Unnatural History: Ecological Temporality in Post-1945 American Literature

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Dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Department of English in the Graduate School of Duke University

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ABSTRACT

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Abstract

While environmental literary criticism has traditionally focused its attention on the textual representation of specific places, recent ecocritical scholarship has expanded this focus to consider the treatment of time in environmental literature and culture. As environmental scholars, activists, scientists, and artists have noted, one of the major difficulties in grasping the reality and implications of climate change is a limited temporal imagination. In other words, the ability to comprehend and integrate different shapes, scales, and speeds of history is a precondition for ecologically sustainable and socially equitable responses to climate change.

My project examines the role that literary works might play in helping to create such an expanded sense of history. As I show how American writers after 1945 have treated the representation of time and history in relation to environmental questions, I distinguish between two textual subfields of environmental temporality. The first, which I argue is characteristic of mainstream environmentalism, is disjunctive, with abrupt environmental changes separating the past and the present. This subfield contains many canonical works of postwar American environmental writing, including Aldo Leopold’s *A Sand County Almanac*, Edward Abbey’s *Desert Solitaire*, Annie Dillard’s *Pilgrim at Tinker Creek*, and Kim Stanley Robinson’s *Science in the Capital* trilogy. From treatises on the ancient ecological histories of particular sites to meditations on the speed of climate
change, these works evince a preoccupation with environmental time that has not been acknowledged within the spatially oriented field of environmental criticism. However, by positing radical breaks between environmental pasts and environmental futures, they ultimately enervate the political charge of history and elide the human dimensions of environmental change, in terms both of environmental injustice and of possible social responses.

By contrast, the second subfield, which I argue is characteristic of environmental justice, is continuous, showing how historical patterns persist even across social and ecological transformations. I trace this version of environmental thought through a multicultural corpus of novels consisting of Ralph Ellison’s *Invisible Man*, Ishmael Reed’s *Mumbo Jumbo*, Helena María Viramontes’ *Under the Feet of Jesus*, Linda Hogan’s *Solar Storms*, and Octavia Butler’s *Parable of the Sower* and *Parable of the Talents*. Some of these novels do not document specific instances of environmental degradation or environmental injustice and, as a result, have not been critically interpreted as relevant for environmental analysis; others are more explicit in their discussion of environmental issues and are recognized as part of the canon of American environmental literature. However, I demonstrate that, across all of these texts, counterhegemonic understandings of history inform resistance to environmental degradation and exploitation. These texts show that environmental problems cannot be fully understood, nor environmental futures addressed, without recognizing the way that social histories of inequality and
environmental histories of extraction continue to structure politics and ecology in the present.

Ultimately, then, the project offers three conclusions. First, it suggests that the second version of environmental temporality holds more value than the first for environmental cultural studies, in that it more compellingly and accurately represents the social implications of environmental issues. Second, it shows that “environmental literature” is most usefully understood not as the literature that explicitly treats environmental issues, but rather as the literature that helps to produce the sense of time that contemporary environmental crises require. Third, it shows how literary works can not only illuminate the relationship between American ideas about nature and social justice, but also operate as a specifically literary form of eco-political activism.
Dedication

To those who have read so many versions of this work, most especially my mother Kevin and my father Gary, and to Mackenzie Joy and Zachary Miles Donia, whose rapidly impending literacy has motivated my efforts to finish so that one of the many books we read together might be my own.
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Introduction

In September 2014, Canadian author Margaret Atwood announced to great enthusiasm that she had contracted to write a new novel. There was only one catch: the release date was set one hundred years from her announcement. Atwood’s will be the first contribution to the Future Library project, which plans to secure one new book each year until 2114, at which point a grove of trees recently planted in Norway will be pulped and used to print the one hundred unread tomes. (David Mitchell was the second novelist selected; both “slipstream” writers have crossover appeal across science fiction and literary fiction, and are noted for their treatment of environmental themes.)

Artist Katie Paterson frames the project as an ecological intervention. “Future Library has nature, the environment at its core,” she explains; “it questions the present tendency to think in short bursts of time, making decisions only for us living now” (“New Public Artwork”). By withholding the pleasures of cultural consumption, Future Library thus produces a visceral sense of the future, inviting its audiences to inhabit longer stretches of time than they normally would—and, crucially, reminding them that resources such as paper take time to mature, and that sustainable consumption may require acclimating to these new temporal scales. Paterson’s framing of the project makes clear how critical she feels concepts of time to be within environmental conversations. Future Library thus demonstrates the extent to which anthropogenic climate change has invigorated environmentalism’s temporal vocabulary.
Paterson’s project is part of a larger turn toward thinking the temporal in relation to the environmental, which has reverberated across fields within and beyond the academy. As we face climate change and extinction events, chemical and nuclear waste, we are asked to think across new scales of time. In other words, responding to environmental crisis requires the ability to reckon with slow, deep, and cyclical forms of nonhuman time that confound the comparatively rapid, shallow, and linear human historical imagination. The “Anthropocene,” the term proposed as the successor to the Holocene, naming the period in which humans have become a geological force, thus requires us to think simultaneously across the temporal frames and ethical concerns of the human and the nonhuman—an imaginative practice that has interspecies, intergenerational, and even interdisciplinary implications.1 As historian Dipesh Chakrabarty writes in “Postcolonial Studies and the Challenge of Climate Change”:

What is remarkable about the current crisis is that climate scientists are not simply doing versions of natural history. They are also giving us an account of climate change that is neither purely “natural” nor purely “human” history ... The wall of separation between natural and human histories that was erected in early modernity and reinforced in the nineteenth century as the human sciences and their disciplines consolidated themselves has some serious and long-running cracks in it. (10)

1 In a 2002 article in Nature titled “Geology of Mankind,” atmospheric chemist Paul Crutzen popularized the term “Anthropocene” (initially coined by biologist Eugene Stoermer) as a way to define “the present, in many ways human-dominated, geological epoch” (23). The term has since gained purchase in scientific circles; the ISSC (International Subcommission on Stratigraphic Classification) of the International Union of Geological Sciences is currently considering whether or not to formally adopt the term, with a decision expected later in 2016.
If, as Chakrabarty contends, climate change challenges traditional disciplinary boundaries, this is because it also challenges traditional boundaries between forms of temporality. And, as Chakrabarty acknowledges, such a shift in temporality might be seen as auguring a shift in ethical principles: as Chakrabarty explains it, this model of collapse, in which one form of history eclipses the other, threatens to make environmental concerns incommensurable with “questions of intrahuman justice” (“Postcolonial” 14).²

This raises the question of how other visions of the Anthropocene, other narrations of the post-climate change relationship between human and natural history, could offer alternate ways of imagining the integration of justice, inequality, and structural violence into environmental issues. It is my contention that the way we narrate the shifting relationship between human and nonhuman history affects our ability to understand both the importance of social justice and the discourse (not just the fact) of nature in relation to climate change. Our task, then, is to locate the kinds of stories that we want to tell—specifically, stories that reckon with climate change while not permitting issues of inequality and structural violence to fall out of the frame. Will we tell elegiac stories in which human history erases natural history, the polar bear pining on the melting ice? Will we tell catastrophic stories in which natural history

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² This threat, it is worth noting, is frequently part of the catastrophist discourse that so often characterizes writing on the Anthropocene, as on many other environmental dangers.
obliterates human history, civilization humbled, histories of violence erased, human rights falling by the wayside? Or can we tell a different kind of story, one in which these strange conjunctions of natural and human histories give rise to a careful negotiation of environmental and social issues that naturalizes neither inter- nor intra-species violence?

“Unnatural History” explores what contemporary American literary works might contribute to these temporal conversations within environmental studies. Literary narrative, I argue, is a privileged space in which to explore questions of time: by structuring a readers’ movement through nonlinear and cyclical patterns, by juxtapositionally moving back and forth between deep pasts and distant futures, by employing varied formal and stylistic strategies to expand normative understandings of human history, literary works can help to stretch a reader’s sense of time. Indeed, I suggest that nonhuman and counterhegemonic temporality has been a preoccupation within American literature since 1945, within and beyond the bounds of “environmental” literature. This project sets out to trace the impact that environmental temporality has had on literary works—and, conversely, the way that these literary works’ treatment of temporality might contribute to broader conversations within sustainability studies. How, in other words, might different stories produce different understandings of the relationships between human and nature, past, present, and future, crisis and justice?
This intervention is located within the critical field of environmental justice ecocriticism, which in turn belongs to the larger field of ecocriticism. Often understood in its early instantiations as (like the conservationism and preservationism of pre-1970s American environmentalism) the territory of white male nature enthusiasts who ventured into wilderness spaces, with occasional cameos made by intrepid female explorers and tragic indigenous writers, ecocriticism underwent a much-needed revision in its adolescence. Lawrence Buell refers to this as the shift from first to second wave ecocriticism: whereas the first wave took for granted that human and natural worlds were largely separate and thus prioritized place-based writings that guided readers through the experience of an alien nature, he suggests, the second wave is generally less interested in valorizing “nature” or “wilderness,” and the place-based texts that describe them, than in considering representations of the various zones of contact between humans and the nonhuman environment (*Future* 17-28). Environmental justice ecocriticism grew out of the second wave, focusing specifically on texts that depict environmental racism, sexism, and classism.³

Ramachandra Guha planted the seeds for this critical turn in his 1989 essay “Radical American Environmentalism and Wilderness Preservation,” which suggested that the ecocentricism of the Western turn toward deep ecology, as evidenced by the

³ A comparison of the environmental justice ecocriticism to third-wave feminism is apt: both tertiary waves extend their spheres of inquiry to encompass queer, minority, and non-Euro-American perspectives while working to deconstruct dualisms—man/woman, nature/culture.
“emphasis on wilderness” within environmental thought, was “positively harmful when applied to the Third World,” serving as a covert vehicle for the “imperialist yearning” that structured so much of the American relationship to wilderness in the nineteenth century (75). As William Cronon elaborates in his essay “The Trouble With Wilderness,” contemporary sustainability thus demands a turn away from an emphasis on preserving or conserving pristine unnatural spaces and toward addressing the interface between human and nature. “Wilderness,” Cronon argues, “embodies a dualistic vision in which the human is entirely outside the natural” and therefore leaves “little hope of discovering what an ethical, sustainable, honorable human place in nature might actually look like” (80, 81). In directing environmental scrutiny and activism entirely toward increasingly rare wilderness spaces, preservationist environmentalism overlooks the need for sustainability in “civilized” spaces, fails to grapple with global problems like climate change, and ignores the “massive environmental problems and deep social conflicts” of the Global South: “at its worst,” then, “exporting American notions of wilderness … can become an unthinking and self-defeating form of cultural imperialism” (82). Or, as Gayatri Spivak reminds us in Death of a Discipline, “To talk planet-talk by way of an unexamined environmentalism, referring to an undivided ‘natural’ space rather than a differentiated political space, can work in the interest of this globalization in the mode of the abstract as such” (73). Accordingly, environmental justice ecocriticism sets out to correct limited definitions of “environment” that refer
only to pristine nature, to explore instead the complex networks of relation by which humans and environments interact—particularly those points of connection that involve the unequal distribution of environmental risk among women, the poor, and people of color.

The form of environmental justice ecocriticism that I practice in this project is deeply indebted to the basic premises of mainstream and environmental justice ecocriticism: from ecocriticism, I draw the contention that literature plays an important role in reflecting and shaping attitudes (and thus actions) toward the nonhuman; from environmental justice ecocriticism, I draw the commitment to showing how attitudes and actions toward the nonhuman also reflect and influence attitudes and actions toward other humans. My intervention differs, however, in two key ways. First, I participate in the recent turn away from spatial analyses and toward the role that temporality plays in environmental literature and discourse, and suggest that this turn must more carefully reflect an attention to the persistence of history and not just to the representation of temporality. Second, I join the growing call to attend as closely to matters of literary form and style as to matters of literary content, while arguing that this shift can result in surprising and useful expansions of the ecocritical canon. In what

\[\text{Jedediah Purdy makes perhaps the most compelling case yet for this in } \textit{After Nature}, \text{ which argues not just “that ‘nature’ has been a vessel for many inconsistent ideas, whether one claims to be following it or overturning it,” but also that “styles of environmental imagination” are “ideologies … [that] organize the world” (11, 26). What this means, Purdy shows, is that “ideas about nature have never remained just literary and aesthetic conceits”—and that, as a result, to understand politics, policy, and material realities, we must turn to cultural histories of “nature” (30).}\]
follows, I shall expand upon both of these critical distinctions before turning to a more detailed discussion of the textual readings that constitute this project.

First, then, is the turn from space to time. Ecocriticism has focused on literary descriptions of space and place, often to the detriment of time: indeed, this emphasis explains early ecocriticism’s overwhelming interest in the genre of nonfiction place writing. Early ecocritics tended to define “environmental literature” as those texts that described specific environments and their nonhuman inhabitants, just as environmentalism itself was defined as the movement that defended those environments and inhabitants. Seeking to cohere the still-nascent field, ecocritics canonized nonfiction place-writing and valued other literary genres insofar as they emulated place-writing’s environmental descriptions; since then, traditional ecocritical accounts of the representation of nature have focused largely on the description of specific places. Buell provides a succinct account of this perspective in *The Environmental Imagination*. An environmental text, Buell suggests, has four qualities: first, “the nonhuman environment is present not merely as a framing device but as a presence that begins to suggest that human history is implicated in natural history”; second, “the human interest is not understood to be the only legitimate interest”; third, “human accountability to the environment is part of the text’s ethical orientation”; and fourth, “some sense of the environment as a process

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5 The relationship between textual description and practical defense has been meticulously documented by Daniel J. Philippon in *Conserving Words*. Tracking the influence that nineteenth- and twentieth-century nature writers had on major environmental organizations, Philippon makes a strong case for the political and ecological, as well as literary, significance of nature writing.
rather than as a constant or a given is at least implicit in the text” (7-8; emphases in original). Even while offering the selection principles by which the environmental qualities of a text are recognized, Buell quickly shifts to the canonizing mode: a text’s environmentalism, he suggests, can be measured on a spectrum, and while almost all texts register as “marginally” environmental (indeed, he cites primarily novels and poems in his expansions upon each of these four points), works of nonfictional place-writing are among the “few [that] qualify unequivocally and consistently” (8). Although Buell’s qualifiers appear to be generically neutral, they quickly reveal a bias toward those texts that take the description of a specifically nonhuman place as a central motivating concern.

As critics such as Patrick Murphy have argued, the consequences of this spatial emphasis and the generic hierarchy in which it results are numerous. Murphy’s four-part taxonomy of ecocritical texts—nature writing, nature literature, environmental writing, and environmental literature—undergirds his argument that the ecocritical emphasis on nonfiction (nature writing and the more advocacy-based genre of environmental writing) has led to an inattention to those forms of literature that engage concepts of nature and environmentalism in different ways (Farther Afield 11). Though Murphy does not specifically seek to decenter spatial in favor of temporal frameworks, he suggests that the emphasis on nonfictional place-writing has led to an inability to recognize the distinct interventions that other genres of environmental literature make
possible. Environmental justice ecocritics have sought to change key parts of this
definition, often by revising the basic biocentrism of the claim to nature writing and
examining the more nuanced treatment of “nature” in texts that attend to the
intersections of environment and society. This critical move can stay within the bounds
of nonfiction nature writing through texts such as Eddy Harris’ *Mississippi Solo*, which
operates both as environmental travelogue and as a critical account of how different
social environments offer vastly different responses to people of color. It can also show
how different genres articulate the interface between humans and nonhumans in
particular non-wilderness based “environments”—the farm, the city, the backyard, the
landfill, the lung.

More recently, Rob Nixon’s *Slow Violence and the Environmentalism of the Poor* has
introduced a temporal turn into the literature of environmental justice, showing how
“slow violence”—an environmental form of violence “that occurs gradually and out of
sight, a violence of delayed destructiveness dispersed across time and space, an
attritional violence that is typically not viewed as violence at all”—is of central concern
to global environmental justice, particularly in the context of climate change (2). Nixon’s
work has been taken up enthusiastically within environmental literary studies,
prompting a surge of attention to the ways in which various texts (within and beyond
the Global South) have sought to render slow violence narratively legible. Nixon’s
analysis is necessarily spatial in that it explores how catastrophes unfold in particular
locales, especially those that are located in global peripheries rather than centers; yet as he shows how media transformations have accelerated the news cycle and shortened the attention span, thus all but ensuring the elision of slow forms of violence from global consciousness, temporality rises to the fore as the central term in his analysis.

“Unnatural History” operates from the premise that such temporal inquiries are indeed a critical component of any environmental justice analysis. Indeed, I would suggest that environmentalism can productively be understood, not only as the movement dedicated to protecting particular places and environments, but alternately as a temporal logic—a particular way of thinking about history that is capable of encompassing longer, slower, and expansive forms of causality. In this project, I show how this temporal logic permeates a range of environmental texts, from the classic works of preservationist nature writing to the newer canons of environmental justice literature and “cli-fi.” I also show that, understood properly, this temporal logic applies to social processes as well as ecological ones, and in particular to processes of racial injustice. This means that the literature of greatest utility within the moment of the Anthropocene must do more than simply illustrate particular activist causes, or describe particular forms of injustice: it must also teach the reader how to reread the idea of “history” itself.

Environmental temporality has often been discussed in terms of futurity: as Brent Bellamy and Imre Szeman put it, “ecology in general has become so closely linked
to narratives of the future that even to draw attention to this link between the environment and what-is-yet-to-come can seem beside the point or even tautological” (192). Such an emphasis on futurity is evident everywhere from the popular “green” company Seventh Generation, which borrows from the Great Law of the Iroquois as it instructs consumers to “consider the impact of our decisions on the next seven generations,” to the use of Al Gore’s emotional story about a nearly fatal accident that befell his son in An Inconvenient Truth as a dramatic frame for Gore’s commitment to a sustainable future (“Top 10 Reasons”). As climate discourse vacillates between utopian strivings (Van Jones’ call for a “green collar economy”) and dire predictions of dystopia (The Day After Tomorrow, The Road), it focuses on predicting and preempting the uncertain future. Yet less critical attention has been paid to the role that history plays—or should play—in environmental conversations. “Unnatural History” seeks to contribute to the temporal turn within environmental justice ecocriticism by attending to the past, as well as to the future. As I consider how literary works help us contemplate natural time, I attend resolutely to the way that such works articulate the past as present, both in the present and in environmental futures. Without such an attention, I suggest, we risk falling into the trap of catastrophism, into Chakrabarty’s conjectural description of climate crisis as threatening to erase long histories of human inequality and violence. Environmental justice has taught us that, while new ecological realities may produce new forms of global risk, crisis never removes the past. Patterns of vulnerability,
exploitation, and violence persist. Climate change does not somehow remove or nullify the legacies of Western imperialism, making us all global citizens: as Hurricane Katrina should have taught us, even “natural” disasters have radically disproportionate effects along longstanding lines of social, political, and economic inequality. As I explore the ways in which literary works articulate environmental temporality, then, I call special attention to those works that help us respond to the environmental crises of the present and future without losing narrative access to the injustices of the past.

This commitment also means that I join scholars such as Ursula Heise and Nicole Seymour in arguing that ecological form and style are as significant to environmental literature—not only our readings, but also our definitions of that literature—as ecological content. Ecocritics have, of course, always attended to such aesthetic questions. However, environmental literary criticism has traditionally defined environmental literature, and valued its political potential, in terms of its descriptive, expository, or informational qualities. This is certainly present in early ecocritical preferences for the literature that explicitly set out to describe nonhuman places; however, it also marks the instantiation of the field of environmental justice ecocriticism. For instance, T.V. Reed’s “Environmental Justice Ecocriticism: A Meme-Festo,” which responds to a perceived inattention to environmental justice and a failure to in Cheryll Burgess Glotfelty and Harold Fromm’s breakthrough anthology *The Ecocriticism Reader*, defines the major questions of environmental justice ecocriticism as follows:
How can literature and criticism further efforts of the environmental justice movement to bring attention to how environmental degradation and hazards unequally affect poor people and people of color? To what extent and in what ways have other ecocritical schools been ethnocentric and insensitive to race and class? Are there separate and different traditions in nature writing by the poor and people of color? How can issues like toxic waste, incinerators, lead poisoning, uranium mining and tailings, and other environmental equity issues be brought forth more fully in literature and criticism?

Challenging ecocriticism to avoid “recapitulating the sad history of environmentalism generally wherein unwillingness to grapple with questions of racial and class privilege has severely undermined the powerful critique of ecological devastation,” Reed calls for a three-stage approach to the development of this new critical subfield: seeking out “relations between racial and environmental stereotypes”; “furthering attempts to define other than white traditions in nature writing, as well as tracing the literature on environmental racism”; and, finally, “bring[ing] together theoretical tools (from racial formation theory, critical race theory, postcolonial theory, ‘minority’ literary theory, etc.) to use in approaching the specificity of an environmental justice ecocritical analysis.” Reed cautions that, “in addition to looking for the most direct sources for an environmental justice ecocriticism, theoretical imagination should encourage us also to approach texts where the links are not immediately present.” Yet he is primarily focused on texts, literary and critical, which render unquestionably and unavoidably evident the realities of environmental racism. Likewise, in American Indian Literature, Environmental Justice, and Ecocriticism, Joni Adamson calls for an increased attention to what she terms
“the middle place,” the hybrid human-nonhuman environments that multicultural writers tend to discuss more than the wilderness spaces of mainstream environmentalism. Adamson’s incisive readings of indigenous writers such as Louise Erdrich, Joy Harjo, Simon Ortiz, and Leslie Marmon Silko demonstrate the importance of attending to environmental writing beyond the mainstream, but they nonetheless suggest that the most significant ecocritical texts are those that reveal “how different groups of people understand, live in, and change their environments” through “activities that transform nature” (26). In short, both Adamson and Reed suggest that the still-nascent field of environmental justice ecocriticism should focus first and foremost on texts that describe material interactions between humans and nature. This tendency persists throughout the field of environmental justice ecocriticism: for instance, even as Nixon attends to the representational challenges of slow processes, he heavily emphasizes the representation of material processes as he selects the “writer-activists” who, he argues, make global environmental violence visible (15).

I do not, of course, with to entirely reject the notion that a significant component of environmental literature’s contribution to larger eco-political projects is its ability to weave educational exposition in with compelling language and emotionally moving interpersonal plotlines. Indeed, many of the works I discuss in this dissertation have been critically canonized as environmental literature precisely because they integrate environmental problems into human narratives. However, like Heise, whose Sense of
“Place and Sense of Planet” explores how innovative literary forms make legible to readers the new forms of global connection that characterize contemporary experiences of space, and Seymour, whose *Strange Natures* sets out to trace “how contemporary fictions represent queer ecological concerns through form and style, in addition to content,” I suggest that the political contributions of environmental literature are not only to be found in its descriptive treatment or faithful representation of historically particular environmental issues (27). Indeed, as I show, the revolutionary narration of nonhuman time in postwar American literature operates outside of, or alongside, such mimetic documentation.

Some of the texts I discuss supplement their realistic representations of environmental issues with more abstract and ideological treatments of nonhuman time. Others offer significant contributions to environmental thought despite not narratively focusing on particular environmental crises at all. What all of these texts share, however, is a commitment to the significance of temporality within postwar American discourses concerning nature. As I examine the way that literary works narrate environmental time, I uncover two textual subfields of environmental temporality. The first, which I argue is characteristic of mainstream environmentalism, is disjunctive, with abrupt environmental changes separating the past and the present. I show how this sense of time appears in canonical examples of postwar place writing as well as major works of contemporary ecological science fiction. The second, which I argue is characteristic of
environmental justice, is continuous, tracing historical patterns that persist even across social and ecological transformations. Because this latter subfield suggests that, as I describe above, environmental issues must be understood in the context of human histories of inequality, I devote the majority of my attention to it in the chapters that follow. My goal in this project is to identify the contributions that such works might make to contemporary environmental consciousness—how, in other words, such works might help teach readers to respond to environmental crisis in a way that is grounded in the principles of social justice as well as those of ecological sustainability.

Chapter One, “‘A Sense of Time Lies Thick and Heavy’: Mainstream Environmental Writing’s Temporal Imagination,” analyzes multiple works of environmental nonfiction from the 1940s through the rise of the modern environmental movement in the 1970s as it establishes the difference between these two subfields. As I consider Aldo Leopold’s *Sand County Almanac*, Rachel Carson’s *Silent Spring*, Edward Abbey’s *Desert Solitaire*, and Annie Dillard’s *Pilgrim at Tinker Creek*, I establish that, contra to dominant ecocritical understandings of environmental literature as primarily invested in space and place, these writers were preoccupied with time. Indeed, their work continually returns to the troubling ways in which the cyclical shape, deep scale, and slow speed of ecological processes exceed the limitations of human history. However, as I demonstrate, their treatments of time ultimately fail to grasp the broader implications of a constrained historical imagination. Leopold, Abbey, and Dillard
essentialize the distinction between natural and human history, suggesting that only the nonhuman is excluded from a “human” sense of time and thus producing a disjunction between the realms of human and nature. Even Carson, who proposes that human history is always already shot through with invisible natural processes, narrates only material interactions between “human” and “nature” and does not arrive a full articulation of the cultural construction and significance of the division between those two terms. Carson thus serves as a major foundational text in the establishment of environmental justice temporality—and yet, as subsequent chapters argue, her landmark work of expositional advocacy must be read alongside works that more fully rethink the porous boundaries between human and nature while highlighting the continuity of past, present, and future.

Accordingly, the remaining three chapters turn away from mainstream environmental writing to eco-political fiction. Chapter Two, “‘What Goes Around Comes Around’: Race, Time, and Nature in African American Fiction,” argues that the counterhegemonic treatment of history in the African American literary tradition also informs that corpus’s environmental politics. In this chapter, I suggest that critical definitions of “environmental literature” should expand to include work that treats issues of history and temporality in relation to ideas about nature, and not just work that explicitly describes particular environments or recognizably environmental issues. I propose that Ralph Ellison’s *Invisible Man* and Ishmael Reed’s *Mumbo Jumbo* might be
seen as alternate origins for contemporary environmental thought. These writers have not traditionally been seen as relevant to ecocriticism; however, I argue that their fiction offers important insights into the historical construction of “nature” and its relationship to models of history. My readings of Ellison and Reed highlight the ways in which these writers strategically repurpose the nonlinear and non-teleological forms of temporality commonly associated with nature as they seek to challenge a limited historical imagination that excludes and enables the exploitation of the “nonhuman.” Tracking how teleological narratives exclude both human and nonhuman “natural resources,” *Invisible Man* identifies historical illegibility as a tool for resistance; if “invisibility gives one a slightly different sense of time,” then nonlinear rhythms such as hibernation allow an element of surprise “when the moment for action presents itself.” Indeed, the novel itself enacts cyclical form, incorporating a prologue that takes place after the action of the book has concluded. Even more explicitly, *Mumbo Jumbo* describes fantastical cyclical processes such as the viral “Jes Grew” and the regenerative “Human Seed” as enabling potent resistance to racist and imperialist Western conceptualizations of progress. As these novels use counterhegemonic understandings of history to interrupt partial narratives of progress, they also show that the historical past is never past—a revelation that functions both as a record of violence and a mode of resistance. These texts thus offer several crucial insights for environmental literary criticism. First, they suggest the discourse of “nature” structures social relations beyond specifically environmental
questions. Second, they emphasize the ideological co-constitution of histories of racialization and theories of nature in an American context. Third, they indicate how literary works can, by moving readers through nonlinear forms of time, operate as a narrative mode of political activation.

In Chapter Three, “‘Another Kind of Time’: Environmental Justice in Deep Time,” I show that the literature of environmental justice is reliant upon the same structures of temporality that motivated the historical critiques of the novels discussed in Chapter Two. This chapter explores how a sense of deep time structures the political interventions of canonical works of environmental justice literature from the 1990s, focusing on Helena María Viramontes’ novel Under the Feet of Jesus and Linda Hogan’s novel Solar Storms. The plots of both of these novels hinge on issues of environmental injustice—the pollution and degradation of indigenous lands in Solar Storms, and the disproportionate exposure of Latin@ farmworkers to pesticides and other toxic substances in Under the Feet of Jesus. The documentary representation of these issues is, as I note, a significant contribution to the discourses of environmental justice that were cohering in the 1990s; by bringing issues that affected vulnerable and marginalized populations to the attention of larger literary audiences, Viramontes and Hogan show us one way in which literature might participate in activist movements. However, as I show, within these novels, characters’ ability to recognize and take action in the face of environmental injustice hinges on their imaginative encounters with deep time.
Viramontes’ characters come to articulate their own unjust treatment within the exploitative system of industrial agriculture only by comparing themselves to the fossils in the La Brea Tar Pits, trapped and transformed into oil that is heedlessly consumed by those who have power but lack awareness; it is this comparison that ultimately sparks the protagonist’s explosive moment of action against ecological and economic injustice. Likewise, Hogan’s novel shows her narrator slowly coming to terms with the extended histories of social and environmental violence that explain her own personal experiences of trauma, a revelation that transforms into a collective form of healing as she uses the emotional fuel from this knowledge to take action against environmental injustice in the present. The imagination of deep time thus serves as a catalyst within the texts for characters’ entrance into environmental justice activism—an effect that, I suggest, is meant to ripple outward into the world beyond the text as readers join the characters in encountering deep time. In other words, both of these novels’ contributions to environmental justice include but exceed the straightforward representation of contemporaneous environmental issues for contemporary audiences, for they also use deep time as a way to move characters and readers toward recognizing the persistence of old forms of violence in the present. In this way, my readings in Chapter Three join the recent turn within environmental justice ecocriticism toward analyses that focus on the formal and stylistic qualities of environmental literature and not just on its relation to informational and awareness-raising documentary practices.
Chapter Four, “‘A Much Longer Torment’: Slow Change, Climate Justice, and Narrative Form,” shows how tracking the temporality of environmental justice helps us distinguish between two forms of “cli-fi,” or climate fiction—one that is attentive to issues of climate justice, and one that minimizes them. The genre of “cli-fi” is faced with the task of rendering the often imperceptibly slow processes of anthropogenic climate change legible to its readers; I argue that such processes are best represented in literary works that evince an awareness of how slow change operates in the social as well as the environmental realm. I demonstrate that Kim Stanley Robinson’s *Science in the Capital* trilogy accelerates slow change, describing the catastrophic effects of abrupt climate change and the equally abrupt forms of social response these might prompt. In other words, Robinson dramatizes the operations of global warming in an effort to galvanize his readership, offering a disjunctive model of history in which everything changes in abrupt bursts. As a result, the series overlooks the way in which climate change actually promises to *perpetuate* longstanding historical patterns of global inequality—overlooks, in short, the threat of climate injustice. By contrast, Octavia Butler’s *Parable* series uses a range of formal strategies to render the workings of slow change perceptible across the boundaries of the social and the environmental. Within the *Parable* books, I show, climate change operates slowly and subtly, as a kind of invisible main character whose effects are dispersed and extended. The *Parable* books thus insist that climate change maps onto ongoing patterns of structural violence. While characters voice concerns
about the brevity of the American temporal imagination in relation to gradual forms of degradation and change and seek to compel others to think in the *longue durée*, the books themselves teach readers how to see the beginnings of slow apocalypse in their own present. In short, Butler’s work endeavors to model a form of historical imagination that stretches into environmental and social futures without abandoning the persistence of environmental and social pasts. The contrast between the *Science in the Capital* and *Parable* series thus illustrates the critical importance of environmental justice temporality and the historical consciousness it entails, while showing how literary works can participate in the construction of that consciousness and the dissemination of that sense of eco-political time.

Taken as a whole, then, the texts that I examine in this project demonstrate the significant role that literary works might play in the field of contemporary environmental politics. As they enable readers’ imaginative access to natural temporality while integrating social histories with ecological futures, they help us to identify the kinds of stories that can and must be told in the face of global environmental crisis—the kinds of stories that can teach us how to read across time and space, human and nature, and, crucially, histories of injustice and the possibility of better futures.
1. “A Sense of Time Lies Thick and Heavy”: Mainstream Environmental Writing’s Temporal Imagination

As he begins to explain his decision to move to Walden Pond in 1854’s *Walden*, Henry David Thoreau presents the ravages of civilized life and the “lives of quiet desperation” men lead within it (9). “Let us consider for a moment what most of the trouble and anxiety which I have referred to is about,” he writes, “and how much it is necessary that we be troubled, or at least careful”:

> It would be some advantage to live a primitive and frontier life, though in the midst of an outward civilization, if only to learn what are the gross necessaries of life and what methods have been taken to obtain them ... For the improvements of ages have had but little influence on the essential laws of man’s existence; as our skeletons, probably, are not to be distinguished from those of our ancestors. (12)

Thoreau packs a one-two punch against that myth of progress that inspires a belief in “the improvements of ages”: not only, he suggests, has progress changed very little regarding the fundamental facts of living, but it has actually promoted unhealthy and unsustainable forms of life in the most apparently civilized spaces. It is in no small part this resistance to an uncomplicated faith in progress, this belief that “primitive” practices have not been made obsolete but are instead still vital, that inspires Thoreau’s stint at Walden Pond and occasions his profound observations of nature and man’s relation to it.

Ten years later, in 1864, George Perkins Marsh would publish a different sort of environmental volume: *Man and Nature, or, Physical geography as modified by human action,*
a key text in the rise of environmental conservationism that Paul Crutzen has cited as among the earliest published works on the Anthropocene (23). Like Thoreau, Marsh inverts the narrative of progress in order to suggest that civilization has actually led to a decline—in this case, in man’s relationship to the environment. “The destructive agency of man becomes more and more energetic and unsparing as he advances in civilization,” Marsh writes:

> The wandering savage grows no cultivated vegetable, fells no forest, and extirpates no useful plant, no noxious weed. If his skill in the chase enables him to entrap numbers of the animals on which he feeds, he compensates this loss by destroying also the lion, the tiger, the wolf, the otter, the seal, and the eagle, thus indirectly protecting the feeble quadrupeds and fish and fowls, which would otherwise become the booty of beasts and birds of prey. But with stationary life, or rather with the pastoral state, man at once commences an almost indiscriminate warfare upon all the forms of animal and vegetable existence around him, and as he advances in civilization, he gradually eradicates or transforms every spontaneous product of the soil he occupies. (39-40)

With civilization, Marsh suggests—with progress—man has gained an ability to destroy nature even as he proves his mastery of it. *Man and Nature* is dedicated to tracing this destruction and its unanticipated long-lasting geophysical consequences; as this passage demonstrates, the task often demands an attention to the failures of “advancement,” to the ways in which our notion of progress has both created and masked environmental degradation, and to the apparently paradoxical (according to the logic of progress) fact that progress itself has caused such ecological havoc.
Let us flash forward just over a hundred years to 1967 and to a text that might at first glance appear to have little in common with *Walden* and *Man and Nature*: Kwame Ture and Charles V. Hamilton’s *Black Power: The Politics of Liberation in America*. Though not explicitly “environmental,” *Black Power’s* introduction of the concept of “institutional racism” would prove central to the environmental justice movement, which emerged in the 1980s from the synthesis of environmental and civil rights activism. Ture and Hamilton make it clear that institutional racism is an issue not of individual but rather of what we can now, using the language of environmental justice, recognize as *environmental* discrimination—of the relegation of black Americans to conditions that enact violence structurally, rather than directly. Institutional racism, they suggest, should give the lie to the myth of progress that undergirds modern American culture: “White America is rich, strong, capable of grand designs to conquer space and other scientific feats,” they write, “but it is woefully underdeveloped in its human and political relations. In these areas, it is primitive and backward. The advocates of Black Power serve to clarify this situation, to point out that advanced technology and a rising Gross National Product are not the only, or even the most important, indices of civilization” (181). (These critiques are echoed in what I argue are the environmental, or rather eco-political, interventions of the African American novels I will discuss in Chapter Two.) Like Marsh, Ture and Hamilton illuminate the violence perpetuated by so-called civilization in order to subvert its basic claim to triumphant teleological
progress. This particular form of violence is structural, not necessarily intentional, the result of systems of racial discrimination—a form of violence that the United Church of Christ’s Commission for Racial Justice would later use to contextualize environmental racism, the motivating concern of environmental justice activism. What Ture and Hamilton make clear is that addressing such violence requires an upending of the basic assumptions regarding progress.

I present these vignettes in order to illustrate a larger point: that contemporary American environmental culture, in all of its various iterations and proto-iterations, has been characterized by a critique of progress narratives. This has attended both to the limitations of teleological visions of human progress—in other words, to what they fail to account for—and to the various forms of violence such visions have justified. Thus we see the valorization of “uncivilized” ways of life as well as an attention to the ravages that “civilization” has inflicted on humans as well as nonhumans; we see a reevaluation of practices and beliefs deemed irrelevant by the march of progress; and we see a condemnation of the collateral damage done by that march. Conservation and preservation cast doubt on the promises of urbanization and development in order to protect specific wilderness spaces from human encroachment. Antitoxics and antinuclear activists framed the pinnacles of technological achievement as the greatest dangers of the contemporary world. Post-1970s mainstream environmentalism sought to reestablish a bond between humanity and nature that had been severed by the triumph
of Western culture. Environmental justice organizers worked to draw attention to the way that protected industries had damaged both the environment and vulnerable human populations. Most recently, activists have suggested that human civilization has created its own worst enemy in anthropogenic climate change, which may eventually bring about the radical revision, if not the destruction, of society. Regardless of their often-fraught internal dynamics, all of the various iterations of environmentalism have shared critical attention to the naïve belief in progress, seeking to highlight the seemingly paradoxical damage done by progress and the forms of life that it has excluded or left behind.

1.1 Progress Narratives, Anti-Progress Narratives, and the Reorganization of History

To criticize “progress” is necessarily both a narrative and a temporal action. “Progress” exists as a set of narratives, tales of linear, teleological change that organize all of the individual events within a historical period into a coherent story. Further, both progress narratives and the narratives that are offered to oppose or provide alternatives to them are best understood as forms of historical myth-making: as reorganizations of history and of the way we understand time. What we see in writings of Thoreau, of Marsh, and of Ture and Hamilton is a shared commitment to teaching the reader how to experience time differently. Thoreau invites us to think juxtapositionally, attentive to the ancient past and the light it might shed on the present. Marsh challenges us to imaginatively hold divergent scales of time simultaneously, contemplating the longue
durée of the ecological past in relation to the relative brevity and thus relative
acceleration of the period in which humans have begun to act on their environments in
striking ways. Ture and Hamilton ask us to think both comparatively and gradually,
compelling us first to acknowledge the fictionality of a progress narrative that
strategically elides social inequality and second to learn to see violence in slow and
indirect ways. “When white terrorists bomb a church and kill five black children, that is
an act of individual racism, widely deplored by most members of society,” they write:

But when in that same city—Birmingham, Alabama—five hundred black babies die each year because of lack of proper food, shelter and medical facilities, and thousands more are destroyed and maimed physically, emotionally, and intellectually because of conditions of poverty and discrimination in the black community, that is a function of institutional racism. (4)

In this way, we see that environmental narratives can be reconceived as narratives that
seek to complicate short, rapid, and progressive ways of understanding time.

My project in these pages is to examine how precisely environmental narratives
go about offering new modes of understanding time. If, as I argue, environmentalism is
fundamentally a particular orientation toward temporality—one that incorporates slow,
deep, and nonlinear forms of change—then “Unnatural History” sets out to explore the
versions of temporality that specific texts offer in the place of the dominant
understandings of history that they seek to displace. One question to which I wish to
draw attention concerns the kinds of change that different narratives recognize as part of
an environmental temporality: while some environmental writers consider only
nonhuman forms of change, Ture and Hamilton help us to see how processes of social injustice (which are often intertwined with environmental issues of pollution and toxicity) are historically invisible for precisely the same reasons that processes of environmental degradation are—and, indeed, that addressing both forms of violence requires a nearly identical expansion of the temporal imagination through telling new kinds of stories. In short, I am interested in using my readings of the temporal politics of environmental texts to consider whether or not these texts might contribute to an understanding of environmental justice issues. Yet I wish to approach this question in multiple ways: not only by examining whether or not works explicitly address social injustices in terms of content, but also whether or not they produce models of history that fully integrate environmental temporality. Does a text help us to move toward a more cohesive understanding of eco-political temporality, or does it posit radical, irreconcilable breaks between different temporal modes? Does it help us to see how social and environmental histories inform the present and future, or does it frame the past as irrelevant or inaccessible?

In this chapter, I shall direct those questions toward Aldo Leopold’s *Sand County Almanac* (1949), Rachel Carson’s *Silent Spring* (1962), Edward Abbey’s *Desert Solitaire* (1968), and Annie Dillard’s *Pilgrim at Tinker Creek* (1974). These texts share a great deal in common. On the most basic level all are major works of environmental nonfiction written during the early development of the modern environmental movement, which
cohered in the 1970s. Moreover, as I show, despite the common critical reading of Leopold, Abbey, and Dillard in particular as texts predominantly invested in the descriptive experience of place, all of these texts are in fact preoccupied with environmental temporality, and with the problem of making it legible to readers accustomed to more linear, rapid, and shallow human histories. Through my analyses of the treatment of time in these texts, I show that they fall into two categories. Leopold, Abbey, and Dillard (though the latter to a lesser extent) *elegize* natural time, positing an irreconcilable disjunction between the shapes, scales, and speeds of nonhuman and human histories. By contrast, Carson begins to construct what I call an “environmental justice temporality”: a new model of history that attends to counterhegemonic shapes, scales, and speeds of historical change, while refusing to posit total rupture between different forms of time. As subsequent chapters shall argue, it is this latter model of history that is most urgent in the context of today’s eco-political climate.

### 1.2 A Sand County Almanac, Desert Solitaire, and the Temporality of the Conservationist Elegy

Leopold’s *A Sand County Almanac* and Abbey’s *Desert Solitaire* share a designation as advocacy-grounded works of conservationist place-writing. Describing, respectively, the lands around the Leopold family farm in Sauk County, Wisconsin, and Arches National Park in Moab, Utah, these two works evince an admiration verging on worship for the pristine natural spaces they describe—all in the service of the conservationist project of protecting wilderness spaces from human interference, to
which both authors were deeply committed (Abbey’s resistance to any official affiliation with environmental organizations, despite a longtime fondness for EarthFirst!, notwithstanding). Yet embedded within these works' vivid descriptions of specific natural places is a shared attention to the structures of natural time that those places contain, a shared desire to teach readers to see the distinctiveness of nonhuman time in order to inspire a sense of wonder at the alien vastness of nature.

This claim for the importance of temporality may seem counterintuitive in regards to Desert Solitaire, given Abbey’s declared antipathy to time itself. “We are now obsessed with time,” he contends; “if we could learn to love space as deeply as we are now obsessed with time, we might discover a new meaning in the phrase to live like men” (58). Accordingly, he describes the experience of being alone in the wilderness as a quiet and salutary exit from the passage of time. In the wilderness, Abbey writes, one can achieve “a suspension of time, a continuous present. If I look at the small device strapped to my wrist the numbers, even the sweeping secondhand, seem meaningless, almost ridiculous” (11). Indeed, Abbey suggests, only when “the numbers on a calendar have lost their meaning” is one truly in the wilderness (215). Yet these claims against time reveal that Abbey’s timelessness is not truly a retreat from time itself; it is instead an explicit resistance to human temporal metrics. For despite how frequently as he makes

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6 The theme persists throughout the text. When he and Newcomb go “Down the River,” for instance, their serenity is marked by the sensation that they have dropped out of time:
reference to the “timelessness” of nature, the negation of time is interspersed with specific and strategic temporal markers calling up the ancient and the cyclical. Indeed, Abbey makes a point of connecting timelessness not so much to the refusal of the temporal itself as to the particular refusal of the time associated with progress. What Abbey is calling for, then, is not truly a retreat from time into de-temporalized space, but rather the construction of a different configuration of temporality.

The representation of natural time are in fact central to both Leopold and Abbey’s conservationist projects: these writers do not simply note the existence and evidence of natural time, but also adopt an elegiac attitude toward its predicted erasure. Both Leopold and Abbey use their descriptions of natural time as cyclical, deep, and slow to dramatize the distinction of natural from human history; the danger in which human progress has placed natural time renders the latter a helpless victim whose only interaction with linear human history comes in the moment of extinction. In other words, the particular relationship that these conservationist texts construct between

We’ve forgotten to keep a close track of time, have no clock or calendar, and no longer know for certain exactly how many days and nights we’ve been on the river.
“Six, I think,” he says, my doppelganger.
“No, only five.”
“Five? Let’s see ... No. Yes. Maybe.”
“I believe.”
“Seven?”
“Four?” (185)

The narrative drifts on without resolving the debate, cementing the association between wilderness and a brand of timelessness marked by the lack of human machines for measuring and dividing temporality.
human and natural history is one of explosive conflict: the contact between the two kinds of history does not involve combination, but rather extermination.

Both texts foreground this violent confrontation between the two forms of history by expressing deep antipathies toward the idea of progress, which they describe as a shortsighted and linear model of history that is blind to the long-lasting environmental damage it causes. “My whole neighborhood lies in a backwash of the River Progress,” Leopold notes in the July entry of his almanac, titled, appropriately enough, “Problems of Progress”; indeed, it is enough to make him wonder “whether we cannot have both progress and plants” (47). Abbey, too, explicitly cites progress as the enemy of all things natural. Desert Solitaire values the wilderness as a space in which one can seek to be free of the drive toward progress: Abbey imagines his nonhuman compatriots and himself as “wait[ing] on the shore of time, temporarily free from the force of motion and process and the surge toward—what? Something called the future?” (135). This liberation from the relentless and linear drive toward futurity is precisely the pleasure Abbey derives from nature; but the pleasure is fleeting. Idly pondering an idealized future in which he returns to Arches “for season after season, year after year, indefinitely,” he swiftly undercuts his own wistful desires: such infinite return cannot be, for “there is a cloud on my horizon. A small dark cloud no bigger than my hand”—

7 Leopold later answers this question in the negative, ruefully noting, “Progress cannot abide that farmland and marshland, wild and tame, exist in mutual toleration and harmony” (162).
and “its name is Progress” (41, 42). Abbey’s storm threatens an onslaught of devastation that invisible to those who “cannot see that growth for the sake of growth is a cancerous madness,” who “would never understand that an economic system which can only expand or expire must be false to all that is human” (127).

What is significant here is not simply that both texts oppose an unchecked progress; this is hardly surprising for texts by such prominent members of the conservationist school of environmentalism. What is indeed striking is the way that this opposition to progress is couched in a subtler contrast of the temporality of progress—short, fast, linear—with the long, slow, cyclical temporality of nature. Progress is a “river” for Leopold, a line that rushes past; for Abbey, it is a storm that, as readers familiar with Walter Benjamin’s “Theses on the Philosophy of History” would have recognized, blows the unfortunate Angelus Novus backward in a straight line—a linear motion that wrests Abbey from his cyclical reverie. Leopold makes his position that progress is an inadequate linear model clear in an essay called “Wilderness” that appears near the end of A Sand County Almanac, in which he critiques the advocacy of

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8 “This is how one pictures the angel of history,” Benjamin writes:

His face is turned toward the past. Where we perceive a chain of events, he sees one single catastrophe which keeps piling wreckage upon wreckage and hurls it in front of his feet. The angel would like to stay, awaken the dead, and make whole what has been smashed. But a storm is blowing from Paradise; it has got caught in his wings with such violence that the angel can no longer close them. This storm irresistibly propels him into the future to which his back is turned, while the pile of debris before him grows skyward. This storm is what we would call progress. (257-8) Benjamin’s proposal of nonlinear alternatives to progressive models of history is filtered through messianic rather than environmental time, but Abbey’s oblique reference to Benjamin nonetheless underscores the extent to which Desert Solitaire’s opposition to progress is couched in temporal and historical terms.
progress as the task of “the shallow-minded modern” who, having “lost his rootage in the land,” “assumes that he has already discovered what is important”—namely, “empires, political or economic” (200). Leopold unfavorably compares this shallow and linear figure focused on development with the scholar “who understands why the raw wilderness gives definition and meaning to the human enterprise,” the scholar “who appreciates that all history consists of successive excursions from a single starting-point, to which man returns again and again to organize yet another search for a durable scale of values”—the scholar who, in other words, operates cyclically, rather than linearly; in terms of nature, rather than in terms of progress (200-1).

Both *A Sand County Almanac* and *Desert Solitaire* underscore this critique of progress by dwelling on environmental alternatives. The depth and cyclicality of natural time in particular, described as in stark contrast with the shallowness and linearity of human history, receive considerable attention within each text. Cyclicity, as we have already seen, is central to Abbey’s desired relation to Arches, as in his fantasy of returning “for season after season, year after year, indefinitely.” Leopold, too, positions natural time as cyclical in order to valorize it as an alternative to progress. His interest in the cyclicality of natural history is introduced early on, in the “February” entry of the almanac, subtitled “Good Oak” (6). Contemplating the oak log “aglow on [his] andirons,” Leopold recounts the long history of the tree from which it came (6). On a July night, his family awoke to a crash that they knew meant lightning had struck a
mighty tree; the next day, they set about sawing it into logs, a process that is steeped in a consciousness of natural-historical time through which sawdust can be reimagined as “fragrant little chips of history” (9). Each pull of the saw from the outside of the tree inward takes the family backward in time, through “the chronology of a lifetime, written in concentric annual rings of good oak” (9). Leopold moves in a steady backwards reverie from his family’s time on the farm, drifting through the previous owner’s tenure, the Dust Bowl droughts of the 1930s, the stock market crash and the first inklings of environmental policy in the 1920s, the “drainage dream” efforts of the 1910s to turn Wisconsin marsh into farmland, the storms, fires, conservation efforts, and extinction events of the 1900s and 1890s, the blindly optimistic hunting enthusiasm of the 1870s, and the Civil War of the 1860s (which Leopold characterizes as the attempt to resolve whether “the man-man community [was] lightly to be dismembered” before reminding us that “the same question applies to the man-land community”) (15). Then the saw reaches the midpoint of the tree and “reverses its orientation in history,” cutting forward to the present until the tree topples with a thunderous crash (16).

The February entry serves as a microcosm of how Leopold understands natural history and the shape of natural temporality: the passage visually and rhetorically inserts cyclicality into the very nature of natural history. The invocation of the tree stump as material object—a circle of concentric rings—underwrites the cyclical structure of Leopold’s narration. The recounting of the history inscribed in the oak is lyrical even
as it presents a collection of apparently mundane historical facts—as, for instance, the account of 1883, immortalized as the year in which “Dean W.H. Henry reported that the spring flowers in Madison bloomed 13 days later than average” (13). This steady accumulation of historical data creates a kind of trance, a poetic rhythm, punctuated regularly by the interruptions of the manual labor Leopold is recollecting. “Rest! cries the chief sawyer, and we pause for breath,” invokes Leopold at the turn of each decade (10). Intermittent decades are arranged around repeated invocations:

Now we cut 1910, when a great university president published a book on conservation, a great sawfly epidemic killed millions of tamaracks, a great drouth burned the pineries, and a great dredge drained Horicon Marsh.

We cut 1909, when smelt were first planted in the Great Lakes, and when a wet summer induced the Legislature to cut the forest-fire appropriations.

We cut 1908, a dry year when the forests burned fiercely, and Wisconsin parted with its last cougar.

We cut 1907, when a wandering lynx, looking in the wrong direction for the promised land, ended his career among the farms of Dane County. (11)

Such repetitions—some contained within a sub-section comprising a particular decade, others cohering across the entire passage—create an internal rhythm. They also inscribe cyclicality within Leopold’s image of natural history: the line of history is broken not just by the fact that Leopold moves backward in time, from outer to inner ring, but also by the fact that such regular repetitions rhetorically place each decade in an overlapping relationship to the others. Indeed, like Desert Solitaire, the very form of the first section of A Sand County Almanac—an almanac that collapses the experiences of many years on
the Wisconsin property into “that cycle of beginnings and ceasings which we call a year”—emphasizes the cyclicality of nature: human history may operate in a line, but natural time runs in such slow cycles that many years can be conflated into a single almanac’s record without running the risk of confusing the audience (3). It is precisely this cyclicality, and the stability it produces, which Leopold and Abbey venerate and seek to protect.

The stability of natural cycles is undergirded by the great depths of time across which they operate, and both *A Sand County Almanac* and *Desert Solitaire* suggest that an awareness of the depth of natural history, an ability to “read” the deep history of the landscape and appreciate its sublime temporal expanses, can (or at least should) put a stop to unchecked progress by compelling society to adopt a more conscientious attitude to nature. Leopold and Abbey thus invite the reader to become more conscious of the ancientness of the natural world. Though the conceit of reading the landscape as text runs through *A Sand County Almanac*, this sense of the depth of time becomes particularly pronounced in its second and third sections: “Sketches Here and There,” with essays on various regions (Wisconsin, Illinois and Iowa, Arizona and New Mexico, Chihuahua and Sonora, Oregon and Utah, and Manitoba), and “The Upshot,” which turns away from place-writing to focus explicitly on the ethics and philosophy of the human relationship to land. The essays in “Sketches Here and There” delve into the natural history of each region before arguing that only the awareness of such temporal
depths can instill a proper sense of respect and cautious care for the land, and the “Wisconsin” and “Manitoba” chapters in particular take a geologic bent, with significant excursions into the ancient history of each region. “A sense of time lies thick and heavy” in Wisconsin, Leopold writes; “the cranes stand, as it were, upon the sodden pages of our own history” (96). The ability to become a more attentive reader—to recognize and decipher the deep history written in a landscape—is associated with an enhanced veneration for the nonhuman: “our appreciation of the crane grows with the slow unraveling of earthly history” (96). The crane, like the grebe in the “Manitoba” chapter, is significant precisely because it evokes a depth of time to which the shallow scale of human history cannot compare. Such birds function as “the symbol of our untamable past, of that incredible sweep of millennia which underlies and conditions the daily affairs of birds and men,” and thus serve as emblems, not of “the constricted present,” but of “the wider reaches of evolutionary time,” boasting “a paleontological patent of nobility, won in the march of aeons, and revocable only by shotgun” (96-7).

In invoking deep time, Leopold seeks to contrast the immensity of the evolutionary time necessary for these birds and their habitats to develop with the shocking brevity of the human intervention: the interruption of the “march of eons” by the blast of a gun is meant to be absurd. Leopold was an avid sportsman, and A Sand County Almanac, which includes many a panegyric to the beneficial effects of proper hunting, by no means condemns hunting; it is instead the thoughtless erasure of the
depths of natural history that Leopold criticizes. The conceit of landscape-as-text transforms with this erasure into the threat of the palimpsest, impossible to restore, and Leopold uses this threat to his advantage, summoning a preemptive nostalgia for what might be lost. “For one species to mourn the death of another,” he writes, “to love what was,” is “a new thing under the sun” (110, 112). It is this “new thing” that can set man apart from nature productively, rather than destructively, by instantiating a sense of ecological responsibility that is unknown among nonhuman animals, and it depends on the development of a deep-temporal sensibility and sensitivity.

In its final section, “The Upshot,” these site-specific insights transform into more straightforward claims as Leopold affirms that a proper relation to wilderness instills historical consciousness, just as historical consciousness bolsters commitment to peaceful coexistence with the nonhuman. Cataloging the variety of areas and species that have been adversely affected by the onslaught of human “progress,” Leopold suggests that it is only by contrasting the shallowness of human history with the depth of natural time that one can learn to value the wilderness. Human history paddles in shallow time and conceives of itself in terms of a linear progress narrative; in contrast, natural history swims in deep time, performing the slow and stately “pageant of evolution” in which change is cyclical and, thus, stable (199). Leopold offers two possible futures for the intertwining of the two histories. Humans could continue down the path of short-sighted progress and destroy the deep-historical book of the world in
the process: "Homo sapiens" can continue to “[pour] into his gas tank the stored motivity of countless creatures aspiring through the ages to wiggle their way to pastures new,” sparing nothing more than the occasional nostalgic glance at what has been lost in the process (166). Alternately, humans could learn to adopt the “long view of conservation” and the “historical perspective” necessary for the cultivation of an environmental ethic (199). Leopold’s ambition is clearly that his book will push society toward the latter path. In either case, though, both the problem and the solution are narrated as essentially temporal: the line of human progress is destroying the ancient patterns of natural cycles, and unless a richer and deeper historical imagination is fostered, this disaster will continue unabated.

Echoing the pattern set by Leopold, Abbey’s depictions of environmental time underscore the depth of natural time and invite the reader to become a more careful reader of this primeval environment. Even his introductory chapter, “The First Morning,” a tour of the Utah landscape that narrates Abbey’s first morning as an employee in Arches National Monument, is rife with the language of the primordial and prehistoric. “The arches were formed through hundreds of thousands of years by the weathering of the huge sandstone walls, or fins, in which they are found,” Abbey tells us straightforwardly: “Not the work of a cosmic hand, nor sculptured by sand-bearing winds, as many people prefer to believe, the arches came into being and continue to come into being through the modest wedging of rainwater, melting snow, frost, and ice,
aided by gravity” (5). By drawing attention to the slow and steady nature of geological variation, Abbey invites contemplation of the dizzying depths of time that would allow such graduate change to produce such visually dramatic results. Such upfront references to deep time are supplemented by Abbey’s casual invocation of ancientness when describing his surroundings. Reflecting on his drive to the Park Service trailer the previous night, Abbey narrates the limited view revealed by his headlights, in which “glimpses of weird lumps of pale rock on either side” looked “like petrified elephants, dinosaurs, stone-age hobgoblins” (3). The brief catalog moves haphazardly between different scales of age: the ossified elephant, in which both the animal and the process connote the expanded timeframes of, respectively, life and death, moves backward to the long-extinct dinosaurs that significantly predated humankind before jumping forward again to the prehistoric but relatively recent (no earlier than 6000 BCE) period of the Stone Age. Conflating the varying depths at which deep time can operate, the list both suggests and obscures the precise age of the stones. The result is the conjuring of a timescale that is literally unimaginable, whose imprecision and temporal vacillation only serves to raise an aura of enigmatic awe around the age of the Moab rocks.

Even in setting the scene, then, Abbey uses the language of age to convey the landscape’s alterity and the wonder it subsequently demands of visitors. This technique is continued throughout the book. Most straightforwardly, as in the introduction, it consists of references to the dwarfing of human perceptions of time by the slow, ancient
temporality of the nonhuman. His description of Delicate Arch, “a fragile ring of stone on the far side of a natural amphitheatre,” provokes an extended meditation on just this subject: “to judge from the quietude of the place, the sense of waiting that seems to hover in the air,” Abbey writes, “nothing has happened for a thousand years” (36). Of course, ten centuries is trivial in comparison to the history of Delicate Arch, “a weird, lovely fantastic object out of nature” that “has the curious ability to remind us—like rock and sunlight and wind and wilderness—that out there is a different world, older and greater and deeper by far than ours, a world which surrounds and sustains the little world of men as sea and sky surround and sustain a ship” (37).

This interest in the expanded timeframe of the geologic is woven throughout the narrative: in the natural world, unfettered by human buildings and presence, Abbey feels himself “invited to contemplate a far larger world, one which extends into a past and into a future without any limits known to the human kind” (97). In this “larger world,” temporal processes occur on a vastly expanded scale which Abbey consistently describes in purposefully vague terms, as in, for instance, his contemplation of the various shapes that sandstone can take, given only “the necessary conditions and as Thoreau says, a liberal allowance of time—let us say, about five thousand years? Fifty thousand? Five hundred thousand? Choose whatever sum you like” (181). As in the introduction, this restless movement among approximations of age and refusal to settle on a single temporal marker suggests a span of time that is so immense as to be
ineffable, a temporal limitlessness that Abbey invokes throughout *Desert Solitaire* as he seeks to underscore the vastness of the history that is encoded in the rocks.

As with Leopold, Abbey sets this vastness of natural time against the shallowness of human history, repeatedly pondering the startling fact that entire human epochs may occur while nothing changes among the rocks. “One of these days,” Abbey muses while driving past Balanced Rock, “that rock is going to fall—in ten, fifty, or five hundred years” (30). The incongruence between his casual phrase of immanent expectation—“one of these days”—and the revelation of the centuries that could occur before this anticipation will be satisfied is jarring, speaking to a disjunction between the short-term scale of human causality and the immensity of geologic time. Near the end of Abbey’s long narrative chapter, “Down the River,” he returns to the same preoccupation: “men come and go, cities rise and fall, whole civilizations appear and disappear,” but “the earth remains, slightly modified” (194).

It is this closing phrase—“slightly modified”—that signals the purpose to which Abbey so determinedly references the ancient in his descriptions of the landscape. Only by contrasting the depth of natural history with the ephemerality of human history can Abbey dramatize the erasure of the former by the latter. The human destruction of wilderness is brought into relief by pitting the immense stores of natural time it took for Arches National Monument to come into being against the brevity, the shallowness, of the human civilization that now threatens to modify it irreversibly. The aim of Abbey’s
book is to lament the human influence on Arches National Monument; his political project is to defend wilderness spaces against the dually demonized entities of “Progress” and “Industrial Tourism,” resisting the trend of developing national parks until they become easily accessible to casual visitors—a position which places Abbey somewhere between the “conservation” movement, with its interest in protecting natural spaces for human recreational or resource use, and the “preservation” movement, with its emphasis on preserving natural spaces in a pristine state, unchanged by human contact (45). Unlike Leopold, Abbey’s interest lies not so much in the animals that inhabit Moab; indeed, a few brief references to reptiles, amphibians, and insects notwithstanding, he does not make a habit of cataloguing the life he encounters in the desert. His major concern, and thus the major recipient of the text’s rhetorical claims of great age, is simply the rock formations themselves, whose integrity will inevitably be disturbed by the incursion of human roads, vehicles, and masses.

Such integrity is significant not only on its own merits, but also because, as Abbey has worked so hard to underscore, the lack of human interference signals a primordial quality that is impossible to find in human civilization. This encounter with the ancient constitutes a profound experience, as narrated in the “Down the River” chapter that dominates the middle section of the book. As Abbey and his companion in adventure, Ralph Newcomb, set off, Abbey finds himself a time traveler of sorts. First, drifting down the river, he experiences “something dreamlike and remembered, that
sensation called *déjà vu,*” puzzling over its provenance before “discover[ing] the beginning”: “I am fulfilling at last a dream of childhood,” he writes, “and one as powerful as the erotic dreams of adolescence—floating down the river” (154). This movement toward childhood quickly balloons into an even more expansive journey: “Cutting the bloody cord, that’s what we feel, the delirious exhilaration of independence, a rebirth backward in time and into primeval liberty, into freedom in the most simple, literal, primitive meaning of the word, the only meaning that really counts” (155). Ontogeny seems to recapitulate phylogeny in reverse in this regression: the river is not only the individual’s childhood fantasy, but also the passport to deep species-memory, to the prehistoric connection to nature which the ravages of modernity and progress have severed. “Wilderness invokes nostalgia,” Abbey writes, “a justified not merely sentimental nostalgia for the lost America our forefathers knew” (167). This nostalgia explains the value of wilderness, which “suggests the past and the unknown, the womb of earth from which we all emerged,” indicating “something lost and something still present, something remote and at the same time intimate, something buried within our blood and nerves, something beyond us and without limit” (167). It is precisely the quality of ancientness in the landscape that provokes this experience; to alter a wilderness space is to erase not only the archive of natural history, but also the possibility of such a revelation. These are the dual threats of progress: the unwavering
linearity of development cuts the cyclical stability of the nonhuman and destroys the possibility of a rejuvenating atavism for the human.

The temporal configuration that Desert Solitaire and Sand County Almanac associate with nonhuman history thus moves cyclically, gradually, in deep time, out of sync with the rapid and relentless line of progress that threatens to destroy ancient and cyclical forms of natural temporality. It is through such historical syncopation, through the specific temporality associated with the nonhuman, that American conservationist nature writing challenges modernity, as slow, deep, and cyclical temporality are invoked as reproaches to the rapid, shallow, and linear movement of human progress. Yet as much as A Sand County Almanac and Desert Solitaire praise and value the time of nature and seek to bring it into the human fold, progress is for both texts an unstoppable force. Within these texts, progress is not ultimately affected by, but rather affects other forms of time, threatening to destroy Leopold’s book of nature and Abbey’s archive of natural history irrevocably, with no room for resistance. Conservation requires the elegiac mode, which in turn requires a depiction of those natural spaces it seeks to protect as being incapable of striking back. Cycles and depths of natural time are thus rendered as not only utterly vulnerable to, but also as utterly separate from, human history: to dramatize that which should be saved and the danger from which such rescue is necessary, conservation must depict natural and human history as opposites, as enemies.
Though both adopt the conservationist standpoint in which human and natural history are opposed, Abbey and Leopold claim two differing ways of narrating the particularities of this opposition. Abbey frames it as an elegy for the nonhuman, a confrontation in which an unmoored progress threatens to destroy the natural world. This position is stated plainly in the foreword to *Desert Solitaire*, which places the book somewhere between advocacy and requiem: “most of what I write about in this book is already gone or going under fast,” he writes. “This is not a travel guide but an elegy. A memorial. You’re holding a tombstone in your hand. A bloody rock. Don’t drop it on your foot—throw it at something big and glassy. What do you have to lose?” (xiv).

In keeping with this separation, Abbey’s natural cycles and deep time do not threaten to destabilize the progress narrative from within; instead, even when they seem to intertwine with human experience, they function as a *retreat* from human history, a respite rather than a symbiotic complication. In other words, any actual interaction between natural and human history occurs not by way of a synthesis or an unveiling of actual affinity, but rather as an encounter of two previously distinct temporal forms. Abbey’s reveries on the river, and indeed his seasons at Arches, are framed as temporary breaks from civilization; his advocacy for their importance rests on the classic conservationist claim that one must remove oneself from the human world in order to

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9 Abbey was in fact correct; in 1971, three years after the publication of *Desert Solitaire*, the boundaries of Arches National Monument were radically shrunk and the remaining area was reclassified as a National Park.
regain one’s vitality before returning to it, rejuvenated. The force of natural time to which he pays homage comes not so much from the recognition of deep connections, but rather from the recognition of deep difference: natural time operates outside human history; when it enters human experience, it does so by appealing to a sense of wonder at the foreignness of nature and/or to a sense of guilt at its destruction. Thus Abbey’s particular environmental critique of the progress narrative proceeds not by characterizing progress as inadequate or faulty, but instead by mourning the losses it creates outside of the bounds of human history. This position of grief actually reinforces the boundary between natural and human history by suggesting that their relationship is necessarily and essentially one of conflict that will eventually end with the domination of one over the other.

To some extent, Leopold also follows this line of critique: his repeated invocation of the palimpsest, the threat that the book of nature will eventually see all of its pages erased, places him in the elegiac mode as well. Yet A Sand County Almanac contains both this model of the total erasure of natural by human history and its converse: the absorption of human into natural history. This historical model of absorption, as we have seen, is epitomized in Leopold’s invocation of the scholar “who appreciates that all history consists of successive excursions from a single starting-point, to which man returns again and again to organize yet another search for a durable scale of values”: this model of history reduces all linearity to the status of fiction, a façade masking the
true form of natural cyclicality that structures even human life. Indeed, Leopold’s desire to call the linearity, and thus the unnaturalness, of human history into question surfaces throughout the text: he muses, for instance, that since “animal populations have behavior patterns of which the individual animal is unaware, but which he nonetheless helps to execute,” we must ask the “disquieting question” of whether “human populations have behavior patterns of which we are unaware, but which we help to execute” (186). This critique of the claim to human exceptionalism is couched in the language of the cycle: the fact that “the rabbit is unaware of cycles” does not mean that he is not “the vehicle for cycles,” with the same presumably holding true for humankind: “mobs and wars, unrests, and revolutions,” may well be “cut of such cloth” (186).

Both Abbey and Leopold thus map the contact between natural and human history as a confrontation in which one version of history will eventually triumph over the other. Despite some internal variation on the question of whether natural history will eclipse human or vice versa, the histories are framed as a duality: they do not interact, but rather conflict. The trouble with these narratives of historical collapse is that they involve the erasure not only of histories, but also of spheres of ethical concern. If natural history falls to human history, then nonhuman nature is obliterated and all of its rights

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10 Abbey also offers one brief instance of this reversal of the relationship of domination: “No matter, it’s of slight importance,” he says of the onslaught of progress; “Time and the winds will sooner or later bury the Seven Cities of Cibola” (127).
are stripped. If, on the other hand, human history is revealed to be reducible to natural history, then history becomes a nonagential series of natural cycles and specifically human questions of justice and intraspecies inequality become irrelevant. Either way, overly simplistic models of conflict between natural and human history risk characterizing violence, whether against humans or against nonhumans, as inevitable. The conservationist mode of negotiating human and natural history requires this simplicity, and uses this sense of inevitability to evoke an ethical response of guilt and preemptive nostalgia for what will be lost unless immediate action is taken.

There are, it should be noted, moments in Leopold’s text in particular that offer more nuanced and complex accounts of the natural-human history interface—moments of alternative historical mapping in which the two histories are revealed as messily intertwined. A sympathetic reading would suggest that Leopold’s early invocation of the tree and his conception of the “land ethic” and its “biotic community” argue for an integration of natural and human history, as well as of natural and human subjects deserving justice and fair treatment. In his conclusion to the oak episode in the February chapter of the almanac, Leopold reminds us that “there is an allegory for historians in the diverse functions of saw, wedge, and ax”: all of these tools “are requisite to good oak, and to good history” (16, 17). The linear saw, which “works only across the years, which it must deal with one by one, in sequence,” the comparative wedge, which “yields a collective view of all the years at once,” the selective axe, which “lops limbs” free from
“the peripheral rings of the recent past”: all correspond to ways of arranging or understanding history, and all, Leopold suggests, are not only possible but powerful (16-17). Preceded by the authorial axe, Leopold’s own historical narrative functions both as the saw and as the wedge, simultaneously offering a linear (if inverted) historical account and a coherent cross-section in which events can be read against one another, out of order, backwards and forwards. By accentuating the myriad ways in which history can be written, or, in this case, read from the tree-as-text, Leopold opens up the possibility of a not-necessarily-linear account of natural (and, perhaps, human) history. If his choice of historical object (the cyclical tree, cut by the saw) invokes the interaction of two distinct models of temporality—the cycles of natural time, and the teleological line of human history, which cuts into the former in the name of progress—his coda on the importance of multiple historical imaginaries offers an example of nondualistic temporal negotiation. This negotiation culminates in his formulation of the “biotic community” in “The Land Ethic,” which appears in the third section of A Sand County Almanac (201). Here, Leopold argues for an “extension of ethics” to the nonhuman environment as part of a progressive development of ethical obligation—a development that draws from both linear concepts of teleology and cyclical concepts of stability in order to construct carefully interwoven historical and ethical systems that connect human and nonhuman without collapsing one into the other (202). Such moments offer valuable insights into the work that can be done by more sensitive conceptions of the
relationship between human and nonhuman history. In so doing, they also serve as a stark contrast to the conservationist perspective displayed elsewhere in Leopold, and in Abbey: the perspective in which the cordoning off of untouched nature requires a dramatization of two distinct forms of history that cannot coexist, but must struggle for domination.

1.3 Historical Incommensurability in Pilgrim at Tinker Creek

In contrast to A Sand County Almanac and Desert Solitaire, Dillard’s Pilgrim at Tinker Creek has no specific advocacy commitments. Dillard owes less to conservationism than to Transcendentalism: indeed, Pilgrim at Tinker Creek has often been compared to Thoreau’s Walden (on which Dillard wrote her master’s thesis at Hollins College) not only due to Dillard’s intricate prose and precise yet wandering structure, but also for her deep veneration for the power of nature to transform and expand human consciousness. In other words, rather than serving as a manifesto for any particular form of ecological politics, Pilgrim at Tinker Creek makes contemporary the Transcendentalist injunction to find spiritual truth in nature; it seeks less to encourage particular actions toward nature than to encourage particular attitudes toward nature. Whereas Leopold and Abbey saw an awareness of natural temporality as the first step in a causal chain leading from ecological awareness to ecological action, Dillard sees an awareness of natural temporality and the ecological awareness it contains as an end in itself.
Accordingly, while she makes similar references to natural time as slow, deep, and cyclical, the way that Dillard narrates the relationship between natural and human history is based in a model of neither extermination (the erasure of natural by human history) nor collapse (the reduction of human to natural history), but rather incommensurability. Seeking not to dramatize any ecological dangers, but simply to illuminate the possibility of becoming enchanted by the nonhuman world, Dillard’s sense of awed wonder leads her to a description of natural history as so radically other that it cannot be imagined alongside human history. Natural time’s vastness and complexity eludes her control: it is this elusion that structures both her respect for it and her ultimate inability to conceptualize its actual relationship to human timescales and concerns.

An early encounter with a curiously knotted snakeskin indicates the pattern of distant wonder that will characterize all of Dillard’s temporal musings. “Yesterday I set out to catch the new season,” she begins, “and instead I found an old snakeskin” (74). The sentence suggests an opposition between the snakeskin and the temporal boundary-point that Dillard has set out to pursue. Quickly realizing that the skin is “whole and tied in a knot,” she puzzles over how it could have come to form such a perfect circle, how the snake could have formed itself into “a loop without beginning or end,” “continuous” (75). After some moments of contemplation, she realizes the way the skin must have caught on itself during the process of shedding to form the appearance of a
knot, and quickly returns to the original purpose of the walk—to mark the temporal bounds of natural change, the moment when one season transitions into the next. Yet this contemplation of natural time as a process of stark, observable transition is swiftly re-interrupted—this time, not by the snakeskin itself, but by the revelation of cyclical that the skin introduced. “I have been thinking about the change of seasons,” she writes:

I don’t want to miss spring this year. I want to distinguish the last winter frost from the out-of-season one, the frost of spring. I want to be there on the spot the moment the grass turns green. I always miss this radical revolution; I see it the next day from the window, the yard so suddenly green and lush I could envy Nebuchadnezzar down on all fours eating grass. This year I want to stick a net into time and say “now,” as men plant flags on the ice and snow and say “here.” But it occurred to me that I could no more catch spring by the tail than I could untie the apparent knot in the snakeskin: there are no edges to grasp. Both are continuous loops. (75)

The snakeskin serves the same purpose for Dillard as the oak tree did for Leopold: both are natural objects whose literal and tactile circularity enables a shift from linear (human) to cyclical (natural) time. In Dillard’s case, this cyclical orients itself as a rebuke of her desire to mark sharp changes in her environment—a desire that distinguishes her from the “first man on earth,” whom she imagines as failing to note “the regular recurrence of the seasons,” as living “in open-ended time broken only by days and nights” (76). It is the urge to avoid this pre-historic state, this urge to divide and mark time, which motivates the walk that occasions this episode: Dillard wants to be present at the exact moment one season slips into the next, to master by comprehension
a transitional moment of natural time, to integrate her own human consciousness of events within broader natural systems.

The snakeskin thus not only interrupts the walk, but stymies the goal of the walk as well. Its endless cyclicality frustrates Dillard’s attempt to find an end-point, a demarcation. “Idly” pulling the skin through her hands in search of its beginning, she enters a kind of trance: “I came to with a start when I realized I must have turned the thing around fully ten times” (74). The cycle renders the starting point inaccessible; if the snakeskin has no beginning, it is because the cycle of natural time cannot be accurately divided and made to behave predictably. “I don’t want the same season twice in a row,” Dillard reflects; “I don’t want to know I’m getting last week’s weather, used weather, weather broadcast up and down the coast, old-hat weather” (76). Full of serpentine wisdom, she recognizes this to be an impossible desire, for “there’s always unseasonable weather,” and “there is a bit of every season in each season” (76). The literal circle of the snake whose beginning cannot be found occasions a recognition of the “chancy, jumbled affair” that characterizes the cycle of natural time, whose capacity for proliferation, for endless variety, exceeds the human passion for temporal demarcation and simplicity (77). The knot can never be untied. “Time is the continuous loop, the snakeskin with scales endlessly overlapping without beginning or end,” Dillard writes, “or time is an ascending spiral if you will, like a child’s toy Slinky” (77). By coming to see natural time as a cycle, Dillard accepts the frustration of her own desire to simplify and master it: “Of
course we have no idea which arc on the loop is our time, let alone where the loop itself is, so to speak,” she writes, “or down whose lofty flight of stairs the Slinky so uncannily walks” (77). Nonhuman nature and divinity both function as “continuous loops,” embodied in the snake that, in thwarting Dillard’s attempt to find its beginning and its end, gives shape to the imagination of a temporal structure sublime in its vast cyclicality (77).

After her initial encounter with the snakeskin, Dillard’s pursuit of an entry point into natural time is continually described as interrupted by and incommensurable with her experience of human time. “I’m in the market for some present tense,” Dillard writes; the trouble is that self-consciousness “hinder[s] the experience of the present,” thrusting that human quality of self into the flow of natural time until it “ceases … dams, stills, stagnates” (86, 82). The human experience of self shatters temporality, stripping its rich and dynamic possibilities down until self-consciousness eclipses consciousness of the natural world. *Pilgrim at Tinker Creek* confronts this obstacle by adopting an expanded sense of temporality that operates in multiple directions and at multiple speeds. The expansion begins with the trees, Dillard’s proclaimed favorite of the “many created things in the universe that outlive us,” which let her access the deep past; under the branches of the sycamores, “the past inserts a finger into a slit in the skin of the present, and pulls” (88). The sensory reality of the tree—its shade, its scent, its texture—grounds Dillard in the present-ness of all of the members of its ecosystem. “I
might as well include these creatures in this moment, as best I can,” Dillard reflects, for “admitting them, one by one, into my consciousness might heighten mine” (95).

Attempting to enact this erasure of self from consciousness, Dillard drifts from trees to insects to groundwater, pausing at each new encounter to marvel at the unique temporal scale and speed of its existence. The trees grow from the deep past, dwarfing the relatively puny human lifespan. The cicadas cycle through rhythms of thirteen to seventeen years: “They curl, crawl, clutch at roots and suck, suck blinded, suck trees, rain or shine, heat or frost, year after groping year,” Dillard muses. “What would I think about for thirteen years?” (98). Water scrambles in slow-motion deep underground, “seeps and slides, across and down, across and down, leaking from here to there minutely, at the rate of a mile a year” (98). Replete with the distinct yet connected temporal scales of the tree’s ecosystem, Dillard’s temporal imaginaries expand to the geological and cosmological, encompassing the mountains which erode “one thousandth of an inch a year,” the spring which “is seeping north … at sixteen miles a day,” the galaxy that “is careening in a slow, muffled widening” at rate so unfathomable it is not named (99, 98). As her consciousness wanders to such disparate yet overlapping systems of space, speed, and time, Dillard achieves the un-self-conscious present—not by losing time and entering a timeless eternity, but by gaining the myriad forms of temporal experience that are occurring simultaneously in the nonhuman world, and by
paying particular attention to those temporal experiences that move so slowly as to elude human perception.

In these encounters with cyclical and slow time, Dillard has faced relatively minimal challenges to her human affiliations and affections: only the fleeting frustration that one cannot mark natural time and the temporary suspension of self-consciousness. As the book progresses, however, and Dillard begins to put cyclical and slow time in conversation with deep time, she is faced with the much more troubling dilemma of reconciling human ethics and sympathies with the imperturbable neutrality of the ancient natural world. Her encounter with this dilemma marks the book’s transition between its two major modes: the via positiva, the Christian tradition of actively seeking God through pursuing good, which structures the first half of Pilgrim at Tinker Creek, and the via negativa, the converse Christian tradition of seeking God by denying everything else—a theologically informed version of Timothy Morton’s “dark ecology,” one might say—which structures the second half of the book (Ecology Without Nature 181-188).11 The chapters titled “Intricacy” and “The Flood” thus take a darker turn than earlier sections, beginning to dwell on death and finitude in order to set the stage for a total immersion into the via negativa in the subsequent chapter, “Fecundity.” “Intricacy” gestures toward

11 Dillard elaborates on the parameters of this structural shift in a 1981 interview with Karla Hammond that appeared in the Bennington Review.
this growing preoccupation with death and the potential insignificance of human life by exploring the depth of natural time in two long, almost cinematic episodes.

The first of these episodes comes in the form of a dream in which time is made spatial, echoing the image of the snakeskin as model of temporality. In this dream, Dillard looks down from the sky and sees “a long, curved band of color” that “stretched endlessly in either direction,” a sort of “limitless” scarf: she is now dead, she realizes, and “seeing the time of the planet” where she once lived (142). Time becomes abstracted into “dots of color,” with “no end to the deepness and variety of the dots,” and no way to find the particular dot of one’s own time (142). Yet the sheer multiplicity of the dots, woven as they are into this ever-regenerating, “never-ending cloth,” opens a space from which Dillard is suddenly able to envision the lives of individual humans as part of a cyclical pattern of species-survival: “as I looked at the band of time,” she recalls, “all the individual people, I understood with great clarity, were living at that very moment with great emotion, in intricate detail, in their individual times and places, and they were dying and being replaced by ever more people, one by one, like stitches in which whole worlds of feeling and energy were wrapped” (142). Deep time expands the seasonal cyclicality that was embodied by the snake into an infinite loop of constancy that takes the sting even from individual deaths; it is the fusion of these two modes of natural temporality—ancient time and cyclical time—that enables this moment of transcendence. Yet such temporal transcendence comes at a cost: the value of individual
lives, their intense pleasures and pains, is minimized. Is it possible to care about human life at this scale? Is it possible to care about injustice?

Shortly after this dream episode, deep time is again harnessed to re-imagine an earlier temporal episode: namely, the experience of an expanded present, replete with myriad natural processes moving at various speeds. As she extends this multiplicity of natural speeds into deep time, Dillard borrows a fantasy from Elizabethan scholar John Dee that will, like her dream, visualize and mediate the depths of time: “You shoot a mirror up into space so that it is traveling faster than the speed of light (there’s the rub),” she writes; “Then you can look in the mirror and watch all the earth’s previous history unfolding as on a movie screen” (143). Such a mirror, Dillard muses, would produce “a time-lapse film of our planet,” a cinematic project she promptly begins to imagine (144). As this literary film begins, “The beginning is swaddled with mists, blasted by random blinding flashes. Lava pours and cools; seas boil and flood” (144). The time-lapse takes us through geological transformations—“mountains burst up, jutting, and dull and soften before your eyes”—and multiple ice ages before Dillard as director takes over (144). “Slow the film” and “zero in,” she instructs, and we can begin to see the age of man, the advent of fire, agriculture, and urbanization, cities appearing and disappearing as epochs rise and fall (145). Even at this relatively sedate pace, “those great human figures of history … are a wavering blur whose split second in the light was too brief an
exposure to yield any image but the hunched, shadowless figures of ghosts” (145).12

Again, Dillard is left unable to integrate human history and its concerns into the broader span of deep natural time.

This inability to make human and natural history commensurable is a problem of which Dillard is keenly aware. Indeed, she begins the via negativa section with a straightforward reckoning with this dilemma. When she “added the dimension of time to the landscape of the world,” she writes, she became aware of the incommensurability of natural and human values (179-80). “Fecundity,” the “teeming evidence that birth and growth, which we value, are ubiquitous and blind, that life itself is so astonishingly cheap, that nature is as careless as it is bountiful, and that with extravagance goes a crushing waste that will one day include our own cheap lives,” makes it impossible to reconcile human and natural systems of value, makes nature itself “an assault on human

12 The episode is similar to Carl Sagan’s musings, some twenty years later, on the “Pale Blue Dot” photograph taken by Voyager 1 in 1990, which revealed Earth as a miniscule dot in an empty sea of space. “Look again at that dot,” Sagan instructed:
   That’s here. That’s home. That’s us. On it everyone you love, everyone you know, everyone you ever heard of, every human being who ever was, lived out their lives. The aggregate of our joy and suffering, thousands of confident religions, ideologies, and economic doctrines, every hunter and forager, every hero and coward, every creator and destroyer of civilization, every king and peasant, every young couple in love, every mother and father, hopeful child, inventor and explorer, every teacher of morals, every corrupt politician, every “superstar,” every “supreme leader,” every saint and sinner in the history of our species lived there—on a mote of dust suspended in a sunbeam. (6)

Sagan’s technology and his imaginary are both spatial, a re-contextualization of Earth from a vast distance, drowned by the emptiness of deep space. Dillard, on the other hand, is interested in deep time: the temporal depth of this time-lapse film allows for a radical imaginative expansion. Both Sagan and Dillard are confronting the problem of scale: can one still be invested in human history, in human politics, in individual human lives and deaths, from the vastness of deep space or deep time? Sagan ultimately uses his interest in cosmic scales of space to argue for the safe preservation of the human species via continued space exploration in order to find new possible planetary homes. Dillard, by contrast, seems to see this scale as an irreconcilable problem for the human imagination.
values” (162, 164). “Evolution loves death more than it loves you or me,” Dillard writes (176). “This is easy to write, easy to read, and hard to believe. The words are simple, the concept clear—but you don’t believe it, do you? Nor do I. How could I, when we’re both so lovable? Are my values then so diametrically opposed to those that nature preserves?” (176). This last question is, for Dillard, “the key point,” and she answers it affirmatively: “We value the individual supremely, and nature values him not a whit” (176). The ethical confrontation leaves Dillard “paralyzed” (176): “Either this world, my mother, is a monster, or I myself am a monster,” she writes, and “of the two ridiculous alternatives,” she “rather favor[s] the second (177, 178). She is left uncertain of how to proceed: can human values and a consciousness of nature coexist? Must one abandon human morality in order to truly inhabit “an amoral world” (178)? Dillard leaves the question unanswered. The paradox—which only became visible when she let herself imagine deep time—is too great to reconcile.

Dillard’s efforts to comprehend the alienness of natural history thus alienate her from human history. Her sense of the impossibility of interweaving the two forms of history makes it impossible for her to imagine interweaving natural and human ethics. *Pilgrim at Tinker Creek*’s negotiation of the relationship of natural and human history indicates that the two are incommensurable; this, in turn, leads Dillard to the conclusion that natural history and social ethics are fundamentally incompatible. Yet even as she pronounces the integrationist experiment a failure, her self-conscious awareness of her
own methods opens up a promising possibility: if it is her particular imagination of natural time that leads to this failure, then might a different temporal imagination not find greater success?

1.4 Silent Spring and the Synthesis of Human and Environmental Time

Carson’s Silent Spring serves as a response to this question. Carefully narrating not only the distinctions but also the connections between human and natural history, Silent Spring suggests that the two forms of history are deeply intertwined, and that an environmental ethics that operates across human and nonhuman temporal scales (and, therefore, encompasses both humans and nonhumans) is a necessity. The task to which Silent Spring sets itself, then, is the narrative instigation of a flexible temporal sensibility in its readers, a sensibility that includes a recognition of cyclical, deep, and slow time: the ability to see the contemporary damage inflicted on long-stable natural cycles; the capacity to recognize the slow time that unites apparently disparate causes and effects; and the willingness to think not only about the persistence of environmental damage, but also about the slow speeds and expanded timescales necessary for this damage to become visible in the first place.

What is striking about Carson’s text, and what distinguishes it from the other works of environmental nonfiction examined in this chapter, is that Carson invites the reader to see natural time as operating in the human world and vice versa without suggesting that one model of history must supersede the other. Her passionate
exposition of the ravages caused by industrially produced chemicals has been credited with marking a transformation in the environmental movement: in catalyzing antitoxics activism, it ushered in the transition from conservation and preservation to a contemporary environmentalism, focused less on preserving pristine nature and more on recognizing, revering, and regulating the myriad connections between man and nature. Key to this exposition is an attention to causality and temporality, to the slow-acting and thus often invisible dangers of commonly used chemicals. Nixon has called these dangers “slow violence”; the term is apt, for it suggests the extent to which Carson’s advocacy project is rooted in the creation of a new temporal imagination—one that recognizes the distinct nature of slow, deep, cyclical natural temporality while still being able to track the messy and material ways in which natural and human history interact in human body and in the nonhuman landscape.13

To some extent, *Silent Spring* partakes of the traditional use of natural time as a straightforward critique of human history: like Leopold, Abbey, and Dillard, Carson invokes cyclicality and deep time in order to juxtapose the profundity and stability of natural history with the dire linearity and rapidity with which human history moves. In

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13 *Silent Spring*, Nixon writes, “exhorted an America awash with paranoia to take charge of its fears by changing the way it lived in the short term to reduce long-term catastrophic risk”; Carson’s “extended view of risk’s time frame” and attention to “forms of oblique, slow-acting violence” allow her to “strike a complex temporal note, through blended elegy and apocalypse, lamentation and premonition, inducing in us a double gaze backward in time to loss and forward to yet unrealized threats” that “restages environmental time” (xi, 10, 64). Such an attention to the temporal components of environmental critique is rare, even in regards to a writer like Carson who was so clearly concerned with the *longue durée* environmental imagination.
the striking opening chapter, “A Fable for Tomorrow,” this profundity is introduced as
stability through the image of the cycle. The imaginary town that suffers a composite of
ecological catastrophes in fairy-tale diction is described as having experienced a stable
cyclicality prior to the advent of chemical culture: “in spring, white clouds of bloom
drifted above the green fields,” Carson writes; “in autumn, oak and maple and birch set
up a blaze of color that flamed and flickered across a backdrop of pines … 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 above the snow” (1-2). These
indefinitely invoked seasons have repeated invariantly as far back as memory extends—
until, that is, the “strange blight,” the “evil spell” cast by chemical pesticides “crept over
the area and everything began to change” (2).

The rhetoric of cyclicality emphasizes the interruptive rapidity of human
influence against the backdrop of a stable nature—a stability that Carson quickly
contextualizes with the language of deep time. “Time is the essential ingredient,” she
writes; “but in the modern world, there is no time” (6). The acceleration of human
progress has put a dire pressure on the workings of natural history: “it took hundreds of
millions of years to produce the life that now inhabits the earth—eons of time in which
that developing and evolving and diversifying life reached a state of adjustment and
balance with its surroundings” (6). In contrast to “the whole span of earthly time” and
the state of affairs before the entrance of modern human civilization, “the opposite
effect, in which life actually modifies its surroundings, has been relatively slight”—for “only within the moment of time represented by the present species has one species—man—acquired significant power to alter the nature of his world” (5). As we have seen before, Carson suggests that the present moment of “progress” is likely to destroy the natural archive that has been produced along a geologic timescale. “The scale of time that is nature’s” has been destabilized by the hasty incursions of a too-quick modernity that threatens to destroy “age-old” patterns of animal behavior, to mar the cellular structures that took a “thousand million years” to develop, to irrevocably damage the genetic code that “has come down to us through some two billion years of evolution and selection of living protoplasm” and should rightfully be understood as “a possession that is ours for the moment only” (7, 130, 211, 216). This rhetoric borrows the conservationist tactic of dramatizing the differences between human and natural history in order to portray the two as enemies. As we saw in both Leopold and Abbey, the strategy is useful for environmental advocacy insofar as it produces a sense of urgency: act now, it suggests, or the unique entity that is natural history will be gone forever.

Yet to explain how this temporal contraction, this dangerous acceleration, could have gone so unchecked and unnoticed, Carson must make legible a different temporal dilemma: the phenomenological slowness with which these historically rapid changes actually occur. Although the cumulative effects of the chemical disasters Carson narrates were catastrophic and escalating, the disasters themselves took place slowly: toxic
substances moved haltingly through the environment and through human bodies and often lay dormant for long periods of time before making themselves known in ways that were themselves sometimes slow and cumulative. In other words, the temporal distance between first cause and final effect was so great as to temper public perceptions of the risk and encourage reckless actions. It is in her invocation of slow time that Carson begins to offer a less oppositional model of the relationship between human and natural history. In tracking the slowness with which natural processes occur, Carson interweaves human and nonhuman timescales and attends to damage done to both humans and nonhumans. Her argument for the importance of our perception of slow time is also an argument that we must learn to think about slow time even as we shape human history: if we do affect ecological relationships, in other words, “we should do so thoughtfully, with full awareness that what we do may have consequences remote in time and place” (64).

The temporal remoteness, or slowness, of these consequences takes two forms in *Silent Spring*: as delayed causality, in which effects are temporally distant from causes, and as cumulative causality, in which long series of small causal events appear to suddenly cause perceptible effects. In operating on both human and nonhuman bodies, these two forms of slow time work to remind the reader that humans are never as removed from natural history as they think they are. As she narrates the workings of slow environmental time, Carson consistently emphasizes the ways in which humans
are embedded in natural history. In her blunt factual treatment of the dormancy periods of toxins, for instance, she moves fluidly among humans, nonhuman animals, plants, and ecosystems, materially connecting all of them under the rubric of vulnerability to the strange intersection of human and natural history produced by environmental chemicals: just as she comments that the “long persistence” of soil-applied insecticides “is measured not in months but in years” and relates anecdotes of livestock having died of heptachlor exposure as much as “five months since the poison had been applied” to the relevant fields, she meditates on the long latency period of most human cancers (57-8, 169). “Most malignancies develop so slowly that they may require a considerable segment of the victim’s life to reach the stage of showing clinical symptoms,” she writes:

In the early 1920’s women who painted luminous figures on watch dials swallowed minute amounts of radium by touching the brushes to their lips; in some of these women bone cancers developed after a lapse of 15 or more years. A period of 15 to 30 years or even more has been demonstrated for some cancers caused by occupational exposures to chemical carcinogens. (226)

The passage is made all the more haunting by the fact that, by 1962, Carson knew she was writing against time: she had been receiving cancer treatment since a 1960 mastectomy, though she refused to publicly reveal this before her death in 1964. Indeed, much of what Carson describes as “the human price” is paid in the form of fatal cancers that take so long to develop that the original exposure is often almost forgotten (187).

In her exposition of the way these slow forms of environmental violence—delayed poisoning, slow-growing malignancies, and cumulative exposure—act on the
human body, Carson repeatedly turns to natural metaphors. She suggests, for instance, that, due to the relatively recent provenance of DDT and other pesticides, “the full maturing of whatever seeds of malignancy have been sown by these chemicals is yet to come” (226). The metaphor transforms the human body into a field, subject to the slow cycles of botanical growth. In offering up the human body itself as a possible site of natural history, Carson blurs the boundaries between natural and human time. Even humans are vulnerable to the slow, deep cycles of natural causality; likewise, even natural causality is vulnerable to invasion by human technologies. Such biological metaphors are joined by geologic references that invite the reader to imagine humans coming into contact with an even greater extension of natural history. In the case of delayed poisoning by dieldrin, for instance, Carson writes, “there is every indication of long storage in the human body, where deposits may lie dormant like a slumbering volcano, only to flare up in periods of physiological stress when the body draws upon its fat reserves” (25).

This particular geologic metaphor can also be read as a variation on Carson’s technique of animating the hazardous chemicals about which she writes, describing them as dynamic forces in order to infuse their dormancy with an aura of the sinister and transform the delayed consequences of exposure into an almost-agential act of lying in wait. The description of toxic chemicals and dangerous malignancies as “slumbering” appears throughout the text, moving from geological metaphors (as in the volcano) to
more directly animate ones. Discussing chlordane exposure, Carson writes, “The fact that the suburbanite is not instantly stricken has little meaning, for the toxins may sleep long in his body, to become manifest months or years later in an obscure disorder almost impossible to trace to its origins” (24). Likewise, she suggests that chemical exposure “may be creating sleeping cancer cells, cells in which an irreversible malignancy will slumber long and undetected until finally—it’s cause long forgotten and even unsuspected—it flares into the open as recognizable cancer” (233). This animating language of toxins as sleeping enemies transforms the period of dormancy, which threatens to experientially unhook effect from cause, into a harbinger of the pesticide’s threat—transforms, in other words, the slow time of nature into a framework against which to understand the rapidly encroaching danger of chemical culture.

These geological metaphors structure a climactic moment in Carson’s text. Turning near the end of *Silent Spring* to the problem of cumulative toxicity, in which the cause itself is not a single event of exposure, but rather an incremental series of exposures that become dangerous only when experienced collectively, Carson again uses a geological metaphor to emphasize her point. “The contamination of our world is not alone a matter of mass spraying,” she writes:

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)

The argument that even the minute exposures that have become normalized have the capacity to build toward a fatal toxicity expands the breadth of slow time from the weeks, months, or years that characterized passages on delayed causality—expands it until the slow time of environmental exposure encompasses entire lifetimes. The geological metaphor, meanwhile, extends the temporal scope even further by invoking the almost incomprehensibly slow process of erosion. It is this kind of temporal imagination, Carson suggests—the ability to see into deep time by virtue of recognizing slow causality—that one must acquire in order to recognize the pernicious effects of toxins, and this kind of temporal imagination that is currently and so dangerously lacking. “Responsible public health officials have pointed out that the biological effects of chemicals are cumulative over long periods of time, and that the hazard to the individual may depend on the sum of the exposure received throughout his lifetime,” she writes (189). But it is precisely “for these very reasons the danger is easily ignored,” for “it is human nature to shrug off what may seem to us a vague threat of future disaster” (189). It is this aspect of human nature that *Silent Spring* sets out to change.

In one sense, Carson is being matter-of-fact when she argues that time is both “the essential ingredient” and what is lacking in the modern world: environments, animals, plants, and people need time to recover from chemical exposure; regulatory science needs more time to determine the real impact of substances before they are
released for public use (6). Yet the claim clearly has imaginative significance as well: it is simultaneously the temporal imagination, the ability to see, believe in, and act on slow and cumulative longue durée causality, that is both “essential” and lacking; in other words, “there is no time” in our shared cultural vocabulary. But there is yet another layer to the temporal critique that *Silent Spring* offers. For even as they demand an increased temporal sensitivity to the slow, cyclical, and deep processes of natural time—an increased recognition, in other words, of the particularities of natural, as opposed to human, temporality—both the botanical metaphor and the invocation of geological processes within the human body simultaneously demand a complex imaginative negotiation of the interplay of human and natural history. If we have become geological and biological agents, Carson suggests, we have also become more aware of our status as geological and biological objects: we are causing changes that will play out in natural timescales, yes; but our very bodies, as well as our environments, are also implicated in those natural timescales. Natural history and human history may be formally distinct, but they are not separate: they affect and are implicated within one another, and their relationship cannot simply be narrated as one of conflict, collapse, or incommensurability. It is not just an awareness of natural temporality for which Carson is advocating, then, but also an attention to the peculiar ways in which natural and human history interact, to the ways in which they can neither be fully untangled nor
fully fused, to the ways in which it is precisely the unstable uncertainty of their interaction that is at stake.

1.5 Temporality and Environmental Justice

In examining these canonical works of environmental nonfiction, it has become clear that temporal and historical imaginaries are foundational to these texts’ narrative structures and political stakes. Even the texts that overtly announce themselves as works of place-writing—*A Sand County Almanac*, *Desert Solitaire*, and *Pilgrim at Tinker Creek*—are as invested in time and history as they are in space and place. Three patterns for describing natural time emerge from this shared temporal imagination: cyclical time, deep time, and slow time, are all deployed in order to oppose and offer alternatives to a linear, shallow, and rapid progress narrative of human history.

Perhaps these temporal structures have gone largely unnoticed within the genre of environmental nonfiction because that the genre has often been seen as endorsing a kind of *timelessness*, as in Abbey’s apparent rejections of temporality in favor of spatiality—a retreat from history into the eternal stillness of nature, a disinvestment in the movements of history and a reinvestment in the particularities of place. As this chapter has demonstrated, this apparent endorsement of timelessness is in fact anything but, and these texts’ rejections of temporality are instead rejections of one particular configuration of temporality: namely, the human belief in progress. By registering and respecting the alternative models of time offered by nonhuman history, Leopold, Abbey,
Dillard, and Carson all seek to resist the uncompromising and violent teleology of progress narratives: sometimes by valuing what such narratives fail to protect; sometimes by valuing what such narratives fail to encompass; and sometimes by valuing what such narratives fail to recognize as existing within their own boundaries.

As my readings have shown, the varying ways in which this temporal imagination can be configured have significant consequences for a text’s ability to model the conjunction of different historical modes. If the classic conservationist stance, as seen in Leopold and Abbey, results in the depiction of antagonism between “human” and “natural” history, the classic environmental stance, as seen in Dillard, results in the depiction of incommensurability. The trouble is that neither antagonism nor incommensurability is able to help us imagine ways in which human history and natural history could actually interact and intertwine. Without such a historical synthesis, environmental and social issues, values, and injustices cannot be easily negotiated: the model of historical duality renders us incapable of constructing a system that sees not only the distinctions but also the connections between different temporal modes.

Only in Carson do we see the beginnings of a flexible temporal imagination in which human and natural histories interact without collapsing into one another. This imagination, I suggest, is foundational to environmental justice temporality, in which contact between natural history and human history is sensitively and carefully narrated, with the aim of remedying injustices perpetuated against both human and nonhuman
subjects. This imagination of temporality could wield real influence over environmental discourse and its ability to grapple with social as well as ecological issues, a task that has only become more urgent with the threat of anthropogenic climate change. As this project seeks to demonstrate, environmental literature’s consistent interest in the narration of natural and human history makes it an ideal field in which to develop such a model.

Viewed in this light, then, the temporal imagination of environmental literature is not simply a form of natural-historical ecomimesis—not merely, in other words, a faithful or accurate description of the distinct patterns of nonhuman time. It can instead be viewed as an attempt to revise human history as well: to restructure social and political assumptions concerning time, progress, and the fundamental incompatibility of human and natural history, to resist progress narratives and attempt to write and enact more inclusive and ethical histories. If, as Bruno Latour writes, “the modern passage of time is nothing but a particular form of historicity,” environmental literature has the capacity to offer new forms of historicity—forms that rebuke “the notion of an irreversible arrow,” forms that renegotiate the relationship between nature and culture and, in so doing, let us think the possibility of simultaneously valuing social justice and environmental sustainability (We Have Never Been Modern 68, 73). As I have argued in this chapter, while the canonical works of post-1945 American environmental nonfiction are working with the same set of historical tropes and concerns, it is only Carson’s
decision to denaturalize “natural history” by narrating its migration into human history and vice versa that lets *Silent Spring* take the first steps toward formulating the environmental justice model of historicity. For the significance of such models to be recognized, ecocriticism must acknowledge that the negotiation of natural temporality is paramount to the contemporary environmental imagination. As this chapter has demonstrated, such an acknowledgment lets us look with fresh eyes on the accepted works of the environmental literary canon. As subsequent chapters will argue, such an acknowledgment also allows ecocritical access to new works, and to new aspects of familiar works—to textual dimensions that, in their articulation of environmental justice temporality, show how narratives can help to construct both more ecologically sustainable and more socially just futures.

While neither Ralph Ellison nor Ishmael Reed has ever been publicly associated with the environmental movement, both make striking use of environmental rhetoric. In a 1953 essay called “Twentieth-Century Fiction and the Black Mask of Humanity,” Ellison explicitly connects the history of slavery to extractive environmental practices. In “the beginning of the Colonies,” Ellison writes, “the Negro’s body was exploited as amorally as the soil and climate”:

… later, when white men drew up a plan for a democratic way of life … the Negro began slowly to exert an influence upon America’s moral consciousness. Gradually he was recognized as the human factor placed outside the democratic master plan, a human “natural” resource who, so that white men could become more human, was elected to undergo a process of institutionalized dehumanization. (Collected Essays 85)

The passage suggests that an extractive mode characterized early white American attitudes toward both people of color and natural resources: Ellison’s equivalence of the white male approaches to land and to black bodies attends to a common structure of violence while highlighting the false naturalization of inequality. As such, it illuminates the possible common ground between civil rights and environmentalism by showing how exploitative and exclusionary attitudes extend beyond the nonhuman and toward particular human populations. As Ellison argues in this passage, a “natural resource” is anything but natural; it constitutes an entirely constructed category whose purpose is to exist outside of and thus affirm the boundaries of a social “master plan.”
Indeed, Reed cited Ellison as a source of insight into the connections between race and nature in a 1994 interview. “Everybody is making a fortune out of blackness,” Reed declared:

It’s a multi-million dollar industry: blackness as a technology, as a way of making money. Capital gains! It ought to be on the stock market. 

[Laughter] Blacks, the creators, are the natural resources in this game. I finally discovered why in *Huckleberry Finn* the slaves and horses are advertised on the same page in the newspaper, because we’re natural resources. So I told my wife when I die, I want to be buried next to a horse. That’s one of the great messages in *Invisible Man*. It happens all the time. Blacks get ripped off and when you say you’re getting ripped off, they attribute simple motives to you. (Interview with Zamir 1149)

Reed’s claims are connected to a sense of the exclusionary qualities of American history: “We,” he said in the same interview, referring to black writers, “get left out of history” (1136). Though transferring Ellison’s insights onto a reproach of the white exploitation of black cultural (rather than industrial, agricultural, or political) production, Reed echoes Ellison’s earlier point regarding the connections among racialization, availability for exploitation, and historical status.

In keeping with these insights, both Ralph Ellison’s *Invisible Man* (1952) and Ishmael Reed’s *Mumbo Jumbo* (1972) use the narrative remapping of history to explore this relationship between “nature” and racism against African Americans. Both novels interrogate the association of “blackness” with “nature”—an association that each author depicts as a technique not only of violence, but also of the historical illegibility, the exclusion from history itself, that enables the perpetuation of this violence. It is thus
not natural space but natural *time* that structures their particular eco-political interventions. Attending to the way the novels contrast racist narratives of white American progress with cyclical visions of “natural” history reveals the dual rhetorical function of natural time: these texts use natural time to emphasize a critique of the association of African Americans with nonhuman nature, with its incumbent dehumanization and denials of human historical agency and significance, even while reclaiming the cyclical structure of nonhuman history.

This reclamation is comic, parodic, not essentialist; in other words, the novels do not ultimately suggest that there is any inherent truth to the imaginative association of blackness with nature. Instead, they transform the historical construction of that association into a technique for resistance. Cognizant of the categorization of black bodies as “natural resources” and products, rather than as human subjects, these texts turn that categorization on its head by using the shapes associated with natural history to make room for antiracist interventions. In these novels, invocations of nature inform discursions on nonlinear history and diversions into cyclical structures of repetition, regeneration, and return. Narrative adoptions of the cyclicality of “natural” time dramatize the exclusion of black subjects from teleological “human” history while enabling startling interruptions of that history. These novels thus demonstrate the extent to which human and nature are mutually co-constitutive categories, emphasizing that dehumanization is often synonymous with naturalization—by which I mean not just
that difference is naturalized, but also that racialization proceeds by marking certain populations as being closer to nature. This knowledge that the rhetoric of nature undergirds racism enables a recuperative narrative politics: the structures of “natural” history to which African American characters are relegated are repurposed in order to resist the movement of (white, Western) “human” history.

While their invocations of natural time build on the mainstream environmental recognition, addressed in Chapter One, that the exclusion of nature from history renders environmental exploitation invisible, these novels offer the critical awareness that this division between human and natural history has always been an artificial construction—one, further, that serves key political purposes, as the category of “nature” encompasses marginalized human populations as well as nonhumans. Highlighting the social implications of the division of natural from human history, these novels’ narrative treatments of nonhuman temporality illuminate that which has been excluded and offer powerful templates for environmental activist rhetoric, while suggesting the importance of literary narratives to that activist project. In *Invisible Man*, the narrator comes to recognize both that he has been excluded from human history and that he has been treated as a natural resource; synthesizing those two experiences as the same act of violence allows him to recognize how he might come to resist it, a resistance that the novel itself enacts formally and thematically. In *Mumbo Jumbo*, layers of postmodern meta-narratives allow characters to embrace nonhuman temporality as part of a larger
project of rectifying both environmental and racist/imperial exploitation. In both of these novels, then, environmental justice temporality, attentive to the exclusion of both nonhumans and certain humans from the historical imagination, is transformed into a practice of literary activism.

2.1 The Treatment of “History” in African-American and Environmental Literature

To understand what is so significant about the way Ellison and Reed repurpose natural time, we must move consider both the contemporaneous emergence of the mainstream American environmental movement and the treatment of history in African American literature, particularly during literary postmodernism. As we shall see, Ellison and Reed articulate a vision of the relationship between natural and human history that is related to but far more politically potent than its representation in the canonical texts of postwar environmental nonfiction. That vision, I suggest, set the stage for postmodern interrogations of history in later African American fiction. Understanding the way that Ellison and Reed use natural time thus reveals both what mainstream environmental thought lacks by comparison and how their environmental insights informed non-environmental discourse.

As my first chapter argued, mainstream environmental literature generally seeks to construct an alternative historical imagination, one attentive to the loss of pristine natural spaces in which time moves in deep, slow, and cyclical patterns. In order to elegize nature, writers such as Aldo Leopold, Edward Abbey, and Annie Dillard
describe human and natural history as fundamentally distinct and at odds with one another. This understanding of history paradoxically reinforces the boundaries between humans and nature, even as it purportedly seeks to bring the two categories closer. In *Silent Spring*, Rachel Carson disrupts this division, showing that human history and natural history are materially connected. Carson’s account meticulously tracks both the devastating ways in which human actions affect the nonhuman and the unpredictable ways that the nonhuman responds; yet it is largely uninformed by the social justice issues that would later lead civil rights activists such as Benjamin Chavis to identify disproportionate exposure to environmental harm as “environmental racism.” What Ellison and Reed add to both Carson’s and Chavis’s analyses is the refusal of the very notion of something called “human history” that is linear and encompasses all humans, the revelation that the category of “the natural” has permitted the deceptive coherence as well as the environmental ravages of “human history.”

While it does not appear in canonical environmental prose, this insight into the failures of historical narrative would become a structuring principle for later African American literature. That history is a major concern within this canon is hardly a novel claim. As Walter Johnson argues, the history of slavery and of enslaved peoples’ modes of resistance cannot be understood without attending to the role of temporality in social domination, and to the dissonant and defiant articulations of counter-hegemonic temporalities that are evident in the writings and political organization of enslaved
people. “The history of time,” Johnson writes, “is one of continual contest: a history of arguments about history, of efforts to control events by controlling the terms of their description, of situated and sometimes violent acts of synchronization, of forcible re-education, resistant appropriation, and everyday negotiation; of conflicts in which time itself was a dimension of contest” (401). Across historical periods, scholars of African American literature have noted precisely this “dimension of contest.” For instance, John Levi Barnard argues that the African American literary tradition operates as “a prophetic counterpoint to the prevailing historical consciousness in America,” with the ironic and anti-imperial classicism of writers such as Charles Chesnutt, Langston Hughes, and Claude McKay producing “an unsettling vision of history as unfinished business, a past that is far from past” (363, 362). Further, as scholars including A. Timothy Spaulding and Missy Dehn Kubitschek have suggested, postmodern African American novels often focus on ruptured and nonlinear models of time. Gayl Jones’ *Corregidora* (1975), Octavia Butler’s *Kindred* (1979), and Toni Morrison’s *Beloved* (1987), in particular, feature protagonists who find themselves trapped in and haunted by the past: Jones’ Ursa is defined and nearly suffocated by an obsessively repeated matrilineal legacy of sexual violence; Butler’s Dana is sucked into the past against her will by a fantastical temporal aberration and forced to confront her slave-owning ancestor; Morrison’s Sethe is doubly haunted, both by her vivid and embodied “rememory” of murdering her infant daughter rather than allowing her to be enslaved and by Beloved
herself, the materialized ghost of that daughter who mysteriously returns decades later. This recurrence of the past functions foremost as an emblem of trauma. Cathy Caruth characterizes such narrative systems as “a kind of double telling, the oscillation between the crisis of death and the correlative crisis of life: between the story of the unbearable nature of an event and the story of the unbearable nature of its survival”; these stories, she notes, “ultimately define the complexity of … history” (7). Yet these historical resurgences also operate as a narrative technology for resolving trauma, and as a rebuke to a linear model of history in which slavery is over and neatly contained within a distant past. By invoking the past as haunting the present, these novels utilize cyclical/nonlinear history for two purposes: first, to draw attention to racialized violence; second, to resist that violence by insisting upon its inclusion in historical memory. The textual narration of cyclical history thus literally rewrites history in order to include the trauma of exploitation—much like Ellison’s and Reed’s cycles disrupt linear history.

I wish to suggest that our understanding of both of these corpuses—canonical environmental nonfiction and postwar African American fiction—would benefit from considering the environmental implications of Ellison’s and Reed’s novels. *Invisible Man* and *Mumbo Jumbo* offer a fuller account than contemporaneous works of environmental prose of the damage done by a limited historical imagination; yet their treatments of “natural” time also open up new insights into the historical revisionings of Jones, Butler,
and Morrison, among others. My readings of Ellison and Reed are in keeping with the now largely accepted assumption that the environmental justice movement owes more to social justice struggles—civil rights, indigenous rights, feminism—than to mainstream environmentalism. Yet they also challenge that perspective by attending to the striking similarities between the roughly contemporaneous American movements of civil rights and mainstream environmentalism, chief among which is that both recognize the problem as one of historical imagination. Indeed, what I argue in this chapter is that the literature I discuss here, despite not historically having been included in the “environmental” canon, not only addresses environmental questions, but actually successfully grapples with the challenge that stymies many contemporaneous canonical environmental texts: namely, how to address the apparent incompatibility between human and nonhuman temporality without naturalizing that distinction or suggesting that the violence it produces is inevitable.

In other words, while my first chapter suggested that environmental literature generally seeks to construct an alternative historical imagination, my second offers an alternate history of that alternative historical imagination itself. Rather than returning to the texts associated with mainstream environmentalism, this chapter argues that the

14 See Robert Gottlieb’s Forcing the Spring, which suggests that contemporary environmentalism, and in particular the contemporary emphasis on environmental justice, demands a revision of environmental history to focus on urban environmentalism, public health, antinuclear activism, and grassroots organization, rather than on the major environmental organizations and their historical roots within the preservationist and conservationist movements.
temporal logic of environmental justice emerges contemporaneously with the environmental movement in postwar African American novels, a set of texts that have not previously been understood as environmental at all. These novels effectively denaturalize the very barrier between “human” and “nonhuman” that structures the temporal imagination of canonical environmental texts. Indeed, they articulate a vision of environmental justice temporality that does not just call attention to the problematic barrier between human and nonhuman time, but playfully undoes that barrier, interrogates the connection between race and nature, and reclaims natural temporality in order to show what might happen if the endangered and exploited were to strike back—all while demonstrating a precise awareness of how literature, with its ability to tell new stories and build histories, so powerfully transforms the temporal logic of environmental justice into a mode of literary activism.

2.2 Natural Resources and Boomerangs: Resisting Exploitative History with Invisible Man

An awareness of the relationship between racial inequality and the exploitation of nature characterizes Invisible Man and, though it has not received scholarly attention, grounds the novel’s temporal politics. As the novel’s unnamed protagonist describes his path from the South to New York City, Invisible Man weaves together nature, race, and temporality: if it is the narrator’s categorization as a “natural” resource, less than human, that controls his excision from supposedly linear human history, it is his strategic adoption of nonlinear forms of time that allows him to strike back. As the
narrator declares in the opening to the first chapter, he is “no freak of nature, nor of history”; this is because he has come to understand the violence inherent in that binary (15). Accordingly, the novel finds narrative strategies that will enable the narrator not only to hibernate temporarily outside of that duality, but also to enact an explosive return to action—one that is capable of shattering the racist and exclusionary boundaries between “human” and “resource,” between “human history” and “natural time.” This undertreated motif—language linking racism to a disdain for exploitable “resources”—is the revelation that structures and motivates the novel’s investment in resisting linear forms of temporality.

This investment is evident in both the linear and the cyclical forms of narration that occur in the novel. The body of the book—the chapters enclosed by the prologue and epilogue—move in a line: we learn about the narrator’s youthful experience of white men making black children fight for entertainment; his traumatic expulsion from a black college after a day chaperoning a wealthy donor accidentally leads to the donor exploring old slave quarters, encountering a black sharecropper who has infamously had sex with his own daughter, and entering the riotous Golden Day, a brothel/bar frequented by disturbed veterans; his resigned journey to New York to obtain work; his recognition that the president of his college has sent him with letters of condemnation, not recommendation; his brief stint working at Liberty Paints before a workplace disaster hospitalizes him; his time being fed and sheltered by the sympathetic Mary; his
political awakening and his recruitment by the Brotherhood (a thinly veiled allegory for the Communist Party), before that alliance collapses thanks to the Brotherhood’s disregard for the residents of Harlem; and the narrator’s experience of Harlem riots that eventually lead to his taking up residence underground and deeming himself the eponymous “invisible man” (3).

Throughout this linear narrative, the narrator displays a growing fascination with the shape of time. The narrator first encounters the notion of cyclical temporality in the Golden Day episode, when one of the veterans passionately declares himself a “student of history” and describes a version of the Rota Fortunae (81). “The world moves in a circle like a roulette wheel,” he claims; “In the beginning, black is on top, in the middle epochs, white holds the odds, but soon Ethiopia shall stretch forth her noble wings! Then place your money on the black!” (81). Later, after the fate of Tod Clifton (a former comrade of the narrator’s in the Brotherhood, who eventually leaves the fold and is shot and killed by a police officer) has made the narrator increasingly skeptical of the Brotherhood’s racial politics and conscious of the exclusionary patterns of progressive history, he invokes this image of cyclicality to rebut Brother Hambro’s cheerful insistence that, despite the Brotherhood’s decision to reject African American communities and issues, history will still “progress”—just at a slightly slower pace (504). “You mean the brakes must be put on the old wheel of history,” the narrator responds (504). Hambro is discomfited; the narrator is incensed. The retort escalates into a
revelation when—recognizing that, to the Brotherhood, he is “simply a material, a
natural resource to be used”—the narrator explicitly criticizes progressive history (508).

“And that spiral business, that progress goo!” he seethes: “that lie that success was a
rising upward. What a crummy lie they kept us dominated by. Not only could you travel
upward toward success but you could travel downward as well; up and down, in retreat
as well as in advance, crabways and crossways and around in a circle, meeting your old
selves coming and going and perhaps all at the same time” (510). By the novel’s end,
then, sick at the revelation of his exclusion from history, the narrator prefers the bitter
reality of cyclical change to the myth of a “progress” narrative that only applies to white
people.

The treatment of history and temporality in Invisible Man has driven many
conversations within Ellison studies: critics have exhaustively discussed the novel’s
insistence that history is an incomplete record and pondered the relationship between
the way the novel describes Tod Clifton leaving the Brotherhood as a decision to
“plunge outside of history” and its forceful registering of those are viewed as incapable
of historical consciousness (438). In this way, Invisible Man can be seen as an early
contribution to the revisions of linear time that would characterize so much of
postmodern African American literature. Yet it is environmental politics that undergird

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15 See especially the investigations of Ellison’s temporal and historical imagination by John Callahan, Robert
O’Meally, Marc Singer, and Lisa Yaszek.
the historical interventions of *Invisible Man*. Ellison’s discourse of nature is a key yet entirely overlooked component of his discourse of history: while the exclusions and violence of history are indeed central to the book, they are grounded in a proto-environmental justice analysis. The book is saturated with language that associates history with the human and frames as historically alienated those humans who have been dehumanized and associated with nature: *Invisible Man* thus narrates one’s absence from history as a metric of one’s perceived proximity to the natural.

This excoriation of the naturalization of black bodies—and the exploitation such naturalization enables—is rooted in the novel’s insistence that racism is linked to a politics of extraction. Indeed, the early sections of the novel clearly foreground the link between racism and naturalization, such that the narrator is plagued by a growing sense that privileged whites view people of color as nonhuman natural resources to be exploited. As described above, this sense eventually culminates in his explosive debunking of progressive history as exclusionary and exploitative. However, it is articulated as early as the Golden Day scene, when a veteran accuses Mr. Norton, the wealthy white patron, of treating the narrator as “a mark on the scorecard of your achievement, a thing and not a man” (95). The accusation is not unsubstantiated; Ellison has gone to great pains to mark Norton as primarily interested in value and returns on his investments, whether those investments are human or nonhuman. Sometimes this is subtle, as in Norton’s referring to trees as “timber”; sometimes it is more explicit, as in
the agricultural overtones present in his claim that his destiny is wrapped up in the success of the students at the college (41). His mission, Norton explains, is to see “to what extent my money, my time, and my hopes have been fruitfully invested,” to “see the fruits produced by the land that your great Founder has transformed from barren clay to fertile soil” (45). In his apparent desire to better the lives of young black students, this supposed benefactor reveals that his self-consciously philanthropic metric of success transforms the students into agricultural products to be harvested, leveling black subjects and natural objects in a flat system of valuation. Thus, when the vet accuses Norton of seeing the narrator as a thing, both Norton and the narrator are struck.

This language reverberates throughout the novel, surfacing with particular potency when the narrator is first introduced to the Brotherhood at a party in Harlem. Having been invited by the prominent Brother Jack, who witnessed his talent for political speech, the narrator is incensed when he overhears Jack’s mistress Emma dubiously comment, “But don’t you think he should be a little blacker?” (303). The narrator is silent but indignant: “So she doesn’t think I’m black enough … What does she want, a black-face comedian? Who is she, anyway, Brother Jack’s wife, his girl friend? Maybe she wants to see me sweat coal tar, ink, shoe polish, graphite. What was I, a man or a natural resource?” he fumes (303). Emma here transforms blackness itself into a natural resource from which the greatest possible value must be extracted. This is rendered structurally: the narrator is described not as a specific resource, but simply as
part of the category of “natural resource” that is invoked by the list, which both emphasizes the larger relationship of exploitation and underscores how economic valuation as a resource flattens particularity. The narrator’s movement from the agrarian South to the urban North may have transformed the kinds of resources to which he is compared—from agricultural to industrial products—yet the fundamental relation remains intact.16

Emma’s comment is particularly painful because, upon first meeting her, the narrator is pleased and surprised to note that her visual examination of him is not dehumanizing in the way he has come to expect. “It was not the harsh uninterested-in-you-as-a-human-being stare that I’d known in the South,” he reflects, “the kind that swept over a black man as though he were a horse or an insect; it was something more, a direct, what-type-of-mere-man-have-we-here kind of look that seemed to go beneath my skin” (302). Emma’s gaze is tantalizing not just because it is tinged with erotic tension, but also because it seems to promise that the narrator’s relationship to the Brotherhood will not be one of dehumanization. The proximity of these two interactions, the gaze and the comment, separated by just a page for the reader and a few short minutes for the narrator, heightens the impact of the revelation that even here a racist system of value-

16 Indeed, this equalizing juxtaposition of the kinds of exploited natural resources to which black subjects might be compared, alongside an extended metaphor concerning white and black paint in the narrator’s first factory job in New York, deflates simple distinctions between Northern and Southern attitudes, contributing to *Invisible Man*’s incisive critique of the ways in which American racism operates across distinct spaces and regions.
extraction pertains. In juxtaposing these two forms of dehumanization—categorization as an animal and categorization as a resource—*Invisible Man* constructs a relationship of similarity between them. Ellison suggests that even those who do not *animalize* the black male body are willing to *naturalize* it—to dehumanize it in order to obtain the most value from it.

Indeed, though the language of animalization is voiced throughout the text by the most overtly racist characters, it is the language of the natural resource that consistently troubles the narrator. Of course, white fetishization of the animalized black body is certainly present in the novel; as in, for instance, the absurd Sybil, who asks the narrator to participate in her fantasy of reenacting her friend’s alleged rape by a black man to whom she refers as a “brute” and a “buck” (518). Yet the narrator consistently stakes out a darkly parodic response to such animalization. “You brought out the beast in me,” he says flatly, playing along with Sybil’s request. “I overpowered you. But what could I do?” (524). It’s clear from his dispassionate response that, as much as he identifies, resents, and resists this blatant animalization, he ultimately sees the Brotherhood’s exploitation of blackness as a natural resource as more devastating.17

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17 A similar dynamic is at play in the narrator’s identification with the unfortunate subject of the song about the “poor Robin” upon his discovery of Bledsoe’s betrayal. As he rides the bus away from Emerson’s office, the narrator is suddenly struck by a relevant tune. “Suddenly the bus jerked to a stop,” he recounts, “and I heard myself humming the same tune that the man ahead was whistling, and the words came back”:

*O well they picked poor Robin clean*

*O well they picked poor Robin clean*

*Well they tied poor Robin to a stump*

*Lawd, they picked the feathers round from Robin’s rump*
As the novel’s action comes to a crescendo, members of the Brotherhood vocalize this vision of resource exploitation more and more overtly. “Such crowds are only our raw materials, one of the raw materials to be shaped to our program,” Brother Jack explains, dismissing the discontent among Harlem residents after having previously encouraged the narrator to stoke just such a response (472). The narrator’s revelation of the ubiquity of this attitude is succinct and swift. “I looked around a corner of my mind and saw Jack and Norton and Emerson merge into one single white figure,” he recounts: “They were very much the same … I was simply a material [to them], a natural resource to be used” (508). He, and the black residents of New York who have been politically exploited and discarded by the Brotherhood, are “seen only as a fertile field for exploitation by Jack and his kind” (574). This reference to the field calls back to Norton and his pastoral reductions of the College students. As the imagery of exploitation moves fluidly between the industrial and the agricultural, *Invisible Man* identifies how

*Well they picked poor Robin clean.* (193)

“My mind seized upon the tune,” the narrator explains, because he suddenly understands the song’s casual cruelty as relevant to his own situation:

“My dear Mr. Emerson,” I said aloud. “The Robin bearing this letter is a former student. Please hope him to death and keep him running. Your most humble and obedient servant, A. H. Blesdoe…”

Sure, that’s the way it was, I thought, a sort, concise verbal *coup de grace*, straight to the nape of the neck. And Emerson would write in reply? Sure: “Dear Bled, have met Robin and shaved tail. Signed, Emerson.”

I sat on the bed and laughed. They’d sent me to the rookery, all right. (194) The narrator is ultimately preoccupied less by the fact that the Robin is an animal and more by the fact that, as an animal, he is a *resource*—a source of food and feathers for his attackers.
the figurative dehumanization of black subjects results everywhere in naturalized mistreatment—even in the industrial North.

The implications of this relationship between nature and race—or, more precisely, between naturalization and racialization—and the novel’s temporal politics are made clear in a single pivotal scene when Brother Jack explicitly frames historical legibility in terms of proximity to nature. Attempting to praise the narrator, Brother Jack reassures him that he is less and less like the old-fashioned “agrarian types” who are “ground up by industrial conditions,” “thrown on the dump heaps and cast aside” (290). These people “don’t count,” he explains:

It’s sad, yes. But they’re already dead, defunct. History has passed them by. Unfortunate, but there’s nothing to do about them. They’re like dead limbs that must be pruned away so that the tree may bear young fruit or the storms of history will blow them down anyway. Better the storm should hit them … They’re dead, you see, because they’re incapable of rising to the necessity of the historical situation … You have not completely shed that self, that old agrarian self, but it’s dead and you will throw it off completely and emerge something new. History has been born in your brain. (291)

This passage unites the references to nature and history that recur throughout the novel to explosive effect, demonstrating that the Brotherhood’s vision of human political history as a linear progression (something that can “[pass] … by”) relies on the exclusion of everything categorized as “natural”—which, as we have been taught by the novel’s rehearsal of the “natural resource” metaphor, may include not just nonhumans, but people of color as well.
Brother Jack’s speech thus marks the novel’s temporal politics as simultaneously environmental politics. If those with historical power exclude everything that they view as natural from written record and political community, that which is labeled “natural”—including, as the narrator has so painfully learned, black Americans—cannot be a part of the linear, progressive vision of human history. “Historians,” the narrator ultimately realizes, have no interest in “us transitory ones,” those “birds of passage who were too obscure for learned classification, too silent for the most sensitive recorders of sound” (439). The use of natural metaphors—trees, birds—to describe the black exclusion from history is no coincidence: it is instead Ellison’s technique of recognizing that “nature” enables historical illegibility, that the division of “human” and “nonhuman” history enables social exploitation—and that, therefore, the category of “nature” has historically enabled injustice against humans, not just nonhumans.

Ultimately, however, *Invisible Man* begins to narratively reclaim this historical division as a mode of resistance. If the narrator recognizes that myths of progress obscure the unequal treatment of naturalized humans, the novel’s adoption of a circular structure models a form of resistance in response—one that the narrator in fact endorses. The prologue and epilogue both take place after the last chapter, when the narrator has already gone underground; the novel begins and ends in the same time and place, itself forming a loop. The political implications of this formal cyclicality are underscored by narrator’s various declarations regarding temporality in the prologue. “Contradiction,”
he muses, “is how the world moves: Not like an arrow, but a boomerang” (6). This debunking of progress is framed as a warning: “beware of those who speak of the spiral of history; they are preparing a boomerang” he adds in an aside (6). This is hardly an endorsement of cyclical time; it is, however, a rebuke to the progress myth (spiraling upward) that masks exploitation (the boomerang). The novel’s use of a cyclical structure suggests that the narrator has recognized the narrative force of nonlinear history. It lets the novel itself boomerang back and forth between present and past; it allows the prologue to introduce and powerfully frame the story; it primes the reader, aware all along of where the story will end, to distrust the visions of progress vocalized within the linear account of the narrator’s life.

Indeed, the prologue suggests that disjunctive, nonlinear temporality may be the best political weapon available. “Invisibility,” the narrator opines, “gives one a slightly different sense of time, you’re never quite on the beat. Sometimes you’re ahead and sometimes behind. Instead of the swift and imperceptible flowing of time, you are aware of its nodes, those points where time stands still or from which it leaps ahead. And you slip into the breaks and look around” (8). This sense of temporal abnormality, acquired figuratively through one’s historical illegibility (though physically, in this case, through the narrator’s consumption of marijuana), can tip the balance of power, as the narrator’s next anecdote reveals. “Once,” he recalls, “I saw a prizefighter boxing a yokel. The fighter was swift and amazingly accurate … But suddenly the yokel, rolling about in the
gale of boxing gloves, struck one blow and knocked science, speed and footwork as cold as a well-digger’s posterior. The smart money hit the canvas. The long shot got the nod” (8). What accounted for this unexpected success? The answer is simple: “The yokel had simply stepped out of his opponent’s sense of time” (8). The narrator is careful to remind us that critical temporality does not mean rejecting historical action: after all, “a hibernation is a covert preparation for a more overt action,” and he doesn’t want to “forget to leave [his] hole when the moment for action presents itself” (13). The ability to inhabit nonlinear temporality, then, to embrace natural cycles like hibernation, becomes a strategy for political action against a more powerful enemy whose myths of progress threaten to stymy resistance.

In this light, Ellison’s novel can suddenly be seen as the incisive piece of environmental justice analysis that it is: it attends to the historical co-constitution of race and nature by foregrounding the way that black subjects are treated as exploitable “natural resources”; it recognizes the extent to which this treatment is undergirded by a particular model of history; and, in response, it offers alternative models of temporality as modes of resistance available to those who have been excluded from “human” history and treated as resources. More broadly, the novel raises important questions about how and why ecocritics come to categorize novels as properly “environmental” or available for ecocritical analysis. As I argued in Chapter One, the explicitly environmental postwar texts that form the backbone of the ecocritical canon engage with the same
kinds of temporal issues that *Invisible Man* does. Yet they do so without recognizing the human implications of those issues—without grasping the extent to which the division of “natural” from “human” history has structured social violence, as well as environmental devastation. Ellison’s novel, by contrast, offers a wider-ranging and more politically activated version of environmental temporality than contemporaneous environmental texts.

The fact that Ellison’s novel has never been read as environmental despite the abundance of language he dedicates to the relationship between attitudes toward nonhuman nature and race relations in Jim Crow-era America thus constitutes a major gap for environmental literary studies. Conversely, the fact that the novel explicitly connects this relationship, and the possibilities of resisting it, to a temporal politics that would come to characterize so many postmodern African American novels suggests the importance of attending to the role of “nature” not just as physical environment but also as metaphor within that canon. Both of these oversights illuminate different aspects of the same critical blind spot: the politics of the natural within *Invisible Man* remain illegible so long as the relationship between history and nature remains uninterrogated. *Invisible Man* thus demonstrates the transformative possibilities available to an ecocriticism that attends more closely to that crucial relationship: the rereading of well-established canons and the recognition of commonalities between them; the discovery of common discursive ground between environment and race; and the demonstration of
narrative’s ability to identify the historical exclusion of nature, and to write new histories in which excluded historical patterns become modes of resistance.

2.3 Jes Grew and the Human Seed: Reclaiming Natural Temporality with Mumbo Jumbo

If *Invisible Man* begins to illuminate the role narrative might play in first identifying and then resisting the violence that is enabled by the categorization of “natural,” *Mumbo Jumbo* develops and transforms this insight into acrobatic postmodern play. Like *Invisible Man*, *Mumbo Jumbo* grapples with the hegemonic vision of history as teleological and the way that this vision structures the exploitation of both natural resources and humans designated as such. In the context of postmodernism’s ludic sensibilities and aesthetics of history as pastiche, however, this insight into the structural similarities between historical exclusion and extractivism—environmental, economic, cultural, and political—becomes an opportunity for revisionist narrative experimentation in which “natural” forms of time invade and disrupt linear “human” history on multiple levels. Reed’s novel is explicit both in its definition of cyclical temporality as natural temporality and in its enthusiastic repurposing of such temporality. It demonstrates the potential utility of natural metaphors to an antiracist and anti-imperial rhetoric of resistance, yet uses a complex layering of nested narratives in order to disrupt any lingering sense that the category of nature—let alone the historical association of that category with people of color—has anything “natural” about it. *Mumbo Jumbo* thus enacts a necessarily narrative politics: the novel invokes a
postmodern sensibility of meta-narration in order to emphasize that the very act of
telling stories about nature and history, the very ability to imagine alternative
temporalities, enables an imaginative construction of new environmental politics.

On the most basic level, the narrative structure of Mumbo Jumbo itself resists
linearity. Most of the plot takes place in the 1920s and concerns a clash between the
Wallflower Order and protagonists PaPa LaBas and Black Herman over the spread of Jes
Grew, a mysterious outbreak of liveliness and behaviors associated with black culture.
For the Wallflower Order and the Knights Templar—symbols and comically fervent
defenders of white Euro-American culture and Enlightenment ideology—Jes Grew is a
disaster that must be stopped; for LaBas and his compatriots, Jes Grew is an opportunity
to resist the ravages of imperialism. Yet this plot also ripples backward and forward in
time throughout the novel: Jes Grew, we learn, exists cyclically, recurring whenever the
time may be ripe for it to find its Text and blossom, and the narrative lingers over other
instances of its arrival, from the premodern period to the 1890s to the 1970s (the moment
of Mumbo Jumbo’s own emergence). In this sense, the novel’s own scope disrupts a linear
notion of time by narrating disparate eras as disjunctive parts of the same story. Reed
elaborated on the origins of the novel’s peculiar temporal politics in a 1978 interview: “I
was reading an article,” he said, “about the African sense of time. They don’t have linear
time, you know. Past, present, and future function at the same time” (Interview with
Gover 13). Accordingly, the novel enthusiastically adopts nonlinear time and sets out to
resist the linear and progressive visions of history that are embraced by the Wallflowers and the Knights Templar.

This occurs on the level of explicit content as well as narrative structure: PaPa LaBas and Black Herman both dedicate a good amount of time to condemning the American belief in progress and predicting its demise. “I'll bet,” LaBas muses, “that before this century is out men ... will explore the vast reaches of space within instead of measuring more ‘progress’ more of this and more of that” (26). LaBas’ scorn for “progress” is here couched primarily in terms of its spiritual and psychological shallowness, its cultural inadequacy. Later, when Benoit asks LaBas and Herman to explain the incomprehensible “American fetish about highways,” the two men expand upon the ways in which “progress” masks the deeper cyclical patterns of history:

They want to get somewhere, LaBas offers. Because something is after them, Black Herman adds. But what is after them? They are after themselves. They call it destiny. Progress. We call it Haints. Haints of their victims rising from the soil of Africa, South America, Asia. (135)

In this exchange, progress is unveiled both as a socially unhealthy form of life—one that forces a culture to fetishize constant movement—and as a misunderstanding of the cyclical patterns that, LaBas and Herman imply, truly structure history. The desire Americans identify as “progress” is actually, they suggest, the desire to escape cyclical hauntings, patterns of recurrence in which the past refuses to stay in the past but instead returns to interrupt the present. Rooted in the natural soil of colonized continents is a
cyclical history that haunts Western “progress.” In opposition to a linear vision of progressive history, characters in the know therefore embrace a model of cyclical time that allows the deep past to surface and resurface in the tireless pursuit of justice.\textsuperscript{18}

The protagonists’ vocal resistance to nonlinear temporality is echoed and reinforced by Jes Grew itself, which becomes an externalized symbol of this kind of narrative/historical imagination. Like the Haints, Jes Grew serves as temporal interruption (the cyclical recurrence of past in present), as proof of the inadequacy of linear models, and as evidence of the political utility of cyclical histories. Jes Grew’s temporal model is summed up in LaBas’ part-flippant yet deadly earnest reflection upon its so-far unsuccessful attempts to take more permanent root: “better luck next time”—not just consolation, but also the promise to return (203). The novel offers us no reason to believe that these cyclical returns will not continue until they come to fruition; in fact, it even stages a debate to emphasize their potency. When one dubious character asks, “Is this the end of Jes Grew?” LaBas replies with an elaborate defense of the nonlinear:

\textsuperscript{18} Notably, while a belief in progress is most closely associated with the conspiratorial white secret societies (the Wallflowers and the Knights Templar), \textit{Mumbo jumbo} also includes black characters whose faith in modernity and progress is treated with varying degrees of sympathy. Woodrow Wilson Jefferson, for instance, laughs at the “local people” whom he sees as “backward, lagging behind,” but it is his assimilation to white narratives of progress that allows him to be transformed into the Talking Android (29). On the other hand, Abdul less stridently complains that LaBas and Herman, whatever insight they may have into the imaginative hold of ancestral culture, are ultimately “holding back our progress”: “It’s the 1920s, not 8000 B.C.,” he argues; “These are modern times” (34, 38). LaBas’ confidence is temporarily shaken: “Do you think we’re out of date as he said?” he asks (40). Herman, however, is unmoved: the modernity espoused by Abdul, he says, is “ephemeral, the fading clipping from the newspaper in comparison to a Ju / Ju mask a 1000 years old,” and though police will always try to “wipe out VooDoo” it will always survive and revive (40). In the end, Abdul starts to come around: “even anachronisms,” he writes in a letter to LaBas, “have their charm!” (200). Still, Abdul’s obsession with modernity is consistently portrayed as a flaw—one that leads him to burn the Book of Thoth, which proves (albeit temporarily) the downfall of Jes Grew.
Jes Grew has no end and no beginning. It even precedes the little ball that exploded 1000000000s of years ago and led to what we are now. Jes Grew may even have caused the ball to explode. We will miss it for a while but it will come back, and when it returns we will see that it never left. You see, life will never end; there is really no end to life, if anything goes it will be death. Jes Grew is life ... They will try to depress Jes Grew but it will only spring back and prosper. We will make our own future Text. (204)

In other words, it is no use to try to contain Jes Grew within a linear pattern of history in which a vanquished enemy stays vanquished. The Wallflowers' faith in the efficacy of modernity, their belief that it is a “new age” and that only “something up-to-date” can halt Jes Grew, is absurd, because it refuses to accept the insistent reality of cyclical history (64).

Indeed, it is precisely the cyclicality of Jes Grew and the cultural and political movements associated with it that makes them such powerful historical agents, such threats to the prevailing ideologies of modernity and progress and their incumbent histories of imperialism. “They don’t know what to do when Jes Grew comes along like the Dow Jones snake and rises quicker than the G.N.P.,” LaBas delights (26). Cyclical history may seem to gesture toward fatalism—uninterruptable cycles, doomed to repeat themselves without the hope of change—but within the logic of *Mumbo Jumbo*, the converse is actually true. Instead, like an expanded version of Ellison’s yokel who beat a more powerful opponent once he “stepped out of his opponent’s sense of time,” Jes Grew’s cyclicality enables continual and unyielding resistance to white American hegemony. Berbelang, ill-fated as he is, recognizes that cyclicality may take the form of
eventual success as well as recurrent failure. “It always seems,” he admits, “that we talk to the many and then the few and then we are down to 1 man,” but the cycle encodes positive as well as negative change and does not determine which will ultimately triumph: “just as the war between the races is about to begin,” he continues, “that 1 man becomes a few and then the many until the next time around and we turn our back on 1 another before the whole procedure begins again. Perhaps 1 day it will be the many and stay there” (92). Cyclicality, then, even if it has so far meant the repetition of defeat, also encodes the repetition of possibility, and the hope that one day this possibility will prevail—that the exploited will indeed “conjure a spiritual hurricane which would lift the debris of 2,000 years from its roots and fling it about” (88). “Better luck next time” for Jes Grew, then, is not a flippant response to defeat, but a real and tangible hope.

As LaBas’ speech in the epilogue suggests, the “next time” may be the 1970s—the decade of both LaBas’ present and Reed’s writing. As the book draws to a close, LaBas emphasizes the possibilities of nonlinear time, its potential to build momentum:

People in the 60s said they couldn’t follow him. (In Santa Cruz the students walked out.) What’s your point? they asked in Seattle whose central point, the Space Needle, is invisible from time to time. What are you driving at? they would say in Detroit in the 1950s. In the 40s he haunted the stacks of a ghost library. In the 30s he sought to recover his losses like everybody else. In the 20s they knew. And the 20s were back again. Better. Arna Bontemps was correct in his new introduction to *Black Thunder*. Time is a pendulum. Not a river. More akin to what goes around comes around. (218)

The slave revolt recounted by Bontemps in *Black Thunder* may have failed, but its
narration in the late twentieth century functions as a form of cyclical history: an invocation of the past that seeks to change the present and future through narrative. It tells a story that forbids historical complacency, inviting a radical comparison of past and present that exposes as false what may have felt like a comfortable distance between the two. Likewise, LaBas’ speech (and, indeed, Mumbo Jumbo as a whole) returns to the past, to scenes of black cultural production and resistance, in order to bolster similar movements in the present. In fact, in this passage, LaBas’ own historical memory enacts the pendulum structure he describes, rejecting linearity by first zooming backward in time and then flashing forward again to the present. Both in its own structure and content and in its inter- and meta-textual references, then, Mumbo Jumbo suggests that telling stories about nonlinear history is not only a rebuke to the progress narratives that seek to banish the past; it is also a way to invite continual resistance until such time as those who have been exploited are able to establish a new historical paradigm.19

Framing his story around Jes Grew—a fantastical entity that borrows from magical realism and voodoo folklore as well as postmodernist absurdism in its rejection of hegemonic temporal norms and its ability to invite disjunctive historical comparisons—

19 The majority of the critical attention devoted to Mumbo Jumbo has focused on its revisionist accounts of history and rewritings of the historical and literary past (see especially Robert Elliot Fox, Henry Louis Gates, and Patrick McGee). Few critics, however, have attended even cursorily to the role of nature in Reed’s novel, and only two—Lisa Slappey and Richard Hardack—in a sustained way: Slappey contends that Reed “connects the suppression of indigenous nature-based religions, in particular Vodoun, with global colonialism and environmental abuse” (41); Hardack, as I expand upon below, frames Reed’s return to a politics of nature as dangerously essentialist. Neither interpretation, however, has been taken up in influential ways within either Reed studies or (especially) ecocriticism.
thus allows Reed to forcibly demonstrate how fiction might aid in propagating nonlinear temporal imaginaries.

Like *Invisible Man*, then, *Mumbo Jumbo* interrupts linear history by positing alternative models of change. In *Invisible Man*, however, cyclical temporality is tied to nature through a shared attention to historical exclusion and economic exploitation—a realistic approach that exposes the association between racialization and nature in order to dismantle it, even if narrator and narrative strategically adopt nonlinear patterns. In *Mumbo Jumbo*, by contrast, the relationship between nature, cyclicity, and black subjectivity is more explicit, as is Reed’s reclamation of that relationship in order to resist exploitative historical patterns. This reclamation presents *Mumbo Jumbo* with a considerable challenge: how to repurpose nonlinear “natural” history within an antiracist, anti-imperialist political project, *without* seeming to naturalize an association between blackness and nature. *Mumbo Jumbo* invokes the historical association between (by which I mean the historical exclusion of both) blackness and nature, yet uses that association to launch an explicit assault on the extractivist and environmentally alienated ideology that produces it. Further, postmodernist narrative techniques—embedded stories, metanarratives, and metaphors that morph into and out of reality—destabilize any sense that Reed is himself essentializing this association between race and nature.

All of this is predicated on Reed’s explicit linkage of Jes Grew and the Human
Seed—the two central images of cyclical temporality—to nonhuman forms of life. Jes Grew is introduced as a “creeping thing,” a phrase that suggests both the botanical and the viral—life forms that diverge from the linear development from birth to death that humans and other animals experience and instead lie “dormant,” latent, surfacing in seasonal or immunological patterns (1). A virus never goes away. A seed is not dead because it is buried. Like the “hibernation” of Ellison’s narrator, the latency periods of Jes Grew periodically interrupt linear history with disruptions that cannot be untangled from the historical patterns of the natural world. The continual description of Jes Grew as nonhuman—an “epidemic,” a “germ,” alternately understood as “a disease, a plague” and an “anti-plague”—reveals how even metaphors of the nonlinear and nonhuman can unsettle human history (17, 20, 33). From this perspective, Black Herman’s “trick of the Human Seed,” which consists of “lying buried underground for 8 days” (a trick that, we later learn, was borrowed from Osiris, the original environmentalist) becomes visible as a microcosm of Jes Grew itself (33). Taken literally, these life forms demonstrate how natural cycles intersect with and intervene in linear time; taken metaphorically, they demonstrate how the imaginative or rhetorical adoption of natural time can accomplish the same historical interventions.

As representations of natural processes that are subject to acts of violence by those who seek to halt their vitality, Jes Grew and the Human Seed also illuminate the specifically environmental aspects of Reed’s critique of Western culture. The proponents
and performers of these natural cycles are depicted as being in harmonious relation to
the nonhuman world. LaBas, we learn, “is contemplative and relaxed, which Atonists
confuse with laziness because he is not hard at work drilling, blocking the view of the
ocean, destroying the oyster beds or releasing radioactive particles that will give unborn
3-year-olds leukemia and cancer”; he is “a descendant from a long line of people who
made their pact with nature long ago” (45). This is in stark contrast to the Atonists, the
exemplars of a Western culture utterly alienated from nature. LaBas could not be further
from the Wallflower Order, whose headquarters are oppressively sterile: “You have
nothing real up here,” we learn; “Everything is polyurethane, Polystyrene, Lucite,
Plexiglas, acrylate, Mylar, Teflon, phenolic, polycarbonate. A gallimaufry of synthetic
materials. Wood you hate. Nothing to remind you of the Human Seed” (62). This
disdain for vitality takes even more comedic form in Hierophant, with his obsessive
“species count” of “the name and number of life near extinction” (65). Indeed, when
catastrophe looms, it is the predicted loss of this destructive capacity that troubles
Hierophant the most. “Hierophant 1 of the Wallflower Order has been in the dumps
since Jes Grew came within 60 miles of New York,” we are told:

Things look hopeless. It has been an interesting 2,000 years but this is the
end of the road. 2,000 years of probing classifying attempting to make an
“orderly” world so that when company came they would know the
household’s nature and would be careful about dropping ashes on the
rug. 2,000 years of patrolling the plants. He would miss the daily species
count. The Ethiopian Leopard was just about due, would be no more and
would become a job order for the taxidermist. Several other species he
wanted to rub out including the Hawaiian Hoary Bat the Morro Bay
Kangaroo the Vahontan Cutthroat Trout the California Clapper Rail. Regretfully he would have to take a rain check. He wouldn’t live to see their extermination. (153)

These absurd asides play a specific role in framing *Mumbo Jumbo*’s environmental politics. The affiliation of Jes Grew’s advocates with natural time is not just metaphorical but ethical: Jes Grew, the symbol of nonhuman life that will not acquiesce to the constraints of Western progress, reveals the value placed on nonhuman life by LaBas and other revolutionaries, as well as the environmental failures of the Atonists and the Western society they represent. As Robert Fox puts it, “Jes Grew is natural, as its name implies; efforts to combat it, like the Talking Android, are artificial and contrived” (56).

With this in mind, the purpose of the fantastical mythology that LaBas and Herman eventually tell the Atonists becomes clear: the conflict between Set and Osiris serves as an environmental allegory that enforces the novel’s validation of sustainable cycles over extractivist linearity. Osiris, with his interest in agricultural rituals that celebrate “blooming” and “fertilization” and his lessons on how to “permit nature to speak and dance through them,” is an emblem of ecological sustainability (161, 165). His origination of Herman’s “Human Seed” trick allows him to embody the cycles of nature, to “be planted in the Nile and then spring from the waters” (165). Set, on the other hand, “the 1st man to shut nature out of himself,” exploits Osiris’ entrances into the cycles of the Seed in order to murder him: Set seizes power, rewrites history to condemn Osiris, and invents Atonism in order to “overcome the nature religion of Osiris” and alienate
Western culture from the natural world (165, 174). Those who embrace the historical
model of natural cycles are simultaneously demonstrating their capacity to exist in
healthy relation to the nonhuman world; those who resist cycles are simultaneously
demonstrating their complicity in a Western system that has devastating social and
environmental consequences.

*Mumbo Jumbo* thus depicts the white resistance to Jes Grew as symptomatic of
both social and environmental exploitation. Even so, however, the novel’s
metanarrative reflexivity emphasizes that this allegory is a *story*, not a truth: while this
myth may illuminate more viable alternatives to the exploitative alienation of the
Wallflowers, its framing as an embedded narrative, its postmodern examination of the
conditions of its own textual appearance, suggests that even myth itself is simply a
narrative technique that can be utilized. The mythic history *Mumbo Jumbo* provides uses
the language of natural temporality in order to explain the historical commingling of
race and nature without naturalizing that relationship: with the narration of the
divergence between Osiris and Set, the control of African American cultural production
is historicized as the latest of many efforts to suppress diverse forms of vitality.²⁰ The

²⁰ Hardack criticizes this as an attempt to “link Blackness with nature,” to “reappropriate nature as a Black
cultural artifact” — a project, he suggests, with “disturbing” consequences for the naturalization of race itself
(133, 134). While I agree that Reed is invested in exploring the relationship between race and nature, I take
issue with the suggestion that Reed’s novel necessarily essentializes that relationship: indeed, I suggest, the
placement of the original division between Africa and the West in Egyptian mythology frames the
divergence between African and Western environmental attitudes as historical, rather than inherent.
Further, the framing of the Osiris story as a particular tale recounted by Herman and LaBas, rather than as
an omniscient mythological perspective, emphasizes this story’s status as a discursive representation: in this
oppression of African American subjects, then, is framed as structurally similar to the exploitation of nature. In response, antiracist resistance becomes allied with environmental reform, with both tasks framed as problems of history: the narrative adoption of natural temporality, Reed suggests, may illuminate issues of both racial and environmental exploitation in America.

If *Mumbo Jumbo* links the false Western belief in linear history to alienation from nature, then the novel’s political reclamation of natural temporality enables opposition to both racism and environmental degradation. Yet, by drawing attention to this reclamation as *story*—as metaphor, as allegory, as postmodern rather than literal myth—Reed emphasizes precisely what his novel performs: namely, that literary narrative is an ideal venue in which to shape new versions of history, new stories that offer alternatives to extraction, exploitation, and exclusion.

### 2.4 African American Ecocriticism

These readings of *Invisible Man* and *Mumbo Jumbo* as revelatory insights into the relationship between racialization and naturalization—and the role of temporality in both elucidating and resisting that relationship—fit within, yet also seek to revise, the field of African American ecocriticism. While the extension of ecocritical attention to light, Reed’s perspective on nature is much less essentializing (and thus much less troubling) than Hardack suggests, and indeed opens into discussions of how myths, particularly those about nature and race, may be constructed and reconstructed for particular purposes.
African American literature is a surprisingly recent event, much important work has already been done in terms both of arguing for the inclusion of African American texts within the canon of American environmental literature and of contemplating how those texts join the many works of environmental justice literature that resist fundamental premises of earlier ecocriticism. What has been made less clear are the ways in which the environmental themes of African American texts resonate within, and ask us to reread, the broader canon of African American literature, as well as that of environmental literature. In short, while the new black ecocriticism has made a forceful case for the presence and significance of black nature writing, it has focused most of its attention on the implications of that writing for ecocriticism, rather than for African American literary studies. By contrast, what my readings of *Invisible Man* and *Mumbo Jumbo* seek to show is that these novels’ uses of environmental justice temporality might help connect environmentalism to a broader project concerning the relationship between linear conceptions of history and unresolved social injustices—a project that has been well established within African American literary studies as a major concern even beyond the postwar era. In short, rather than focusing exclusively on descriptions of particular environments—which much ecocriticism, including African American ecocriticism, does—attending to descriptions of natural time reveals the extent to which environmental critiques exist in relation to social ones, and, subsequently, the extent to which the narrative strategies dedicated to these critiques resonate even beyond
environmental literary studies.

This is not to undercut the importance and incisiveness of African American ecocriticism, but rather to argue even more forcefully for its importance to the wider field of environmental literary studies. While, as we shall see, the application of ecocritical methods to African American texts changes fundamental ecocritical principles, assumptions, and methods, the first task of black ecocriticism was simply to expand the field’s available archive: as Camille Dungy writes in the introduction to the landmark poetry anthology *Black Nature*, African Americans “are fundamental to the natural fabric of this nation but have been notably absent from [ecocritical] tables of contents” (xxi). Rectifying this, however, immediately calls for a change in “the parameters of the conversation,” for “many black writers simply do not look at their environment from the same perspective as Anglo-American writers who discourse with the natural” (xxi). The history of enslaved agricultural toil in “an environment steeped in a legacy of violence, forced labor, torture, and death” means that black writers do not always extol the values of nature; they express “sources of connection to, but also alienation from, the land” (xxi, xxii).

Expanding the canon to encompass black nature writing thus immediately demands the incorporation of less than idyllic natural encounters into ecocritical discussion. Jennifer James, for instance, recuperates environmental alienation as a valid and indeed vital subject for ecocriticism: refuting the belief that black estrangement from
nature is the product of ongoing ecological trauma that must be resolved in order for “black ecophobics … to become realized environmental actors,” she affirms the narration of traumatic African American ecological history, which she terms “ecomelancholia,” as a properly ecocritical genre (165). James thus seeks to expand the boundaries of ecocriticism to encompass less positive and more critical accounts of nature. Far from simply echoing or perpetuating the tropes common to the white ecocritical canon, black environmental literature also forces ecocriticism to reckon with other experiences of nature, not just as a pastoral or sublime scene of escape, but also as a source of pain, a record and witness of violence.

We might consider Billie Holiday’s “Strange Fruit” as a particularly vivid illustration of the way the history of slavery and lynching in the South demands a reexamination of the pastoral: the ironic distance between the reality of lynching and the peaceful environments invoked in the second stanza uses the picturesque associations of Southern nature to dramatize the horror of lynch mobs. Idyllic landscapes and the alluring sensory impressions they offer are juxtaposed with the physical aftermath of mob murders: a “pastoral scene of the gallant South” is revealed in the next line to contain “the bulging eyes and the twisted mouth”; the “scent of magnolia sweet and fresh” is interrupted by “the sudden smell of burning flesh.” By arousing and then subverting expectations about the innocent beauty of nonhuman nature, “Strange Fruit” dramatizes the cruelty encoded in apparently peaceful Southern landscapes—a cruelty
that encompasses the past of a brutal plantation culture as well as the present of
lynchings in poplar trees while fragrant magnolias look on.

Building on this recognition of profoundly different experiences of nature,
African American ecocriticism suggests that black environmental literature both re-
describes and *redefines* the nonhuman world, offering critical perspectives on the cultural
construction of American “nature” and the consequences of the way it is imagined and
treated. We see this in Dungy’s argument that black ecological alienation is a product
not only of the history of enslavement and post-emancipation violence, but also of the
historical construction of privileged white subjects as the proper inhabitants of and
interlocutors with nature: African Americans are, she writes, often framed as
“accidentally or invisibly or dangerously or temporarily or inappropriately on/in the
landscape,” rendering their environmental perspectives marginal or even suspect
(xxvii).21 Likewise, bell hooks’ description of black Americans’ relation to the
environment emphasizes the need to sensitively examine the political contours of black
environmental thought, rather than assuming nature to be an uncomplicated or entirely
natural category. Before the Great Migration, hooks suggests, “we were indeed a people
of the earth”: “Working the land was the hope of survival. Even when that land was

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21 The argument closely resembles Cronon’s account of the creation of national parks, which required the
expulsion of indigenous peoples in order to produce a culturally approved version of virgin “wilderness,”
antouched by human hands (79). See also Sarah Jaquette Ray’s investigation of the environmental
discourses of purity and disgust and their deployment against Native Americans, immigrants, and people
with disabilities.
owned by white oppressors, master and mistress, it was the earth itself that protected
exploited black folks from dehumanization” (68). Land thus signified both enslavement
and liberation. Yet hooks goes on to characterize alienation from the earth not just as an
environmental experience, but also as a demonstration of complicity in acts of violence:
“when we are forgetful and participate in the destruction and exploitation of the dark
earth,” she writes, “we collude with the domination of the earth’s dark people, both here
and globally” (70). This suggests that the same kinds of extractive and oppressive
practices are responsible for violence against humans and nonhumans.

In these accounts, nature and race are mutually co-constitutive: race is bound up
not just with the experience of nature, but with the category of nature as well, on which

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22 Paul Outka makes reference to exactly this phenomenon in his account of the dearth of scholarship on
black environmental writing. The fact, he writes, that “the intersection of nature and race … has yet to be
thoroughly examined underscores the longstanding, often normative, whiteness of ecocriticism”—a
homogeneity that is not incidental, but is instead based on the “terrible historical legacy of making people of
color signify the natural, as a prelude to exploiting both” (3). Both the sublime and the traumatic, he
suggests, emerge out of a temporary inability to distinguish between ground and foreground, nonhuman
nature and human, environment and subject; sublimity, however, assumes a white subject who is able to
extricate himself and go forth profoundly altered for the better, whereas trauma “collapses the distinction
between the subject and nature” and “makes human subjects into natural objects, which are then available
for exploitation” (25). Jeffrey Myers similarly argues that “the same objectification that constructs the white,
American, individual self over and against the ‘Africanist presence’ constructs that subjectivity over and
against the natural world as well” (12).

23 As Outka and others have noted, the method of the new black ecocriticism owes much to earlier
formulations of political ecofeminism: Carolyn Merchant, for instance, explores the linkage between two
subjugated categories, one human and one natural, through her influential argument that early
understandings of an organicist nature as feminine were transformed by the rise of masculinist mechanism
during the Scientific Revolution into justifications for an exploitative and superior attitude toward both
women and nature. Environmental justice ecofeminists, wary of the perception of ecofeminism as (like the
second-wave feminism with which its origins were roughly contemporaneous) dominated by white,
middle- and upper-middle-class women and (largely unlike second-wave feminism) exploitative of
indigenous practices that it sought to exoticize, have sought to pursue such lines of inquiry by attending to
the material reality of intersectional environmental racism.
that experience is ultimately grounded. As hooks suggests, violence against nonhumans is structurally identical to intra-human violence. Returning to “Strange Fruit,” for instance, black bodies’ metaphoric inhabitation of the natural realm structures the song’s political critique: the “strange and bitter crop” unmasksthe history of Southern landscapes, illustrates racist dehumanization, and calls attention precisely to the unnaturalness of the violence that sowed this crop. In its capacity as a brief and galvanizing catalog of atrocities, “Strange Fruit” destabilizes the very idea of “natural” itself. It is in this way that African American ecocriticism works to change the parameters of ecocritical inquiry—by exploring how literature both describes and undoes the category of the natural and its relationship to the human.

My readings of Ellison and Reed are clearly in line with this critical project. Yet they add what I argue is a crucial component: namely, an attention to the way these environmental revisions and critiques are articulated through a concern with history. As I argue in Chapter One, this attention to natural temporality also appears within the canonical works of environmental nonfiction; as I argue in subsequent chapters, it would become a central structuring principle and formal problem for both the literature of environmental justice and climate change fiction. What is striking about its

24 Kimberly Smith’s study African American Environmental Thought makes a similar argument in the field of political theory rather than literature, noting that African American environmentalism extends beyond considerations of particular environments or regions to encompass a rigorous revision of the concept of “nature” in light of its centrality within scientific racism and biological essentialism; see especially Chapters 4-5.
appearance in Ellison’s and Reed’s novels is that, unlike the other works that I discuss—and, indeed, unlike the works that the bulk of African American ecocriticism, as well as ecocriticism in general, discusses—*Invisible Man* and *Mumbo Jumbo* are not explicitly environmentalist texts, nor have they been read as such.

Following the pattern of African American ecocriticism, in calling attention to latent environmental themes in these novels, I wish to do more than simply affirm that some African American texts are indeed environmental and thus worthy of being included on ecritical tables of contents. Instead, my contention is that these novels offer us an opportunity to transform the very methods by which we come to recognize texts as environmental. If ecocriticism were to redefine “environmental literature” as the literature that participated in the construction of an environmental justice temporality—or, more broadly, the literature that attended carefully to what is left out of teleological accounts of “human” history—it would have to acknowledge that the discourse of “nature” travels far beyond descriptions of specific natural entities, spaces, and systems. If ecocriticism were to recognize that the complex cultural co-constitution of race and nature permeates the discourse of exclusionary history in multiple arenas, it would be left with an environmental politics attentive not just to the natural, but also to the humans who have been historically exiled to that category. Moreover, in coming to see the discourse of “natural time” as part of a project whose stakes extend beyond the natural, ecocriticism would have to expand its own zone of inquiry—considering, for
instance, the relationship between the turn to natural time as a way of resisting
hegemonic history by Ellison and Reed and the turn to other alternative historical
formations, such as embodied memory, by Jones, Butler, and Morrison, among others.
Such considerations could enable substantive collaboration between ecocriticism and
other literary fields, particularly those dedicated to the ethnic, feminist, and
intersectional texts that have sought to resist historical illegibility. In short, an ecocritical
practice of reading for temporality would uncover new connections both within and
beyond the field of environmental texts.

2.5 Environmental Justice Temporality and Ecocritical Reading Practices

By endorsing cyclical history, Reed and Ellison join mainstream
environmentalism’s critique of the progress narrative of Western modernity, calling
attention to the systems of exploitation that sustain and yet are never acknowledged by
it. Yet they also expand that critique by reclaiming cyclical temporality: rather than
simply mourning the loss of untrammeled nature, elegizing the erasure of natural cycles
by linear progress, these texts’ alliance of social and ecological concerns allows them to
show what might happen if the endangered and exploited were to strike back. Within
these texts, cyclical temporality is both natural and anything but. Though closely
associated with nonhuman forms of life and of history, the natural cycles in these novels
are always already political: produced by exploitation rather than essence, and
performed by humans as well as nonhumans, the cycles narrated in these texts operate
along the messy border of the “natural,” revealing themselves to be temporal versions of the hybrids that, as Latour has suggested, Western modernity is so skillful at producing (We Have Never Been Modern 1-3, 51-5).

Interrogating the cultural role of natural temporality can thus serve as a supplement to the scholarship that attends to the material realities of environmental racism in particular locales—proximity to toxic waste disposal sites, exposure to hazardous substances produced by ecologically unsustainable industry practices, vulnerability to infrastructural collapse after natural disasters, and so on. This supplement takes the form of discursive rather than physical analyses. In other words, just as ecofeminist scholarship has grown to encompass examinations of both the discursive association of women with nature and the material conditions of women’s exposure to environmental hazards, environmental justice scholarship has been undergoing a similar expansion, with literature serving as one particularly valuable archive for discursive inquiry.25 Tracking the way the language of natural time permeates literature thus becomes a powerful mode of reading, one that connects environmentalism to a broader and more diverse project of historical critique, one that demonstrates the powerful role literature might play in that project, and one that can see what unifies as well as what divides the texts that engage in that project.

25 See, for instance, Adamson, Mei Mei Evans, and Rachel Stein, eds., The Environmental Justice Reader, and Stein, ed., New Perspectives on Environmental Justice, both of which show how cultural objects interact with activist politics and material injustices; meanwhile, Noël Sturgeon traces the roles that “nature” plays beyond the material.
The novels discussed in this chapter and the works of nonfiction discussed in the previous chapter ask the same question: what is left out of and thus made vulnerable to exploitation by progressive accounts of Western history that exclude “nature” as passive background? Yet, in contrast to the canonical works of environmental nonfiction, these novels reveal that this environmental question is necessarily political. In choosing to explore “natural time” not simply as the territory of the nonhuman, but also of the dehumanized, these novels suggest that the mistreatment of “nature” is in fact enabled by its very categorization. This, in turn, opens up a volatile and violent demarcation between “human” and “nature”: there is no stable division between the two, and thus no possibility for a tragic or elegiac view in which the damage is clearly defined and unidirectional. Rather, it is the boundary between “human” and “nature” that is at stake.

Accordingly, the alternate history of environmentalism of which *Invisible Man* and *Mumbo Jumbo* may be seen as possible origins—a history that attends as carefully to the categorization of something as “natural” as to its subsequent mistreatment, one that understands the need to complicate and play along the borders of that categorization—gives us the necessary tools to grasp the eco-political issues that dominate the contemporary moment of the “Anthropocene.”

The challenges central to the Anthropocene’s environmental anxieties are not those of earlier eras, in which conservationist or preservationist discourse dominated environmental discussions: when it comes to anthropogenic climate change, what is at
issue is not protecting specific natural regions, but rather dealing with a radically transformed world in which we recognize that human and nonhuman are, and always have been, so enmeshed that they are indistinguishable. Human actions affect the nonhuman in ways that are radically dispersed across both space and time, while politics and social organization are inflected by climate in myriad ways. In the Anthropocene, then, what we need are ways of thinking creatively about the intersections and co-constitutions of “human” and “nonhuman.” And, while both canonical environmental and environmental justice texts are preoccupied with natural temporality, only the latter category of texts allows us to move from elegizing to strategizing, to demonstrate that things could be otherwise, to remind us that there is nothing “natural” about the relationship between humans and nature. In the case of these novels, recognizing the very unnaturalness of the exploitative treatment of whatever falls under the category of nature allows for a potent and even playful reclamation of that category and its historical patterns. In other words, it transforms a technique of dehumanization and attempted historical/political enervation into a technique of rhetorical resistance, a re-integrated ecological politics that argues as stridently against the mistreatment of humans as against the mismanagement of natural resources. This, above all else, is the task of the environmental justice temporality.

This expansion of the environmental canon to encompass texts that treat natural time thus has the potential to generate, not just ideology critique, but also productive
possibilities for specifically literary forms of activism. By reclaiming “natural” cyclicality in order to imagine subaltern interruptions of linear history, Ellison and Reed offer a blueprint for eco-political discourse in the Anthropocene. These novels help us to imagine a new form of environmentalism—an environmentalism that recognizes the constitutive connections between race and nature in terms of their availability for exploitation, turns those connections into opportunities for resistance, and uses the rhetorical force of “nature” to interrupt the violent course of human “progress.”

Drawing attention to the damage wrought by Western attitudes toward nature and the historical models that attend these attitudes, these novels urge us to reconsider, not only how we might read African American literature in relation to environmental concerns, but also how such literature might help us reimagine the stakes of these concerns, the interventions available to us, and the ways we might come to navigate the boundaries between “natural” and “human” history.
3. “Another Kind of Time”: Environmental Justice in Deep Time

“One thing I have never lost faith in is the power of the written word,” wrote Helena María Viramontes in a 1994 letter to her friend and colleague Sandra Cisneros: “It has transformed me, and I see it transforming others. It can bridge cultures, connect all people to the human condition, enlighten, repel, anger. Stories will never leave you the same” (Helena María Viramontes Papers Box 3, Folder 8). Written as she completed her novel Under the Feet of Jesus, a narrative that follows a family of migrant Chicano@ farmworkers in California, this letter expressed Viramontes’ belief that her writing could play a role in addressing the social injustices that she saw plaguing contemporary Chican@s. Several years later, considering how her book might resonate with readers who regularly consumed the products of California’s migrant labor-reliant agriculture system, Viramontes elaborated: “If they read the book, and if they think about the piscadores when they eat their salad,” she told an interviewer, “that would bring me great satisfaction as a writer.”

Viramontes is like many environmental justice writers in that she sees her work as having an explicitly political purpose. Viramontes’ work, and more generally the literature of environmental justice, thus offers a useful way to contemplate the relationship between literary works and political activism. Viramontes, and other writers who are classified as creators of “environmental justice literature,” produce texts
that are explicitly concerned with real (past, present) or at least realistic (future) injustices. Their stories engage ongoing issues and conflicts; their interviews and private writings suggest that they understand their work as purposefully activist in nature, ideally as producing political action and transformation. Linda Hogan put the mission of such “activist” literature simply in a 2011 interview when she said, “You can really change the world with a good story” (Interview with Harrison 172). This chapter explores critical assumptions about the literature of environmental justice in relation to these notions of the genre’s political interventions. It considers two major works of environmental justice fiction from the mid-1990s, the decade in which that genre (and the activist field with which it was affiliated) coalesced and became prominent on both a national and a global stage: Viramontes’ Under the Feet of Jesus (1995) and Hogan’s Solar Storms (1995). As I show how each of these novels comments on and contributes to the environmental justice movement, I address the relationships among cultural objects, activist practices, and political outcomes. Put more simply, I ask: what can literary works do for environmental justice? And how might taking a different interpretive approach to literary works that explicitly announce themselves as being concerned with environmental justice—an approach concerned with the texts as literary, as well as documentary, objects—help us to see in a new light the eco-political contributions of other, less explicitly environmental or political literary works?

As I discuss in the introduction, scholars have most commonly defined the
literature of environmental justice as those works that narrate instances—sometimes actual, often fictionalized, and at minimum plausible—of environmental injustice. Indeed, this attention to texts as significant insofar as they gesture toward real environments and issues characterizes ecocriticism even beyond the subfield of environmental justice. As Buell writes:

> the majority of ecocritics, whether or not they theorize their positions, look upon their texts of reference as refractions of physical environments and human interaction with those environments, notwithstanding the artifactual properties of textual representation and their mediation by ideological and other sociohistorical factors. They are “worldly” critics. *(Future 30)*

Both of the novels I treat in this chapter fall into this category of what Buell might call the “worldly” text. Hogan addresses the long hemispheric histories of violence against indigenous populations, including forced removal from tribal lands, as well as the dramatic effects of hydroelectric dams on watershed ecosystems and the impoverished people who live downstream. Meanwhile, Viñamontes narrates the effects of pesticides and poverty (and their devastating confluence) on migrant farmworkers. Yet there has been within environmental justice ecocriticism an increasing attention to the ways in which literary works differ from pure mimetic documentary—to the ways in which form and genre, style and characterization, can contribute to particular political interventions. My readings in this chapter join this turn in critical attention away from the faithful reproduction of particular issues and toward the specifically literary articulation of those issues. I argue that the literature of environmental justice contributes significantly to
environmental justice activism not only by documenting or dramatizing particular environmental justice issues, but also by using a range of literary strategies to invite critical reflection on the ideological and imaginative roots of those issues. In other words, I suggest that environmental justice literature’s political interventions extend beyond the evident goals of raising awareness of particular issues and creating public sympathy for vulnerable populations and victims of environmental injustice.

It is not my contention that such documentary tasks are irrelevant; indeed, I agree with the dominant environmental justice ecocriticism claim that such texts may offer the most direct modes of changing public perceptions of (and responses to) environmental and social violence. However, I wish to suggest that scholars must attend as well to the other than documentary aspects of the literary in order to understand more precisely what both literary works and literary scholarship can offer to these interdisciplinary and activist conversations. Is the literary simply an efficient and entertaining means of representing environmental crises, or does it offer strategies that resonate within and beyond documentary representation? What might we learn about works of environmental literature by considering the non-documentary aspects of those works? In short, what can we see by comparing different forms of environmental literary activism, both across different literary works and within individual texts?

Picking up on my argument from the second chapter, then, I suggest here that these works of environmental justice literature seek to expand the constrained model of
history that simultaneously produces and elides environmental injustices. And, as was also the case in the novels I discussed in Chapter Two, *Solar Storms* and *Under the Feet of Jesus* address this limited historical imagination by experimentally incorporating nonhuman temporality into human narratives. In these novels, the treatment of nonhuman timescales becomes a technique of emphasizing the relationship between the environmental and the social. By reclaiming a form of temporality that the narratives mark as associated with the nonhuman—in this case, deep time—these novels unmask the violence enabled by a short-term, progressive, and rapid sense of history. Such a historical imaginary, these novels show, describes the triangulated workings of extraction, capitalism, and imperialism. In short, Hogan and Viramontes use the eruption of deep time into otherwise linear and present narrative in order to challenge the dangerously narrow version of history that produces environmental and social violence. Their narratives use invocations of deep time to articulate extended legacies of trauma and exploitation as they relate both to particular environments and to displaced and marginalized peoples. Within these novels, I suggest, deep time operates as an imaginative technology for activism on two narrative levels. First, within the novels, characters learn to fully recognize and more effectively resist environmental injustice when they gain the ability to reckon with deep time. Second, this relationship between the imagination of deep time and political activation extends beyond the narrative to the political role of the novels as they are meant to affect the reader. Ultimately, then, these
novels’ integrations of deep time are intended to help the reader herself stretch her sense of history. As she learns to follow the narrative in integrating deep time into her sense of the present, she encounters a new understanding of history, one that disrupts a range of boundaries: between humans and nonhuman nature, certainly; but also between humans who have come to see one another as alien. In this way, these novels show that environmental justice perspectives rely upon a flexible and experimental sense of the historical past—and how literary works can, by playing with narrative time, help to create this new form of historical imagination.

3.1 Environmental Justice: Activism, Literature, Criticism

Before I begin this critical analysis of the literature of environmental justice and its relationship to the activist movement, a brief historical account of that movement and the literature critically associated with it is in order. While longer histories of environmental injustices are extensive, and scholars such as Robert Gottlieb have proposed that the roots of environmental justice lie in turn-of-the-century public health movements, the modern American environmental justice movement emerged in the 1980s. The 1970s and 1980s saw a series of local struggles over specific communities’ disproportionate exposure to toxic substances. The earliest major instance was Love Canal, a neighborhood in Niagara Falls, New York, which earned wide notoriety in the late 1970s when it was discovered that the neighborhood (transferred in the 1950s from

26 For a more extensive history, see Cole and Foster, as well as Gottlieb.
Hooker Chemical Company to the local school board) had been for decades the site of a toxic dump causing miscarriages, birth defects, and various health problems in the local population.\textsuperscript{27} Partially in response to the demands of Love Canal activists such as Lois Gibbs, the passage of Superfund laid out clearer guidelines for cleaning up sites contaminated by hazardous substances.\textsuperscript{28} In the 1980s, proto-environmental justice activism was increasingly spearheaded by communities of color: the residents of predominantly black Warren County, North Carolina, who resisted the establishment of a PCB landfill and were arrested en masse for their efforts, brought national attention to the systemic issue of environmental racism in 1982, eventually leading the governor to promise to clean up the site (a process that did not begin until the early 2000s).\textsuperscript{29} Similar events throughout the 1980s made clear the extent to which communities of color were more likely to be exposed to environmental hazards, both nationally and globally. Some were catastrophes, such as the Union Carbide disaster in Bhopal in 1984, in which a massive gas leak killed thousands and injured many more, or the slow carcinogenic pollution of Louisiana’s “Cancer Alley” by petrochemical companies; others were activist triumphs, such as the victories won in 1988 by MELA (Mothers of East L.A.) against the construction of a toxic waste incinerator in a predominantly Latin@ area of

\textsuperscript{27} See accounts of Love Canal by Edkardt Beck, Elizabeth Blum, Adeline Levine, and Richard Newman. 
\textsuperscript{28} See Frank Grad’s legal history of CERCLA. 
\textsuperscript{29} The Warren County case is discussed in detail by Eileen McGurty, as well as Ken Geiser and Gerry Waneck.
Los Angeles and by Navajo activists against another incinerator in Arizona. As such events accumulated, both scholarship and activism began to recognize this accumulation as part of a coherent larger phenomenon, which Benjamin Chavis named “environmental racism” in the landmark 1987 report published by United Church of Christ’s Commission for Racial Justice, Toxic Wastes and Race in the United States. The report examined the racial and socioeconomic demographics of the communities situated near hazardous waste sites, and found, as Chavis (then the Executive Director of the CRJ) put it, that “race is a major factor related to the presence of hazardous wastes in residential communities throughout the United States” (x): indeed, the report demonstrated, “racial and ethnic Americans are far more likely to be unknowing victims of exposure to such substances,” with minority percentage of the population a more significant variable in terms of likelihood of exposure to hazardous waste than any other tested variable, including socioeconomic status (xi, xiii). This revelation was a major catalyst for thinking about the relationship between environmental conditions and institutional racism.

As the 1990s progressed, environmental justice became both increasingly coherent and increasingly visible. Robert Bullard’s Dumping in Dixie used case studies to narrate environmental justice as a coherent political movement that brought civil rights

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30 For more on these incidents and their aftermaths, see Gregory Berry, Daniel Brook, Larry Everest, Gabriel Gutiérrez, M. Arun Subramaniam and Ward Morehouse, and Beverly Wright, Pat Bryant, and Robert Bullard.
activism together with concerns about environmental quality. Immediately thereafter, 1991 saw the First National People of Color Environmental Leadership Summit in Washington, D.C., and the production and dissemination of that meeting’s “Principles of Environmental Justice.” The Clinton administration led federal commitments to environmental justice throughout the decade, the climax of which was 1994’s Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.” As the political structures of environmental justice developed through the 1990s and early 2000s, so too did a canon of literary works dedicated to the issues of environmental racism. Some of these texts were nonfictional, as in the environmental illness memoirs of Susanna Antonetta, Sandra Steingraber, and Terry Tempest Williams, as well as lyrical expository works like Winona LaDuke’s *All Our Relations*, which described Native environmental practices and forms of resistance to the social and environmental devastations of American imperialism. Others, including prose fiction, poetry, and drama, contained fictionalized or otherwise aestheticized depictions of environmental discrimination. In this latter category fall many of the canonical texts of environmental justice literature, among them Ana Castillo’s *So Far From God*, Percival Everett’s *Watershed*, Joy Harjo’s *In Mad Love and War*, Cherrie Moraga’s *Heroes and Saints*, Barbara Neely’s *Blanche Cleans Up*, Ruth Ozeki’s *My Year of Meats*, Leslie Marmon Silko’s *Almanac of the Dead*, and Karen Tei Yamashita’s *Through the Arc of the Rain Forest*, as well as the novels discussed in this chapter.
Addressing such issues as toxics exposure, food justice, and disruptions of indigenous relationships to land, these works sought both to use environmental justice as a motivation for literary works and to use literature as a tool in the struggle for environmental justice.

As this literary canon emerged, the critical subfield of environmental justice ecocriticism developed alongside it. Early work in this field by scholars such as Reed and Adamson engaged in particular with contemporary writers explicitly concerned with environmental justice. However, as postcolonial, comparative, and African-American environmental justice ecocriticism have emerged as key contributions, critical attention has also been extended to writers who do not necessarily identify with the American environmental justice movement, whether because of geographic or temporal location. For instance, postcolonial ecocriticism explores the varying modes of engagement with environmentalism in global literature, while Americanist environmental justice ecocriticism has begun to trace environmental justice themes in texts written prior to the rise of the modern environmental justice movement. Despite these expansions of the corpus, however, two assumptions have remained fairly consistent within environmental justice ecocriticism: first, that the parameters for its object of study are defined by textual engagement with material issues of environmental

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31 See the second chapter of Stacy Alaimo’s Bodily Natures, as well as Elizabeth DeLoughrey and George Handley, Graham Huggan and Helen Tiffin, Myers, and Michael Ziser.
injustice, whether or not writers refer to them in that language; and second, that both the field and its object of study have the political potential to actively aid contemporaneous activism and social science scholarship.

In the readings that follow, I seek to uncover new dimensions of that object of study. I show how literary engagement with environmental justice extends beyond mimetic reproduction of particular issues—an extension that might help us produce a more expansive definition of “the literature of environmental justice.” As I demonstrate, the canonical works of environmental justice literature engage with questions of environmental injustice beyond simply representing particular injustices. In other words, the environmental justice interventions of Solar Storms and Under the Feet of Jesus consist both in representing historically accurate environmental justice issues and in identifying historical imaginaries as a way to address such issues. These insights reveal how literary works—including those that, like the novels discussed in the previous chapter, are not explicitly about particular environmental injustices—can contribute uniquely to the broader political movement for environmental justice.

3.2 Interpersonal, Intergenerational, and Interspecies Trauma and Healing in Solar Storms

Solar Storms is one of the works most frequently cited as an example of environmental justice literature. Set in the Boundary Waters on the border between Minnesota and Canada, the novel follows the teenage narrator, Angela Jensen (who renames herself Angel), on her formative move from Oklahoma to Adam’s Rib, where
her maternal great-grandmother and great-great-grandmother live. Angel has been raised in the foster system since suffering horrific abuse at the hands of her mother, Hannah Wing, and bears both prominent facial scars (“She had used weapons against me,” Angel learns: “hot wire, her teeth. Once she’d even burned me with fire”) and less visible marks (“I knew by then,” Angel remembers of meeting her mother for the first time, “how badly I’d been hurt by her … that there was no love inside her”) of her traumatic childhood (231). Angel’s journey to Adam’s Rib to meet her great-grandmother Agnes and her great-great-grandmother Dora-Rouge is largely spontaneous, the result of an impulsive decision made when she feels she has exhausted all other social possibilities. Angel’s time with her family is characterized both by her adaptation to the rhythms of life in Adam’s Rib and by revelations about her familial past: about Hannah’s and her mother Loretta’s histories of physical and sexual abuse; about Angel’s own childhood, and her time with Bush, who was married to Agnes’ son before he abandoned her for Loretta; about the violent colonization of the Boundary Waters region by French trappers and American settlers. She also learns about an impending environmental crisis: a massive hydroelectric dam is being constructed just over the Canadian border, threatening to turn rivers and dry land alike into mudflats, flood tribal lands, drown indigenous homes and businesses, erase animals’ migratory patterns, pollute and destroy food sources. Led by Bush, who wants to join the fight against the dams, Angel and her grandmothers set off on a northern journey that will
allow Angel to confront her long-estranged mother.

The journey is eventful: Hannah dies soon after their arrival, leaving Angel to care for her infant half-sister; meanwhile, Angel and her grandmothers find themselves at the center of a grassroots activist movement opposing the construction of the dams. Tensions quickly develop, both between the activists and the corporate representatives, government agents, and police officers who oppose the indigenous activists with increasingly blunt force, and within the activist movement itself. Angel eventually leaves to keep her sister safe, returning to Adam’s Rib and the relationships she has established there. As the novel closes, we learn that the activist project was eventually successful, though not until more than a year had passed: “It was too late for the Child River, for the caribou, the fish, even for our own children,” Angel tells us, “but we had to believe, true or not, that our belated victory was the end of something. That one fracture was healed, one crack mended, one piece back in place” (344). The same can be said of all the other elements of Angel’s life: though both her family and her home are marked by the traumas that have come before, Angel has rooted herself in a community and built a tight family unit with a romantic partner and baby sister.

The dam project—its implications, the response it provoked among indigenous activists, and the harsh retaliation those activists experienced—that takes up the majority of the novel’s second half is based on a real event: the James Bay Project, a
massive system of hydroelectric dams built by Hydro-Québec starting in 1974.\textsuperscript{32} While hydroelectric power is often held up as a renewable energy source capable of diminishing reliance on carbon-intensive fuels that contribute to global warming, dams have also been the subject of controversy and forcible resistance.\textsuperscript{33} The Glen Canyon Dam in Arizona, for instance, became in the 1970s a lightning rod for Edward Abbey and other radical environmentalists, who warned that the dam would have immense environmental impacts, ranging from evaporation-based depletion of the desert region’s overall water supply to depletion of the native fish populations.\textsuperscript{34} (Abbey’s 1975 novel \textit{The Monkey Wrench Gang} describes the efforts of eco-terrorists to destroy the dam; in 1981, the direct action group Earth First!, which was inspired by the novel, paid homage to Abbey in a visual protest consisting of using black plastic to make it look like the dam had been damaged.\textsuperscript{35} Glen Canyon also surfaces in Silko’s \textit{Almanac of the Dead}, which depicts eco-terrorists succeeding in blowing up the dam.) The James Bay Project also sparked significant pushback, in this case from Cree and Inuit First Nations who lived in the area marked for the dam project. In 1973, the Québec and Canadian governments were forced to accept an agreement providing compensation and rights for First Nations affected by the dam. Though Hogan does not identify the dam as James Bay—indeed, at

\textsuperscript{32} For more detail on the James Bay Project, see the report by the Grand Council of the Crees, as well as James Hornig, Jacques Leslie, Sean McCutcheon, and Richard Salisbury.
\textsuperscript{33} See Mark Jacobson for an endorsement of hydropower and Patrick Murphy for a critique of hydroelectric dams.
\textsuperscript{34} See Mark Harvey and Scott Miller.
\textsuperscript{35} See Martha Frances Lee, \textit{Earth First!}, especially the third chapter.
one point Angel compares the protests to those at James Bay, making it clear that the events are separate—critical consensus on the novel has established that Solar Storms was inspired by the events at James Bay. The BEEVCO corporation that is building the dams stands in for Hydro-Québec’s subsidiary SEBJ; the Fat-Eaters and Nanos represent the Cree and Naskapi (215).36

The original James Bay and Northern Québec Agreement served as a historic landmark in indigenous land claims, offering sweeping political and economic protections. Further, between 1992 and 1994, when Hogan was writing Solar Storms, Cree opposition contributed to the suspension of a planned second phase of the James Bay Project on the Great Whale River. In this light, the choice to centralize a fictionalized account of the James Bay Project in her 1990s story of an indigenous woman’s entrance into issues of social and environmental justice is canny. Hogan’s novel is set in 1973 and steeped in the indigenous political climate of that time. References to the American Indian Movement’s activity, particularly in terms of the Wounded Knee incident and AIM’s response to the murder of Raymond Yellow Thunder, weave in and out of the narrative. (Yellow Thunder, an Oglala Lakota, died in Nebraska in 1972 as the result of brutal beatings by a group of white men who received relatively light sentences. The Wounded Knee incident refers to the occupation of Wounded Knee, South Dakota—the site of the infamous massacre of more than 200 Lakota by federal troops in 1890—by

36 For discussions of Solar Storms and James Bay, see Shari Huhndorf and Murphy, “Damning.”
indigenous activists for several months in 1973; the activists were protesting corrupt leadership on the Pine Ridge Indian Reservation, as well as acts of violence and political suppression on the part of the FBI and the U.S. Government. Angel’s awareness of those contemporaneous events clearly influences her own political activation (120, 156, 201, 215): “It was that time in our history when the past became the present,” she reflects, and Adam’s Rib is awash in interest in the AIM members, who “sounded strong as warriors” to us (156). As such, the fictionalization of the James Bay Project allows Hogan to craft an environmental justice novel that calls up moments of political cohesion and energy in indigenous resistance as well as major environmental issues.

*Solar Storms* is clearly intended in part as a form of indigenous environmental justice documentary, dramatizing for its readers the pernicious ecological and social effects of large-scale projects on indigenous communities. Indeed, the novel explicitly directs the reader’s attention to the lack of mainstream media coverage of indigenous issues. Angel describes a group of Adam’s Rib inhabitants tuning into the nightly television news: “It was a difficult time, with troubling news,” she recalls. “The war in Vietnam would soon be over, but the deaths, to everyone’s shock and dismay, were still carried across oceans and land by the invisible waves and particles of air.” By contrast, indigenous rights issues receive relatively little attention: “We’d heard a little about the

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37 For a history of indigenous activism in the 1960s and 1970s, see Paul Chaat Smith and Robert Allen Warrior.
goings-on in Wounded Knee,” she remembers, “but we were hungry for more information. We wanted to see and hear more from the young men in braids” (156). Meanwhile, “if the American Indian Movement got little attention on television, the dams and diversions of rivers to the north were even more absent. They were a well-kept secret, passed along only by word of mouth. We would have known nothing about them if not for the young men who canoed from place to place, telling people what had happened” (156). This conspicuous absence continues to plague Angel and her grandmothers. On their journey north, Bush is dismayed that a newspaper contains coverage of neither Wounded Knee nor the dam project: “‘How can that be?’ she wondered aloud, but it was no surprise to her that these things were covered up” (201). As Angel and her grandmothers become intimately involved in the anti-dam activism, and as the police response grows increasingly violent, this lesson remains pressing for Angel: “Hardly anyone outside of Two-Town knew what was happening,” she remembers. “There was no press, no truth telling, and whenever questioned, the officials denied any wrongdoing” (312).

In response to this purposeful and pernicious silence, Solar Storms doubly emphasizes the need for fair and accurate representation of environmental justice issues. First, the characters themselves learn to take tactical control of the media. Determined to photograph every injustice, Bush “[becomes] something of a truth teller, a journalist”; while her stories and pictures do not reach a broader audience, they are smuggled out,
earning the attention and assistance of a group of seasoned indigenous grassroots activists (308). Angel, too, uses local media to communicate the depth of the injustices being suffered by the activists. After construction crews bulldoze the fence surrounding the house where Angel and other activists are staying, local police refuse to respond, and Angel is jailed for driving to the station in a friend’s truck to report the issue (“This isn’t Hawaii Five-O,” the police officer snaps when she requests her legally required phone call). Infuriated, Angel walks into the local radio station and broadcasts the experience (291). These interventions are successful on a local level, allowing the activists to gather support from regional supporters, but they are not ultimately able to attract the larger scales of attention that are necessary to make an immediate difference. (Even a year later, Angel tells us, “There was little press coverage”—only “a small photo in the bottom corner of a page” in the newspaper, showing the “distinguished men and women, brilliant ones, standing on the front steps of the courthouse. The caption read, ‘On the Warpath Again’” [343-4]. Angel hides the paper from her friend and mentor who is depicted in it, not wanting him to know that his long months of activism and leadership have garnered nothing more than a small picture captioned with a racialized insult.)

The novel’s second mode of engaging with representational issues follows: having emphasized how awareness of indigenous activism is sorely lacking, Solar Storms itself functions as a kind of documentary, forcing readers to reckon both with the
ecological devastation caused by the dams and with the social forms of violence used to subdue the indigenous activists who resist the project. The novel painstakingly and often painfully details the environmental havoc wreaked by the diverted rivers. Sometimes, this is rendered at a distance, offering a systematic account, as when Angel hears the bulldozers upstream and recounts what she knows will result:

That year, there would be no fishing camp because the fish were contaminated from the damming of water and mercury had been released from the stones and rotting vegetation. Then a surge of water flooded the once-fertile plains. Because of the early thaw and new roads that crossed the migration routes of animals, spring camp the next year would not be fruitful, and people were already worried about food. The waterfowl that lived in the water and ate from its bottom were also becoming sick. Many of them were listless and thirsty before they finally died. If development continued, there would be no drinking water left. The world there was large, had always been large, and the people were small and reverent, but with machines, earth could be reduced to the smallest of elements. (273-4)

All of these impacts are taken directly from the impacts of the James Bay Project: for instance, the release of mercury from drowned vegetation meant that many local Cree had dangerously elevated levels of mercury in their bodies.38 (A few pages later, at a meeting with the contractors, a young white activist from New York makes the same points rather less eloquently than Angel does here [278-9].) Yet *Solar Storms* makes clear that this devastation is not localized or particular to any one dam, but rather is a component of broader systems of violence to which indigenous populations are frequently subjected. See, for instance, the devastation happening northeast of Two-
Town, as described by an older woman named Miss Nett who joins the fight after hearing Angel’s interview:

Where she lived, where her people had lived for thousands of years, was now in ruins. NATO jets flew overhead in the sky of Miss Nett and her people, the Nanos, who lived at the Kawafi settlement. NATO jets had scared off what was left of the game and wildlife. In that place, too, they were using the land as a bombing practice range. The fish were gone, and where the lake had been you could now cross in your boots. There was a drive to get the rest of the people off what remained of their land. They were hungry and sick. It was next to impossible for them to remain in the place where they had always lived. Some, however, like Miss Nett, had tried. Just a few days ago, the government had given them two weeks to move. The developers were already at work stripping the land, and soldiers had arrived to protect the laborers. (295)

Such accounts, delivered in a journalistic tone in which events that unfold over a period of months and years are swiftly summarized, allow Solar Storms to act as an educational piece of environmental justice advocacy, explaining to readers how reckless governmental actions set off chains of events that damage both humans and nonhumans.

At other times in the novel, however, this documentary tendency zooms in on particular moments of suffering, using the common eco-activist technique of highlighting “charismatic megafauna” to engage environmental responses in the audience. In one scene, for instance, Angel and her grandmothers see a moose

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39 “Charismatic megafauna” is a term used within environmental studies, particularly within critical studies of advocacy discourse and ecotourism, to describe the large, attractive mammals who are often used to gain audience’s sympathy for environmental issues that affect more extensive ecosystems beyond the particular mammal. See Nigel Leader-Williams and Holly T. Dublin.
drowning in the “vast region of mudflats” that used to hold a lake before the rivers were diverted:

The moose, with its antlers, looked at first like a branched tree. It was sinking into the mire. It wasn’t far from us and it was desperate, trying to escape. We were close enough to see both fear and fire in its eyes. Trapped in earth hunger, the great maws and teeth of land that swallow all things, it bent its forelegs and tried to pull itself out …

We thought of every way to save it—branches, logs—but we could find nothing that worked and the moose shook its head, hunched its muscles in an attempt to climb from the liquid earth, and then rested, becoming a great and deep stillness, trying once more to keep its head out of the mud … The moose cried out with a woman-sounded cry and finally, it was embraced and held by a hungry earth with no compassion for it. (210-11)

As with the broader descriptions quoted above, this is an accurate representation of the aftermath of hydroelectric dam projects; it is estimated that 10,000 caribou died in the 1980s as a result of the James Bay Project, many of them from drowning in rivers that had swelled because of the rerouting of once-familiar waters (Martin).

This kind of close attention to the ravages of the dam is not unusual in Solar Storms. As the battle against the dam project wears on, Angel frequently and passionately describes the destruction of rivers, migration routes, and human settlements. Her return to a flooded Adam’s Rib is particularly poignant, showing how the dam has destroyed human life as well as nonhuman systems: “the sign that read ‘Auto-Parts, Boat Repair’ was just above water, the wooden building half-submerged, the water still rising slowly,” she observes. “Dead fish lapped against the walls of buildings, and I could see drying racks, hoists, and old cars beneath the water, and the
water was still rising and going to rise … In this flood, there would be no animals escaping two by two” (335). So, too, does she narrate for the reader the entirely human forms of violence to which the protesters are subjected as the contractors grow increasingly impatient to complete the project, depicting assaults on activists’ homes and demonstrations with eviction notices, eerily threatening messages, gunshot blasts, arson, and tear gas (232, 308-12, 318-20, 327-9).

It is clear, then, that one major component of Solar Storms’ contribution to environmental justice is simply the representation of environmental injustice, of the social and ecological forms of violence wrought by “the million-dollar dreams of officials, governments, and businesses” who “didn’t hold a thought for the life of water, or a regard for the land that sustained people from the beginning of time,” but “saw it only on the flat, two-dimensional world of paper” (279). This function (and, indeed, definition) of environmental justice literature—as integrating the exposition of large-scale environmental crisis into engaging plots or evocative images—is undeniable. Yet the environmental justice interventions of Solar Storms cannot fully be understood without attending to its treatment of temporality. Indeed, in addition to the representation of historically accurate instances of environmental injustice, the ecological, cultural, and interpersonal politics of Solar Storms all rely upon a flexible model of time in which the deep past (at varying scales of depth) insistently returns to the present. This preoccupation with the deep past unites the documentary aspects of
the environmental plotline and the narrative elements of the familial plotline: both the story of indigenous resistance to the dam and the story of Angel’s coming to terms with her familial history rely upon characters exhibiting a flexible sense of history that is capable of recognizing the deep past in the present. In this way, *Solar Storms* helps us see the extent to which non-mimetic literary strategies contribute to an otherwise representational narrative politics of environmental justice: if incidents within Hogan’s novel suggest that the recognition of deep time is a key component of missions of justice, the novel itself enables that same recognition of deep time in the reader.40

Scholarship on indigenous literature has long recognized its abiding investment in disrupting Euro-American temporality. As Catherine Rainwater writes in *Dreams of Fiery Stars*, if the disruption of Western temporality is key to indigenous literature’s critiques of pernicious eco-political ideologies, the “spatial and temporal codes inscribed within [Western] narrative forms constitute particularly significant challenges to Native American and other ethnic writers in their endeavors to represent worlds not in conformity with western material and mechanical notions of space and time.” Rainwater argues that contemporary indigenous writers have therefore “developed an impressive

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40 My argument here is similar to the claim Lydia Cooper makes regarding Hogan’s 1999 novel, *Power*. As Cooper explains, the “primary interest” of much of the scholarship on *Power* “is exploring the political and ideological framework for the novel, rather than exploring the relationship between the novel’s form—its aesthetics—and its political function” (“Woman” 145). By contrast, Cooper suggests that “in order to understand the specifics of Hogan’s approach to environmental justice in *Power*, it is necessary to explore the relationship between literary form, symbolism, and theme,” to show that, while “the court scene at the heart of the novel brings up knotty political questions regarding Euro-American guilt and tribal sovereignty, *Power*’s focus is not necessarily on the political aspects of eco-defense but rather on the personal and spiritual components,” which Hogan establishes through a series of extended metaphors (145, 148).
array of narrative techniques” for narratively integrating visions of space-time that disrupt mechanistic and reductive worldviews (104). Similarly, Theresa Smith and Jill Fiore argue that, in contrast to “Euroamericans, heirs to a transcendent monotheism, a capitalist and colonial mobility, and an adherence to the demands of linear time, [who] have told themselves stories about rising above this earth, journeying, dominating, and always searching for a sense of home and wholeness that is only truly realized on the other side of death,” environmentally inclined indigenous literature is “attuned to immanence, cyclical time, and a compelling sense of place” (60). In drawing attention to the significant treatment of deep time in Solar Storms, then, I am placing Hogan’s narrative politics of environmental justice within a broader context of the treatment of temporality in twentieth and twenty-first century indigenous fiction; I am also suggesting that such narrative treatments of time have eco-political purchase in the literature and culture of environmental justice more broadly.

Deep time structures the environmental justice imaginary of Solar Storms in three ways. First, the novel emphasizes the extent to which histories of violence run deep, and thus insists upon the fact that an accurate understanding of injustice requires a flexible temporal scale: in other words, within the narrative logic of Solar Storms, interpersonal, cultural, and environmental trauma operate on deep and ongoing scales of time. Second,

41 Hogan’s location within this trend has not gone unnoticed by scholars: as Carrie Bowen-Mercer writes, Hogan “asks us to question history as Euro-Americans know it: a linear continuum that divides one time from another and one space from another” (159).
the novel suggests that the inability to simultaneously grapple with deep history while recognizing its continuation in the present is at the heart of destructive Euro-American environmental and social practices. Third, as the novel progresses, these traumatic recognitions of deep time are revealed to be a precondition for both personal healing and eco-political activism. *Solar Storms* thus posits that the ability to think across temporal scales is not only a requirement for accessing histories of ecological and social violence, but also a technology for justice.

The novel continually underscores the extent to which the multiple traumas to which Angel’s family has been subjected are the result of deep histories, stretching back generations and even centuries. This frequently manifests as a preoccupation with correctly perceiving the origin points of violence: “Beginnings were important to my people,” Angel tells us. “As in Genesis, the first word shaped what would follow. It was of utmost importance. It determined the kind of world that can be created” (37). This knowledge prompts a continual process of narrative return within the book, as Angel’s family collectively probes the long series of events that led to Angel’s abuse at her mother’s hand. The violence did not begin with Hannah; Hannah herself cannot be understood without attending to generations of harm done to people and to nonhuman nature. “My beginning was Hannah’s beginning, one of broken lives, gone animals, trees felled and kindled,” Angel recognizes as Bush describes how she sought to raise and heal Hannah, the product of her absent husband’s extramarital affair: “Our beginnings
were intricately bound up with the history of the land. I already knew that in the nooks of America, the crannies of marble buildings, my story unfolded. This, I suppose, was the true house of my mother. The real place from which I originated was in the offices of social workers” (96). Yet even the officials who failed to protect Angel and Hannah before her were not the true origin of trauma: “it went even further back than that, to houses of law with their unkept treaties, to the broken connections of people to the world and its many gods” (96). Everyone who met Hannah, Bush tells Angel, knew that she held an accumulation of deep injustices done to indigenous people and their lands. “She is the house,” an elder told Bush in Hannah’s adolescence; “she is the meeting place” (101). “I didn’t know what he meant at first,” Bush remembers. “But I saw it in time, her life going backward to where time and history and genocide gather and move like a cloud above the spilled oceans of blood. That little girl’s body was the place where all this met” (101).

To understand Angel, then, requires understanding Hannah. Yet understanding Hannah requires going back further still. Agnes, a generation further removed, tries at one point to explain the next layer of history to Angel, turning to the early twentieth century and the life of Angel’s grandmother, Loretta. Hannah “smelled of the same bitter almonds” as her mother did: “No matter how we scrubbed, the smell never came off that poor girl,” Agnes remembers. “It was deeper than skin. It was blood-deep. It was history-deep” (40). Loretta was from the Elk Islanders, “the people who became so
hungry they ate the poisoned carcasses of deer that the settlers left out for the wolves”; as the result of this mass poisoning, which means that Loretta forever exudes the bitter almond scent of cyanide, Loretta is left alone in the world and is vulnerable to horrific treatment by men who physically and sexually abuse her (38). “That was how one day she became the one who hurt others,” Agnes tells Angel. “It was passed down. I could almost hear their voices when she talked, babbling behind hers, men’s voices speaking English. Something scary lived behind her voice … But Loretta wasn’t the original sin” (39). Thus, Agnes tells Angel, “What happened to you started long ago. It began around the time of the killing of the wolves. When people were starving” (37). Loretta and Hannah, then, are both products of long histories that require a deep sense of time: Hannah was the beginning of Angel, and Hannah, as Bush puts it, “was the sum total of ledger books and laws. Some of her ancestors walked out of death, out of a massacre. Some of them came from the long trail of dying, people sent from their world, and she was also the child of those starving and poisoned people on Elk Island” (101).

The novel ultimately refuses to resolve the origin of this trauma. “I don’t know where the beginning was, your story, ours,” Agnes confesses:

Maybe it came down in the milk of our mothers. Old Man said it was in the train tracks that went through the land and came out of the iron mines. I’ve thought of this for years. It might have started when the crying children were taken away from their mothers or when the logging camps started and cities were built from our woods, or when they cut the rest of the trees to raise cattle. (40)

What is clear, however, is that Angel cannot understand her own present trauma
without acquiring a flexible sense of deep time—one that is capable of accommodating the long histories of genocide and ecocide that shape her family story, one that eventually allows her to look at her great-great-grandmother Dora-Rouge and “see the deep past, even before the time of Dora-Rouge,” to the woman who witnessed the first white male settlers arrive beneath “the wind-filled sails of the graceful boat of death” (168). As Julie Sze writes, “Angela understands that the maternal abuse she suffered was a result of pain and violence—not just as individual acts, but as a result of complex cultural and intergenerational wounds directed at Native peoples, of which the dam is the most recent incarnation” (137). Solar Storms thus shows Angel learning to negotiate the deep scales of time across which histories of social and environmental violence have shaped her present.

As the novel continues, Angel directly confronts the way those histories have translated into the present moment: if her familial past was shaped by settler colonialism, her present is marked by her efforts to resist the dam, which means a series of confrontations with the white male developers whose projects produce environmental devastation and whose modes of enforcing construction rely upon intimidation and violence. Armed with her growing knowledge of her own deeper histories, Angel is able to see these men as the newest iteration of long hemispheric histories of anti-indigenous violence. Further, she is increasingly aware that their actions are rooted in an inability to see the connection between the deep past and the present: in other words, through
Angel’s observations, *Solar Storms* shows how those who enact social and ecological harm do so because they are not equipped to think across deep history. At times, Angel suggests simply that the white officials do not respect the depth of the ecological and social histories that the hydroelectric dam threatens to disrupt. The people who lived on the lands that would be flooded by the dam “had lived there forever, for more than ten thousand years, and had been sustained by these lands that were now being called empty and useless,” she recognizes, but “if the dam project continued, the lives of the people who lived there would cease to be, a way of life would end in yet another act of displacement and betrayal” (58). This betrayal is made evident in the attitude taken by the officials toward the land: “their language didn’t hold a thought for the life of water, or a regard for the land that sustained people from the beginning of time. They didn’t remember the sacred treaties between humans and animals” (279). This inability to imagine historical depth stretches both backward and forward. As Angel posits, perhaps “such men could not see all the way to the end of their actions. They were shortsighted. They had no vision. They had no future within them, no past” (289). As a result, the white men Angel and the other protesters confront evince a near-total alienation from the nonhuman world.

Such moments might initially seem to suggest that Hogan is presenting Angel and her co-conspirators as examples of the “Ecological Indian,” the term that Shepherd Krech proposed to describe the nostalgic (and, he contended, false) image of America’s
pre-contact indigenous populations as noble stewards living in total harmony with the natural world.\textsuperscript{42} Christa Grewe-Volpp has convincingly argued that Hogan’s engagement with the stereotype is strategic, such that \textit{Solar Storms} “employs the Ecological Indian critically, even subversively, to undermine dichotomous thinking, to work towards a symbiosis of Euroamerican and American Indian ways of life” (“Ecological” 271). One way, I suggest, that Hogan complicates the familiar stereotype of indigenous stewards confronting environmentally alienated whites is her nuanced treatment of time. For it is not simply the case that the white officials lack some indigenously identified reverence for deep ecological and social history; rather, they lack the ability to understand how deep time connects to the \textit{present}. Angel is increasingly aware of this toward the end of the book, as her intellectual and emotional acuity comes into focus. The police officers facing off against the protest, she says, are “boys from the city” who “were too young to see beyond their own skin, let alone to care about other skins, darker and older, skins that knew land, animals, and water” (305). Yet this immaturity is ultimately the product of an inability to see the relationship of history to the present, rather than an uncomplicated lack of respect for the past: as she explains, these men “had probably, until now, believed we no longer existed. They had long

\textsuperscript{42} Responses to Krech were wide-ranging: while some embrace his critique of white stereotyping of indigenous peoples, others, such as Vine Deloria, read Krech’s work as excusing white atrocities by pointing to pre-European contact indigenous impacts on the land, or “attacking Indians in the guise of ecological history” (qtd. in Sharlet). See the anthology edited by Michael Harkin and David Rich Lewis for an overview of this debate and its afterlives.
admired the photos and stories of our dead, only to find us alive and threatening” (305).
This nuance disrupts the nostalgic stereotype of the “Ecological Indian” as some long-
lost emblem of a prelapsarian ecological past; instead, it underscores the
contemporariness of the indigenous protesters, their dynamism and rebuttal of
stereotypes, their refusal to be confined to a tragic past. Indeed, in the book’s final pages,
Angel makes this point even more clearly:

To others, we were such insignificant people. In their minds we were only
a remnant of the past. They romanticized this past in fantasy, sometimes
even wanted to bring it back for themselves, but they despised our real
human presence. Their men, even their children, had entered forests,
pretended to be us, imagined our lives, but now we were present, alive, a
force to be reckoned with. (343)

In this way, Solar Storms shows the extent to which a flexible and, crucially, unromantic
understanding of deep time is necessary for social justice: only by comprehending deep
history can one recognize the legacies of violence which continue to shape inequality
and environmental harm in the present. Yet that comprehension of deep history must be
rooted in what Gerald Vizenor has called “survivance,” a dynamic version of survival
that is oriented toward the future rather than seeking to replicate a static and idealized
past. Survivance treats survival not as a “natural” act or one necessarily rooted in
essentialist understandings of identity, but instead as both the conscious protection and
the ongoing construction of a group’s politics and aesthetics. The ability to see deep
time, through survivance, as in dynamic and mutating relation to the present is thus at
the heart of Hogan’s environmental justice imaginary.
Indeed, as *Solar Storms* moves toward its conclusion, it becomes clear that deep time is for Angel not just a means for comprehending her personal, familial, social, and ecological wounds, nor is it merely an explanation for how those wounds came and continue to be inflicted. Instead, the novel frames the ability to reckon with deep time as productive of *healing*—and, crucially, of coalitional activism. As Sze notes, “Angela comes to understand … that the terrible environmental and social abuses directed at her community are paradoxically a source of renewal and activism” (137). Further, this redemption is rooted in what Grewe-Volpp calls “a different sense … of time” that lets Angel understand her deep temporal connection to nonhuman nature, not in order to “escape from contemporary social and cultural problems,” but instead to “enter history” and recognize her “power and responsibility” to fight for the survivance of the natural world and of vulnerable indigenous populations (“Ecological” 278).43

Angel experiences her growing awareness of deep time first as the condition of possibility for her own healing. “It was an old world in which I began to bloom,” she tells us (48). This world is rooted in “another kind of time, one that floated down through history, and like the lake we [she and her grandmothers] traveled, was unsounded and bottomless in places” (64). On Fur Island, where Bush lives, “a person

43 The personal and political rejuvenation of the latter half of the novel has been the subject of much critical attention within ecofeminist and indigenous literary scholarship; Alaimo (“Skin”), Laura Castor, Grewe-Volpp (“Ecological”), Rainwater (“Intertextual”), and Silvia Schultermandl, among others, have all highlighted Hogan’s visions of individual and collective redemption across the boundaries of social and even of species difference.
could feel and hear where the faraway and ancient began” (93). Her new imaginative access to deep time produces her capacity to heal herself, and thus to address the intergenerational wounds of her mother’s line. Contemplating herself when she first arrived at Adam’s Rib, Angel reflects, “I didn’t know then that what I really wanted none of us would ever have. I wanted an unbroken line between me and the past. I wanted not to be fragments and pieces left behind by fur traders, soldiers, priests, and schools” (77). Those fractures cannot be undone, but when she begins to access deep time—to think about extended ancestral histories, about long-held traditions, about ancient modes of relation between humans and nonhumans—she is able “to imagine [herself], along with the parts and fragments of stories, as if it all was part of a great brokenness moving, trying to move, toward wholeness,” to “put together all the pieces of history, of [her] life, and [her] mother’s, to make something whole” (85, 86).

As the book continues, Angel comes to see how this new temporal perspective can provide not only the conditions for her own recovery from familial trauma, but also for a broader understanding of activism as a form of collective eco-political healing. It is her new awareness of Wolverine tales, which have dipped in and out of her family’s recounting of the nested stories of Hannah and Loretta, that gives her the idea to destroy the construction crew’s food supplies; even more profoundly, it is the redemptive recognition of deep histories and ties between people and nature that give Angel and the other activists the courage and conviction to persist. “For my people,” Angel reflects,
“the only possibility of survival has been resistance,” and for them resistance has arrived through the reinvestment in the strength and validity of older ways (325). “Beginnings, I know now, are everything,” Angel tells us: “Perhaps my own return began long ago, in a time before I was born, when I was held inside the bodies of my ancestors … For tens of thousands of years, we spoke with the animals and they spoke with us” (334). Deep time thus provides imaginative access to the ancient evolutionary kinships between species, persistent forms of kinship that demand and provide the impetus for environmental and social action: “Older creatures are remembered in the blood. Inside ourselves we are not yet upright walkers. We are tree. We are frog in amber” (351). As Stacy Alaimo argues, Angel’s description of this evolutionary memory “[rewrites] the body” as “a threshold where nature and culture dissolve,” undoing the pernicious social binaries—man/woman, white people/people of color—that have accompanied the human/nature dichotomy (137).

This deep evolutionary memory is rooted in a revised relation between human and land, in a new understanding of the human/nature relationship that produces protection rather than extraction of the nonhuman landscape. Yet, within Solar Storms, this flexible sense of deep time does not produce simply a reduction of politics into nature, a romantic journey home from the polluted present into the pristine past. Indeed, as I detail above, Angel consistently refuses any perspectives on this temporally and ethically expansive sense of kinship that frame it as a relic, an anachronism. Instead,
the ability to access deep time produces a new and non-essentialist political potential, a new way of understanding the relationship between present and past that acknowledges interpersonal and interspecies bonds and responsibilities. Indeed, as Laura Castor suggests, Angel’s experience allows “readers without direct experience of having their land, language, and culture taken … [to] nonetheless participate in revising American collective memories in ways that acknowledge the importance of indigenous rights” (174). The novel itself models this form of collective action in the figure of Orensen, the white man who runs the post that eventually feeds and shelters the anti-dam activists. It is, *Solar Storms* makes clear, Orensen’s active sense of history that pushes him to become an ally: “At first,” Angel remembers, “Orensen resisted our struggle. I think he believed we would hurt him. It was an ancient fear, that we would retaliate for past wrongs. He remembered the old roots of these new events”—particularly a cruel act by Europeans who decimated the local food supply, then used the post to torturously limit their access to food (301). Yet it is precisely Orensen’s knowledge of those “old roots” that eventually leads him to join their side as a powerful co-conspirator: “He took up our cause because the injustice was so blatant that not even one of their own could abide it,” Angel tells us. “He was a fair man, and in spite of my first impression of him, I began to like him” (301).

The sense of deep time, then, is within *Solar Storms* not a mode of evading history but rather a radical technique for rewriting it. “Memory is long about these things,”
Angel tells us. “It happens that in a crisis, all of the time between one history and another falls away. It disappears and the two times come together, gathered as one. Remembered” (303). The phrase evokes Benjamin’s suggestion that “to articulate the past historically” means “to seize hold of a memory as it flashes up at a moment of danger” (255). For Angel, earning a deep sense of history allows access to unhealed wounds and, correspondingly, the desire to take action, to honor and heal old relations in the service of creating a more just and sustainable future. And, indeed, Solar Storms itself provides for the reader what Angel’s formative experience provided for her: narrative access to older histories, persistent forms of causality, deeper models of relation that produce, not nostalgia for the past, but rather a dedicated ethic of care for the future that manifests itself as determined action in the present.

3.3 Cultures of Consumption in Under the Feet of Jesus

Like Solar Storms, Under the Feet of Jesus is a canonical work of environmental justice nonfiction that addresses one of the major concerns of environmental justice activism. While Solar Storms deals primarily with indigenous land and water rights and the social and ecological repercussions of large-scale energy technologies, Under the Feet of Jesus describes the differential impact of pesticides on agricultural laborers and the ways in which systems of economic and social inequality interact with environmental health hazards. In a 2001 interview, Viramontes described the novel as a form of literary protest: “I think the underlining is a real sense of trying to write about social injustices, a
real sense of outrage,” she said. “When I’m so incredibly angry at how people have been
treated, the racism and sexism, it becomes almost a surreal thing. It’s so absurd when I
think about how horribly people are treated” (Interview with Junquera 232).

Again like Solar Storms, Under the Feet of Jesus centers on a young female character
as she comes into political consciousness: thirteen-year-old Estrella, who arrives at a
California farm with her mother, Petra, her mother’s partner Perfecto, and her younger
siblings. There, she meets the slightly older teen Alejo, who is picking with his cousin
Gumecindo with the goal of earning enough to continue his studies; as the novel
progresses, the two tentatively form a romantic relationship. The novel’s climax comes
when a rogue cropduster sprays the fields despite not having been scheduled to do so.
Having returned to the fields to pick extra peaches to sell, Alejo and Gumecindo
scramble to escape the pesticide, but Alejo does not succeed. He initially seems to
recover, but quickly grows sicker and sicker despite Petra’s efforts to cure him with
home remedies. Estrella and her family decide to bring him to a nearby clinic, where a
nurse takes their last few dollars but tells them there is nothing she can do and instructs
them to deliver Alejo to a hospital twenty miles away—a distance that will require them
to purchase gas, which they cannot do without the money she has taken for nothing. The
family leaves; then, enraged, Estrella returns with a crowbar from Perfecto’s toolbox and
intimidates the nurse into returning their $9.07, which they use to bring Alejo to the
hospital. They leave him there and return to their temporary home near the fields; only
then does Estrella realize she may never see Alejo again.

Viramontes intended the novel to serve as an exposition and scathing critique of the conditions under which primarily Latin@ workers labor in American agribusiness. Along with Moraga’s 1994 play Heroes and Saints, the novel was quickly recognized as a key contribution to the literature of environmental justice in relation to Chican@ environmental issues. (Like Under the Feet of Jesus, Heroes and Saints depicts the impacts of pesticide exposure in Chican@ farmworker communities.) Laura Pulido and Devon Peña have both explored the particular conception of environment that characterizes Chicano environmentalism, suggesting that Chican@ environmentalism transforms the way in which nature and environmental quality are understood. As Pulido suggests, those who participate in “subaltern environmental movements” have a unique position in relation to environmental concerns: “for these individuals, environmental issues are important in that they affect their livelihood or impact their health and physical well-being”; theirs is thus “an environmentalism of everyday life” (28, 30). Peña elaborates on this, arguing that “the environmental justice movement puts humans back in the picture by recognizing that the environment is the place where we live, work, and play” and that “Chicano environmentalism is not so much about the preservation of nature and wilderness as it is about struggles to confront daily hazards and threats to health and well-being in environments where we live and work” (14, 15).

44 Indeed, the novel is dedicated to farmworkers: to Viramontes’ parents, as well as César Chavez.
Chican@ environmentalism has often sought to make these hazards visible to an under-informed public. For instance, in a 1989 address delivered at Pacific Lutheran University calling for a grape boycott, César Chavez offered both statistical accounts of the increased prevalence of childhood cancer and birth defects among farmworkers’ children and in farm-adjacent communities and wrenching anecdotes of particular children affected by such afflictions. When farmworkers face so many economic and social injustices, he said, one might ask “why … we dwell so on the perils of pesticides.”

His answer:

Because there is something even more important to farm workers than the benefits unionization brings.

Because there is something more important to the farm workers’ union than winning better wages and working conditions.

That is protecting farm workers—and consumers—from systematic poisoning through the reckless use of agricultural toxics.

There is nothing we care more about than the lives and safety of our families.

There is nothing we share more deeply in common with the consumers of North America than the safety of the food all of us rely upon.

“What good does it do,” Chávez asked, “to achieve the blessings of collective bargaining and make economic progress for people when their health is destroyed in the process?”

Chávez’s speech was one of the culminations of the UFW’s commitment to campaigning for regulations on the use of pesticides, an effort that began in the 1960s, ramped up in the 1980s, and eventually contributed to the passage of the Food Quality
Protection Act of 1996, which codified the EPA’s regulation of pesticides. At the time of Viramontes’ writing, such regulation was not yet in place, and public visibility of the problem was a major issue. Under the Feet of Jesus can thus be read as an attempt to make the often-invisible forms of violence suffered by marginalized farmworkers impossible to ignore. To return to the quotation with which the chapter began, Viramontes hoped that the novel would render readers unable to avoid “think[ing] about the piscadores when they eat their salad”—that Under the Feet of Jesus would disrupt the willful ignorance surrounding the production of the U.S. food supply. This is to say that one way to understand Viramontes’ novel is as a political intervention aimed at insistent exposition. As Arianne Burford suggests, writers such as Viramontes “call for changes that would place the health and lives of farm workers over economic profit” and “protest the use of pesticides and the racist ideologies that foster the notion that farm workers’ lives are expendable”: to the extent that they “map the experiences of farm workers in California in the late twentieth century,” such texts document what “dominant discourses of history have attempted to render invisible” (4). Grewe-Volpp, too, argues that, “by foregrounding the issue of toxicity, Viramontes … exposes mechanisms of oppression that affect primarily underprivileged [sic] races and classes and that have a special influence on women, thus stressing criteria central to ecocritical,

45 For more on environmental, food, and social justice issues surrounding agricultural labor, see Jill Harrison, Seth Holmes, and Margaret Reeves, Anne Katten, and Martha Guzmán, as well as Pulido.
ecofeminist and environmental justice analysis” (“Oil” 69). Indeed, as Barbara Brinson Curiel argues, “Estrella’s coming to consciousness parallels the consciousness-raising process of workers in the UFW union,” in that “awareness and articulation of individual and group rights are important precursors to organizing” (43). By tracing Estrella’s firsthand encounters with the economic and environmental injustices of her family’s location within agribusiness, in other words, Viramontes uses her novel as a tool for raising awareness in preparation for collective environmental justice action. Another way to articulate this understanding of the novel is to frame it as a kind of testimonio, a genre that has been of particular interest within Chican@ and Latin@ studies. Anne Shea, for instance, reads the novel alongside and as in conversation with farmworker testimonies. If migrant laborers’ “battles are waged not only through the picket line, the strike, and the ballot box but also through the production of narratives that articulate forms of oppositional knowledge and identity,” she argues, then testimonies are significant political texts in that they “disrupt the hegemonic narrative of immigration and fracture the romanticized images of farm work found on raisin boxes and in the nightly news”—and, similarly, “the work of Chicano/a artists, like Helena Maria Viramontes … shatters stereotypical images of Mexicanos, Chicanos, and farm laborers” and “creates a complementary narrative that can be read alongside worker testimonies” (123, 137). Such readings see the narrative politics of Viramontes’ novel as focused on documenting the injustices that Chican@ farm workers face. As Viramontes shows her
characters’ exposure to toxics, limited food resources, and lack of access to basic medical care, her novel uses exposition as a foundational contribution to political intervention.

A critical counter-current, however, has pushed against such readings of Viramontes’ fiction, and of ethnic and social justice literature in general, suggesting that these readings run the risk of reducing texts to illustrations and thus eliding the nuances of their representational strategies. Rooted, in part, in Ramón Saldívar’s contention that the “dialectics of difference” give Chican@ writers “an authentic way of grappling with a reality that seems always to transcend representation,” environmental justice scholars attending to Viramontes’ work have sought to attend more carefully to the novel as a literary and not only sociological, ethnographic, or documentary contribution to the environmental justice movement (5). Lydia Cooper succinctly summarizes this position when she writes, “Under the Feet of Jesus, like all of Viramontes’s works, does pose important social critique, but limiting examinations of the novel to sociological issues overlooks what is perhaps the novel’s most significant argument, namely, the importance of literary language in the creation and sustenance of identity” (“Bone” 367). Similarly, Hsuan Hsu argues that, “whereas environmental-justice research has tended to privilege sociological data … aesthetic analysis productively foregrounds the conditions for perceiving (or not perceiving) the mechanisms and consequences of environmental racism,” suggesting that literary works (and, subsequently, literary criticism) have a special role to play in “the conditioning of perception” around
environmental injustice and ecological risk (147). Hsu’s own reading of the novel’s deployment of metonymy, Mitchum Huehl’s assessment of Viramontes’ use of catachresis, Dan Latimer’s contention that “Viramontes is less interested in political ideology than in primal human suffering,” and Shea’s assessment of the ecofeminist and transnational politics of the novel’s imagery, as well as Paula Moya’s postpositivist reading of the novel’s metaphoric, structural, and thematic significance, are all key examples of the critical attempt to re-center the novel’s status as a work of aesthetic representation, not as a pure reproduction (Latimer 328, Moya 175-214).

Without denying the force and significance of the novel’s role in documenting often-unseen forms of injustice, then, I join these critics in attending to the ways in which the novel does something other than document. More specifically, I argue that Viramontes’ repeated invocation of deep time, accomplished through fantastical images of the La Brea Tar Pits in Los Angeles, structure the novel’s critique of the injustices about which its more realistic narrative elements seek to educate the reader. In Under the Feet of Jesus, references to deep time dramatize the depths of injustice to which Alejo and other characters are subjected in a way that simultaneously produces Estrella’s political awakening and pushes the reader to join her in that awakening. In other words, the many reveries and internal monologues regarding the La Brea Tar Pits teach both Estrella and the reader precisely how to articulate the key connection between the ecological and the social harms of Californian agribusiness. This connection lies in a
culture of consumption, and the extent to which consumable resources—a category that, as Estrella realizes, encompasses *humans* as well as the nonhuman and even the nonliving—are automatically excised from the historical record, externalized even from the historical imagination.

Viramontes had long had the impulse to include references to La Brea in her fiction. Drafts toward an early story from a writing workshop, called at various points “Dinosaurs,” “The Dinosaur Hunter” and “The Tar Pits,” featured a young girl whose asides revealed a preoccupation with paleontology: “Mammoths … would go into the pits thinking maybe its a pond see. They go into the pond and BOOM, they get stuck. Its all a trick, and maybe they’re stupid anyway. Trillions of years later, we hunters look for them in the center of the earth to bring them back, put them together like a puzzle. I like that. I like what we hunters do,” she tells us. “I can make believe real good about the LaBrea tar pits. I can hear the dinosaurs trapped in the pits. They are roaring and crying and other dinosaurs come to eat them. But they are tricked, too ... And they all end up dying [sic].” Ultimately, the asides didn’t seem to fit the arc of the story in a thematically satisfying way; as one peer letter noted, “You must have a strong reason for putting the Tar Pits in the story—but I don’t see it myself” (Helena María Viramontes Papers Box 15, Folder 15). In *Under the Feet of Jesus*, however, this motif eventually found its home.

Deep time first enters the novel through an optimistic lens. When we meet Alejo, he is enamored of geology: “He loved stones and the history of stones because he
believed himself to be a solid mass of boulder thrust out of the earth and not some particle lost in infinite and cosmic space,” we learn. “With a simple touch of a hand and a hungry wonder of his connection to it all, he not only became a part of the earth’s history, but would exist as the boulders did, for eternity” (52). (In a 1994 letter to Sonia Saldívar-Hull, Viramontes confessed that she shared Alejo’s perspective: “I love my people so much,” she wrote. “We have survived for thousands of years and will continue. Just like Alejo, I want to touch the stone of a thousand years and with that touch be a part of the stone and thus another cycle of a thousand years” [Helena María Viramontes Papers Box 11, Folder 23].) Alejo’s abiding love of geology is rooted both in his passion for historical knowledge and his belief that he has a secure place in the historical record. It is for this reason that Alejo is set on returning to school, and thus that he is in the peach fields in the first place: he dreams of becoming a geologist, of studying sites such as La Brea to trace the histories contained within.

As the book progresses, however, this sense of the depth of time contained in ancient sites such as La Brea transforms, morphing from an emblem of permanence into one of historical invisibility, of vulnerability to exploitative and dehumanizing treatment as a natural resource. This transformation occurs most dramatically when Alejo is caught within the wafting spray of the cropduster. The first descriptions are material, patiently detailing the physical effects of being caught in a cloud of pesticide:

At first it was just a slight moisture until the poison rolled down his face in deep sticky streaks. The lingering smell was a scent of ocean
salt and beached kelp until he inhaled again and could detect under the innocence the heavy chemical choke of poison ... Air clogged in his lungs and he thought he was just holding his breath, until he tried exhaling but couldn’t, which meant he couldn’t breathe ...

Alejo’s head spun and he shut his stinging eyes tighter to regain balance. But a hole ripped in his stomach like a match to paper, spreading into a deeper and bigger black hole that wanted to swallow him completely. He knew he would vomit. His clothes were dampened through, then the sheet of his skin absorbed the chemical and his whole body began to cramp from the shrinking pull of his skin squeezing against his bones. (77)

As the biplane roars past and returns, however, dousing Alejo with a second spray, these realistic descriptions fade into a hallucinatory image of La Brea. “As the rotary motor of the biplane approached again,” we learn, “he closed his eyes and imagined sinking into the tar pits”:

He thought first of his feet sinking, sinking to his knee joints, swallowing his waist and torso, the pressure of tar squeezing his chest and crushing his ribs. Engulfing his skin up to his chin, his mouth, his nose, bubbled air. Black bubbles erasing him. Finally the eyes. Blankness. Thousands of bones, the bleached white marrow of bones. Splintered bone pieced together by wire to make a whole, surfaced bone. No fingerprint or history, bone. No lava stone. No story or family, bone. (78)

In this hallucination, what was once a source of joy and security is transformed into a source of suffering and a threat of historical illegibility. In this moment of physical trauma—in this terrible consequence to the environmental injustice that renders farmworkers disproportionately vulnerable to dangerous substances—Alejo feels acutely both the menace of his own impending death and the likelihood that this death will mean his historical erasure. In fact, though the novel will wait to let Estrella
explicitly voice this insight near the end, the two new and treacherous meanings of La Brea are connected: it is not his injury that renders him historically invisible; rather, it is his social and historical marginalization that renders him vulnerable to such an injury.

In the brief interim between being exposed to the pesticide and succumbing to its toxic effects, Alejo is preoccupied enough with this hallucination to share some part of it with Estrella. As they examine the oil leaking from a car, he asks her if she knows where oil comes from and if she has heard of La Brea. “Imagine bones at the bottom of the sea,” he says. “The bones lay in the seabed for millions of years. That’s how it was. Makes sense don’t it, bones becoming tar oil?” (87). The image clearly frightens both of them: “Once, when I picked peaches,” he confesses, “I heard screams. It reminded me of the animals stuck in the tar pits.” “Did people ever get stuck?” Estrella asks. “Only one,” he replies, “in the La Brea tar pits, they found some human bones. A young girl” (88). Alejo falls ill soon after, drifting into a mostly nonresponsive state and prompting Petra, Perfecto, and her children to take him to the clinic in search of medical advice, but the image haunts Estrella. It springs to her mind when they are digging their decrepit car out from the mud and she feels the muddy earth rising around her calves: “She thought of the young girl that Alejo had told her about, the one girl they found in the La Brea Tar Pits. They found her in a few bones. No details of her life were left behind, no piece of cloth, no ring, no doll. A few bits of bone displayed somewhere under a glass case and nothing else” (129). Frightened at the clear danger her friend and romantic interest is in,
and frustrated at the lack of literal and economic mobility that makes it so difficult to help him, she turns to La Brea as a way to articulate both her feeling of helpless stasis and her sense that the rest of the world—particularly those with the power to document others—has no interest in the details of their plight.

This insight comes into even sharper relief when Estrella, infuriated at the clinic nurse’s lack of interest in helping the critically ill Alejo beyond taking their money and directing them to transport him to the hospital, makes the snap decision to take dramatic action and reclaim their fee. This decision comes directly from her epiphany regarding La Brea. “She remembered the tar pits,” Viramontes tells us:

Energy money, the fossilized bones of energy matter. How bones made of oil and oil made gasoline. The oil was made from their bones, and it was their bones that kept the nurse’s car from not halting on some highway, kept her on her way to Daisyfield to pick up her boys at six. It was their bones that kept the air conditioning in the cars humming, that kept them moving on the long dotted line on the map. Their bones. Why couldn’t the nurse see that? Estrella had figured it out: the nurse owed them as much as they owed her. (148)

Immediately after this realization, Estrella tells her family to stay in the car while she brings the crowbar inside and tells the nurse that she will break the windows if she doesn’t return the $9.07 the family paid for useless advice and needs for gas to drive Alejo to the hospital. What is made clear in this passage is that La Brea gives Estrella the imaginative impetus she needs to make that drastic move. Contemplating the image of ancient, desperate creatures, trapped in unforgiving tar, turning slowly into a resource that will be wantonly consumed by those without power and denied to those without it,
Estrella recognizes in their suffering the structure of her own situation. She, too, is trapped. She, too, has been treated all her life as a source for economic fuel, and compensated poorly for it. She, too, is being consumed—and at a disproportionate pace. It is this knowledge as much as the crowbar that arms Estrella, giving her the anger and conviction to demand some small restitution, some minor act of justice.

Within this novel, the La Brea Tar Pits thus conjure up a complicated network of meaning that encompasses both the threat of historical erasure and the certainty of extractive and exploitative treatment. Critics have noted these dual meanings, yet have largely glossed over the implications of the fact that they are nested in an image that cannot be understood outside of the context of a deep temporal imagination. Moya, for instance, sees Viramontes’ treatment of La Brea as intended to emphasize historical illegibility; as she writes, “part of what is at stake for Viramontes in this fictional representation of a migrant farmworker community is the risk that life stories like Alejo’s might have no historical meaning”—and, she adds, “in the absence of a complete and accurate historical record, some humans risk becoming nothing more than organic material that may be useful for someone else’s purposes” (202). Latimer and Grewe-Volpp concur, suggesting respectively that petroleum and bones become for Estrella “the correlative, the estranged value, the labor of her underpaid, under-appreciated people” and that “Chicanos/as and the oil are mere resources for the white agribusiness, both instruments of its perpetual needs” (335, “Oil” 71). Meanwhile, Burford argues that
the tar pits are used “as a metaphor for the history of violence enacted on Mexican Americans in the United States and for the erasure of that very history”; as she elaborates, “tar pits are created from thousands of years of death, and the erasure of the history of the animals and people who died in the tar pits parallels the history of those who die from pesticide exposure: their histories are too often unacknowledged by dominant discourses” (23). Burford here mentions the long duration of the process by which bones become oil, but never addresses the significance of that duration, or of the ancient timespans required for such a process to occur.

By contrast, what I wish to suggest is that La Brea’s role in this novel cannot be understood outside of the context of deep time. Many other images in the novel illustrate how the piscadores are being dehumanized and treated as a resource. When Estrella agrees to help Perfecto take down a dilapidated barn, for instance, she thinks, “Is this what happens? … people just use you until you’re all used up, then rip you into pieces when they’re finished using you?” (75). Likewise, when helping Alejo climb onto the nurse’s cot for examination, Estrella worries; she “didn’t want him to feel like a slab of beef on butcher paper” (140). Even more striking is Perfecto’s stunned gratitude upon hearing Estrella thank him for helping to save Alejo: “He had given this country his all,” he thinks, “and in this land that used his bones for kindling, in this land that never once in the thirty years he worked, never once said thank you” (155). La Brea stands out from these, and from the other imagery that conflates exhausted bodies with landscapes
marked by environmental devastation—from the comparison of railroad ties and Petra’s Caesarean scars to Perfecto’s dreams of illness that feature “his veins like irrigation canals clogged with dying insects, twitching on their backs, their little twig legs jerking” (59, 100).

The tar pits are imaginatively unique in that they require the kind of expansive temporal imagination that allows extended and thus historically invisible suffering to come into being. The lens of La Brea helps both Estrella and the reader through her see what happened to Alejo not as a freak accident, but rather as the most rapid and thus most comprehensible example of much older and slower systems of violence—the systems that forced him to seek out unjustly compensated labor to continue his education, the systems that have naturalized the economic and social inequality that leaves laborers at the mercy of foremen who lie about pesticides contaminating water sources, the systems that insinuate poisons into laborer’s bodies not just in a quick douse, but also over months and years of slow exposure, such that the pregnant Petra fears her child “being born without a mouth,” with “the poisons of the fields harden[ing] in its tiny little veins” (32). In other words, the deep sense of time that Alejo acquires through geology and imparts to Estrella is precisely what she needs to move from witnessing tragedies to recognizing injustices. The temporal imagination enabled by La Brea brings the pain of the deep past into sharp relief in the present. It operates at scales wide enough for the comprehension of slow processes that cumulatively produce
significant results. It also throws into sharp relief the absurd rapidity with which resources are being consumed by those who drive and benefit from California agribusiness. If it seems absurd that the oil it takes millions of years to produce is consumed in a short drive, it should seem no less absurd that a human life should be exploited so recklessly that it is, if not ended, then damaged irrevocably in less than twenty years.

La Brea thus functions as a way not only for Alejo to teach Estrella about oil, but also for Viramontes to teach the reader about the temporal imagination that an environmental justice analysis demands. Like Solar Storms, Under the Feet of Jesus shows a protagonist acquiring a keen sense of environmental harm, social injustice, and the constitutive connections between them through her imaginative grasp of deep history and its relationship to the present, even as it leads readers through the process of acquiring that sense of time.

### 3.4 Critical Temporality in (and out of) Environmental Justice Scholarship

In both Solar Storms and Under the Feet of Jesus, deep time serves both to provoke the characters to action and to create the conditions of possibility for such action in the reader. As was the case in the second chapter, these literary works thus offer us a new way to frame both the definition and the impact of the literature of environmental justice. Whereas Invisible Man and Mumbo Jumbo have not traditionally been read as invested in environmental issues, Solar Storms and Under the Feet of Jesus announce
themselves as novels invested in environmental justice. Yet the four novels share a
critical investment in non-normative, and indeed *nonhuman*, temporality. As these texts
probe the deep, gradual, and non-teleological forms of time commonly associated with
nature, they show how specific groups of people have been treated as part of nonhuman
nature and how people, things and processes that belong to that realm are included
neither in the historical record nor in the historical imagination. Further, they
demonstrate that literature can play a critical role in addressing this imaginative
limitation. In other words, *Invisible Man* and *Mumbo Jumbo* are indeed vital works for
environmental justice criticism despite the fact that they do not directly address
particular environmental injustices in a sustained fashion. The fact that Hogan’s and
Viramontes’s environmental justice texts share with these novels a commitment to what
I have called “environmental justice temporality” thus casts new light on the importance
of temporality to the environmental literature—and on the importance of literature to
environmental justice.

Moving from Ellison and Reed to Hogan and Viramontes also reveals new
connections between the literary projects of environmental justice and other social
justice causes. Ethnic literary scholarship from a range of fields has attended to the way
such literature disrupts spatiotemporal assumptions as it complicates narratives about
American progress and hegemony. If we add the disruption of environmentally and
socially devastating imaginations of history to our definition of the literature of
environmental justice, we see not only how that corpus expands, but also how new connections are revealed between canonical works of environmental justice literature and larger critical literary projects that are not directly related to environmental issues. The novels I discussed in the second chapter helped us see how the antiracist critique of progressive history might structure environmental justice analysis. As I conclude this chapter, I will show how the temporal politics of *Solar Storms* and *Under the Feet of Jesus* intersect with two critical issues that lie beyond the strict boundaries of environmental justice.

The first is the transnational turn within American and comparative literary studies. This turn has been framed primarily through the lens of space and place: studies that emphasize borders, diaspora, imperialism, and globalization have provided the critical analysis necessary to move beyond artificially bounded national objects of inquiry and to consider how ideas, bodies, resources, and policies travel across state borders. Indigenous and Latin@ literary and cultural studies have been particularly significant components of this critical analysis, contemplating global indigenous solidarity, highlighting spaces of exception and competing sovereignty within national borders, recognizing the transnational operations of imperialism and capitalism, and demanding hemispheric and border-focused analyses that refuse the intellectual

See, for instance, Paul Giles and Lisa Lowe, as well as anthologies edited by Wai Chee Dimock and Buell and Winfried Fluck, Donald Pease, and John Carlos Rowe.
hegemony of U.S. American studies. Such “remappings” are attempts to disrupt the forms of invisible violence and cultural reduction that subtend national forms of thought: for instance, Saldívar-Hull’s concept of “feminism on the border” and Mary Pat Brady’s work on Chican@ theorizations of space and scale both suggest that new ways of imagining space can produce new perspectives on injustice and resistance across borders. Both Under the Feet of Jesus and Solar Storms can be read as border texts: as Solar Storms’ characters literally move across national boundaries, they show how political and environmental shifts also operate transnationally; as the characters of Under the Feet of Jesus contemplate their relationship to place, histories of transnational and imperial displacement produce hemispheric analyses. Yet, in their treatment of deep time, these novels also help us see how new models of time can disrupt national imaginaries: as Solar Storms and Under the Feet of Jesus use deep time to reveal long and invisible histories of colonial injustice, they produce transnational, anti-exceptionalist, and anticolonial forms of textual critique that are as invested in time as they are in space, as rooted in pre-and post-national histories as they are in movement across national borders.47 These texts thus add new dimensions to transnational literary scholarship, both within and beyond the context of environmental literary studies, showing how

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47 Dimock offers not dissimilar readings of other texts in Through Other Continents, but the “deep time” she examines is largely (as Mark McGurl has noted) actually relatively shallow and based on intertextual references to earlier works.
time is a critical component of the transnational spatial imaginary.\textsuperscript{48}

The second critical debate to which my readings of the temporal politics of \textit{Solar Storms} and \textit{Under the Feet of Jesus} might contribute is the growth of critical attention to the challenge deep time poses to humanistic thought. The concept of deep time itself emerged in the eighteenth century with the rise of modern geology in James Hutton’s work, came to prominence in the nineteenth century geological scholarship of Charles Lyell, and ultimately motivated Charles Darwin’s theorization of evolution. Throughout the twentieth century, deep time migrated from science to history, motivating the relatively radical branches of historical scholarship that explicitly sought to expand historical perspectives.\textsuperscript{49} All of these historical practices are marked by an attention to

\textsuperscript{48} Environmental literary scholars have been eager to take up transnational forms of thought, pointing out that both bioregions and environmental degradation operate fluidly across national borders: as Buell puts it, environmental criticism is “moving to a global level of analysis” (\textit{Future} 90). Such global and transnational perspectives are evident in the work of Ziser and Sze, who seek to find “an effective response to GCC [global climate change] … that do[es] not pit nation against nation, race against race, or species against species” (386), as well as Heise, who suggests that the interdisciplinary environmental humanities “promise tools for developing ecocriticism’s global horizons” (“\textit{Globality}” 641), and Nixon, who stridently calls for a revision to American environmental literary studies such that transnational and not transcendental approaches dominate (33).

\textsuperscript{49} The mid-twentieth century Annales School, led by Fernand Braudel, took as its premise that the discipline of history would offer an incomplete record if it did not take into account both the geological and the social changes that operated in the \textit{longue durée} and provided the conditions of possibility for the relatively short-term events and changes with which traditional history concerned itself. The subdiscipline of environmental history, which emerged contemporaneously with the mainstream environmental movement in the 1970s, took its basic methodology and activist perspective from the premise that there were “two separate spheres” of time; as the editor of \textit{The American Historical Review} comments, “environmental history’s sense of a very much enlarged expanse of time makes its approach to chronology, development, or ‘history; very different from that of most historians” (Worster 7, Hoffman et al. 1432). Though the methodology of world systems analysis is often framed in terms of its spatial expansiveness—moving beyond the nation-state to consider global networks of center and periphery—its temporal depth of field is equally integral to its accounts of \textit{longue durée} economic and bioregional processes. Meanwhile, the interdisciplinary development of “Big
the ongoing interplay of distinct temporal scales—more precisely, by the desire to integrate deep time, albeit at varying depths. They also share a sense that this expansion of the temporal scale is ultimately a disciplinary question: incorporating deep time requires interdisciplinary modes of thought, integrating into humanistic and social scientific work the scholarly questions and objects of study traditionally left to the natural sciences.

Deep time has often been associated with the environmental sciences, but its relation to environmental justice has been more contested. In recent years, the recognition of the magnitude and severity of anthropogenic climate change has brought the question of deep time into sharper focus. As Chakrabarty notes in “The Climate of History,” climate change effectively demands the historical integration of the longue durée: as humans become agents of geologic change, they not only disrupt ancient planetary processes, but also threaten to leave major material traces in the far-distant future. Scholars have come to recognize this temporal scale as both a stark challenge to traditional humanistic practice and an opportunity to reframe the humanities as central to a changing world. Postcolonial scholars in particular have seen the Anthropocene as a challenge to traditional humanistic practice: while Chakrabarty does not gloss over the

History” since the 1990s takes deep time to new depths, seeking historical narratives that incorporate the cosmic as well as the biological, ecological, and geological scale.
material ecological dangers posed by climate change, he does point out that this
discourse itself fosters other forms of risk. “As the crisis [of climate change] gathered
momentum in the last few years,” he writes, “I realized that all my readings in theories
of globalization, Marxist analysis of capital, subaltern studies, and postcolonial criticism
over the last twenty-five years, while enormously useful in studying globalization, had
not really prepared me for making sense of this planetary conjuncture within which
humanity finds itself today” (199). While postcolonial studies has identified with a
politics of difference, resisting universalism as a technique of imperial violence, climate
change “appeal[s] to our sense of human universals” (“Climate” 199).

Humanities scholars have taken up a range of positions on the possibility of
politics (more specifically, of ethical resistance to social injustice) in deep time. These
scholarly debates tend to focus on what deep time inherently means for a practice of
inquiry within the humanities that takes seriously human rights and social justice. One
end of the spectrum is optimistic to the point of utopian; here we might place
Americanist literary scholar Wai Chee Dimock’s framing of deep time as an opportunity
to uncover new lines of literary and cultural connection, as well as historian Tom
Griffiths’ contention that deep time is inherently “so radically destabilising of
conventional, felt timescales, so revealing of long-term cycles, that it upsets linearity and
progressivism even as it seems to represent them.” The other end of the spectrum is
exemplified by the sharp rebukes that Mark McGurl and Paul Gillen offered to these
perspectives. While Dimock and Griffiths appear to suggest that the invocation of deep time necessarily fosters a trans- (and pre-, and post-)national sense of connection and even a politics of resistance, McGurl and Gillen hold that the invocation of deep time necessarily enervates politically motivated work by destabilizing its basic disciplinary premises—namely, that ethics, that social justice, that working to address historical and present exploitation, matter at all.

Describing this impasse as “a largish ethical defamiliarization,” Bruce Robbins suggests that coming to terms with deep time may be the most significant task facing the humanities in general and literary study in particular (192). “My intuition is that the defense of the humanities, which would also mean the revitalizing of the humanities, may depend on finding a way to hold onto both deep and linear time,” he writes (193). While “the humanities, under pressure, may be tempted to stress their traditional role as a designated site of remembrance and, at a globalizing moment, to display their ability to expand their memory functions infinitely … they should consider that their true

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50 McGurl contested Dimock’s utopian perspective, arguing that deep time properly understood invites not sublime connection but rather a perspective he characterizes as “posthuman comedy,” in which “scientific knowledge of the spatiotemporal vastness and numerosness of the nonhuman world becomes visible as a formal, representational, and finally existential problem” which “is difficult to integrate into even the most capacious visions of civilizational, national, or institutional continuity” (537-8). Likewise, Paul Gillen argued that “deep time has a darker side” than Griffiths seemed willing to acknowledge. While Griffiths contended that deep time could “dramatise the cataclysmic impact of Europeans on the [Australian] continent and its indigenous peoples, to heighten the apocalyptic tone of … narrative, and to increase our sense of the environmental destructiveness of western industrialization and of the Enlightenment,” Gillen suggested that deep time unseats the possibility not only of human historical grand narratives, but also of the modern sense of politics “as struggle to create an enduringly better world, or resist a worse one”; deep time thus marks “the end of history as a narrative of the struggle for a better world.”
business is not just to remember but to debate what is worth remembering and why”—
and literature, which can “build and inhabit collective agents” in unexpected and
spatiotemporally dispersed ways, offers one way to conceptualize the integration of
deep time into humanistic practice (203).

Postcolonial literary scholarship in particular—motivated in large part by
Chakrabarty’s assertion that climate change throws traditional postcolonial assumptions
into doubt—has responded enthusiastically to deep time’s provocations. In doing so,
scholars such as Ian Baucom, Teresa Shewry, and Rajender Kaur have largely followed
Robbins in articulating literature as a privileged genre through which to tackle this
temporal problem.\footnote{Shewry and Kaur both suggest that particular postcolonial literary negotiations of deep time use it to highlight ongoing political struggles, while working carefully to avoid its risk of, as Kaur puts it, “humbling human aspirations, including resistance against exploitation” (126). More sweepingly, Baucom argues that literary narrative in particular has the capacity to model the new forms of history that he suggests are vital to Anthropocene postcoloniality. The new universals that Chakrabarty invokes, he suggests, must be brought productively back into particularity: “the view from that [universal] perspective, is … the view of species-being, the view of the concert of the faculties, the view of the new alterglobal humanism I am describing and inviting us to consider as a model for postcolonial studies,” he writes, but “[i]f it is to be more than a view from on high … it must be more than that, or, perhaps more accurately, less than that; it must be less distanced, less empyrean, and less stratospheric. It must abandon the heavens, set feet back on the ground” (“Human” 11). Elsewhere, Baucom calls this historical perspective History 4°, a reference both to a commonly cited threshold of global warming past which catastrophic results would occur and to Chakrabarty; Baucom adds History 3—the new universal for which Chakrabarty calls in response to the Anthropocene in “The Climate of History”—to Chakrabarty’s previously explored historical paradigms of History 1—an Enlightenment vision of progressive history—and History 2—a subaltern historical imagination (“History 4°”).}
a more cautious and a more precise approach than Dimock. Recognizing that deep time
is not necessarily liberatory—that it has the capacity to de-emphasize social justice
politics—they trace the particular ways in which literary texts work to invoke deep time
in the service of those politics.

My readings of *Solar Storms* and *Under the Feet of Jesus* operate as an extension of
this line of reasoning: I argue not just that literature *can* use deep time in a politically
productive manner, but indeed that the narrative invocation of deep time is one of the
crucial strategies available to the literature of environmental justice. They demonstrate
how nonhuman temporality can be understood as not opposing, but rather working in
concert with social justice concerns. Indeed, it is this treatment of nonhuman temporality
as *highlighting* a history of raced and gendered violence that defines environmental
justice temporality. In other words, I suggest that a turn to nonhuman timescales does
not require or produce a turn away from humanistic concerns.

In this way, *Solar Storms* and *Under the Feet of Jesus* help us see how the treatment
of deep time can produce not only environmental justice analyses, but also broader
disruptions of political assumptions and positions that may answer but are not bounded
to environmental questions. In so doing, they illuminate new dimensions of the
literature of environmental justice—and of the ways in which literature can contribute to
political projects.
4. “A Much Longer Torment”: Slow Change, Climate Justice, and Narrative Form

Climate change, Morton has influentially declared, is a “hyperobject”—that is, an object that extends so far in space and time that it challenges the bases of human perception and cultural representation. Hyperobjects “involve profoundly different temporalities than the human-scale ones we are used to”; their proliferation marks a period in which “we are no longer able to think history as exclusively human,” but must recognize that the “geological cycles” of the planet demand a more-than-human philosophy of history (1, 5, 7). Morton’s notion that climate change disrupts the normal scales of human culture and action has become integral to scholars working in the environmental humanities. Indeed, this disruption has been read both as a destabilization of the foundations of humanistic inquiry (can the humanities operate at the limits of deep time, extinction, the geologic, the planetary?) and as an opportunity for humanistic scholarship to reestablish its relevance—and its urgency.\footnote{\textsuperscript{52} Such arguments, as I discuss in the previous chapter, are often framed in terms of historical imaginaries in the humanities; see, for instance, Baucom (“The Human Shore” and “History 4°”). This line of thought has permeated a number of humanistic disciplines; within the field of literary studies in particular, Lynn Keller has suggested that the arts and humanities have a special role to play in promoting sustainability, while Matthew Taylor argues that the Anthropocene demands the forms of thought produced by speculative historical narratives.} For if our ability to respond to climate change is flummoxed in some way by our ability to perceive it, then humanistic texts (and those who are experts in interpreting them) are necessary first responders in any climate action. If, in other words, we are facing a problem, not of
information, but rather of perception, then the humanistic realm of representation comes to the forefront once more.

Nixon makes precisely this argument in *Slow Violence and the Environmentalism of the Poor*. Proposing the term “slow violence” to define “a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all,” Nixon suggests both that slow violence is a predominantly ecological issue and that “image and narrative” are the primary tools for making slow violence visible (2, 3).

Environmental injustice, Nixon argues, is overwhelmingly the product of slow violence, as “slowly unfolding environmental catastrophes” disproportionately affect vulnerable populations in the global South (2). These gradual catastrophes frustrate the clear causality that would enable new policies and reparations; they also frustrate the contemporary rapid-fire media ecology that is more suited to narrating abrupt and alarming disasters than structural risk and gradual endangerment.

By way of example, we might turn to the 2015-2016 water crisis in Flint, Michigan. Since the city switched its water supply source from Lake Huron to the polluted Flint River in early 2014, residents complained that the water supply had become brown and developed an unpleasant taste and odor (Bernstein and Dennis). Flint’s concerns went largely unheeded both because of its status as an impoverished postindustrial city and because nothing immediately catastrophic occurred. Despite
what the *Washington Post* describes as a steady stream of parents seeking medical 
attention out of concern that their children were suffering lead poisoning, only in late 
2015 did independent researchers finally confirm that, thanks to the iron-laden water 
from the Flint River, the city’s lead pipes were corroding (Wang). This meant that the 
tap water was indeed contaminated with lead as well as carcinogenic trihalomethanes.53 
The disaster both occurred and will continue to develop slowly: lead exposure in 
childhood can lead to lifelong and even multigenerational effects, and though the city’s 
water supply switched back to Lake Huron in light of these events, newly corroded 
pipes are still leeching lead into the water. This, then, is slow violence: it happens 
gradually; it operates along longstanding fault-lines of social and economic inequality 
that render early concerns powerless; and its pernicious effects last long beyond 
whatever media coverage its tipping point into catastrophe may manage to attract. 

Flint’s water emergency was not, of course, produced directly by climate change, 
but it is more broadly the product of environmental injustice in the Anthropocene: 
Flint’s economic fortunes were linked to General Motors, which closed its plants there in 
the latter decades of the twentieth century. An industrial town built to serve the needs of 
the automotive industry was thus polluted, then abandoned, then abandoned to its 
pollution, all at speeds so slow that the crises went largely unheeded until they finally 

53 Journalistic coverage of the situation in Flint abounded in 2015 and early 2016. For a thorough overview of 
the crisis, see Julia Larie’s articles in *Mother Jones*, Anna Maria Barry-Jester’s piece on *FiveThirtyEight*, and 
Tim Carmody’s article in *The Verge.*
hit the point of the recognizably catastrophic.\textsuperscript{54} As such, Flint provides a vivid context for us to ask the question that motivates \textit{Slow Violence and the Environmentalism of the Poor}: what kinds of storytelling strategies exist to make this kind of slow devastation narratively legible?

This, I would suggest, is a question that will become increasingly important for environmental literary scholars in the era of climate change. Global warming promises to produce vast arrays of both environmental and social ills, as rising sea levels, extinction events, spreading droughts, disruptions in the global food supply, acidifying and warming oceans, and increasingly devastating and unpredictable weather events slowly destabilize ecosystems as well as infrastructures. This is, as Nixon has compellingly argued, a problem of representation—and as such, as a problem that raises the stakes of storytelling, climate change promises (or rather threatens) to reinvigorate literary study.

\textbf{4.1 Cli-Fi and the Representation of Slow Change}

The literary and critical emergence of the genre of “cli-fi,” or climate fiction, is one particularly visible example of this resurgence of narrative urgency. Coined, and energetically promoted, by blogger Dan Bloom, the term “cli-fi” has rapidly become a touchstone in climate change discourse, with more and more texts referred to as “cli-fi”

\textsuperscript{54} Michael Moore’s 1989 documentary \textit{Roger and Me} traces the impact of GM’s departure on Flint and its residents.
and that label gaining more and more credence. As an influential 2013 article in *Dissent* titled “Cli-Fi: Birth of a Genre” argued, by “translating graphs and scientific jargon into experience and emotion,” works of cli-fi help to “refashion myths for our age” (Tuhus-Dubrow). Another way to put this is that cli-fi tackles the representational problem posed by climate change: it takes incomprehensible data and translates it to the human scale. Cli-fi offers stories set in both near and far futures (all basically probable, though some more scientifically grounded than others) in which the impacts of climate change are suddenly integrated into both the logical proceedings and the emotional heart of the story.55 As such, critics have suggested, cli-fi has the potential to become a major entry point for climate action: as Bloom suggests, the genre demands “facing the reality of global warming,” yet its science fictional roots transform both data abstraction and dismal futures into a mode of entertainment that is ideally engaging without being escapist (qtd. in Plantz).

This chapter will offer an extended consideration of cli-fi as a genre case study for contemporary environmental discourse. More specifically, I will argue that there are two major modes of cli-fi, corresponding to two genealogies of postwar environmental thought and literature: the mainstream environmental movement and its associated

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55 Since, as Adeline Johns-Putra suggests, the experience of climate change is inherently speculative and future-oriented (“the dramatic and emotional contours of climate change have to do with the future, not the past or present, for, although climate change may be happening now, it is what this changing climate will result in—its predicted impacts—that are of concern”), the turn to speculative genres is a logical one: as Johns-Putra writes, the essential futurity of climate change “leads, usually but not inexorably, to genres that have to do with future worlds” (28).
texts on the one hand, and the “alternate history” of environmental justice literature that I have traced in the preceding two chapters. The version of cli-fi that comes out of mainstream environmentalism, I suggest, follows mainstream environmental literature’s acceptance of an inherent distinction of “human history” from “natural time”; as a result, the narrative strategies that this version of cli-fi adopts to narrate the slow processes of climate change elide the slow forms of change that operate in the social as well as the ecological realm. In other words, the mainstream version of climate change renders ecological forms of slow change narratively legible, yet neglects the processes of social injustice that operate along similarly gradual (and thus similarly historically invisible) lines. This is a particularly egregious oversight given that, in the scenarios narrated by cli-fi, this intersection between those processes categorized as “natural” or “nonhuman” and those that primarily affect humans are material. This is another way of putting the basic insight of climate justice, and environmental justice before it: that environmental degradation is not a universal tragedy for which all humankind shares equal responsibility and sorrow, but is in fact disproportionately experienced by those who are most socially vulnerable (and often least materially responsible for that degradation). Put differently, this version of cli-fi focuses primarily on ecological futures and how we might respond to them; its orientation toward the predicted outcomes of ongoing environmental processes renders it relatively blind to the extent to which these ecological futures are rooted in social histories of inequality.
On the other hand, another version of cli-fi emerges out of the alternate environmental genealogy I have begun to trace. Like the novels that I have claimed as part of this genealogy, this version of cli-fi evinces a keen awareness of the way that the very category of the “natural” itself has been extended to encompass both vulnerable humans and the processes of racialization and dehumanization that made those humans vulnerable to exploitation. As a result, this version of cli-fi does not simply seek to render slow ecological change comprehensible; it also works to narrate the slow forms of social violence that go hand in hand with slow ecological change. In other words, this version of cli-fi carefully articulates environmental and social futures in relation to history—more precisely, to histories of violence. Attending to this internal generic division within cli-fi thus allows us to understand the implications of the alternate genealogy that this project has traced—allows us to see how this alternate genealogy produces a different, and necessary, literary representation of the major environmental crisis of the twenty-first century than do other versions of environmental literature.

This alternate genealogy can be characterized in a number of ways. If we speak in terms of genre, it is composed of fiction, rather than the largely nonfictional genres of documentary, place writing, and memoir that constitute the majority of both mainstream environmental writing and the present ecocritical canon. If we speak in terms of definition, the corpus that I have called “environmental” literature is not so much “literature that is concerned with specific nonhuman spaces” as it is “literature
that is preoccupied with the notion of natural *temporality.*” If we speak in terms of authorship, this corpus is multicultural—constituted of African American, Hispanic, and indigenous writers, including many women writers, rather than the predominantly white and male writers of mainstream environmental literature. And, if we speak in terms of theory, this genealogy makes it clear that the very concept of “nature” on which environmental literature, thought, and activism relies is suspect. It is this latter category that is ultimately so formally significant: by historically destabilizing the notion of “nature,” this literature reminds us that an attention to human history must play a key role in conceptions of environmental futurity.

By the rejection of “nature,” I do not simply mean that, as environmentalist Bill McKibben has famously (and not incorrectly) proclaimed, the contemporary period marks the “end of nature,” a period in which there is no true outside of the human, no component of our world that has not been marked indelibly by human intervention.\(^\text{56}\)

Nor am I entirely echoing Morton’s influential argument that the foundational environmental concept of nature as an untouched and pristine space—real at one time, even if that space exists only in nostalgic memory in the present—should be discarded in favor of a new notion of “ecology,” which Morton defines as a mode of intertwined and intimate relation that precludes older understandings of nature as external to

\(^{56}\) In *The End of Nature,* for instance, McKibben declares, “We have ended the thing that has, at least in modern times, defined nature for us—its separation from human society” (64); in his eponymous book, he proposes the term “Eaarth” for this new planetary environment.
human, a cleanly divided outside or “it” to the inside of “us” (The Ecological Thought 3-4).

Though I agree with Morton’s contention that the category of “nature” is a socially, aesthetically, and ecologically problematic one, it is ahistorical to respond simply by proposing alternatives. Indeed, this critical move away from the history of “nature” elides precisely the historical injustices that the concept itself has both caused and rendered historically invisible. As Purdy writes:

Why talk about an intensified politics of nature, rather than a politics without nature? Why not say that “nature,” that all-too-flexible argument stopper which never quite succeeds in ending the argument, is just an archaic way of talking and thinking, best overcome and discarded? There are several reasons that I don’t think this is either possible or desirable. The most telling is that ideas about nature have been much more than rhetorical flourish or metaphysical gloss. They have deeply shaped the landscapes, economies, and social practices in which we continue to live. The material world—so-called natural and so-called artificial—that we inhabit is in many ways a memorial to a long-running legacy of contested ideas about nature. (21-22)

Purdy highlights here the point that, while nature may not be essentially “real” in the sense of having a stable and inherent definition, our ideas about it have made it real. The claim that we should be post-natural because nature is “made up” thus enacts the same historical elision as the lamentable suggestion that, if we know race is not “real,” we are effectively post-racial and can simply stop talking about it. In contrast to both McKibben and Morton, then, my suggestion that the alternate genealogy I trace discards the concept of “nature” rests not on a present or future rupture, but rather on a historical claim. This claim is that the concept of “nature” has functioned as a strategic
demarcation that includes many humans and many forms of violence, across and within species. Heeding this lesson, contemporary environmental thought must neglect neither the social history of this demarcation nor its textual reclamation in the literature of environmental justice.

The latter version of cli-fi thus picks up on the major interventions of the novels I have previously considered in this project: namely, that “nature” was never an inherent or internally coherent category, even before anthropogenic climate change made that materially evident, and that environmental discourse requires a reexamination of history and of historical thought and not just a preoccupation with imagining futurity. As a result, this version of cli-fi sets out, not to speed up our perceptions of ecological change, but rather to find new and more inclusive ways to tell the story of climate change—to construct narratives that draw our attention as well to the slow forms of human violence that attend it. If we take seriously the role that cli-fi might play in public perceptions of climate change, these two subgenres, the product of divergent histories of environmental thought, might offer two very different modes of responding to the changing climate. The first response still accepts an inherent division between the natural and the human, eliding the slippage that has naturalized social violence and discarding human histories of inequality even as it narrates an increasingly vivid and dangerous material relationship between “human” and “nature.” By contrast, the second recognizes that any response to ecological crisis must also encompass the social
forms of crisis that attend it—recognizes, in other words, that the limited historical imagination that makes it so difficult for us to grasp ecological processes and transformations also renders functionally invisible histories of human inequality, human exploitation, human structures of violence.

In what follows, therefore, I offer readings of two major cli-fi trilogies that are representative of the two subgenres of cli-fi (and, indeed, the two genealogies of postwar environmental thought). The first—Kim Stanley Robinson’s *Science in the Capital* trilogy—tackles the perceptual problem of the slowness of climate change by speeding it up, representing global warming as an abrupt and apocalyptic series of events. The second—Octavia Butler’s unfinished *Parable* trilogy—works to render the slowness of climate change narratively legible. Offering a briefer reading of Robinson’s work before turning to Butler’s series, I argue that this difference in temporal orientation explains why the series engage with climate justice in such divergent ways. Robinson’s interest in framing climate change as an ecological crisis with scientific solutions leads him to dramatize particular catastrophes, overlooking the way climate change maps onto ongoing patterns of human inequality and structural violence—overlooking, in other words, the extent to which human historical patterns promise to persist even in radically new ecological futures. By contrast, Butler’s conviction that the apparent inability to comprehend climate change is intimately linked to the difficulty of seeing all slow forms of change, including widening inequality, means that her novels set out to represent
slow change compellingly, rather than to speed certain forms up. This choice, I argue, is paradigmatic of climate justice fiction, and it helps us see how literary works can demand a closer attention to historical patterns even as they imagine significant speculative futures.

4.2 Climate Change and Narrative Acceleration in the Science in the Capital Trilogy

Robinson’s Science in the Capital trilogy has been hailed as an exemplar of cli-fi. Originally released as Forty Signs of Rain (2004), Fifty Degrees Below (2005), and Sixty Days and Counting (2007) and reissued in 2015 as an omnibus titled Green Earth, the Science in the Capital series offers a gripping account of the havoc that dramatic climate events wreak on Washington, D.C. Some of these are physical: a storm floods the city, destructively transforming natural and urban spaces (and forcing the release of the zoo’s menagerie); later, when melting ice sheets stall the Gulf Stream, a calamitously deep

57 As a New York Times review of Forty Signs of Rain puts it, Robinson “provide[s] an unforgettable demonstration of what can go wrong when an ecological balance is upset” (Jonas). Meanwhile, a contemporaneous review in Publishers Weekly approvingly notes the novel’s balance of realism and advocacy: “Robinson’s tale lacks the drama and excitement of such other novels dealing with global climate change as Bruce Sterling’s Heavy Weather and John Barnes’s Mother of Storms, but his portrayal of how actual scientists would deal with this disaster-in-the-making is utterly convincing,” it reads. “Robinson clearly cares deeply about our planet’s future, and he makes the reader care as well.” (A Publishers Weekly review of Fifty Degrees Below continued this line of praise, saying that the novel “provides perhaps the most realistic portrayal ever created of the environmental changes that are already occurring on our planet” and “should be required reading for anyone concerned about our world’s future.”)

58 Quotations are taken from Green Earth and cited accordingly; the passages I cite are not significantly different in the original text and the revised edition. In the introduction to the omnibus, Robinson accurately characterizes the difference between the two editions as simply one of stylistic streamlining, with excess verbiage trimmed and technical explanations that he felt were important to provide for an early 2000s audience (for whom the basic mechanics of climate change was perhaps more unfamiliar) but not for more climate-literate contemporary readers.
freeze hits D.C. Other transformations are more ideological in nature, as when the catastrophic threat of climate change galvanizes the NSF to take on a dramatic role in American politics and policy and propels an eccentric environmentalist Democratic senator into the presidency. While focusing primarily on two major characters—Frank Vanderwal, a biomathematician recently transplanted from UC San Diego to D.C. to spent a year reviewing proposals at the NSF, and Charlie Quibler, a science policy advisor to the improbably cheerful and energetic senator who will become president by the series’ end—the series abounds with tangential plotlines. Among these are Charlie’s ongoing struggle to reconcile his status as a part-time policy advisor and full-time stay-at-home father and Frank’s decision, rooted in his growing investment in Paleolithic lifestyles and intermittent encounters with a homeless group of veterans, to take up strategic homelessness, living between a tricked-out VW van and a carefully engineered treehouse in Rock Creek Park—not to mention Frank’s romantic entanglement with a *femme fatale* named Caroline who turns out to be a black-ops spy. (Assigned to track Frank and other figures deemed significant by an enigmatic surveillance program, she goes rogue and falls in love with Frank while seeking to avoid the violent suspicions of her corrupt spy husband, prompting passionate sexual encounters, paranoid investigations of tracking technologies, and tangled political scandals.) Still, the bulk of the books are dedicated to exploring how the relationship between American politics and American science might respond to climate crisis.
The *Science in the Capital* series is markedly utopian both in terms of the future Robinson projects and in terms of his hopes for the role the books might play in the lives of readers. This is to say that Robinson is preoccupied not only with modeling particular changes he wishes to see in society, but also with representing climate change itself in a way that allows him to at least begin to inspire the same dramatic response in his readership. This dual mission leads him to focus on abrupt climate change and equally abrupt solutions. In other words, he offers a targeted narrative solution to a larger representational problem: we are bad at perceiving slow change; climate change is slow; let’s tell a story that speeds it up and see if it makes people listen. There are, of course, benefits to this approach. Robinson is unusual among contemporary science fiction writers for his capacious grasp of contemporary science, in terms both of detailed scientific knowledge and of scientific practice—the way that institutions operate, the relationships between industry, government, and academia, the structure of scientific collaboration, knowledge production, and technical deployment. As a result, the *Science in the Capital* trilogy offers an engaging primer on the science, economics, and politics of global climate change, told in bright and efficient prose between dramatic and entertaining episodes. The story thus functions both as educational tool and as awareness-generating entertainment. Further, the trilogy reflects Robinson’s longstanding commitment to the utopian potential of science fiction, moving past the representation of anticipated disaster to offer Robinson’s wish-list of possible solutions.
To describe *Science in the Capital* as optimistic is to understate the case; despite depicting climatic catastrophe, the series is strikingly utopian, positing a future in which awareness of the devastating threat of climate change prompts dramatic action, within the United States and across the globe. The political landscape shifts dramatically left, with a president who is not only committed to addressing climate change but also embraces and empowers science and works with other nations (particularly China) to collaboratively tackle major eco-political reforms, such as the transition to renewable energy, the sowing of salt to restart the Gulf Stream after freshwater melt stalls it, and the creation and Siberian distribution of a lichen genetically engineered to capture massive amounts of carbon dioxide. Geoengineering has been hotly debated as a response to climate change, but regardless of one’s position on it, the very fact of a major novel working methodically through the various tools at the contemporary world’s disposal is remarkable in a political climate in which even the most cautious political responses to climate change are frequently unsuccessful.

Nonetheless, what I wish to call attention to in Robinson’s series is the fact that this series, despite its significant strengths, ultimately disappoints in terms of climate justice. In what follows, I will argue that Robinson’s devoted attention to the representational problem of the speed of one particular problem (global warming) generates massive blind spots to the processes of social injustice that also operate slowly. As environmental justice reminds us, these processes are unfailingly exacerbated by
environmental degradation; as climate justice shows us, the injustices that are aggravated by climate change are like climate change not only in that they operate slowly, but also in that they promise to persist over time. Despite Robinson’s evident efforts to attend to the social dimensions of global, then, his narrative’s assumption that climate change is the only form of change that operates too slowly for us to perceive (and thus is the only form of change that a climate change narrative must accelerate) means that the Science in the Capital trilogy largely overlooks the realities of climate justice, while repeating the worst mistakes of mainstream environmentalism — nationalism, masculinism, and ableism among them. In short, Robinson’s attention to how much climate change will change leads him to overlook, or at least undersell, how much promises to stay the same.

All of this is rooted in Robinson’s narrative investment in abrupt, rather than extended, climate change. As he commented in a 2006 interview, “you can just frame the story better” if you are concerned with a process that “happens in three years, rather than five hundred years” (Interview with Gunn). He expanded on this in a 2005 Amazon Short essay titled, aptly enough, “Imagining Abrupt Climate Change: Terraforming Earth,” in which he explored the scientific consensus regarding the historical fact of abrupt climate change, and its historical implications within geological histories of the dueling perspectives of catastrophism and gradualism. By “abrupt climate change,” Robinson makes clear that he refers to what might qualify as “abrupt” for a layperson,
not a scientist: when, during the process of researching his novel *Antarctica*, a source tells him that the Western Antarctic Ice Sheet might collapse “really fast,” he learns to his frustration that the source means 500 years, not the six months Robinson had envisioned (4-5). *Science in the Capital* began to take imaginative shape, he tells us, when he learned of a new theory that massive global climate change had occurred in the prehistoric past on much shorter scales than had previously been thought—had taken place in a matter of years, not centuries or millennia (6). “The geological timescales become individual timescales; and so, novelistic timescales,” Robinson writes: “To my way of thinking, it’s an obvious story to tell” (13). If, as Robert Markley comments, “the narrative challenge that Robinson faces in the trilogy is bringing climatological time within the realms of subjective experience,” abrupt climate change is the method he uses to face this challenge (14).

*Science in the Capital* thus sets out to tell this “obvious” story. None of the climatic events that occur are subtle, extended, or perceptually challenging in any way. There is no question in Robinson’s narrative if the climate is in fact changing; that is not only a matter of scientific consensus but also universal common sense. Storms do not just ramp up in severity and frequency; they flood major cities, first D.C. and then globally. Coastal communities are not just threatened; entire islands are submerged while stunned American visitors are airlifted out. Scientists do not just worry about the deterioration of the Western Antarctic Ice Sheet; they describe its total collapse. Moving
from NSF meeting rooms to conversations in the Capitol to the streets of Washington, and interspersing these close-third person scenes with omniscient narrative reports of massive ecological changes, *Science in the Capital* hammers the point home: “abrupt climate change was on them, requiring an emergency response,” we are told (442). In this world, “Sooner or later almost everyone got caught up in some event, or lived in the midst of some protracted anomaly, for the weather events were both acute and chronic, a matter of hours or a matter of years” (405). And, again, most triumphantly this time, from then-Senator, soon-to-be President Phil Chase, announcing his candidacy from a hot air balloon over the Arctic: “We stand at the start of a steep ski run” (454).

Some characters—such as Anna, Charlie’s wife and Frank’s colleague, who receives a dwindling amount of narrative attention as the novels progress and is regarded critically for her faith in normal science—have trouble adjusting to this new reality. (Women do not generally occupy central roles in this series; several female characters are brilliant scientists and government agents, but their major narrative actions come about primarily in terms of their romantic relationships to the male protagonists.) Most of the main characters, however, join Robinson in seeing abrupt climate change as an opportunity: a chance to finally gain political capital and take drastic and overdue action.\(^{59}\) Frank’s first response to the evident climatic tipping points is

\(^{59}\) In this light, Robinson’s series can be read as a paradigmatic example of what Tom Moylan describes as a “critical dystopia,” in which a dystopian future contains hints or enclaves of utopian communities or possibilities, rather than simply offering “an anti-utopian pessimism” (*Scraps* 181). This term functions as
typically cynical: “It looks serious,” he says. “It may get people to take action” (299).

Diane, his superior at the NSF, reacts similarly, though with more nuance: “Clearly ignorance has not been the problem,” she reflects. “The problem is acting on what we know. Maybe people will be ready now. Better late than never” (336). Or, as she more succinctly puts it later: “People are getting motivated. So, the colder the better!” (533). In this way, Frank and Diane echo Robinson’s own reaction to the threat of increasingly obvious climate change. “Depending on how we react to it,” he writes, “the possibility of abrupt climate change could be a good thing”: “the imminent possibility of an environmental disaster … might force us to change our ways sooner rather than later” (“Imagining” 17).

In Science in the Capital, this faith is not misplaced. These catastrophic climate events end up enabling a wide range of extraordinary changes: as K. Daniel Cho has argued, “The primary motivation here is to explore the possibility of ecological disaster creating the preconditions for the wholesale transformation of capitalist society … The destruction caused by climate changes clears space, creates room, for Utopia to emerge” (24). This utopia takes the form of a vast reinvestment in science, both financially and ideologically; as the NSF takes on an increasingly important role in American politics, the counterpart to what Moylan has elsewhere described as the “critical utopias” of the 1970s, which responded to the failures of 1960s idealistic utopianism by “reject[ing] utopia as blueprint while preserving it as dream” (Demand 10).
even throwing its weight behind Phil Chase’s presidential campaign, geoengineering solutions to massive climate change become legible. “This new climate is an opportunity,” Phil says during his candidacy: “We needed to change, and now we will, because we have to” (646). This culminates, oddly enough, in a renewal of American exceptionalism, this time organized around environmental leadership: the United States leads the charge to renewable energy and international cooperation, even managing to push China into acquiescing to new energy standards and accepting America’s magnanimous assistance with their transition to renewables.

Not just the disasters, then, but also the responses are abrupt in Robinson’s narrative. Catastrophe clears room for utopia; indeed, as Robinson explained in 2011, “It has become a case of utopia or catastrophe, and utopia has gone from being a somewhat minor literary problem to a necessary survival strategy” (“Remarks on Utopia”). (Or, Phil Chase says, the choice is “permaculture or catastrophe” [455]). This is obviously both narratively satisfying (after decades of decline, American ingenuity and honor has saved the day!) and helpful in terms of presenting potential actionable goals; the series’ critique of the pernicious Western separation of science from politics, for instance, rivals the account Latour offers in Politics of Nature for sheer incisiveness. Yet the narrative acceleration of all of these processes means that Robinson’s series fails in one significant

60 Latour contends that the division between science as the objective terrain of the nonhuman and politics as the objective terrain of the human (or, alternately, the binary between facts and values) must be undone to reconstruct a new political ecology based on the “separation of powers” and not the faulty assumption of ontological differences (14).
way: namely, his story neglects the problems of climate injustice, which are not solved by scattering salt or distributing carbon-absorbing lichen.

I would argue that the criticism that a text neglects issues of justice is always a fair one, but it is still worth noting when a work simply does not set such issues as within its purview. What is so striking about the Science in the Capital trilogy is that Robinson’s writing evinces a genuine investment in addressing precisely these issues. The political rhetoricians and policy proposals in the series are particularly saturated with the language of justice. When NSF meets to put together its political platform, one of its first major forays into American politics, the scientists’ suggestions coalesce around “some form of the ‘Greatest good for the greatest number’ rubric, without implying in any way that this ‘greatest good’ could include or justify any planned or accepted structural or permanent disadvantaging of any minority of any size” (496); their final list of planks consists of “protection of the biosphere,” “protection of human welfare,” “full employment,” “individual ownership of the majority of the surplus value of one’s labor,” “reduction of military spending,” and “population stabilization” founded in women’s rights and education (497-8). In Phil’s inaugural address, he takes this perspective even further:

… for the sake of climate stabilization, there must be population stabilization; and for there to be population stabilization, justice must prevail. Every person on the planet must live with the full array of human rights that all nations have already ascribed to when signing the UN Charter. When we achieve that, at that point, and at that point only, we will begin to create a sustainable civilization. (751)
“There are three legs to this efforts, folks,” he concludes: “technology, environment, and social justice. None of the three can be neglected” (751).

Robinson himself has made it clear that his scientific utopianism involves addressing the social dimensions of climate change: we need “to make sure that climate change action doesn’t somehow become a merely technological question, with the implication of some kind of silver bullet solution out there that will allow everything else to go on as it’s going now,” he asserted in 2011; thus “changes that dismantle some of the fundamental injustice of capitalism while helping the climate situation are a stranded double good” (“Remarks”). Yet, as critics such as Heise have suggested, the treatment of social and environmental injustice *Science in the Capital* is remarkably empty, consisting mostly of the political rhetoric of powerful, white, American men. As Heise writes, “the narrative itself never develops any cultural perspective of the global,” but “remains for the most part stuck in Washington and American government, and “the omniscient narrator never relinquishes his grip of this local scene to let other perspectives and discourses percolate” (*Sense of Place* 207). Characters occasionally notice climate injustice: Charlie, for instance, notes that “the usual correlation of money and elevation” means that D.C.’s poor people suffer disproportionately in the flooding. Even Frank uncomfortably realizes that the wilderness created by the second book’s deep freeze has negative consequences: “faster than Frank could follow,” we learn, “winter went from the sublime to the ridiculous, and then to the catastrophic”; “he was
enjoying it right up to the moment it started killing people” (558). (The insight stays with Frank, to some extent: driving through an icy freeze, he thinks, “hard to sustain being out on such a night” and wonders about the fates of the homeless individuals he has befriended [658].) Yet the catastrophic impacts of climatic change on the global and domestic poor are never quite brought into the foreground. In fact, as Robinson imagines them, these extreme events become opportunities for a kind of utopian melting pot, a moment of national coherence and cohesion.

In the first two books, this plays out in two parallel scenes. Charlie gives us the first, which occurs on the flooded mall:

Boats of all kinds dotted the long brown lake, headed this way and that. The little blue paddle boats from the Tidal Basin were particularly festive, but all the kayaks and rowboats and inflatables added their dots of neon color, and the little sailboats tacking back and forth flashed their triangular sails. Brilliant sunlight filled the clouds and the blue sky. The festival mood was expressed even by what people wore—Charlie saw Hawaiian shirts, bathing suits, even Carnival masks. There were many more black faces than Charlie was used to seeing on the Mall. It looked as if something like Trinidad’s Mardi Gras parade had been disrupted by a night of storms, but was reemerging triumphant in the new day. People were waving to each other, shouting things (the helicopters overhead were loud); standing in boats in unsafe postures, turning in precarious circles to shoot 360s with phones and cameras. It would only take a water-skier to complete the scene. (281)

Later, when D.C. is hit by the catastrophic winter that results from the stalling of the Gulf Stream, Frank ventures out onto the frozen Potomac and witnesses a similar scene:

When sunset slanted redly across the Potomac, the scene struck Frank like another vision out of Brueghel, one of the Flemish winter canal scenes, except most of this city’s people were black. Out here you could
finally see that, in a way that Northwest and Arlington never quite revealed. It was like Carnavale on ice, the celebrants improvising clothing warm enough to keep them out there, which then became costumes. A giant steel drum band added to the Caribbean flavor ... In the fading light the whole world took on a smoky red cast, the river ice both white and red, and the contrast between the snow and the dark faces diminished to the point where Frank could see people properly. It seemed to him a beautiful populace, every race and ethnicity on Earth there—the black faces vivid and handsome, cheerful to the point of euphoria—the white folk flushed as red as the snow, dressed like L.L. Bean models or gypsies or Russians—all partying together on the frozen Potomac, until with the coming of dark it got too cold to stay out any longer. (566)

As Frank and Charlie see these scenes—and, of course, as Robinson narrates them—they are a pure expression of post-disaster utopianism, the joy of a united community brought together both by sheer environmental novelty and, the narrative’s ending retroactively suggests, by the prescient sense that this novelty has the potential to change everything—to reinvigorate American innovation and national pride; to break American dependence on personally and environmentally unsustainable lifestyles; to launch a sweeping global overhaul of capitalism’s ravages. Yet what is also evident in these scenes is the exoticizing of people of color and the fetishizing of Caribbean cultures. Relatively few characters of color appear in the novels; here, the protagonists see them as an undifferentiated mass of exotic festivity. To say that this is not a nuanced image of post-catastrophe climate justice is an understatement; this reads instead as the abstraction of racially marked bodies into a symbol of giddy utopianism.

Even more troubling is the treatment of the Khembalis, exiled Tibetan Buddhist
monks who have come to Washington to seek American aid as their low-lying island nation in the Bay of Bengal is threatened by rising seas. On one hand, Science in the Capital should be commended simply for representing the issue of climate refugees. On the other hand, the series does them a disservice in terms both of their individual characterizations and of the representation of their plight. As Heise notes, the Khembalis “[function] as rather grotesque stereotypes of Buddhist wisdom and serenity” (Sense of Place 207). This serenity persists even in the face of the devastating flooding of their island. This flooding, and the response, demonstrates what suffers from Robinson’s commitment to the narrative acceleration of climate change: the flooding occurs literally overnight—conveniently enough, while Frank and the Quiblers happen to be visiting to witness it—and takes a mere handful of pages. The entire island is evacuated within hours, and there appear to be no casualties; even the zoo animals are rescued and relocated to America.

Nor do the Khembalis appear greatly perturbed by this turn of events. Narratively, their dislocation operates mostly to throw the main characters’ own lifestyle choices into relief. “All the Khembali refugees flying into Washington helped him keep things in perspective,” Frank reflects. “He was homeless by choice, they were not; he had his van, his tree, his office, his club—all the rooms of his house-equivalent, scattered around town; they had nothing. Their embassy’s house in Arlington gave them temporary shelter, but everything there was in crisis mode, and would be for a long
time” (408). Somehow, though, this crisis never becomes quite legible: “and yet,” Frank explains, “they were cheerful” (408). Indeed, Frank hastens to tell us that the Khembalis “had other options”: “there were Tibetan refugee colonies scattered around India. Also, some people at the D.C. embassy were now talking about buying land in the metro area, and settling there. Meanwhile, it could be said that the citizens of Khembalung had for their national territory one old Arlington house, and an office in the NSF building” (409).

Later, when the Quiblers decide to leave their wasteful suburban lives behind and move in with the Khembalis, the action is framed as a mode of enlightenment. This glosses over what should be obvious differences in economic and political vulnerability and mobility; yet though the Khembali occasionally gently scold Frank for imagining that he, having chosen to move from San Diego to Washington, has imaginative access to their plights (“You can move back to your home?” Rudra asks—“Then you are not an exile. You are just not at home”), the novel gives no sense that the Khembali are anything other than safe and stable in Arlington (866).

As Jeanne Hamming argues, though this is read within the novel as “political solidarity, an admirable gesture of goodwill, a nod toward multiculturalism, and even an act of environmental virtue, on a deeper level it glosses over the disproportionate burden that non-Western nations and politically oppressed people will potentially bear in regard to the effects of climate change”: in short, “although Robinson attempts to bridge the personal and the political and to map the individual on to the global, large-
scale political and environmental conflicts seem to dissolve in the narrative as they are overshadowed by the personal conflicts of his eccentric main characters” (40). What is notable for the purposes of my argument is that this failure of an attempt at climate justice narrative is rooted in Robinson’s investment in narrative acceleration. In speeding up the ecological process of climate change, Robinson’s narrative is unable to account for the violent processes of climate change—the gradual way in which such violence unfolds, the illegibility that attends this slowness, and, most significantly, the extended amount of time it takes for such violence to be alleviated, if ever it is.

In this way, then, the Science in the Capital trilogy’s investment in climate acceleration means that it forgets to invest in social history—both past histories of inequality and the legacies that will echo in the future—in more than a cursory way. Instead, his accelerated narrative strategies produce a post-historical utopia—a world in which America’s history can be erased as it assumes the mantle of global steward, in which a presidential candidate is narratively lauded for saying, in response to a climate crisis precipitated by American histories of extraction, consumption, and imperialism, “If we were to turn into just another imperial bully and idiot, the story of history would be ruined, its best hope dashed” (454, emphases added). Conversing with an energetic young staffer, Frank thinks: “He was unfazed by the past, even unaware of it. The defeats and obstructions, the nightmarish beginning to the century, so balked and stupidified; none of that meant a thing to him. And Washington had hundreds of these
kids ready to rip. The world was full of them” (927). This is not, to Frank, a cause for concern; instead, it is a promise of great things to come. The radical historical rupture that abrupt climate change emblematizes becomes an opportunity to erase history, to start fresh—and yet doing so means that Science in the Capital cannot, despite its best efforts, engage seriously with issues of climate justice.

In this way, Science in the Capital serves as a kind of counterpoint to Butler’s Parable books. As I will argue in the next section, these novels offer an alternative version of cli-fi—one that does not seek to avoid the representational challenge of slow processes by accelerating one such process, but rather takes as its goal the rendering legible of such slow processes in the service of a richly historical informed practice of social justice.

4.3 Historical Persistence and Social Justice in the Parable Series

Butler’s work has not yet been critically categorized as “cli-fi.” Part of this, of course, is simply because of the novelty of the term, which did not fully enter critical parlance until 2012, when Margaret Atwood tweeted it. By contrast, Butler’s unfinished Parable series—consisting of 1993’s Parable of the Sower and 1998’s Parable of the Talents, as well as archival boxes of fragmentary manuscripts toward the planned third novel,

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61 The tweet itself was neutral—“Here’s a new term: ‘Cli-Fi’ = SF about climate change. Coined by Dan Bloom re: POLAR CITY RED,” followed by a link to the Amazon page of the book in question—but Atwood’s considerable public audience meant that the term quickly gained ground among fans and critics of environmental literature.
Parable of the Trickster, and future installments whose titles tentatively danced around the words “teacher,” “chaos,” and “clay”—went to press before global warming became an issue of major concern. (Butler was prescient on this front; her archives reveal a growing preoccupation with the catastrophic threat of climate change throughout the 1990s and up to her death in 2006.) “Cli-fi” is billed as an entirely new genre, entirely of its moment, with the vast majority of commonly cited cli-fi works boasting a post-2005 publication date. Another component of this generic isolation may be Butler’s unwavering commitment to science fiction writing, which puts her at odds with many of the writers commonly hailed as cli-fi exemplars. Both in name and in plotline, cli-fi may sound like sci-fi, but the critical attention that has brought the genre into the public eye has made it clear that cli-fi is steeped in genuine science, realist tropes, and above all literary prestige. The label has been applied primarily to recent novels by “slipstream” writers who might dabble with the fantastical but ultimately hold more mainstream literary credentials—Margaret Atwood’s Oryx and Crake, Barbara Kingsolver’s Flight Behavior, Ian McEwan’s Solar, David Mitchell’s The Bone Clocks, Nathaniel Rich’s Odds Against Tomorrow, and Marcel Theroux’s Far North are most commonly cited as cli-fi exemplars. Indeed, cli-fi criticism has almost ubiquitously praised the genre’s relationship to futurity by emphasizing its capacity for realistic extrapolation into the

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62 See, for instance, recent popular press articles by Angela Evancie, Rodge Glass, Rebecca Tuhus-Dubrow, and Lucia Iglesias.
future, which means that cli-fi’s political potency has been framed as inversely proportional to its reliance on the fantastical tropes of the science fiction genre on which its name riffs. An early critic calls for climate change narratives that “steer determinedly away from apocalyptic scenarios” in favor of a “measured and prudent” literary style (Macfarlane); the genre’s originator claims that, while “sci-fi is mostly for escapism and entertainment,” cli-fi involves “facing the reality of global warming” (Bloom qtd. in Plantz); a cli-fi author warns against conflating cli-fi and sci-fi, writing, “If you think stories showing the effects of climate change are still only futuristic fantasies, think again” (Torday). Realism and the cautious extrapolation of feasible futures are thus held up as markers of true cli-fi.

And yet neither of these explanations truly explains Butler’s exclusion from these conversations. J.G. Ballard’s *The Drowned World* (1962) and Robinson’s *Science in the Capital* trilogy are both staunchly science fictional; further, Ballard’s novel was written even before the 1980s saw the dawning of public concern about global warming. Instead, I suggest, the answer to why Butler has not been cited in these discussions of cli-fi is that her work does not look how we expect cli-fi to look. Global warming does not independently operate as the stand-alone motivation for the novel’s plot; nor is it even the central background concern against and in relation to which human dramas unfold. Rather, in the *Parable* books, global warming precipitates, intensifies, and is in turn aggravated by social and economic collapse; meanwhile, the plot of the books is
concerned not only with the protagonist’s struggle to survive in this dangerous vision of near future America, but also and more significantly with her successful efforts to found a new religion called Earthseed. In short, the Parable books are set in a cli-fi world, but they don’t announce themselves as cli-fi—and yet, I argue, this understated quality is precisely what makes these novels so valuable to the literary and extraliterary discourse of climate change. Butler’s Parable books are works of “cli-fi” in that they take place in a future that has been radically altered by anthropogenic climate change, but, crucially, they do not frame that future as on the other side of a radical rupture from the present and past. Instead, climate change becomes in these books a vehicle that extends and exacerbates ongoing social ills—ills that began in the historical past and extend through the reader’s present into the book’s future. In other words, Butler’s attention to slow social violence becomes a critical component of her depiction of climate change. Her novels echo the insight of environmental writer Andrew Revkin, who contends, “Global warming, as laid out by scientists, is the antithesis of news … That’s why the issue, somewhat like the national debt or other creeping risks, tends to hide in plain sight” (qtd. in Zajaczkowska). Butler’s work thus allows us to see how literary narrative can help readers to imaginatively connect apocalyptic ecological futures to past and present social dynamics, rather than framing those futures as disjunctive or inaccessible.

The Parable books are set in Southern California in what is now an alarmingly near future (Parable of the Sower opens in 2024) and follow the life of Lauren Olamina.
When we meet her, Lauren is a young woman living with her family in a gated community 20 miles from Los Angeles. America, as Lauren knows it, is beset by both environmental crisis, as global warming has caused droughts, widespread fires, and radical shortages of resources, and by economic collapse, which has led to social instability (widespread poverty, violent criminal gangs) and political turmoil (America’s fall from global dominance and the rise of a fundamentalist form of fascism). Lauren is preoccupied with spirituality and increasingly dissatisfied with the teachings of her father, a Christian preacher; longing for a faith that would enable its followers to adapt and thrive in the changing world, she begins to develop such a faith on her own. Called Earthseed, it is rooted in a simple but profound pronouncement:

All that you touch
You Change.
All that you Change
Changes You.
The only lasting truth
Is Change.
God
Is Change. (Sower 3)

Its tenets focus on ethical adaptation and graceful survival: if God is change, then those who follow Earthseed learn to change—to adapt to their world, to succeed in crafting sustainable ways of life, to treat all with dignity and respect, and, eventually, to act as literal seeds of Earth, establishing sustainable colonies on other planets.

The foundational belief in change thus permeates every aspect of Earthseed. And, as the Parable books proceed, readers are given the chance to see just how her belief
in Earthseed aids the extraordinarily resilient Lauren to survive and adapt with ever-increasing conviction. She remains strong even when family members are killed or kidnapped in increasingly violent encounters with the world beyond the gated community, and manages to escape when a catastrophic assault results in the wholesale destruction of that community. She survives on the road, gathering a growing band of traveling companions (including her lover and eventual husband, Bankole) who subsequently become a tightly knit community of kin and Earthseed converts. *Sower* ends with the founding of Acorn, the first Earthseed community. When *Talents* begins, this hopeful beginning is decimated: as the community grows and stabilizes, America’s political climate nurtures a sudden coup by Christian fundamentalists, who persecute all nonconforming faith systems, including Earthseed.63 A particularly violent branch attacks Acorn, relocating its children to be raised by Christian families and killing or incarcerating its adult members. Nonetheless, Lauren succeeds in escaping, and persists in rebuilding Earthseed. As we learn by the end of *Talents*, Earthseed has become a major political force; the last few pages, taken from an aging Lauren’s journals, recount the departure of the first Earthseed shuttles as they set off to bring human life to other planets. Butler never finished the third book, though her collected papers in the Huntington Library contain hundreds of pages of drafts toward it; this book was to be

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63 John Gamber suggests that this radical reversal means that the majority of Parable criticism, which was written between the publications of the two completed novels, misunderstands Butler’s attitude toward the pastoral utopian escapism that motivates Lauren in *Sower* and is revealed to have failed in *Talents.*
set in the first extraplanetary Earthseed colony, and (despite a wide range of possible plots) was to narrate how early Earthseed colonists would adapt to (not, note, conquer) the radical changes demanded by literally alien environments.

*Parable* criticism has primarily focused on the utopian and theological aspects of the series, attending to Earthseed’s particular spiritual and ethical tenets and addressing both the engaging and the troubling aspects of the Destiny in particular as a semi-spiritual, semi-secular utopia. The Destiny can be seen as a key contribution to Afrofuturist imaginaries, and as demonstrating a canny understanding of the relationship between *immanent* goals and social action: as we learn, as the Destiny takes hold, it encourages the development not only of stable and egalitarian communities, but also of scholarships and other promotions of equal access to higher education emerging out of a need for technically proficient young people (*Talents* 362). On the other hand, the Destiny can also be read as escapist, drawing both resources and attention from existing social problems: as Lauren’s estranged daughter writes, “The more I read about Earthseed, the more I despised it. So much needed to be done here on earth—so many diseases, so much hunger, so much poverty, and here was a rich organization spending vast sums of money, time, and effort on nonsense. Just nonsense!” (*Talents* 340-1). Or, as one of Lauren’s first converts says, “I don’t care about no outer space. You can keep that

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64 For treatments of Butler’s theology, see Donna Spalding Andréeolle, Philip H. Jos, David Morris, and Kimberly Ruffin. For the most critically influential discussions of utopia in the *Parable* books, see Jim Miller, Jerry Phillips, and Peter Stillman.
part of it. But if you want to put together some kind of community where people look
out for each other and don’t have to take being pushed around, I’m with you” (Sower
223). Such issues of theology, technological progress, and ethics are clearly major
concerns within the books, and Parable criticism accurately reflects and interrogates
these questions. Yet, despite the clear relevance of the Parable books to environmental
issues, the series has less often been read in terms of its relevance to the representation
of climate change.65

This is a critical oversight: though it was written in the 1990s, when global
warming had not yet achieved the central role in the popular imagination that it holds
today, the Parable series was conceived as a narrative about climate change and
ecological limitations. In a Q&A from 1998 that describes the series as predicting the
likely future, Butler says that, while considering issues such as drug addiction, economic
disparity, incarceration rates, she looked “in particular … at global warming and the
ways in which it’s likely to change things for us” (Sower 337). At other times, she makes

65 This is not to say that scholars have not noted the environmental aspects of the Parable series. For instance,
Gamber, Sylvia Mayer, and Maryam Kouhestani all discuss the Parable books in relation to questions of
environmental justice. However, more sustained attention to the manner in which Butler narrates
environmental injustice (rather than the fact that she does) is largely lacking in Butler criticism. Adam Johns
briefly notes the series’ relationship to slow environmental apocalypse: “Curiously, although the world of
the Parable novels is widely labeled as apocalyptic or post-apocalyptic and shares something of the tone of
more conventional post-apocalyptic novels, it is, unlike them, not concerned with any sudden endings: there
is no nuclear exchange, no asteroid, no wholesale environmental disaster,” Johns writes. “Butler’s dystopia
is created by continuing current trends, such as global warming or radicalizing Christian fundamentalism,
to their logical extremes, without sudden transitions”: “no definitive cataclysm is ever experienced. A slow
and painful disintegration is followed by a slow and painful rebuilding” (401). However, this is a short aside
in Johns’ larger project of placing Butler within the utopian tradition. Butler’s relatively unusual treatment
of climate crisis has thus not been read as offering significant insights into broader discussions in the
environmental humanities.
the point even more strongly, referring to global warming as “almost a character in
Parable of the Sower” in a 1997 interview and even as “one of the main characters” of the
novel in a 2002 commonplace book entry (Interview with Rowell 61, OEB 3149). Indeed,
in 1991, when she was still in the process of drafting the first novel, she explained in
another Callaloo interview that her new book reflected her awareness of the long-term
problems that global warming was likely to cause:

The greenhouse effect has intensified and there has been a certain amount
of starvation and agricultural displacement … Some of our prime
agricultural land won’t be able to produce the crops that it’s been
producing and Canada will have the climate, but on the other hand
Canada caught the brunt of the last few ice ages and has lost a lot of top
soil, which wound up down here. (Interview with Kenan 502)

Yet, as the relative dearth of attention to the environmental aspects of Butler’s books
makes clear, there are representational challenges in placing global warming as a literary
main character. For one, its operations are subtle, slow, and difficult to individuate: as
Butler put it in the 1991 interview, “These are big problems and they are not sexy as
problems so they are not the prime problems in the series that I am working on, but
they’re in the background” (Interview with Kenan 502). “Background” may be a more
accurate description of environmental crisis' role in the Parable books than “main
character,” but Butler’s repeated reference to global warming as a character still speaks
to her desire to craft a literary work that took climate crisis as a central concern.

To return to Nixon’s concept of slow violence and Morton’s description of
climate change as a hyperobject, what makes writing climate change as a “main
character” so difficult is that it operates slowly. Its speed is at odds with the “sexier” forms of change that map more neatly onto narratives that follow individual actions, choices, and consequences. Butler experienced this problem keenly: as she wrote in a commonplace book entry from 2002, “climate catastrophe” is “not the kind of short-term emergency we humans are good at” (OEB 3149). In an April 1, 1999 journal entry, in response to a question she posed herself—“How is the world likely to turn out?”—she suggests that global warming, “seen realistically, will be a series of chronic problems, not a big, acute crisis” (OEB 1065). In notecards from 1992, when she was in the process of drafting Sower, she describes the novel as “show[ing] us a society that did not prepare itself to deal with global warming because the warming isn’t just an incident like a fire, a flood, or an earthquake” but is instead “is an ongoing trend—a trend that feeds on itself” (OEB 3078). In short, Butler recognized that literary and other representations of climate change suffered from a temporal messaging problem: global warming’s catastrophes happened so slowly that audiences were loath to recognize them and respond appropriately.

The significance of Butler’s explicit recognition of the temporal challenges involved in narratively representing climate change is threefold. First, Butler crafts a story in which global warming operates both as “main character” and as background: early sections of Parable of the Sower make it clear that climate crisis is precipitating the more rapid forms of social change that will take top billing in the remainder of the
narrative. Second, she incorporates a range of formal and stylistic narrative strategies that help to stretch the reader’s temporal imagination in order to make slow forms of change legible—yet she does so while emphasizing that such gradual processes often characterize social, as well as ecological, change, such as the way that fascist and fundamentalist groups slowly rise to national power. Third, she refuses to engage in the kinds of rupture-based apocalyptic narrative that make it difficult to understand the relationship between past, present, and future. Instead, her narrative of gradual ecological and social transformation asks the reader to recognize that the slow processes of violence that have rendered the *Parable* future so dark have already begun in the reading present. (Indeed, as I will conclude by suggesting, this commitment to the gradual is perhaps what stymied her efforts to complete the third installment in the *Parable* trilogy.) In short, Butler’s sustained attention to the representational challenges of climate change informs the structure and the ethical investments of her narrative, in which coming to terms with climate crisis requires both a flexible attention to social crises and an ability to recognize the catastrophic future as extending from the already-catastrophic present.

The ecological realities of the Anthropocene permeate the series. Particularly in the early sections of *Sower*, readers are frequently privy to Lauren’s contemplations about how difficult it is to sort out “nature” from both human-forced ecological events
and human patterns of inequality. “There’s a big, early-season storm blowing itself out in the Gulf of Mexico,” she tells us:

It’s bounced around the Gulf, killing people from Florida to Texas and down into Mexico. There are over 700 known dead so far. One hurricane. And how many people has it hurt? How many are going to starve later because of destroyed crops? That’s nature. Is it God? Most of the dead are the street poor who have nowhere to go and who don’t hear the warnings until it’s too late for their feet to take them to safety. (Sower 15)

These extreme, distant weather events comingle on the page with more dispersed and local forms of environmental crisis. These include the violence and deprivation that attend extreme water scarcity—“water now costs several times as much as gasoline,” Lauren tells us, and water peddlers who sell to impoverished people who cannot afford utility bills are “being found with their throats cut and their handtrucks stolen”—and the disproportionate exposure of the poor to environmental and occupational hazards (Sower 18, 27). Yet, as Butler notes, these forms of crisis are ultimately read as background, setting the stage for Lauren’s encounter with “sexier” problems—with the violent loss of family, home, and community, with the tension-fraught travel north from Los Angeles, with the process of founding Earthseed and establishing its communities. Indeed, it is much easier to grasp particular events (the murder of a water peddler, the landfall of a hurricane) than it is to recognize the extended systems of causality that operate as grounds for these more fast-paced crises.

Significantly, however, the Parable novels continually return to such slow processes as they seek to illuminate the relationship between gradual and sudden
change. Formally, the *Parable* books are framed as compendia of found materials: *Parable of the Sower* moves between excerpts from the religious texts *Earthseed: The Books of the Living* and entries from Lauren’s journals, while *Parable of the Talents* intersperses these materials with excerpts from her husband Bankole’s memoirs and her daughter Larkin’s commentary and annotations (and, less frequently, the writings of her estranged brother Marcus, who has become a rabid Christian fundamentalist and vehemently opposes Lauren and Earthseed). These texts mean that the novel as it is read moves back and forth across carefully labeled decades of historical time, such that the main linear arc of the plot (Lauren’s journals) is framed by retroactive commentary from the future (the texts that she and her family will write). The novels’ form thus set up a comparative and dynamic mode of historical interpretation in the reader. Small shifts in the main narrative’s present—the younger Lauren’s formative experiences, rhetorical strivings, and encounters with new forms of theological thought—are shown to have reverberating effects in the future; meanwhile, ominous foreshadowing in the later texts prod the reader to more closely examine the narrative told by Lauren’s journals in order to understand how the catastrophes at which Larkin hints were established and came to pass. Larkin’s clear resentment of her mother and tentative, wistful longing for her father, for instance, are made clear in the opening pages of *Talents*: “I wish more than ever that I could have known my father,” she writes. “He seems to have been an impressive man. And, perhaps, it would have been good for me to know this version of
my mother, struggling, focused, but very young, very human. I might have liked these people” (29). Yet she also says that Bankole “couldn’t keep my mother safe, of course. No one could have done that. She had chosen her path long before they met … She was already a missile, armed and targeted” (15). These explicit comparisons of what Larkin knows in her present and what she sees in the writings from Lauren’s and Bankole’s past make clear both that terrible changes will come in the stories that follow and that these changes were already underway in small, almost imperceptible ways. In other words, they prime the reader to attend to the way that apparently minute decisions and actions will lead both to raw familial tragedy and to Earthseed’s eventual overwhelming success.

If the novels themselves invite this kind of attention to long processes and gradual changes, so too do Earthseed’s tenets. As Larkin explains, “if there are sins in Earthseed, shortsightedness, lack of forethought, is the worst of them” (Talents 127). As a religion based on the concept of sustainability, prizing adaptation not just in order to survive in the short term, but also to establish stable and durable modes of being, Earthseed requires in its followers a longue durée imagination capable of grasping otherwise imperceptible processes and transformations. After all, Earthseed’s primary tenet concerns change itself, and the ability to understand and thrive with it: “To shape God / With wisdom and forethought,” one verse reads, “To benefit your world, / Your people, / Your life, / Consider consequences” (Talents 61).
This emphasis on an expansive causal imagination has its origins in two concerns to which Lauren continually returns. The first is the recognition of the incredible harm that short-sighted human actions have wrought on the world, and the alarming way that people seem incapable of recognizing the cumulative effects of those actions. “Our adults haven’t been wiped out by a plague,” the young Lauren realizes, “so they’re still anchored in the past, waiting for the good old days to come back. But things have changed a lot, and they’ll change more … People have changed the climate of the world. Now they’re waiting for the old days to come back” (Sower 57). These climatological changes surface throughout the novels, and are described as worsening all the time. For instance, Bankole, mourning the dying of Northern California’s redwood forests, recognizes this die-off as the result of the steady and ongoing northern creep of climatological zones: Humboldt was a “soft, green climate, friendly to most growing things,” he writes, but “it was already changing nearly 30 years ago when I bought the land that became Acorn. In the not-too-distant future, I suppose it will be little different from the way coastal southern California was a few decades ago—hot, semiarid, more brown than green most of the time. Now we are in the middle of the change” (62). Likewise, in one of Butler’s many drafts toward the unfinished third Parable novel, the protagonist remarks casually that “Olamina had always warned against what she called ‘destructive, shortsighted fantasies of conquering and dominating the land!’” (OEB 2154).
Lauren’s emphasis on learning to come to terms with slow change is thus marked as rooted in her frustration that the inability to do so had caused so much harm.

The other factor in Earthseed’s attention to slow processes is the fact that its Destiny, as characters frequently comment, demands an extended attention span. Butler has characters regularly challenge Lauren about this problem: as Bankole says in frustration, “Do you really think you can spend your life—your life, girl!—struggling and risking yourself, maybe risking our child for a ... a cause whose fulfillment you ... probably won’t live to see?” (Talents 165). Here and elsewhere, Lauren admits that convincing people to commit to “a job so long, so thankless, expensive, and difficult” can only be accomplished through a system of faith: “It will take something as essentially human and as essentially irrational as religion,” she says, “to keep them focused and keep it going—for generations if it takes generations” (and, she adds, “I suspect it will”) (Talents 323). In short, grappling with slow processes—perceiving them, working within them, committing to them—is what both Butler and Lauren identify as a major challenge, a threat to the stubbornly short-term human historical imagination.

Earthseed thus exists in order to stretch its adherents’ senses of time and accountability, enabling them to craft and protect more sustainable communities, more lasting forms of social life.66 Butler made as much clear in her drafts toward a never-finished book that

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66 Although, as Moylan and Stillman suggest, Parable of the Talents in particular gives in to the temptation to produce radically disjunctive and new futures. As Stillman points out, Butler elides Earthseed’s rise to prominence between 2035 and 2090 (32); and, as Moylan highlights, Earthseed itself employs an
would have collected previously printed and new theological writings from *Earthseed*:

“Lauren Olamina believed that we human beings need to take responsibility not only for our personal and group behavior, but for our future as a species,” she wrote. “Thus, she offered a species goal that was intended not only to encourage our continued growth and long-term survival, but to give us a long-term project that would be difficult enough to absorb us for a long time and perhaps focus us away from fighting with one another” (OEB 470).

It is debatable whether the *longue durée* of the Destiny was in service of helping people recognize other forms of slow change or vice versa. At times, Butler seems to suggest that Earthseed’s followers needed to learn to grapple with gradual and extended processes in order for the Destiny to succeed; at other times, the converse appears to be the case, with the Destiny operating as a kind of incentive for people to focus on long term goals and practice more just and sustainable ways of life.67 What both the *Parable* “apocalyptic leap … *out of the present, out of this world*” (*Scraps* 243). Moylan and Stillman thus help us see that Butler’s *utopian* plotlines progress much more rapidly than her narratives of dystopian decline, in almost an exact reversal of Robinson’s structure.

67 Butler’s characters frequently slip between these two readings. As one of Lauren’s followers explains, “The Destiny is important for the lessons it forces us to learn while we’re here on Earth, for the people it encourages us to become. It’s important for the unity and purpose that it gives us here on Earth. And in the future, it offers us a kind of species adulthood and species immortality when we scatter to the stars” (*Talents* 143-4). Or, at Lauren more vehemently puts it: “*We need purpose!* We need the image the Destiny gives us of ourselves as a growing, purposeful species. We need to become the adult species that the Destiny can help us become! If we’re to be anything other than smooth dinosaurs who evolve, specialize, and die, we need the stars. That’s why the Destiny of Earthseed is to take root among the stars” (*Talents* 163-4). Lauren claims that the Destiny provides the kind of long-range thinking that causes shortsighted human destruction,
books and Butler’s archives make clear, however, is Butler’s keen understanding that those forms of change that are too slow to perceive are not just ecological: they encompass pernicious social transformations, as well as environmental degradation.

While global warming is one of the problems to which both Butler and the Parable books repeatedly return, the dangerous slowness of its onset is always explained as connected to other, similarly imperceptible forms of social, economic, and political deterioration.

Bankole opens the main narrative of Parable of the Talents with his description of the “Pox,” short for “Apocalypse,” the term by which characters refer to the dystopian period in which the Parable books are set:

I have … read that the Pox was caused by accidentally coinciding climatic, economic, and sociological crises. It would be more honest to say that the Pox was caused by our own refusal to deal with obvious problems in those areas. We caused the problems; then we sat and watched as they grew into crises. I have heard people deny this, but I was born in 1970. I have seen enough to know that it is true. I have watched education become more a privilege of the rich than the basic necessity that it must be if civilized society is to survive. I have watched as convenience, profit, and inertia excused greater and more dangerous saying, “When we have no difficult, long-term purpose to strive toward, we fight each other. We destroy ourselves. We have these chaotic, apocalyptic periods of murderous craziness” (164). Yet she also acknowledges that the Destiny is a difficult sell: early on, she remembers, “the people of Acorn began to accept all the Earthseed teachings, except the Destiny” (164). In other words, the Destiny is wrapped up in broader social problems: she believes in it not because it has transcendent value, but because universal belief in it might cause people to come together and solve the problems caused by profit-driven and selfish patterns in politics and economics (Talents 322). Butler’s plans for the third novel indicate that she felt the Destiny’s role in correcting fundamental human errors would extend past the launching of the first interstellar ships: “The struggle to survive on Bow,” she mused, “should absorb enough of our aggressiveness, adventuresomeness, and competitiveness to permit us a long tradition of peace, good government, and good sensible long-term environmental behavior” (OEB 2062).
environmental degradation. I have watched poverty, hunger, and disease become inevitable for more and more people. (14)

Bankole explains here that the lack of immediate response to the Pox was a direct result of its slowness. The problems were “obvious,” but occurred slowly enough that people can be said to have “sat and watched”; as he succinctly summarizes, the Pox has served as “an installment-plan World War III” (14). The danger of slow-moving disaster, then, is that it stymies intervention, regardless of whether that disaster be environmental, social, or (as is the case in Butler’s Parable books) an inextricable mixture of the two. And it is that inextricability of the ecological from the social when it comes to slow change that makes the Parable books so significant. Butler is not alone among writers of cli-fi in her sense that the slowness of climate change makes it hard for people to perceive, let alone respond to in a comprehensive manner. Yet she is unique in her recognition that this slowness is not unique to ecological processes—and that the effort to somehow make people aware of slow processes cannot be restricted to the environmental realm.

In the passage above, for instance, Bankole moves swiftly from unequal access to education to climate change to the material realities of structural violence: all of these processes, and people’s resistance to seeing their cumulative effects, he suggests, were part of the slow “installment-plan World War III.” This insistence upon the way that slowness characterizes social as well as environmental ills recurs throughout Butler’s writings. In a 2003 interview in Interzone magazine, Butler echoes Bankole’s description:
The Pox is the nasty part of history that happens as a result of all the problems that we’re neglecting now, from illiteracy to drugs to global warming, that are likely to give us trouble in the future just because we’re ignoring them now. Today’s troubles that grow up into tomorrow’s disasters. Unfortunately, a lot of them mature at the same time. That’s ‘the Pox.’ It’s supposed to be something that we’re already working on. It’s already happening now. (Interview with Schweitzer 23)

In her notes toward Parable of the Trickster, Butler is even more explicit in her criticism of political inaction in the face of myriad slow forms of violence: the “temptations toward the quick and dirty, the easy, the ‘temporary’ pseudo-realistic tradeoffs” that she wants Earthseed’s first generation of colonists to resist, she wrote in 2001, include “where we put our waste, how we use natural resources, and that we never accept the idea … [of] oppressing one group of humans like women, racial minorities, religious minorities, gender minorities, developing class minorities just until we fix some other problem” (OEB 2062). Ecological degradation is framed here as historically invisible for precisely the same reason that structural violence and institutional racism are invisible: that they operate slowly, and thus tend to be overshadowed by short-term concerns and rapidly occurring events. The implication is that, to fully address the problems posed by a limited historical imagination, it is not enough simply to dramatize one form of slow change. Rather, it is the expansiveness of our sense of causality that must be extended—not only because this is the only way to address the many issues that operate below the surface of historical legibility, but also because, as the Parable books make clear, those
issues operate in tandem, such that ecological crisis produces extreme weather events and resource scarcities that exacerbate social inequality.

If the political problem of a lack of response to slow change was thus, in Butler’s view, an issue of the lack of urgency with which such processes are perceived, her representational response in the *Parable* books sought to render these various and linked forms of slow change legible to readers. This operates on two levels, with a primary narrative (the establishment of Earthseed) that echoes the causal foundations of the slow problems in the background (the difficulty of instilling patterns of long-term thinking). What I wish to highlight is Butler’s refusal to alter the slowness of these forms of change—and, significantly, the way in which this narrative choice offered a model of historical *continuity* rather than one of *rupture*. In other words, the *Parable* books may be catastrophic, but they are not truly apocalyptic. As a result, the future that Butler envisions in the *Parable* series is not radically disjunctive from, but rather intimately tied to, the slow forms of violence and degradation that she saw operating in (and indeed before) the 1990s: it is, then, a future that cannot be extricated from historical and present processes. This is to say that it refuses and even forecloses the possibility of escapism, of viewing the books as a thought experiment rather than an extension of the ills of the present.

The *Parable* books emphasize this connection between the reader’s present and the fictional future. Indeed, Bankole’s explanation of the Pox begins with the foreboding
suggestion that readers are not just failing to prevent, but are actually already living in it: “I have read that the period of upheaval that journalists have begun to refer to as ‘the Apocalypse’ or more commonly, more bitterly, “the Pox” lasted from 2015-2030—a decade and a half of chaos,” he writes. “This is untrue. The Pox has been a much longer torment. It began well before 2015, perhaps even before the turn of the millennium. It has not ended” (Talents 13). Readers in 1998 were thus uncomfortably placed in the historical purview of the Pox, forced to reckon with the fact that the dystopian future of the Parable series was in fact their own present. Butler insistently returned to this point in her writings and comments on the series. In an Essence article from 2000, Butler wrote that she “didn’t make up the problems” of the Parable series: “All I did was look around at the problems we’re neglecting now and give them thirty years to grow into full-fledged disasters” (OEB 314:6). Butler saw environmental crisis as an unusual form of crisis, one that demanded new generic affiliations: as she explained in a 1991 Callaloo interview, the still in-process Parable of the Sower “isn’t a postapocalyptic book,” but is instead “a book in which society has undergone severe changes, but continues” (Interview with Kenan 502). This was because, as she wrote in a 1999 live online interview with fans, global warming is “not the great destroyer, it’s just a difficult change” (OEB 328:23).

Indeed, as characters consistently remark, the future of the Parable books is strikingly reminiscent of the past. As she contemplates the increasingly terroristic actions
of the new Christian fundamentalist right, who have begun murdering and razing entire communities while wearing white crosses on their chests, Lauren thinks, “this was something new”—or rather, she corrects herself, “something old,” “a revival of something nasty out of the past,” the Ku Klux Klan, the Nazis, the Inquisition, the Crusades (Talents 23). It is this cyclical tendency of history, Lauren later explains, this pattern of “falling into the same ditches,” that Earthseed is intended to interrupt. The horrors that Lauren and the other Earthseed followers undergo (alongside many other captives) who are held in the brutal camps of the Christian right echo both Nazi concentration camps and American plantations; the wars that their political leaders wage against nations they perceive to be their competitors in a climate change-ravaged, resource-scarce environment eventually fade into obsolescence. Climate change may shift ecological realities, but it doesn’t change historical patterns of entrenched violence, paranoia, and inequality. Not only has the Pox itself already begun in the reader’s time, but the social conditions of the Pox have their roots deep in histories of imperialism, fundamentalism, and competition. Within the historical logic of the Parable books, then, the difficult task of crafting a better future depends upon a sense of history. The lack of this historical awareness, Lauren posits, is what enabled the Pox in the first place: “these days when more than half the country can’t read at all,” she reflects, “history is just one more vast unknown to them” (Talents 19). As a result, Earthseed sets its followers (and, by extension, Butler sets her readers) the complicated task of learning from the past
without compromising the ability to imagine alternative futures, recognizing historical patterns without succumbing to either quietism or nostalgia. As the *Earthseed* verse that opens the last chapter of *Parable of the Talents* instructs:

To survive,
Let the past
Teach you—
Past customs,
Struggles,
Leaders and thinkers.
Let
These
Help you.
Let them inspire you,
Warn you,
Give you strength.
But beware:
God is Change.
Past is Past.
What was
Cannot
Come again. (337)

“To survive,” the verse concludes, “Know the past” — “Then let / The past / Go” (337). It is this careful modulation of past and future, this cautious utopianism by way of unflinching historical assessment, this attention both to the distant consequences and the past and present instantiations of slow forms of change, that characterizes Butler’s approach to the narrative politics of climate justice.

It is also, I would suggest, a crucial component of her failure to complete further installments of the *Parable* series. If, as I have argued, the *Parable* books are such profound contributions to the cli-fi canon because of their attention to slow change, and
because of their resultant refusal to narrate the post-climate change future as fundamentally unlinked from contemporary social realities, *Parable of the Trickster* was oriented differently. Butler worked on the manuscript through the early 2000s, and the basic premise remained the same: the book would follow the first generation of Earthseed colonists as they adapted to life on their new planet, which was called “Bow” (for “Rainbow”) and held lurking threats behind a façade of unappealing but unthreatening landscapes. “Begin happy—truly, truly happy,” she planned. “No war, no poverty, no disease, no vicious, stupid, short-sighted politicing. A new start. Then begin the long, terrible slide that nearly kills us [sic]” (OEB 2210). That “long, terrible slide” would put the Earthseed tenets of patience and adaptation to the test: “Earth normal is speed, bruskeness and artificial certainty,” she wrote, but “the change has slowed things down, forced a great deal of questioning, second thoughts [sic]” (OEB 2044). The new environment would reveal fault lines among the colonists, between those who truly sought to accept the great change of interplanetary movement and those who intuitively resisted. (Of the latter, she wrote: “There’s always someone who’s got a quick, easy answer: ‘Poison the vermen!’ ‘Wipe out the damned things!’ ‘Burn the fuckers!’ Shoot, cut, stomp, destroy .... But everything has a place in the environment” [sic] [OEB 2035]). Over the years, she characterized those environmental threats in a number of ways, experimenting with mass psychosis, blindness, and trans-corporeal psychic migration. None of them satisfied her; she wrote frequently that her drafts had
plenty of background but lacked the central character tensions and energies that motivated her other work.

What is clear in all of these drafts was that the third Parable book would not be a utopia in which a new environment allowed for instant ease and satisfaction. As Butler wrote in a journal entry from 2001, “When we go to another world, we will take our worst problems with us. The answer is to accept the feelings, recognize them, and refuse to act on them” (OEB 1134). And yet that desire for a fresh world was at the heart both of the Earthseed enterprise and Butler’s own conception of the novel: “This is another case of people getting a totally fresh start as far as the new world is concerned. Beginning again environmentally, educationally, governmentally,” she wrote—“starting over rather than world-fixing” (OEB 2070). She wondered if the Earthseed mission could be productively imagined as “the settling of America … as it might have been if there could have been no Indians and no contact with England or with any humans anywhere else” (OEB 2070). There are moments in the Parable series when the futility of such an approach is made clear—for instance, at the end of the Parable of the Talents, when we learn that the first Earthseed ship is called the Christopher Columbus. “I object to the name,” Lauren reflects. “This ship is not about a shortcut to riches and empire. It’s not about snatching up slaves and gold and presenting them to some European monarch. But one can’t win every battle. One must know which battles to fight. The name is nothing” (406).
Are we as readers meant to trust Lauren’s judgment on this? Or are we instead meant to recognize, in a way that she does not, the ideologies that lurk in the attitude of imperial expansion that the name connotes? In the context of an apparently American-led and primarily American-funded mission, launched after decades of America’s crumbling hegemony becomes ever more clear, the lack of historical insight evident in such a name could be read as cause for alarm in terms of how Earthseed’s aspirations have been interpreted by those in power other than the aging Lauren. Nonetheless, the appeal of this moment—the departure of the ships into the sky, prepared to take up life on an entirely alien planet that will ultimately demand total adaptation, total acceptance of a new environment, and near-total egalitarianism and cooperation in service of those goals of survival—is clear, and explains why the drafts toward Trickster all follow the Earthseed colonists rather than, for instance, Lauren’s daughter Larkin, who has spent much of her narrative time in Parable of the Talents questioning the ethics of devoting immense amounts of energy and resources to space travel when such enormous social justices persisted on Earth. The unfinished Parable books were planned to allow Butler to move beyond the still-recognizable, but almost insurmountably damaged, near futurescape she had spent two novels envisioning. As she wrote in a diary entry in 2002, “Wiping the slate clean of corrupt, unforeseen old cultures gives writers chances to try their hands at creating new ones” (OEB 3149).
Butler’s inability to finish those books, or even to arrive at a plot that satisfied her, was of course overdetermined: she was distracted with other projects, such as her 2005 novel *Fledgling*; she felt, as her journals indicate, dulled and slowed down by her blood pressure medication, which she described as enervating her libido as well as her creative energy; and she abandoned the plot about which she was most excited—an epidemic of blindness—when she became aware of José Saramago’s 1995 novel *Blindness*, which led in part to his receiving the 1998 Nobel Prize in Literature. (Butler’s vehement criticisms of Saramago’s writing style seem motivated in part by resentment over this.) Yet I would suggest that another contributing factor to this failure was the very fact that she was seeking to abandon the narrative constraints that had guided the previous two *Parable* books, and which I have elucidated in this chapter: that the world she described had to be intimately linked to the world in which she wrote, and that the forms of change that operated as background and as narrative motivation could not be dramatic, but instead had to operate gradually. In short, if what is so special about the first two *Parable* books is their unique dexterity at rendering legible the operations of slow and ongoing violence, her plan for *Parable of the Trickster* was at odds with the foundational commitments of her earlier novels. Even as she intended for *Trickster* to dramatize Earthseed’s dedication to sustainability—which she described as an ecological and a social practice of “partnership,” rather than domination—the novel strayed from the narrative conventions that had structured her earlier novels’ narrative ethics of
climate justice (OEB 2197). And it is, I argue, these narrative ethics—this attention to the intertwining of ecological and social processes, to the urgent need to stretch the human sense of history to account for these processes, and, above all, to the importance of attending to history as well as futurity in any quest for eco-political transformation—that make *Parable of the Sower* and *Parable of the Trickster* so vital to contemporary environmental discourse.

In this sense, the published *Parable* books have more in common with *Kindred*, Butler’s 1979 novel about an African-American woman who is mysteriously summoned from her California home in the 1970s to an antebellum Maryland plantation, than with her *Xenogenesis* series from the late 1980s (later renamed *Lilith’s Brood*), which follow histories of human contact, conflict, and eventual interbreeding with aliens who come across the devastated Earth after a catastrophic nuclear war. *Xenogenesis* is set after a series of dramatic events that separate the future from the past (nuclear apocalypse, alien contact); its narrative concerns the evolution (or, alternately, end) of humanity as they reluctantly accept an interbred future with the Oankali. The human past persists in terms of human *tendencies* toward hierarchy, competition, and violence, but in terms of the social or political, the *Xenogenesis* books operate from a blank slate: even the Earth itself is rewritten, so to speak, first by fallout and later by the Oankalis’ geo- and bio-engineering. By contrast, *Kindred*, like the *Parable* books, depends upon the persistence of history. In *Kindred*, the past continually interrupts the present, both literally (as narrator
Dana is dragged back in time) and, significantly, *thematically*, as Dana comes to recognize that her life in 1970s California, especially in terms of her romantic partner, is not as far removed from the raced and gendered violence of the antebellum South as she had previously believed. The effect of *Kindred*, then, is an insistence that the past is not truly past, and that it cannot be ignored but must be reckoned with. So, too, do the *Parable* books demand that readers attend to their dystopian eco-political future as the product of actions in the past and present. Butler, too, saw these works as counterparts of each other: as she wrote in an April 1997 journal entry, if *Kindred* was “a way of comparing the past and the present, our ancestors and ourselves. A different way of thinking about slavery, about history,” the *Parable* books were “a way of looking at the future we may be building” (OEB 2348).

This, then, is the foundation of the *Parable* books’ status as works of climate justice fiction: their emphasis on the ways that climate change works in tandem with pernicious social stratification and violence, and on the likelihood that, at least in terms of social structures, dystopian post-climate change futures will look much more like the present than mainstream environmental discourse tends to admit. Only by turning to history, the *Parable* books suggest—only by reckoning with the historical and ongoing short-term prioritization of profit over long-term social and ecological sustainability, and the legacies of violence and inequality that that entails—only by beginning the process of teaching ourselves to think in terms of slow and gradual processes and
results—can we start, slowly, painstakingly, to work toward a more just and sustainable future.

### 4.4 Histories and Futures of Environmental Justice Temporality

The comparison between Butler’s *Parable* series and Robinson’s *Green Earth* thus demonstrates the significance of environmental justice temporality. Both Butler and Robinson are clearly preoccupied with the problem of narrating environmental temporality: they understand that the slowness with which ecological change unfolds renders that change largely invisible to a public accustomed to more rapid forms of transformation, and they describe the task of climate change fiction as rendering such slow change legible. What is particularly striking is that both Robinson and Butler are clearly concerned as well with the way that climate change interacts with social injustice: indeed, speaking strictly in terms of narrative content, both *Science in the Capital* and the *Parable* series explicitly depict the social impacts of climate change, from Robinson’s inclusion of climate refugees and utopian political rhetoric concerning women’s rights and global population stabilization to Butler’s descriptions of unequal access to vital resources, exploitative labor practices, and violence borne of political instability. Yet despite these shared understandings and common commitments, Robinson’s decision to address his representational challenge by *speeding up* climate change means that his narratives gloss over the historical and future complexities of environmental violence. By contrast, as I have argued, Butler’s recognition that climate change is only one of
many forms of slow change—and that global warming promises to exacerbate the inequities shaped by all of those slow processes—means that her novels instead seek to confront readers with the cumulative effects of gradual change while exhorting them to practice thinking across such slow, gradual, and extended forms of transformation. As I have suggested in this chapter, this temporal distinction informs the series’ differing ethical engagements with issues of climate justice: whereas the world of Robinson’s novels is characterized by abrupt breaks with historical precedent, the world of Butler’s novels is marked by not only the persistence, but also the new visibility of older histories. In short, Robinson’s approach to the ways in which “natural” processes might be narratively brought into human history dramatizes his treatment of climate change while undermining the realism of his treatment of climate justice, whereas Butler’s dedication to integrating different speeds of narrative change means that issues of environmental and climate justice are more substantively represented in her work.

What I am suggesting is that cli-fi would better serve the cause of climate justice if it were to integrate the understanding of slow violence that Butler’s work so clearly evinces. More broadly, however, I am arguing that this distinction between Butler and Robinson illuminates the crucial role that environmental justice temporality plays in environmental narratives. What the comparison between Robinson and Butler helps us see is that environmental justice temporality acts directly on the eco-politics of environmental narrative. If such treatment of temporality were merely a side effect of an
environmental justice sensibility—an indirect product of the decision to include certain issues regarding environmental injustice in the explicit content of a text—the difference between Robinson and Butler would not be so stark. How a text chooses to treat time thus has real consequences for the way it treats history and its relationship to the present—which is, in turn, closely related to the way with the way it addresses social justice.

This, simply put, is the point to which I have returned throughout “Unnatural History”: that the textual treatment of natural time matters. Leopold, Abbey, and Dillard framed natural time as radically other than human time; as a result, their texts never achieved a synthesis of the two realms. Despite his abiding interest in the intersections of human and environment, Robinson follows this pattern; his work subsequently elides the historical texture of the ways in which the social and the natural are in fact co-implicated. Butler, on the other hand, belongs to the genealogy I have traced in Carson, Ellison, Reed, Hogan, and Viramontes—the genealogy of environmental justice temporality, in which alternative temporal forms are not banished to the realm of the “natural,” but rather understood as weaving in and out of human worlds, structuring social relations as well as ecological realities, and refusing the relegation of the past to the past, even—in fact, especially—in the face of ecological crisis.

As climate change and global patterns of ecological disturbance continue and intensify, as the boundaries between human and natural history become ever more (or,
rather, are revealed to have always been) permeable, and as the social justice implications of these events come more sharply into focus, environmental justice temporality promises to play a more and more important role in environmental discourse, and in the function that the literary can play in that discursive field. If stories structure the way we think about time, and our sense of time changes the way we think about nature, then environmental justice temporality is a significant contribution to the politics of contemporary narrative.

What would happen if we were to recognize the way that different understandings of temporality structure different environmental projects, if we were to read with an eye for representations of environmental temporality as well as more traditional and explicit narrative treatments of environments and environmental issues? We might see that, as was the case with *A Sand County Almanac, Desert Solitaire,* and *Pilgrim at Tinker Creek,* not just the spatial idea of wilderness, but also the temporal elements of that idea have permeated environmental discourse to its detriment—and we might see that, as was the case with *Silent Spring,* alternative formulations of history can help us begin the difficult process of thinking differently about “the human” as well as “the natural.” We might see that, as was the case with *Invisible Man* and *Mumbo Jumbo,* narratives that we have not previously understood as environmentally inclined in fact have a great deal to say about the far-reaching consequences of our ideas about “nature.” We might see that, as was the case with *Solar Storms* and *Under the Feet of Jesus,*
how a text helps us think about history is as important as the particular historical events that it describes. And we might see that, as was the case with *Science in the Capital* and the *Parable* books, stories oriented toward environmental and social futures will not present a complete picture unless they are equally able to grapple with environmental and social *pasts*. These texts thus help us to see not only how individual works of literature might comment on particular environmental issues, but also the broader role that stories themselves might play in teaching us to think differently about time. As a result, they show us how stories can illuminate the eco-political futures we seek to build, as well as the eco-political histories from which we seek to learn.
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Biography

Rebecca Evans was born in Vallejo, California in 1988 to Kevin Coates (née Kevin Lee McWilliams) and Gary Dean Evans and raised in Sonoma, California. She graduated from Sonoma Valley High School in 2006 and received her B.A. in English from Columbia University in the City of New York in 2010. She completed her doctorate in English at Duke University in 2016. Her article “James Tiptree, Jr.: Rereading Ecofeminism and Essentialism in the 1970s” was published in Women’s Studies Quarterly in 2015, with other publications forthcoming at the time of her doctoral defense in Resilience: A Journal of the Environmental Humanities and The Cambridge History of Science Fiction. She is a member of the Phi Beta Kappa Society and received a James B. Duke Fellowship from Duke University (2010-2014), a Mitchell J. Connell Fellowship Foundation from the Huntington Library (2015), and a Mellon/ACLS Dissertation Completion Fellowship (2015-2016).