an ecocentric framework, and a moral imperative to protect the integrity of that framework. Her final chapter, enumerating alternative methods of pest control (besides total eradication), praised these "new, imaginative, and creative approaches to the problem of sharing our earth with other creatures" for their important "awareness that we are dealing with life—with living populations and all their pressure and counter-pressures, their surges and recessions. Only by taking account of such life forces and by cautiously seeking to guide them into channels favorable to ourselves," she urges, "can we hope to achieve a reasonable accommodations between the insect hordes and ourselves" (296).

Silent Spring's engagement with what M. Jimmie Killingsworth and Jacqueline S. Palmer dub a "fully ecological experience of life" thus draws upon themes and techniques refined from her earlier works, and which work together to produce the book's central insight: the process of bioaccumulation, by which toxins slowly creep up through the food chain, concentrating in the bodies of animals closest to the top (195-196). Bioaccumulation in a literal sense combined the wide-ranging, scientifically-informed viewpoint needed to consider the spectrum of plant and animal species, the ability to zoom in on molecular processes within the cells of single organisms, and the ecocentric sensibility that could set these facts in motion as an ecological process. In a more literary vein, making sense of bioaccumulation as an idea depended upon the reader's ability to see herself both within an ecosystem—a constantly living and adapting "present tense," vulnerable as any other creature to environmental conditions—and to understand the ecosystem as an ongoing development, a narrative. On both levels, bioaccumulation challenged readers with the implications not just of having a body, but of being a body, implying that dangers within the environment—a physical space conceptualized as "outside" the domestic sphere—could not only invade the home, but insinuate themselves within the body itself.

In this sense, bioaccumulation represents a fundamental conclusion that Carson had been developing in her work for well over a decade, perhaps the most radical implication for the discourse of ecology. Bioaccumulation brought to light an inherent condition of the embodiment of environmental conditions which the logic of the suburbs had resisted at every turn by privatizing, sanitizing, and insulating the white middle class body from the terrifying examples of bodily vulnerability to toxic and radioactive

residues. As David Kinkela puts it, "Whether it was a city, a suburb, or country, the health and well-being of the body emerged as a critical discursive element in demystifying the modernists' interpretation of space. The modernist landscape was not the panacea its proponents imagined. It was potentially deadly, as much as it promoted a rationalized and, by default, safe environment" (914). That Silent Spring's ecological message provoked such howls of protest from not only from, as one might expect, the representatives of the chemical industry and the United States Department of Agriculture, but from conservative pundits and publications, should not come as a surprise. However much it may have catalyzed environmental anxieties into a politically active environmentalism, what it did most effectively was to imagine—through the concepts of ecology—something beyond the intellectual and political exclusions that made postwar society function. In that sense, Silent Spring really did mark, as one particularly dramatic review put it, "the end of all human progress, reversion to a passive social state devoid of technology, scientific medicine, agriculture, sanitation, or education"; Silent Spring pointed to the need to develop the "social state" beyond narrowly technocratic molds that defined the American way of life. 273

The vertiginous power of this new vision accounts for the fact that *Silent Spring* was really only half "digested" by the American consumer citizens who gobbled it up in the early years of its publication. The scale of the problem was simply too enormous—and its implications too deeply embedded—to be fully articulated in the language of the midcentury domestic, which operated through the concentric divisions of space and the technological teleology which I have labeled "environmentalization." The environmental

<sup>&</sup>lt;sup>273</sup> This passage derives from William J. Darby's review of *Silent Spring*—entitled "Silence, Miss Carson!"—in *Chemical Engineering News*. 1 October, 1962. Pp. 60-63.

impulse struggled with, and in part foundered upon these contradictions. Journalist James Ridgeway concluded in 1970 that even though "ecology touched millions of ordinary white middle-class people as no other political issue had for years," "the politics of ecology," by contrast, "bestow(ed) on the participants a special sense of futility and annihilation. It was an issue which told us only that we are all victims and that nothing changes."

In the following section, I describe one of the most prominent ways in which the challenge of *Silent Spring* was answered. After reading this remarkable book, I argue, it is much easier to declare the death of—or death to—civilization than it is to decide what a different life—a life informed by ecology—might look like. Even as citizen-consumers worked toward industrial regulation and government reform, a growing sense of crisis began to inform popular environmentalism: the environmental apocalypse was—and continues to be—at hand.

## Anatomy of an Apocalypse: Reading Silent Spring Backward

In 1961, with the five-year process of evidence-gathering, composing, and revising her manuscript coming quickly to a close, Carson began what would be one of the final tasks for *Silent Spring*: writing the introduction. Inspired by the hundreds of anecdotes and studies she had collected on the damage wrought by pesticide campaigns across the country, and urged by her editor and her agent to provide a less technical

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<sup>&</sup>lt;sup>274</sup> See Ridgeway, *The Politics of Ecology*. New York: E. P. Dutton & Co. 1970. Pp. 14-15. Like myself, Ridgeway is describing environmentalism as a popular—rather than a scientific or literary—phenomenon. Understanding how environmentalism permeated the everyday life of midcentury Americans is, after all, critical to understanding environmentalism's impact on contemporary culture.

introduction to the book's fairly dense chapters, Carson produced a short "fable" about a town called "Green Meadows" and "centered on a young man who returned after some years' absence only to find the town devastated by illness and ecological havoc." Swayed by her editor's suggestion that "Green Meadows sounded like a real estate development rather than a real community," Carson tried another tack. This time, she used the stories she had gathered to create a "composite of many real communities," eliminated her only character, and gave the narration over to the authorial voice. The result was a bone-chilling tale of a small town's slow death at the subtle hand of poisons: "A Fable for Tomorrow."

While the "Fable" is quite unlike any other passage in the book, and was indeed something of an afterthought in the book's composition, the critical attention toward *Silent Spring* has been remarkably focused on the two opening pages it takes up. Indeed, it is now difficult to imagine *Silent Spring* without its creepy little introduction, made all the more unsettling by the books' titular nod to lines John Keat's nightmare ballad, "La Belle Dame Sans Merci": "The sedge is withered from the lake, / And no birds sing." In some ways, this tendency is easy to understand: true to its form, the fable is a short, simple narrative with a fairly obvious and potent moral import. Of all *Silent Spring*'s many parts, it is the most evidently literary, providing a passage into the difficult prose of the main text. Many readers have drawn comparison between the gothic turn the narrative takes—from a small town where "all life seemed to live in harmony with its

<sup>&</sup>lt;sup>275</sup> Linda Lear describes this incident in her biography *Rachel Carson: Witness for Nature*. New York: Henry Holt and Company. 1997. Pp. 392-393.

<sup>&</sup>lt;sup>276</sup> In her biography, Lear explains this authorial choice as follows: "In an effort to persuade Rachel, Marie [Rodell, Caron's agent] had done her literary homework. She found some lines from the English Romantic poet John Keats' poem, 'La Belle Dame Sans Merci' that amplified the title *Silent Spring* beautifully...And so finally the book became *Silent Spring*." *Witness for Nature*, Pp. 398

surroundings" to a poisoned wasteland where death prevails—and the apocalyptic resonance of later environmentalist texts. Further, some have argued that this apocalypticism helped to set the terms of debate between environmentalist groups and their industrial opponents for years to come. As I will ultimately argue, it is equally important to balance the fable with the content of the book as a whole. In order to understand *Silent Spring* as an ecological statement, the "Fable" needs to be considered as merely an *introduction* to, rather than a summary of, the text, and not as a version of *Silent Spring* writ small. Nevertheless, a close study of the fable, and of the oft-repeated critical gesture of reading the fable as the text, reveals a surprisingly recognizable prototype of environmentalist sentiment.

Echoing the "once upon a time" of a fairy tale, the "Fable" opens:

There was once a town in the heart of America where all life seemed to live in harmony with its surroundings. The town lay in the midst of a checkerboard of prosperous farms, with fields of grain and hillsides of orchards where, in spring, white clouds of bloom drifted above the green fields. In autumn, oak and maple and birch set a blaze of color that flamed and flickered across a backdrop of pines. Then foxes barked in the hills and deer silently crossed the fields, half hidden in the mists of the fall mornings.

Along the roads, laurel, viburnum and alder, great ferns and wildflowers delighted the traveler's eye through much of the year. Even in winter the roadsides were places of beauty where countless birds came to feed on the berries and on the seed heads of the dried weeds rising about the snow. The countryside was, in fact, famous for the abundance and variety of its bird life, and when the flood of migrants was pouring through in spring and fall people traveled from great distances to observe them. Others came to fish the streams, which flowed clear and cold out of the hills and contained shady pools where trout lay. So it had been from the days many years ago when the first settlers raised their houses, sank their wells, and built their barns.

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<sup>&</sup>lt;sup>277</sup> See Cheryll Glotfelty's "Cold War, *Silent Spring*: The Trope of War in Modern Environmentalism." *And No Birds Sing: Rhetorical Analyses of Rachel Carson's* Silent Spring. Ed. Craig Waddell. Carbondale: University of Southern Illinois Press. 2000. I will address Glotfelty's argument more specifically in the following pages.

Then a strange blight crept over the area and everything began to change. Some evil spell had settled on the community: mysterious maladies swept the flocks of chickens; the cattle and sheep sickened and died. Everywhere was a shadow of death. The farmers spoke of much illness among their families. In the town the doctors had become more and more puzzled by new kinds of sickness appearing among their patients. There had been several unexplained deaths, not only among adults but even among children, who would be stricken suddenly while at play and die within a few hours.

There was a strange stillness. The birds, for example—where had they gone? Many people spoke of them, puzzled and disturbed. The feeding stations in the backyards were deserted. The few birds seen anywhere were moribund' they trembled violently and could not fly. It was a spring without voices. On the mornings that had once throbbed with the dawn chorus of robins, catbirds, doves, jays, wrens, and scores of other bird voices there was now no sound' only silence lay over the fields and woods and marsh.

On the farms the hens brooded, but no chicks hatched. The farmers complained that they were unable to raise any pigs—the litters were small and the young survived only a few days. The apple trees were coming into bloom but no bees droned among the blossoms, so there was no pollination and there would be no fruit.

The roadsides, once so attractive, were now lined with browned and withered vegetation as though swept by fire. These, too, were silent, deserted by all living things. Even the streams were now lifeless. Anglers no longer visited them, for all the fish had died.

In the gutters and under the eaves and between the shingles of the roofs, a white granular powder still showed in a few patches; some weeks before it had fallen like snow upon the roofs and the lawns, the fields and streams.

No witchcraft, no enemy action had silenced the rebirth of the new life in this stricken world. The people had done it to themselves. (1-3)

At first glance, then, the "Fable" presents an American pastoral landscape gone terribly wrong. Anchored in the beloved geography of the American heartland and in the ancient order of the seasons, the town embodies the familiar story of pioneering, settlement, and prosperity. Yet the effects—presumably—of the mysterious "white granular powder" work to reverse the cycle of human, animal, and plant life in the town, striking the young of every species and destroying the pollinators which ensure the growth of fruit and guarantee the town against hunger. Carson is careful to explain that

"no community has experienced all the misfortunes I describe." But many of the symptoms she describes, including fish-kills, bird die-offs, withered hedgerows, and even mysterious human deaths, would have been disturbingly familiar in communities which had been mass treated for pests such as mosquitoes, fire ants, gypsy moths, and white-fringed beetles—common enough to relate these real places to the myth Carson creates. "A grim specter," she concludes, "has crept upon us almost unnoticed, and this imagined tragedy may easily become a stark reality we all shall know." Most poignant, however, is Carson's thrust against the U.S. public's own complicity in the environmental catastrophe she portrays; through a mixture of negligence and ignorance, she implies, "the people had done it to themselves."

Summing these aspects into one powerful, though extraordinarily simple narrative, Carson struck a resonant note of what the great eco-critic Lawrence Buell has called "environmental apocalpyticism." According to Buell, the "polluted universe" that the story foretells "seemed *so* perverse partly because the idea of nature as an integral realm, long sanctioned…by the American pastoral tradition, seemed so profoundly right." Jonathan Kirsch adds an interesting note to Buell's observations, arguing that

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<sup>&</sup>lt;sup>278</sup> Harold S. Peters, the widely published ornithologist and President of the Audubon Society, noted in an August 7, 1959 letter to Carson an incident that poignantly recalls this moment: he tells of a family in Tennessee picnicking at a public table which had been lightly dusted with dieldrin, one of the more deadly synthetics pesticides, in a recent spraying. The family was, apparently, completely unaware of the danger. See Harold S. Peters to Rachel Carson, August 7, 1959 (See "Silent Spring Correspondence, National Audubon Society." RCP/BLYU). Carson also drew inspiration for this scene from accounts of the 1957 government-sponsored campaign against the gypsy moth on Long Island. The sprayings, which were contested in a 1958-1959 lawsuit, were believed to be responsible for the death of wild birds, the poisoning of livestock, and the contamination of local dairy farms' product.

<sup>&</sup>lt;sup>279</sup> See Buell, *The Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture*. Cambridge, MA: The Belknap Press. 1995. Pp. 292. In making this conclusion, Buell draws heavily on Mary Douglas' work on "secular defilement" in her *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*. London: Routlege and K. Paul. 1966. The "polluted universe" in Carson's exposé, he

"with the detonation of the first atomic bomb, the Apocalypse took a quantum leap into a new and previously unimaginable realm, and humankind was suddenly forced to confront the awful knowledge that the end of the world does not require God at all." Beyond just conjuring an apocalypse of nature, then, Carson's fable spoke to an era in which the nature of apocalypse had profoundly changed. The apocalypse Carson portrays does not depend, like its Biblical predecessor, on an anagogical worldview that sees destruction as a confirmation of God's will and the rebirth of the world; rather, it displaces God's agency upon mankind. What remains, however, is a lingering sense of the bounded world of Creation, in which all material things—specifically, in this case, the fruitless branches, the lifeless streams and skies of the town—denote a deeper spiritual significance.

Indeed, Carson's ecocatastrophe relies on her clever manipulation of symbols and material conditions: in the highly urban and suburban world that most of Carson's readers inhabited, the countryside she describes was largely a thing of the past, more emblematic than solid, but still an important reminder of American virtue. The crime of its pollution, then, was symptomatic of a massive moral failure that registered *alongside* the very serious warning against poisoning the ecosystem. Insinuating itself within the familiar ground of the pastoral tale, the fable attacks not only the military industrial complex that

argues, functions under the order of "defilement"—of "anomalies that violate a culture's deeply embedded ordering categories" (*The Environmental Imagination*, 292).

<sup>&</sup>lt;sup>280</sup> Kirsch, A History of the End of the World: How the Most Controversial Book in the Bible Changed the Course of Western Civilization. San Francisco: Harper. 2006. Pp. 210.

<sup>&</sup>lt;sup>281</sup> This situation recalls Carson's worry, in a letter to her confidant Dorothy Freeman (also cited in the first chapter): "Now the most farfetched schemes seem entirely possible of achievement. And man seems actually likely to take into his hands—ill-prepared as he is psychologically—many of the functions of 'God.'" (See Rachel Carson to Dorothy Freeman, February 1, 1958. In *Always, Rachel: The Letters of Rachel Carson and Dorothy Freeman, 1952-1964.* Ed. Martha Freeman. Boston: Beacon Press. 1995. Pp. 248-249)

violated basic democratic premises by mass-spraying without a public mandate, but also the culture of plenty that had unknowingly engineered its own undoing through the very means of its existence: its apotheosis of modern technology. It was an idea so basic, but so startling, that it had a pressing interest to, as *Silent Spring*'s co-illustrator Lois Darling quipped, "anyone who ever held a spray can, and we all have"—and it depended, for its visibility, upon the fictive quality of Carson's introduction (Lear, 392).

As powerful as the fable might have been, there were—and are—dangerous implications to reading *Silent Spring*, through its introduction, as a grand apocalyptic statement. One important example of the contemporary response to Carson's book does exactly that: the Monsanto Company's farcical rebuttal to *Silent Spring*—"The Desolate Year"—published only months after *Silent Spring*'s release. 282 Though never intended as a scientific review of Carson's work—no more, indeed, than the "Fable for Tomorrow" was designed to evaluate the validity of Carson's research—it was arguably the most potent reply to *Silent Spring* that the chemical industry ever mustered, with reprints "flooding out to newspapers, magazines, and radio and television stations." Turning Carson's premise on its head, "The Desolate Year" imagines not the great unraveling of the ecosystem through the infiltration of poisons, but the great devouring of the earth by insects in a single year *without* pesticides.

There was certainly no shortage of reviews which deemed *Silent Spring* an inappropriately literary response to a purely scientific matter, whether as an "emotional

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<sup>&</sup>lt;sup>282</sup> "The Desolate Year." *Monsanto Magazine*. October 1962. Pp. 4-9. Founded in 1901, the Monsanto Company is one of the largest businesses in the world, specializing in agricultural products. Monsanto is still a leading producer of pesticides, and now, genetically modified seeds.

<sup>&</sup>lt;sup>283</sup> See "Pesticides: attack and counterattack." *Consumer Reports*. January 1963. ("Effects of *Silent Spring*." RCP/BLYU)

outburst," "hysterically empathetic" to the wildlife whose death it documented (*Time*), or for its "extravagant language" and "unscientific use of innuendo" (The Economist). But Monsanto's parody tells us something important about the cultural field into which *Silent* Spring was introduced: technocratic validity of the era's numerous "experts" was as much about laying claim to the proper narrative authority as it was about the scientific method. Thus the Monsanto authors could adopt the same apocalyptic strategy found in Carson's "Fable" toward quite a different point—that life without pesticides would be gnatty, brutish, and short—while failing to engage with Silent Spring's larger argument that "indiscriminate" pesticide use, rather than all pesticide use, should be curtailed in favor of more targeted, less dangerous methods. Though this is obviously a misreading, and therefore something of a misuse of Carson's own methods, it reflects a larger trend by which the many spokespersons and boosters of the pesticide industry were able to manipulate the terms of the debate over the problem of pesticides and public health from a question of maintaining the "balance of nature" to one of the unmitigated destruction of either human life or insect life.<sup>284</sup>

"The Desolate Year" thus conjures a "nature" which is swarming with insidious pests and marked by scarcity. Even in the "life-slowing winter," the insect "natural enemies" of man can be found "everywhere. Unseen. Unheard. Unbelievably universal.

<sup>&</sup>lt;sup>284</sup> Time magazine's review of Silent Spring, following suit, proposed that imbalance, rather than balance, was the proper metaphor by which to understand the human relationship to nature. The reviewer describes something much more like a state of war: "Lovers of wildlife often rhapsodize about the 'balance of nature that keeps all living creatures in harmony,' but scientists will realistically point out that the balance was upset thousands of years ago when man's invention of weapons made him the king of the beasts. The balance has never recovered its equilibrium; man is the dominant species on his planet, and as his fields, pastures and cities spread across the land, lesser species are extirpated, pushed into refuge areas, or domesticated...Some species, most of them insects, benefit increasingly from man's activities. Their attacks on his toothsome crops are as old as recorded history." (See "Pesticides: The Price for Progress." Time. Friday, September 28, 1962. Pp. 4-5)

On or under every square foot of land, every square yard, every acre, and county, and state and region in the entire sweep of the United States." Permeating both indoor and outdoor spaces—"and, yes," the article dramatically professes, "inside man"—the insects begin to awaken with the spring and wreak catastrophic horror over human civilization, ruining national crops, allowing for the return of malaria and the Irish potato blight, devouring livestock from the inside out, and flattening the United States' economy (4). One scene in particular helps elaborate what is at stake in this rhetorical shift. Taking us to peaceful "citrus groves around Miami," the narrative describes one such insect enemy:

The Mediterranean fruit fly turned her stiletto-like appendage into the first grapefruit, and when a tiny hole had been bored neatly through the rind, she sent an egg inside. Then she went to another, and another, taking no count of the 800 globes she had desecrated. Others of her kind, warmed and driven by the same purpose, followed; some further infested the holes she had bored, others sank new wells of their own. (4-5)

This strange scene of "desecration"—one which later finds the citrus grower standing "petrified, a pierced and wormy grapefruit in his hand and the frightening Medfly flitting through his trees"—carefully echoes the language of the "Fable," mirroring the "first settlers" who "raised their houses, sank their wells, and built their barns" in Carson's idyllic town. This similarity aligns "The Desolate Year" with other Communist invasion fantasies of the period that can be found in instances as diverse as science fiction films, the Red Scare of Senator Joseph McCarthy, and the staged invasion of Mosinee, Wisconsin by American Legion members acting as Communists. Each of these phenomena shares the prospect of the American way of life being supplanted by the creeping infiltration of Communists. <sup>285</sup>

<sup>&</sup>lt;sup>285</sup> On May 1, 1950, the Wisconsin Department of the American Legion "took over" the town of Mosinee, WI as part of an elaborate pageant to demonstrate the horror of a full-blown Communist invasion.

But here it is neither superior weapons nor political subversion which threatens the United States' security, but the subtle persistence of what the article portrays as "nature" itself: insects throughout the country, "ready to follow those only basic drives of the insect, to live and reproduce," defiling and sabotaging the crops that guarantee American prosperity with their "stiletto-like appendages." Their basic function of reproduction, the article implies—turning a natural phenomenon into an ideological menace—is a formidable weapon that threatens to reduce "the good life" (4) of the American citizen to a desperate struggle to survive. The flies' manifold presence is strongly marked by the feminine in the form of the breeding females who perpetuate their populations. This unbridled generativity suggests a kind of gothic reflection of the emotionalism and hysterics so closely associated with Carson's "balance of nature" argument. Though it is captured in the mode of parody, it also evokes a world which is, in many respects, not so different from the one Carson creates in the "Fable": an environment which reacts in hostile and unexpected ways, and in which the source of the horror is both difficult to locate and impossible to remove, having become a part of the environment itself.

Taken together, "A Fable for Tomorrow" and "The Desolate Year" illustrate the all-too-simple ways in which nature could be absorbed into a Cold War narrative, and mobilized into an ideology which answered the pressing questions surrounding pesticide use (as well as other new life-altering technologies introduced in the period) in fiction.

Over and above the merely political, or indeed the merely possible, the questions *Silent* 

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Spring raised became attached, in the tumult of its publication, to fictional scenarios that mimicked, but also essentialized, the realities they were meant to explain and to justify. The environmental threat, like the lingering nuclear threat, became a source of personal angst and public paranoia, leaving a legacy of doom and uncertainty for the coming generations of environmentalists.

Cheryll Glotfelty has noted this narrative tendency, and identified it as a "trope of war" in environmentalist discourse. Analyzing the ways in which Carson "redirect[s] the language and concepts of the Cold War to apply to 'man's war against nature'"—a penchant reflected in several of *Silent Spring*'s original working titles, including *Man Against the Earth, The Control of Nature,* and *The War Against Nature*—Glotfelty concludes that Carson pushed what might have been a merely utilitarian debate over the risks and benefits of using pesticides into the realm of ideological hostility. As a result, she claims, "industry as the enemy has now become an entrenched way of thinking in the environmental movement, and the lexicon of war continues to pervade environmentalist discourse" (159). Glotfelty's point is well-taken, but fails to account for the highly charged cultural environment into which *Silent Spring* was introduced; one could argue that any text making the argument that pesticide use should be limited (or was in any way problematic) would be met with a similar scandal or, at best, a laugh of dismissal.

In the final account, what is most troubling about *Silent Spring*'s "lexicon of war" is the apocalyptic framework into which it places the entire text—and in turn, the kind of dialectic through which that apocalypticism places *Silent Spring* in opposition to other texts. In setting a precedent of scenario and counter-scenario, Monsanto's parody locks itself into a pattern of bifurcation with Carson's fable—claiming, specifically, that the

U.S. could either continue to use pesticides as it did, or discontinue pesticide use altogether—making any meaningful articulation between the two texts impossible. Apocalyptism, as Killingsworth and Palmer argue, ultimately proves a dead end for both environmentalist discourse and for interpreting *Silent Spring* precisely because of these "narrative limitations" (181-182). Absorbing the reader into its own heaven-or-hellbound teleology, the apocalyptic narrative becomes extrapolative, threatening the reader with real-world outcomes but leaving her few choices as to how to react. "Too often obsessed with prediction, overtly rationalistic, and simplistic in plot design," these tales fail to engage the central problem posed by environmental issues: how "to sustain a fully ecological experience of life." "Such a life," explain Killingsworth and Palmer, "requires a constant acceptance of experiment, failure, starting over, and partial success. As long as environmentalism seeks the absolute success promised by the myth of progress interpreted as human perfectability, there will be chronic disappointment and discouragement—a daily dose of the end of the world" (195-196). If environmental narratives are to usefully explore the complexities of life in an age when ecological disasters are already quite apparent, then their narrative components—plot, point of view, temporality—must shift accordingly, placing environmentalism in the ethical framework of the everyday, rather than the eschatological interpretations through which it isoften read.

In the same essay, Killingsworth and Palmer offer a different mode of reading Silent Spring, one much more in line with the "fully ecological experience of life" of which they write. Rethinking Buell's claim that Silent Spring is "grounded" in the American tradition of pastoral dissent—the recurring trope by which ancestral modes of life are rallied, for whatever reason, against the encroachment of modernity, technology, or the city—they propose that the "Fable for Tomorrow" is merely the "point of departure" for a more sustained argument that develops throughout the book (188). Rather than outright condemning the modern way of life or the "people" who had "done it to themselves" through the environmental disaster it portrays, the "Fable" asserts that Americans' history of treasuring their natural heritage—exemplified in the anglers, birders, and farmers who populate the passage—must now reconcile itself with the insights of a new kind of knowledge. In this sense, we as readers can regard *Silent Spring* not as the voice of timeless environmentalism handed down from on high, but as a midcentury text wrestling with a new problem—the problem of pollution—that had come to characterize postwar life. Indeed, this approach to reading *Silent Spring* puts Carson's famous exposé back into a crucial historical context with other texts, including Murray Boockchin's Our Synthetic Environment (1962), Theron G. Randolph's Human Ecology and Susceptibility to the Chemical Environment (1962), and Robert L. Rudd's Pesticides and the Living Landscape (1963), which sounded the alarm over pesticides and ecology in the early 1960's. 286

Apocalypticism, in short, has become a means of abstracting the environmental crisis: a suitable interpretive lens for a concept—the "environment"—which is already something of an abstraction in and of itself. Carson's seemingly innocent decision to omit

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<sup>&</sup>lt;sup>286</sup> I describe *Our Synthetic Environment*—Murray Bookchin's study in the human ecology of the postwar era—in more detail in my first chapter. See also Lewis Herber (Murray Bookchin), *Our Synthetic Environment*. New York: Knoph. 1962. Randolph's book was a study of the symptoms of heightened chemical "reactivity" in patients, which he attributed to the presence of new synthetic chemicals in the environment. See Randolph, *Human Ecology and Susceptibility to the Chemical Environment*. Springfield, IL: Charles C. Thomas. 1962. *Pesticides and the Living Landscape*. Madison: University of Wisconsin Press. 1965, explores the threat pesticides pose to the environment, while suggesting several research programs for alternatives to contemporary usage.

the single character from her fable—the "young man who returned" to find his home town a shriveled husk of its former self—is significant in this regard. In removing this single soul, embedded as he was in a particular place and time, Carson allowed the fable to become a generalized picture of environmental destruction, rather than the particularized narrative of human ecology it might have been—the kind of contextualized examples with which the book itself is so replete.

## The Domestication of Environmentalism

Silent Spring, like the apocalyptic environmentalism with which it is so often associated, is, as I have shown, a woefully overdetermined text.<sup>287</sup> It has served as a lightening rod both for those seeking an invigorating origin story for the environmental movement—for who, after all, could prove a better matriarch than the "gentle subversive," the sweet but potent literary voice of Rachel Carson?—and for those wishing to expose environmentalism as an impassioned pseudoscience.<sup>288</sup> If one were to draw any lesson from the preceding pages, I hope it would be the realization that

<sup>&</sup>lt;sup>287</sup> The environmental apocalypse was—to put it mildly—an idea with a future. From the Club of Rome's 1972 *Limits to Growth*—in which a computer program was used to model the growth of factors such as human population, with the implications that "limits" of the earth's capacity to sustain such growth were fast approaching—or Paul Ehrlich's 1968 *The Population Bomb*, the crash, the collapse, and the catastrophe have all become familiar tropes in environmentalist literature. (See Meadows, Donella H. et al. *Limits to Growth*. New York: Universe Books. 1972; and Ehrlich, Paul R. *The Population Bomb*. New York: Ballantine Books. 1968. For more information on *Limits to Growth*, see Introduction, Note 17). Even today, eco-thrillers such as Roland Emmerich's 2004 *The Day After Tomorrow* and eco-documentaries such as Leonardo DiCaprio's 2007 film on global warming, *The 11<sup>th</sup> Hour*, apply a similar technique, broadcasting the "signs" of environmental degradation and then instructing readers in an eco-informed literacy of these signs, a kind of "scare-and-make-aware" method. (See *The Day After Tomorrow*. Dir. Roland Emmerich. Twentieth Century Fox. 2004; and *The 11<sup>th</sup> Hour*. Dir. Leonardo DiCaprio. Warner Bros. 2007).

<sup>&</sup>lt;sup>288</sup> Mark Hamilton Lytle characterizes Rachel Carson as a "gentle subversive" in his recent biography, *The Gentle Subversive: Rachel Carson*, Silent Spring, *and the Rise of the Environmental Movement*. New York: Oxford University Press. 2007, in which he attempts to characterize Carson's environmentalism as an important precursor of the countercultural movement.

environmentalism, or at least the "environmental impulse" that gave environmentalism a critical framework embedded in the middle class material culture of postwar America, is an issue both older and broader than Carson's text. Beyond its literary merit, what has made *Silent Spring* the classic it has become is the way it, in particular, articulated with Cold War culture, providing just enough familiarity to stir middle class recognition, but just enough of the ecological uncanny to *still* send a chill down the reader's spine.

Knowing how Silent Spring has helped to create the mythos around environmentalism in the United States can help us begin to shake loose some of the tangled questions that cling to this movement, turning abstractions into particularities in just the way that human ecology prompts us to do. I have already begun to explain how the dominant narrative of apocalypticism has proven more of an ideological sedative than a political stimulant to popular environmentalism, but how is this virulent form of mythologizing the environment linked to the race and class exclusions which have historically characterized the environmental movement? Ted Nordhaus and Michael Shellenberger suggest that the apocalyptic narrative characterized by environmentalists as applying on the basic level of the relationship between nature and culture conceals within it a highly classed experience of that relationship. They argue, for instance, that the sweeping policy changes of the 1960's and 1970's "had more to do with affluence" than with the "tragic narrative [Silent Spring] documented," even as environmentalism continues to rely on "terrifying stories of eco-apocalypse, expecting them to result in the change we need." Similarly, David Kinkela argues that, "while promising to be inclusive," the "ecological landscape" Carson created "neglected questions of race and

<sup>&</sup>lt;sup>289</sup> See Ted Nordhaus and Michael Shellenberger. *From the Death of Environmentalism to the Politics of Possibility.* Boston: Houghton Mifflin Co. 2007. Pp. 131.

class...This aesthetic, moreover, naturalized whiteness within the natural world, effectively excluding people of color from the ecological landscape" (922).<sup>290</sup> Though this is a rather tenuous claim to make with regard to the sea books, which focus almost exclusively on non-human species, Kinkela's argument does hold for *Silent Spring*. The pioneers who first "built their houses" and "sank their wells" in the small town of the "Fable" re-enact a white myth of settlement, and the land which they come to inhabit is noticeably free of indigenous people, race-based slavery, or any of the other racially-driven struggles that characterized the history of the United States. This white-washed historical precedent translates, toward the end of the book, into a present moment which looks similarly blank, portraying what is in fact a primarily white suburban experience.

The ecological vision that Carson helped to create could, and does, serve a wider range of perspectives. For many concerned with environmental degradation and public health, Earth Day 1970—the first nationally recognized celebration of the holiday—and the ecological awakening it marked, seemed like an opportunity. Though the official event itself was largely the brainchild of Sen. Gaylord Nelson of Wisconsin, the day was celebrated locally by thousands of coordinated groups around the country (many of whom had observed the day in previous years), giving Earth Day 1970 a truly national resonance and the feel of what James Ridgeway called a "revolutionary surge" (288). Robert Gottlieb goes so far as to link this burgeoning environmental movement with the contemporaneous Civil Rights and antinuclear movements as "quality of life" interests in

<sup>&</sup>lt;sup>290</sup> Kinkela conceives of the "ecological landscape" as "a counterpoint to…the 'landscape of modernity.' This was a landscape forged by social reformers and modernist thinkers who, throughout much of the twentieth century, embraced ideas of rationality, thinkers who, throughout much of the twentieth century, embraced ideas of rationality, efficiency, cleanliness and order to reshape U.S. lands and reinforce the boundaries between cities and nature" (908).

which "protest" was "largely couched in a critique of daily life addressing both values and institutional change, with environment (referring to both daily environment as well as the natural environment) an increasingly central focus."

Mary Lou Oates of the National Welfare Rights Organization in Washington,
D.C. saw 1970 as a unique moment for black environmentalists, declaring, "For the first
time in our lives, there's something that can't be divided: the air." In her sense,
ecology was even more relevant to the experience of inner-city citizens because "It's not
a question of being in it [a polluted atmosphere] for eight hours and then going home to
Long Island. Middle class people are holding off pollution in a personal way. Poor people
don't have this option open to them." For Oates, the real question raised by ecology was
"whether middle class people are only concerned for the fact that their children are not
going to have the life expectancy that they would have in a clean environment, or do they
want to make it possible for all children to live what we like to call an American way of
life?"

But for all their hope, Oates' words cannot help but point to a fundamental flaw in mainstream practices and perceptions of the environment and environmentalism that persists to this day. The primary tradition of environmentalism we have inherited maintains, along with Oates' sketch of middle-class concerns, that ecology inheres to the "nature" outside our homes, whether it is found in polluted cities where no trees grow or in pristine parks. Nature is what "environs" us—in the sense of embracing or

<sup>&</sup>lt;sup>291</sup> See Gottlieb, Robert, *Forcing the Spring: The Transformation of the American Environmental Movement*. Washington, D.C.: Island Press. 1993. Pp. 95

David Hendin, "Black Environmentalists See Another Side of Pollution." *Man and His World* (syndicated column). Enterprise Science Service. 1970. Available online. http://www.nelsonearthday.net/collection/critics-blackenvironmentalists.htm.

beleaguering us—and what comes before and after, an investment in the lives of our children. But Oates' assessment reads ecology differently, as something which cannot be "held off personally," but runs through homes, workspaces, and every other locale of human life. Its political implications go beyond creating a suitable environment for the next generation to interrogate the justice of current qualities of life across the social spectrum, a praxis in which it is crucial "not to divorce ecological politics from an overall libratory politics" (Gottlieb, 96). Rather than to division—between public and private, today and tomorrow, neighborhood and nation—ecology points in this vision to interdependency.

The new face of Earth Day—the Earth itself—proved to unite disparate groups under the flag of "nature" while obscuring the social disparities that made "nature" different for everyone. As Gottlieb notes, "the newly defined environmental movement was afforded instant recognition by a media that suddenly discovered the issue for the first time. Environmentalism became a movement without a history, with an amorphous social base, and with a clean slate on how best to proceed" (113, emphasis mine). In this dearth of apparent history and context—which, in fact, reflected a multitude of histories and contexts, environmentalism became all too quickly dominated by the same set of questions which had plagued the white middle class suburban mind for well over twenty years: environmentalism, that is, became domesticated.

### CONCLUSION

# **Environmentalism and the Logic of the Fallout Shelter**

Oh Marie, if you would stay here we could stick pins in the map Of all the places where you thought that love could be found. But I would only need one pin to show where my love's at At a top secret location three hundred feet under the ground.

We could hold each other close, and stay up every night

Looking up into the dark like it's the night sky.

Pretend that giant missile is an old oak tree instead

And carve our name in hearts into the warhead.

-Josh Ritter, "The Temptation of Adam", 293

Josh Ritter's 2007 song "The Temptation of Adam" is strangely playful as it hops over lines crowded with the terms of nuclear physics and its deeply tragic theme: a modern-day Adam has found his way into an old underground missile silo and now faces the prospect of living out his remaining days—accompanied by a woman he "never had to learn to love / Like I learned to love the bomb"—in this remote "top secret location," never to climb out into the sun again. Far below the earth's surface, the two engage in the typical traditions of courtship, albeit specially adapted for life in the darkness: after Marie confesses that "fusion is the broken heart that's lonely's only thought," the singer tearfully admits that his "eyes got washed away in chain reactions." The nagging fear that keeps him underground becomes clearer as the song reaches its final stanzas, "Oh Marie, something tells me things just won't work out above / That our love would live a half-life on the surface." Driven quietly mad by the fear of losing what he loves, the singer finds his thoughts turning ever more to that "big red button" that would launch the missile and

<sup>&</sup>lt;sup>293</sup> Ritter, Josh. "The Temptation of Adam." *The Historical Conquests of Josh Ritter*. Sony, 2007. Compact Disc.

preclude the possibility of escape forever. Long after Marie has fallen asleep for the night, he lies awake, "think[ing] about the Big One, W-W-I-I-I, / Would we ever really care the world had ended?"

Even with its edge of irony, Ritter's writing not only shows the enduring legacy of Cold War images and themes—the missile silos and weapons of mass destruction that still wait quietly across the face of the globe to fulfill their apocalyptic duty—but also traces the ghostly lineaments of a Cold War mentality that has taken a deep hold upon the American psyche. This spirit can be found in the song's obvious questions: Would we ever really care the world had ended? *Does* our personal (or national) security ultimately require us to annex and annihilate the complicated and complicating world outside our borders? But this worldview can also be detected in the subtle ways in which the singer and Marie learn to re-imagine the world of steel and plastic they now inhabit into a simulacrum of the green world of the American pastoral tradition. The "dark" and the "warhead" which serve for their "night sky" and their "old oak tree" are material substitutes for the world of the surface, even as the night sky and the oak tree are themselves symbols within the American imaginary of young romance in the postwar years. The question Ritter asks and the rituals he invents for his two characters are thus closely related: both suggest that the creation of *environment*—the fixing of epistemological limits upon the material world—is tied closely to the maintenance of identity. Making a life inside a subterranean nuclear weapon silo is perhaps an extreme example of environmentalizing—of setting the confines of a knowable, manageable second nature; but the situation crystallizes, in miniature, the experience of the postwar domestic. Only a few minutes away, or a few steps removed, from a state of disaster, the

postwar home was also, for its inhabitants, *supposed* to serve as a small piece of certainty nestled within the unstable edifice of international conflict.

But, as the numerous examples of widening perceptions, permeable homes, and porous bodies I have supplied in the last five chapters suggest, the home failed, in many ways, to provide that kind of certainty. Instead, the domestic—in both the social sense of the home, and the national valence as the American way of life—became a source of constant anxiety, a slow struggle to maintain the borders between home environment and public environment. Holed up (or trapped) inside his silo, the singer of Ritter's song embodies this same conflict of control—the very paradox that Carson and other ecological writers brought to light: he seeks ever more potent means, the one big red button, to consolidate his command even as he is plagued by uncertainties about returning to the surface. In the end, Ritter's question of whether we would really care if the world had ended is provocative less because the answer seems to be no, we wouldn't, and more because the singer seems to have convinced himself—is in fact ready and willing to build a life upon the assumption—that the end of the world does not necessarily mean the end of him. He has fallen victim, like many of the characters I have already discussed, to the logic of the fallout shelter.

As Elaine Tyler May has shown, the design of the fallout shelter found expression, beyond the actual construction of "family foxholes," in a number of common suburban structures—including fenced back yards and kitchen windows specially designed for keeping an eye on children—which attempted to wall in the private environment of the nuclear family while walling out the intrusions of neighbors, strangers, and the more "sinister" presences associated with the recently-abandoned

urban experience. <sup>294</sup> But it was the crisis-based *logic* of the fallout shelter which empowered these constructions, gave shape to civil defense schemes, and made protecting the nation from nuclear attack a highly atomized effort to build and maintain individual survival spaces. This logic, in which the domestic realm comes into being through the exclusions of private property, makes a distinctly *environmental* claim: that one may circumscribe and condition a portion, albeit small, of the earth to keep it breatheable, potable, and otherwise un-deadly, as the rest of the world—those either too naive or too impoverished to afford such defensive measures—descends into chaos. Poor as a living space, but sufficient as a survival space, the fallout shelter becomes a kind of supplement to the suburban home, the last resort of the vulnerable bare life the suburban home was designed to obviate. Moreover, perhaps even more important than the fallout shelter's capacity to protect its occupants physically from the aftershocks of a nuclear attack was the psychological advantage it afforded, becoming the refuge of a disempowered political subject from a problem which had come to seem completely intractable.

What I have attempted to demonstrate in this study, however, is that the environmental claim behind this disaster-oriented rationale played an important role in the development of the environmental movement: that even as an emergent ecological discourse of the 1950's taught its readers to think of everything as connected, the dominant narratives which grew out of that knowledge were framed by a sense of environmental limits, carrying capacities, and critical masses. Though ecology received in this way may have inspired many readers to see themselves as "a part of, not apart

<sup>&</sup>lt;sup>294</sup> See Elaine Tyler May, *Homeward Bound: American Families in the Cold War*. New York: Basic Books. 1988.

from, nature," the environmental movement inherited from this era a social instinct based in retreat. This sensibility favored models of individual abnegation—the things "I" can do or give up to reduce pollution, and now also that particularly potent monster of pollution, global warming—and placing limits on the powers that be through the established channels of legislative reform and corporate responsibility. Even where it has succeeded, environmentalism in the United States has drawn much of its power from the same enervating tale of crisis which drove so many Americans to build backyard bunkers, stock them with canned goods, and accept the coming Armageddon with no small measure of American know-how.

And while the positive ecological effects of these crisis-based initiatives should not be underestimated—nor, indeed, should the magnitude of the crisis we still face—what environmentalism has yet to do as a movement is to develop an expansive culture of ecology. We have yet to articulate and integrate ecology's critique of social injustice into our common parlance. We have yet to visualize in rich detail the world toward which material sanity could move us, rather than the polluted dystopias we must avoid. We have yet to engage fully in the slow but vital work of sustainability. The ecological disaster is already here: the moment has come to poke our heads out of the fallout shelter, look around, and take a realistic assessment of what we should do next.

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Sustainability as a concept has become so popular that it is beginning to outstrip any firm definitions we might apply to it. One of the earliest and most general definitions of sustainability can be found in the 1983 Report of the Brundtland Commission (later published as World Commission on Environment and Development, *Our Common Future*. Oxford: Oxford University Press. 1987), though it should be remembered that it was proposed as a definition of *sustainable development*, rather than *sustainability* as such: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (*Our Common Future* is now available online. See http://www.un-documents.net/wced-ocf.htm). For the purposes of this project, another common definition that seems particularly relevant pictures sustainability as a three-part model in which sustainable methods are those which support the health of the "three E's": environment, economy, and social equity.

# From Crying Indians to Greenwashing: Where Are We Now?

The texts which I have explored in this project suggest that the ecological awakening of the environmental movement did not so much "skip over" the postwar generation—running directly from the conservationists and preservationists of the early twentieth century to the countercultural movements of the later twentieth century—but were, in fact, routed directly through the this unique cohort and its particular cultural concerns. But even as these texts served to broaden the scope of environmentalist sentiments and responsibilities, locating these feelings within the domestic sphere of the home, and by extension the family relationships and consumer products that gave the home meaning, they also rooted what would become the dominant environmentalist critique within the relatively narrow cultural categories this kind of domesticity entailed. The political possibilities stirred by the "fully ecological experience of life" to which Carson's work points were largely subsumed into what might be called a "privatized" brand of environmentalism, one which mimicked in form the privacy-obsessed domesticity which set its ideological framework. Despite the fact that several other strains of environmentalist thinking began to thrive in the 1960's and 1970's, the mainstream environmentalism we have inherited nearly fifty years after *Silent Spring* continues to be largely bound to its origins in the white, middle-class consciousness that undergirded the postwar era's fascination with domestic life.

It would be inaccurate, unfair, and counterproductive to claim that this "white-washed" current of American environmentalism has accomplished nothing in the way of raising consciousness or pointing the way toward a more ecologically sound way of life.

Critical legislation put in place since *Silent Spring*, largely as a result of Carson's middle-

class white readership's passionate citizens' response to the book, has resulted in new practices of corporate regulation, government oversight, and consumer choice that have virtually eliminated some of the specific ecological problems *Silent Spring* brought to light. These same practices have in turn become part of a wider ecological awareness that has been institutionalized into the very fabric of American society, insinuating itself into laws, popular culture, and systems of education. But it is instructive to understand just *how* these environmentalist practices are rationalized—how, in other words, everyday acts of environmentalism are understood to connect their actors to the larger issues of ecological crisis. One particularly vigorous form which this environmental consciousness assumes is that of the informed consumer.

Now, more than ever, it is possible to "go green" by buying green and even investing green. Corporate giant Wal-Mart's recent push to stock a line of organic foods and other earth-friendly (or at least, earth-friendlier) products is an interesting example in this regard. While this move has the potential to widen the socio-economic range of customers to whom these "green" choices are available, it does so by means of a corporate structure which systematically thrives upon the exploitation of workers from across the world, the attrition of other companies in the globalized market, and modes of production and distribution that demand a high cost in fossil fuels. <sup>296</sup> Though this complicated calculus of public health, socioeconomic freedom, environmental integrity and global justice presents no simple answer to just what might constitute an ethical choice in this situation, the comments of Gary Hirshberg, founder of the largest organic yogurt provider in the country, are revealing. Hirshberg's company, Stonyfield Farm,

<sup>&</sup>lt;sup>296</sup> See Pallavi Gogoi. "Walmart's Organic Offensive." *Business Week* March 29, 2006. Online. http://www.businessweek.com/bwdaily/dnflash/mar2006/nf20060329\_6971.htm

recently brokered a deal with Walmart, and for Hirshberg, the choice was apparently obvious. As quoted in Robert Kenner's 2008 documentary film, *Food, Inc.*, he explains: "The irony is that the average consumer does not feel very powerful. They think that they are the recipients of whatever industry has put there for them to consume. Trust me, it's the exact opposite. Those businesses spend billions of dollars to tally our votes. When we run an item past the supermarket scanner, we're voting." 297

Read—admittedly—somewhat against themselves, Hirshberg's sentiments suggest that the post-war imperative to buy has become so fully internalized that even today's sophisticated consumers still believe themselves the "recipients of whatever industry has put there for them to consume." For them, the innovative libratory choice now lies in *what* to buy; the question of *whether* to buy—not to say questions about models of exchange outside the money economy—does not enter the picture. <sup>298</sup> Indeed, his comments eerily reflect an anonymous cartoonist's take on the immediate aftermath of *Silent Spring* in August of 1963. Set within an article discussing *Silent Spring*'s impact on the marketing of insecticides, the image shows a well-heeled shopper, backed by

<sup>&</sup>lt;sup>297</sup> Hirshberg's comments are included in the press notes for *Food, Inc.* See "Food, Inc.: A Film by Robert Kenner. Press Notes." *Official Food, Inc. Movie Site*. Online.

http://www.foodincmovie.com/img/downloads/Press\_Materials.pdf.

In recent years, realistic options for "alternative" economies in the U.S. have begun to grow. Through "local currency" programs, for instance, some cities and towns have established locally-recognized tender that can be exchanged for goods and services, but which does not retain value outside their relevant regions. As an "investment," these programs are designed not only to keep wealth within communities—rather than draining out into the multinational corporate economy—but also to develop new, economically viable partnerships between persons living in proximity to one another. While some local currency programs, such as Berkshares Inc., of Massachusetts (<a href="http://www.berkshares.org">http://www.berkshares.org</a>) are supported through banks and have thrived for several years, others have not endured, leading some critics to question their real economic and ecological benefit (see Harford, Tim. "It's Like Money, But with No Dead Presidents: Do 'local currencies' really help the communities that use them?" *Slate*. May 3, 2008. <a href="http://www.slate.com/id/2190116/">http://www.slate.com/id/2190116/</a>). Though the list of programs which have come and gone is much longer, the E.F. Schumacher Society lists multiple longstanding local currency programs in communities eight states. (See "Local Currency Directory." *E.F. Schumacher Society*. Website. <a href="http://www.smallisbeautiful.org/local\_currencies/currency\_groups.html#local">http://www.smallisbeautiful.org/local\_currencies/currency\_groups.html#local</a>)

shelves of poison packages with names like "Killpest." "BugNo," and "Weednot," admonishing her salesperson, "Now don't sell me anything Rachel Carson wouldn't buy." <sup>299</sup> Consumption-based models for expressing environmental concern, in other words, have not changed as much as we might like to think since the time of *Silent Spring*.

Interestingly, Lisa Lebduska points out that "ecoconsumerism" is problematic not only because it limits the power of the consumer/voter to a matter of purchasing choice, but also because the ever-more-sophisticated art of marketing eco-friendly products exploits a deeper narrative of individualism that runs through the history of American culture. She explains: "Functioning within a capitalist ideology, ecoconsumerism supplies an ever changing frontier of natural images, textualizing nature into a quest for individualism, a psychic chase through an endless woods in pursuit of the gurgling brook, the majestic vista, the carefree other whose capture will allow us...to be whole again beyond confusion." Lebduska's analogy of a "frontier of natural images" is a deliberate choice, for her argument rests on the conviction that the prevailing "discourse of democracy," since Frederick Jackson Turner's "destiny of the common man," "constructs land in such a way as to mask the exclusionary practices of corporate interests." Lebduska's characterization maps beautifully onto one of the oldest and most iconic pieces of "eco-advertising" ever to grace American airwaves: the Keep

<sup>&</sup>lt;sup>299</sup> The anonymous cartoon appears with an article entitled "Advertising: Insecticide and *Silent Spring.*" John M. Lee. *New York Times*, Aug 3, 1963.

<sup>&</sup>lt;sup>300</sup> See Lebduska, Lisa. "How Green Was My Advertising: American Ecoconsumerism." *ISLE Reader: Ecocriticism, 1993-2003*. Ed. Michael P. Branch and Scott Slovic. Athens: The University of Georgia Press. 2003. Pp. 143-154. Pp. 147.

<sup>&</sup>lt;sup>301</sup> Frederick Jackson Turner elaborated his "frontier thesis" in his 1893 essay "The Significance of the Frontier in American History." (See Turner, "The Significance of the Frontier in American History." *The Frontier in American History*. Online. http://xroads.virginia.edu/~Hyper/TURNER/

America Beautiful public service announcement often known simply as "The Crying Indian"

First televised in 1971, on the anniversary of the first nationally-recognized celebration of Earth Day, the short shows a lone Native American, canoeing out of what appears to be a pristine wilderness and into an industrial wasteland. Crescendoes in drums and brass lend emotional intensity as he beaches on a trash-strewn shore and walks to the edge of a highway packed with cars, only to have a piece of litter cast at his feet. In the climactic moment, the camera zooms in on his face, and even his stoic features cannot hide the single tear that forms in his right eye and plunges down his cheek. A bass-voiced narrator intones: "Some people have a deep and abiding respect for the natural beauty that was once this country. Others *don't*. People start pollution. People can stop it."

Dated as it may now seem, the ad offers, according to Lebduska's scheme, an important insight into the inner workings of the ecoconsumerist imagination. While its visual clues of smokestacks and crowded superhighways would seem to provoke some rumination on the need for environmentally sound policy or infrastructure, for corporate responsibility or civic planning, the ad verbally describes environmentalism as an *individual* practice: "people start pollution" and "people can stop it"—what's more, they can apparently do so by refraining from littering. The ad's individualist bent is spurred

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As Ginger Strand points out in her recent article in *Orion* magazine, the ad stirs up a surprising enthusiasm in Americans' collective memory: the trade journal *Ad Age* recently ranked "The Crying Indian" within the top 100 of ads ever made, and people still turn out by the thousands to pick up trash, plant trees, and volunteer for Keep America Beautiful events. (See Strand, "The Crying Indian: How An Environmental Icon Helped Sell Cans—And Sell Out Environmentalism." *Orion*. November/December 2008. *Orion Magazine*. http://www.orionmagazine.org/index.php/articles/article/3642)

As Strand points out, this focus on litterbugs is less surprising when you know more about who made the ad: Keep America Beautiful and its anti-liter campaign were the a public service arm of a coalition of corporations which manufactured disposable beverage containers. Their focus on stopping litter, Strand

by Lebduska's "psychic chase in pursuit of the carefree other," in this case, in the form of the rather antiquated "Indian" who paddles forth from the ancestral wilderness of North America to demonstrate, specter-like, a "deep and abiding respect" for the Earth to a generation of car-driving, smog-breathing litterbugs. Consumerism alone does not explain the persistence of this myth of a lost but redemptive nature that is at the heart of American nature discourse—and recalls much of environmentalist thinking—but it does provide a way in which this myth can speak, in a seemingly profound manner, to readers in a cultural landscape largely defined by corporate capitalism.

Frederick Buell suggests yet another reason for the tenacity of consumerist models of environmental activism: the degradation of the biosphere has now become so complicated an issue that those concerned with mitigating it simply do not know what to do. According to Buell, the ecological problems of the last forty years—if not our models for responding to them—appear to have grown in complexity, largely due to healthy dose of chaos theory in the sciences and in popular culture. From the relatively simple problem of depleting our resources, we have progressed, "in advanced or late modernity," to the problems of "overabundance," of "the production and distribution of risks": "In risk society, overabundance of development leads to an overabundance of man-made risk." \*\*Olimate change is an excellent example in this regard: it is a problem of global scale, with localized sites of risk production (that is, of activity which generates greenhouse gas) that do not necessarily correspond to the regions of risk distribution (the areas

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claims, was actually a way of diverting attention from the massive industrial shift to disposable, rather than refillable containers. So much for corporate responsibility! See

http://www.orionmagazine.org/index.php/articles/article/3642.

<sup>&</sup>lt;sup>304</sup> See Frederick Buell, *From Apocalypse to Everyday Life: Environmental Crisis in the American Century*. New York: Routledge. 2003. Pp. 194.

changed most drastically or most negatively by altered weather patterns). It is a crisis which makes us ever more dependent on the knowledge and strategies of experts, and a situation in which that knowledge is ever more colored and obscured by politics. The pervasive feeling of *anomie*, Buell notes, results in a divided response:

To all too many, it justified environmental disregard. And to those who felt they were losing the environmental wars, it displayed its dark side. Catastrophe might not occur at the end of a series of logical steps; even slow crisis might not stay slow. Chaos theory made all too plausible the possibility of sudden collapses triggered by the addition of one obscure grain of sand or flutter of one tiny intervention far away from the public limelight. Catastrophic change could come at any time in conditions of disequilibrium. And disequilibrium now was high. (192)

In this confusing context, the consumer model offers a seemingly steadfast script for behavior, a mode in which power may be unproblematically exercised, individuality easily expressed, albeit in a limited way. The home, once again, becomes the locus of environmental concern, a space which may be cordoned off, protected, made ecologically sound and filled with products which reflect this new consciousness. But in these choices, the logic of the fallout shelter re-emerges, this time in spectral form. The "sudden collapse" of the "slow crisis" of ecological degradation prompts the same "duck and cover" response as the threat of nuclear war, if somewhat abstracted through the form of the home, the consumer, the market relation. But the same questions remain: if environmentalism begins at home, where does it go from there? How does the home, or the person, truly fit into the picture of human ecology on earth?

## The Sustainable Future(s)

Where, then, do we begin looking for examples of a more sustainable future—that is, for projects which take seriously Murray Bookchin's call for "social ecology" in their

actions and in their aims?<sup>305</sup> The simplest and most useful answer may be, in fact, everywhere. To begin seeing how this might be the case, we must unearth the assumptions that underlie common models of the environmentalist-as-political-creature.<sup>306</sup> It is useful in this case to consider how Wendy Brown has described the situation of the liberal political subject—the very same persona which is deadened through the logic of the fallout shelter and raised somewhat dubiously from the dead in environmentalist discourse. Brown sees the liberal subject as caught in a "web" of dependency with the state. Though liberal theory teaches us that civil society is a "self-generating" phenomenon enacted by discrete human subjects, Brown's vision is corrective, picturing how the interventions of a capitalist state weaken and even dismember the social body:

As the social body is stressed and torn by the regularizing and atomizing effects of capitalism and its attendant political culture of individuating rights and liberties, economic, administrative, and legislative forms of repair are required. Through a variety of agencies and regulations, the liberal state provides a webbing for the social body dismembered by liberal individualism and also

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<sup>&</sup>quot;What we are seeing today," wrote Bookchin in his 1965 essay, "Ecology and Revolutionary Thought," is a crisis in social ecology. Modern society, especially as we know it in the Unites States and Europe, is being organized around immense urban belts, a highly industrialized agriculture and, capping both, a swollen bureaucratized, anonymous state apparatus." These modern cities become "regressive encroachments of the synthetic on the natural, of the inorganic (concrete, metals, and glass) on the organic, of crude, elemental stimuli on variegated, wide-ranging ones," leading to serious social problems: "The need to manipulate immense urban populations—to transport, feed, employ, educate and somehow entertain millions of densely concentrated people—leads to a crucial decline in civic and social standards. A mass concept of human relations—totalitarian, centralistic, and regimented in orientation—tends to dominate the more individuated concepts of the past." (See Bookchin, "Ecology and Revolutionary Thought." In *Post-Scarcity Anarchism*. Edinburgh: AK Press. 2004. Pp. 24, 26)

<sup>&</sup>lt;sup>306</sup> I mean "unearthing" in a very deliberate way: just as environmental historian William Cronon argues that "as soon as we label something as 'natural' we attach to it a powerful implication that any change from its current state would degrade and damage the way it is 'supposed' to be," I want to argue that we should interrogate environmentalists' claims to speak for "nature" or for the "earth" as totalized objects. We need to "unearth"—in the sense of ungrounding essentialist claims, but also in the sense of uncovering—the social connections that lie buried in our feelings about nature. (See *Uncommon Ground: Rethinking the Human Place in Nature*. New York: W.W. Norton & Co. 1996. Pp. 20)

administers the increasing number of subjects disenfranchised and deracinated by capital's destruction of social and geographic bonds. <sup>307</sup>

This argument, marshalling a compromised body as proof of a dangerous and debilitating imbalance in the state, should sound familiar. It is strikingly similar to the protoenvironmentalist claims of the texts I have reviewed in previous chapters, wavering between horror at the disintegration of bodies made visible through ecological insight and wonder at the far-reaching implications of ecological relationships. A key point in Brown's analysis, too, is that understanding the subject's relation to the state as one of *inter*dependency—rather than the grotesque image of dependency the "webbing" might at first conjure—may ultimately help to restore a balance of power and heal the wounds inflicted upon the social body. This is, of course, also an important claim for environmentalism, which, as Ginger Strand recently put it, also depends upon a particular "way of seeing" the ecological equation: "It is to say that in order to find balance, we must consider the natural world not as merely waiting to be of service or to be saved, but must respect it as equal partner in shaping the future of our planet. To do so surely starts with opening our eyes to what we have done to it, and what we are doing to it now." "308

Given this framework, the environmental movement's main strategies for change begin to look extraordinarily unbalanced, relying upon notions of liberal subjectivity and the dynamics of political power which Brown argues are, at the very least, problematic. Even that most quintessential of environmentalist actions—planting a tree—can be understood, in Michael Maniates' opinion, as a manifestation of an injured American

<sup>&</sup>lt;sup>307</sup> Brown, Wendy. *States of Injury: Power and Freedom in Late Modernity.* Princeton, NJ: Princeton University Press. 1995. Pp. 17

See Strand, Ginger. *Inventing Niagara: Power, Beauty, and Lies*. New York: Simon and Schuster. 2008. Pp. 301.

political culture: "This response half-consciously understands environmental degradation as the product of individual shortcomings...best countered by action that is staunchly individual and typically consumer based (buy a tree and plant it!). It embraces the notion that knotty issues of consumption, consumerism, power, and responsibility can be resolved neatly and cleanly through enlightened, uncoordinated consumer choice."309 Though sliding our points of political leverage away from the familiar anchors of individual/consumer and state/corporation may feel, at first, like a disarming dispersal of political power, it may actually prove a source of new collective strength. Deleuze and Guattari have memorably mined the natural metaphor of rhizomatic growth—that subsurface, lateral method of expansion that features a plurality of nodes of power—and the natural world is full of instances in which dispersal forms not just an alternative to centralized power, but a distinct modality of its own. 310 It may indeed be true that the first thing we need to learn about mapping a sustainable future is how to visualize, theorize, and creatively express the trajectories of *multiple* futures—a patchwork of initiatives which engage the social and ecological problems of sustainability from many different angles—and how to understand multiplicity as power.

In addition to imagining a multiply directioned future for environmentalism, we may also need to readjust our sense of time as duration, picturing the environmental movement as a constellated series of remediative measures anchored in, and temporally bounded by, particular times and places. The progress of ecological awareness in the

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<sup>&</sup>lt;sup>309</sup> Michael F. Maniates, "Individualization: Plant a Tree, Buy a Bike, Save the World?" *Confronting Consumption*. Ed. Thomas Princen, Michael F. Maniates, and Ken Conca. Cambridge, MA: MIT University Press. 2002. Pp. 43-66. Pp. 45.

<sup>&</sup>lt;sup>310</sup> See Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*. London: Continuum. 2004. One need look no farther than the nearest backyard for many examples of dispersal as a strategy of survival and reproduction: drifting pollen on a spring day attests to the powerful ways this seemingly innocuous process can change the landscape.

United States owes much to organizations such as the Nature Conservancy, whose land preservation programs help secure lasting biodiversity in some of the less impacted natural areas on earth, or to the National Resource Defense Council, whose enduring advocacy has taken a strong hand in shaping federal environmental policy. But our reliance on long term models such as these should also be informed by the efforts of the thousands of locally based environmental organizations and activists around the country, each with its own trophism, its own particular lifespan. Considered in concert, these initiatives tell an evolutionary story of the environmental movement, a history driven by what Michel de Certeau has called "tactics." As opposed to "strategies"—"the calculus of force-relationships," which, in Certeau's estimation, "becomes possible when a subject of will and power (a proprietor, an enterprise, a city, a scientific institution) can be isolated from an 'environment'"—"tactics," as a kind of ecological correlative, are employed by those less able to "secure independence with respect to circumstances." 311 For Certeau, the critical difference between strategy and tactic lies in the richly layered idea of the propre—"a place that can be circumscribed as proper... and thus serve as the basis for generating relations with an exterior distinct from it"—and which shares its root meaning with the concept of "property" as ownership (xix). Where strategists depend upon a mode of consolidation and exclusion—the same gesture, indeed, that was mimicked many times over in the building of the personal home fallout shelter tacticians "cannot count on a 'proper' (a spatial or institutional localization)" and thus depend upon borrowed and improvised resources, on the clever exploitation of time, and

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<sup>&</sup>lt;sup>311</sup> See Michel De Certeau, *The Practice of Everyday Life*. Vol One. Trans. Steven Rendall. Berkeley, CA: The University of California Press. 1984. Pp. *xix* 

itinerant patterns of alignment and allegiance. The tactical approach, notes Certeau, "must constantly manipulate events in order to turn them into 'opportunities.'" (*xix*)

While these two interrelated ideas—the dispersal and the transience of political power—may seem an unsteady basis on which to organize the social change for which twenty-first century environmentalism calls, this is not precisely what I am proposing. Rather, I see the multiple futures and tactical procedures as a necessary corrective to the story of environmentalism we have inherited. As Frederick Buell notes, in the wake of totalizing global environmentalist perspectives such as those described in the polemic Limits to Growth (1972), "small, distributed solutions...were gradually overshadowed as possible solutions or even ideals by the vision of a complex, fully global system that had decisively violated the world's environmental limits. Large-scale problems seemed to need large-scale solutions, and work towards assembling ecological modernization's comprehensive vision began, while the credibility of small, distributed solutions diminished" (185). 312 Moreover, detractors of the environmental movement—even those within the ranks of literary ecocriticsm—have accused the environmental movement of a number of faults related to its inability to account for specificity: of reducing particular crises to the same old disaster-oriented rhetoric, of ignoring minorities and the poor, and of putting "the environment" before "the people." These shortcomings have undoubtedly influenced the way environmental claims ring in the ears of the American public. But they are perhaps more than anything a result of popular and historiographic attempts to explain the movement as a unified strategy of traditional liberal democracy and *not*, as is

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<sup>&</sup>lt;sup>312</sup> For more information on the Club of Rome's 1972 *Limits to Growth*, see Introduction Note 17. See also Meadows, Donella H. et al. *Limits to Growth*. New York: Universe Books. 1972.

so often the case on the ground level of environmental controversies, a diverse movement often governed by contingencies and particularities of person, place and moment.

Indeed, Novella Carpenter's recent book *Farm City: The Education of an Urban Farmer* (2009), which details the part she and her husband played—if only temporarily—in the "urban farming" movement in Oakland, California, visualizes the effort to create social change as a *network* of energies in cooperation:

Although my holding was small—and temporary—I had come to realize that urban farming wasn't about one farm, just as a beehive isn't about one individual bee. I thought of Jennifer's beehive and garden. Of Willow's backyard farms that dot the city of Oakland. Urban farms have to be added together in order to make a farm. So when I say that I'm an urban 'farmer,' I'm depending on other urban farmers, too. It's only with them that our backyards and squatted gardens add up to something significant. And if one of ours goes down, another will spring up. 313

As the passage indicates, Carpenter conceives of the work of "urban farmers"—and, more broadly, the interconnected issues of environmentalism, food security, and social justice it seeks to remediate—as the cooperative work of many moving parts, like that of bees in a hive. Her recourse to natural metaphors is even more pronounced in her reflections that she "hadn't truly owned this place. It had owned me...I sprang up here only because it was the perfect intersection of time and place, and, like a seedling, I took advantage, sucked up the nutrients that I could find, forged relationships with others in order to grow, bathed in the sunlight of the moment" (267). In both examples, Carpenter's vocabulary and syntax echo the environmentalizing rhetoric of prevailing models of environmentalism—especially in her sense that the "environment" of her corner of Oakland exerted a stronger claim over her than she over it. But it also pushes toward a creative ecological understanding of her niche, a bee-like or seedling-like

<sup>&</sup>lt;sup>313</sup> See Carpenter, Novella. *Farm City: The Education of an Urban Farmer*. New York: Penguin. 2009. Pp. 269

creature within the human ecology in which she lives, complete with her own strategies of adaptation, acceptance of limited life span, and conviction that "another will spring up" in her place. It is the dynamic sense of lateral and temporal motion which makes the social movement Carpenter describes so revolutionary.

Carpenter's book, along with a string of recent titles including Paul Hawken's Blessed Unrest (2008), Bill McKibben's Deep Economy (2007), and Frances Moore Lappé's Liberation Ecology (2009), documents what may be the most relevant fact about this less visible side of the environmental movement: that it is already happening. Hawken argues that a global grassroots movement has, somewhat unconsciously, emerged from the awakening that was the environmental movement into an unorganized collection of groups that are nevertheless kindred in their beliefs and missions. Hawken writes: "Life is the most fundamental human right, and all of the movements within the movement are dedicated to creating the conditions for life, conditions that include livelihood, food, security, peace, a stable environment and freedom from external tyranny." Similarly, McKibben attempts to unearth the "deep economy" of unsatisfied human needs—for community, creativity, conversation—that, he argues, lie buried beneath prevailing conceptions of what the economy includes and what economic progress looks like. In doing so, he discovers a number of small scale initiatives already engaged in work that pushes toward social sustainability as it addresses the need for ecological sustainability.<sup>315</sup> Lappé, finally, returns to the work she began in her 1971 Diet for a Small Planet to interrogate a number of "disempowering ideas" that have held

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Hawken, Blessed Unrest: How the Largest Movement in the World Came In to Being and Why No One Saw it Coming. New York: Viking. 2007. Pp. 68.

<sup>&</sup>lt;sup>315</sup> See McKibben, Bill. *Deep Economy: The Wealth of Communities and the Durable Future*. New York: Henry Holt and Company. 2007.

humanity "trapped in a mental map that defeats us because it is mal-aligned both with human nature and with the wider laws of nature." Each of these texts attempts to show, as Frederick Buell writes, that "perception of deepened environmental crisis...does not have to lead to political passivity, to call for inhumanist authoritarianism solutions, or to trying to walk away from damage. Dwelling in crisis that is firmly perceived as such, coupled with the exploration of a new economy of feeling, opens up a very different set of possibilities for care, commitment, and doing all one can" (208).

What I have tried to prove in this project is that the notion of human vulnerability which has troubled the environmental movement from its beginnings—that incipient anxiety which lends environmentalist discourse the all-too-familiar air of Cold War disaster politics—also contains something infinitely more inspiring. In this vulnerability lies what Carson called "a shining opportunity": addressing the Scripps College Class of 1963, less than one year before her death, she advised: "You go out into a world where mankind is challenged, as it has never been challenged before, to prove its maturity and its mastery—not of nature but of itself. Therein lies our hope and our destiny." When we can develop a more mature theory of our ecological subjectivity—one which recognizes humans "at home" in the world, both endangered and empowered by their own technological adaptations—then the work of environmental repair truly begins.

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<sup>&</sup>lt;sup>316</sup> Lappé, *Liberation Ecology: Reframing Six Disempowering Ideas That Keep Us from Aligning with Nature—Even Our Own.* Limited First Edition. Cambridge, MA: Small Planet Media. 2009. Lappé's *Diet for a Small Planet* revolutionized the way many Americans thought about their eating habits, helping them to understand their food as part of a globalized food system, highly disruptive to both ecological cycles and human economies. (See Lappé, Francis Moore. *Diet for a Small Planet*. Twentieth Anniversary Edition. New York: Ballantine Books. 1991). Interestingly, Lappé is also attempting to democratize the process of revision by circulating a "limited first edition" of *Liberation Ecology* in order to gather feedback from readers to incorporate in a forthcoming 2010 edition.

<sup>&</sup>lt;sup>317</sup> Rachel Carson, "Of Man and the Stream of Time." June 12, 1963 Scripps College Commencement Speech. ("'Of Man and the Stream of Time'." RCP/BLYU).

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