Threshold Thinking: Environmental Limits and Literary World-Making

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A Dissertation presented to the Graduate Faculty
of the University of Virginia in Candidacy for the
Degree of Doctor of Philosophy

Department of English

University of Virginia
July, 2018

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Abstract

As Earth's finitude and fragility became increasingly clear in the twentieth century, literary authors centered their work on environmental thresholds, verges and brinks that augured dramatic transformation. Tracing this distinct form of environmental imagination through a selection of modern and contemporary Anglophone literature, "Threshold Thinking: Environmental Limits and Literary World-Making" establishes that the problem of environmental boundaries must be understood not merely as technical or scientific, but also as a narrative, rhetorical, and affective phenomenon, one which can be usefully approached by the humanities. While scientists and theorists have long warned of impending biophysical limits like inadequate farmland, rapidly filling atmospheric sinks, and depleted oil reserves, this project connects those empirical accounts with their cultural and aesthetic formulations, and shows how the era's literature and science share imaginative, narrative, and rhetorical DNA. Through readings of work by George Orwell, M.F.K. Fisher, Nadine Gordimer, J.M. Coetzee, and Rohinton Mistry, "Threshold Thinking" argues that the environmental imagination of limits functions not as a closure, but rather as an impetus and opening for literary world-making.

Acknowledgments

This project owes much to the teachers and scholars who shaped it, and especially to Steve Cushman, Mary Kuhn, and Debjani Ganguly. I am a better reader, writer, and thinker thanks to their guidance. At the University of Virginia, I've also learned much from the insight and expertise of Victoria Olwell, Victor Luftig, Deborah Lawrence, Clare Kinney, Rita Felski, Jon Cannon, Michael Levenson, Michael Livermore, Jennifer Wicke, and Jahan Ramazani. For the passionate and luminous classrooms that led me on this path, I'm grateful to Richard Begam, Cyrena Pondrom, Theresa Kelley, Steve Clough, and Julie Page.

Like all dissertations, this work represents hours of solitary labor. Yet I will also remember the last years as brimming with the friends that I have made in Charlottesville, and I could not have finished this project without them. Thank you to Tom Butcher and Jesse Bordwin for the board game comradery, to my symposium partner, the indomitable Jap Nanak-Makkar, and to Stephanie Bernhard, whose passion for our shared subject inspires me. Thanks also to Eva Latterner, Lee Surma, Jack Levenson, George Derk, Annie Galvin, Sarah Berkowitz, Anastatia Curley, Zach Stone, Megan Gadient, and Kelly Fleming. For their endless patience with my prose, and their steady friendship, I am forever grateful to Sarah Smith and Aaron Colton.

This research also belongs to two intellectual communities in Charlottesville. First, to the Environmental Humanities Colloquium, and the many invited scholars (Dale Jamieson, Jason Moore, Serenella Iovino, among others) who broadened my vocabulary, modeled great research, and challenged my thinking. Second, to the Institute of the Humanities and Global Cultures—my home on Grounds—and to Debjani, Anne Gilliam, Joseph Wei, and Julie Gronlund, who have been some of my closest friends and colleagues as I completed this work. Rubbing elbows at the IHGC has molded my writing in so many ways: Sarah Nuttall, one of our guests, was so kind as to read and comment on a version of my second chapter.

For financial support, thank you to the University of Virginia, and especially the Department of English, the Buckner W. Clay Endowment for the Humanities, the IHGC, and the Graduate School of Arts and Sciences. The Institute for World Literature funded a productive and generative month of work and study where I met Stefan Helgesson, who provided important commentary on an article draft. That article is now forthcoming in *PMLA* as "Hunger in the Garden: Shortage and Environmental Aesthetics in Nadine Gordimer's *The Conservationist.*" My thanks to the readers and the editorial board there for their patience and generosity.

Finally, thank you to my family. My (many) parents—Cheri, Laura, Dave, Bruce, Pam, and Bob—made me a reader, curious, and committed. My brother, Zach keeps me on my toes (thanks for the free shoes), and I'm looking forward to traveling the world with Erin soon. Deb and Beth inspired me to be an advocate for others, in my work and out of it. Steve, Beth, and Connor showed me how to relax, and welcomed me to their family. My grandparents, and especially Dave and Bonnie, have kept me grounded: when I'm in my mid-eighties, I aspire to your to kindness and sense of humor.

Katelyn and Sam—I can't wait to see what's next. Thank you for getting me this far.

Introduction

> All debate about ecoscarcity, natural limits, overpopulation, and sustainability is a debate about the preservation of a particular social order rather than a debate about the preservation of nature *per se*. (148)
>
> - David Harvey, *Justice, Nature, and the Geography of Difference* (1996)

> The failure to recognise the limits arising from other living beings and systems is the product of a monological and deeply human-centred view of humans and of nature. (26)
>
> - Val Plumwood, *Environmental Culture* (2005)

Mehring and Ishvar are living on the edge. These childless, middle-aged men exist in sharp geographic and socio-economic contrast—one is a rich landowner and industrialist in apartheid South Africa, the other an impoverished tailor scratching out a living in India's still tenuous independence—but differences of race, class, and setting belie their common environmental precarity. The possibility of postcolonial economic development and a prosperous future, glimpsed by both, has been realized instead as the threat of environmental ruin, as a world that cannot sustain itself. Mehring's amateurish grasp of conservation principles allows him to enunciate fears about global overpopulation, resource exhaustion, and species extinction: environmental limits[1] that he sees fast approaching. Wealthy and powerful, protected by the

1 In this project, I use "limit," "boundary," and "threshold" interchangeably, though a brief note on etymology and definition may be useful here. The English word "limit" traces its origins first to Anglo-Norman and Middle French, and then to the classical Latin *līmit-* or *limes* ("Limit"). Its initial connotations are primarily cartographic, suggesting a "boundary of a plot of land," the frontier, or a "national boundary." As early as the fifth century Latin, however, limit had also become a figurative term, suggesting mathematical boundaries. The *Oxford English Dictionary* includes two definitions of interest, both appearing in the 15th century. First, limit can be "any of the fixed points between which the possible or permitted extent, amount, duration, range of action, or variation of anything is confined; a bound which may not be passed, or beyond which something ceases to be possible or allowed." A second definition is as "a boundary, frontier; an object serving to define a boundary, a landmark." Notable in both definitions as in its usage history is the expansiveness and fluidity of this term, its (paradoxical) capacity to encompass new figurative meanings far from its cartographic origins. Important too, is the way in which the word gestures towards visions of closure and severance that defy the imagination: to cross a limit is to cross into the unknown, the unpermitted, and possibly into nowhere at all. Of course, for this dissertation, the word "limit" is merely the tip of the iceberg. While it would eventually be

systematic oppression of the apartheid regime, he identifies the signs of coming collapse in the lives and communities of others, those people of color at increased risk now, and in the future. North and East, across the Indian Ocean and the Arabian Sea, Ishvar is one of them. With his nephew, Omprakash, this unemployed tailor from a tiny village struggles to survive in crowded, polluted Bombay. For him, environmental problems are both immediate (the crowds he fights as he looks for work, his slum's tightly-controlled water supply) and mediated by the administration of Indira Gandhi, appearing in the form of policies meant to curb overpopulation and "beautify" the city. For both men, the unintended damages of global capitalism have brought city and country to the brink of environmental disaster: they encounter thresholds of pollution, consumption, and population that manifest in the spaces they inhabit, the political regimes that rule them, their moods, their fears, and even their dreams.

Appearing in two Anglophone novels set in the 1970s—Nadine Gordimer's *The Conservationist* (1974) and Rohinton Mistry's *A Fine Balance* (1995)—Mehring's and Ishvar's stories respond to a powerful strain of environmental imagination: the idea that our world is fragile and finite. While *The Conservationist*'s title gestures explicitly towards environmental discourse, it is, like *A Fine Balance*, a work of social realism, and these are novels where scientific circumstances (both real and imagined) are embedded in a full historical and political milieu, not the determinants of aesthetic form.[2] Together, they demonstrate that environmental thresholds can and should be glimpsed through commonplace social and political problems like overcrowding, shortages of food and water, and the pollution of air and water: realities that shape

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taken up as an important and popular buzzword in the wake of *The Limits to Growth*, to understand the pervasive and wide-ranging appeal of the limits *concept* I am concerned with a wider vocabulary and metaphorics: tipping-point, shortage, scarcity, carrying capacity, planetary boundaries, atmospheric loading, resource depletion, decoupling, sustainability, and many more.

2 These works thus present an alternative to the dominant forms of science fiction, which Raymond Williams defines by way of their deterministic presentations of social and material formulae (*Tenses* 45).

the lives of diverse characters, the plots of novels, and relationships to the nonhuman world. Yet while both works present an environment on the edge of ruin, each takes that precarity as the impetus for world-*making*, a paradoxical relationship wherein Gordimer and Mistry generate immanent, expansive literary worlds precisely out of the fears of Earthly ends. Mehring's mental collapse in the face of imperiled social and material landscapes is counterbalanced by Gordimer's conclusion, by the possibility of a new, populous community rising to inherit his farm, his country. Ishvar's life may be profoundly constrained by the environmental realities he struggles against, yet Mistry's account is a gigantic tapestry, a Dickensian epic that defies unities of time and space.

That the environmental imagination of our Earth as finite and fragile functions not as a closure, but rather as an impetus and opening for literary world-making: this is the idea at the heart of "Threshold Thinking." This dissertation stems from a sustained interest in environmental boundaries that drives works of imagination by Mistry, Gordimer, and other modern and contemporary authors. In pursuing this thematic thread through diverse writings, I argue for a politically- and environmentally-oriented way of reading (not a new canon of writing), one that joins attentiveness to the kinds of knowledge distinct to the novel form with an analysis of the aesthetic, economic, social, and political mediation that often cloaks environmental problems.[3] Most simply, "Threshold Thinking" presents the case that modern and contemporary global Anglophone novels are an important index of and response to the limits paradigm, a form of

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3 I follow Graham Huggan and Helen Tiffin in stressing ecocritical method over canon (*Postcolonial Ecocriticism* 307). On the "cloaking" of environmental problems and their mediation, see "The Problem of Compartmentalization" in (Neimanis, et al. 76 and following). Against the "understanding of environmental crises as basically techno-scientific," Heise argues that the environmental humanities "envision ecological crises fundamentally as questions of socioeconomic inequality, cultural difference, and divergent histories, values and ethical frameworks" (*Companion* 2).

environmental imagination that ought to be considered at length.[4] In considering how this key narrative about our world appears in modern and contemporary works of literary fiction from South Africa, the United Kingdom, and India, I pursue the aesthetic and narrative roots of a key concept deployed by the environmental sciences, even as I simultaneously seek the influence of this scientific consensus on the literary imagination.[5] The authors assembled here do not address boundaries of deforestation, shortage, or pollution in the neat compartment of "environment" too often ascribed to them. Rather, they mobilize narrative form in order to convey that environmental thresholds are inextricably bound up with matters of social justice, economic history, affective force, and biopolitical power. For the purposes of this dissertation, then, that *The Conservationist* and *A Fine Balance* (and works like them) encounter environmental limits *along the way* to other aesthetic ends—Gordimer's novel is most obviously a critique of white apartheid identity, Mistry's the story of a diverse family struggling to survive in the midst of national turmoil—makes them more important subjects for the study of the environmental humanities, not less.

Environmental limits (what Dipesh Chakrabarty has recently called the "boundary parameters of human existence") are my subject, and in that phrase I intend both a varied intellectual tradition dating to the nineteenth century and biophysical limits themselves ("Climate" 218). Yet most important for my project, environmental limits are also a mobile, pervasive form of the environmental imagination, one which has not yet been studied by ecocriticism, or its sister-disciplines in the emergent field of the environmental humanities.[6]

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4 I touch on existing scholarship on this subject later in this introduction.

5 Greg Garrard suggests that the "organizing principle" of the environmental humanities is this reciprocal approach, what he calls "ecologizing humanity/humanizing ecology" ("Notes" 462-463).

6 Lawrence Buell first theorized the "environmental imagination" in relation to Anglo-American literature in *The Environmental Imagination* (1995).

Works of literature and environmental theory that *explicitly* encounter environmental limits (Aldous Huxley's *Brave New World* [1932], for instance, or the Club of Rome's *The Limits to Growth* [1972]) are one launching point for my research. But beyond explicit treatments of this subject, my dissertation seeks the imagination of environmental limits in the broadest sense possible: thresholds of population, pollution, human need, urban ruin, agricultural and ecological overshoot, fishing, farming, and resource use, whether or not they are identified as "environmental limits." While acknowledging the important differences between these and other forms of environmental boundary, I use the term "threshold thinking" to refer to what they have in common: the ubiquitous imagination of environmental verges and brinks, boundaries beyond which our world is thought to change dramatically, often for the worse.

This capacious approach to environmental limits can at times appear imprecise, or, relatedly, like a form of suspicious reading.[7] During the course of this project, I have often found myself asking if a given moment can rightfully be considered "threshold thinking" or not, whether it would not be better to study a more narrow, clear-cut iteration of this environmental imagination. Yet risking imprecision, my sense is that this is a subject that demands a broad and supple approach, one which considers limits in a range of dimensions: aesthetic, affective, narrative, metaphoric, historic, and scientific. We need this capacious approach because threshold thinking has evolved profoundly over the course of its existence and appeared in strange and unexpected ways. The limits that existed for Thomas Malthus, for instance, are profoundly different from the nine "planetary boundaries" currently being promoted by the Stockholm Resilience Institute, or those that shape the imaginary landscapes of Ursula Le Guin,

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7 Rita Felski argues that in suspicious reading "The role of...source texts is to offer a plenitude of traces, clues, or symptoms; the job of the suspicious critic is to interpret these clues by situating them within larger structures of social or linguistic determination" ("Suspicious Minds" 222).

George Orwell, or Amitav Ghosh. Yet if "limits" have evolved, they continue to share an essential narrative and imaginative DNA, one which persists across eras, genres, and disciplinary developments. By attending to what is distinct and continuous in this formulation, this dissertation can help us name and know this fundamental narrative, and, in doing so, expand the conceptual vocabulary of the environmental humanities.[8]

As an intervention in that burgeoning field, "Threshold Thinking" follows the limits idea across disciplinary boundaries. But this is foremost a work of literary interpretation, of ecocriticism. I therefore start with the question: How do modern and contemporary Anglophone writers use, revise, and create the environmental imagination of limits? On the one hand, social realists including Gordimer, Mistry, Amitav Ghosh, Indra Sinha, and Ian McEwan encounter limits in the presentation of quotidian circumstances and as obstacles that oppose and constrain characters. On the other hand, dystopian fiction by George Orwell, Ursula Le Guin, Paolo Bacigalupi, J.G. Ballard, and Karen Tei Yamashita is at once structured by the crossing of environmental thresholds (worlds without water, for instance, or with too much of it), but also liberated by them: these works show how the crossing of environmental thresholds generates new modes of human life, a kind of science fiction that becomes more imperative, and less speculative, as the real Earth's climate warms. In the three chapters that follow, analyzing a selection of writers from both camps, I consider how this fundamental story about planet and people has been taken up, transformed, manipulated, and challenged by imaginative writing in the last century. In particular, I show how Orwell's dystopian imaginary both instantiates and undermines dominant economic theories of human need; how Gordimer represents shortages global and local in order to refute certain versions of universalist environmentalism; and how

8 The inaugural issue of the journal *Environmental Humanities* (2012) discusses the need to expand this "vocabulary." I write at more length about that project later in this introduction.

Mistry's novel indexes the affective consequences of crowding, pollution, and the closing of future fantasies. In this way, "Threshold Thinking" theorizes forms of environmental threshold and demonstrates how they become subjects for novelistic representation, the drivers of narrative action, and a space of interchange between literature and science.

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This project advances the environmental humanities in three ways. First, it identifies the pervasive influence of the limits paradigm for the environmental imagination, a foundation that undergirds a wide swath of green writing, fictional and otherwise. Second, this dissertation "decompartmentalizes" environmental problems by analyzing them alongside the economic, cultural, and aesthetic circumstances from which they emerge. Third, this scholarship shows how the distinct forms of knowledge particular to the literary imagination can help us to better understand environmental phenomena, which have most often been apprehended by the social and natural sciences. There is much more to be said here, and I will elaborate on each of these contributions in turn.

This is not a history of intellectual thought. Yet insofar as this work of literary analysis depends on identifying and situating imaginative writing in its intellectual, political, environmental, and cultural contexts, "Threshold Thinking" performs a glancing history of the environmental limits story more broadly. My suspicion is that identifying the influence and importance of this form of environmental imagination can help us understand and improve upon our contemporary green discourse, which, while often framed as without precedent, owes much to earlier intellectual trajectories. Especially in recent decades, environmental theory has gone through rapid periods of reinvention and self-correction, marked by the rapid rise and fall of key buzzwords and paradigms (e.g. "resilience" and "Anthropocene" up; "sustainability" and

"limits" down), and also by a tendency towards claims about the unprecedented and incomparable nature of our contemporary moment. In environmental humanities scholarship, studies of climate change and of Anthropocene theory have been particularly inattentive to the extent that contemporary environmental discourses are shot through with the language and narrative habits of earlier moments. Beyond mere genealogical insight, however, my sense is that attending to the still-prevalent narrative of environmental limits can help us to avoid the errors of preceding formulations, and come to understand what is compelling and ineffectual, outmoded and still relevant about this form of environmental imagination.

Writing in 2015, Neimanis et al. argue that "environmental questions are still by-and-large compartmentalized as narrowly environmental" (78), a framing that means that "the links between economy (e.g. growth), culture (e.g. consumerism) and environmental degradation and resource depletion will not be seriously explored" (79). According to their essay, this inattention has the potential to "cover over human difference (on the basis of gender, sexuality, race and ethnicity, age, bodily ability, geographical location, social and economic status) in the face of environmental challenges." The problem of compartmentalization is the result of the way in which our political systems operate (too often unable to coordinate across categorical or national divisions), and a product of academies built on siloed forms of expert knowledge. As the authors point out, the threat of compartmentalization is particularly visible in debates surrounding climate change, "species thinking," and the Anthropocene, although they are in no way new.

In both subject and method, "Threshold Thinking" resists the "compartment" of the environment, and connects environmental problems to their full range of social, cultural, economic, and imaginative contexts.[9] Because limits thinking often depends on combining

9 In doing so, this project builds on the work of a body of "intersectional" environmental scholarship in the last two decades. See Heise's "Planet, Species, Justice" (2017).

insights about human and nonhuman realities from diverse disciplines (macro- and micro-economics, geology, hydrology, climate science, political science, and more), this is an environmental imagination that, long before the development of a field called "environmental humanities," challenged the categorical distinctions of existing analysis.[10] Which is not to say that environmental limits are *themselves* a solution to the challenges of compartmentalization.[11] My second chapter considers precisely the way in which environmental thresholds in the 1960s and 1970s were deployed in order to *avoid* taking account of human difference and distributing responsibility for planetary degradation. I take my subject, then, as a provocative but imperfect example of thinking outside of compartment. More important, however, this dissertation's pluralist method resists the kinds of narrow analyses that dogged first generation ecocriticism, and that still mark discussions of environmental politics.[12] Building on recent work in a wide swath of related fields, I seek the "environmental" in unlooked for places, stories, and relationships.

This project's third contribution to the environmental humanities is what Greg Garrard calls the "humanization" of ecology, a process by which "scientific ecology is subjected to a dynamic process of revision...that situates its truth claims in a wider cultural context without,

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10 In its Euro-American iterations, limits thinking owes much to the field of political economy, the more robust, interdisciplinary precursor to modern economics that considered economic questions amidst a fuller range of social, political, and ethical considerations. I touch on this subject more in the next section.

11 A point that both Jason Moore and David Harvey convincingly argue. For instance, Moore's *Capitalism In The Web of Life* (2015) contends that environmental limits "are not of Nature or Society" but represent rather the boundaries of "particular historical-geographical circumstances" (and especially capitalist societies) (29). While these two Marxist-oriented analyses break ground for my own effort to de-compartmentalize environmental boundaries, "Threshold Thinking" also incorporates the importance of forms of difference and complex identity formation demonstrated by ecofeminism, postcolonialism, and theories of environmental justice.

12 On early ecocriticism's "narrow focus" see Huggan and Tiffin (2010) or Deloughrey and Handley (2011).

ideally, undermining their political efficacy by relativization" ("Notes" 465). In the face of climate skepticism, seeking to raise alarm through the deployment of new rhetoric and the reinvigoration of old stories, activists and scientists are seeking ways of imagining and writing that can motivate and catalyze. With other recent ecocritics, I argue that close attention to narratives that address the central paradigms of our environmental history and politics can help us to understand the stories that activists and experts are telling (and have told). The works of fiction that I study here produce threshold thinking through the conventions of modernism, postmodernism, realism, apocalypticism, dystopia, and many more. In doing so, they establish that imaginative writing offers distinct perceptual and affective insights into the nature of the environmental imagination of limits, realizations that can help frame political and scientific projects.

A Brief History of Environmental Limits

As an explicit problem for ecological, economic, and social analysis, environmental limits appeared most famously with the 1972 publication of *The Limits to Growth*. The non-technical version of a report by The Club of Rome (a think tank founded in 1968 by Aurelio Peccei), *Limits* deployed cutting-edge computer projections and systems analysis in order to "investigate five major trends of global concern—accelerating industrialization, rapid population growth, widespread malnutrition, depletion of nonrenewable resources, and a deteriorating environment" (21). The book's prophetic, primary conclusion? That without altering course the global economy would encounter "the limits to growth" "sometime within the next one hundred years," and, as a result, would enter a period of catastrophic decline. If *Limits* was right, the world faced a mass die-off of people and a sharply reduced industrial capacity (23).

What were the limits in *Limits*? The authors of the report (Donella and Dennis Meadows, Jørgen Randers, and William Behrens III) contended that there were both physical and social requirements for future economic and population growth, thresholds that human society was rapidly approaching. Acknowledging that social factors ("peace and social stability, education and employment, and steady technological progress") fell outside the scope of their world model, they focused exclusively on the "physical" limits to growth: a series of global, quantifiable variables (46). These the book characterized as:

> The physical necessities that support all physiological and industrial activity—food, raw materials, fossil and nuclear fuels, and the ecological systems of the planet which absorb wastes and recycle important basic chemical substances. (45)

The work's second chapter is an account of these "necessities," spiced with illustrative graphs showing, for example, protein requirements and supply by region (figure 8), "regional average food production" (figure 9), and the world supply of arable land (figure 10). Over the course of the work, *Limits* presents "physical limits" under three headings: renewable resources (food and water), nonrenewable resources (energy, fuel, and metals), and pollution levels. For the first two, the report includes precise estimates of available quantity and expected exhaustion dates. In the case of pollution, however, limits remain more abstract, "because it is not known how much we can perturb the natural ecological balance of the Earth without serious consequences" (81).

The Limits to Growth was wildly influential.[13] It sold more than four million copies, and was translated into thirty languages. Contradicting the economic and policy dogma of the postwar era (the conviction that growth was inherently good, that shortages and scarcities would be overcome through technology and free markets), the report made limits a subject of international debate and proposed that a state of equilibrium would be preferable to the endless

13 On the importance of *Limits*, see Ch. 5 in Guha's *Global History* (esp. p. 75), and the chapter "Eco-nomics" in Caradonna's *Sustainability* (112-135).

economic progress championed for the last two centuries. Presidents Carter and Reagan both responded (in very different ways) to the work, and it contributed to fierce debates and important research by leading scientists, economists, and environmentalists across the globe.[14]

By most measures, *The Limits to Growth* is the high-water mark of public discourse on environmental boundaries. Influential as it was, however, The Club of Rome's report should be seen as a particularly important chapter in the *larger story* of environmental limits. To better understand the origins and influence of this thinking, I propose that we need to take a longer and more transnational view, one which goes beyond Euro-American developments in the 1960s and 1970s, and the particular version of environmental limits offered by The Club of Rome. While attending to that diversity of thought, we also have to distinguish between environmental limits as an explicit problem for ecological, economic, and social analysis, and the broader aesthetic, cultural, and intellectual history of this version of environmental imagination. In this section, following the methodology of historians like Ramachandra Guha and Jeremy Caradonna, my primary goal is to give an account of the latter: of limits as a social and cultural phenomenon. If, as Michel Foucault argues in *The Archaeology of Knowledge*, "The history of ideas...is the discipline of beginnings and ends, the description of obscure continuities and returns, the reconstitution of developments in the linear form of history" (137), then we ought to seek the history of the environmental imagination of limits far from the linear account of environmentalism triumphant in the 1970s. This is a flexible, promiscuous narrative about our planet, defined in part by the ease with which it has been taken up, transformed, and repurposed. And while there are many ways to tell this story, my sense is that we can best understand it

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14 Carter's 1979 "Crisis of Confidence" speech touches on the limits to America's natural resources. In a September, 1983 address, Reagan declared that "There are no such things as limits to growth, because there are no limits on the human capacity for intelligence, imagination, and wonder" ("Remarks").

through an analysis of two particular kinds of thinking and imagining: finitude and fragility. It was not until the latter half of the twentieth century that environmentalism combined these two strands, an intersection that still holds in discussions of limits today.[15] In considering the origins of these ideas, and the ways in which they would eventually intersect, I hope to show how this contemporary environmental imagination emerges from the past, at times disappearing, shifting, and resurfacing in new and surprising ways.

Finitude

The Limits to Growth may be the most widely-read example of threshold thinking. But *An Essay on the Principle of Population* (1798) is almost certainly the most influential, and probably the most controversial, as well. Written by the Anglican parson Thomas Robert Malthus, *Essay* was born of a disagreement. Enamored by the progress of Enlightenment societies, Thomas's father, Daniel, was an optimist who believed human society was flying high, and would soon reach perfection (Gilbert vii-viii). Like Nicolas de Condorcet, Jean Jacques Rousseau, and William Godwin, Daniel believed that profound recent developments in (European) society including advances in "natural philosophy," the spread of "general knowledge" by way of the printing press, the rise of a "spirit of inquiry," and new forms of political enlightenment suggested that "man shall henceforth start forwards with accelerated velocity towards illimitable and hitherto unconceived improvement" (9). For the thirty-year-old Thomas, however, such optimism ignored fundamental facts about the social and nonhuman worlds. The *Essay* proposed that humanity was not destined for egalitarian perfection but was instead constrained by two profoundly related forces: the "power of population," on the one hand, and the "power in the Earth to produce subsistence for man," on the other (13). Thus,

15 See, for instance, Caradonna's discussion of the limits concept (p. 13 and following).

Malthus rejected the optimistic projections of his father and the idealist set, more generally, and offered instead a "melancholy" view of a human future that remains necessarily bound within calculable environmental limits (4).

Combining social and scientific methodologies, Malthus's *Essay* rests on a fundamental assumption that the Earth is finite. The work's parallel mathematical claims about people and food (that "Population, when unchecked, increases in a geometrical ratio" while "Subsistence increases only in an arithmetical ratio") are extensions of this assumption, but so too is the consistent appeal to the limited supply of land available for human society (13). As one historian notes, Malthus "conceived of nature as a storehouse of means of production," one "which was visibly shrinking as more and more was taken from it at an ever-faster rate" (Sachs, *Fair* 19). In *Essay*, this rationalist perspective is presented as the impartial truth of things: the work relies heavily on the rhetorics of science and logic, and frames its intervention as one that "pits [facts] against [speculation], [science] against [fantasy]" (Gilbert x).

Biting and humorous, Malthus's *Essay* is often presented in isolation. But the environmental imagination that it inaugurates—Earth as calculable and finite—shares fundamental characteristics with the work of a number of political economists of the era, including thinkers from diverse political and philosophical positions. David Ricardo drew attention to the fixed quantity of land;[16] William Stanley Jevons made a crucial investigation into the relationship between efficiency and the use of nonrenewable resources;[17] and John Stuart Mill theorized that "the increase of wealth is not boundless," and that the age of global growth would end in a "stationary state" (*Principles*, IV 6.2). While offering various positions on the future of capitalism and the adequacy of the free market, these political economists agreed on the

16 See Ricardo's *On the Principles of Political Economy and Taxation*, and especially the "law of diminishing returns."
17 On the "Jevons Paradox," see Caradonna, p. 76.

fundamental question of Earth's finitude, and each expressed concern about the limits of particular material resources.

On the one hand, then, thinking of environmental limits in terms of material finitude emerged from a set of early-nineteenth century political economists, a rising expert class seeking to understand the movement of capital and the relationship of consumption, population, and resource use. But, on the other, this version of environmental imagination is also a product of early "scientific conservation." At roughly the same moment that Malthus was writing, this global movement was rising to address the deterioration of natural resources, and especially forests. Alexander von Humboldt, George Perkins Marsh, and Dietrich Brandis were early figures in scientific conservation, and framed the overconsumption of the "natural world" as a profound matter of national and international concern. As Guha notes, "[Scientific conservation] was held together by a set of beliefs that was remarkably invariant across the continents and across different sectors in which it was applied" (*Environmentalism* 28). One of those beliefs was

> The idea of sustained yield, based on the belief that scientists could accurately estimate the annual increment of renewable natural resources like wood and water, fish and wildlife. Scientists prescribed that utilization stayed within this increment, thus maintaining nature's capital and ensuring a yield capable of being "sustained" in the long term. (27)

A second, related feature of scientific conservation, as William Beinart notes, was an oscillation between "doom and resurrection," with scientists predicting environmental ruin that could only be avoided through rational management of natural resources ("Soil" 59). Scientific conservation was a transnational enterprise: Japanese forestry planning advanced independent of its counterparts in Europe, techniques and methods were shared across national borders, and imperial logics of extraction were crucial drivers of innovation and rapid exploitation (*Environmentalism* 33-43).

The environmental limits of finitude expressed by scientific conservation are not identical to those outlined by the political economists. Most obviously, the scientific conservationists were concerned with the quantities of *renewable* resources (especially trees), and with the rate at which those resources would begin to decline. The classical economists, on the other hand, were more often occupied with *nonrenewable* resources (coal and arable land), though Malthus's argument about population and food stands somewhere in the middle. But, despite their differences, these two sets of theories share essential features. Each is marked by the rise of an expert class, deploying new models and methods of scientific analysis that conceived of the Earth as a calculable amount of finite material things.[18] And both rely on forms of environmental threshold in order to generate affective and rhetorical force: Marsh's forestry-centered warning that Earth has reached (in certain parts of the world) "a desolation almost as complete as that of the moon" (42), echoes Malthus's admonitions about the social and ecological ruin that would follow from overpopulation. In each case, environmental degradation is tied to the finite quantity of a natural resource, a calculable point beyond which a profound and unpleasant transformation awaits.

Fragility

Finite quantities of natural goods (renewable or nonrenewable) became an increasing focus of intellectual and cultural production in the late eighteenth and nineteenth centuries. But running out of things was only one version of the environmental consciousness of the era: a

18 On the opposite end of the political spectrum, Karl Marx engaged with the idea of a finite Earth, though his position on this question has been the subject of much debate. Ted Benton's "Marxism and Natural Limits" presents Marx as fundamentally at odds with Malthusianism, aligned rather with "A Utopian rejection of biological limits" (57). David Bellamy Foster's most recent assessment, on the other hand, builds on Marx's later works of political economy to argue that "Marx was deeply concerned with issues of ecological limits and sustainability" (386).

sustained, if loosely-organized response to the industrial revolution that Guha calls "First Wave Environmentalism." While the thinkers above (and many more) expressed concerns about the finite character of the natural world, others wrote about its fragility: the growing sense that human projects were creating lasting, possibly permanent damage to the nonhuman world. Romantic advocates for wilderness, scientific conservationists, and early ecologists all stressed the delicate and interconnected character of nature, and framed the human threat to the environment in terms of key thresholds of pollution, degradation, and extinction.

For example, in *Man and Nature* (1864) Marsh describes the balance of the nonhuman world:

> Nature, left undisturbed, so fashions her territory as to give it almost unchanging permanence of form, outline, and proportion, except when shattered by geologic convulsions; and in these comparatively rare cases of derangement, she sets herself at once to repair the superficial damage, and to restore, as nearly as practicable, the former aspect of her dominion. (29)

In this prescient work that anticipates the field of ecology, Marsh presents nature as a unified and stable whole, one which remains "permanent" and "unchanging" if left to its own devices. But with "the action of man," Marsh argues, that balance is broken, and changes are wrought that go beyond the draining of our calculable natural resources:

> These arrangements of nature it is, in most cases, highly desirable substantially to maintain, when such regions become the seat of organized commonwealths. It is, therefore, a matter of the first importance, that, in commencing the process of fitting them for permanent civilized occupation, the transforming operations should be so conducted as not unnecessarily to derange and destroy what, in too many cases, it is beyond the power of man to rectify or restore. (35)

While he notes at one point that "our limited faculties are at present, perhaps forever, incapable of weighing" the consequences of "human operations," Marsh's claim that humans must not "derange and destroy what...is beyond the power of man to rectify or restore," presents the Earth

as fragile, a dynamic system in need of protection. To thrive, he argues, we must keep our transformations of the Earth within the range of that which we can repair.

As many historians of early environmental thought have noted, the threat of environmental *ruin* (rather than exhaustion) is also shot through Romantic writing. English advocates of rural life including William Wordsworth, John Clare, and John Ruskin warned about the dangers of urban and economic change, and in particular about the closing of the commons and the encroachment of the railroad. As Ruskin eloquently put it, "the frenzy of avarice is daily drowning our sailors, suffocating our miners, poisoning our children, and blasting the cultivable surface of England into a treeless waste of ashes" (137). In a similar vein, William Carpenter described the town of Sheffield as "a vast dense cloud, so thick I wondered how any human being could support life in it" (qtd. in Guha's *Environmentalism* 60). Influenced by the Romantics, wilderness conservation efforts sought to protect certain spaces from a too-ravenous development, a story often told in terms of stark metamorphoses and preservation from ruin. In America, thinkers like John Muir sought to halt this destruction through the creation of reserves and parks, physical spaces that codified the boundaries between wilderness and civilization into law. For Muir and others, that threshold was sacred, and its crossing threatened national identity, ecological purity, and future welfare.[19] As postcolonial scholars have shown, however, the wilderness idea was also profoundly exclusionary.[20] In Africa, conservation efforts "protected" land for the use of a privileged minority, often with the result of destroying indigenous land uses.

The thresholds that concern wilderness thinkers, early ecological writers, and Romantics are different from, though related to, the calculable, finite quantities that occupied the scientific

19 See Worster (2008).
20 In my second chapter I turn more fully to this history as it concerns environmentalisms in South Africa.

conservationists and the political economists. We should note, for example, that while both the Romantics and the political economists write about versions of environmental threshold, they arrive at that common mode through profoundly divergent epistemologies. The Romantics rejected the calculability of the world as in part responsible for various environmental crises and the industrial "progress" of the age.[21] Whereas limits of finitude rest on a logic of mathematics (of exhaustion), limits of fragility speak to the parameters of life (the conditions under which human beings, a specific landscape, or a broader "nature" can thrive). In this version of the environmental imagination, the limits that matter are those that threaten living things. Here, it is not so much the number of animals, tons of coal, or available land that threatens catastrophe, but rather the possibility that we will damage the Earth in some final, terminal way. As the above brief summary suggests, that "damage" is framed in both early ecological terms (as erosion, pollution, or deforestation), and in Romantic ones (as despoliation, the ruining of views, the transformation of landscapes).

Limits and "Second-Wave Environmentalism"

In the years between "First-Wave Environmentalism" and the launch of the modern environmental movement, the limits paradigm proved influential, though it remained largely a minority position. Mahatma Gandhi famously channeled Malthusian logic when he remarked that "The world has enough for every man's need, but not enough for every man's greed."[22] His follower Mira Behn underscored the fragile nature of our world, writing that "By his science and machinery [man] may get huge returns for a time, but ultimately will come desolation. We have

21 See, for example, Caradonna's account of Romantic hostility to industrialization, p. 66 and following. Carolyn Merchant and Val Plumwood have also offered feminist arguments in this direction.

22 On the disputed provenance of this oft-cited aphorism, see Anand and Lindley (2015).

got to study Nature's balance, and develop our lives within her laws, if we are to survive as a physically healthy and morally decent species" (qtd. in Guha 67). In England, the German economist E.F. Schumacher, influenced by Buddhism, wrote that

> A civilization built on renewable resources… is superior to one built on non-renewable resources, such as oil, coal, metal, etc. This is because the former can last, while the latter cannot last. The former co-operates with nature, while the latter robs nature. The former bears the sign of life, while the latter bears the sign of death. It is already certain beyond the possibility of doubt that the "Oil-coal-metal-economies" cannot be anything else but a short abnormality in the history of mankind – because they are based on non-renewable resources and because, being purely materialistic, they recognise no limits. (Todd 4)

By the first half of the twentieth century, assumptions about Earth's calculability, the importance of expert analysis, and the methods of scientific conservation were widely embraced. Insights into the nature of our interrelated ecosystem, buoyed by the development of the field of ecology, were similarly on the rise. Yet while dominant political and economic analyses accepted these key methodological insights, they rejected fundamental assumptions that the Earth was finite or fragile in favor of optimistic projections about the resilience and bounty of Earth, and faith in the promise of unbounded technologies.[23] The U.S. Treasury Secretary Henry Morgenthau, for instance, was typical in his promise of "a dynamic world economy in which the people of every nation will be able to realize their potentialities in peace; will be able, through their industry, their inventiveness, their thrift, to raise their own standards of living and enjoy, increasingly, the fruits of material progress on an Earth infinitely blessed with natural riches" (2).

In his assessment of the era, Guha deems the twentieth century before 1962 "The Age of Ecological Innocence," a period largely marked (with the exception of the wars) by an essential optimism about the prospects of endless growth and the manipulation of the nonhuman world. As Guha describes, "In the U.S. as much as in India, in Britain as well as in Brazil, talk of

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23 On economic optimism during this era, see Guha's "The Age of Ecological Influence" in his *Global History*, p. 63 and following.

ecological constraints to economic growth was regarded as irrelevant at best, and at worst as a dangerous deviation from the primary national task, defined in one context as the generation of affluence and in the other as the lessening of the gap between rich and poor nations" (*Environmentalism* 66). Despite the horrors of modern technology unleashed during the Second World War, the aftermath of that conflict was marked by faith in "unending economic growth" fueled by the "inexhaustible resource" of technology. Neither the threat of running out of things nor the specter of a ruined, unlivable planet had shaken the consensus about modernity's progress.

That changed in 1962. Rachel Carson's *Silent Spring* begins with a "fable" of environmental ruin, a catastrophic "silencing" of birdsong and the transformation of an Edenic middle America through the unseen, unintended consequences of chemical pollution. A biologist by training, Carson worked at the US Bureau of Fisheries before becoming an independent science writer. In *Silent Spring*, she follows her dystopian fable with a scientifically-rigorous appraisal of various chemicals—fertilizers, pesticides, herbicides, and more—that threaten no less than the end of human civilization. "The central problem of our age," she warns in a passage that compares environmental ruin to nuclear holocaust, "has therefore become the contamination of man's total environment with such substances of incredible potential for harm" (8).

As many environmental historians relate, Carson's work helped launched the modern environmental movement, inspiring a new generation of activists, scientists, and policy-makers across the world, even as it shook the global consensus about unfettered economic growth and technological progress.[24] And while Carson's work was undoubtedly innovative, *Silent Spring* can also be seen as reinstantiating (and revising) the environmental imagination of limits. The

24 On the impact and importance of *Silent Spring* on the environmental movement, see Caradonna p. 95 and following, and Ch. 5 in Guha's *Global History*.

work rests precisely on an argument about the importance of certain boundaries, threshold conditions beyond which our environment would be ruined. The "silent" of the title, for instance, refers to the possible extinction of bird species, and the work's dedication and epigraphs touch on, respectively, the "destruction" of the Earth, the silencing of birds, and the "survival" of the human species.[25] Insofar as *Silent Spring* brought ecological thinking (the interconnected nature of nature) to the fore, it did so by emphasizing the fragility not merely of spectacular places and endangered species, but of all spaces and bodies on our planet.[26]

While *Silent Spring* expanded the imagination of our planet's limits in terms of a more pervasive fragility, many of the Euro-American works of environmental theory that followed in Carson's wake framed the threats of global development in terms of both the Earth's fragile ecosystem and its finite resources. These influential works include Stewart Udall's *The Quiet Crisis* (1963), Paul Ehrlich's *The Population Bomb* (1968), Garrett Hardin's "The Tragedy of the Commons" (1968), Barry Commoner's *The Closing Circle* (1971), *The Limits to Growth* (1972), and Herman Daly's "Toward a Steady State Economy" (1973). Along with the emerging field of environmental economics, these works shaped international policy, created an influential set of planetary metaphors (Earth as "bomb," "spaceship," "small," a "marble," or a "commons") and helped make environmental limits into household ideas.[27] The rise of sustainability as a global rhetoric and ideal, as Caradonna notes, owes much to these authors, and to the limits paradigm they helped to popularize.[28]

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25 *Silent Spring* is dedicated to Albert Schweitzer and includes epigraphs by John Keats and E.B. White.
26 See Guha's *Global History*, p. 71.
27 On Earth as small, and the famous "blue marble" image, see Sachs's *Fair Future,* p. 6. "Spaceship Earth" was popularized by various writers and public figures, but perhaps most by R. Buckminster Fuller's *Operating Manual for Spaceship Earth* (1968).
28 Caradonna argues that one of the four "main principles" of the sustainability movement is that "A society will respect ecological limits or face collapse" (12-13).

In considering the evolution of the limits story during this era, there are two particular aspects worth noting. First, despite the failings of earlier precise predictions (especially Malthus's), limits thinkers in the modern environmental movement doubled down on specifying exhaustion and overshoot in terms of particular dates and resource amounts, offering precise estimates that ultimately became synonymous with limits thinking itself. Perhaps the most infamous example of this insistence on specific estimates was the bet made between Ehrlich and Julian Simon, a American business professor. As recounted in Paul Sabin's 2013 monograph, Ehrlich wagered $10,000 that the prices of five rare commodities would increase over the course of ten years. In 1990, with all five prices lower than they had been in 1980, Simon won the bet, took Ehrlich's money, and some amount of momentum from the American environmental movement.

Second, and more relevant for this analysis, environmental theory in the 1970s and following *combined* the two forms of threshold thinking outlined above, joining limits of fragility and finitude under one heading, as they appear in *The Limits to Growth* and elsewhere. As Wolfgang Sachs notes, this confluence meant that those in favor of "weak sustainability" (those who argue that "there is no objection to the using up of nature so long as what is lost is turned into greater technical, human, or financial capital") were ultimately deploying the same narrative and imaginative structure as what might be called "strong sustainability" (greens who "maintain that there are limits to the replacement of nature by capital, and that we are sawing off the branch on which we sit") (*Fair* 21).

Limits in the Age of Climate Change

Today, the environmental imagination of limits continues to exercise outsized influence for theorists, policy makers, and scientists. And while I cannot hope to convey the wide swath of this influence on our contemporary science and politics in this space, I want to conclude this brief history by considering two final iterations of threshold thinking: one a remarkable declaration by a religious leader, the other the latest, most integrated scientific analysis of the subject to date.

Pope Francis begins his 2015 encyclical, *Laudato Si': On Care for Our Common Home*, with an appeal to "every person living on this planet" (4). "Mother Earth," Francis writes, has been abused and irresponsibly used by human beings, and it is time for "a new dialogue about how we are shaping the future of our planet" (12). In a wide-ranging appeal, Francis lingers on various aspects of the environmental crisis, a description that relies heavily on threshold-thinking. According to the encyclical, we have not learned how to preserve "resources for present and future generations," and we ought to "[limit] as much as possible the use of non-renewable resources" (18). In a section titled "The Crisis and Effects of Modern Anthropocentrism," Francis urges that "The time has come to pay renewed attention to reality and the limits it imposes; this in turn is the condition for a more sound and fruitful development of individuals and society" (87). On the subject of water, the Pope writes that "The exploitation of the planet has already exceeded acceptable limits" (22). While these and other passages suggest the Pope's strong grasp of and alignment with the environmental theory above, Francis also expands on that earlier writing by attending to a more personal, ontological scale.[29] The

29 For a more detailed analysis of the relationship between *Laudato Si*' and its American environmental predecessors, see Cannon and Cushman (2017). Cannon and Cushman begin their analysis with a discussion of Pope Francis's "integral ecology," a form of interconnectedness that "generously includes the equity and cohesion of human society as well as the health of

encyclical touches on overconsumption by individuals and nations, and urges restraint and responsible use, a form of self-limitation. More profoundly, in accounting for "what the great biblical narratives say about the relationship of human beings with the world," Francis notes that "The harmony between the Creator, humanity and creation as a whole was disrupted by our presuming to take the place of god and refusing to acknowledge our creaturely limitations" (48). Here, Francis combines attention to both planetary boundaries and more personal ones, a confluence that I revisit in my first chapter on human needs.

Laudato Si' (and its sustained deployment of the environmental imagination of limits) is arguably the most important public-facing environmental manifesto of this still-young century.[30] With a far smaller, yet influential readership, limits have also been the subject of cutting-edge scientific analyses, including the "Planetary Boundaries" thesis, first published in 2009. Produced by a coalition of leading experts from a variety of disciplines, the thesis proposes "a new approach to global sustainability in which we define planetary boundaries within which we expect that humanity can operate safely" (*Ecology and Society* 31). Acknowledging debts to *The Limits to Growth* and other system theorist forebears, the thesis

> focuses on the biophysical processes of the Earth System that determine the self-regulating capacity of the planet. It incorporates the role of thresholds related to large-scale Earth System processes, the crossing of which may trigger non-linear changes in the functioning of the Earth System, thereby challenging social-ecological resilience at regional and global scales. Together the set of boundaries represents the dynamic biophysical "space" of the Earth system within which humanity has evolved and thrived. (32)

The thesis outlines nine planetary boundaries. The authors propose a quantifiable threshold for seven, including climate change, ocean acidification, stratospheric ozone, biogeochemical

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natural systems" (1), and bears strong resemblance to the call for "decompartmentalization" in the environmental humanities today.

30 On the significance and impact of *Laudato Si'*, see Jamieson (2015), or Cannon and Cushman (2017) p. 35 and following.

nitrogen cycle and phosphorus cycle, global freshwater use, and the rate at which biological diversity is lost (31). The two boundaries which the report does not quantify are chemical pollution and aerosol loading. In a 2015 update, the authors specify that "a planetary boundary" is "not equivalent to a global threshold or tipping point" but is, rather, placed "upstream of it," in order to create a "safe operating space," a threshold of restraint before which the actual biophysical limit is reached (*Science* 737).

That both Pope Francis and leading systems theorists deploy the rhetoric and imagination of environmental limits is a testament to the pervasive influence of this concept. Like "sustainability" or "apocalypse," it is striking just how much of the history of environmentalism is bound up in the story of environmental limits. It should come as no surprise, then, that this influential concept has not merely circulated within the confines of environmental thought but can also be meaningfully traced through a wide swath of modern and contemporary Anglophone literature. In the next section, I turn to that body of work in order to consider how literary world-making might help us better understand the environmental imagination of limits.

Threshold Thinking and Literary World-Making

The preceding history has traced the origins and evolution of a form of environmental imagination across diverse movements. And while that intellectual milieu matters profoundly for how we understand this concept, we also need to consider some *narrative* questions about this way of imagining and thinking, questions that can be meaningfully approached through a study of literary fiction, rather than environmental theory. What kinds of stories do environmental limits tell? What temporal, spatial, and social orientations does this form of environmental imagination carry? And, particularly important for a work of literary analysis, what is the

relationship between the limits paradigm and the problems of representation, mimesis, and truth-telling particular to the work of the fiction-writer?

Rather than approach these queries in the abstract, we might evaluate instead their appearance in a recent novel, Karen Jayes's *For the Mercy of Water* (2012). This dystopian tale by a South African author begins after an environmental threshold has been passed: a crushing drought has arrived in an unidentified landscape, and our protagonist, a woman writer seeking rumors of rain, travels through militarized corporate controls searching for water and its witnesses. Environmental limits are at once a premise for the work (insofar as we begin in a seemingly unlivable dryness), but are also its subject-matter: Jayes's nuanced account of the privatization of natural resources considers the drought to be less the product of natural circumstances than of particular organizations of gendered power. Environmental limits in this novel are future-oriented (because the work glances towards a safer, less-precarious past), yet thresholds are also and primarily a concern of the narrative present: we have arrived after the drought has taken hold, but there is still life to be lived here. In the sense that drought and climate are global phenomena, *For the Mercy of Water* might be called transnational, yet for the most part the work's spatial scale remains local, focused on one nation, on one valley-town, and even on one woman's vulnerable body.

For the Mercy of Water is structured by points of radical transformation derived from the crossing of biophysical thresholds—what I call threshold thinking. Jayes's project, made more poignant with Cape Town's ongoing water crisis, is precisely to imagine a world that has gone beyond the "boundary parameters of human existence," and to ask, paradoxically, what kinds of human and nonhuman existence are left after that crossing. On the one hand, we might read environmental limits in a work like Jayes's *historically*—as a mediated representation of the

environmental circumstances of the real planet Earth. Such an approach should be familiar to students of ecocriticism: it would consider the novel's drought alongside the environmental history of South Africa in the last two decades, its contemporary and historical scientific record, and future projections in the era of climate change. Beyond that work of contextual situation, however, we would need to follow Michael Nibbet's advice:

> In order to fully comprehend the forces propelling the relentless exhaustion and degradation of the webs of life, it is necessary to attend to the systematic inequalities in wealth and power crystallized in the specific configurations of human and biophysical natures through which capitalism develops. The same is true, moreover, when it comes to analyzing the cultural registration of these pressures: it is the uneven contours of the world-system as world-ecology that provide the ultimate interpretive horizon for world literature. (281-282)

Especially in the last decade, influenced by postcolonial, Marxist, environmental justice, and ecofeminist thinkers, ecocriticism has begun interpreting works of literature in precisely this way: an historicist analysis attentive both to correspondences between the environments of literature and the scientific real on Earth, and to the "uneven contours of the world system" from which works of art emerge.

Yet there is another way of approaching the "worldliness" of this literature, and of understanding its presentation of environmental boundedness. Building on existential, phenomenological, and possible-worlds theories, recent scholarship has framed novel worlds as enclosed wholes, separate from, yet not unrelated to the world of the planet Earth. In distinguishing between the "ontological" and the "ontic," for instance, Eric Hayot argues that

> World systems *are* worlds in the sense they constitute a self-organizing, self-enclosed and self-referential totality, but they are not to be confused with *the* actual world which—though it is also, of course, a world—is the only world whose geographical scope coincides exactly with that of the Earth. (32)

For Hayot, the "world system" of the novel exists alongside but is not synonymous with the world of the planet Earth. In a parallel argument, in her 2016 monograph, *This Thing Called the*

World, Debjani Ganguly explicates Gottfried Wilhelm Leibniz's possible worlds theory as a "minimalist reading of 'world,'" one constituted by

> A linguistically finite set of entities and relations marked off by worlds made of other finite sets of entities and relations. The novel in such a reading is a world-enclosing total system and its various degrees of realism derive primarily not from its correspondence with the actual world out there, but from the ways in which the entities within its demarcated set relate plausibly to each other. (22)

Building on Leibniz's work, Ganguly insists that to embrace the "self-enclosed" worldly nature of the novel form is *not* to abandon reading practices that identify meaningful correspondences between the worlds of the novel and that of the planet Earth. Rather, it is to seek "other ways of reading the world in world literature" (79), a pluralist approach that apprehends literary worlds as "immanent and imagined" and "not simply...coextensive with our ever-expanding sense of connection with the rest of the globe due to accelerated flows" (80).

What would it mean to read Jayes's novel, to read for environmental limits, in this way? My sense is that it would mean supplementing correspondence methodologies of literary analysis (so often the preferred mode for ecocritics), with a more nuanced attention to the boundaries and internal logics of literary worlds themselves. Insofar as the drought in *For the Mercy of Water* constitutes the founding premise and organizing principle of the work, attending to environmental limits here (as in some other dystopias) *is* to attend to the boundaries of the novel world itself, a dizzying collocation wherein the novel world-system deploys an imagined bio-physical threshold to demarcate its own borders. Taking this kind of articulation seriously, in the chapters that follow, I approach literary worlds attentive both to the ways in which literary fiction corresponds to historical environmental circumstances, but also to the alternative, internal narrative logics inherent to novel worlds themselves. Especially because I understand our contemporary environmental challenge to be narrative in nature (rather than expository), I am, therefore, as interested in novels that "get the facts right" as I am in those that "get them

wrong."[31] I am convinced that to read in this way is not to abandon the political or ethical commitments of the environmental humanities. Rather, it is to acknowledge and harness the full possibilities of the literary imagination, which offers worlds that do not merely correspond to the bio-physical Earth itself but can also surpass and exceed it. Following critics like Ganguly and Hayot, I argue that this is a way of reading literary world-making that matters particularly for the environmental imagination of limits.

For environmental theorists, imagining the Earth beyond its limits has been an important political and scientific project, one of the ways in which greens hope to scare us straight. Environmental theory is full of possible worlds, accounts of what the planet will look and be like after we have gone off the edge. And while the fiction writer can, at times, aim at the same end, in Jayes's novel, as in works of fiction more broadly, environmental thresholds constitute something more than a political cudgel. In what follows, I ask how the "immanent" world of the novel can represent the finite, fragile world of the Earth. But I also ask what we might learn from literary world-making beyond questions of representation and correspondence. My contention is that novel worlds (whether they reflect the Earth or not) can speak to the narrative challenges of planetary boundaries, and that studying global Anglophone literature can help us to understand environmental limits in ways that most theory and politics cannot.

31 In the next section, see my discussion of Ursula Heise's "weak constructivism" and the postmodern turn in ecocriticism.

In the Field

In 2012, writing in the inaugural issue of the journal, *Environmental Humanities*, the editors reflect on their emergent inquiry:

> The need for a more integrated and conceptually sensitive approach to environmental issues is being increasingly recognised across the humanities and the social and environmental sciences. The development of the environmental humanities might therefore be understood as a response to this need; an effort to enrich environmental research with a more extensive conceptual vocabulary, whilst at the same time vitalising the humanities by rethinking the ontological exceptionality of the human. (Rose et. al 2)

In the six years since this introduction appeared, the "conceptual vocabulary" of the environmental humanities has expanded rapidly, while, in turn, the revitalization of the humanities by way of the natural and social sciences continues apace. Today, terms like "petrocultures," "slow violence," the "environmentalism of the poor," and "Anthropocene" designate sophisticated approaches to environmental issues that have either originated in or been significantly theorized through humanities scholarship.[32] Together, they offer a kind of thick description that supplements scientific fact with attention to registers of aesthetics, temporality, inequality, identity, affect, imagination, and biopolitical power.

While my account of threshold thinking demonstrates that this form of environmental imagination is in no way new, by tracing this idea through modern and contemporary literature and by gathering its diverse iterations under one heading, I am hopeful that this dissertation will add a new term to the field's growing "conceptual vocabulary." To do so, my intervention builds primarily on recent work in ecocriticism, the literary studies sub-field of the environmental humanities. In this section, I survey existing ecocritical scholarship on limits, and then place

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32 On "Petrocultures" see the eponymous research group hosted by the University of Alberta, and especially the work of Imre Szeman. "Slow Violence" was popularized by Rob Nixon's 2011 monograph. On the "environmentalism of the poor," see Nixon as well, and Martinez-Alier and Guha's *Varieties of Environmentalism* (1997). For an overview of Anthropocene readings, see, for example, Chakrabarty's "Theses."

"Threshold Thinking" in the context of important field-wide developments, and especially the contributions of ecofeminism, postcolonialism, postmodernism, and Marxist ecology.

Despite the central position of threshold thinking in some of the key texts of environmental thought, it has received only indirect attention thus far in ecocriticism, most often appearing in case studies, rather than as a conceptual whole. Ursula Heise has perhaps written on the subject more than any other critic. Her recent monograph, *Imagining Extinction* (2016), centers on one of the clearest forms of environmental threshold: the disappearance of particular species. In an article, "Reduced Ecologies: Science Fiction and the Meanings of Ecological Scarcity" (2012), she considers how works like *The Day After Tomorrow* (the 2004 disaster film directed by Roland Emmerich) and *The Left Hand of Darkness* (the 1969 novel by Ursula Le Guin) deploy strategies of "world reduction" in order to offer "a metaphor for the diminished life worlds that environmentalists warn may result from current human interventions" (99-100). In the earlier essay "The Virtual Crowds: Overpopulation, Space and Speciesism" (2001), Heise examines a series of (largely overlooked) overpopulation-centered works from the 1960s and 1970s, and argues that they "translate ecological concerns about humans' impact on nature into social fears about the fate of the individual in urban society" (8).

Combining close analyses of literary representations of environmental limits with an attention to historic and scientific contexts, Heise's method is particularly influential for my own. Building on her work, I present analyses whose stakes are both literary-critical (insofar as I make claims about how we might understand works of literature) but also historical and political, and that bear especially on environmentalist rhetoric in the public sphere. As Heise describes in "Reduced Ecologies," this is a form of humanities scholarship that allows us to "reflect critically" on versions of green discourse, on their political influence and their ethical potential

(100). "Threshold Thinking" diverges from Heise's interventions, however, in two ways. First, this project makes a broader categorical claim that Heise does not, attending to the continuities that underlie diverse forms of thinking and writing. Second, while Heise has tended to favor a "weak constructivist" view of nature, privileging scientific epistemologies over an account of cultural construction, my project attempts a more pluralist position, as elaborated briefly in my discussion of literary world-making above.[33]

Other ecocritics have also framed specific forms of environmental boundary as a key context or structure for imaginative writing. Stephanie LeMenager, for instance, brings the tools of affect studies to bear in her recent account of "peak oil," and her examination of "petromelancholia" (feelings of grief over the end of "cheap oil") breaks ground for my third chapter, which considers the affective power of environmental thresholds on a broader scale. Drawing on narratological theory, Margaret Hunt Gram's analysis of Jonathan Franzen's novel, *Freedom*, reads that work's discursive presentation of overpopulation as indicative of a particular weakness in the "affective engines that drive narrative fiction," and especially narrative realism (296). She traces the representational difficulties of writing about environmental limits (and especially the limits to economic growth) in the realist novel form, and considers the kind of experimentation that might allow writers to better represent environmental problems that are invisible, socially aggregate, depressing, complicated, and temporally-challenging (311-312). Other recent scholarship on literature and overpopulation, drought, hunger, and peak-oil, while not explicitly associated with the limits paradigm, has nonetheless proven influential for my own intervention.[34]

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33 See Heise's "The Hitchhiker's Guide to Ecocriticism" (2006). See also my brief discussion (below) of the postmodern turn in the field.

34 See, for example, Allison Carruth, *Global Appetites* (2013), Beck and Dorrian, "Postcatastrophic Utopias," (2014), Maclellan "The Tragedy of Limitless Growth" (2015),

While my chapters follow this recent ecocritical work in focusing on specific forms of environmental threshold, insofar as my primary objective is to enlarge the "conceptual vocabulary" of the environmental humanities, this project enacts the scope of broader analyses. Apocalypse, for instance, has been a focal point for recent scholarship by Lawrence Buell, Dana Philips, Greg Garrard, Graham Huggan, Frederick Buell, and Matthew Taylor.[35] Lawrence Buell argues that "Apocalypse is the single most powerful master metaphor that contemporary environmentalism has at its disposal" (*Imagination*, 285), and Garrard identifies apocalyptic rhetoric in a wide swath of literary and activist writing, including many of the examples identified in the brief history above.[36] Insofar as these and other scholars examine apocalyptic thinking as it moves fluidly through genres, eras, and fictional and nonfictional writing, this wide-ranging cultural studies approach echoes my own. More than that, however, because apocalyptic ideology relies on a juxtaposition of "sudden and permanent" change, and includes a strong moral association, it bears a family resemblance to threshold thinking.[37] Yet the *ends* of the Earth that I seek in this dissertation are not synonymous with *the* end of the Earth, especially because environmental limits do not always appear in "proportions appropriate to the end of time" (*Ecocriticism* 94). "Threshold Thinking" suggests that the environmental imagination of limits *can* be apocalyptic, but that it often appears in other guises.

As many accounts of ecocriticism and the environmental humanities acknowledge, the field has undergone rapid change, especially in the last two decades, and the influence of a series

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Morgan "Malthusian Ideas" (2015), Phillips "Posthumanism, Environmental History, and Narratives of Collapse" (2015), and the 2016 special edition (on overpopulation) of *The Oxford Literary Review* (38.1).

35 See Lawrence Buell's *The Environmental Imagination* (1995), Frederick Buell's *From Apocalypse to Way of Life* (2004), or Garrard's chapter in *Ecocriticism* (2011).

36 See Garrard's chapter on the subject in *Ecocriticism* (2011).

37 Leonard Thompson emphasizes the "sudden and permanent" nature of apocalypse in his 1997 study of the Book of Revelation.

of intersectional encounters between ecocritical thought and feminist, postmodernist, and postcolonial theories has been particularly crucial.[38] In this dissertation, the spaces and environments studied, the questions asked, and the contexts brought to bear in literary analysis should be seen as a result of that progress. In considering environmental limits as both biophysical realities about our world and cultural narratives, shaped by and through language, I extend the thinking of postmodern-aligned critics Dana Phillips and Serpil Opperman, whose early 2000s research resisted ecocriticism's over-reliance on correspondence approaches to the real.[39] This dissertation therefore attempts a more nuanced approach to questions of epistemology (and to what might be considered environmental writing) than first generation ecocriticism afforded. Ecofeminism's forceful critique of the nature/culture divide, its caustic appraisal of instrumental reason, and that field's emphasis on intersectionality, more generally (combining feminist analysis with posthuman, anti-racist, queer and environmental-justice approaches), has proven equally influential for my project. Because the environmental imagination of limits tends towards an aggregate, global scale, postcolonial thought has been important in coming to understand the risks inherent in this kind of totalizing imaginary. As Elizabeth Deloughrey notes, "Postcolonial approaches to environmental thought tend to highlight alterity, difference, and rupture, which are vital methods of deconstructing the discourses of Enlightenment universalism" (321). This emphasis on alterity and difference proves particularly salient in my second chapter, which shows how two apartheid novels respond to the rhetoric of

38 There are other debts here, of course. Insofar as "Threshold Thinking" considers urban settings as well as rural ones, attends to economic history as much as it does environmental, and focuses especially on the interrelated concerns of social and environmental justice, this project insists on equity-oriented concerns raised by Marxist, environmental justice, and postcolonial scholars. Environmental historians and cultural geographers including David Harvey, William Cronon, Ramachandra Guha, and Jason Moore enunciate the kind of decompartmental analyses that I deploy throughout the work.

39 See Phillips's influential *The Truth of Ecology* (2003), and Oppermann's "Theorizing Ecocriticism: Towards a Postmodern Ecocritical Practice" (2006).

resource scarcities, a global imaginary inattentive to particular racial, environmental, and economic circumstances.

Outline of the Dissertation

My first chapter, "Less is More: Freedom, Fixity, and Human Needs," puts literature inspired by and responding to food-rationing in the Second World War in conversation with dominant theories about what human beings are and what they need. Beginning the dissertation with literature from the United Kingdom and the United States, I show how George Orwell's dystopian novel *Nineteen Eighty-Four* (1948) and M.F.K. Fisher's recipe-filled memoir *How to Cook a Wolf* (1942) direct attention to assumptions about human bodies, normative theories about "human needs" that undergird talk of our planet's limits before, during, and after the war. In placing these works in the context of key developments in machine modernity, nutritional science, and welfare economics, I show how governments turned to logistical experts in these areas in order to determine and provide minimum caloric requirements for their citizens. Yet while mechanistic theories about human needs increasingly dominated policy discussions (and helped the Allies win the war), *Nineteen Eighty-Four* and *How to Cook a Wolf* resist that consensus, and suggest that individual eaters exceed and escape the attenuated version of humanity that dominated public policy debates. I argue that Orwell's pre-war journalism and *Nineteen Eighty-Four*'s explicit interest in standardized consumption imagine human bodies as both a hard arbiter of the real and a crucial site of idiosyncratic resistance. Fisher's light-hearted and cunning subversion of standardized nutrition repurposes modernist technique, and shows how eaters can make less become more. In doing so, *How to Cook a Wolf* insists on an embodied, context-dependent form of consumption. Read together, these works offer new

narratives about what people are and what we require, an imaginative provocation to theories of planetary and personal finitude.

While my first chapter analyzes literature from the empire and the city in order to show how threshold thinking depends on individual bodies, my second chapter turns to the colony and the country to argue that limits are inseparable from particular formations of social difference. "Global Environmentalism, Difference, and Shortage in Two Apartheid Fictions" centers on representations of shortage and scarcity in two apartheid-era novels from South Africa: Gordimer's *The Conservationist* (1974) and J.M. Coetzee's *Life and Times of Michael K* (1983). While the apartheid regime repurposed Euro-American fears about global resource shortages to further its racist agenda, these novels demonstrate that shortage is not so much a condition of nature as it is the product of distinct social and racial organizations of power. In my reading, literary form—paratactic fragmentation for Gordimer, the play between textuality and embodied realism for Coetzee—both revises apartheid environmental aesthetics and forcefully intervenes in conversations about the nature of shortage and scarcity. Through a reading of Édouard Glissant's "aesthetics of the Earth," the economics of poverty, and the history of environmental activism, this chapter demonstrates that encounters with environmental limits are always bound up with intra-generational justice.

"Feeling Small: Affect and Environmental Limits in Rohinton Mistry's A Fine Balance," my third and final chapter, asks: how does the intimation, appearance, and effect of environmental boundedness make us feel? In search of answers, I turn to a late-twentieth-century novel from India, Mistry's *A Fine Balance* (1995). The makeshift family at the heart of Mistry's work encounters environmental limits as both direct pressures (pollution, deforestation, and overcrowding), but also as mediated by government-sanctioned economic development and

family planning initiatives (the novel climaxes in a horrific forced sterilization, a product of the Indian government's "vertical approach" to family planning in the early 1970s). Exploring Mistry's Anglophone novel alongside the environmental history of India, and especially the enigmatic environmentalism of Indira Gandhi, I ask what emotions inhere when aspirations for growth, progeny, and biotic diversity are frustrated by forces beyond individual imagination or control? Identifying "constraint" as a key environmental affect, my analysis diverges from studies of better-known environmental feelings (e.g. wonder and anxiety). If, as theorists of affect would have it, emotion makes and unmakes social, aesthetic, and ethical attachments, then *A Fine Balance* intimates that encounters with environmental limits threaten not merely planetary ruin, but also a more private, emotional dissolution.

I - Less is More: Human Needs in George Orwell's *Nineteen Eighty-Four* and M.F.K. Fisher's *How to Cook a Wolf*

This dissertation began with an epigraph from David Harvey's *Justice, Nature, and the Geography of Difference* (1996):

> All debate about ecoscarcity, natural limits, overpopulation, and sustainability is a debate about the preservation of a particular social order rather than a debate about the preservation of nature *per se*. (148)

What this passage discloses is that the environmental imagination of limits depends on and produces a series of conditions, assumptions, and beliefs not only about what the *world* is (that fragile and finite thing out there), but also about *us*—about the people who inhabit, use, and abuse it. Thus, while threshold thinking is most obviously associated with a way of imagining the nonhuman, Harvey contends that it offers (and depends on) certain conceptions of humanity as well.[40] Through an analysis of British and American literature from the 1930s and 1940s, this chapter explores one part of the "social order" inaugurated by theories of environmental limit in that era: the conviction that we are a species with material needs, and that those needs are an unavoidable part of our relationship with the nonhuman world. Undergirding major public policy debates of the early twentieth century in Anglo-American circles, dominant versions of environmental and economic theory framed humans as consuming beings and quantified our needs in material, innate terms. These normative accounts shaped theories of society and environment in England and the United States, produced the war-time economies, and greatly influenced conceptions of our planet's boundedness.

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40 In my next chapter, turning to modern environmentalism in apartheid South Africa, I consider questions of racial difference and inequality in relation to the "social order" that some versions of universalist environmental aesthetics sought to preserve.

Yet while attending to that history, this chapter analyzes writings that do not echo or blindly intuit those dominant theories of human needs and human bodies. Rather, I show how M.F.K. Fisher's rationing-inspired pastiche of recipes, essays, and memoir *How to Cook a Wolf* (1942) and George Orwell's dystopian novel *Nineteen Eighty-Four* (1949) mobilize imaginative, narrative, and rhetorical forms in order to offer an alternative, challenging the conception of human needs as fixed and mechanical. I argue that representations of "making do" or "making the most of it" by Orwell and Fisher stress that particular, gendered bodies encounter our planet's limits (not the idealized, universal consumers theorized by leading economists and nutritionists in the United Kingdom and the United States).[41] While the verges and brinks most often associated with the environmental imagination of limits are global, resource-based, or catastrophic, this chapter's attention to the individual consumer, her hungry body, vivid imagination, and the language with which she describes her needs contextualizes and qualifies that story. By attending to consumer-oriented literature from the empire and the city during the Second World War, I aim to show how threshold thinking can be meaningfully traced far from its best-known iterations, and how imaginative writing might help us to rethink assumptions about human bodies and needs that continue to shape contemporary debates in environmental science, public policy, and environmental economics.

The possibility of individual truth claims is the central conceit of Orwell's *Nineteen Eighty-Four*, among the most widely read novels of the twentieth century. Winston Smith's

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41 In emphasizing imaginative and embodied alternatives to dominant theories of the human, I extend Val Plumwood's critique of some forms of rationality. In a key passage in her 2002 monograph, for example, she writes "It is not reason itself that is the problem, I believe, but rather arrogant and insensitive forms of it that have evolved in the framework of rationalism and its dominant narrative of reason's mastery of the opposing sphere of nature and disengagement from nature's contaminating elements of emotion, attachment and embodiment" (5).

nascent rebellion against the totalitarian government of Oceania pits Orwell's commonsensical, bourgeois everyman up against the Inner party member, O'Brien, who threatens to destroy the last vestiges of objective truth and the liberal individual. The consumption of goods—both their quality and quantity—is a pervasive site of this contest, with Winston, on the one hand, offering commentary on the failures of central planning to provide for basic needs like razors and chocolate, and the party, on the other, working to justify its operations and promote an ideal narrative of rising standards of living. The long and complicated reception history of the book has often turned on Orwell's stance towards the malleability of the real: whether Winston's insistence on absolute objectivity and a singular history is also Orwell's. Some recent readers, including Homi Bhaba, Richard Rorty, and Abbott Gleason, have attempted to recuperate the novel for a skeptical age, to present *Nineteen Eighty-Four* as open to competing interpretations of the real, despite its protagonist's protestations.[42] By focusing on consumption, nutritional requirements, and welfare assessments in the work (and in Orwell's career before the novel), my analysis offers evidence for both sides of this debate. Winston's frequent recourse to biological determinism, simplistic math problems, and embodied empiricism to describe the goods he does (or does not) consume suggests that human needs are fixed: that there are strict standards for what people must have which resist the party's attempts at redescription. Paradoxically, however, the novel's pluriform approach to the problem of objective reality (the deployment of varying tests and rationales), along with Winston's own position as a "minority of one," signal the work's openness to competing accounts of how much we need. Thus, human bodies emerge in Orwell's work as simultaneously fixed and malleable, a hard arbiter of the real and an object that requires continued inquiry.

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42 For essays by these three authors, see the excellent collection *Orwell and Our Future* (2009).

While less obviously interested in epistemic stakes, Fisher's cookbook nonetheless posits eating as inherently contextual, irreducible to its bio-physical contents. Through a series of recipes and short essays generated for and about rationing, *How to Cook a Wolf* insists on the importance of individual perception, knowledge, and expertise, and critiques the versions of human want on offer from America's gendered, military-industrial capitalism. Repurposing modernism's ambivalent subjectivism, its oscillation between what Michael Levenson calls "public fact" and "private expression," Fisher attends to the importance of setting and context for meals, even as she identifies the particular, masculinist power relations inherent in war-era nutritional advice. While Winston frames his individualist perspective as universal, Fisher is attuned to the ways in which women's traditional position as homemaker conditions experiences of hunger, need, and appetite; *HTCAW* thus underscores that the "social order" that U.S. rationing sought to preserve was profoundly gendered and unequal. The difference in tone between the two works signals their competing approaches to the problem of human needs. *Nineteen Eighty-Four*'s relentlessly dark depiction of war-ravaged London ("city of a million dustbins," 73) finds Winston explicitly probing weighty questions about the nature of reality and the standardization of human beings, inquiries which can be traced in part to wartime developments in rationing production, welfare economics, and machine modernity. Fisher's lighthearted work is perhaps more cunning and subversive of the normative standards associated with food because its critique is indirect. As Allison Carruth argues in a recent essay, Fisher's "creative economy" resists "the United States' economic, political, and military interests in rationing as state control over food" (778).

This chapter argues that depictions of human needs, such as the ones in 1930s and 1940s representations of rationing in the United States and the United Kingdom, direct our attention to

the normative assumptions about human bodies that undergird talk of our planet's limits. Kate Soper writes that "political economy and liberal theories of man operate complicitly to effect a closure upon the question of needs" (73). For Soper, as for other recent scholars, the category of "human needs" has often been used to distract and distort from political discussion, including necessary dialogue on environmental limits, the contingency of human desires and bodies, and the malleability of our consumption. In an argument similar to that which begins Bruno Latour's *The Politics of Nature* (1999), Soper contends that coming to grips with what is essential about human beings must mean something more than an appeal only to "the 'facts' of biology and psychology" (10). To answer the questions "what do human beings need?" or "what are human needs?" we have to engage in "a series of political decision-acts, in the form of a series of choosings-positings of value beyond which there can be no further appeal, and which themselves must reveal the 'truth' of our needs" (18). By this account, capitalism and environmentalism both produce and depend on the avoidance of political thinking, because each is premised on essential ideas about fixed human requirements (economy must meet our needs through goods which then become needs; the environment can only meet so many of our needs because of its finitude). Representations of rationing, however, largely reject this thinking, even as they depend on it to generate affective pull. Elizabeth Bowen's *The Demon Lover and Other Stories* (1945), Samuel Beckett's *Waiting for Godot* (1953), Orwell's *Coming up For Air* (1939) and *Animal Farm* (1945), Willa Cather's *One of Ours* (1922), or R.C. Sherriff's *Journey's End* (1928) are some of the prominent fictional accounts from both World Wars that rely on normative theories of human needs to provoke sympathetic connection with rationed characters. Yet these texts simultaneously showcase material requirements as contingent, subject not only to the necessities of wartime but also to a complex interplay of value, aesthetics, and politics.

Of course, the shortages experienced in the United Kingdom and the United States during the Second World War (home to Orwell and Fisher, respectively) were particular historical events that emerged out of distinct political, economic, and environmental circumstances.[43] Accordingly, this analysis will attend to the specifics of wartime London and California, and to the theories of nutrition, psychology, and economics which dominated thinking about how to sustain millions of people at home and at the front. I connect *Nineteen Eighty-Four*'s nightmarish vision of automaton-like human beings with the "calorie wars" that contributed to the fall of the Attlee government, the triumph of "mechanisation," rationing propaganda, and with embodied empiricism—a mélange of influences which can all be seen at play in Winston Smith's struggle to remain sane and more generally in Orwell's writing after 1937. While Carruth has written recently on Fisher's resistance to meals as a military matter, *How to Cook a Wolf* is read here as a particular defense of women's knowledge and expertise against consensus positions about nutritional science and the chemical analysis of food, which informed rationing policies in the United States throughout the war.

How fixed are human needs? Ultimately, representations of rationing show that this foundational fact, so often referred to and relied on in the construction of political or environmental programs, sidesteps variations that matter. The establishment of bio-physical, economic, or psychological claims about all human beings' requirements for material resources helped the Allies win the war, which was as much a victory for logistical prowess and accurate distribution as it was a shooting fight. But those powerful theories about what people are and need also curtail our ability to imagine alternatives to the status quo, ways of consuming differently, of being differently. Literature that represents wartime rationing produces just these

43 Notably, separated from its enemies and exporting large amounts of its own foodstuffs, the United States experienced shortages and rationing on a far more relaxed scale than did the other combatants in the conflict. See, for example, Carruth's *Global Appetites*, p. 64 and following.

kinds of radical departures through figurations of character, economy, and recipe. In what follows, I show that *Nineteen Eighty-Four* and *How to Cook a Wolf* reflect this insistence on material requirements as an embodied reality inseparable from our command of imagination and language. Can such an attentiveness to particular bodies as sites of epistemological purchase compete with the social sciences' still-dominant account of human needs? Not if the question is framed in terms of general accuracy, or predictive modeling. If you plan for a famine, you seek an economist, not an author of fiction. Yet in coming to know what human beings might become—the ways in which they might remake themselves and their requirements—Orwell and Fisher's strange and personal accounts of the things we need might be a good place to start. To live well in a finite world might mean, as these works attest, discovering new narratives about what people are and what we require.

'A bag for putting food into': George Orwell and the Truth of Needs

When we talk about George Orwell and truth, we usually talk about nothing in particular. Orwell has himself to thank for that. For while objectivity and truth-telling are central themes throughout his work (and especially after the self-described turn to political writing following the Spanish Civil War), all too often these subjects in both the non-fictional and fictional works remain abstracted. Particularly in *Nineteen Eighty-Four*, the novel which most concerns truth-telling, Orwell explicitly encourages a discussion of reality in the widest possible terms. To cite only the most obvious instance of this untethered discourse, we never do learn exactly which two things plus two other things would make four things for Winston, whose obsession with this child's math problem mirrors his creator's.

But if one had to guess what those four things are, and to identify an area where Orwell *does* ground his inquiry into the nature of truth and reality in particular objects, food would be the obvious choice. To judge by both his life and his work, Orwell was obsessed with eating, starving, and distributing finite resources. In this he was a product of both his time and his political commitments—of the two World Wars that he witnessed from a rationed England, of the crushing depression that separated them, and of the socialist belief in material equality that he held dear right until the end. In this section, then, I bring together two aspects of Orwell's work that have been largely studied separately: his treatment of food, human needs, and nutrition, on the one hand, and, on the other, the ways in which Orwell's writing probes the nature of the real. In doing so, I am particularly interested in the ways in which *Nineteen Eighty-Four* figures human needs through a defense of knowledge claims centered in the personal, sensory, and fallible human body. Yet this argument speaks also to Orwell's still palpable mystique, to a reputation that Lionel Trilling once lauded like this:

> Orwell was using the imagination of a man whose hands and eyes and whole body were part of his thinking apparatus...He told the truth and told it in an exemplary way, quietly, simply, with due warning to the reader that it was only one man's truth. (15)

I seek a certain kind of "truth-telling" in Orwell's writing: claims about what human beings are, what they need, and how they come to know it. And, like Trilling, I emphasize that Orwell's pursuit of the reality of human needs is inseparable from the "whole body."

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Orwell opens the sixth chapter of *The Road to Wigan Pier* (1937) with a mechanistic account of human needs. "A human being is primarily a bag for putting food into," he writes, "the other functions and faculties may be more godlike, but in point of time they come

afterwards" (76). The claim is far afield from the sober documentary mandate with which the project began. Commissioned by his editor to report on the impoverished conditions of the industrial north of England, here Orwell cannot resist a grandiose argument, moving from the details about the poor communities he has traveled through to speculate about the nature of the species. Before returning to the particular lives of England's unemployed, Orwell expands his back-of-the-envelope sketch of humankind, arguing for the central place of foodstuffs in military and economic history, and inquiring as to the lack of monuments to "cooks or bacon-curers or market-gardeners." By way of transition back to his subject, he translates his universal claims to the particulars at hand: "Perhaps the really important thing about the unemployed, the really basic thing if you look to the future, is the diet they are living on."

Food remains the through-line in the rest of the chapter, but in a shift from its opening, Orwell leavens his wilder speculations with different forms of evidence: case studies, statistics, and concrete objects, including "a budget which was made out for me by an unemployed miner and his wife" (77). Having dug a bit into the particulars of one unfortunate family, Orwell returns to more general ground, asking of their meager budget "whether it is even theoretically possible for three persons to be properly nourished on sixteen shillings a week." A second, ideal budget for living in poverty produced by nutritionists is reprinted, and Orwell compares his particular miner's family spending to the ideal budget, concluding that his interviewees are eating all wrong: "the basis of their diet, therefore, is white bread and margarine, corned beef, sugared tea, and potatoes—an appalling diet" (79). Would it not be better if the family were to eat as the nutritionists advise, Orwell asks? "Yes, it would, but the point is that no ordinary human being is ever going to do such a thing. The ordinary human being would sooner starve than live on brown

bread and raw carrots. And the peculiar evil is this, that the less money you have, the less inclined you feel to spend it on wholesome food."

If Orwell begins this chapter by offering a mechanistic theory about the nature of the species, then, the discussion of the more specific needs of the unemployed in northern England that follows revises that thinking through the presentation of competing modes of evidence. Specific documents—the two budgets—are offered up, as is statistical evidence about the physical degeneracy of the northern poor. But Orwell is also more than willing to contribute his personal insights into the psychology of the unemployed and their economic choices ("The ordinary human being would sooner starve than live on brown bread and raw carrots"). In attempting to explain what it is that the poor need, he highlights both the idealized budget of the nutritionists and the miner's deviations from it; he points us to vital statistics in defense of one claim and denies their explanatory power for another. Despite its opening, this section of the work hardly falls in line with a mechanistic theory of human beings. Rather, its conflicted mode and varied evidence challenges such thinking: people, it seems, are unpredictable, something more than "a bag to put food into."

As you might expect, social scientists and historians have taken issue with this "documentary" account. Robert Pearce argues convincingly that *The Road to Wigan Pier* "contains inaccuracies and fabrications...it is sometimes grossly subjective and even wildly misleading - in short...it should be treated with caution and skepticism by historians" (412). Margery Sabin suggests, optimistically, that Orwell "releases the term 'fact' from statistical or theoretical rigour" (47). And yet if we should avoid reading Orwell's insights into the needs of the unemployed as a form of social science, what kind of truth-telling is going on here? How are we to take Orwell's claims about what people require to stay alive if they conflict, sometimes

obviously, with the more careful and accurate accounts of economics or nutrition? How are we to take the competing claims that Orwell himself makes between a human being as a "bag for putting food into" and the more specific, lived variations that he insists on in the rest of the chapter?

In defending *The Road to Wigan Pier* as a form of truth-telling, Sabin draws attention to the work's disclaimers, to the ways in which Orwell's style stresses the bounds of authorial perspective. "In all his nonfiction writing," she argues, "Orwell acknowledges the limitations of his experience and access to truth; but he also insists that truthfulness begins by overcoming the comfort of the familiar, whether it be rooted in the limitations of personal experience and taste, or the habit of accepting the official stereotypes of newspapers and other forms of propaganda" (44).[44] In considering his treatment of human needs, however, Orwell certainly goes beyond "overcoming of the familiar" in an attempt to meaningfully critique and analyze his subject. In particular, Orwell's discussion of what the unemployed need implicitly criticizes standardized theories of human beings, while simultaneously promoting non-normative forms of knowledge and behavior as a viable alternative. Consider, for instance, Orwell's commentary about the dietary habits of the unemployed:

> But the English palate, especially the working-class palate, now rejects good food almost automatically. The number of people who prefer tinned peas and tinned fish to real peas and real fish must be increasing every year, and plenty of people who could afford real milk in their tea would much sooner have tinned milk—even that dreadful tinned milk which is made of sugar and corn-flour and has UNFIT FOR BABIES on the tin in huge letters. In some districts efforts are now being made to teach the unemployed more about food-values and more about the intelligent spending of money. When you hear of a thing like this you feel yourself torn both ways. I have heard a Communist speaker on the platform grow very angry about it. In London, he said, parties of Society dames now have the

44 What Sabin characterizes as "overcoming the comfort of the familiar" others might call voyeuristic exploitation. See Daphne Patai's *The Orwell Mystique*, notes 25 and 26, p. 280.

> cheek to walk into East End houses and give shopping-lessons to the wives of the unemployed. He gave this as an instance of the mentality of the English governing class. First you condemn a family to live on thirty shillings a week, and then you have the damned impertinence to tell them how they are to spend their money. He was quite right—I agree heartily. Yet all the same it is a pity that, merely for the lack of a proper tradition, people should pour muck like tinned milk down their throats and not even know that it is inferior to the product of the cow. (100)

Note the critique of passive behavior, choices about what to eat that are unconscious and "automatic." The poor who prefer tinned milk do so, according to Orwell, because of ingrained habit and the psychology of their circumstances, not through conscious choice. But equally important here is Orwell's liminal position: his admitted allegiance both to the agency and lives of the unemployed (passive and uninformed though they may be) and to the expert, statistically-backed arguments of "the English governing class" (103). As we shall see elsewhere in Orwell's work, to "feel yourself torn both ways" between the objective and the subjective, the scientific and the personal, is crucial to his thinking about human needs.

The above passage opposes the passive habits of unemployed consumers with the more scientifically informed, economic advice of (presumably) experts on nutrition and personal finance. But Orwell's critique of standardized theories of behavior (and his defense of non-normative knowledge claims) usually runs in the opposite direction. As Ian Slater has argued, it is the scientific, expert, and mechanized that produce troublingly standardized theories of people for Orwell, and it is the lone individual who resists (201). As we saw earlier, the idealized budget promoted by the nutritionists is held up as patently false because "no ordinary human being" would be likely to follow such strict and boring guidelines. Similarly, Orwell points out that despite their crushing poverty, the unemployed "don't necessarily lower their standards" (as the nutritionists and welfare economists advise) "by cutting out luxuries and concentrating on necessities; more often it is the other way about—the more natural way, if you come to think of

it" (201). In each case, expert advice and knowledge about what the poor need are shown as either inadequate or mistaken, failing to encompass the lived behaviors of the unemployed, or failing to provide what these people really need. In short, Orwell expounds on the ways in which individuals resist the consumptive patterns suggested to them by the social sciences, the market economy, and modern technology, and how those patterns prove inadequate.

There are a number of conflations going on in Orwell's thinking, just the kind of rough assemblage that would make any self-respecting historian or sociologist squeamish. Yet regardless of its imprecisions, the book does make a sustained argument that automation and predictability are produced by a wide swath of modern phenomena: experts, machines, and economic forces beyond the individual's control. The second half of *The Road to Wigan Pier*, which turns to a critique of socialism and modernity, makes this connection more obvious. For Orwell, the socialist future is inseparable from the machine: it is necessarily "ordered" and "efficient" (220). It is also thoughtless: he suggests that "there is a tendency for the mechanization of the world to proceed as it were automatically, whether we want it or not" (222). As elsewhere, Orwell grounds this critique of the machine in terms of the food economy:

> In the highly mechanized countries, thanks to tinned food, cold storage, synthetic flavouring matters, etc., the palate is almost a dead organ. As you can see by looking at any greengrocer's shop, what the majority of English people mean by an apple is a lump of highly-coloured cotton wool from America or Australia; they will devour these things, apparently with pleasure, and let the English apples rot under the trees. It is the shiny, standardized, machine-made look of the American apple that appeals to them; the superior taste of the English apple is something they simply do not notice. Or look at the factory-made, foil-wrapped cheese and 'blended' butter in any grocer's; look at the hideous rows of tins which usurp more and more of the space in any food-shop, even a dairy; look at a sixpenny Swiss roll or a twopenny ice-cream; look at the filthy chemical by-product that people will pour down their throats under the name of beer. Wherever you look you will see some slick machine-made article triumphing over the old-fashioned article that still tastes of something other than sawdust. And

> what applies to food applies also to furniture, houses, clothes, books, amusements, and everything else that makes up our environment. (224)

In this passage, the "death" of the palate is a form of passivity and standardization, a relinquishing of agency and authority to the mechanical advances of the era. And though he makes no claims as to the nutritional differences between the old food and the new, Orwell insists on subjective differences between the two, stressing subtle distinctions that go unrecognized by nutritionists or consumers: "superior taste," the "filth" of a chemical beer, the "shiny, standardized machine-made look" as opposed to the "old-fashioned" foodstuffs of England's past.

What are we to make of these claims? How should we reconcile Orwell's proclaimed search for "truth" with these profoundly personal, subjective arguments about what people need? More than anything, my sense is that Orwell remains torn throughout *The Road to Wigan Pier*, between his objective documentary mandate and his passionate indictment of social ills, but also between an efficient egalitarian socialism and an inefficient, nostalgic, "fully human" world (227). In the terms of human needs, Orwell is undoubtedly sympathetic to the claims of nutritional science and economics (which, in 1937, offered much more subtle, empirical, yet similarly universal versions of Orwell's mechanistic vision with which chapter six began). But, crucially, Orwell is also sympathetic to individual variation, idiosyncrasy, and the ways in which standardized models of the human fail to account for lived experience. This fissure runs through the book, and through Orwell's later fiction. It explains why Orwell both laments the unhealthy choices of the poor and sympathizes with them; why he embraces statistical truth and questions it; why he needs a generalized standard of human requirements and resists that normative mode.

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A survey of the history of economics, rationing policy, and nutritional science in Britain can help make sense of Orwell's divided allegiances, and of his skepticism towards standardizing theories of human want. In the aftermath of the First World War, a series of developments across these social sciences sought to analyze human needs better. Nutritional science, for one, saw a surge of advances during the period between the wars. "By the end of the 1930s," according to one recent history, "evidence-based nutritional research allowed answers to be found to the many questions of energy requirements and healthy lifestyles of the day" (Gibson 182). The League of Nations was active in driving this research, and, with a committee of twelve physiologists and biochemists, produced in 1936 a set of minimum dietary standards—a universal account of the energy that every human being needed (Collingham 351). British organizations like the Ministry of Health's Advisory Committee on Nutrition and the British Medical Association provided similar, competing baseline research, though these studies were not well received by a British government concerned about the rising costs of the welfare state. In 1940, the dieticians Robert McCance and Elsie Widdowson published *The Chemical Composition of Foods*, analyzing hundreds of commonly consumed items in terms of their nutrient content. In total, as Lizzie Collingham describes, these developments in nutritional science revised English doctrinaire thinking about social welfare: the body's energy needs could be quantified, and therefore met scientifically (352).

Similarly, the study of welfare economics in early twentieth-century England was marked by an increase in the use of mathematical analysis and attempts to make the field more "scientific" (Backhouse 276). The "new welfare economics" developed at the London School of Economics sought to create an optimal distribution of resources based on mathematical calculations of social welfare (280). While these calculations were dependent on social choice,

the English Left worked to drive consumers in a more scientifically informed and efficient direction. The prominent think tank Political and Economic Planning, for instance, argued that the state should educate consumers as a way of efficiently allocating resources, and that the Consumer Research Counsel should set product standards to raise the quality of goods (Daunton 449). The administrations of Macdonald, Baldwin, and Chamberlain increasingly relied on economists in their welfare planning calculations, and incorporated nutritional expertise as the links between malnutrition and ill-health became undeniable (452). So the consumer, too, was knowable: according to welfare economics and some in the Labour movement, science could direct the best possible use of limited resources, and could shape consumer demand of those resources as well.

If the interwar period was marked by an increasingly scientific and standardized approach to social welfare and nutritional science, rationing in Britain during the Second World War realized those developments as forceful government policy. Under the leadership of William Beveridge, The Food (Defence Plans) Department devised a complex system of rationing in the lead up to the conflict that would ensure that "every member of the public would be able to obtain a fair share of the national food supply at a reasonable price" (Zweiniger-Bargielowska 14). This planning incorporated "a comprehensive nutrition policy" which informed a vitamin welfare scheme and the fortification of select foods. Britain's rationing scheme introduced total government control over the consumption of many goods, a policy of "flat-rate rations" which largely ignored the differential energy needs of individuals (17). Thus, rationing took the theoretical developments of nutritional science and welfare economics and, through force of law, structured a tightly controlled economy around those standardized theories.

Amidst these rapid and varied developments, Orwell—the nostalgic socialist and patriot—found himself pulled in several directions at once. As a wartime broadcaster for the BBC, he defended the rationing scheme, even going so far as to celebrate the simplified circumstances of the war: "We have had to simplify our lives and fall back more and more on the resources of our own minds instead of on synthetic pleasures manufactured for us in Hollywood or by the makers of silk stockings, alcohol and chocolates" ("Money and Guns" 73). In another commentary, he positions rationing as an egalitarian development, "one more step along the path by which Britain, as a result of the war, is becoming more truly a democracy" ("9 May 1942" 91-92). Orwell saw these developments as the precursor to a socialist revolution, as he argues in "My Country Right or Left" (1940), a revolution that seemed more imminent than ever when the post-war Attlee government began implementing welfare reforms as outlined in The Beveridge Report (1942).

But Orwell's writing during this period also suggests his continuing skepticism of official accounts of human welfare, of an increasingly regulated consumerism, and of efficient, scientific modernity more generally. The rejection of "synthetic pleasures" above is one example. Another can be seen in *Coming up for Air* (1939), where Orwell's protagonist expresses disgust at "modern" "streamlined" food: "phantom stuff that you can't taste and can hardly believe in the existence of" (22). In the post-war essay "The Politics of Starvation" Orwell once again displays mixed feelings about statistical knowledge and nutritional welfare (380). And in the broadcast "Literature and Totalitarianism" he warns that "We live in an age in which the autonomous individual is ceasing to exist, or perhaps one ought to say, in which the individual is ceasing to have the illusion of being autonomous" (361). For Orwell, the dictates of a controlling

government and the increasing reliance on scientific expertise were undoubtedly part of that disappearance, and inextricably linked to one another.

Orwell's skepticism about official theories of the human emerges from several sources: first, from the experience of the depression, when official aggregate government statistics were shown as woefully inadequate in their assessment of malnutrition (Collingham 350); second, from the propaganda system during the war (which Orwell helped generate) and his intimate knowledge of the rationing system (his wife Eileen worked for a time in the Ministry of Food), which suggested the extent to which a central government could abuse scientific expertise and statistical accounts of welfare to its advantage; finally and relatedly, from the increasing standardization and scientific approach to human beings that flattened differences between individuals, privileging expert access to the truth and emphasizing uniform, efficient use. For one man facing such a system, Orwell feared, the truth of human needs could be easily obscured.

Made to Make Do: Orwell at the Ministry of Plenty

In *Nineteen Eighty-Four*, Winston Smith is famously tortured into admitting that two plus two can, sometimes, equal five. In the Ministry of Love, he begs: "How can I help seeing what is in front of my eyes? Two and two are four" (259). His tormenter, the inner party member, O'Brien, counters, "Sometimes, Winston. Sometimes they are five. Sometimes they are three. Sometimes they are all of them at once. You must try harder. It is not easy to become sane." The torture recommences, O'Brien ramps up the chamber's machinery to a maniacal pitch, and Orwell's bureaucratic everyman begins his inevitable surrender. In the novel's final chapter, the reformed Winston drinks glass after glass of Victory Gin at a café, and the equation recurs: "His

thoughts wandered again. Almost unconsciously he traced with his finger in the dust on the table: 2 + 2 = 5" (290).

Jarring and pithy, "two plus two equals five" is among the most widely repeated phrases from the novel, used by many as a synecdoche for the madness of totalitarianism. Yet the equation has surely done a disservice to *Nineteen Eighty-Four*. Orwell's novel is never more simplistic (or more quotable) than in its reliance on a child's math problem. In the novel's subsequent reception, the reduction of all of the party's acts of reality control to this (extreme) example has obscured the nuances of *Nineteen Eighty-Four*'s metaphysics, which can be usefully delineated into specific categories of inquiry. Building on the preceding analysis of Orwell's earlier writings, the following reading is interested in the relationship between the party's reality control and acts of consumption, marketing, and the desire for material goods. I argue that the novel's most provocative claims about the mutability (and immutability) of human beings is grounded not in the abstraction of mathematics, but in the relationship between Oceania's citizens and the things they eat, drink, and use.

In what follows, then, I will be limiting my investigation of the work to two subjects: the standardization of consumption (both what people consume and how they feel about it) and resistance to that standardization. Thus, while the novel's treatment of individual consumer items (most notably razors, victory gin, and chocolate) are pertinent here, I will not be addressing the subjects of torture, surveillance, or sexual desire. I am concerned, rather, with the ways in which Orwell imagines consumption of physical objects as standardized, with Oceania's government controlling not just the production of things but also attempting to control social relations (feelings, desires, and requirements) to those products. Because the novel presents living

standards to be largely a matter of material consumption, I take representations of measures and feelings of social welfare as an important source of Orwell's metaphysics of consumption.

Early in the novel, the government finds it necessary to cut the chocolate ration. From the telescreen, Winston hears:

> 'Attention! Your attention please! A newsflash has this moment arrived from the Malabar front. Our forces in South India have won a glorious victory. I am authorized to say that the action we are now reporting may well bring the war within measurable distance of its end. Here is the newsflash—'
>
> Bad news coming, thought Winston. And sure enough, following on a gory description of the annihilation of a Eurasian army, with stupendous figures of killed and prisoners, came the announcement that, as from next week, the chocolate ration would be reduced from thirty grams to twenty. (25-26)

This rationing cut reappears twice more in the novel, and chocolate in particular surfaces several more times. At work in the Ministry of Truth, Winston is charged with revising a Ministry of Plenty promise "that there would be no reduction of the chocolate ration during 1984" (39). Later, in the canteen scene, the telescreen reports "demonstrations to thank Big Brother for raising the chocolate ration to twenty grams a week" (58). An incredulous Winston asks of his more orthodox party members, "Was it possible that they could swallow that, after only twenty-four hours? Yes, they swallowed it." In *Nineteen Eighty-Four*, Winston's despair takes precedence over the black humor of the pun: the party members' acceptance of the ration cut is the marker of their loss of perceptive power, and the extent of the epistemic madness surrounding the novel's protagonist.

Like other products that appear most often in *Nineteen Eighty-Four*, a study of chocolate in the novel can help us understand both how consumerism and consumer goods are standardized here, and also how Winston and others resist. The most obvious form of standardization of consumption in the work is rationing itself—government control of foodstuffs and other

consumables that inevitably recalls the war, as Dominic Head has argued in a recent appraisal (13). If the rationing system creates uniform consumption of the material goods by physically controlling production and distribution, the propaganda with which the chocolate cut is announced suggests a second mode of standardization: the use of advertising and language to create a conformity of attitude in the people who will do the consuming. The announcement of the "glorious victory" is made, according to Winston, in order to soften the blow of the rationing reduction, which is then buried amongst "stupendous figures" and the excitement of the victory. Winston's subsequent assignment at the Ministry of Truth to correct the chocolate predictions is a third form of consumer control: by destroying the evidence of the past and creating alternative accounts of the real, the party aligns its predictions and its returns, and consolidates its hold on how people can feel about the things they need. Finally, in the canteen, we see the effects of the party's actions: orthodox party members willingly accept the redescription of the cut as a raise.

But if chocolate in the novel showcases some of the ways in which consumption is standardized, razor blades are markers of the failure of those controls. The description of Winston's face which opens the novel implies that Winston has been shaving with the same blade for too long: "His face naturally sanguine, his skin roughened by coarse soap and blunt razor blades, and the cold of the winter that had just ended" (2). While Winston believes that Big Brother will inevitably force Airstrip One's citizens to "deny the evidence of [their] senses" (80), the novel opens with sensory evidence that shortage exists, with a form of embodied empiricism—Winston's poorly shaved face. The rampant black market for razor blades is a further signal the party's incomplete hold over consumption, one of the ways in which the rationing controls are evaded and subverted. We are told that "party members were supposed not to go into ordinary shops ('dealing on the free market,' it was called), but the rule was not strictly

kept, because there were various things such as shoelaces and razor blades which it was impossible to get hold of in any other way" (6). Even orthodox party members like Syme and Parsons, whom Winston thinks of as completely under the sway of Big Brother, make reference to the shortage of razor blades, both inquiring in the canteen if Winston has any (48, 60).

Other, related forms of resistance to normative control over consumption and perceptions of welfare are important in the work. After concluding that his fellow party members have accepted the ration "raise," Winston thinks:

> Always in your stomach and in your skin there was a sort of protest, a feeling that you had been cheated of something that you had a right to. It was true that he had no memories of anything greatly different. In any time that he could accurately remember there had never been quite enough to eat, one had never had socks or underclothes that were not full of holes, furniture had always been battered and rickety, rooms underheated, Tube trains crowded, houses falling to pieces, bread dark-colored, tea a rarity, coffee filthy-tasting, cigarettes insufficient—nothing cheap and plentiful except synthetic gin. And though, of course, it grew worse as one's body aged, was it not a sign that this was not the natural order of things, if one's heart sickened at the discomfort and dirt and scarcity, the interminable winters, the stickiness of one's socks, the lifts that never worked, the cold water, the gritty soap, the cigarettes that came to pieces, the food with its strange evil tastes? Why should one feel it to be intolerable unless one had some kind of ancestral memory that things had once been different? (60)

In this crucial enunciation of Winston's growing skepticism, the truth about the material world first takes the form of an embodied knowledge (similar to Winston's unshaved face): it is in Winston's "stomach" and "skin" that shortage and inadequacy are most acutely felt. But Winston's access to the truth is also grounded in memory, his recollections of past hungers and his sense of not having things of quality suggests a personal knowledge, a form of comparative empiricism. Finally, references to a "natural order of things" and "some kind of ancestral memory" appeal to an external, objective reference point: human nature, destiny, or instinct.

One way of understanding this section, and Winston's metaphysics more generally, is to consider the nature of the novel world's economy, the origins of its shortages, and the ways in which Winston's "ancestral memory" foreshadows later discoveries. While most of *Nineteen Eighty-Four* is related from Winston's perspective, it also includes some heavy-handed, global exposition in the form of "The Theory and Practice of Oligarchical Collectivism," a manifesto of sorts by Emmanuel Goldstein that provides us with a thoroughly unreliable glimpse into the wider geopolitics of the novel world. In excerpts that Winston reads to Julia (putting her straight to sleep), Goldstein argues that the Oceania's shortages are in fact entirely manufactured: the novel's present occurs after the "establishment of self-contained economies," in a time when the "primary aim of modern warfare…is to use up the products of the machine without raising the general standard of living" (68). For Goldstein, the advent of "the machine" has made environmental boundaries passé:

> From the moment the machine first made its appearance it was clear to all thinking people that the need for human drudgery, and therefore to a great extent for human inequality, had disappeared. If the machine were used deliberately for that end, hunger, overwork, dirt, illiteracy, and disease would be eliminated within a few generations. (69)

Despite the promise of technological liberation from Earthly constraints, however, because the "all-around increase in wealth" promised by machine modernity threatened hierarchical society, Goldstein argues that the world's powers have found reason to wage endless war, using up the excess material wealth of the world, and creating instead "a bare, hungry, dilapidated place compared with the world that existed before 1914" (68).

Goldstein's manifesto is, of course, an interesting example of the environmental imagination of limits in its own right, echoing works by H.G. Wells and *The Road to Wigan*

Pier[45] and foreshadowing contemporary arguments about ecomodernism and de-coupling.[46] And while there is certainly more to be said on shortage and finite resources in the novel, I want to set aside that analysis to consider, relatedly, what the novel world's economy means for Winston's metaphysics of consumption, nutrition, and welfare. On the one hand, if we accept Goldstein's writing as fact, Winston's claims of past opulence and of being "cheated" seem to make more sense: along with the rest of Oceania, he has been robbed of a bountiful modernity where environmental constraints do not exist. Yet, on the other, there is good reason to be skeptical of Goldstein's version of history: it is, after all, handed to Winston by O'Brien, and presumably represents a distorted view of the real. More to the point, if Orwell is out to defend a singular, objective reality, why does his hero offer so many competing explanations and arguments? Why does the novel resist a solid enunciation of the truth of things, either in the form of more trustworthy evidence, or through an authoritative narrative voice?

If Winston lacks consistency and metaphysical expertise (O'Brien will chide him on just that point in the torture room), as we have seen, his somewhat muddled argument echoes Orwell's own thinking from the previous decade. One final example from that era, however, might help us to understand the novel's approach to the truth of human needs. In "What is Science" (1944) Orwell argues that many people consider science to be a kind of knowledge, rather than a form of rigorous thinking. But this privileging of the "exact sciences" over literature is wrong-headed, he writes, because precise knowledge "is no guarantee of a humane or skeptical

45 Echoing the second half of *The Road to Wigan Pier*, Goldstein's essay offers an account of the idealized socialist future that might have been, if not for the war-hungry empires: "In the early twentieth century, the vision of a future society unbelievably rich, leisured, orderly, and efficient—a glittering antiseptic world of glass and steel and snow-white concrete—was part of the consciousness of nearly every literate person. Science and technology were developing at a prodigious speed, and it seemed natural to assume that they would go on developing" (70).
46 See *An Ecomodernist Manifesto* (2015). The authors support "decoupling" "human development from environmental impacts" (7).

outlook" (401). Citing the experts who helped the Nazis, and the physicists who developed the atom bomb, Orwell argues that "scientific education ought to mean the implanting of a rational, skeptical, experimental habit of mind. It ought to mean acquiring a method - a method that can be used on any problem that one meets - and not simply piling up a lot of facts" (909).

This emphasis on "method" rather than "fact," on individual rigor rather than accuracy can help us make sense of *Nineteen Eighty-Four*'s confusing account of standardization and resistance, its convoluted metaphysics of consumption. As David Dwan puts it, "*Nineteen Eighty-Four* champions the idea of truth, but it is never made explicit in the novel what truth really is" (385). Dwan argues that "all attempts to demonstrate what truth is in the novel fail; yet truth remains the ground and even the goal of freedom" (381). Dwan points out that the novel employs at least three competing theories of truth: correspondence (to the world), coherence (with society), and verification (whether or not beliefs can be tested) (386). Yet if none of these theories can offer a total description of the truth, this failure does not signal a loss of faith. "For figures like Orwell," Dwan contends, "truth is less an object of thought than its simple horizon; it eludes our grasp, but it places basic constraints on our thinking" (390).

While many early readers of the novel have taken their cue from Trilling in defending Orwell as a "truth-teller," subsequent scholarship aligns with Dwan's attempt to present Orwell as interested more in a process than in a result, or, as Dwan argues, in multiple, competing processes. One sentence of the novel, in particular, encapsulates this debate well: Winston's diary entry that "Freedom is the freedom to say that two plus two equals four. If that is granted all else follows" (81). For those readers who think that Orwell is defending an absolute version of truth and objectivity, the point of this claim is the *fact* in play: that two plus two equals four. This reading argues that without facts, without an objective reality, we are doomed. But other

readers stress that the claim turns on *a speech act*, on the ability to speak our own versions of fact, not on the objective fact itself. Richard Rorty, who belongs to the second camp, argues that the passage suggests that "All that matters is that if you do believe [in two plus two equals four], you can say it without getting hurt. In other words, what matters is your ability to talk to other people about what seems to be true, not what is in fact true. If we take care of freedom, truth can take care of itself" (187). The philosopher James Conant, who stresses objectivity in the novel, calls Rorty's reading "perverse," and contends that "Rorty comes extraordinarily close to attributing to Orwell the very views that Orwell chose to put into O'Brien's mouth" (105). For Conant, the novel is a defense of objective truth and the individual's search for it (92). My reading of the *Nineteen Eighty-Four*'s metaphysics of human needs and consumption offers some evidence for both sides of this debate, though I think it ultimately aligns more with Rorty's side than with Conant's.

On the one hand, the party presents consumption and human needs as malleable and controllable. O'Brien in the torture room claims an unlimited ability to redescribe reality: "Our control over matter is absolute" (268). The party's rationing system and propaganda, its attempts to dictate consumption habits and attitudes towards products, suggests its standardizing power and control over its citizens' minds and habits. And, clearly, the party is successful to a large measure in achieving this kind of conformity and control. Yet, on the other, the text is also quite explicit about the extent of those powers, about the ways in which the party's attempts to redescribe reality fail. While O'Brien claims unlimited abilities (265), he also acknowledges that "For certain purposes, of course," the party must fall back on old ways of thinking—on faith in gravity and the discoveries of science, for instance (266). The provision of rations to Oceania's citizens is presumably one of these purposes, in order to maintain the party's workforce. And if

the party itself seems to admit the limits of its power to redescribe reality, the subtle failures of consumption control in the novel similarly point to the problems with this project. Why, for instance, does the party not control taste? Why does Victory Gin still taste bad at the end of the novel, despite its name, despite Winston's seeming conversion? Why are orthodox party members able (and interested in) finding items on the black market, or even capable of recognizing shortages?

If the party seems to offer up a vision of consumption as malleable and controllable, Winston presents it as fixed and self-evident. For him, the difference between less and more is always accessible, the difference between good and poor quality is similarly clear. Thus, the social welfare measurement in terms of consumable goods (an obsession for Winston, as for his creator) is a key index of the real. Starvation, poor quality food, a lack of razors—at some point, Winston's theories suggests, the party's powers of redescription will fail in the face of a material reality. The instances of shortage that cut across consciousness in the novel—razor blades, chocolate, and cigarettes—are particularly compelling testimony that the malleability of human desires and needs is not nearly as total as the party believes. "Life will defeat you" Winston meekly offers O'Brien, and in this formulation "life" is the set of universal requirements that humans need to live (269). What may be most challenging about Orwell's treatment of the metaphysics of consumption in the novel, then, is not the stark division between Winston's version of human needs and consumption and the party's, but rather *how much they have in common*. In both cases, the agency of the individual consumer is restricted. While the party attempts to control consumption and material bodies in their entirety for political ends, Winston's determinist, universalist account of material reality grants agency to nature, to an essential conception of human needs or biology. In a sense, Winston's resistance to the

normative controls of the party takes the form of a normative replacement, a substitution of one system in which the individual has no control for another of the same.

However, following the novel's postmodern critics, there is another way of reading Orwell's treatment of consumption, one which stresses not so much the content of Winston's rebellion as the act itself. If the party's version of consumption is tightly controlled, predictable, and knowable, in representing sustained and subtle resistance to that consumption, the novel does undoubtedly posit an alternative to it. The *gestalt* shift that Winston's life and mind open between reality as the party describes it and as he knows it is important in and of itself—the utopian possibility of rewriting the status quo, of undoing settled, dominant truths about human beings and what they need through individual perception. Winston's body is a vehicle in this project, and an important arbiter of the real separate from the dominant actors, as is his speech, his ability to feel differently from the way he is supposed to, and to speak freely about what he eats, uses, and needs. If Winston's views of human needs and consumption habits are, after all, another way of thinking (like the party's) which operates on principles of determinism and control (handing the reins to nature, rather than Big Brother), *Nineteen Eighty-Four* nonetheless imagines the possibility of radical epistemological change. It extends the possibility that people can consume differently. That our material needs from the world are not as fixed as they may seem.

Michael Levenson has argued that while Orwell throughout his career seeks "a construction that aims to register a social totality," in casting off the omniscient narrator of a previous generation of realist literature, he acknowledged the confines of his own perspective, and of the impossibility of achieving totalizing speech ("Fictional" 66). As Levenson writes of the novels of the 1930s, "A fissure opens in these novels between their ambition to utter

historical truth and the personal limitations on the acts of utterance - those finite usually visual perceptions constrained by the grammar of the realist sentence" ("Fictional" 67). My sense is that Orwell's *Nineteen Eighty-Four* exists precisely in that fissure. The novel's alternative to standardized theories of the human is clearly centered on one mind and one body, which, while dominating the novel's page-space, is, like Goldstein's manifesto, never fully authoritative. While Winston seeks a totalizing reality, a claim to the nature of the human body and human consumption that might withstand the party's attempts at reality control, Orwell's work ultimately cannot offer such vision. It is precisely the incoherence and lack of consensus among perspectives that *Nineteen Eighty-Four* stresses, the messy and unpredictable behavior of individuals, and the viability of individual claims to compete with consensus positions. Whether Winston is "right" or not is not the point. Rather, what is remarkable about Winston's life is his ability to imagine what it would mean to consume differently in the face of a tightly controlled material world.

Meals, Modernist Subjectivism, and the Gendered Social Order of Rationing

Natural scenes, naturalness, and human instinct appear several times in *Nineteen Eighty-Four*, and are especially associated with the only notable female character in this stubbornly masculine novel: Julia. Early in the book, Winston fantasizes about his colleague after imagining "the golden country," a pastoral "rabbit-bitten pasture" near a "clear, slow-moving stream where dace were swimming in the pools under the willow trees" (30). While the party is out to eradicate the "sex instinct" (45), Julia "[adores]" sex, and Winston applauds her "animal instinct, the simple undifferentiated desire" (66). In what is perhaps the most cringe-worthy comparison in the novel, we learn that Winston's lover is "natural and healthy, like the sneeze of a horse that

smells bad hay" (122). Sexually liberated and associated with the few pastoral scenes in the work, Julia is also, importantly, the bearer of wholesome, authentic foodstuffs: she arrives at one of their assignations with "real sugar" "proper white bread, not our bloody stuff," "a tin of milk," and "real coffee" (140).

Julia's association with nature and naturalness, and especially with domestic economy, stands out in a novel that otherwise relies almost entirely on universal, gender-neutral language. In his discussion of human needs and welfare measurement, Winston's preference for the neuter second person (e.g. "Always in your stomach and in your skin there was a sort of protest") fits nicely with Oceania's efforts to eradicate sexual difference, and aligns with the era's preference for abstract analyses of nutrition and consumption. I have been arguing, thus far, that Orwell's writings on human needs and welfare, and *Nineteen Eighty-Four*'s resistance to totalizing speech, more broadly, qualify and contextualize the universal (standardized, mechanical) accounts of human needs on the rise in the 1930s and 1940s, which, in turn, undergird many versions of threshold thinking. Yet if *Nineteen Eighty-Four* might be said to challenge some parts of the "social order" implied by the environmental imagination of limits, it is unable to enunciate other forms of social difference, and especially gendered difference. To understand those aspects, we need to consider another work from the same era on the subject of rationing.

At the heart of American food writer M.F.K. Fisher's *How to Cook a Wolf* is a proposition: "No recipe in this world," she writes, "is independent of the tides, the moon, the physical and emotional temperatures surrounding its performance" (100). Food, for Fisher, is never just calories. Rather, the act of eating is shaped not merely by the quantities consumed and the bare needs of the hungry diner, but also by the vivid features that surround those inadequate particulars. She asks: Who do you dine with? Did you linger over that bowl of soup, or down it

in a rush? What language do you use to describe your eating? At a time of shortage in America and especially elsewhere in the world, Fisher presents the act of consumption as an imaginative, embodied act. To the bare cupboard, she opposes the savvy shopper; to the starving body, she offers the liberated mind. Against the normative claims of nutritional science, rationing controls informed by welfare economics, and essentialist theories of human need, *How to Cook a Wolf* proposes that the creativity and imagination of (especially female) cooks and diners offer an aesthetic alternative.

Published in 1942, revised in 1951, and republished in 1954, *HTCAW* grows out of an article that Fisher wrote reflecting on her experiences living in Europe prior to the war.[47] Grieving for her recently-deceased husband, Fisher finished *HTCAW* in "only a few weeks," and her biographer adds that the work marked "the first time Mary Frances was conscious of writing as a means of supporting herself" (Zimmerman 212). This pastiche of recipes, quotations, and memoirs is, as Fisher put it in her introduction to the revised edition, a "book about living as decently as possible with the ration cards and blackouts and like miseries of World War II" (IX). The revised edition of *HTCAW* includes 22 chapters, each with an instructional title ("How Not to Be An Earthworm," "How to Keep Alive"), and the titular "wolf," while explicitly referring to C.P.S. Gilman's verse (an excerpt from which serves as epigraph), symbolically represents wartime indignity, poverty, and hardship.

While Fisher's claim that the book is about "living as decently as possible" is broadly accurate, Allison Carruth's recent assessment of the work makes it clear that *HTCAW* is also a subtle, modernist critique of certain ways of thinking about eating, cooking, and consuming. Tracing the militarization and capitalization of the food industry during the war, Carruth argues that "[Fisher] redirects the government's gendered rhetoric, which views food as a matter of

47 On the provenance of the work, see Zimmerman, p. 211 and following.

national security and housewives as auxiliary soldiers," and "Promotes a 'creative economy' of cooking that might disrupt the nation's economic, political, and military interests in the program" (Carruth 778). Comparing Fisher's economy to the modernist figure of the *bricoleur*, Carruth identifies the work's critiques of militarized eating, on the one hand, and "futurist" ideologies of technology and streamlined cooking, on the other.

HTCAW begins by championing individual knowledge and practice over that of "the war machine":

> Now, when the hideous necessity of the war machine takes steel and cotton and humanity, our own private personal mechanism must be stronger, for selfish comfort as well as for the good of the ideals we believe we believe in. (3-4)

In the same chapter, Fisher follows this advice with a critique of "an earnest but stupid school of culinary thought" that prescribes daily "balanced" meals. Pushed by advertising and nutritionists, and shaping rationing policies, the balanced meals consensus offered a standardized version of cooking that was, according to Fisher, particularly harmful to the women charged with preparing them:

> In our furious efforts to prove that all men are created equal we encourage our radios, our movies, and above all our weekly and monthly magazines to set up a fantastic ideal in the minds of family cooks, so that everywhere earnest eager women are whipping themselves and their budgets to the bone to provide three 'balanced' meals a day for their men and children. (5)

While acknowledging that "we as a people know much more about correct human nutrition than we did even a few years ago," Fisher nonetheless concludes the chapter by calling for individual creative resistance to expert consensus:[48] "If the people set aside to instruct us cannot help, we must do it ourselves. We must do our own balancing, according to what we have learned and also, for a change, according to what we have *thought*" (7, emphasis original).

48 In a note added in the revised edition, Fisher notes that "most bodies choose their own satisfactions, dietically and otherwise" (4).

HTCAW begins, then, both with a defense of the subjective and with a subtle, sustained critique of dominant ideologies of nutritional science, needs, and human wellness. In contrast to Orwell's dystopian, metaphysical alternatives, however, Fisher's subjectivism is both more provocative and more playful. The title of the work's ninth chapter, "How to Be Cheerful Though Starving," is a prominent example. On the one hand, this oxymoronic title suggests, the "reality" of being without enough to eat is undeniably awful. Yet, on the other, the proffered escape from that necessity ("How to Be Cheerful" serving as a kind of advertisement and an instructional treatise) challenges the finality of famishment. Hunger, in this chapter as in the book, is both final *and* malleable, an undeniable reality and a contingent, contextual quality subject to change. That doubleness, that oscillation, recalls modernism's earliest and highest priests. As all good readers of Walter Pater know, the modernist moment flickers. For Pater as for, at various points in their thinking, Conrad, Bergson, and Pound, the real is always in motion, the product of a subjective relationship with the object.[49] Thus Marlowe's sticks become arrows, Bergson's qualitative multiplicity, and Pound's "radiant node or cluster."[50] The high moderns, according to Levenson, offered an ambivalent subjectivism, a retreat from "public fact" into "private expression" (*Modernism* 62). At its most extreme, this subjectivism was world-*denying*—refusing the authority of inert facts altogether. But for the most part modernist subjectivity was an oscillation between recognizing the immanence of material reality and questioning it through language projects.

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49 This is very much a critical consensus. See, for example, Levenson's *Modernism*, (2011, p. 91), or Jesse Matz's *Literary Impressionism* (2001).

50 I refer to Ian Watt's well-known reading of the sticks and arrows scene from Joseph Conrad's *Heart of Darkness* (1899), Henri Bergson's argument in *Time and Free Will* (1899) that multiple, heterogenous states of consciousness can coexist in the same moment, and Ezra Pound's 1914 definition of a particular category of imagistic poetry.

In *How to Cook a Wolf*, Fisher revisits this modernist oscillation in daring, sometimes dangerous ways. This is a book about what Fisher calls "tricks," ways in which a hungry person can make something small become large, can practice a skillful economy, can "dodge the wolf." "It is well to eat slowly," she writes, "the food seems to be more plentiful, probably because it lasts longer" (80). Eating with someone else will make leftovers "seem less a nightmare than a form of sensual entertainment" (81). It is notable that Fisher makes these subjectivist claims in an instructional mode. If the modernists flirted with the idiosyncratic, the "private expression," here, Fisher attempts to persuade her audience to replicate her own subjective experiences. She not only wants her readers to understand what she is saying, she also encourages them to live it. And yet, Fisher's book is certainly not a rejection of the material real: the recipes in *HTCAW* include explicit quantities; they call for specific cooking times. Even as it gestures towards the constructedness of culinary experience, then, Fisher's project *is* representational: throughout the work, she compares her "tricks" to "reality," suggesting the continuing explanatory power of material facts.

Tenuous and qualified as it is, Fisher's modernist subjectivism nonetheless offers an aesthetic critique of dominant theories about what people are and what they need. Unlike most of Orwell's universalist-oriented writing on the subject, however, *HTCAW* is also attentive to the contingent, gendered, and racially-charged circumstances from which eating habits and environmental constraints emerge. In a chapter on meat consumption, for instance, Fisher criticizes "Anglo-Saxon" resistance to eating offal, and by extension the kinds of racial and class biases that promoted the "needs" for certain forms of meat consumption which the U.S. government (backed by the agriculture lobby) ensured were met by the war-time rationing

program (101).[51] The work deconstructs both the "need" for meat consumption by most Americans (which it blames on "habit," not necessity), and the government's logic behind meat shortages and scarcities, which, as Carruth argues, existed not because of a lack of absolute availability but rather because foodstuffs were needed for military purposes (782).

With its implicit, neuter subject, Fisher's instructional mode can at times appear universalist in its orientation, yet *HTCAW* fully acknowledges women's supposedly fixed roles as cooks and homemakers, an important aspect of rationing policy during the war. As the historian Amy Bentley argues, American women during the Second World War were both expected to navigate and overcome shortages and scarcities (as the primary food-purchasers and preparers), and were subjected to influence campaigns by, on the one hand, nutrition organizations intended to shape their perceptions about what constituted a healthy diet, and on the other, rationing authorities seeking obedient shopping and cooking habits. Framed as a patriotic duty, wartime homemaking was thus shaped by the dictates of the U.S. military, the agriculture and food production lobby, advertisers, and fears that women liberated from the kitchen might disrupt the social status quo (40-42). As Bentley points out, women were expected to be passive receptacles of advances in nutrition science and loyal, obedient cooks for their families: "When they sought to go beyond their relatively passive role of patriotic food provider to influence public policy…women were met with much resistance" (31).

Written by a *gourmand* in a country that suffered little real hardship during the course of the war, *HTCAW* can at times appear to be a work solely of fantasy and luxury.[52] Yet in its

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51 See Carruth, p. 782.

52 Once more, Carruth's argument is apt: "In the context of world war, one could argue that the call for playing with food smacks of escapism. How can a 'fresh salad' of a 'dozen tiny vegetables' be anything but trivial in the face of the war's casualties and global famine conditions? And yet Fisher formulates food play as a powerful act of engagement that might

resistance to forms of passivity and its celebration of thoughtful, imaginative economy, this cookbook is also a defense of women's expertise, and a call for a more careful, equitable accounting of what people are and need. Fisher's celebration of, for example, her grandmother's remarkable economy (11), or her loving portrait of an impoverished friend who produced strange, remarkable meals "with intelligence and spirit and the knowledge that it must be done" (84), attest that "food is not a grim obsession," or a problem of mathematics (85). Against the authoritative dictates of nutritional science, mass market advertising, and militarized rationing, *HTCAW* champions the individual woman, a figure whose needs and wants are not passive or standard, but rather chosen through a careful process of planning, selection, and balancing that is, crucially, both deeply emotional and embodied.[53] *HTCAW* thus demonstrates that the social orders that experienced shortage and scarcity in the United States were not abstracted and universal, but rather shaped by subjective perceptions and the skillful work of remarkable diners, cooks, and homemakers, most of them women.

Living Limits

In "Does Literature Work as Social Science? The Case of George Orwell," the American legal scholar Richard Epstein asks whether literature can contribute to our understanding of "complex forms of human behavior" (50). He argues that while literature is "dramatic" in its representation of social life, luring us in with imagery and sentiment, in coming to grips with social problems we should prefer the "humdrum" accounts of social science, which traffic in

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counter, if only momentarily and microscopically, an ideology of eating in service of the war" (780).

53 Fisher's defense of particular bodily and emotional knowledge can be read as a reclamation of the kind of rationalist, "techno-reason" of the era. This is of course a major area of scholarship in feminist studies. See, for example. Plumwood, p. 19.

"statistics about life expectancy, literacy rates, caloric intake and the like" (52). Because the literary author "has no obligation to track the truth," Epstein argues that "fiction cannot be treated as though it is a representative instantiation of some generalized underlying social state of affairs, given the obvious risks of embellishment and fabrication." In short, literature is unreliable, showing merely a narrow slice of experience, not the bigger picture. Epstein contends that "[Orwell] never hesitated to treat his life, his pain, or his literary impulses as an accurate description of some larger social reality" (51). Yet he also argues that Orwell *can* offer insights into particular, extreme lives, even if the work fails to explain more mundane, and especially economic phenomena:

> Orwell's effort to use literature to illuminate social situations is unpersuasive in seeking to explain patterns of routine behavior. It may well be that no two people have the same desires for milk or music, but none of these perturbations undermines the basic laws of supply and demand. The subjective grounds for valuation may well explain why, with price constant, one individual will purchase goods that another will not….That said, however, we can still infer that any increase in price will result in a reduction in demand, even if we cannot identify which individuals in a large population will stop or reduce their purchases. When we seek to understand this world, the individual variations drop out of the equation. It seems therefore that Orwell's views of market behavior are not insights but mistakes. They rely too much on personal introspection and distaste and not enough on empirical generalization. (63)

Having seen how Orwell approaches the subject of consumption and human needs in *Nineteen Eighty-Four* and elsewhere in his work, I think Epstein's analysis clarifies the stakes of Orwell's intervention, and my own. For Epstein the classical liberal, "individual variations" in consumer preference are a trifle, not so much reflective "the truth" of human desires as they are the expected deviation from the norm of social reality. Imaginative writing has no insights into those "variations," he argues, because economic models can take account of them and because these variations do not disprove fundamental economic laws. But as we have seen, Orwell and

Fisher are interested in precisely "routine" economic life, and in the extent to which the solid "laws" of economics (and other predictive models of human behavior) either fail to predict the lived world correctly, or to produce the automatic choices on which they stake their claims to expert knowledge about people. For these writers, "individual variations" never "drop out of the equation." They are themselves alternatives to the norm, potential departures which should be addressed on the basis of their merits, not their cohesion with society at large, cumulative data, or the political status quo. In other words, Orwell and Fisher are not trying to do social science one better. Rather, their perspectives on human needs can be seen as a fundamental challenge to the project of the social sciences, and especially to the idea that human needs are best expressed as the mean of social choice.

In "A Defense of Poesy (The Treatise of Julia)" Elaine Scarry gives voice to Julia in order to defend the counterfactual power of literature. The essay takes the form of a letter from Julia to Winston, inscribed on "the metal casing of a small lipstick cannister" (13). According to Scarry's Julia, Winston "keenly [appreciates] the factual work carried out by the mind" but "consistently [underestimates] the work of the counterfactual." "You rage at Oceania's assault on the factual," she argues, "but shrug at its assaults on the counterfactual—as though the imaginary could not be damaged or, upon being damaged, would be no loss" (14). My reading of Orwell's final novel is aimed precisely at recuperating part of the counter-factual power of the work, and specifically the potential of Winston's consumptive habits and thoughts. For while Orwell's hero may preach an endless respect for the facts of the matter, he is always a minority of one, a man imagining a new (old) world. Scarry's Julia argues that works of fiction occasion deliberation "on subjects that in waking life we may be explicitly discouraged from thinking about, subjects from which we are ordinarily encouraged to avert our eyes" (25). As Orwell's career attests, he

saw too many people averting their eyes from the standards of living around them, from the goods they consumed, and from the things they needed. These were subjects from which thought about the possible and the counterfactual was increasingly scarce, yet desperately needed. *Nineteen Eighty-Four* can be usefully read as offering a counter to that passivity, a careful deliberation about how much we need, and how we feel about it.

The Second World War was a cataclysm that harnessed economic, nutritional, and economic precision for terrible ends. More than any other conflict before it, it marked a moment when human beings were understood mechanistically, apprehended and mobilized in the machines of the nation and industry like never before. For both Orwell and Fisher, the rise of science and the standardization of consumption during the late 1930s and early 1940s marked a narrowing of the human, a closing off of experiences and values that were worth preserving and promoting. Their works figure ways to resist that closure, and to open new avenues for understanding our consumption of material goods outside those that modernity insists on. Orwell's writing on human needs and nutrition shows us both the extremes of aesthetic redescription and the value of finding independence from normative control. Fisher's cookbook draws attention to the constructedness of meals, to the impoverished perception that accompanies mechanical theories of eating, and the role of gender in shaping eating practices, experiences, and expectations. In both cases, it is through the individual body and the language with which we explain ourselves that these writers discover alternative forms of being well and using less. Together, they destabilize aspects of the "social order" which undergird the environmental imagination of limits.

The point here is not that we can think, or write, or oscillate our way out of an environmental limit. One cannot live on words alone. And we can freely admit that the

mechanistic theories of economics, psychology, and nutritional science have (for the most part) helped governments provide for their citizens, helped individuals better understand their consumptive habits, and provided environmental scientists and activists with critical evidence about the encroachment of our planet's boundaries. Yet one cannot live on bread alone, either. This chapter foregrounds the ways in which gender, language, self-conscious decisions, and circumstance shape our conception of what humans are and what we need. We are more, Fisher and Orwell attest, than creatures with essential requirements. Rather, their work posits human beings as charged with some power to shape our needs and desires, which are themselves shaped by existing social orders and institutions of power. Through rationing controls and dominant theories of human need and nutrition, the governments of the United Kingdom and the United States attempted to use that limited power for their own ends. This chapter suggests that the dynamism of human needs and desires might be used for less autocratic purposes, too.[54]

Theodor Adorno once wrote that the cultural theorist does not "criticize mass culture because it gives men too much or makes their life too secure…but rather because it contributes to a condition in which they get too little and what they get is bad" (109). This chapter has explored representations of rationing in search of structures of feeling that might offer us more and better versions of ourselves. This work is hardly finished. For the environmental humanities, this intervention attests that we need to recognize the force not only of radical aesthetic refashioning

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54 Of course, there are those who would argue that we need to bring home the facts about environmental boundaries above all else, that thinking about them as anything other than final and irrevocable damages our cause. But my sense is that changing our habits from automatic consumption to something more thoughtful, attentive, and less materialistic, requires precisely the sort of dynamic thinking that these authors offer. We need this kind of imaginative, provocative writing not because such language obscures the limits we face, but because it better indexes our entanglement, our knottedness, to the world around us.

(for good or ill), but also more quotidian change, the possibilities of shifting the good life through the things we buy, the pleasure we take in them, and the desires we feel for material things. That work begins by accepting the burden of a new politics. For environmentalism as much as economics, human needs have remained a foundational assumption, unquestioned and often relied on unthinkingly. Yet in seeking to avoid our planet's limits, there may be no discussion so necessary as that which we have over what humans need and want. The truth of our needs, and the truth of what they may become, will depend on the extent to which we can stop thinking about human beings as we have, and start thinking about them in more supple, free, and imagined ways. We have much to gain from this kind of imaginative work. At its best, it might offer us what Fisher described as "a sensitive and thoughtful system of deliberate choice," the ability "to weigh values, not only sensual but spiritual" (165).

II – Global Environmentalism, Difference, and Shortage in Two Apartheid Fictions

Fig. 1. The "Blue Marble." Taken from Apollo 17 on its way to the moon, December 17, 1972.

South Africa is almost dead center in the "Blue Marble," one of the images that made environmentalism global.[55] Yet for those who inscribed it on flags and posters, buttons and book covers, it was the conjuring of the Earth as whole (precisely not the presentation of particular places) that made Blue Marble the right symbol for their emergent movement (Sachs 22). Greens were moved by the rounded, undivided edge of the planet: the stark contrast between the planet's luminous glow and the black death of space powerfully demonstrated our collective limits, a possible union and a fated frailty. That sense of shared finitude and fragility inspired some of the best known environmental metaphors during the 1970s and 1980s: lifeboat, spaceship, and small

55 The composition was random, the product of Apollo 17's witching-hour launch time, orbital rotation, and moonshot trajectory (Heise, *Sense* 12).

planet.[56] For the activists who took up this discourse and promoted Blue Marble, it seemed to matter little just what parts of the Earth were in the frame.

In hindsight, however, this doubled, clouded view of South Africa—at once occluded from environmentalism's global turn and in the center of it—seems deeply unsettling. Blue Marble was deployed to heighten awareness about resource shortages, population bombs, and environmental degradation: planetary boundaries that were seen as global concerns, to be registered and addressed by all human beings. Thus Garrett Hardin describes an abstracted, global "commons" and the Stockholm UN Conference on the Human Environment encourages the "[safeguarding]" of the "natural resources of the Earth." Unmoored from any particular history, space, or social identity, Hardin's rational economic allegory echoes the United Nations' sense of global responsibility: environmental thresholds were seen as linking together in common cause lands and people who had little in common.[57] Yet at the very moment when our planet's limits were touted as universal imperatives, things which everyone ought to be worried about, some 70 million South Africans lived destitute lives under the apartheid regime. At the same time when greens deployed Blue Marble to promote an aesthetics of relinquishment—encouraging people to use less—black South Africans desperately needed more.[58] A second glance at one of the most reproduced images ever, then, reveals what talk of global

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56 Garrett Hardin coined the phrase "Lifeboat Ethics" to describe resource distribution in 1974. While "Spaceship Earth" originates as early as the 1870s, it was revisited by, among others, Buckminster Fuller in his Operating Manual for Spaceship Earth (1968). Frances Moore Lappe's *Diet for a Small Planet* (1971) is one of several works to employ this phrase.
57 See Nixon's insightful analysis of "The Tragedy of the Commons" in *PMLA* (2012).
58 The "aesthetics of relinquishment" is Lawrence Buell's phrase.

environmental limits occludes: only by effacing the terrible want of millions could our planet's boundaries seem like a universal problem, or material relinquishment a viable aesthetics.[59]

My first chapter analyzed war-time representations of human needs, a key part of the "social order" implicit in many versions of the environmental imagination of limits. Advancing some thirty years, this chapter turns from the city and the empire to the country and the (post)colony in order to consider other aspects of that social order: the universal, globalizing imaginary that dominated in the 1970s and subsequent decades. Building on the insights of postcolonial ecocriticism, I argue that two apartheid-era novels by white writers—Nadine Gordimer's *The Conservationist* (1974) and J.M. Coetzee's *Life and Times of Michael K* (1983)—qualify and complicate our thinking about shortage and scarcity, perhaps the best-known forms of environmental limit. While running out of things was presented by the global north as everyone's problem (an argument co-opted by the apartheid government to blame overconsumption and overpopulation on the black poor), through the deployment of particular literary forms, these works show how environmental limits emerge from particular (unequal) racial, economic, and gendered distributions of power. I argue that Gordimer uses modernist parataxis in order to juxtapose global versions of shortage with local ones, and show how a lingering realism in the midst of Coetzee's postmodern tale undermines environmental aesthetics predicated on relinquishment. Together, *The Conservationist* and *Life and Times of Michael K* (hereafter *LTMK*) demonstrate that our planet's finitude and fragility must be understood in terms of asymmetrical relations of power, and they figure environmental limits in relation to the diverse human beings who encounter them.

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59 Wolfgang Sachs argues that images like Blue Marble flatten social particularities. For Sachs, such images present the Earth as an undeniable "physical unity," "directly implying social unity" (114). See also my commentary below on Spivak's "global" and "planetary" distinction.

This chapter is, among other things, a study of shortage, by which I mean people not having enough of what is needed.[60] As most of the world's poor know too well, shortage happens everywhere. To avoid the astronaut view of things, however, one must get specific: and there is good reason to situate this analysis in South Africa, and in apartheid literature, in particular. As environmental historians Jane Carruthers, William Beinart, and Mamphela Ramphele argue, South Africa has a long and particularly fraught history with conservation, a story that has too often been reduced to the transplantation and imposition of European and American methods on African soil and people. The country's arid landscape, apartheid attempts to depoliticize environmentalism, the influence of pastoral and romantic writing, the competing lineages of white, colonial conservation and indigenous land use, the deracination and rapid urbanization that marked life under apartheid, and especially the stark economic disparity between wealthiest and poorest (a division that continues today), makes South African culture a powerful test case for a study of shortage literature. Perhaps most relevant to the review at hand is the way in which global environmental aesthetics were translated and revised during the apartheid regime, adopted by some white conservationists as justification for racial control, and challenged, both by Coetzee and Gordimer and by millions of other South Africans.

Beyond this chapter's assessment of the environmental imagination of limits, I propose that representations of shortage in *The Conservationist* and *LTMK* can help us better understand the relationship between material need and green aesthetics, a key fault line in the environmental humanities. In the decades since these two novels appeared, ecologists, historians, sociologists, and ecocritics have debated the rightful place of human interests in their work, a conflict often

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60 The *Oxford English Dictionary* defines shortage as "Deficiency in quantity; the amount by which a sum of money, a supply of goods, or the like, is deficient." I employ shortage to signal a *relation* between people and things; scarcity, on the other hand, suggests a fact about the amount of things in the abstract ("Scarcity").

reduced to a binary choice: "anthropocentric" or "biocentric," "full stomach" conservation or the "environmentalism of the poor."[61] While too much scholarship still relies on these rough distinctions, or even purports to know a global green (tempting, in a moment of transnational "slow violence" and climate change), this reading builds on the theories of Gayatri Spivak, Édouard Glissant, and Ramachandra Guha, scholars who propose that the promise of global environmentalism can be realized only through the recognition of racial, political, aesthetic, and economic difference. Thus, Glissant argues that an "aesthetics of the Earth" capable of reconciling social and nonhuman deprivation must be one of "disruption and intrusion" (*Poetics* 151). Likewise, Spivak's much-cited distinction between globe and planet endorses "planetary" studies wherein "alterity remains underived from us" (73), a kind of knowledge-making that is necessarily "responsible, responsive, answerable" to the pluralities of experience (102). Taken together, these critiques of what Spivak calls an "unexamined environmentalism" indicate that resolving seemingly opposed social and ecological concerns means seeking new and perhaps unrecognizable models of sustainable life and art (73).[62]

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61 On Deep Ecology's distinction between "anthropocentric" and "biocentric," see Guha's "Radical Environmentalism." Martinez-Alier and Guha distinguish between northern, "Full stomach" and southern, "empty-belly" environmentalisms in *Varieties of Environmentalism* (1997).

62 Recent literary studies in postcolonial ecocriticism have added much-needed nuance to our understanding of this nexus. Building on the groundbreaking work of Guha, Madhav Gadgil, and Joan Martinez Alier, Rob Nixon's *Slow Violence and the Environmentalism of the Poor* (2011) contends that environmental justice movements in impoverished communities combine their "green commitments" with "other economic and cultural causes" (4). In stressing the "mutually constitutive relationship between nature and empire" (20), Elizabeth DeLoughrey and George Handley advocate for scholarship that "[engages] the complexity of global environmental knowledges, traditions, and histories in a way that moves far beyond the discourses of modernization theory on the one hand, which relegates the global south to a space of natural poverty, and the discourse of colonial exploitation on the other, which relegates the global south to a place without agency, bereft of complicity or resistance" (19).

These apartheid-era novels offer us two of those models. In what follows, I show how *The Conservationist* refutes both particular versions of mainstream South African conservation and global narratives that figure overconsumption as a product of poverty. Alternatively, while *LTMK* has been read (by Gordimer, no less) as an environmental text sheared of all connection to particular histories, I offer an account of that novel's lingering biophysical realism, a kind of environmental entanglement centered on Michael's hungry body, rather than his relinquishments and his refusals. My analyses of both works demonstrate that fiction can create environmental aesthetics that avoid the risk of "overworlding"—either the problematic assertion that environmental aesthetics produced in the metropoles of the global north are universal, or the simultaneous risk of silencing postcolonial voices through reversions to resistance narratives.[63] This research therefore participates in both postcolonial and economic turns in the environmental humanities, an interest in how we might identify new forms of environmental imagination while taking account of alterity and difference, consumption and relinquishment, shortage and plenty.[64] Drawing on these insights, my study shows that these authors present shortage as an evocative and deeply necessary site to rethink our conception of a bounded planet.

63 On "overworlding," see Loomba (1991). This is an increasingly important intersection for postcolonial ecocritics. See DeLoughrey (2014).

64 This approach differs from recent contributions by scholars such as LeMenager, Imre Szeman, and Carruth, which attend to particular charismatic commodities (oil, in the case of LeMenager and Szeman, food for Carruth). These persuasive studies formulate the relationship between humans and the things they need as inherently emotional, aesthetic, and environmental.

A World in Hand

The Conservationist (1974) begins with the image of a fragile world held in a black hand: "The eggs are a creamy buff, thick-shelled, their glaze pored and lightly speckled, their shape more pointed than a hen's and the palms of the small black hands are translucent-looking apricot-pink" (8). Arriving on a Sunday morning at his farm, the novel's protagonist finds his black workers' children in a "nest" that they have made, playing with a clutch of guinea fowl eggs. That Mehring, a white Johannesburg industrialist, bird lover, and hobby farmer at first sees *only* the eggs denotes the myopic concerns that he shares with early 1970s apartheid environmentalism. He cares for a disappearing "nature," not these "picannins" (11). But in the whole image that Gordimer renders—impoverished black children intermingled with this delicate resource—the novel defies that dominant ideology, and the false opposition Mehring draws between concerns for people and the nonhuman world. In its opening lines, *The Conservationist*, if not its protagonist, begins to reimagine what green aesthetics might look like.

By beginning with this moment of misreading, Gordimer's Booker Prize-winning novel brings together its two environmental projects: an ironic one (whereby Mehring's antihuman conservation aesthetics are exposed as necessarily historical, political, and limited) and a revolutionary one (which centers environmental imagination on the precarious relationship between people and the world they depend on). In this reading, I will argue that it is through the language of shortage—moments when literary bodies find the world wanting—that *The Conservationist* pursues both of these ends. Walking away from the farm gate, Mehring thinks, "A whole clutch of guinea fowl eggs. Eleven. Soon there will be nothing left. In the country. The continent. The oceans, the sky" (10). These neo-Malthusian anxieties (the farmer's globalized fears about running out of things) indicate Gordimer's deep understanding of green thinking as it

emerged during grand apartheid, popular ideas about resource limits, the supposed opposition between the poor and the planet, and concern for wildlife.[65] But the novel goes beyond a mere indexing of this ideology: the exaggerated equation of eleven eggs with all of the world's resources, the elision of black desire, need, or right ("there will be nothing left"), and the misreading of the children's game for a voracious overconsumption by black South Africans testifies to the ironic distance between the narrative and its protagonist. Crucial, though, is the implicit alternative: for if the farmer is wrong, and the black children are not going to consume the finite world, then what kind of relationship might they have with the eggs, the Earth?

Gordimer's nascent answer to that question must be sought amidst a particular milieu. *The Conservationist* presents a record of environmentalism under apartheid, an indictment of a purportedly "a-political" movement that encouraged empathy for the nonhuman, even as it sanctioned laws like the Reservation of Separate Amenities Act of 1953, which prohibited non-whites from accessing parks.[66] For conservation organizations dedicated to the protection of wildlife and wilderness, black people were alternately excluded from the realm of concern and considered a threat (Khan "Soil Wars" 440, 443). Yet if Gordimer's novel emerges from and responds to a historical moment, it is also always an aesthetic experiment. As in *Life and Times of Michael K*, Coetzee's 1983 implosion of the farm novel genre (the *plaasroman*), *The Conservationist* features a popular and literary understanding of environmental culture, not a scientific or a legal one. Thus, Mehring is a romantic landscape-lover and amateur ecologist, not a professional; thus, the setting of a farm and the matter of inheritance; thus, the black workers

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65 This account of South African conservation during apartheid builds on the work of environmental historians Phia Steyn, Freida Khan, Mamphela Ramphele, and Jane Carruthers.
66 Steyn, for instance, characterizes the South African environmental movement until 1988 as "apolitical" (393), focused "predominantly on the conservation of fauna and flora" (394). On the significance of the Reservation of Separate Amenities Act, see Khan's "Summary," 162-163.

on that farm, made visible, embedded into the landscape not only by laboring, but also by wanting.

While Mehring certainly considers his farm's workers (and especially the corpse discovered in the opening chapter) to be a menace to the environment, I argue that it is precisely through the impoverished black body that *The Conservationist* reimagines apartheid green ideologies. In particular, the modernist progression of images of shortage and opulence across the novel's sections—between fragments that showcase Mehring's consciousness, those that focus on the compound's workers, and the carefully selected quotations from Callaway's *The Religious System of the Amazulu*—confronts both the farmer and the reader with precarious lives, demonstrating the necessary imbrication of social and environmental degradation.[67] What emerges is an alternative environmental aesthetics that insists on the dynamic relations of people to the world they rely on.[68] As a form of precarity that discloses social and environmental

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67 In a 2009 essay, Judith Butler defines precarity as "That politically induced condition in which certain populations suffer from failing social and economic networks of support and become differentially exposed to injury, violence, and death. Such populations are at heightened risk of disease, poverty, starvation, displacement, and of exposure to violence without protection. Precarity also characterizes that politically induced condition of maximized vulnerability and exposure for populations exposed to arbitrary state violence and to other forms of aggression that are not enacted by states and against which states do not offer adequate protection. So by precarity we may be talking about populations that starve or who near starvation, but we might also be talking about sex workers who have to defend themselves against both street violence and police harassment" (ii). See also Butler 2004, 2011, 2015.

68 This entanglement intimates that what are often considered separate interests in Gordimer's oeuvre—a geocentric politics and a preoccupation with the individual body—here function in concert. Irene Gorak, for instance, finds *The Conservationist*'s condemnation of apartheid's spatial controls overshadowed by a "vision of human intimacy and openness," and the interest in Mehring's sex-charged consciousness in particular (250). In a less caustic appraisal, Dominic Head argues that Gordimer's hybridized literary identity is constructed around the "recurring themes" of a "politics of the body in which trans-racial relationships challenge the fundamental principles of apartheid" and, alternately, a "preoccupation with questions of space, an extended fictional deliberation on the geopolitics of apartheid and its policies of spatial control" (xii). As I

interdependence, shortage offers a more concrete affirmative aesthetics than has been attributed to *The Conservationist*, which many critics see as supplying only a mythic redemption, not a material one.[69]

Games Conservationists Play

> Valley of plenty is what it is called;
> where little children display their nakedness
> and stumble around on listless limbs
> ...where mothers plough their dead fruit into the ground
> their crone breasts dry of milk
> ...where menfolk castrated by degradation
> seek their manhood in a jug
> of wine as brackish as their bile
> -from James Matthews's "Valley of Plenty"; extract as reprinted in Gordimer's essay "New African Poets" (221)

In a 1973 review, Nadine Gordimer lingers over this poem, a lyric that indicts the apartheid government's resettlement programs through the juxtaposition of sham abundance and real, terrible want. Where the regime promoted a brazenly false image of the Bantustans as places of plenitude, stability, and cohesiveness, Matthews upends that ideal by figuring human deprivation.[70] In the novel that she would publish just a year later, it is clear that Gordimer took something from this method, this mode. Indeed, *The Conservationist*'s key image—a never-quite buried black body discovered in the opening pages—can be read not merely as a sign of apartheid's spectacular violence, but also of its commonplace dispossessions. Although he was

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argue here, however, the presentation of shortage in *The Conservationist* joins these interests in the spatial and the personal.

69 Rob Nixon ("Nadine Gordimer"), Gorak, and Stephen Clingman each posit the novel's ending as a symbolic or immaterial redemption.

70 On the apartheid regime's account of Bantustan "prosperity," see Beningfield 167 and following.

likely killed for his weekly pay, the refrain that there is "nothing for this man" makes clear that crushing resource poverty has played a prominent (if indirect) role in his death (15). From the novel's first pages, then, Mehring's idealized landscape is marred by a profound image of want: a man who had nothing.[71]

Of course, this is not what the farmer had in mind. When he first sees his future property, Mehring thinks of it as a "place to bring a woman" (38). After his affair with the married Antonia dissipates, however, the farm becomes a place to get away to, a rural retreat distinct from the complications of Johannesburg's bustling industry and the clamors of an active social life. On this "old plaas," the pig iron industrialist sets out to "[enjoy] the simple things of life that poorer men can no longer afford" (20), to whisper shards of poetry to the wind, and, not least, to preserve a bountiful, productive place. The preservation of opulence and the avoidance of shortage are particular obsessions for Mehring. When his lover suggests a wilderness approach to the farm ("If I had your money," she tells him, "I'd buy it and leave it just as it is"), Mehring responds, "No farm is beautiful unless it's productive" (64). Despite the fact that his personal economy is de-coupled from the land (he can write off any losses), he is, as we have already seen, deeply concerned about the quantity of certain animal species, and expresses similar worries about plant bulbs (166) and crop yields (19). Thus, Mehring's idyll (and his ideal) are not merely predicated on beauty, but also on bounty.

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71 To understand why Gordimer turns to conservation at this moment, the travel essay "Pula!" is also of interest. In that text, she sums up a visit to a game park in Botswana by calling the new language of environmental studies a "fashionable vocabulary," and shows it to be malleable and in flux, buffeted and appropriated by competing interests (90-103). This assessment suggests that Gordimer saw conservation as a vehicle for revolutionary politics that could attract a wide swath of potential readers: liberals in the United States and Europe, existing conservationists in South Africa, even those who seemed excluded from this discourse altogether.

As many readers have argued, however, *The Conservationist* is not the story of Mehring's idyll. It is the story of how that idyll falls apart. In the gap between what Mehring wants and what he gets, and what he fancies himself and what he is, scholars have located Gordimer's sharp critique of apartheid society and its aesthetic underpinnings. The intrusion of the corpse is, for Dominic Head, the sign of "the dissolution of the colonizer" (99-100), and Rita Barnard appraises the proliferation of "trespassers and trash" as evidence that the work is an antipastoral, a mockery of Mehring's preference for a clean, well-ordered place (85-90). For these and other readers, conservation in the work functions analogically: Mehring's environmentalism is really a cipher for colonial power (Head), gendered exploitation of land (Nixon), or apartheid's "politics of division and separation" (Barnard 93). Yet as recent appraisals by postcolonial ecocritics indicate, there is good reason to think that Gordimer's ironic project extends also to historical conservation and environmental aesthetics in their own right, a claim that takes on new resonance when we consider how the novel juxtaposes Mehring's idealized landscape with figures of embodied want.

For example, when he leaves the children at the farm's gate, Mehring sets off to find his head herdsman, Jacobus. The farmer is keen to lay down strict rules about the children's use of the guinea fowl eggs. Before admonishing his underling, Mehring thinks of the guinea fowls as "game birds" (11). He then tells Jacobus: "It's not as if [the children] needed them for food. To eat. No, eh? You've got plenty of fowls. They're just picannins and they don't know, but you must tell them, those eggs are not to play games with." Alternatively boastful about his expert nature knowledge and disdainful of the ignorance of others, Mehring views the children and Jacobus as childish; "they don't know" the importance of the birds, and are merely "playing" with them. But the pun on "game" inverts these roles, making Mehring the child, and putting his

expertise in question. The irony here (underscored by the pun) is in the distinction between Mehring's claims to specialized environmental perception and the ways in which the real resists and eludes him. In these lines, the farmer's concerns about shortage are doubly misplaced. On the one hand, we learn later that there are plenty of birds on the farm (102). More seriously, though, the fact that the children *do not* have enough to eat exposes the farmer's blinkered perspective: he is deeply concerned by the thought of running out of birds, but he fails to see the children's lack as equally imperative.

Moments like this one—which reveal Mehring's historically-accurate conservation priorities—lead ecocritics including Byron Caminero-Santangelo to propose that Mehring's conception of nature is bound off from "social processes and from history," and that *The Conservationist* is a "postcolonial critique of certain kinds of environmentalist ideology" (219).[72] Caminero-Santangelo argues that the work exposes the failures of Mehring's "narrow" conservation by making visible the social and political realities of apartheid capitalism which exceed and threaten Mehring's limited concerns (215-216).[73] This framing of the novel in terms of linked spheres—social and natural, economic and political—helps explain why conservation in the novel can sometimes appear analogical: Gordimer's interest in apartheid environmentalism, bound up in character, is never easily distinguishable from her concerns with,

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72 While Anthony Vital only briefly touches on *The Conservationist* in his analysis of Gordimer's other major novel that deals with environmental matters, *Get a Life* (1996), his argument bears on the earlier work as well. Vital argues that *Get a Life* "Figures ecology…as emerging from and resting on the continuation of the same socio-economic order that offers the Earth's prosperous people the delights of…international travel" ("Another" 93). Similarly, Graham argues that "Despite being 'possessed' by the mythic power of 'the farm,' [Mehring's] connection to the land, like his complicity with apartheid's narrative of 'the land,' is more economic than it is ideological" (64).

73 Mamphela Ramphele uses metaphors of scope ("narrow environmentalism") to describe conservation that avoids its relations to social circumstance.

for example, white liberal identity, the *plaasroman* form, or the question of right ownership of the land. But while this critical framing of social and political interests that exceed and expose Mehring's "narrow" conservation is broadly accurate, we might better understand Gordimer's critique by asking what *kinds* of "social processes" the novel figures, and by attending more carefully to the local and global confluences that produce Mehring's separations. As the above passage suggests, *The Conservationist* does not merely demonstrate how environmental concerns are entangled with apartheid society or capitalism *in general*, but rather plays on a distinct fear about shortage and overconsumption, one that has both global and South African roots.

The notion that the Earth was on the cusp of running out of things, and that the "developing world" would push us over the edge, was widely promulgated in Anglo-American environmental circles in the late 1960s and 1970s. Garrett Hardin's 1968 essay "The Tragedy of the Commons" is premised on the idea that we live "in a finite world" and should take action to avoid overconsumption (1243), and exemplifies the "growing influence and legitimacy of the international population control establishment," a sociological discourse that boomed after World War II (Klausen 186). The American biologist Paul Ehrlich's bestseller, *The Population Bomb*, also published in 1968, is explicitly about the dangers of "undeveloped countries," a category that includes "most Latin American, African, and Asian countries" (22). That Ehrlich infamously chooses to open his book with a description of a family visit to Delhi is indicative of his particular social and racial anxieties:

> People eating, people washing, people sleeping. People visiting, arguing, and screaming. People thrusting their hands through the taxi window, begging. People defecating and urinating. People clinging to buses. People herding animals. People, people, people, people. (15)

The specter of "people, people, people, people" of color (which exercised Ehrlich, Hardin, and many others) helped crystalize calls for reductions in population and resource use by

environmentalists in the United States and Europe.[74] In South Africa, these anxieties about the growth of non-white populations and their burgeoning consumption were even more urgently taken up. For outnumbered whites, the idea that their power and resources would be "swamped" by minority groups had long had a name—*swart gevaar* ("black menace").[75] According to Susan Klausen, in the 1960s, the older, "crudely racist discourse" of *swart gevaar* was replaced (though largely repeated) by the "seemingly objective social scientific terminology" of overpopulation and resource depletion (188). As the black birth rate outpaced that of whites, "white survival" became a "dominant issue" in the 1970 national election and helped fuel harsh policies of relocation and calls for compulsory birth control (186-187). Environmentalists were leading proponents of this ideology: the national chairman of the South African Council for Conservation and Anti-Pollution described the rising population of blacks as "the biggest single threat to South Africa today," and argued that the "Destruction of our environment and all our natural resources is being aggravated by a population explosion among Africans" ("Shocking Arrogance of The Pill Moralists").

As both a first-class traveler and a leading industrialist, Mehring is a product of these anxieties, particularly as they manifest in his apocalyptic fears about running out of things. In the early chapter focused on the drought that has been gripping the highveld, for instance, Mehring imagines the coming catastrophe:

> What percentage of the world is starving? How long can we go on getting away scot free? When the aristocrats were caught up in the Terror, did they recognize: it's come to us. Did the Jews of Germany think: it's our turn. Soon, in this generation or the next, it must be our turn to starve and suffer. (46)

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74 See Guha, *How Much Should a Person Consume*, p. 224.
75 For discussion of *swart gevaar* and 1970s population politics, see Brown (1987) and Chimere-Dan (1993).

As in his fears about the farm's eggs ("soon there will be nothing left"), Mehring here prefers the abstract and the analogical to the particular, offering an account of shortage as inevitable and transnational, as if starvation were the product of some divine gambler's toss, the will of distant gods. Such fatalism and the conflation of varied experiences into one, roving, global catastrophe accords well with the neo-Malthusianism of the era, yet Gordimer's novel takes pains to expose the flaws of this thinking. In particular, by juxtaposing Mehring's abstract anxieties with the lives of the farm's workers and the experiences of nearby African and Indian residents, *The Conservationist* satirizes both Mehring's idealized landscape and his fears of coming catastrophe.

Consider the child with red hair, a terrible avatar of want. This figure first materializes during an interlude from Mehring's story—a segment that follows Jacobus to the nearby Indian store: "One of her children carried the baby of the family like a hump on its back. The baby's hair was reddish, the usual symptom of nutritional deficiency when infants become too old to be satisfied by the breast and are given mealie porridge instead" (34). At a later point, the child recurs, this time as seen by the farmer: "There's a baby being carried among them that has light yellow-reddish hair - very ugly. He doesn't remember seeing it before; God knows how many people move into that compound" (103). Barnard reads this disjunction as "Gordimer's most obvious dig at the moral deficiency of an aestheticizing sensibility" (83, footnote 48). But more than that, the irony in this moment plays also on the apposition of Mehring's global, future fears about shortage and the child's present poverty. Shortage *does* appear on the farm, but it takes the form of particular bodies like the child's, starving on Mehring's pleasure property, not the global version he imagined.

Through its attention to shortage, then, *The Conservationist* deploys two forms of irony. The first, as in Matthew's poem, is a simple juxtaposition: the farmer wants bounty, Gordimer gives us dearth—both in the form of the natural disasters which shape the plot (drought, fire, and flood), and in the form of particular, embodied shortage. Yet present, too, is the contrast between Mehring's "expert" claims about environmental catastrophe (which are, alternatively, future-oriented, global, abstracted, pessimistic, racist, and factually incorrect), and the specific, present poverty experienced by black farmworkers like Jacobus and Solomon and their families, and the 150,000 people who scratch out a living in the nearby "location." Shortage, in this formulation, refutes Mehring's logic about deprivation—his twin fears about ultimate finitude ("Soon there will be nothing left") and determinant chance ("our turn to starve and suffer"). Both forms of irony work because *The Conservationist* stresses the economic, racial, and political realities that disrupt the supposedly universal environmental aesthetics of the early 1970s, and especially their South African iteration.

The point of Gordimer's ironic project is precisely this: an insistence on particularity, on difference. For while Mehring imagines the planet's limits on a global scale (he fears a global deprivation, and seeks a "final" connection with a boundless nature), the novel has other ideas. Gordimer's landscape is, rather, interrupted by variable and plural realities, human and nonhuman. It is this attention to difference which both Spivak and Glissant stress so forcefully in order to avoid the flattening of certain forms of global thought, made visible in *The Conservationist* in terms of the neo-Malthusianism of the early 1970s. On first glance, this conclusion would seem to support Vital's claim that the novel "exposes relentlessly the conservation impulse's relation to the social, cultural and psychological contradictions of apartheid" ("Another" 93). But while the novel's irony is inescapable, reducing *The*

Conservationist solely to its critique of the status quo shortchanges Gordimer's timely and revolutionary approach. By focusing attention on shortage—arguably the phenomenon that best links concerns for human and nonhuman degradation—*The Conservationist* not merely undermines existing environmental aesthetics in mid-1970s South Africa; it also creates space for a remaking of green thought.

Relinquishment and the "Authority of the Body"

Before turning to Gordimer's redemptive project and to what it might mean for the environmental imagination of limits, we need to consider a more ambiguous ironic encounter with the era's global green aesthetics. Thus far we have considered Mehring's premonitions of planetary boundedness—"soon there will be nothing left"—primarily as a world view, one with both South African and global roots. Yet Mehring's thinking about the planet's limits is not only a way of *seeing* the Earth (as both finite and consumable): it also implies a kind of politics, a particular approach to land and people. While it is Antonia, not Mehring, who urges a wilderness treatment for the property, the fear of environmental boundaries also prompts the farmer-industrialist to "protect" his land through preservationist efforts. He does not (of course) relinquish his own proprietary control over the place, but rather institutes an even tighter hold over the black people who might otherwise use and benefit from it. Thus, the birds are not to be taken (except for Mehring's pleasure), trespassers are to be banned, and there should be no trash to mar the view. In the face of environmental boundaries, there is a kind of "relinquishment" that Mehring prescribes, and (as in the antihuman conservation efforts of the time) it is required of those who have the least to relinquish.

J.M. Coetzee's 1983 novel, *Life and Times of Michael K* (which also won the Booker Prize) is the story of a Cape Town gardener who, despite his poverty, spends his life trying to

relinquish control over the Earth. After his mother dies in Stellenbosch (the novel is set in a geographically accurate South Africa during a fictional civil war), Michael seeks out her ancestral farmstead and conducts three domestic experiments in the veld, all the while dodging bands of soldiers, work camps, and medical confinement. The first experiment takes place on the Visagie farm, where Michael buries his mother's ashes, kills a goat, and plants a crop of vegetables. His sojourn is interrupted by the grandson of the farm's owners, and Michael flees to the mountains above the town of Prince Albert. There, he attempts a kind of independent living for a second time, slowly starving until he abandons the cave and wanders into town. After stays in a hospital and in a relocation camp, the novel reaches its *locus amoenus* when Michael returns to the Visagie farm and again sets himself to the task of subsistence farming. This third, sustained experiment ends like the second—with Michael terribly malnourished and forcibly confined to medical care, this time back in Cape Town. Departing from Michael's perspective, the novel's second, briefer section is a metafictional monologue by his doctor, often directly addressed to Michael; the even briefer third section concludes the book with the gardener's escape back to his mother's apartment, and, possibly, his death from malnutrition.

As a record or source of environmental aesthetics, Michael's is an inconvenient story for all kinds of reasons. The novel's multitude of allusions (to Kafka, Doestoevsky, the *plaasroman* form, Rousseau, and Defoe[76]) and consistent metafictional commentary complicate any

76 On Kafka's influence, see, for example, Meljac (who identifies "The Burrow" as a central source), and Wright (who focuses on "A Hunger Artist"). Bolin's recent essay argues for connections between novelistic idiocy in Doestoevsky and *LTMK*. Barnard, among many others, has written that the novel is participating in the *plaasroman* tradition. Reading the novel alongside Rousseau's *Reveries*, Michael Valdez-Moses focuses on the importance of reverie as an escape from history. On *Robinson Crusoe* and the novel, see Marais.

assessment of its environmental potential.[77] Further, while this man causes interpretive anxiety for all of his readers (both the characters he meets on his journey and the literary critics who encounter his narrative), his case is particularly fraught for those attentive to questions of shortage and right land use, questions which the novel raises through Michael's attempts to "[live] off the land" deep in the heart of the veld (46). Troublingly, this gardener acts against his bodily best interests, living a life that is hungrier, more difficult, more silent, and more solitary than it has to be. In place of Mehring, a white, wealthy conservationist, Coetzee presents us with a Coloured man who begins his journey with little and ends it with nothing, a man who spends much of the book starving, even as he enacts a strange sort of environmental ethic.

Despite the difficulties in approaching *LTMK*, however, it seems particularly important to think through Michael's case, precisely because it is such an inconvenient text. If conservation during apartheid was largely a project of lessening or reorienting (certain racialized) desires away from the material world (so as to avoid encountering our planet's limits), how can we reconcile that politics with a story like Michael's, one where "ecological" actions are carried to a terrible extreme? Of course, a central question for this section of the chapter is the relationship of language and ecology: if Michael's relinquishments, especially since they appear in a deeply

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77 Despite these difficulties, strong readers have consistently argued that *LTMK* is in some way environmental. Gordimer's widely-cited review posits gardening as the mode of *LTMK*'s resistance to normative history, and, paradoxically, its form of universalist politics: "Beyond all creeds and moralities," she writes, "this work of art asserts there is only one: to keep the Earth alive, and only one salvation, the survival that comes from her." Often read as an *engagé* critique, Gordimer's review takes issue with *LTMK*'s failure to present a forward-looking politics for people ("Coetzee's heroes are those who ignore history, not make it,"), even as it acknowledges the novel's commitment to an Earth-centered one. In critiquing the presentation of a timeless "Earth," rather than particularized South Africa as the site of ecological value, Gordimer's review aligns with her earlier novel's position on environmentalism as a unifying or universal cause: she presents the novel's ecology as the source of an (alternative) politics, yet critiques Coetzee for a lack of attention to historical specificity.

metafictional and postmodern text, are a function of language and not of matter, what kind of relinquishment is that? Does his relinquishment tell us something about literary form, about environmental politics, or both? How must this work of literature mean if we are to learn from it what we cannot learn from environmental science or economics?

To understand Michael's peculiar version of environmentalism, and how it might relate both to apartheid conservation and to the environmental imagination of limits, we need to consider two kinds of language in the work. The first are moments when Michael refuses to use, to eat, or to affect the land. After being told that he would make a good fencer, we learn that Michael

> Could not imagine himself spending his life driving stakes into the ground, erecting fences, dividing up the land. He thought of himself not as something heavy that left tracks behind it, but if anything as a speck upon the surface of an Earth too deeply asleep to notice the scratch of ant-feet, the rasp of butterfly teeth, the tumbling of dust. (97)

The gardener here voices an ethic of impermanence that strongly resembles the antihuman preservationist conservation of 1970s and 1980s apartheid. This language of relinquishment and reduction (refusing to "leave tracks") occurs throughout the middle of the text, both in Michael's own self-assessments (as above), and through the metacommentary of the narrator. Michael's refusal to procreate, his decision not to hunt goats, his abandonment of the farm building (101), his refusal to keep track of the days (68), his choice of temporary tools (104), and even the spatial selection for his dwellings—at the edges and margins of the social—can be seen as evidence of this ethic. But, as Michael Valdez-Moses argues, it is the refusal of food that most links Michael with a romantic, wilderness-influenced aesthetic. Returned to the farm after a stay in a work camp, our man seems to have transcended bodily needs fully:

> Hunger was a sensation he did not feel and barely remembered. If he ate, eating what he could find, it was because he had not yet shaken off the belief that bodies that do not eat die. What food he ate meant nothing to him. It had no taste, or tasted like dust.
>
> When food comes out of this Earth, he told himself, I will recover my appetite, for it will have savour. (101)

Mike Marias, among others, argues that Michael's subsistence experiments constitute a new "relationship with the land," "an overcoming of the separation between human subject and natural object" (40). Building on Adorno's theory of mimesis, Marias argues that K's "commerce with the land is…no longer characterized by negation and transformation" (44-45). Similarly, Valdez-Moses argues that it is Michael's "radical askesis: self-imposed and nearly total starvation" that creates a new relationship between the human being and the natural (144). Together, Valdez-Moses and Marais present the novel's environmental aesthetics largely as a universalist, utopian element in the narrative, centered on acts of human relinquishment. They identify literary and theoretical precursors for this project, and connect Michael's relinquishments with Rousseau, Defoe, and Adorno. But a strong argument can be made that Michael's relinquishments can and should be read historically, against apartheid conservation history on the one hand, and the history of poverty in South Africa, on the other. What does it mean for Michael's case that, in the early 1980s, malnutrition continued to plague non-white South Africans, even as they were blamed for overconsumption and overpopulation, even as new lands were being preserved for national parks?[78] Can we relate Coetzee's novel not only to the literary and theoretical precursors of transcendent relinquishment, but also to these historical, grounded circumstances?

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78 One estimate posits that 15,000 to 30,000 children died each year from malnutrition during apartheid, not counting associated illnesses (*Food and Agriculture Organization* 90).

Michael K is not Mehring. But to some extent he enacts an even more extreme and committed version of the antihumanism that apartheid conservation, faced with environmental boundaries, recommended for nonwhites. To read *LTMK*'s relinquishment aesthetics in historical context might mean taking *LTMK* as precisely the kind of elitist fantasy that Ramachandra Guha condemns as the "fallacy of the romantic environmentalist": a poor man willingly relinquishing what little he has to save the Earth.[79] Such a reading opens the novel to an even stronger version of the critiques voiced by some of its readers: of insufficient realism, quietude, and complicity.[80] At worst, we can see *LTMK* as creating, as Derek Wright memorably puts it, "a hero for the white ecological Eighties" (440), all the more heroic because Michael is poor and non-white. In this reading, Coetzee carries the concerns of Hardin, Ehrlich, and apartheid-era conservationists to their logical extreme: he has given us a poor, Coloured man who does not want to reproduce, who tries his best not to eat, who leaves no marks on the land.

Yet to read the novel solely in terms of Michael's relinquishments is to avoid the ways in which this postmodern novel problematizes these ideas through a lingering biophysical realism.[81] Recall Michael's prophecy: "When food comes out of this Earth, he told himself, I will recover

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79 According to Guha, the "fallacy of the romantic environmentalist," is the idea that "ecosystem people want to remain ecosystem people" (*How Much* 239). When deep ecologists, anti-urbanists, and full-stomach greens envision futures where ecosystem people willingly refuse modernity, technology, and a higher standard of living, Guha argues that such thinking avoids a hard truth: poor people do not want to remain poor; they want to "massively enhance their own resource consumption" (242). Also important, Guha here challenges the *universality* of the relinquishment prescription, not its application in all situations. In other words, Guha argues that overconsumption is a problem, but not for everyone (244).

80 Gordimer argues in her review that "The organicism that Georg Lukacs defines as the integral relation between private and social destiny is distorted here more than is allowed for by the subjectivity that is in every writer" (142-143). See Bolin on the schism in novel's reception between historical readings and interpretations that resist the urge to link Michael's life with politics or history (344-345).

81 Dominic Head first described the novel in terms of its "lingering realism." See "Gardening as Resistance," p. 97.

my appetite, for it will have savour" (101). Food does come out of the Earth, thanks in part to Michael's careful tending. For an instant, as the first pumpkin roasts, as Michael takes the first bites, it seems as though Michael's prediction will come true:

> Now it is completed, he said to himself. All that remains is to live here quietly for the rest of my life, eating the food that my own labour has made the Earth to yield. All that remains is to be a tender of the soil. He lifted the first strip to his mouth. Beneath the crisply charred skin the flesh was soft and juicy. He chewed with tears of joy in his eyes. The best, he thought, the very best pumpkin I have tasted. (113)

The "it" of "it is completed" signals, simultaneously, the drama of nourishment, plot, novel. Perhaps Michael has found what he needs. Grown by his own hand, raised without cost to others and without damage to the Earth, this meal offers something new in the novel's food economy: a sustenance that stands apart. And yet, at a moment of almost-but-not-quite satiety, *desire* intrudes. Despite this meal being the "best pumpkin" he has ever tasted, despite the knowledge that this food has been raised by his "own labour," Michael imagines how much better it might be with just a few of the comforts of modernity: "What perfection it would be with a pinch of salt—with a pinch of salt, and a dab of butter, and a sprinkling of sugar, and a little cinnamon scattered over the top!" (114). The search, it seems, has not ended. Hunger, of one kind or another, still haunts Coetzee's protagonist. Alongside the profound textuality of this moment, a kind of bodily authority exerts itself.

Refusals and relinquishments are characteristic of Michael's life and times: they take up many of the most important passages of the novel; they reflect the conservation aesthetics of his moment; they allude and respond to important intertexts—to Defoe, the *plaasroman*, ideas about African idleness, Kafka, and Thoreau, especially. But in coming to understand the work's environmental aesthetics, the second, equally important kind of language we need to attend to is

the intrusion of hunger in the novel's gardens. Michael's first stay on the farm is cut short by the arrival of the Visagie grandson. But both of his subsequent experiments in attempting to live as a "speck" end with biological necessity—in the form of the symptoms of malnutrition—intruding into his reveries and redirecting the plot of the novel. It is malnutrition that forces Michael down the mountain, back into the care of a hospital (69). It is malnutrition that brings Michael out of his cave and into the hands of the waiting soldiers at the end of the novel's first section (120). It is malnutrition that likely ends the novel with Michael's death. Despite his evident lack of appetite, the novel's lingering realism insists on Michael's headaches and weakness (37); his stay on the farm ends not with a timeless, sustainable connection with the Earth, but instead with his body forcing Michael to return to the social world.

In a much-cited interview, Coetzee speaks about the importance of the body as a site of meaning and power:

> In South Africa it is not possible to deny the authority of suffering and therefore of the body. It is not possible, not for logical reasons, not for ethical reasons…but for political reasons, for reasons of power. And let me again be unambiguous: it is not that one grants the authority to the suffering body: the suffering body takes this authority: that is its power. To use other words: its power is undeniable. (*Doubling* 248)

Coetzee's passionate defense of the body suggests that Michael's hunger is itself a revision of environmental aesthetics, one which connects him to the particular sufferings of South Africa's people. In her review of the novel, Gordimer argues that it is Michael's gardening, recognizably concerned with Earth for Earth's sake, which most connects this novel with green aesthetics, and she critiques the work for grounding its positive politics in such an abstract, universal relation. But her reading fails to see the way in which Michael's need for sustenance in the novel is itself a marker of environmental connection. As *The Conservationist* suggests, the garden of apartheid

conservation was one where human (and especially black) hungers did not count; where preservation-oriented efforts attempted to wipe them away. Despite Valdez-Moses and Marais' posthuman interpretations, Michael's malnutrition is not the point of interruption between this man and nature, but rather his most important connection with it. It is Michael's hunger in the garden, not his relinquishment, which most ties him to the land and people of South Africa in 1983.

To read the novel's environmental aesthetics this way is to emphasize Michael's embeddedness in historical, biophysical realities. Moments when Michael's body asserts itself through the plot of the work point to the edges of the "white ecological eighties"; they stress and expose the "fallacy of the romantic environmentalist" as deeply troubling ("Black Earth" 440). Anthony Vital argues that Michael's hunger is the novel's way of showing nature "writing back" against textuality ("Toward an African Ecocriticism" 98). Read this way, the novel, and not merely the apartheid hospital, becomes a place where "bodies [assert] their rights" (*LTMK* 71). Where the drought, fire, and flood in Gordimer's novel enact a kind of environmental revolt against antihuman conservation through providential weather systems, here it is human nature—the human body—that subverts the dominant environmental aesthetics of apartheid. Environmental limits on the macroscopic scale (population bombs stripping the world of its resources) roused mainstream greens, alarmed Mehring, and prompted a politics of relinquishment; Coetzee's treatment of malnutrition points to a different kind of limit: the edges of human survival. Michael has tried to become, as Derek Wright puts it, the "spirit of ecological endurance" but the novel suggests that the project itself is deeply misguided.

Such a reading necessarily grounds the text in ways that may be antithetical to Coetzee's project. Michael's hunger, after all, is a comedown: the few moments that Michael's body

redirects the plot of the novel are disruptions of his pleasures, even as they prolong his life. At the end of his second sojourn on the farm, realizing how close he has come to death, Michael thinks, despondently, "One cannot live like this" (120). A recuperative reading of the novel's green aesthetics must account not only for that begrudging acknowledgment but also the weight of Michael's willing refusals, his evident pleasure in an unsustainable form of life, and his final, contrarian claim (even as he dies in his mother's damp room), that "In that way…one can live" (184). The choice between these readings—between seeing the novel as complicit in the "fallacy of the romantic environmentalist" or critical of it—is probably a false one. For one thing, either choice grants Michael more autonomy than he has; they attribute choice and politics where it is foolish to find them.[82] Michael is not a rational or irrational human being but a textual construct, wandering through a postmodern novel. And Michael's "ecological choices" (such as they are) must be read with an attentiveness both to the textual quality of his life and times and the circumstances with which the novel engages. His thoughts about the barn, in particular, point towards the war as the cause of his renunciations, rather than care for the Earth. He hides himself and his plants in order to protect them from soldiers. His harelip and slow mind explain his solitude and silence. Perhaps Michael is a version of Kafka's hunger artist, or Doestoevsky's idiot, a solitary walker, the anti-Crusoe, or all of them at once. Perhaps *LTMK* is merely a war novel. Taken together, these objections and alternative interpretations suggest that Michael's renunciations and hungers are thoroughly overdetermined. They point not only towards a relinquishment aesthetic being enacted by a proto-environmentalist and undermined by biological necessity, but also towards a mixture of circumstance and choice, freedom and

82 Doubling down on the earlier critiques of Gordimer and Moses, Bolin writes that "it is a mistake to try to recuperate K in the terms of history or politics" (345).

fatedness, lingering realism and postmodern pastiche. There are strong reasons to believe that this novel cannot offer any coherent environmental politics, complicit or revisionary.

Which has not stopped readers (including this one) from trying. At the end of the novel, Michael struggles for a final time to describe himself:

> I am more like an Earthworm, he thought. Which is also a kind of gardener. Or a mole, also a gardener, that does not tell stories because it lives in silence. But a mole or an Earthworm on a cement floor? (182)

The moment perfectly encapsulates both the novel's provocation and its complicity, the way in which it might be used to reimagine environmental aesthetics, and its reinscription of the status quo. Is Coetzee aligned with a deep ecological separation between the biocentric and the anthropocentric, a divide (as this chapter has argued) mirrored in apartheid conservation? Or is *LTMK* introducing a different kind of ecology, one which would refuse to distinguish between the natural and the unnatural in that conventional way? Why should a cement floor upset Michael, and does the novel share that anxiety? Michael's concern here seems consonant with the romantic project, with a natural/unnatural distinction, a reiteration of Rousseauian primitivism or posthuman biocentrism. This anxiety with the man-made echoes Michael's decision to leave useful tools in the farmhouse because they would outlast him, to abandon the farmhouse itself in favor of a temporary dwelling, his vegetarianism, and his predilections for silence, solitude, and unclaimed landscapes. And yet, perhaps the novel asks this question more seriously than Michael does. If Michael's hungers are the sign of the natural, then the strict division between human and nonhuman, between concrete and Earthworm, are called into question. Yet if *LTMK* offers, as I have been arguing, an ambiguous alternative to the environmental imagination of limits deployed by Mehring and the apartheid regime, Gordimer's earlier novel puts forward an altogether more full-throated and radical version.

Gordimer's Precarious Alternative Environmental Aesthetics

The Conservationist's ironic account of apartheid conservation is part of a career-long analysis of liberalism's failures.[83] What is perhaps most provocative about Mehring, like the historical environmentalism he stands in for, is his conflicted and tenuous liberalism. The farmer *is*, after all, attuned to some forms of occluded life and environmental risk: to the problem of soil erosion, the interdependence of species, and the lives of animals. He is not a static villain in the novel but rather a complex iteration of white identity in apartheid, struggling (and failing) to escape that position, in part through his "care" of the land. His misogyny, racism, and entitled sexual appetites coexist uneasily with these concerns, with a seemingly genuine desire to connect with the farm and with others. Yet while Mehring is ultimately incapable of coming to terms with his relationships with the Earth and black South Africans (missed connections which lead in no small part to his mental break at the end of the novel), through encounters with precarious bodies, *The Conservationist* offers an alternative to its protagonist's tenuous liberalism—an environmental aesthetic that centers on dependence and entanglement, rather than the farmer's would-be separations.[84]

To understand how Gordimer formulates this alternative, we need to look more closely at the novel's presentation of poverty. In a key section that breaks from Mehring's story, the narrative follows the farm's children to their school in the nearby location, where 150,000 people are struggling to subsist. The fragment describes the location, detailing the various survival strategies by which residents keep body and soul together, including scavenging at a dump:

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83 On Gordimer and the critique of liberalism, see Clingman (1992), p. 146 and following. See also Barnard p. 75 (2007).

84 Sarah Nuttall has recently drawn attention to "entanglement" as a key conceptual framework through which to understand post-apartheid South Africa. I turn to her claim in the conclusion of this chapter.

> [The children] do not know what it is they would hope to find; they learn that what experienced ones seek is whatever they happen to find. They have seen an ash-covered forefinger the size of their own dipping into a sardine-tin under whose curled-back top some oil still shone. When the oil was licked up there was still the key to be unraveled from the tin. There have been odd shoes, casts of bunions and misshapen toes in the sweat and dirt and worn leather; a broken hat. The old tyres are the hardest to get because people make sandals out of them. (78)

In these lines, the location's people are shown as profoundly contingent, dependent on socially-produced waste and determined by chance (they seek "whatever they happen to find"). Gordimer's careful elaboration of the means by which these characters endure—reliant on a tiny bit of fat from a sardine-tin, transforming the worn clothing or consumer goods of others into their livelihood—makes their urgent requirements on both the material and the social worlds painfully visible, and shows that the degradation of one is indelibly linked to that of the other.

This emphasis on entanglement and need, on the necessary imbrication of social and environmental lack, stands in sharp contrast to the way in which Mehring thinks and feels, though (as we will see) it bears strongly on how his story ends. In the drought scene, he thinks: "Of course, [the drought] didn't affect him; the river, if reduced in volume, was perpetual, fed by an underground source. The farm didn't depend on surface water"; Mehring subsequently falls asleep and awakes to find himself "breathing intimately into the Earth" (36-37). What happens next signals the farmer's deep discomfort with this intimate relationship: "At this point his whole body gives one of those violent jerks, every muscle gathering together every limb in paroxysm, one of those leaps of terror that land the poor bundle of body, safe, in harmless wakefulness." On a psychoanalytic level, Mehring seems frightened of his relationship to the buried black man, a man who, according to the farmer, "has no claim on him" (12).[85] But Mehring's terror in this moment emerges also from the kind of relations made visible in the location scene: accustomed

85 See Ken Gelder's "The Postcolonial Gothic."

to floating high and fast above the Earth in Mercedes or aircraft, someone for whom a farm represents the "freedom" of "a place to get away to" (21), his dread is also a reaction against dependence on the Earth.

To put it in Judith Butler's terms, we might say that Gordimer figures shortage as a form of precarity that makes visible social and environmental bonds, not environmental limits.[86] In *Precarious Life* (2004), Butler writes that "one insight that injury affords is that there are others out there on whom my life depends," and that "the dislocation from First World privilege" forces one to recognize "an inevitable interdependency" (xii-iii). Building on Levinasian ethics, she argues that these realizations are not chosen, and can in fact be threatening. "What binds us morally," Butler argues, "has to do with how we are addressed by others in ways that we cannot avert or avoid" (130). In a more recent iteration of this thinking, Butler offers "an ecological supplement," proposing that "ethical claims emerge from bodily life itself, a bodily life that is not always unambiguously human. After all, the life that is worth preserving, and safeguarding…is connected to, and dependent upon, non-human life in essential ways" ("Cohabitation" 19).

Butler's theory can help make sense of how Gordimer's account of shortage creates an alternative environmental aesthetics. Mehring's terror animates the claim that precarity can be threatening, and that it supersedes individual will: the farmer tries and fails to separate himself from the lives of others; he similarly desires and cannot be fully de-coupled from the land. But for the reader, too, *The Conservationist* is a record of encounters with those whose dependence on the material world is palpable. By confronting both her protagonist and her readers with precarious people (including Mehring, although there is no sense in which the novel conflates

86 On precarity and the environmental humanities, see Baucom (2012), Pravinchandra (2016), and Gupta (2017).

that vulnerability), Gordimer shows the problem of shortage as profoundly social, anticipating major developments in the economics of poverty.[87] Put another way, as Barnard argues: "The overarching artistic and ethical purpose of the text—one in which the reader is invited to participate—is to construct a new whole, by discovering the relationship between things: between person and place, between subjectivity and material conditions, between country and city" (78). To this compelling account, we should add a caveat: through its modernist form,[88] the novel *forces* readers to come to grips with the nature of social and environmental interdependence; Gordimer structures *The Conservationist* such that these relationships are unavoidable.

The location scene is one of twenty-seven untitled fragments that make up the novel. While the majority of the narrative is related from Mehring's perspective, fragments which attend to the lives of the farm's workers and the location's residents interrupt the industrialist's narrative, eventually taking control of the story entirely. The relationship between these disparate

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87 Writing in part against greens like Ehrlich, in *Poverty and Famines* (1981), Amartya Sen famously distinguished between "starvation statements," which speak to the "relationship of persons to the commodity" and "food supply statements" which "say things about a commodity" (1). Sen argued that starvation was not necessarily caused by scarcity: through a series of case studies, he offered that deprivation was a complex event always embedded in particular social, aesthetic, and political realities—mediating factors between hungry people and what they needed mattered just as much, and often more, than did aggregate quantities for a given resource. He proposed that "the mesmerizing simplicity of focusing on the ratio of food to population has played an obscuring role over centuries" (8).

88 In several interviews, Gordimer notes the ambiguity of this novel's narrative style and associates it with the work of high modernists. She tells Jannika Hurwitt: "I chose to ignore that one had to explain anything at all. I decided that if the reader didn't make the leap in his mind, if the allusions were puzzling to him—too bad. But the narrative would have to carry the book in the sense of what is going on in the characters' minds and going on in their bodies; the way they believed things that they did really were. Either the reader would make the leap or not, and if the reader was puzzled now and then—too bad" (Hurwitt 148-149). In an interview with Stephen Gray, she compares the difficulties of *The Conservationist* to those of novels by Faulkner or Woolf (179).

elements is not always obvious, but there is a logic here. Mehring's meditation on starvation, for example, is engendered by the sight of the farm's children, fetching water in the midst of a drought (36-43). The segment that follows begins with Mehring in the shower, enjoying the rustic pleasures of the farmhouse, including a shower. Side by side, then, Gordimer conjures the children's deprivation of this most basic resource and the farmer's sensual enjoyment of it: "He holds his breath and then gasps, and the water prickles delightfully into his mouth, pinging his tongue" (44). By linking the drought fragment to the next through the persistence of water, the text makes visible the inequity of the farm's economy. Is Mehring's "delight" (like his aestheticized garden) separate from the children's deprivation, or its cause? This jarring transition forces readers to confront the relationship between the children's poverty and the farmer's enjoyment of this material resource.

The novel makes repeated use of this paratactic technique. Sometimes it is particular objects that persist between segments, as when, in one fragment, Mehring begrudgingly gives three cigarettes to Jacobus, and the next opens with a delicate description of the division of the same three cigarettes into six, an almost ritualistic elaboration of the tools and process of making more from the scant supply the farmer has provided (54-56). Other transitions are analogical: Mehring's lustful fantasy about an encounter with a young girl in a hotel room is balanced against a description of another domestic space, the "breeze-block quarters" in which his farm's workers live, better at keeping the rain out than mud homes, but colder, echoing with the incessant "coughing of the children" (28-29). A question from Mehring's lover that ends a fragment—"What's the final and ultimate price of pig-iron?"—is juxtaposed with what reads like an answer: "There was not enough meat on a goat; most who came got only beer" (154-156). An account of the farm workers' meager feast that ends on "the inadequacy of a goat" abuts

Mehring's ecstatic musing on the farm's recovery, his marveling over a prodigious spring (164-165).

Building on Gordimer's acknowledged investment in the theories of Georg Lukács, [89] critics have argued that *The Conservationist*'s modernism serves a mimetic purpose: that the novel's stream of consciousness and its disjunctive elements reflect the alienation and psychological breakdown of its protagonist. Citing Fredric Jameson, Gorak contends that the intensive focus on Mehring's isolated consciousness creates a "distance...between the text and its social formation, a distance bridged by verbal ingenuity rather than any grasp of the social process" (251). While Gorak condemns the entire text on Marxist grounds, Barnard proposes that *The Conservationist*'s modernism signals not so much a general lack of coherence as a particular one: "The novel's form is…expressive of Mehring's 'disjointed consciousness'" (78). Like Gorak, I assert that modernism here is more than a reflection of Mehring's crisis of subjectivity. Yet my account of the fragmented and jarring environmental aesthetic that Gordimer creates runs opposite to Gorak's analysis: the "verbal ingenuity" which characterizes the gap between world and text is, I think, generative, not obfuscatory, obliging readers to recognize the connection between economies of opulence and shortage, and between spaces of waste and those of pleasure. The novel's disjunctions, then, are not so much reflective of one troubled mind as they are of the necessarily varied and enjoined environmental realities of apartheid. The progression of images of precarity and wealth across the novel's segments provides a measure of imagistic continuity across cultural, economic, and aesthetic difference, giving readers a foothold in each segment, and demonstrating the interpenetration of the worlds presented. But these modernist transitions also confront us with precarious bodies and spaces which connect, without conflating,

89 For example, see Gordimer's "Living in the Interregnum."

what appear too often to be disparate concerns. Thus, while apartheid environmental aesthetics were predicated on separations and relinquishments, Gordimer's alternative is centered on connections and needs.[90]

The Conservationist culminates in a flood. Completing the series of natural devastations that shape the plot, the deluge uncovers the decomposing body and triggers a psychological break for the farmer. He flees the farm but stops to pick up a woman, who leads him to what appears at first to be a romantic tryst in a former mine. Here, in this "dirty place, an overgrown rubbish dump between mounds of cyanide waste" (244), Mehring sees first-hand the waste space his industry produces, a place he thinks "doesn't count" (245). An unnamed black man interrupts their assignation and warns Mehring: "It's not safe here…I'm telling you, they leave you naked. You won't have nothing" (248-249). The threat suggests of course both the corpse's fate and the possibility of violent confrontation. But here, too, in our last glimpse of its protagonist, the novel stages one final encounter with a precarious body: Mehring's.[91] While Gordimer takes great pains throughout *The Conservationist* to show that not all bodies are equally precarious, this final

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90 On "relinquishment" and environmental aesthetics, see Buell (1995). While *The Conservationist*'s alternative environmental aesthetics self-evidently differs from forms of full-stomach or biocentric forms of conservation, we should distinguish it also from the environmentalism of the poor, which Martinez-Alier once defined as "a material interest in the environment as a source and a requirement for livelihood" (11). The point of Gordimer's alternative is not to celebrate bare needs as ecologically-aligned, but rather to base an aesthetics in the realization of our (unequally) shared vulnerability.

91 In their assessment of Gordimer's antipastoralism, Graham Huggan and Helen Tiffin propose that the novel distinguishes between a "survival driven" form of ecology and one that is premised more on "possessive individualism" (116). In the end, they argue, because he is "unable to accommodate himself to the changing conditions of a rapidly industrializing South Africa," Mehring discovers that "the two forms are not mutually exclusive" (117). While this assessment of this scene breaks some ground for my own, I would suggest that Mehring is not so much unable to adapt to industry as he is incapable of accepting his dependence on the land and those he must share it with.

scene imagines a reversal: it shows that precarity is a dynamic feedback loop, and intimates that present security is no guarantee of a future one.

But *The Conservationist* does not end with Mehring. In a brief coda, the farm's community gathers to bury the dead man:

> The one whom the farm received had no name. He had no family but their women wept a little for him. There was no child of his present but their children were there to live after him. They had put him away to rest, at last; he had come back. He took possession of this Earth, theirs; one of them. (252)[92]

For Clingman, among others, this conclusion constitutes a rewriting of pastoral. "It is the black world that is most directly connected with nature in the novel," as he puts it, and there is an "organic linkage" and "harmony" between the black community and nature that is sealed when the corpse is reburied in the final fragment (158).[93] But when the narrator proclaims that "There was no child of his present but their children were there to live after him," what kind of "organic linkage" are we to imagine those children creating if they are consistently cold, sick, and malnourished? How "harmonious" can the grouping of land and inhabitants be when the land seems to punish black and white alike, when the inhabitants cannot subsist where they live? If this is, as I have been arguing, a novel that recognizes and represents shortage in order to show our dependent and precarious relationship with the land and with others, there can be no sense in which *The Conservationist* reinscribes pastoral "harmony."

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92 As many readers point out, "he had come back" is a paraphrase of the African National Congress' rallying cry, "Africa! Mayibuye!" On the phrase and censorship of the novel, see Clingman, note 22.

93 See also Gorak (252, 256).

Yet if the farm workers' "possession" is not a new version of pastoral, neither is it the merely "symbolic" redemption that other critics have identified.[94] *The Conservationist* is not a celebration of precarity. It does not commit "the fallacy of the romantic environmentalist" by positing that the resource poor want to remain so, that we should celebrate their vulnerability because it furthers environmental goals.[95] Nor does it make the all-too-common mistake of ignoring differences that matter: of acknowledging that we are all bound to the Earth but refusing to ask why some people are more bound than others.[96] Instead, Gordimer might be said to generate a kind of jarring, wide-ranging environmental imagination that considers the full spectrum of human and nonhuman entanglements, the diverse social and nonhuman order from which environmental limits emerge. Thus, Gordimer's alternative environmental aesthetic challenges those who care about the Earth to conceive of our "possession" anew. In choosing to end her novel on a note of shared connection and inheritance, Gordimer dares her readers to accept the full knottedness of the environmental concern—an interdependence made visible by precarious lives.

How to Make the World a World

At the close of his latest monograph, South Africa-based theorist Achille Mbembe calls for a reinvention of global community:

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94 Nixon, for example, argues that "the narrative's affirmative impulse is borne by mythological ciphers" ("Nadine Gordimer" 231).

95 For more on the "fallacy of the romantic environmentalist," see the titular chapter in Guha's *How Much Should a Person Consume?* (2006).

96 In his account of resource conflicts and environmental justice, Wolfgang Sachs points out that, for some forms of environmentalism, "[their perspective] is so uniformly dark that it is impossible to see any details: no one stands out by virtue of wealth or poverty, power or powerlessness" (28).

> The durability of the world depends on our capacity to reanimate beings and things that seem lifeless—the dead man, turned to dust by the desiccated economy; an order poor in worldliness that traffics in bodies and life. The world will not survive unless humanity devotes itself to the task of sustaining what can be called the reservoirs of life. The refusal to perish may yet turn us into historical beings and make it possible for the world to be a world. (*Critique of Black Reason,* 181)

For Mbembe, an inclusive global future ("the project of a world that is coming, a world before us, one whose destination is universal") will only be realized if we vivify that which is past: "beings and things" which have been made "lifeless" through the forces of racism, neoliberal capitalism, and anthropocentrism (183). The struggle for global community, it seems, depends both on a process of imagining and remembering, of invention alongside invigoration. Writing from Johannesburg, Mbembe thus repurposes the dialectic response of utopianism and haunting that has been crucial to life and art after apartheid, a relationship from which the environmental humanities have much to gain.[97]

By analyzing the novel worlds that Gordimer and Coetzee formulated in response to apartheid-era environmentalisms, this chapter has attempted to demonstrate how *The Conservationist* and *LTMK* anticipate this dialectic in the terms of environmental aesthetics. On the one hand, I have argued that Gordimer exposes the failings of the discourse of global environmental limits, a universalist ideology co-opted by the apartheid government and embodied by Gordimer's protagonist, and that Coetzee critiques the (racial) politics of relinquishment that emerged simultaneously with that ideology. On the other, though, the

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97 On the haunting/utopian dialectic in South Africa, see Martin Murray's *Commemorating and Forgetting* (2012). This is also an important intersection for postcolonial studies more broadly: see, for example, "Time on the Move" in Mbembe's *On The Postcolony* (2001).

paratactic encounters with shortage that structure Gordimer's modernism (and, more ambiguously, Coetzee's lingering biophysical realism) generate nascent alternatives, forms of environmental aesthetics that enliven the bodies, spaces, and interdependencies invisible to Mehring, and to the habits of thinking and imagining that he represents. Despite the failings of the environmental imagination of limits in this era, these authors saw something of value in this field: the potential to join diverse peoples in common cause. Crucially, though, *The Conservationist* and, less clearly, *LTMK* argue that environmental imagination can achieve this promise only through an attention to the bodily experience of individuals, an experience which, while defined in part by an innate precarity, is also always the product of specific social, racial, political, and economic formations. The utopian proclamation of a global environmental community threatened by environmental boundaries means little, these works suggest, if we do not accept that it emerges from a set of diverse and unequal social relations.

It has been more than three decades since *The Conservationist* and *LTMK* were published. Yet these are novels that retain rare purchase on South Africa's contemporary culture and its environmental politics. Coetzee's ambiguous presentation of the body as a site of ecological connection and Gordimer's oscillation between aspirational community-making and the recognition of the weight of racial and economic difference anticipate what Sarah Nuttall calls "entanglement," a condition of post-apartheid life that "speaks of an intimacy gained, even if it was resisted, or ignored or uninvited," and one that "speaks to the need for a utopian horizon, while always being profoundly mindful of what is actually going on" (1). Building on the work of postcolonial theorists (including Mbembe), Nuttall contends that while "the story of post-apartheid has been told within the register of difference," we should recognize the "intricate overlays that mark the present," crossings of temporal, racial, and spatial boundaries. As Nuttall

acknowledges in a brief reading of *The Conservationist*, Gordimer's novel in particular is an important prefiguration of this entangled present in South African literary culture, especially, she argues, through its attention to "surfaces" and "underneaths" (85).

These novels can also help us comprehend the ongoing struggle of South African greens to break from the legacy of apartheid. In recent decades, many NGOs have turned away from biocentrism and preservation, from the idea that the use of resources or human material needs should have no place in green thinking (Khan "Rewriting" 510). Environmental justice organizations such as Earthlife Africa, GroundWork, and the South Durban Community Environmental Alliance now advocate for the "brown" and "red" issues of everyday life, emphasizing housing, pollution, toxic waste, and climate change (Death 1223). Despite this progress, however, the environmental movement in South Africa remains fractured, and many continue to associate it with the elite interests of its apartheid past (1226). Gordimer's and Coetzee's challenges to their country's environmental movements—the appeal to broaden the sphere of concern beyond wildlife and wilderness to include the quotidian realities of human life—remains a work in progress.

So too is the project of global environmental aesthetics. Responding to the ominous effects of global warming and the declaration of the Anthropocene, in the last decade, theorists have formulated new paradigms with which to conceptualize the global precarity of our present moment. Dipesh Chakrabarty, among others, has ignited a vigorous debate over the nature of this environmental threat, the emergence of new forms of collective human agency, and the adequacy of postcolonial studies' central analytic strategies. The conversation that Chakrabarty's "Four Theses" set off has been diverse and complex, and I cannot address it fully here. In the terms of this chapter's intervention, recent work by Shital Pravinchandra, Ian Baucom, Ato Quayson, and

Benita Parry makes it is clear that, for the environmental humanities, the relationship between emergent forms of global community, planetary boundaries, and the continuing relevance of theories of difference remains unsettled and unresolved. While climate change and the Anthropocene are often framed as being without precedent, I want to conclude this chapter by asking whether Gordimer's and Coetzee's responses to an earlier historical moment (responses that are, I have been arguing, particularly germane to South Africa in the aftermath of apartheid) might reorient our understanding of these theoretical debates.

That fears about environmental limits in the 1970s engendered some of the same kinds of thought as climate change, the Anthropocene, and "species thinking" do today should give us pause. Then, as now, particular economic, racial, and gendered organizations of power threatened catastrophe. Then, as now, there were those who saw in that crisis an opportunity to join diverse peoples in common cause, to imagine a new form of worldliness. Yet as these apartheid novels suggests, the pursuit of an environmental aesthetic that might be broad enough for all is a tenuous venture, fraught with risks. Responding to the ideology of population bombs and resource limits, *The Conservationist* testifies that shortage is a form of precarity that creates the possibility for, *but does not necessitate*, new recognitions of interdependence. Gordimer's protagonist, for one, fails to realize them. It costs him his mind. For him, as for the environmental imagination he represents, too much of the world remained dead and lifeless, beyond the sphere of interest or concern. In their bitter ironies, *The Conservationist* and *LTMK* remind us that we must query our ideals, find the limits of our universals, and interrogate our frameworks for facing (and imagining) global problems. To do so is to confront the realities that underlie our "small planet": relations that are jarring and terrible, and show the inseparable quality of our social and nonhuman communities. Which is to say, for environmental aesthetics

to become truly worldly, we cannot detach our conception of shared vulnerability from the inequalities of the past or present, from the badly-buried bodies of history. They are one and the same story, entangled across temporal, spatial, and racial borders, caught up inextricably in one another. These novel worlds, and South Africa's pursuit of new forms of community while reckoning with the traumas of apartheid, suggest that true worldliness emerges only when those forms of occluded life—human and nonhuman, black and otherwise—are made visible and vivid, raised from the dead and considered as equal possessors of the Earth.

III - Feeling Small: Affect and Environmental Limits in Rohinton Mistry's *A Fine Balance*

On June 14, 1972, Prime Minister Indira Gandhi stepped to the podium at the Plenary Session of the United Nations Conference on Human Environment in Stockholm. The leader of the world's largest democracy began her address by outlining India's responsibility for the environmental crisis, and by echoing the transnational rhetoric of many of the dignitaries who preceded her:

> Along with the rest of mankind, we in India…have been guilty of wanton disregard for the sources of our sustenance. We share your concern at the rapid deterioration of flora and fauna. Some of our own wildlife has been wiped out, miles of forests with beautiful trees, mute witnesses of history, have been destroyed. (13)

While this opening made common cause with the conference's other participants, it quickly became apparent that Gandhi's address would be different. In the most stirring and impassioned statement of the conference, the Prime Minister qualified calls for global community and responsibility by insisting that "we inhabit a divided world" (14), and stressed that questions of environmental justice could not be separated from the proclamation of a global environmentalism. "There is still no recognition of the equality of man," she argued, framing the divisions between "advanced" and "colonized" countries as a result of "sheer ruthlessness, undisturbed by feelings of compassion or by abstract theories of freedom, equality or justice." While the wealthiest of the world called for restraint by India and other developing nations, and blamed the appearance of overpopulation, pollution, and resource exhaustion on the world's poorest, Gandhi pointed out that "the increase of one inhabitant in an affluent country, at his level of living, is equivalent to an increase of many Asians, Africans, or Latin Americans at their current levels of living" (17). In closing, she acknowledged that "Life is one and the world is

one," yet the speech was, in sum, a strident call for justice and a defense of postcolonial development as an antidote for environmental problems (20).

Delivered two years before Gordimer published *The Conservationist*, the Stockholm address (generically titled "Man and his Environment") strongly aligns with that novel's critiques of certain versions of universal environmentalism. Gandhi specifically rejects the narrow-mindedness of particular forms of environmental imagination, and especially talk of environmental limits, as when she points out that "The extreme forms in which questions of population or environmental pollution are posed obscure the total view of political, economic, and social situations" (17). Yet beyond its critique of hasty proclamations of global unity, the speech is also a passionate plea for a more capacious understanding of the problem at hand, one which directs attention to an aspect of environmental thresholds that this dissertation has yet to consider. In the early decades of postcolonial India, as elsewhere, the Prime Minister argued, a "reckless exploitation of man and Earth in the name of efficiency" was fundamentally responsible for the crises of water, population, pollution, and deforestation (17). But solving those issues, she urged, must mean viewing them as something more than merely technical or mechanical matters: it required, rather, "a change of heart" (21).

Gandhi's insistence that the green movement attend to *affective* dimensions was surprising in the context of the United Nations, where techno-scientific solutions were the order of the day. Yet her call for an emotional engagement with environmental matters was not entirely distinct for the era. In particular, many of the green groups that arose in the 1960s and 1970s were strongly associated with powerful, passionate emotions. While partially rejected by both Gordimer and Gandhi, images of whole or small Earth were deployed in order to inculcate an ethic of care and concern across national boundaries, an aspirational universal feeling. On the

other end of the global-local spectrum, social justice movements like Chipko emphasized the sacredness of relationships that inhere in particular places, and encouraged a loving relationship to one's home.[98] A third category of environmental feeling during this time appears in the apocalyptic anxieties and fears promoted by greens like Paul Ehrlich and Garrett Hardin.[99] Yet Gandhi's call for a "change of heart" as the answer for environmental degradation directs attention to feelings that stand apart from these stronger, more dominant emotions. Instead, the Prime Minister sought to change quotidian emotions that, cumulatively, shape human encounters with the fragile, finite planet. As Gandhi indicated, those emotions arose not from specialized knowledge of environmental phenomena, but rather from contact with them (direct and oblique) in everyday life.[100]

In this chapter, I build on recent work in affect studies in order to understand the emotional toll of encounters—imagined and experienced, in the past, present, and future—with our planet's boundaries. I ask: How do environmental limits make us feel? What kinds of affective states, emotions, and feelings emerge from the appearance or intimation of overpopulation, resource exhaustion, species extinction, and climate change?[101] Are these feelings best understood as personal, confined to and experienced by individuals, or as

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[98] On the Chipko movement and place attachment, see Guha (2000).

[99] Ursula Heise argues that apocalyptic environmental narrative "paints dire pictures of a world on the brink of destruction as a means of calling for social and political reforms that might avert such ruination" (*Sense* 141). See also Killingsworth and Palmer (1991) and Frederick Buell (2003).

[100] In calling for a "social revolution" Gandhi evidently spoke to the whole of her people, not merely the expert class.

[101] As Jonathan Flatley elaborates, there is a long and complicated history of terminology related to affect studies. While I will have much more to say on affect theory later, in what follows I use the terms "affect," "emotion," and "feeling" interchangeably, in each case indicating a relational mode wherein feelings are neither entirely the product of external stimuli or the result of internal developments. For more on this choice, and on the terminology of affect studies more generally, see Flatley's "Glossary," and especially p. 12.

something more general, a "structure of feeling" that supersedes individual consciousness? Insofar as environmental limits are mediated by social, political, and technological factors, we also need to consider how (and whether) the affective force of environmental boundaries can be meaningfully distinguished at all. To answer these questions, I will show how imaginative writing—and in particular one Anglophone Indian novel—can help us to understand the political effects, potential, and consequences of this affective nexus. In doing so, I hope to expand the scope of what we consider environmental affect, and especially to see how socially and aesthetically mediated environmental phenomena exert agency in subtle, immaterial forms. One of my central claims, then, is that environmental boundaries can be felt before they are seen, or even felt by those who do not see them at all.

Beyond historical analysis, this chapter's assessment of the emotional effects of environmental boundaries is an urgent task, one with personal, national, and global stakes. This chapter traces a kind of environmental feeling that matters more today, in more areas of the world, than Gandhi could possibly have imagined.[102] As we continue to encounter what Amitav Ghosh has recently called "nonhuman constraints,"[103] we will need a renewed focus on the rhetorical, affective, and imaginative dimensions of our environmental crises (218). But in this chapter I turn to affect while maintaining this dissertation's commitment to historical, cultural, and aesthetic specificity. In considering what present politics stands to gain from an analysis of historically distant experiences and aesthetic projects, I am not claiming that environmental limits generate consistent, homogenous feelings across time, culture, and space. As Gordimer and Coetzee's work testifies, the differences matter, though we must remain open to that which is consistent as well. This chapter's method, then, is to study patterns of feeling in specific

[102] Gandhi's environmental commitments are a subject of controversy. See, for instance, Jairam Ramesh's 2017 biography, or Mahesh Rangarajan's article, "Striving for Balance" (2009).
[103] See Ghosh's *The Great Derangement*, p. 119.

literary and cultural context. By doing so, I hope to understand what is collective and specific, distinct and general about the feelings that arise in the face of environmental limits.

I pursue this line of inquiry through a reading of Rohinton Mistry's *A Fine Balance* (1995). Shortlisted for the 1996 Booker Prize and winner of 1995 Giller Prize, Mistry's second novel is the story of a strange and miraculous family living through the turbulence of Indira Gandhi's "Emergency," a period of social and political unrest that arose in part because of an economy staggered by the 1973 energy crisis and persistent drought.[104] A novel firmly grounded in the bodily realities of 1970s Bombay, *A Fine Balance* brings together four people: two lower-caste tanners-turned-tailors seeking work, a widowed entrepreneur fighting to live on her own, and a student looking for his place in modern India. The novel is simultaneously an account of the tenuous family-unit that they form in order to survive, and of the social and environmental circumstances which constrict these characters' lives. The "fine balance" of the novel's title suggests the forces of contingency and chaos which generate many of the chance encounters that structure the plot. But the titular phrase also indicates the delicate balance between despair and joy experienced by the novel's protagonists, emotions which depend in no small part, Mistry suggests, on the possibility of positive futurities. Environmental limits appear in the novel both as direct pressures (a shortage of housing, pollution, deforestation, and overcrowding), but also in the guise of the family planning and economic development measures promoted by a lightly fictionalized Gandhi administration, policies deployed in order to avoid overpopulation thresholds and kick-start economic growth.[105] Mistry brings an ambitious realist scope to bear on the characters in *A Fine Balance*, individuals who struggle to reconcile desires for growth,

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[104] For a concise history of the emergency, see "The Rivals" in Guha's (*India After Gandhi*, 2007).

[105] Of course, these mediated and direct iterations of environmental threshold are registered affectively in different ways. This chapter seeks to differentiate and identify those differences.

progeny, and happiness with forces beyond their imagination or control. In sum, the novel indicates that encountering environmental limits has profound affective consequences, especially for how people feel about their own agency and futurity. I call this chapter "feeling small" because figurations of character, tone, and image in *A Fine Balance* show that environmental circumstances cast long affective shadows: persistent, non-cathartic feelings of anxiety and constraint whose political potential remains ambiguous.

Mistry's Bombay: Life on the Edge

A Fine Balance begins like this:

> The morning express bloated with passengers slowed to a crawl, then lurched forward suddenly, as though to resume full speed. The train's brief deception jolted its riders. The bulge of humans hanging out of the doorway distended perilously, like a soap bubble at its limit. (3)

Aboard this crowded train, Maneck Kohlah, a student on his way to investigate a room to let, bumps into Ishvar and Omprakash (Om) Darji, two tailors seeking employment. While their encounter serves to introduce three of the novel's four protagonists (the fourth awaits them at their shared destination), the scene also announces the central motifs in the work. On the one hand, contingent events (chance meetings like this one) will play an important part in the novel, deployed at key moments to advance the plot and connect diverse elements of the story. On the other, the comparison of the passengers crammed on the train with a "soap bubble" lingers on the somatic stresses of a crowded urban environment, a kind of anxiety-producing imagery that looms large in Mistry's unnamed metropolis (a fictionalized Bombay).

A Fine Balance is a largely linear account of these four characters' lives, related by a restrained and detail-obsessed narrator. In 18 chapters (moving from the 1975 of the prologue to the 1984 of the epilogue), the novel conveys the halting progress of Maneck, Om, Ishvar, and

Dina, who eventually form a quasi-family in Dina's two-room flat. The opening six chapters are fragmented, with three lengthy portions interrupting the main narrative to provide personal and ancestral histories for each of the protagonists (the origins of Ishvar and Om, as uncle and nephew, are joined in the third chapter, "In a Village by a River"). The remainder of the work is dedicated to the joined fates of these four. Along the way to presenting a new family, the novel features Dina's transformation from glowering manager to welcoming head-of-household, Maneck's growing depression following the political murder of his friend and a schism with his father, Ishvar's persistent efforts to maintain an optimistic outlook, and Om's skepticism about achieving any kind of sustainable future. Yet *A Fine Balance* is also crammed with other figures and set-pieces, including the stories of Beggarmaster (a Fagin-esque underworld organizer) and his employee/brother Shankar, a parodic account of an Indira Gandhi rally, and, in the novel's conclusion, a depiction of a forced sterilization, the kind of horror story that made the emergency notorious.

Appearing in the wake of Salman Rushdie's *Midnight's Children* (1981), *A Fine Balance* sits uneasily amidst the conventional trajectory of Indian Anglophone writing. As Ulka Anjaria argues in her recent assessment of the field, most scholars consider Rushdie's masterpiece to mark a major shift in the Indian novel form: by privileging a modernist, postmodernist, and magical realist approach, *Midnight's Children* is said to mark the end of the realist style that characterized the "progressive writing" of the early twentieth century (1). In returning to realist techniques after Independence, however, *A Fine Balance* (and Mistry's career more generally) defies this conventional understanding, and the idea that realism in Indian Anglophone writing died after Rushdie.[106] While Edward Said, among many others, praised Rushdie's work as the

[106] On Mistry's "not-quite-realism," see, for example, Eli Park Sorensen's essay, "Postcolonial Realism in the Novels of Rohinton Mistry" (2015).

epitome of postcolonial resistance (as a novel which rejects imperial influence on the level of culture and imagination),[107] Mistry's novel complicates the triumphalism of that narrative, while nevertheless staking out its own distinct resistance to the forms of Indian nationalism and authoritarianism rejected in Rushdie's more celebrated work.

There *is* a political crisis at the heart of *A Fine Balance*: the seizure of autocratic power by the Gandhi administration with which the work begins (the train's passengers speculate that their delay, caused by a body discovered on the tracks, may be related). At stake in this political moment, as Ramachandra Guha argues, was nothing less than the future of Indian democracy (*India* 495). Having been found guilty of two charges related to election malfeasance and increasingly threatened by Jayaprakash Narayan's anticorruption movement, on June 25, 1975 (a little more than two years after her U.N. address), Indira Gandhi's government declared a state of internal emergency, beginning a two-year "creeping dictatorship" that would result in the jailing of political opposition, the censorship of the free press, and the imposition of several major domestic initiatives, including a "Twenty Point Programme for Economic Progress" (494-508). Most infamously, the administration (with the enthusiastic support of Indira's son, Sanjay) pursued an intensification of the national family planning program that included coercive, forced sterilizations, especially of poor and minority men (Williams 472-3). Mistry's novel presents an oblique history of this period of national and political turmoil, yet its primary focus is the personal, bodily anxieties of a particular place and moment. Thus, while the emergency is never far from view, the diverse family at the center of *A Fine Balance* leads a perilous life on the edge of all sorts of margins and boundaries, threats whose causal relationship to the administration's

[107] Said presents *Midnight's Children* as the epitome of postcolonial cultural and novelistic "resistance," especially insofar as it rejects dominant legacies of realist writing. See *Culture and Imperialism*, p. 216.

declaration remains obscure.[108] These include poverty, deforestation, crowding, pollution, and political oppression. In the city-by-the-sea in which the novel's present is set, all four of these characters exist in tenuous relations, cornered and trapped in physical, economic, and emotional corners. Their anxieties and sense of subjectedness align with the novel's tone more generally, with intimations of impending ruin glimpsed through the narrative's enormous cast, presentation of the emergency, dramas of economy, and, not least, its portrait of a polluted, crowded Bombay.

Speaking together on their way to Dina's house, Maneck and Ishvar reflect on their new home. Maneck points out that while he has been in the city for two months, it remains "huge and confusing" and he can "recognize only some big streets" (7). For Ishvar, on the other hand, Bombay is much worse than confusing: "What is the use of such a big city?" he asks. "Noise and crowds, no place to live, water scarce, garbage everywhere. Terrible." For the most part, the novel's description of Bombay agrees with Ishvar's grim perspective, his account of an almost unlivable city. Dina's search for tailors, for instance, related in flashback, is interrupted by a particularly vivid description of the city's sewage problems:

> One evening, while the slow local waited for a signal change, she gazed beyond the railway fence where a stream of black sewer sludge spilled from an underground drain. Men were hauling on a rope that disappeared into the ground. Their arms were dark to the elbows, the black slime dripping from hands and rope. In the slum behind them, cooking fires smouldered, with smoke smudging the air. The workers were trying to unblock the overflowing drain.
>
> Then a boy emerged out of the Earth, clinging to the end of the rope. He was covered in the slippery sewer sludge, and when he stood up, he shone and shimmered in the sun with a terrible beauty. His hair, stiffened by the muck, flared from his head like a crown of black flames. Behind him, the slum smoke curled towards the sky, and the hellishness of the place was complete. (67)

[108] The relationship between the personal and the national, or between the personal and the historical, is a key point of interest for this chapter, and in analyses of Mistry's realism more generally. See Sorensen (2015).

This lyrical view of a child's vulnerable body evokes William Blake's hellish descriptions of London more strongly than it does W.B. Yeats's "Easter, 1916," despite its explicit reference to the latter. Crucial in this moment, as in Blake's verse, is the mode of witnessing: this is an urban environment at once directly experienced (by those attempting to unblock the drain) and seen by someone else (by Dina onboard the train). Thus, while the focus on an "overflowing" drain and "slow" train underscores the novel's imagery of crowdedness and urban decay, it is Dina's reaction to this excess that remains operative in the narrative:

> Dina stared, shuddering, transfixed by his appearance, covering her nose against the stench till the train had cleared the area. But the underworld vision haunted her for the rest of the day, and for days to come. The long, depressing trips, the squalid sights, wore her down. (67)

The feeling of being "transfixed" and "[worn] down" by the squalor of the slum instantiates a key theme in Dina's life: a sense of being trapped in place, and of being subjected to circumstance. At the beginning of her story, the narrative relates, "What was the point of repeating the story over and over and over, she asked herself—it always ended the same way; whichever corridor she took, she wound up in the same room" (15). At the close of the section, hemmed in by her failing eyes and the encroachment of poverty, this scene of urban ruin returns as part of a list of threats to Dina's future: "Would she ever be saved?...or would [she] be devoured, by the wind, by the black sewer sludge, by the hungry army of paper-collectors roaming the streets with their sacks?" (67).

Presented from inside the train, from the perspective of a passenger soon to be whisked away from such sights, Dina's encounter with the city's poverty and pollution stands in sharp contrast to the experience of her new employees. After all, Om and Ishvar, poor tailors who arrive seeking work and with few friends, encounter these bodily realities daily. In a scene that clearly parallels Dina's journey, having secured housing in a *jhopadpatti* (slum), the two men

gaze at a passing locomotive (169). With their guide and friend, Rajaram, the tailors have just finished defecating: the tracks serve as their facilities. The scene reverses the gaze of the passengers from the earlier one, and Rajaram notes the false sense of difference generated by the distance between passenger and slum-resident: "'Look at those bastards,' he shouted. 'Staring at people shitting, as if they themselves are without bowels. As if a turd emerging from an arse hole is a circus performance.'" Rajaram's commentary, and the novel's deployment of these parallel moments of viewing, creates a more nuanced and sensitive account of the city's problems, contrasting the privileged position of middle-class viewer with a perspective from inside the slum.

The novel takes pains to differentiate the urban experiences of Dina, Om, and Ishvar, a distinction that takes on new resonance when they are later combined under one roof. Yet even in the early portions of the work, these diverse characters share an affective relationship to their city: feelings of stasis, of impotence, and of being trapped. Despite the economic, gender, and caste differences between Dina and her tailors, they all experience Bombay as intensely precarious, at times a place that appears unlivable. Om and Ishvar's arrival makes use of the same imagery of excess as that which opens the novel, and haunts Dina after her view of the child (153). The train platform on which they disembark becomes "a roiling swirl of humanity"; the city's poor are "rag-wrapped bodies" that bear a resemblance to corpses. The two men have difficulty finding work, and spend anxious weeks sleeping under an awning at their unfriendly contact's home (154). Once they have secured a shack in the *jhopadpatti*, Om and Ishvar discover that water there is short, noise plentiful, sanitation nonexistent, and corruption rampant. Their daily routine becomes a nightmare of lines, crowds, and indignities. At one point, the hutment's water begins to run freely at an unexpected time, a minor miracle (182). But for the

most part, the slum, and Mistry's Bombay more generally, wear the two men down in obvious and subtle ways.

It is to the novel's credit that the feelings generated by Bombay are not uniform. Ishvar, especially, seems determined to make the best of his situation, and to continue to aspire to a better future. Yet the strong sense of anxiety and malaise shared by Dina, Om, and Maneck should give us pause. Are these feelings particular to the novel's characters, or are they a product of larger narrative structures in the work? What kinds of contextual forces (history or environmental boundedness, for instance) contribute to them? More broadly, what are the obstacles that the novel creates to the "soft and smooth" life that Om desires (185)? Especially in light of the importance of family-planning in the novel, what do these shared feelings about the urban environment suggest about imagining a future in Bombay or even in India? To answer these questions, I contend, we need to understand both the novel's complex treatment of impersonal forces and recent developments in the field of environment and affect studies.

Caught in Which Web?

A Fine Balance has been usefully read as a meditation on the relationship between impersonal forces and the lives of individuals. In approaching this dialectic, critics have been drawn to the work's historical situatedness, and certainly the seeming importance of contingent events here is counterbalanced by an evident design (the book begins on the day the Gandhi administration declares a state of emergency, and its epilogue coincides with the Prime Minister's assassination). The emergency is a prominent background to the work, and at times an obvious target for Mistry's satire. But the extent to which political developments, the forces of

corruption, caste-conflict, or environmental precarity generate the novel's anxiety and problematic future imaginary remains a site of conflict among the novel's critics.

Ayelet Ben-Yishai and Eitan Bar-Yosef categorize *A Fine Balance* as an "Emergency Fiction," one of several novel-length treatments of this key period in Indian political history. Building on the work of anthropologist Emma Tarlo, they usefully distinguish between two dominant narratives of the emergency—competing visions of "continuity" and "crisis." On the one hand, the administration argued that

> By controlling population growth, increasing production, boosting agriculture, encouraging industry, abolishing socially backward customs, clearing slums and rooting out corruption, India could achieve new levels of greatness. Modernity was the goal the Emergency was the means to attain it. (164)

While the Gandhi administration promised a continuity and reclamation of Indian greatness, on the other hand, most subsequent accounts of the period frame the emergency in terms of the "authoritarian and anti-democratic means" by which it was pursued, "presenting the measures taken in its name as an outcome of Gandhi's personal political crisis rather than a national or social one." For Ben-Yishai and Bar-Yosef, *Midnight's Children* "perfects the crisis discourse of the emergency" while works like Mistry's and Nayantara Sahgal's *Rich Like Us* (1985) "contain both crisis and continuity and thus...address the event's political complexity" (166).

While uninterested in the role of political power and the history of the emergency, Hilary Mantel's harsh review contends that Mistry's characters "are caught in a vast, predetermined, prepatterned design, which the author embroiders fiercely, glibly" (193). For her, *A Fine Balance* fails because it is over-designed, meeting the needs of the author rather than of his characters and his reader. The novel is inherently "an optimistic form," she writes, but *A Fine Balance* fails to locate that kind of optimism, or freedom. In a similar vein, Ian Almond proposes that the work is one of "social protest," but strangely so (211). Almond argues that the novel's "neutral, limited

viewpoint" creates a specific "representation of an environment," yet that specificity "only serves to emphasize a loss of 'agency'" in the work (215). A "fatalistic countertext" emerges, "one which forever seems to be vying for position with an adjacent, much more political vocabulary of social realism."[109]

In a more positive reading, Park Sorensen's analysis of the work differentiates between the levels of "the trans-individual (History)" and that of "individual, quotidian experience" in order to defend the novel's realism against accusations of fatedness ("Excess" 347). For Sorenson,

> Laws and controlling instances are at work everywhere in the novel, but we never receive a clear, concrete, and unified sense of power; rather, it operates in dispersed forms, embodied and manifest through representations and agents, seeping through relations at all levels of society. This "effect of dispersion" has everything to do with the way the historical dimension operates in the novel.

I will return in a moment to this worthwhile analysis of the "dispersed" nature of impersonal force in the work. But we should note the way in which Sorensen's investigation, like that of Almond and Mantel, focuses attention on the social, political, and historical as the dominant registers in play. For these and other critics, the lives of Maneck, Dina, Om, and Ishvar are (over)determined by their position in Indian society, the political machinations of those in power, and the fundamental conflicts of caste, class, gender, and religion. In these readings, the characters' sense of subjectedness and malaise, and the novel's tone more generally, are products of the *social* forces which shape their lives and rob them of agency.

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[109] Peter Morey concurs with this analysis when he acknowledges that "there is always the faint but unmistakable trace of an 'author' beyond the text, imposing a pattern, not in any direct meddling way, but as another of the discursive consciousnesses that populate these dialogic fictions" (169). But he also qualifies his account of authorial patterning: "If this writing can be classified as realism at all, it is a kind of self-conscious, 'implosive' realism: a post-colonial 'metarealism' perhaps. Beyond all the 'concrete' worlds of political intrigue and personal questing the author creates, there is always a feeling that whatever exists outside the realm of language…is uncontrollable, if not unknowable."

If novelistic agency is defined by characters' ability to control the material circumstances of their lives,[110] readers seeking an "optimistic" presentation of agential individuals have good reason to be disappointed by *A Fine Balance*. As these and other critics point out, this is a work where individuals are subjected to circumstances, and where their wills are superseded by forces often beyond their comprehension or vision. Yet if Mistry's novel fails to provide the kind of freedom and transformation that make for "optimistic" fiction, it does offer other insights. For one, the breadth of forces and circumstances which are at play in this work, and Mistry's refusal to disentangle them, are a sign of representational strength. The novel may emphasize the determinedness of its characters, but, as Sorenson argues, it never does so cheaply, or simply. Environmental circumstances, for instance—especially overpopulation, deforestation, and urban pollution—exert pressure alongside other constraining factors in Mistry's world: political, social, patriarchal, psychological, and economic.[111]

The imagination or appearance of biophysical boundaries are a part of the novel's "dispersed power" that has thus far gone overlooked by its readers. To return to the opening of the novel once more, consider the way in which the work intertwines its historical and environmental designs. It is true that *A Fine Balance* begins on the very day on which the novel's Prime Minister has declared a state of emergency. Yet here, as throughout the work, the relationship between circumstance and the bodily realities of particular people remains ambiguous. The corpse discovered on the tracks may be a suicide. It may signify a political murder. Or this death—and its affective consequences—may be the sign of an overcrowded city, one reaching the limits of livability. The train's crowdedness, its delay, and the somatic stresses

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[110] This is a complicated area of narrative studies that I will not summarize in detail here. Susanne Keen's account of novelists, empathy, and the ability of characters to dictate narrative tracks some recent developments. See also Steve Knapp's chapter on "The Concrete Universal."

[111] As Indira Gandhi herself argued so persuasively in 1972, there can be no separating these forces.

that Ishvar, Om, and Maneck feel are thoroughly overdetermined. There is no clean causal link between their experience and the political maneuvers of a prime minister, or the overcrowdedness of Mistry's Bombay. This is a work that subjects its characters to circumstance, but the precise relationship between impersonal forces and those caught up in them remains elusive.

More than its ability to index the multiple and competing forces that shape life in 1975 Bombay, however, the novel's refusal to grant its characters agency, its pessimism even, also offers insights into affective realities that cannot be seen in more "optimistic" works. For while Mantel and Almond are right that there seems a certain "fatedness" about these characters' material circumstances (their economic progress, their living conditions, their inability to enact choices), their affective responses to that material fatedness are more ambivalent, perhaps even more free than Mistry has been given credit for. I contend that *A Fine Balance* evaluates the conditions for agency outside of the socio-political by making use of various forms of narrative affect (including the way that characters feel, the novel's tone, and the relationship of its formal elements). As a testing ground for affective responses to circumstances environmental and otherwise, the novel thus not only challenges our conventional understanding of agency in works of imaginative writing, but might also help us better understand the nature of environmental and literary feelings.

Affect and the Environmental Imagination

The field of ecocriticism has, to a limited extent, engaged with theories of affect, emotion, and feeling, although it has most often done so through the analysis of general categories, rather than the study of particular affects. The large extant criticism on the pastoral form, nostalgia, and landscape constitutes an important precursor for this scholarship. So too

does the emotionally charged non-fiction writing that stands at the center of twentieth-century environmentalism, including Rachel Carson's wonder-filled, non-fiction narratives, and polemic essays by Arundhati Roy and Ken Saro-Wiwa.[112] Other important early academic touchstones include Yi-Fu Tuan's *Topophilia: A Study of Environmental Perceptions* (1972) and Edward O. Wilson's *Biophilia: The Human Bond with Other Species* (1984), works that explore theories of love and attachment to place and biodiversity.

More recently, Simon Estok's formulation of "ecophobia" ("an irrational and groundless hatred of the natural world" [6]), Stephanie LeMenager's description of "petromelancholia" (feelings of grief over the end of "cheap oil"), and Jennifer K. Ladino's work on nostalgia exemplify attempts to distinguish affective relationships of particular relevance to the modern and contemporary environmental imagination. Both Ursula Heise and Lawrence Buell have made general calls for a more nuanced engagement with affective dimensions of the environmental crisis, but neither has undertaken a sustained study of the subject. Heise's *Sense of Place and Sense of Planet* (2008) encourages feelings across space and time (arguing that we need "a cognitive understanding and affective attachment to the global" [59]). Similarly, while Buell calls for "an emotion-laden preoccupation with a finite, near-at-hand physical environment defined...by an imagined inextricable linkage of some sort between that specific site and a context of planetary reach" (232), his essay on "Ecoglobalist Affects" does not offer an analysis of what kinds of affects might constitute the ecoglobalist relations he seeks to promote, or (particularly relevant for my own inquiry) of the specific affective potential of environmental finitude.

Heather Houser's *Ecosickness in Contemporary American Fiction* (2014) is the most sustained recent attempt to grapple with the affective dimensions of the modern environmental

[112] On the activist writings of Roy and Saro-Wiwa, see Nixon (2013).

moment, and this chapter is indebted in particular to her account of environmental anxiety. Houser argues that "ecosickness fiction" constitutes "an emergent literary mode" that joins "experiences of ecological and somatic damage through narrative affect" (7). Theoretically aligned with other critical analyses of emotion in the novel form, Houser attends both to the way in which ecosickness narratives create affective entanglements for their readers, and also to the way that "affects are attached to formal dimensions of texts such as metaphor, plot structure, and character relations" (3). Eschewing a clean causal relationship between specific narrative forms and particular feelings, she proposes that "a text's affective energies depend on the shape of its narrative, its tropological schemes, and the relations between its characters" (16).[113]

As this survey demonstrates, with notable exceptions, there have been few attempts to chart the specific affective relationships at play in the modern and contemporary environmental imagination. Before returning to affect and environmental boundedness in Mistry's novel, however, we need to define the relationship between emotion and literature better. In Sara Ahmed's influential book, *The Cultural Politics of Emotion* (2004), she identifies two key questions that bear on my intervention: First, what is the relationship between objects and emotions? Second, how private are emotions? Ahmed describes the two dominant modes of thinking about this problematic as the "dumb" and the "intentional" views (6). On the one hand,

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[113] Houser's fifth chapter theorizes "biotechnological anxiety" as a structuring interest in the career of Leslie Marmon Silko, an assessment which can help us understand the affective stakes in this chapter. In Houser's reading, Silko's emphasis on apocalyptic spaces and environmental conditions—drought, volcanic eruptions, Earthquakes, and biotechnologies let loose—generates an anxious metaphorics. By deploying "metaphors of the sick body," Houser argues, Silko enlivens "catastrophes that cross ecological, social, and physiological systems" (199). Like Houser's, my reading of Mistry's novel focuses on anxieties about environmental conditions made visible in the novel form. Yet my analysis jettisons the focus on apocalypse and crisis, and instead asks how forms of anxiety, self-doubt, and fear arise from less cataclysmic, and more quotidian circumstances.

Descartes and many others describe emotions in sensory terms, as a product of contact or bodily sensation (the "dumb" view). On the other hand, a second set of theorists proposes a "cognitive" or intentional view, wherein emotions are necessarily generated by objects and perceived in the mind of individual subjects. Ahmed's distinct approach to this dialectic is to bring these two modes together, arguing that "emotions are both about objects which they hence shape and are also shaped by contact with objects (7). She writes that

> Emotions create the very effect of surfaces and boundaries that allow us to distinguish an inside and an outside in the first place. So emotions are not simply something "I" or "we" have. Rather, it is through emotions, or how we respond to objects and others, that surfaces or boundaries are made: the "I" and the "we" are shaped by, and even take the shape of, contact with others. (10)

By proposing that emotions are not psychological states but rather "social and cultural practices" (9), Ahmed aligns herself with Raymond Williams's "structure of feeling," and enunciates a preference for a less distinct, totalizing, and categorized mode of social (not personal) analysis: emotions are the products of social and cultural contact, not the private and isolated experiences of individuals. Insofar as Ahmed considers emotion to be in part constitutive of the very objects and subjects from which they emerge, her argument poses a key challenge for the study of environmental affect. If, as Ahmed argues, the objects we call "environment" or "environmental limits" are partially constituted by our feelings, is it possible to identify environmental affect at all? The contact between environmental limits and the subjects who experience them, according to this theory, is more complicated and less casual than at first it might appear.

The above survey of ecocriticism indicates the limited ways in which this field has engaged with affect theory, especially insofar as existing scholarship has privileged general categories of strong feeling, rather than specific affective relationships. These developments have aligned with ecocriticism's preference for idyllic and apocalyptic narratives, and with a reluctance to engage with more quotidian moments, spaces, and feelings. In the remainder of this

chapter, I revise this thinking by considering the insights of Ahmed and other recent affect theorists alongside *A Fine Balance*, and the environmental boundaries that shape that work. To turn to the specific stakes of this chapter, then, I understand the "objects" of emotion at work here as both environmental circumstances (overpopulation, for instance), but also particular aesthetic objects (a novel, a passage, a character). In considering this dialectic and the environmental imagination, following Ahmed's lead, I read environmental circumstances and their affective correlates as mutually constitutive. In Mistry's novel, then, we should consider how environmental realities (overpopulation, water shortage, pollution) are both distinct from and constituted by the emotions of those who perceive and encounter them.

Crowded Home, Crowded Nation

Like the titular "midnight children" of Rushdie's novel, both the cramped living quarters and the strange family in *A Fine Balance* constitute symbols for the nation itself, a metaphoric equation whereby a few people (especially Ishvar, Om, Dina, and Maneck) stand in for India's diverse multitudes, and a small space (Dina's flat) for the entire country. The independent India of political imagination and rhetoric—a postcolonial democracy brimming with classes, castes, and potential—is expressed here.[114] But so too are socio-political fears of overpopulation and the vision of the fecund multitude as threat, a proposition that has both Euro-American and Indian origins.[115] What is striking about family-units and domestic spaces in this novel is the way in

[114] On "multitude" as a national symbol (and stereotype), see Ch. 2 in Chakravorty (2013).
[115] Guha writes that "The Malthusian specter had long haunted India," and that "debates on India's population size dated from the earliest days of Independence." (*India* 515). Williams notes that early Indian efforts by the National Planning Committee were influenced by American efforts to promote overpopulation theory in the "third world," including the work of Princeton's Office of Population Research and Kingsley Davis's *The Population of India and Pakistan* (1951) (478-479).

which *A Fine Balance* both embraces and undermines the rhetoric of (big) family and (finite) nation which the Gandhi administration deployed to justify emergency policies. Thus, while Mistry's focus on one family and one home resists the national and the historical in favor of a more personal, affective history, through its metonymic potential, this cramped family simultaneously registers national anxieties about overpopulation and crowds, one of the central justifications of the emergency.

The family units that *A Fine Balance* creates are diverse and tenuous. While the two middle-class protagonists here (Dina and Maneck) arrive in the novel's present having had limited contact outside of caste or class, Ishvar and Om trace their lineage to Dukhi (Ishvar's father, Om's grandfather), who broke from tradition by training his sons to become tailors, rather than leather-workers. Equally important, Dukhi's choice is the product of his friendship with Ashraf Chacha, a Muslim tailor in a nearby city. Having trained Ishvar and Om's father, Ashraf Chacha becomes a surrogate parent to Om and Ishvar in the wake of the brutal murder of their village people (perpetrated by a local landowner seeking to stamp out resistance). Their familial unit—joining Muslims and Hindus under one roof—constitutes the first of several unusual unions in the novel, families which stand in at times for an independent India. Other examples include Beggarmaster and Shankar, one a legless beggar brutally "prepared" for his profession by the other, his brother and manager. The friendships between Rajaram (an impoverished hair-collector), Shankar, and the tailors constitute a similar temporary unit, with the men at times depending on one another for meals and counsel, despite their diverse origins, allegiances, and castes. Yet it is the family of four—Dina, Maneck, Om, and Ishvar—that takes center stage, and most often represents the nation itself. Here, a middle-class Parsi widow takes in a young student and two untouchable tailors, bridging gaps of age, gender, class, and caste in order to create a

shared future. In the novel's happiest moments (especially Chapter X), these four create new domestic economies and bonds: the two young men become fast friends; Dina allows Ishvar to drink tea from her best cups; they share meals and the stories of their past lives.

Yet if Mistry's unusual central family fulfills some of the egalitarian promise of an independent, democratic India, there is nothing easy about this union, especially because these people share too little space. Dina spends much of the first half of the novel anxiously trying not to add any additional tenants in her flat, especially so as to avoid the ire of a watchful landlord. With Maneck's pressure added to the tailors' necessity, she eventually comes around, allowing both Om and Ishvar to take up residence on her verandah. Even after the tailors have joined the household, however, the threat of excess and expansion within Dina's flat remains. Maneck takes in a family of kittens, who, while at first playful and entertaining, quickly become a burden, treating the home as "no more than a scrounging stop" (455). More seriously, the cats' expansion and ingratitude directly precedes Ishvar's decision that it is time to find Om a wife. For Dina, the prospect of adding additional mouths to feed in the flat is ominous: "Your marriage mania will destroy our business," she argues (457). "You will make the food vanish from our plates." When Ishvar defends his proposal, she counters that with a wife there will inevitably be children, and that the new family will destroy itself through its own fecundity: "Where will they all stay? And all those mouths to feed. How many lives do you want to ruin?"

That Mistry's presentation of this cramped domestic space aligns so strongly with emergency comparisons of nation and home, populace and family, raises questions about the extent of his critique of nationalism, and of the relationship between the novel and the Prime Minister's rhetoric. As Sandhya Rao Mehta points out, as the pressures mounted on her administration in the early 1970s, Gandhi "consistently articulated herself in [a] submissive and

servile manner," and as both mother and caregiver of the nation (24-25). The "semantic field of health and illness," which situated the "nation in the position of an ill child" and "Emergency measures as the cure," was joined with familial and domestic metaphors, wherein the nation was Indira's collective offspring, its lands a collective home. In *Midnight's Children* this rhetoric of motherhood and the position of widows come in for a particularly brutal sendup. Despite a similar reputation as a caustic account of the emergency, the treatment of finite space and the feelings that arise from it in *A Fine Balance* demand a closer consideration.

For instance, what are we to make of the fact that the presentation of Dina's cramped flat and the novel's explicit encounters with national overpopulation rhetoric both center on an anxious metaphorics of bodily experience? In the climax of Om and Ishvar's encounter with the family planning program, the two men seek out an officer in order to lodge a complaint against Om's castration. The man rebuffs them, sternly: "We know your tricks. The whole Family Planning Programme will grind to a halt. The country will be ruined. Suffocated by uncontrolled population growth. Now get out before I call the police" (529). Earlier, when the two men are first taken to the clinic, the narrative briefly attends to an administrator charged with speeding procedures along: "We have to be firm with the doctors," he urges. "If it is left to them to fight the menace of the population explosion, the nation will drown, choked to death, finished—end of our civilization. So it is up to us to make sure the war is won" (523). Both of these conversations are rare moments when the emergency, and the government's position on the question of family planning, are given voice in the novel: a somewhat heavy-handed instance of exposition and implied critique.[116] Yet it is striking, too, that in each scene the threat of this environmental threshold—too many people—is transformed into a somatic metaphor almost as soon as it is named. The officer compares the country to a person whose airway is being choked by people.

[116] The administrator's language, of course, echoes Paul Erhlich's book title.

The administrator mixes the same comparison about the need for air with the proposition that population growth is a "war," something to be won.

That these family planning officials traffic in similar (if nationalized) metaphors as Dina does about her flat (Om's wife and potential children are reduced to their appetitive function: their capacity to eat the family out of house and home), does not, I think, indicate that the novel in any way endorses emergency policies. Rather, Mistry's scathing account of a party rally (where Indira Gandhi and her son Sanjay both appear) leaves little doubt of where this work stands on that question. But this shared metaphoric language does suggest that the affective problem of overcrowding—the sense of threat that an intimation of environmental finitude creates—exceeds the particular history and rhetoric of the emergency. This continuity aligns with Ayelet Ben-Yishai and Eitan Bar-Yosef's assessment of the novel, their claim that *A Fine Balance* enunciates the emergency as continuous with certain patterns of Indian national history. More specifically, this anxious metaphorics aligns the novel with the record of family-planning in India, which, as Rebecca Williams points out, long preceded the Gandhi administration (even in the 1930s and 1940s population control was proposed as necessary to build a more economically viable India), and continued after it was forced from power (474-5).

The novel's treatment of the threat of multitudes also speaks to the way in which affective metaphors shaped by environmental limits can threaten diverse forms of social community. To return to Ahmed's insights about the constitutive force of emotions, anxieties about nation and home in the novel (generated by the threat of overcrowding and overpopulation) are shown as particularly dehumanizing, shaping the conception of what bodies matter and which do not, both in places we might expect (a family planning clinic pressed to meet quotas) and even in the novel's happiest home. The "we" of Dina's family, like the "we" of

India, is fraught with these fears, and shaped by the sense of the impending crisis threatened by the possibility of too many people. That these fears persist between those who encounter environmental thresholds on a national and a personal scale, in homes and outside them, suggests also that Mistry's novel produces what Sianne Ngai call an "ugly" feeling: a "flat" and "ongoing" affective reaction that exceeds individual consciousness while offering uncertain political effects.[117]

Even while it writes profound anxieties, however, *A Fine Balance* can also be said to demonstrate the generative, liberating potential of too many people. As Mrinalini Chakravorty points out in her chapter on *Midnight's Children*, "multitudes are theorized as innately generative and deviant, signaling recursive forms of 'subjectivity' that are produced by and that produce 'new forms of cooperation and communication' and hence subjective attachments" (82). In Mistry's novel, the threat of overpopulation causes Dina momentarily to break with the newly imagined community in her home. Yet the novel is primarily an account of that family being *made and re-made* through the imposition of diverse bodies: it is, after all, precisely the crowds and the surfeit of people in Bombay that force Ishvar, Dina, Maneck, and Om together. As what Chakravorty calls "a universal yet always splintering sign for India," the multitude, then, and its affective forces, are capable of both creating new forms of community and destroying existing ones.

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[117] In *Ugly Feelings* (2004), Ngai counters the cultural fascination with "grander passions" or "morally beatific states" with a study of "amoral and noncathartic" emotions, feelings which "[offer] no satisfactions of virtue, however oblique, nor any therapeutic or purifying release" (6). Ugly feelings, rather, are weakly intensive (10), interfere with other emotions (9), are flat and ongoing rather than sudden, and often produce meta-responses: feelings about feelings (10). Ngai's study of "social powerlessness" and "obstructed agency" is based in part on an historical argument about the state of contemporary capitalism, yet nonetheless offers purchase on Mistry's novel.

Forests, Family Planning, and Futurity

In "Mountains," the chapter devoted to Maneck's ancestry, we learn the story of Maneck's father, Farokh, and the extent to which his life is hemmed in by political, technological, and environmental change. The first of these pressures appears in the form of partition. Prior to 1947, Farokh's family had been "extremely wealthy" (203). As the novel relates,

> Fields of grain, orchards of apple and peach, a lucrative contract to supply provisions to cantonments along the frontier—all this was among the inheritance of Farokh Kohlah, and he tended it well, making it increase and multiply for the wife he was to marry and the son who would be born.

Into this entrepreneurial Eden, partition appears as "a wave of the pale conjuror's hand" and "a magic line on a map" which separates the Kohlah family from its former wealth. "Trapped by history," Farokh is left with a general store and a special recipe for soda, which, though far less than his inheritance, still leaves his family with some modicum of security when Maneck is born.

If partition traps Farokh by reducing his earning power and material circumstances, the push of development in subsequent years enacts an even more jarring and emotional cost. For years, Farokh's conservatism and nostalgic hold on a relaxed form of capitalism seem to work: the family and the business flourish in one of the novel's few idyllic scenes. But as Maneck approaches adulthood, development arrives in force on the Kohlahs' mountain, bringing both economic competition and environmental degradation. A road is built, one which is "wide and heavy, to replace scenic mountain paths too narrow for the broad vision of nation-builders and World Bank officials" (213). With the road comes both business and dramatic change to the mountain on which the Kohlahs live. The locals, including ex-military officers, lament the nation's "flawed development policy," which "[sacrifices] the country's natural beauty to the

demon of progress." For Mr. Kohlah, however, the mountain's development is both a continuation of past wrongs and a new, personal assault:

> Mr. Kohlah watched helplessly as the asphalting began, changing the brown rivers into black, completing the transmogrification of his beloved birthplace where his forefathers had lived as in paradise. He watched powerlessly while, for the second time, lines on paper ruined the life of the Kohlah family. (214)

While both partition and development are presented through the metonymic "line" of a surveyor, for Farokh, this second transformation takes a more sensory turn. The exhaust from additional vehicles "[sears] his nostrils," and their noise damages his hearing (215). A romantic who cares deeply for his picturesque view, Farokh's perspective is marred by shanties and shacks that appear on the mountain, the product of newly arrived jobless people. As "bald patches materialized upon the body of the hills," this influx destroys the area's forests, threatening ruin to the area's ecosystem.

On the fifth anniversary of the road's construction, Farokh takes a walk. At first, the sunset scene seems to promise some consolation. But then

> His gaze was pulled downwards, across the treeless hillside. From hundreds of shacks there rose the grey, stinging smoke of frugal cooking fires. The gauze obscured the horizon. Facing upwind, he could smell the acrid haze and, behind it, the stench of human waste that it grimly tried to shroud. He shifted his weight uncertainly. A twig snapped under his feet. He stood still, asking himself what he was waiting for. He heard the stark voices of mothers calling, the shrieks of children, the barking of pariah dogs. He imagined the miserable contents of the pots blacking over the fires while hungry mouths waited around.
>
> Suddenly, he noticed that dusk had fallen: the sunset was forfeited behind the pall. And the entire scene was so mean and squalid by twilight, so utterly beyond his ability to accept or comprehend. He felt lost and frightened. Waves of anger, compassion, disgust, sorrow, failure, betrayal, love—surged and crashed, battering and confusing him. For what? Of whom? And why was it? If only he could…
>
> But he could make no sense of his emotions. He felt a tightness in his chest, then his throat constricted as if he were choking. He wept helplessly, silently. (216)

In this scene, the novel registers powerlessness and passivity through the form of Farokh's psychological break. Farokh's impotent attempts to "save" the mountain are paralleled by his inability to understand his own emotions ("For what? Of whom? And why was it?"). *A Fine Balance* frames Farokh's story in terms of the loss of both his ability to understand himself and the world around him, but it simultaneously locates agency elsewhere: in both the nonhuman world and in the development which threatens it. The terrific power of development is made manifest in the transformation of the landscape. More subtly, perhaps, the nonhuman world is granted syntactic agency: a twig snaps, seemingly on its own; the sun falls suddenly, and the sunset is "forfeited." Farokh's constraint (the "tightness in his chest" the "constriction" of his chest) is somatic, but also shown by the suggestion of other agential forces—the power of rapid development and the mountain's own sphere of influence.

Like Dina's experience with the child in the sewage, this moment can be meaningfully read in the terms of environmental affect. In each case, an observer witnesses a scene of material transformation and ruin, one which seems to generate feelings of anxiety, listlessness, and malaise. But the section's tight focus on the familial unit of the Kohlahs, and especially the disintegration of Farokh's ability to deal with personal, economic, and environmental change, intimates that there is much more at stake in Farokh's breakdown than merely his sorrow over a lost vista (as there will be when Maneck reenacts the scene in the novel's epilogue). Rather, the feelings of constriction that Mistry generates here, the sense of "feeling small," are also a question of future possibility, of the horizons of the imaginable, and not merely the horizon of the mountainside. As in the wider novel, then, Farokh's particular feelings emerge not merely from a momentary encounter with a particular sense of environmental threshold, but also from

the pervasive sense of a constrained imaginary, of future visions clouded or obscured by obstacles both seen and merely sensed.[118]

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A Fine Balance is a resolutely past and present novel: there is little of the future here. Few characters seem capable of dreaming or aspiring, a kind of foreshortened horizon that cramps the experience of both character and reader into the tense realities of the present, and the painful experiences of the past. There are a few exceptions, of course. The novel's three portions of flashback—the histories of Dina, the Darjis, and Maneck—all include aspirational visions, including bold decisions made in the name of a better future. The tailors' grandfather trains his sons outside of his traditional occupation in order to earn a steadier income and escape the forces of caste oppression. On the mountain, Maneck's parents send him to college in order to gain a foothold in a rapidly-changing economy. Dina learns tailoring in order to preserve her independence. Yet each of these scenes is offset by harsh turns. While Dukhi's decision seems bold and hopeful, it nonetheless results in the brutal deaths of many of his family members. Maneck despairs at the parting from his beloved mountains, and his relationship with his father disintegrates as a result of their parting. And if there are glimmers of a better future in the novel's pasts, its present is resolutely bleak. Dramas of economy—the struggle to keep head above water—are a persistent element, yet Mistry's protagonists never get ahead, despite the proliferation of scenes of hard work. In these ways, the novel refuses positive visions of change,

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[118] This assessment aligns with Lauren Berlant's emphasis on a "crisis ordinariness" which is first perceived affectively (*Cruel Optimism* 4). In this case, *A Fine Balance* might be said to generate a sense of pessimism: rather than the "cruel optimism" that Berlant traces through American contemporary capitalism, Mistry's novel tracks reactions of surrender, malaise, and mourning, even as it forecloses versions of fantasy and the good life, like Om's future family.

progression, and futurity, a kind of foreshortened view that accounts in part for the deterministic critiques of some of its readers.

In a work that ends with a forced sterilization, it is striking that there is a persistent lack of interest in sexual reproduction throughout, with neither the victims of the operation (Om and Ishvar) nor any other major character expressing a desire for children. While there are few young women in this novel (Dina's early middle age is conspicuously childless), both Maneck and Om arrive at Dina's house as maturing young men approaching marriageable age, and their future families are a glancing, though important interest. Ishvar, as Om's uncle, works hard to inculcate a spirit of optimism for his nephew, and retains and promotes a vision of Om's future that includes a wife and children soon. On their first day in the slum he sums up their situation like this: "So every thing fits nicely. We have jobs, we have a house, and soon we'll find a wife for you" (167). But the younger man refuses to entertain his uncle's optimism, and indeed rejects almost all commentary on his own marriage prospects, progeny, and future. When his uncle repeats his suggestion about finding a wife, Om rebuts him sharply, "Find her for yourself, I don't need one" (185). When the two men encounter a mobile Family Planning Clinic outside the slum, Om appears open to the government's offer: a transistor radio and a ration card in exchange for *nusbandi*, or vasectomy (193). "I'm never getting married," he argues, "Might as well get a transistor." Om spends much of the first half of the novel expressing similar sentiments: alternating between outright dismissal of his future marriage prospects and a lazy disinterestedness. In the novel's final sections, Ishvar asserts his authority and demands that Om marry, arranging a wedding which Om reluctantly accedes to.

When Maneck and Om become friends, they do engage in some boyish antics that hint at their sexual desires. Yet despite these moments, Maneck, too, seems largely uninterested in

family-making, despite his comparative wealth. One explanation for his lack of interest might be that his true desires are illicit: Maneck's intense intellectual bond with his college classmate Avinash is never explicitly sexual, but there is a palpable tension between the two that suggests, perhaps, that Maneck desires their friendship to be something else. More explicitly, of course, *A Fine Balance* describes Maneck's increasing depression, a loss of confidence and desire that culminates in his suicide at the end of the novel. While he is physically whole at the start of the novel's epilogue, Maneck nonetheless appears back in India (arriving from his work in Mumbai) with no emotional or familial connections to speak of, leading an impotent, deadened life that Mistry opposes with the similarly childless, if happier union of Dina, Om, and Ishvar.

In her account of environmental affect, Houser praises the political and ethical potential of imaginative writing, arguing that "fiction is a laboratory for perceptual and affective changes that can catalyze ethical and political projects" (19). In light of that proposition (and of the several critiques of the novel as overly-determined) is Mistry's refusal to engage in a language of dreaming, generational progress, or resistance a form of political quietism? By creating an account of imagined lives constrained by forces environmental and otherwise, Mistry certainly does not offer us the kind of positive vision of potency that Houser describes, or the kind of optimistic social narrative of uplift that Almond praises. Yet if *A Fine Balance* refuses the kind of energies often ascribed to activist fictions, its tracing of affective and imaginative closure nonetheless matters profoundly for those same ethical and political projects because it shows that there is much more to lose than forms of material freedom and agency. By accounting for the kind of closures that happen in the face of sustained and persistent threats (real and imagined), *A Fine Balance* can help us understand that the stakes of crossing environmental and social boundaries are much more than material—the appearance of these thresholds impedes precisely

the kind of catalytic faiths and imaginative visions that other, more optimistic works generate, and on which activist imaginaries arguably depend. Yet Mistry's novel suggests that environmental boundaries do not generate these feelings suddenly, or at least not always in moments of crisis. The "emergencies" in this novel (the loss of a horizon because of deforestation, a lack of desire shaped, perhaps, by fears of overpopulation) are offset and ultimately outweighed by a broader mood and tone, an anxiety of agency and passivity that is not easily attributed to any one social, political, or environmental factor. Shared between diverse individuals whose consciousness of that which confines them is profoundly limited, these feelings nonetheless turn and shape this novel across the sum of its pages, and indicate the persistent, pervasive effects of environmental circumstance.

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Indira Gandhi's emergency became infamous in large part because of the government's reaction to one particular environmental boundary: the threat of too many people. But the administration (and Indira Gandhi herself) was aware of and responded to others, including the extinction of charismatic megafauna, the continuous threat of drought, energy crises, and increasing deforestation.[119] Of course, the environmental thresholds that exercised the Gandhi administration and that lurk at the edges of Mistry's novel have not remained static since the 1970s. India's population has more than doubled since that time, reaching 1.2 billion people as of the 2011 census ("Decadal Variation"). And while discussions of deforestation and overpopulation remain prevalent today, perhaps no problem now appears as dire as that of

[119] On the administration's approach to extinction, see, for example, discussion of Project Tiger in Rangarajan, p. 300 and following. For the administration's response to drought, energy, and deforestation, see Rangarajan p. 305.

water.[120] The possibilities and realities of environmental limits continue to draw the attention of NGOs and drive government policy.

In light of the history of the emergency, Indira Gandhi's 1972 rejection of extreme formulations of environmental boundaries ("The extreme forms in which questions of population or environmental pollution are posed obscure the total view of political, economic, and social situations") seems deeply ironic. Despite her call for a broader and more capacious understanding of the environmental crisis, her administration's legacy is marred by the extremist measures it pursued, by a history of forced sterilization and sometimes short-sighted efforts to protect pristine landscapes. It is a history that sits uneasily alongside Gandhi's nuanced and insightful call for a "social revolution" to combat environmental degradation, and her attention to the affective registers of the problem ("a change of heart"). As environmental limits grow in collective consciousness, it seems clear that these bodily, affective facets will matter more, both in India and elsewhere.

In his 2016 account of climate change and fiction, *The Great Derangement*, the novelist Amitav Ghosh reflects on the modern novelist's representational stakes in encountering the environmental crisis:

> If certain literary forms are unable to negotiate [the truth of climate change], then they will have failed—and their failures will have to be counted as an aspect of the broader failure that lies at the heart of the climate crisis. (108)

In this chapter, I have argued that *A Fine Balance* is able to convey some part of the "truth" of our environmental problems: affective realities too often ignored. But Mistry's novel, like other

[120] As one former member of India's Planning Commision describes, population growth, groundwater contamination, poor monsoons and climate change have combined into a water crisis of devastating proportions ("India Stares").

recent works of Indian Anglophone fiction,[121] agrees with Gandhi's address insofar as it shows that coming to know our planet's finitude and fragility requires knowledge other than that offered by the sciences, statistics, or mathematics. We need, rather, a subtle and careful approach to human beings as feeling, thinking, and imagining creatures. Admittedly, as Ghosh notes, novels "conjure up worlds that become real precisely because of their finitude and distinctiveness," (61), but the *truths* that they show us necessarily extend beyond those borders, both to the scientific crises of our time, and their affective consequences and figurations. *A Fine Balance* suggests that the novel form's representational capacities may well be less useful than its unique capacities to enliven affective realities through narrative, and to restore a fuller sense of the consequences of encounters with our planet's boundaries.

This chapter has built on recent work in affect studies in an attempt to come to grips with those consequences. As this reading of Mistry's work attests, there is no sense in which environmental limits can be said to generate consistent, homogenous feelings across time, culture, and space. Instead, we should see these mobile, historically situated emotions as attaching in diverse ways to narrative form, character, and metaphor. *A Fine Balance*, like some works of climate fiction today, suggests that environmental limits are agential forces, even if they are entangled and mediated by social, political, and technological factors. In Mistry's novel, they are felt by individuals and fragile families, those whose lives are constricted and constrained by a series of impersonal forces, of which environmental stresses are one. In sum, it is a work that suggests that the range of environmental feelings extends beyond the idyllic and the extreme, and can be seen even in quotidian moments and places.

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[121] Two other Indian Anglophone works that feature environmental thresholds prominently are Karan Mahajan's *Family Planning* (2008) and Amitav Ghosh's *The Hungry Tide* (2004).

IV – Coda: Over the Edge (and Back Again)

In the year 2016, the planet's atmosphere averaged more than 400 parts per million of carbon dioxide. By most measures, it was the first time in three million years that Earth's atmosphere had reached that level of carbon-saturation. In her article marking the occasion, "How the World Passed a Carbon Threshold and Why it Matters," science journalist Nicola Jones wrote that

> There's nothing particularly magic about the number 400. But for environmental scientists and advocates grappling with the invisible, intangible threat of rising carbon dioxide levels in the atmosphere, this symbolic target has served as a clear red line into a danger zone of climate change.

As Jones admitted, 400 parts per million was not "magic," or even distinct in the history of climate change. It was, rather, just the latest in a string of "red lines": environmental thresholds that demarcated moments of dangerous change. To recite only a few of these: the most current update to the "Planetary Boundaries" thesis shows Earth as already having breached four of the nine boundaries; the much-feted promise at the heart of the Paris Agreement, signed in 2015, is to keep global temperature rise "well below 2 degrees Celsius"; and, in 2007, Bill McKibben proposed that 350 parts per million would be "the number that may define our future." Whether symbolic, arbitrary, backed by research, or settled upon as international law, in this still-young century these and other environmental limits have been crossed with an increasing rapidity, a speed which has made environmental boundaries—our finitude and our fragility—more prominent in almost every way.

Despite this latest carbon threshold's "symbolic" character, the discussion, despair, and anxiety that crossing 400 parts per million occasioned makes it clear that the environmental imagination of limits retains a powerful hold. As this dissertation has argued, despite the many environmental limits that we have already crossed, writers of all stripes continue to tell the story of our changing planet in terms of verges, edges, boundaries, and brinks because these ideas

offer a *narrative* appeal. Today, as in 1798 and in 1972, threshold thinking is deployed in order to lend urgency and specificity to what can appear to be (and often is) gradual transformation in the Earth system. In the face of a deepening environmental crisis, limits make concrete what is often insidiously vague; they offer points of purchase and rallying cries for policy-makers and advocates; and, not least, they offer us a common cultural idiom.

Through an examination of modern and contemporary Anglophone writing (and especially novels), this project has traced some versions of the environmental imagination of limits. Chapter I identified the normative, mechanical models of human beings on which much discussion of environmental limits rests, a "social order" that closed off questions of what human beings were and needed. Works by George Orwell and M.F.K. Fisher, I argued, resist that closure through an insistence on the constructedness and contextuality of meals and human beings, demonstrating that it is only through individual (gendered) bodies and forms of language that we experience the finite world. Chapter II turned to a different aspect of the "social order" of environmental limits: the way in which shortage and scarcity, so often presented as a global phenomenon, emerge rather from particular racial distributions of power and material wealth. I proposed that Gordimer's novel ironically undermines global conceptions about running out of things, and that both *The Conservationist* and Coetzee's *Life and Times of Michael K* offer tenuous alternative conceptions of environmental aesthetics (and environmental limits) centered on the connections between social and environmental precarity. Chapter III investigated the affective power of one city and family's finitude and fragility, analyzing Rohinton Mistry's novel, *A Fine Balance*, in search of the ambiguous feelings that the appearance of planetary boundaries creates.

The story of environmental limits gathered here is incomplete and partial in many ways. This project's Anglophone-orientation is one obvious restriction (after all, if environmental limits transcend borders and eras, surely they appear outside of the English language as well). A version of this project less confined by disciplinary and field practice might also have considered literary works (and other cultural forms) produced outside the modern and contemporary era. While my focus on twentieth-century writing centers on that period when we have arguably come closest to reaching and knowing Earth's boundaries, and on a moment when this form of the environmental imagination exerted the most influence, this focus nonetheless closes off earlier cultural moments that have shaped our current one. Perhaps most obviously, however, dystopian writing and climate fiction, both contemporary and otherwise, has not been fully explored in this dissertation, a generative and provocative site of threshold thinking that deserves to be considered in its own right.

Despite this room for further development, my hope is that "Threshold Thinking" has not merely chronicled the intellectual history of one (influential) environmental concept. Rather, the chapters that I have assembled here are intended to "decompartmentalize" the idea of environmental limits by showing how threshold thinking depends on, produces, and promotes certain forms of social and aesthetic relations: symbolic forms, affective reactions, assumptions, and power dynamics that are often implicit but unrecognized in green rhetoric. In bringing together insights from economics, environmental history, the biological sciences, affect studies, and other fields, "Threshold Thinking" has argued that environmental limits can and should be seen outside the "compartment" of environment, and instead has approached environmental boundaries through an analysis of the kinds of knowledge—affective, narrative, imaginative, and otherwise—particular to the field of literary studies, showing how literature's distinct "world-

making" powers might help us to know and to name the environmental imagination of limits. For the environmental humanities, my hope is that this project offers both a new term for our conceptual vocabulary and an intersectional method: a way of reading that seeks the environmental in the everyday, the economic, and the social.

Does the environmental imagination of limits matter for our politics, our activism? I think it does, but not because it offers some clear, unambiguous direction. Even as the environmental imagination of limits associates George Orwell with Rohinton Mistry, for example, it does not show that any single environmental ethics or politics necessarily emerges from this way of thinking, feeling, and seeing. This ambiguity is perhaps clearest when considering Fisher's work alongside Coetzee's. Both depict individuals (Fisher's hungry diner, Coetzee's wandering gardener) who subsist at the edge of human abilities, but they differ profoundly on the extent to which bodily circumstances can be overcome through acts of language or imagination, and on the question of whether reducing consumption aligns or undermines the political and environmental status quo. In a similar way, although *The Conservationist* and *Nineteen Eighty-Four* deploy dystopian elements in an effort to represent and resist state power (and more specifically apartheid and totalitarianism), Orwell's novel falls back on universalist claims about human bodies and the Earth's ability to provide for them, a kind of global imaginary that *The Conservationist* specifically resists through an emphasis on forms of difference.

This fragmentation suggests that the works of imaginative writing studied here do not offer an activist politics. But they can be read in such a way as to refract and reflect the kinds of thinking and feeling that our activism and politics *depend on*. The upside of this insight is an expansion of what we consider to be an environmental text, and key insights into the kinds of stories we tell about our planet. In seeking the habits of mind and imagination that undergird

forms of environmental politics and activism (rather than particular representational tendencies or political alignments), even texts that seem to have little to do with "environment" (Fisher's or Orwell's, perhaps) can become resources, can help us to understand the kinds of narrative structures on which our environmental politics depend. In 2018, after 400 parts per million, that kind of narrative knowledge about our finite, fragile planet has never mattered more.

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