

REPRESENTATIONAL CHALLENGES: LITERATURES OF ENVIRONMENTAL
JUSTICE IN THE ANTHROPOCENE

by

TAYLOR MCHOLM

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DISSERTATION APPROVAL PAGE

Student: Taylor McHolm

Title: Representational Challenges: Literatures of Environmental Justice in the Anthropocene

This dissertation has been accepted and approved in partial fulfillment of the requirements for the Doctor of Philosophy degree in the Environmental Studies Program by:

Stephanie LeMenager	Chairperson
Kirby Brown	Core Member
Courtney Thorsson	Core Member
Sarah Wald	Core Member
Daniel HoSang	Institutional Representative

and

Sara D. Hodges	Interim Vice Provost and Dean of the Graduate School
----------------	------------------------------------------------------

Original approval signatures are on file with the University of Oregon Graduate School.

Degree awarded September 2017

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DISSERTATION ABSTRACT

Taylor McHolm

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In this dissertation, I draw together an archive of twentieth and twenty-first century North American authors and artists who explore the settler colonial and racist ideologies of the Anthropocene, the proposed name for a contemporary moment in which anthropogenic forces have forever altered the Earth system. I hold that the “the Anthropocene” names a moment in which localized environmental injustices have become planetary. Addressing the representational challenges posed by the epoch requires engaging the underlying cultural assumptions that have long rationalized injustices as necessary to economic prosperity and narrowly conceived versions of national wellbeing. Works of literature and cultural representation can use literary and artistic form to this end.

In this dissertation, I identify one such formal strategy, which I term *insensible realism*. As a form of realism committed to representing the real impacts of discursive and material practices, insensible realism refers to the rejection of rationality and Enlightenment ideals that have been used to justify the White supremacy, settler colonialism and environmental destruction that instantiates the Anthropocene. A realism of the insensible also refers to my archive’s concentration on what cannot be easily

sensed: the epoch's social and environmental interactions that are physically, temporally, geographically and/or socially imperceptible to dominant society. I argue that these works eschew accepted notions of rationality and empiricism in favor of using non-dominant cultural traditions and theories of environmental justice to address the problems the Anthropocene poses. Challenging the dominant logics that have been used to rationalize racist, settler colonial and environmental violence of the Anthropocene creates space for alternative environmental commitments and narratives.

Throughout the dissertation, I draw on theories from women of color feminism, environmental justice scholars, settler colonial studies, theories of race, and new materialism. Through a critical environmental justice framework, I argue that the authors and artists that make up my archive develop a literary and artistic approach to environmental justice, using forms of representation to highlight—and challenge—the intersections of racism, settler colonialism and environmental destruction.

CURRICULUM VITAE

NAME OF AUTHOR: Taylor McHolm

GRADUATE AND UNDERGRADUATE SCHOOLS ATTENDED:

University of Oregon, Eugene
Pace University, New York City
University of California, Davis

DEGREES AWARDED:

Doctor of Philosophy, Environmental Sciences, Studies and Policy 2017,
University of Oregon
Master of Arts, English, University of Oregon
Master of Science, Adolescent Education, Pace University
Bachelor of Arts, English and Religious Studies, University of California, Davis

AREAS OF SPECIAL INTEREST:

Environmental Humanities
Environmental Justice
Race and the Environment
Post-1945 American Literature and Culture
Ethnic-American Literature

PROFESSIONAL EXPERIENCE:

Sustainability Affairs Coordinator, Office of Sustainability, University of Oregon

Graduate Teaching Fellow, Department of English, University of Oregon

Graduate Teaching Fellow, Environmental Studies Program, University of Oregon

GRANTS, AWARDS, AND HONORS:

Dissertation Success Program Grant, University of Oregon, 2016

Barker Foundation Grant for Research, University of Oregon, 2016, 2014, 2013

UO Dissertation Research Fellowship Nominee, English Department, University
of Oregon, 2016

Jane Campbell Krohn Prize for Best Ecocritical Essay, English Department,
University of Oregon, 2011

PUBLICATIONS:

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TABLE OF CONTENTS

Chapter	Page
I. THE INSENSIBLE REALITY OF THE ANTHROPOCENE: TOWARDS A CRITICAL ENVIRONMENTAL JUSTICE FORM.....	1
Introduction and Overview	1
The Problems of the Anthropocene	17
Realism's Limits in the Anthropocene	20
Chapter Overviews.....	27
II. A FORMAL SPILLING: LEAKING AND LEACHING IN THE ANTHROPOCENE.....	29
Introduction and Overview	29
The Aesthetics of Containment and Sequestration	31
The Insensible Realism of Warren Cariou.....	47
Disrupting Elimination, Decolonial Delinking	58
III. A NOVEL APPROACH TO ENVIRONMENTAL JUSTICE	63
Introduction and Overview	63
Petrochemical America and the Techno-scientific Imagination.....	66
Assessing Environmental Justice.....	80
A Novel Approach to Environmental Justice	83
Novel Solutions.....	108
IV. AN INVERSE ALBEDO: REFLECTING WHITENESS IN THE ANTHROPOCENE	113
Introduction and Overview	113
Name and Definition of the Anthropocene.....	117

A Rose by Any Other Name, An Epoch of Any Other Color.....	123
In Which Whiteness Collapses on Itself; or, All the Snow Honkies Come Home to Roost	127
Form in a Novel of the Anthropocene	151
A Parabasis for the Anthropocene	155
V. DROPPING DIMES INTO THE WURLITZER OF THE PLURIVERSE: DISRUPTING THE COLONIALITY OF THE ANTHROPOCENE'S TIME.....	
Introduction and Overview	161
Disrupting Settler Colonial Organization	164
The Temporal Framework of the Anthropocene	169
The Settler Mnemonic of the Anthropocene.....	187
Speeding up the Slow Violence of Environmental Injustice	194
Other Novels of the Anthropocene	200
VI. CODA: POST-HOLOCENE, POST-TRUTH.....	203
REFERENCES CITED.....	213

LIST OF FIGURES

Figure	Page
1. <i>Alberta Oil Sands #6</i> . Edward Burtynsky	39
2. <i>SOCAR Oil Fields #3</i> . Edward Burtynsky	41
3. <i>Recycling #2</i> . Edward Burtynsky	45
4. Warren Cariou reflected in his petrograph.....	48
5. “Morrisonville Dreams,” Richard Misrach and Kate Orff.....	70
6. “Past and Future Imagined,” Richard Misrach and Kate Orff	72
7. “Requiem for a Bayou,” Richard Misrach and Kate Orff.....	74

CHAPTER I

THE INSENSIBLE REALITY OF THE ANTHROPOCENE: TOWARDS A CRITICAL ENVIRONMENTAL JUSTICE FORM

Introduction and Overview

Prior to the 35th International Geological Congress, the Anthropocene Working Group held a vote. The group is an international scientific body made up of geologists, archeologists and Earth system scientists, and since 2009, they have tasked themselves with “analyzing the case for formalization of the Anthropocene, a potential new epoch of geological time dominated by human impact on the Earth” (“Media note”).¹ In preparation for the congress, the group voted on an official position regarding their object of study: is the Anthropocene real? Of the thirty-five voting members, thirty-four voted in favor of declaring the Anthropocene to be “stratigraphically real.”² Thirty then voted in favor of formalizing the Anthropocene, beginning the process of officially ending the Holocene. Where other epochs and eras had ended and begun as a result of massive extinctions from meteor strikes, ice ages that covered the Earth in miles of ice, and melting periods that caused massive floods, the current epoch will be ended by a vote that declares a startling reality: human beings have forever altered the foundational operation of the planet.

Following the vote, the group released a media announcement that proclaimed, “the Anthropocene concept, as articulated by Paul Crutzen and Eugene Stoermer in 2000,

¹ The Earth system refers to the interacting physical, chemical and biological processes of the Earth. It consists of both matter (including land, oceans, atmosphere, organisms and the like) and processes (such as nitrogen cycles, water cycles, and carbon cycles). Prior to the Anthropocene “human activities” were a part of the Earth system. The Anthropocene, however, denotes the moment in time when “human activities” have demonstrably altered the Earth system in its entirety.

² There was one abstention from the vote.

is geologically real” (“Media Note”). What does it mean for a *concept* to be *geologically* real? In drawing a distinction between the concept and the reality of its geological corollary, the AWG’s announcement asserts that there are multiple forms of reality; if there weren’t, there would be no need for the adverb to distinguish one form of reality (geologic or stratigraphic) from another (conceptual). The novelty and rarity of declaring a new geologic reality is intriguing on its own. After all, the entirety of human history has only ever been in one geologic age, and no single species has ever been the driving force of a geologic epoch. Equally compelling is the fact that a group of physical scientists casually offers that there is more than one form of reality. The basic assumption of the empirical sciences following the Enlightenment tradition is that the non-human universe is singular and knowable through controlled experimentation and rational analysis. Articulating multiple versions of the real, geologic or otherwise, therefore seems slightly misaligned with the disciplinary conventions of the group.

Considering the subject, however, perhaps this is not surprising. The *concept* of the Anthropocene, that is, the theoretical formulation and narrative of change, suggests that such a divergence from normal disciplinary boundaries is now inevitable. As a result of anthropogenic impacts on the most fundamental planetary operations, the epoch suggests that there is no world that is exterior to the human, and thus all areas of study will intersect with questions of humanity on some level.³ By declaring a concept to be *geologically* real, the Anthropocene Working Group is modeling the broken boundaries of human and natural realms by way of breaking the boundaries between humanist and natural science disciplines; they entertain the possibility of multiple realities based on

³ For more on the interdisciplinary requirements of the Anthropocene, see Hamilton, Gemenne and Bonneuil, *The Anthropocene and the Global Environmental Crisis: Rethinking modernity in a new epoch* (2015).

their subject positions and make an implicit argument that immaterial, discursive concepts are also “real.”

“Representational Challenges: Literatures of Environmental Justice in the Anthropocene” engages the Anthropocene epoch as a context and as an object of study. I consider the Anthropocene to be both a set of physical realities that demonstrate profound environmental alteration in a contemporary moment *and* a narrative, discursive concept. As an environmental humanist, I want to understand the discursive function of this concept and its ideological weight, particularly the move of positing all of humanity as responsible for profound environmental changes. As an environmental justice scholar, I’m committed to understanding the ways in which strategies of race and settler colonialism make such a move possible, particularly how these strategies conceal themselves and produce both the physical changes the Anthropocene narrates and the narrative itself. As a cultural critic, I’m compelled by the question of how authors and artists use representational strategies to draw attention to these ideological roots, particularly when doing so works against the dominant forms of thought and action that have brought about the epoch and its conceptualization.

This project brings these concerns together as I create an archive of twentieth and twenty-first century North American authors and artists who engage the settler colonial and racist ideologies of what has become known as the Anthropocene. I argue that these works eschew accepted notions of rationality and empiricism in favor of using non-dominant cultural traditions and theories of environmental justice to address the problems the epoch poses. Disrupting the dominant logics that have been used to rationalize racist, settler colonial, and environmental violence creates space for alternative environmental

commitments and narratives—narratives that marginalized communities have long been articulating and practicing.

Throughout the dissertation, I draw on theories from women of color feminism, environmental justice scholars, settler colonial studies, theories of race, and new materialism. I understand the environmental changes that instantiate the Anthropocene to be physically and ideologically the product of the strategies of White supremacy and settler colonialism, both of which work to conceal themselves and their social and environmental impact. Further, I approach the Anthropocene—narrative and physical reality—from a position of what David Pellow has called critical environmental justice studies, which I explain in greater detail below. Pellow articulates an intersectional approach to environmental justice, one that takes interconnecting social categories, social structures and environmental damage to be mutually constitutive. To evaluate how works of literature and visual art employ and expand this perspective, this dissertation focuses on racism and settler colonialism as the Anthropocene’s physical and epistemological geneses.

I hold that “the Anthropocene” names a moment in which localized environmental injustices have become planetary, extending well beyond local impacts and reverberating across the globe. The injustice of a radically altered Earth system has grown so profound that the heretofore-local disruptions to environments and communities are now shared across the planet.⁴ This requires an evaluation of and engagement with

⁴ Other scholars have made similar arguments in varying ways. I am particularly fond of Naomi Klein’s: “up until quite recently, that has held up as the grand bargain of the carbon age: the people reaping the bulk of the benefits of extractivism pretend not to see the costs of that comfort so long as the sacrifice zones are kept safely out of view” (311). With climate change, the sacrifice zones broaden, and it is impossible not to see them. It is important to note that while the impacts will effect everyone, the effects will continue to impact marginalized communities with greater severity. As Deeohn Ferris phrases it in Klein’s *This Changes Everything*, “we’re all in the same sinking boat, only people of color are closest to the hole” (314).

not just the acts themselves, but also with the underlying cultural assumptions that have long rationalized the injustices as necessary to economic prosperity and narrowly conceived versions of national wellbeing.⁵ In short, it requires decolonial and antiracist theory and practice.

Works of literature and cultural representation can use literary and artistic form to this end, mapping the interweaving social and environmental relationships and thereby imagining new modes of environmental commitment pursuant to non-dominant cultural traditions and epistemologies. I argue that the authors and artists that make up my archive translate environmental justice themes and theories into formal considerations, and they do so to engage the ideologies of settler colonialism and racism that justify social and environmental harm. What I call literatures of environmental justice, then, are not only categorized this way because their *content* engages themes of environmental justice. I classify them as literatures of environmental justice because their *modes* of representing these experiences are grounded in foundational understandings that undergird the movement.

In this dissertation, I identify one such mode, which I term *insensible realism*. The *Oxford English Dictionary* defines “insensible” as “so small, slight, gradual or hidden, as not to be perceived by the senses or the mind” (OED). A realism of the insensible therefore refers to my archive’s concentration on what cannot be easily sensed; that is, the social and environmental interactions that are physically, temporally, geographically and/or socially imperceptible to dominant society.⁶ Insensible also has a second meaning

⁵ I engage the concept of a narrowly defined national wellbeing more explicitly in Chapter II.

⁶ For example, physical imperceptibility occurs in cases of molecular interactions, when the body unknowingly interacts with harmful chemicals or compounds that are themselves odorless and invisible. The perceptible impact of these chemical interactions may take years to manifest, thereby producing a

that likewise informs my usage: “incapable of being understood; unintelligible; without sense or meaning” (OED). As a form of realism committed to representing the real impacts of discursive and material practices, insensible realism refers to the rejection of rationality and Enlightenment ideals that have been used to justify White supremacy, settler colonialism and environmental destruction.

I turn first to the latter definition. By eschewing strict rationality and empiricism, works of insensible realism articulate a vernacular approach, meaning that their content and formal decisions emerge out of deep cultural traditions and ways of knowing not necessarily pursuant to dominant culture. This is a central premise of environmental justice. Laura Pulido, for example, calls for theories of environmental justice that operate beyond the strict empiricism of specialized science, thereby encouraging vernacular forms of citizen engagement and experiential evidence (“Geographies”). Pulido explains that environmental racism proliferates because it cannot be proven in ways acceptable to the U.S. legal systems.⁷ Thus, environmental justice scholarship and action seeks ways to move beyond these hurdles by articulating alternative ways of knowing.

To tie this to literary and artistic form, I draw on the work of Rob Nixon and Ramón Saldívar, both of whom address the importance of the vernacular as resistant forms and modes of understanding. Nixon writes that the “environmentalism of the poor”

temporal dislocation; when illnesses like cancer do present, the source may be decades past. Geographic and social invisibility occurs when impacted communities are far removed from the sources of the harm. Island nations experiencing sea level rise, for example, are often invisible to the industrialized nations like the U.S., who are responsible for the climate altering emission causing sea level rise. Finally, social invisibility can be seen in the historical legacies of settler colonialism and racism, two processes that are often thought of as events that ended long ago, even though they continue on in the present, producing new environmental and social impacts alongside the reverberations of past injustices. Each chapter of the dissertation engages these multiple scales.

⁷ While she does not specifically address environmental justice, legal scholar Imani Perry’s *More Beautiful and More Terrible* similarly articulates “post-intent” racism, which argues in favor of redefining the necessity of intent and how intent itself should be understood (2011). I engage Perry’s work in greater depth in Chapter III.

occurs when “an official landscape is imposed on a vernacular one” and the local community resists such an “official” understanding of the environment (17).⁸ Nixon understands the vernacular landscape to be “shaped by the affective, historically textured maps that communities have devised over generations, maps replete with names and routes, maps alive to significant ecological and surface geological features” (17). It is, in other words, an understanding of place pursuant to a local understanding and the associated sets of commitments that result from that knowledge. The “official” landscape, in contrast, “writes the land in a bureaucratic, externalizing, and extraction-driven manner that is often pitilessly instrumental” (17). Such a vision produces disconnections from the localized social and environmental harms that result from that vision. Not seeing, feeling or believing those impacts allows the dominant society who benefits from the practices to rationalize and justify the harms to marginalized communities, both human and more-than-human.

Saldívar’s work is therefore helpful in understanding how vernacular forms of representation can imagine racial and social justice. While Saldívar does not address the environmental commitments of his canon, he articulates the politics of vernacular forms, which allows me to position his work alongside Nixon’s to understand the formal considerations of environmental justice in the Anthropocene. Saldívar creates an archive of authors who write what he terms “postrace” fictions of “speculative realism” (“Second Elevation” 5). These authors mix the histories of genres and generic forms to “raise as formal and thematic concerns the very nature of genre itself in relation to matters of

⁸ The environmentalism of the poor operates askance to mainstream environmentalism, particularly in its resistance to militarized commerce and development that threaten ways of life (4-5). As such, environmentalism of the poor is never single-issue oriented, focusing instead on maintaining environmental health and well being as critical part of their own health and wellbeing.

racial identity” (5). Saldívar explains that by mixing “canonic paradigms of classical, neoclassical, romantic, realist and modernist” genres with their “outcast, lowbrow, vernacular” corollaries, these vernacular forms engage the racial—and I would add settler colonial—politics of canonicity, providing alternative modes of knowledge (5).

Moreover, the vernacular forms of myth, magical realism, surrealism and what Saldívar terms “*sur*-realism” as an aesthetic of a diasporic global South, work against the singular celebration of rationality as *the* way of understanding the world (12). I build on Saldívar and Nixon’s work to articulate insensible realism, a form of working against the racist and settler colonial rationalization of environmental injustices that have now become planetary in scale.⁹

Indeed, rationality itself is often a tool of injustice, particularly environmental and settler colonial injustice. For example the recent work of Jon Gordon, Debra Davidson and Mike Gismondi specifically demonstrates how government and industry appeals to rationality undergird the massively destructive practice of Albertan tar sands refinement, a major contributor to climate change and the Anthropocene, which I explain in more detail in Chapter II. Similarly, in his essay “Coloniality and Modernity/Rationality,” Aníbal Quijano explains how the production of “modernity/rationality” is itself a colonial tool that posits rationality as a universal epistemology for the purposes of erecting modernity as a universal telos. Quijano explains that rationality is premised on beliefs of a singular subject that is the “bearer of ‘reason.’” (26). Through a process of racialization, moreover, other people who do not share this view of subject/object distinction are thought to be objects themselves, incapable of rational thought and therefore believed to

⁹ I further explain Saldívar’s formal analysis in relation to the Anthropocene and the limits of traditional literary realism below.

be scarcely human (28). The production of modernity/rationality as a universal concept thereby marginalizes, and ultimately seeks to eliminate, alternative epistemologies that do not serve the colonial project, and what's more, they disregard epistemologies that hold that humans are neither separate from each other nor from their non-human surroundings. To break from coloniality therefore requires a break from modernity/rationality, which would also allow for a version of environmental and social commitment that does not operate on faulty notions of firm boundaries.

The texts of my dissertation are insensible, then, because they operate out of their senses and at a slant angle to Western rationality, strict empiricism and their racial/settler colonial effects. Turning to the other definition of insensible, insensible realism *also* refers to forms of realism that concentrate on the imperceptible social and environmental interactions occurring across a broad range of temporal and geographic scales. Rob Nixon, Ulrich Beck, Stacy Alaimo and David Pellow, among others have noted that the current array of environmental problems register on several different scales. Nixon's provocative term "slow violence," for example, refers explicitly to how numerous environmental problems happen without spectacle and thus happen beyond what cultural norms make available in both news reporting and cultural representation (2). This work builds off Beck's notion of the global risk society, in which impacts are both geographically and temporally disjointed from their effects (Beck 334). Similarly, Alaimo demonstrates that such disjunctions often occur at the molecular level, as matter passes unbeknownst between bodies and therefore troubles the premises of subject/object rationality as Quijano articulates them (2). Consequently, David Pellow's recent call for a critical environmental justice studies holds as one of its central tenets that studies of

environmental justice must attend to these multiple scales, which can be difficult to comprehend and therefore adequately represent (223). To this end, works of insensible realism take as their subject material interactions that are too small, too large or too instantiated into the basic operations of everyday life to be fully noticed by the dominant society that has historically benefitted from them.

I extend Pellow's critical environmental justice as a method appropriate for the Anthropocene epoch. The ironic paradigm of the Anthropocene, in which the externalities that have given rise to resources and power now threaten their very bases, requires a new form of environmental justice scholarship and practice.¹⁰ Environmental justice scholars and activists have repeatedly demonstrated that the justification for degraded environments and harmful practices is built upon the believed expendability of certain marginal social groups that, for a number of reasons, do not have the political capacity to resist such changes or do not want to put themselves and their communities further at risk by doing so (Pellow 227).¹¹ Race, after all, is a strategy for creating and maintaining power structures, and thus it follows that race is used in deciding who benefits from certain environmental practices and who bears the burden of others. In a similar fashion, settler colonialism, as a process, is specifically grounded in attempts to eradicate Indigenous peoples, often for explicit access to their environmental resources (Veracini "Imagined" 179). On the other side of the matter, those with power to make decisions about how much environmental degradation is permissible do so with either a

¹⁰ As we shall see in each chapter, irony is also a significant formal convention in works of insensible realism.

¹¹ See also: Bullard, *Dumping in Dixie*; Cole and Foster, *From the Ground Up*; Pellow and Brulle, "Power, justice, and the environment: toward critical environmental justice studies."

faulty belief that negative impacts can be infinitely contained and separated or else put into areas and communities that are inherently more violable.¹²

Writing to intervene in the early stages of the “second-generation” of EJ, Pellow proposes critical environmental justice (CEJ) studies as a “perspective intended to address a number of limitations and tensions within EJ studies” (Pellow 223).¹³ He identifies and addresses four primary areas of concern for CEJ, each of which is a central pillar of this dissertation: first, an intersectional approach to environmental injustice, specifically placing emphasis on “multiple forms of identity,” rather than emphasizing social categories of difference separately (223); second, an approach that produces “multi-scalar analyses of the causes, consequences, and possible resolutions of EJ struggles,” rather than a focus on singular scales of EJ such as pollution in its immediate geographical area (223); third, attending to injustice as systemic, “entrenched and embedded” in society rather than only the product or lack of specific legislation and/or policy (223); and fourth, making explicit the “largely unexamined question of the expendability of human and non-human populations” (223). Pellow argues that this fourth concern has been “largely undertheorized,” and thus he hopes that CEJ works to further theorize the premise that the mutually reinforcing injustice for humans and the more-than-human requires that these populations be “marked for erasure and early death”

¹² Robert Bullard demonstrated in his landmark 1987 study “Toxic Wastes and Race” that such decisions follow racial lines. Bullard’s study revealed that race is “the most potent variable in predicting where [toxic waste] facilities were located—more powerful than household income, the value of homes, and the estimated amount of hazardous waste generated by the industry” (373). The study demonstrates causality, not just correlation. In other words, it is not a case of moving to an existing nuisance because such a nuisance has lowered property values to a point that those in poverty or in the lower-class can afford. The toxic dumps are sited in these areas because of the racial demographics and the intersections of class that accompany it.

¹³ Pellow classifies the first generation of environmental justice studies as concerned with documenting and exploring injustice through a lens of race and class. The second generation refers to a more “intersectional” approach, drawing on Kimberlé Crenshaw’s framework of intersectionality to understand how environmental injustice is the product of race, sexuality, class, gender and other categories working together.

institutionally and ideologically (224). Finally, to counter this last point, CEJ contends that such “threatened bodies, populations, and spaces are *indispensable* to building socially and environmentally just and resilient futures for us all” (224, emphasis in the original).

These four pillars support each chapter of “Representational Challenges,” which in turn expands Pellow’s framework by using literary and cultural analysis as means to further imagine and theorize just relationships between humans and the more-than-human world.¹⁴ The first pillar concerns an intersectional approach. Pellow uses Black Lives Matter (BLM) as a case study for the CEJ framework, demonstrating a willingness and encouragement to understand environmental justice through movements that initially appear well outside of a traditionally conceived “environmental” field.¹⁵ Pellow reads the “racial discourse of animality” used to describe both victims of violence and perpetrators of it as a constitutive element of racism and the target of BLM, noting the frequent invocation of animals and animality in the discourse within and against the movement, where figuring people as animals works both for racist actions and against them (226-227).¹⁶ Thus, he concludes, “we cannot understand racist violence, and the way we think,

¹⁴ Pellow celebrates and invites the humanities’ participation in this work, specifically drawing attention to Joni Adamson, Greta Gaard, Shannon Elizabeth Bell, Andrea Smith and Julie Sze (223). To this list, we can add a host of other prominent environmental humanists whose scholarship specifically uses cultural texts as a means of more fully understanding the complexities of environmental injustice and forms of imaginative and practical engagement to redress the injustice. Stacy Alaimo, Rob Nixon, Stephanie LeMenager, Sarah Jaquette Ray, Sarah Wald, Priscilla Ybarra, John Gamber, Paul Outka, Carolyn Finney, Jeffrey Meyers, and David Vázquez, to name but a few, have all published significant scholarship in the field over the last ten years or so.

¹⁵ The “traditional” field of environmental justice might be more at home thinking about toxic incinerators and point-source pollution instead of police brutality and state-sanctioned killings of Black Americans. “Traditional” must be placed in scare-quotes, however, as the EJ movement has always disrupted mainstream environmentalism.

¹⁶ For example, Baltimore County police officer Jennifer Lynne Silver proclaimed on social media that looting protestors reacting to the shooting of Freddie Gray were “animals” and a “disgrace to the human race” (Pellow 226). On the other side, activists often frame police officers as hunting African American males. Following the shooting of Walter Scott, Malik Shabazz, president of Black Lawyers for America,

talk, and enact it, without paying attention to the relationship between humans and nonhumans” (227). In this way, Pellow expands the intersectionality of BLM, which makes room for understanding the environment—broadly conceived—as a constitutive element of intersectional analysis. “Representational Challenges” similarly seeks to expand intersectionality to encompass environmental interaction and commitment as constitutive parts of identity, particularly as they relate to race and indigeneity.

Each chapter works to first identify how strategies of Whiteness and settler colonialism establish dominant forms of environmental interaction between humans and the more-than-human world. Each chapter also traces the ways in which such intersections have impacts on ever-widening scales. Attention to these multiple scales is the second pillar of the CEJ framework. As the unequal distribution of the impact of climate change demonstrates, Pellow argues that “scale is deeply racialized, gendered, and classed” (227). This affects not just the presence of harm, but the extent to which that harm gets noticed and addressed by wider communities (228). Here, the work of Rob Nixon, Laura Pulido, Ryan Holifield and Imani Perry has been particularly influential in understanding that environmental justice needs to be reconceived in order to bridge the gap between the lived reality of those impacted and the juridical processes that require varying levels of culpability and animus. These scholars argue that such a legal bar cannot be met given the way that toxicity and pollution occur diffusely and slowly, beyond the temporal limits set by judicial systems.

“Representational Challenges” as a whole treats such legal structures as indicative of larger, systemic forces that organize society. This is aligned with the third pillar of

stated on a CNN appearance that “Black men are being killed and hunted down like deer and like dogs,” also noting that it “feels like open season on Black men in America” (227)

CEJ, which seeks to demonstrate that “social inequalities—from racism to speciesism—are not aberrations, but rather are deeply embedded in society and reinforced by state power and market systems” (229). These forces are causal, not merely correlational. As such, Pellow writes that “EJ activists and scholars might begin to think about how to make our communities sites of EJ and racial justice *beyond the state* and its legal systems to deliver justice and to regulate industry” (230). Thinking “beyond the state” is particularly important for a decolonial practice, as relying on existing state regulations and enforcement reinforces legitimacy to the settler colonial state, as scholars like Glen Coulthard have demonstrated (2014).¹⁷ Mark Rifkin’s decolonial theory further develops this point with attention to temporal frameworks, which I subsequently apply to the Anthropocene. As Rifkin notes, settler colonialism “produces its own temporal formation, with its own particular ways of apprehending time,” which shapes both discourses of time and material “possibilities for interaction, development and regularity” within the settler State (“One. Indigenous Orientations”). I thus read the Anthropocene, an epoch proposed as a universal temporal totality with an implicit politics of futurity, as a settler construct that shapes actions and discourses by naturalizing the impacts of extractive capitalism, Whiteness and settler colonialism.

Finally, the fourth pillar of the CEJ framework seeks to correct what John Márquez calls “racial expendability” by arguing for “*racial and socioecological indispensability*” (Pellow 230). As scholars like Charles Mills have pointed out, environmental racism is rooted in the idea that dominant culture sees certain populations—those racialized as non-White, for example—as expendable and inherently

¹⁷ The United States, under the Trump administration appears set to entirely abdicate responsibility for environmental protection.

more violable, thereby producing a cultural common sense that justifies unequally distributing environmental harms among such populations (Mills 73). To this, I add settler colonial studies' understanding of logics of Indigenous removal, which only intensifies such justifications. As Lorenzo Veracini and Patrick Wolfe demonstrate, settler colonialism operates pursuant to a "logic of elimination" in which Indigenous peoples are removed physically, culturally and/or ideologically to make way for the settler state and its peoples as an uncontested totality. Critical environmental justice seeks to combat expendability and elimination by arguing for the necessity of both people of color and "broader communities within and across the human/more-than-human divide and their relationships to one another" (Pellow 231). Moreover, CEJ understands racial and socioecological expendability to be "as self-defeating as a vision of an economy and nation-state premised on the destruction of ecosystems" (231). Both social justice and ecological systems are vast networks in which "what affects one member or element affects all of them" and thus "the destruction of people of color harms White people and it harms the more-than-human world, and vice versa" (231). CEJ therefore underscores how environmental degradation, racism and settler colonialism are mutually dependent, and so too are environmental health and social justice. Each chapter of the dissertation demonstrates how the formal commitments of my archive employ and develop this perspective.

In terms of their content, the authors and artists I examine write, photograph, visualize, and otherwise imagine the constitutive parts of the Anthropocene and its planetary whole. Importantly, however, they also enact ways of thinking and understanding that run contrary to the dominant narratives and understandings of

environmental and social problems that have brought about the Anthropocene. In this way the “representational challenges” of my title has a double meaning. It at once refers to the challenges of representing the complex interactions of race, settler colonialism and various forms of environmental disruption, while at the same time it refers to the artists’ and authors’ disruptive representations that challenge the dominant logic that produces these multiple injustices.

In the sense that “representational challenges” refer to the difficulty for cultural production to engage these scalar problems, I build directly off Nixon’s work in *Slow Violence*. I analyze literary and cultural form as a way of giving “shape to formless threats whose fatal repercussions are dispersed across space and time” (10).

“Representational Challenges” investigates a set of formal and generic strategies that compellingly respond to Nixon’s argument that “to intervene representationally entails devising iconic symbols that embody amorphous calamities as well as narrative forms that infuse those symbols with dramatic urgency” (10). Instead of drawing out the more spectacular moments in accordance with accepted cultural tastes and expectations for environmental representation, the works I consider use disruptive forms to trace the racist, settler colonial roots of environmental problems. Their focus is not distant dystopian visions of spectacle awaiting us in the future; rather, these works draw on cultural traditions to engage both contemporary and past social injustices and their environmental impacts.¹⁸ In doing so, they articulate the Anthropocene as not just a moment of environmental injustices unfolding on a planetary scale, they demonstrate that

¹⁸ This is not to say that future dystopian visions aren’t a useful form of representation. They can be extremely productive for envisioning possible futures, which is an important practice as Ramón Saldívar has shown.

the narrative of the Anthropocene itself can perpetuate these injustices if it does not account for the strategies of racism and settler colonialism inherent to the epoch.

Structurally, each chapter creates a conversation between the epoch, criticism, theory, and cultural representation. These texts are voices in a larger conversation about the Anthropocene and environmental justice, and though the texts themselves may not explicitly engage the Anthropocene by name, they all engage the foundational premises of the epoch. In what follows in this introduction, I lay out what I understand to be the problems of the Anthropocene and why these problems require a new set of formal and generic strategies, which I identify in my dissertation's archive. This creates the second sense of "representational challenges," wherein authors and artists use literary and artistic form to challenge the foundational premises of the Anthropocene.

The Problems of the Anthropocene

"The Anthropocene" is itself a powerful form of imagination, one that productively uses scientific data to express the extent of environmental disruption through an encapsulating narrative. Despite its generative capacity, the Anthropocene, as a concept, has a problem. Regardless of the empirical realities of a disrupted Earth system, "the Anthropocene" often casts the relationship between humans and the non-human-environment in ways consistent with the dominant logics of racism and settler colonialism. This can naturalize the specific forms of environmental-human interaction and therefore undercut the productive capacity of reframing dominant understandings of the environment through a new, radical term.

Geologically speaking, “the Anthropocene” is the proposed name for a new geologic epoch instantiated by anthropogenic forces so impactful that they have changed the functioning of the Earth system. The Anthropocene Working Group adopts the term coined by Paul Crutzen and Eugene Stoermer and suggests it to denote a unique geologic epoch in which the Earth system has been “profoundly altered by human activities” (“Media Note”). But exactly which humans are responsible for “human activities” is a crucial point of fact. While the Anthropocene is a compelling and important topic in a strict geologic sense, the recent popular usage of the term suggests a broader cultural resonance beyond the discipline of geology. This is why “the Anthropocene” carries dangerous ideological potential in affirming the racist and settler colonial processes that have caused the changes to the Earth systems. Because the Anthropocene necessarily blends the non-human natural world with the so-called human world, the specific forms of society responsible for the harmful changes can be naturalized. In other words, White supremacy and settler colonialism—the driving strategies behind the economic activities that cause the changes—are taken as simply “human,” effectively displacing modes of living and knowing that have *not* brought about devastating changes to the Earth system. Moreover, these modes—many of them traditional and Indigenous—are the most threatened by the changes represented by the Anthropocene.

This comes through the way that the “Anthro” in Anthropocene signifies all of humanity and thereby suggests that the epoch, a geologic age of *human* creation, is the product of human activity writ-large. This is not true. As social scientists have repeatedly pointed out, the Anthropocene is a product of a specific form of society, not a product of

all of human activity.¹⁹ For example, Andreas Malm and Alf Hornborg specifically classify “the Anthropocene” as ideology given that it “occludes the historical origins of global warming and sinks the fossil fuel economy into unalterable conditions” (67). The fossil fuel economy, which Malm and Hornborg argue is a foundation of the Anthropocene, did not occur equally across all human societies, and its impacts, both positive and negative, have not been equally distributed across all human societies (66). Therefore, using the prefix “anthro” mischaracterizes the epoch as equally produced by all humans.

Accordingly, I consider the Anthropocene as both a set of real, material disturbances to the functioning of the Earth system and as a narrative that organizes those disturbances into a cohesive plot about the transgressive impact of so-called “human activities.” As Dana Luciano explains, the Anthropocene gives massive environmental problems like climate change “not just periodicity but narrativity” (“The Inhuman Anthropocene”). In other words, the Anthropocene narrative not only marks things like climate change and a disrupted nitrogen cycle in the historical geologic record, it attaches characters and a linear plot to these changes, making them more comprehensible for those who are not Earth system scientists or geologists. In short, the narrative makes the complicated array of data and massive time scale digestible through a more readily understandable form.

As Luciano continues, the well told story of the Anthropocene “relies upon conscious plotting and the manipulation of feeling” (“Inhuman Anthropocene”). Like all narratives, the Anthropocene works ideologically, bringing some things into view while moving others out of view, erecting and reaffirming power structures as it does so. As it

¹⁹ See: Patel 2013; Norgaard 2013; Parrika 2014; Malm and Hornborg 2015; Crist 2016

has been understood as a demonstration of human impact, the Anthropocene brings into view just how extreme modern society has become in its environmental impact, doing what no species has done before in altering the way the planet functions. However, as it is understood to reference “human” impact on a species level, the Anthropocene narrative obscures exactly which humans are responsible for the shift, and how specific racist and settler colonial strategies are necessary to justify such profound environmental impacts while at the same time creating social injustices. For the narrative of “the Anthropocene” to fully realize its positive political potential, the reality of the epoch as a settler colonial and White supremacist phenomenon must be clear. I argue that the literary and artistic form of insensible realism can work towards this end.

Realism's Limits in the Anthropocene

The AWG’s media note demonstrates that the issue of the Anthropocene cannot be separated from the issue of multiple realities or the representation of such realities. As I have discussed, the massive and in many ways incomprehensible phenomena that make up the Anthropocene produce representational challenges to the artists and authors who attempt to take it on as subject. This is a problem not just for cultural producers, but also for those of us (and there are quite a lot of us) who use cultural products as a way of understanding experiences and making meaning of the world.

Perhaps the reason why the phenomenon of climate change has not been successfully met with a political or cultural engagement is that the dominant forms of culture are simply poorly equipped to meaningfully communicate the experience of it. For example, in his investigation to answer why novelists, himself included, have been so

unsuccessful in writing compelling novels about climate change, Amitav Ghosh explains that the challenge derives as much “from the assumptions that guide the arts and the humanities” as it does from the inaccessibility of techno-scientific language used in documenting the reality of climate change (9). For Ghosh, this is “perhaps the most important question ever to confront *culture* in the broadest sense,” and it has its roots in the fact that “the climate crisis is also a crisis of culture, and thus of the imagination” (9). If we can adequately comprehend these assumptions and the workings of imagination, Ghosh reasons, we can perhaps explain why representational forms have had such a difficult time communicating climate change and thus why there has been so little meaningful action to combat it.

Ghosh’s central argument is that literary realism, as a form, is unable to adequately address climate change because of the way it conceals the phenomenal, the exceptional, and the improbable in an attempt of representing everyday life via the quotidian.²⁰ Adding a bit of nuance to Ghosh’s central argument helps extend his analysis.²¹ Throughout his book, Ghosh’s depictions of climate change tend to focus on the spectacular: rogue cyclones, massive storms, flooding, and the like. These, however, are weather events, not climate change. While weather events will certainly become intensified in a changed climate, climate is not reducible to a single catastrophic weather event. Moreover, as the UN Human Development Programme stated in 2007, “climate

²⁰ Throughout the book, Ghosh uses “climate change” and “the Anthropocene” interchangeably. While the two are related, they are not the same, and the distinction is important. Climate change is the result of atmospheric composition, predominantly the increase in greenhouse gasses (like carbon dioxide and methane) that trap heat in the atmosphere and lead to a gradual warming of the planet. Climate change refers to a single “sphere” of the Earth system, the atmosphere, though it certainly will have implications on other spheres. The Anthropocene, on the other hand, is a geologic age named for the disruption to the entirety of the Earth system, not just one of its constitutive parts.

²¹ Ghosh himself draws attention to the fact that he is painting with “a very broad brush,” presumably because his book is aimed more at a popular audience than cultural critics and environmental studies scholars, such as this dissertation is.

change will not announce itself as an apocalyptic event in the lives of the poor,” ensuring that “direct attribution of any specific event to climate change will remain impossible” (9). The report continues, explaining that this will make it difficult to communicate climate change and correctly frame it in popular news media because these forms tend to focus on the spectacular: the rogue cyclone, massive storms, flooding, and the like. This gives the impression that when there *are not* such spectacular weather events, climate change is not occurring. From the UN’s perspective, climate change is difficult to communicate precisely because it is *not* improbable, exceptional, or phenomenal.

The problem is that the Anthropocene’s disrupted nitrogen cycles, its changed climate, its plastic rocks and sedimentary layers, its slow extinctions are imperceptible *except* in those moments when they are spectacular. It is the backdrop of normalcy that announces itself as abnormal only when there are visible disruptions. Most of the time, humans cannot sense its presence, and when we do, it is often only after a disaster. So, part of the challenge of representing the Anthropocene with dominant forms of representation like literary realism comes from the fact that the Anthropocene is both spectacular and quotidian at the same time. It manifests itself improbably while simultaneously establishing a new normalcy.

Many of Ghosh’s arguments about climate change serve as useful starting points for articulating my own arguments about the Anthropocene, primary among them the importance of the literary and cultural form of realism and its over-reliance on probability and rationality. Ghosh notes that the modern novel and probability “are in fact twins”: the realist novel is a narrative about the everyday probable, rationalizing the economic and political ideologies of modernity (16). In other words, the realist novel crafts a narrative

that suppresses the extraordinary in favor of bringing everyday life front and center, thereby solidifying a particular form of social arrangement as a normal one.²² This is not to say, however, that improbable or exceptional things do not occur in modern realist novels. On the contrary, realist novels rely on these moments for plot points that move the story forward; otherwise, as Ghosh points out, the novelist's work would be to catalog and chronicle every single part of the world and its happenings in its entirety (23).

Therefore Ghosh concludes that there's an irony to realism that helps explain why the form has had such struggles with climate change, and why any novel that does deal with climate change is deemed to be part of genres that are, by definition, focused on the improbable, impossible or fantastic: science fiction; speculative fiction; fantasy; or other so-called *genre literatures*. The irony comes from the fact that the real world *does* involve improbable, exceptional, and fantastic moments, many of which are our very reasons for being. Thus, Ghosh concludes, "the very conjectures with which [the realist novel] conjures up reality are actually a concealment of the real" (23). Reality, in other words, becomes insensible.

For Ghosh, this concealment of the abnormal real in favor of an imagined, normal, rational real speaks to the reason why novelists have had such a difficult time writing about climate change: things aren't normal anymore, not by old standards anyway. But not all literature is overly concerned with the rational and the real. While Ghosh offers a brief thanks for the existence of surrealism and magical realism as a reprieve from the celebration of normalcy, he just as briefly explains that these modes

²² Here, Ghosh turns to Franco Moretti who refers to the prevalence of the everyday in the novel as "fillers," which he explains are "an attempt at rationalizing the novelistic universe: turning it into a world of few surprises, fewer adventures, and no miracles at all" (Moretti, qtd. in Ghosh 19). Novels, in other words, rationalize the modern world of bourgeois life, transmuting economic and political ideology into "the sphere of free time, private life, entertainment, feelings" (ibid).

aren't quite right for the age of climate change because the improbable, fantastic events of climate change are "neither surreal nor magical" but rather "overwhelmingly, urgently, astoundingly real" (27). In this dissertation, I address forms of literature and cultural representation that *aren't* normal in the strict hegemonic sense but nonetheless *are* concerned with the "overwhelmingly, urgently, astoundingly real" social and environmental justices that have brought about the Anthropocene epoch and stand to be intensified by it. These texts specifically work against the presumed stability of modern life by demonstrating the environmental and social injustices that marginalized communities have historically experienced—experiences that may be normal to them but are at odds with a dominant version of normalcy depicted by mainstream culture. In short, these texts *reveal* other forms of reality, both discursive and material, rather than conceal them.

The broad approach Ghosh uses to describe the realist novel relies on the idea that the real and the probable are always the same for everyone. Of course they are not, and they never have been, particularly with regard to marginalized communities.²³ This dissertation looks at the forms of literary and cultural representation that take as real what a privileged subjectivity might consider improbable or fantastic. The texts demonstrate that distinctions between what is improbable and what is probable rely on specific subject experiences, and these texts have not fully acquiesced to the celebration of rationality and probability that marks literary realism as it is traditionally defined. As such, they not only

²³ That a particular subject position provides access to a non-dominant understanding of reality is foundational premise of intersectional criticism. In *Black Feminist Thought*, for example, Patricia Hill Collins writes that the intersectional experiences of Black women provides a "stimulus for crafting and passing on subjugated knowledge" at odds with dominant narratives (8-9). These knowledges and experiences are essential for understanding the ways in which social systems not only shift and maintain power, but how they can be subverted by, in part, calling attention to what goes unseen in the dominant understanding of the world.

confront the challenges of representing climate change and the Anthropocene, they challenge the forms of representation that have given rise to the culture that has concealed the Anthropocene's racist and settler colonial root causes.

To bring together the formal considerations of environmental justice with the challenges of representing the Anthropocene, I build on Ramón Saldívar's recent work articulating postrace fictions of speculative realism. According to Saldívar, speculative realism refers to the "revisions of realism and fantasy into speculative forms that are seeming to shape the invention of new narrative modes in contemporary fiction" ("Second Elevation" 3). I draw on the specific genre of fantasy in Chapter IV, but more germane to this introduction are Saldívar's explanations of the limits of realism and the need for new a form of it for representing and imaging social and racial justice. I diverge from Saldívar by drawing explicit attention to some of his archive's engagement with *environmental* justice as a necessary component of social justice, an engagement that grounds the work of the authors and archive of my dissertation.

Like Ghosh, Saldívar builds off of Franco Moretti in discussing form's importance. In literatures that operate on the periphery of dominant culture, form expresses an engagement and adaptation with dominant modes of understanding and expressing experiences (Moretti 57). Formal analysis can therefore be particularly useful in uncovering social relationships given that, in the words of Saldívar, "forms are abstracts of social relationships" and thus "formal analysis is in its own modest way an analysis of power" ("Historical Fantasy" Saldívar 581). How authors and artists adapt, adopt, or disregard certain formal conventions provides insight into how dominant understandings and dominant narratives are but one way of organizing experience into

cultural representation and dominant ideology. Especially when elements of form have become so ingrained into dominant culture that they are taken as given, any disruption to that form is jolting, and often illuminating, by way of its dissonance.

So for the authors that Saldívar addresses, form becomes a way of addressing the limitations of conventional forms in achieving justice. Like Ghosh argues of climate change, this is due, in part, to a failure of imagination, and one that content alone cannot address. Instead, the very ways that we think and represent social, racial and environmental justice need to be re-imagined and reformulated. Saldívar explains that this comes through navigating accepted forms of representation by drawing on the “traditions of the vernacular narrative” that operate externally to dominant forms (593). Dominant forms are inadequate for articulating a newly imagined social justice commitment because they operate with the same ideological premises that have created the social injustices they might otherwise seek to combat. Instead, posttrace speculative realist authors use new forms, pursuant to their own vernacular cultures, to surpass the limitations of dominant forms.

Saldívar’s theories thus help extend Ghosh’s critique. Ghosh’s concentration on the limits of realism in depicting climate change and the Anthropocene does not take up these vernacular forms, and focuses instead on the dominant form of realism in novels. In this dissertation, I mobilize Saldívar’s theories of alternative forms of realism to critique social and racial injustices, and do so specifically by suggesting that the vernacular traditions being drawn upon share deep commitments with environmental justice in the Anthropocene. I argue that the construction of a hegemonic racial and settler colonial social order requires certain ideas of engagement (or disengagement, as the case may be)

with the willingness to ignore and/or transgress planetary boundaries.²⁴ Thus, race, racial formation, and settler colonialism cannot be decoupled from the Anthropocene's political stakes.

Chapter Overviews

“Representational Challenges: Literatures of Environmental Justice in the Anthropocene” demonstrates how strategies of whiteness and settler colonialism produce environmental degradation, while simultaneously demonstrating how representational strategies that emerge out of historically marginalized cultures offer alternative understandings of the interaction between humans and the more-than-human world. Using the literary and artistic form of insensible realism, the artists and authors I examine provide an opportunity to imagine modes of environmental care and commitment that are divorced from logics of expendability and elimination, and are instead grounded in the indispensability of Indigenous peoples, people of color, and the more-than-human world.

Chapter II begins with the foundations of the Anthropocene by first reading its local impacts against Warren Cariou's place-based forms of cultural representation that resist the logic of the tar sands operations in Alberta, Canada. Portions of this chapter have been published in *Western American Literature* (McHolm 429). From here, the dissertation expands outward through broader geographic, temporal and social scales. In Chapter III, I engage the historical and geographical impact of racism, settler colonialism and toxicity through Percival Everett's *Watershed* (1996) and Robert Mistrach and Kate Orff's *Petrochemical America* (2012), as both works tie local experiences to broader

²⁴ These moments of simultaneous environmental crisis appear throughout the works of Diaz, Plascencia and Whitehead, just as they do in the specific archive of this dissertation, which shares many of the same social justice commitments and formal experimentation as Saldívar's archive.

historical and geographical systems. The final two chapters, focusing on Mat Johnson's *Pym* (2011) and Sesshu Foster's *Atomik Aztex* (2005), respectively, work in tandem to engage the Anthropocene conception and its usage. Specifically, I use these works of fiction to trace the epoch's settler colonial and racist roots in both the Anthropocene's physical origins and its epistemological genealogies, demonstrating how the formal conventions of these novels highlight and contest dominant modes of understanding (and representing) relationships between the social and the environmental. Finally, I end the dissertation with a brief coda tracing the connection between the post-holocene era of the Anthropocene and the so-called post-truth era that has come to typify contemporary American Politics. I also signal the need for a sustained gender analysis in environmental justice literatures of the Anthropocene.

CHAPTER II

A FORMAL SPILLING: LEAKING AND LEACHING IN THE ANTHROPOCENE

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Introduction and Overview

Though “the Anthropocene” refers to a planetary whole, the social and environmental impacts it names are grounded in local practices and understandings. Often, however, these local practices and understandings are hidden, only becoming visible when their impacts become so disruptive that they are no longer avoidable. This chapter demonstrates that artist and scholar Warren Cariou’s insensible realism challenges the operational logic and legitimacy of petromodernity, a key constituent of the Anthropocene, by making visible the racist and settler colonial roots that undergird the local material impacts that have now become global. Cariou’s work brings forth the materiality of these practices in the Alberta tar sands, allowing viewers and readers to trace anew the physical presence of oil all around them.

Stephanie LeMenager defines petromodernity as “a modern life based in the cheap energy systems long made possible by petroleum” (“Aesthetics” 60). Like all forms of modernity, petromodernity has produced numerous aesthetic responses. Methods of representing petromodernity that rely on its existing operational logic, however, ultimately replicate the same techno-scientific rationality and dis-location that produce the harmful practices. To illustrate this, I first point to environmental photographer Edward Burtynsky’s 2009 *Oil*. Though the subject matter of *Oil* is, indeed,

the visible evidence of a failure to contain and separate oil, the aesthetic treatment of the subject ultimately employs and reifies the troublesome logic and appeals to rationality.

Recent work by Debra Davidson, Mike Gismondi, and Jon Gordon attends to the ways that proponents of the Alberta tar sands project justify its harms through appeals to reason. As Gordon argues, what may be necessary to disrupt petromodernity and its numerous ills is a form of representation that challenges the logical premises of petromodernity (Gordon xlix). Following Gordon, I offer a formal analysis of Warren Cariou's creative work, in particular his 2012 "Tarhands: A Messy Manifesto" and his 2014 new media project that he terms petrography, referring to petroleum as both the subject matter and material of the medium.

Writing about Cariou's short story "An Athabasca Story," Gordon suggests that we understand "Cariou's call for an 'irrational response' to bitumen extraction as an attempt to expose the flaws in the 'rational' and 'common sense' logic of capitalism, a move to 'uncommon sense'" (107). In a recent essay co-written with Cariou, Gordon extends this analysis to Cariou's petrographs. Arguing that "literature has the potential to interrupt the relentless justifications and rationalizations of and for the status quo," Gordon explains that petrographs "are a new medium for such interrupting" (3).

In order to account for the amplified ways that petromodernity's logic affects Indigenous communities, the analysis needs to be informed by theories of settler colonialism. I argue that Cariou's work spills across form and genre, thereby challenging an aesthetic and form of logic that seeks to sequester the environmental and social ills of petromodernity. Cariou's "Tarhands" and his petrography purposefully break with established conventions of genre and form in order to produce a confusion that does not

track with the techno-scientific rationality that has produced settler colonial petromodernity. Their forms leak, leach, and spill in an effort to challenge the very legitimacy of a rationality that somehow continues to justify itself even while its negative social and environmental impacts abound. I argue that Cariou's disruptive and formally innovative work is not only a critique of the logic of capitalism or petromodernity but also a critique of settler colonialism, which also operates through a logic of separation, containment, and a fantasy of elimination, as Patrick Wolfe has argued. Further, the work's irrationality performs an epistemic shift rooted in a connection to place, traditional Indigenous relationships with bitumen, and Cariou's own Métis heritage.

The Aesthetics of Containment and Sequestration

The logic of petromodernity exists in the delicate trade-off based on the perceived ability to erect firm boundaries, both physical and social. This produces, and reproduces, an ideology of "containment and sequestration," a descriptor I borrow from Cariou's diagnosis of modernity as a state of mind that he calls "Wastewest" in an essay of the same title (25). Pursuant to an ideology of containment and sequestration, petromodernity weighs the potential negative impacts of petroleum against the potential positive impacts. Knowing that both risk and reward are great, justification for the process of extracting, refining, transporting, and using oil ultimately comes down to a rational process of mitigating the risks by undertaking various measures to separate oil's inherent harms to fragile systems by containing those harms. So long as the containment is effective, the separation of goods and ills seems equally effective, and all seems well. The problem, however, are the spills.

By definition, a spill is a failure to keep something in its designated place. An oil spill, of course, is no exception. Theorizing spills in cultural representation, LeMenager explains that “the spill categorically defies endings, persisting in space and time through its effects on ecosystems and bodies” (“Spills” 6). I add that spills represent the moment in which the delicate, rationalized trade-off fundamental to petromodernity has been transgressed. Owing to this transgression, spillage is disruptive to traditional forms of representation.²⁵ As LeMenager explains, because spills are “multiply sited, difficult to grasp in terms of precise causes and effects,” they figure in narrative media as “a happening resistant to coherent plot” (6).

Much like his subject matter, Cariou’s work overflows the boundaries of genre and form, existing in the playful possibilities of decolonial irrationality. Cariou’s insensibly realistic work presents both oil and the conditions of petromodernity—including a continuation of settler colonial attempts to eliminate Indigenous peoples—in a way that disrupts dominant ideology, which holds that separation and containment of the unwanted is possible in the first place. While doing so, both “Tarhands” and his petrography assert the materiality of oil and the local impacts of its use and extraction, both of which are routinely made invisible.

In his essay “Wastewest: A State of Mind,” Cariou contends that we should understand western modernity as “wastewest,” a place of environmental damage resultant from an underlying belief that modernity’s waste can be wholly contained. In response, Cariou offers that many artists, like Canadian photographer Edward Burtynsky, have

²⁵ Defying traditional representation in this way, spills operate as a form of what Rob Nixon has called “slow violence.” Though the initial spill itself is a spectacle that lends itself well to traditional representation and narrative, the damage lasts long after the visible spectacle of the spill itself has been disappeared by cleanup efforts and public relations campaigns (273).

been trying to point out this “self-deception by drawing public attention to the aspects of our way of life that people don’t like to see” (24-25). Then, in an effort to point an alternative epistemology and relationship with “waste,” Cariou points to his uncle Eli’s experiences at what Eli calls his “Métis mall,” or what those of us here in wastewest would simply call “the dump.” His uncle’s engagement with the waste (“you can find good stuff in there!”) suggests that the contents are not necessarily waste at all (27). Cariou points out that his uncle recognizes that the dump is by no means the final resting place of its contents, and while Cariou is quick to clarify that “*not all Métis people do this!*” (italics emphatically in the original), he suggests that Eli’s interactions with waste “in some ways represent a persistence of a traditional way of life” that he has learned about from Cree and Métis elders (28).

This counter-understanding of waste evinces an understanding that the term “waste” evinces an epistemology that holds that once a thing’s singularly defined usefulness has expired it can be materially and mentally relegated to a place outside of society’s daily operations. Along the same lines, the environmental hazards of what are inherently toxic and dangerous processes like tar sands extraction and refinement are not, and cannot be, effectively contained. At some point, Cariou explains, “dams break. Nuclear containment facilities fail. Tailings ponds leach” (25). These are moments of disruption in the narrative of petromodernity.

Sequestration and containment become all the more impossible once petroleum and human bodies become “trans-corporeal,” using Stacy Alaimo’s productive conceptualization (Alaimo 2). When petroleum, its products and its byproducts, enter into human bodies and become part of the human, a formal aesthetic that reflects an ideology

of separation is an ineffective means of representing environmental and social harm. Thus, insensible realism—a form of realism that eschews techno-scientific rationality in its attempts to represent that which cannot (or can no longer) be sensed—is more adept at representing the material flows of petroleum alongside the social structures that produce them, subsequently challenging the very legitimacy of petromodernity and its upholding by settler colonialism.

Edward Burtynsky's *Oil* (2009) typifies an aesthetic of sequestration and containment that reifies the dominant logic of petromodernity, even in its attempts to document its failure. I begin with his work, before turning to Cariou's own artistic endeavors, for three reasons. First, Burtynsky is perhaps the most well-known and commercially successful environmental photographer working today. While popularity and success are not immediate indicators of relevancy or importance in and of themselves, Burtynsky's work has produced a wealth of critical attention owing, for the most part, to his use of the "sublime," which situates him within a long line of mainstream environmental representation and figures him as a kind of Ansel Adams of the Anthropocene. Much of this criticism, however, does not engage with the politics of the sublime as an aesthetic choice, which I suggest is necessary. Second, *Oil* clearly demonstrates the ideology of sequestration and containment, taking part in a techno-scientific rationality that I argue Cariou necessarily, and successfully, challenges. Third, in addition to making these critical arguments about Cariou's work, I want to make an argument that Cariou belongs alongside the very prominent Burtynsky as both an interlocutor and as an artist. While Burtynsky's work has been critiqued for contributing to the Environmental Justice Movement's (EJM) "erasure under the abstractions of the

sublime” (Ziser and Sze 401), Cariou’s work draws upon rich, Indigenous literary and artistic traditions, thereby advancing environmental justice by focusing on race, class and nation. In this way, Cariou’s insensible realism represents a crucial means of knowing oil.

Cariou’s critical engagement with Burtynsky in “Wastewest” suggests that this is a conversation that Cariou himself has already started. Cariou lauds Burtynsky’s attempts to expose what he calls, “the unconscious of modernity” (26). Like most of the critics who engage with Burtynsky’s work, Cariou raises the aesthetic dilemma at the core of Burtynsky’s reception: does the beauty of the photographs celebrate the very process he’s documenting, and is that bad? Most of the critical response to this question, however, takes the beauty of Burtynsky’s work for granted. This is, in part, due to Burtynsky’s masterful technical proficiency and command of the form evident in each of his photographs. But the question of *why*, precisely, these photographs are considered beautiful is hardly broached, perhaps because the classification of them as being “sublime” is so readily available. The debate, such as it is, is mostly centered on what flavor of sublime is most appropriate: Is it industrial sublime, glorifying humanity’s awesome technological prowess? Is it, as Catherine Zuromskis argues, a postmodern sublime that moves viewers to a fraught ambivalence towards oil typical of petromodernity (Zuromskis 306)? Or does this ambivalence towards the subject matter mean that it is *not* the industrial sublime, per J.R. Koven, who points out that to qualify as industrially sublime, the work must necessarily valorize industry (Koven 139)?

Cariou holds that what we see in Burtynsky is “waste made sublime,” but he is disengaged from the conversation of whether or not this is a bad thing. Cariou concludes that the value of Burtynsky’s work is that it makes “people see what they wouldn’t

normally want to see,” and that it exposes them to “aspects of our way of life that people don’t like to see” (“Wastewest” 26). So, Cariou concludes, “if that vision must be sugar-coated with aestheticism, so be it” (26). Refreshing as the disengagement may be, in his dismissal Cariou skips over an important opportunity to connect the viewer’s willingness to look at what he or she wouldn’t normally want to see (the social and environmental violence undergirding petromodernity) with the aesthetic qualities that make us so willing to see. What makes the photographs beautiful is in fact an aesthetic approach that imposes order and symmetry on chaotic processes, often by way of what has been repeatedly termed Burtynsky’s “God’s eye view” (or, less romantically, a view from a helicopter). In other words, the beauty of Burtynsky’s work comes from the aesthetic analogs to an ideology of separation and containment.

By way of example, let us consider three photographs that are immensely popular as the subjects of critical work: namely, *Alberta Oil Sands #6* (fig. 1), *SOCAR Oil Fields #3* (fig. 2), and *Recycling #2* (fig. 3), whose naming conventions alone suggest an indexical ordering and rationality. Viewing these photographs while mindful of Cariou’s diagnosis of wastewest ultimately troubles his own argument that Burtynsky’s work pulls back the curtain and exposes the underlying unconscious of modernity. While Burtynsky’s photographs may give us access to the waste that we moderns would otherwise prefer not to think about, they formally depict that waste in a way consistent with the techno-scientific rationality that has produced it.

The viewer’s access to this waste comes about through Burtynsky’s prestige, which grants him access to places that other artists cannot access for both geographical and political reasons. Not only are the locations of his shoots relatively inaccessible as a

result of their sequestration from the economic and cultural “center” of modernity, most of Burtynsky’s photographs require the permission of those who control those spaces. In these cases, the question of Burtynsky’s politics that arises out of his aestheticization of these places works to allow Burtynsky to continue photographing these spaces. As Koven points out, the photographs feel quite at home lining the walls of the numerous corporations, celebrating the expanse and ingenuity of these projects (128). Because Burtynsky’s work, and Burtynsky himself prior to *Oil*, did not offer a clear indictment of the processes, the images can be read as open to serving the projects’ ends. While this makes environmentalists nervous, it makes those who control these spaces more comfortable granting permission to Burtynsky to shoot, knowing that their spaces aren’t the subject of a ground-truthing operation to expose vast evils.

The issue of “access” is not just an issue of permission; it’s an issue of accessing a perspective that comes with physical height, a view that is inaccessible to most not privileged with the ability to ride in, or pilot, a helicopter to far off places. The artistic motivation for such a vantage point has clear roots in the established mainstream of environmental representation.²⁶ The aesthetic force of these images comes via the ability to impress order upon the wilderness, thereby making it a “landscape.”²⁷ The result is an aesthetic containment of what, from nearly any other perspective, is far beyond a

²⁶ The tradition of mainstream environmental photography is not without its own historical controversy. Nineteenth century photographer Eadward Muybridge, for example, is rumored to have selectively felled trees that interfered with the now iconic vista. Indeed the power of Muybridge’s images, and those like it used for conservationist ends, comes with the perceived realism of the photograph itself: this place really looked like this in real life, and thus it is culturally and politically valuable to a settler-imperialist nation that prides itself on the rugged beauty of the American frontier and the rugged beauty of those that would “tame” it, or magnanimously elect not to, preventing others who have inhabited the areas for millennia to do so as well. The grandeur and compositional wholeness of Muybridge’s image, like Burtynsky’s, comes from attaining a perspective that is otherwise unavailable to the unaided human eye. See Dunaway, *Finis. Natural Visions: The Power of Images in American Environmental Reform* (2009), and *Seeing Green: The Use and Abuse of American Environmental Images* (2015).

²⁷ See Mitchell, W.J.T. *Landscape and Power*, which Zuromskis quotes as epigraph to her essay on Burtynsky and the New Topographics.

human's perceptual limits. Thus, we refer to it through the more-than-human nomenclature "bird's eye," or the even more enigmatic "God's-eye" view.

Tracing the presence of the sublime in Burtynsky's work, critic J.R. Koven explains that this terming is an attempt at envisioning the world for the perspective of a necessarily rational creator (136). The images' perspective tacitly proclaims that humans can understand the incomprehensible if we can just get to a point where we can see it more fully. From this vantage point, scope and scale are not just altered; they become, for the first time, *possible*. By visually containing the subject matter through an elevated perspective, what is initially unordered becomes ordered. Moreover, the perspective allows the creation of a boundary, a separation between the vast project of tar sands mining and the environment beyond it. The compositional framing of Burtynsky's *Alberta Oil Sands #6* serves a perfect example (fig. 1). The photograph seems a near perfect study in the aesthetic order of classic proportions and Golden ratios. Were the image folded in half through the horizontal axis, the lower portion would be dominated by the massive fields of yellow, perfectly centered within the frame. Focusing just on those fields of yellow, the proportions of each containment pond evokes a sense of a perfect ratio, which contributes to the image's aesthetically pleasing sense of order, which in turn balances the alluvial and fractal swirling of the ponds' contents.



Figure 1. *Alberta Oil Sands #6*

A single element dominates the upper half of the photograph. While it contains an additional sulfuric field, the pond is smaller. It does, however, provide a visual path moving from the foreground through the mid-ground and leading the eye to the background, in which the refinery, almost perfectly centered from left to right, emits a stark white plume amidst a darkened background. Thus, the keystone effect produces a logical visual stacking, drawing the viewer deeper in to the field, ultimately pointing to what looks like relatively undisturbed land beyond a body of water. Highly contrasting dirt roads leading into the refinery equipment from the ponds flank this pathway on both left and right. On the left of the image, a road cuts in from off-frame, further adding to the organizing containment of the “beyond” by funneling it into the image. The visual pathway produces a pathway not unlike the process of refining itself: elements are

collected from the vastness, brought in, centralized, organized, refined and distributed. Along the periphery of the frame appears the undisturbed vastness of wilderness. What is inherently a messy and pervasive process is thus ordered, contained and sequestered.

Given that the Tar Sands fields are roughly the size of Florida, there is no “outside” of them that can be represented visually while maintaining a level of detail that would make them at all discernible. One could capture the expanse from space, for example, but then there would be nothing that marked the area as a refinement and extraction zone.²⁸ *Oil Sands #6* retains the necessary visual markers of petroculture through a scale that is expansive enough to embed the mining and refining in a larger environmental whole, but this same scalar level fails to wholly capture the expansiveness of the world’s largest mining operation. The result is that the process seems clearly, and effectively, contained within the boundaries of the site, wherever it may be. From up here, the problem seems controlled. As a result, the viewers, assuming Burtynsky’s focal point, become similarly contained and separated. What we see is *down there*, away from us. When the moral and rational perspective of God becomes transferred upon the site, the risks appear mitigated by what seems to be a clearly effective management of waste, and in some sense, condoned. Moreover, the viewer remains safely removed via a physical distance that creates faulty notion of non-complicity.

The same over-arching aesthetic of order appears even in Burtynsky’s most moving and damning images, those that make up part III, *The End of Oil*. Despite the documentation of the hazards and destruction of the presence of oil, it’s relatively clear that the proposition of “the end of oil” is not meant to be cause for celebration. The

²⁸ Louis Helbig’s *Beautiful Destruction* photo series employs what we might call a “drone’s eye” view to this extent. The aerial shots give a disorienting mid-range perspective in which detail is present but the larger context that normally accompanies aerial shots is missing.

images are less suggestive of an end to the use of oil and more suggestive of the refuse at the end of oil's life. Even amongst the most saturated, haunting images of oil's violence, order is imposed. Take, for instance, *SOCAR Oil Fields #3*, which depicts the depleted fields of Baku, Azerbaijan.



Figure 2: SOCAR Oil Fields #3.

The image is split horizontally by the shoreline of a pond that reflects the upper half of the image. The structure holding up the power line, reflected in the pond, cuts the image down the middle lengthwise, producing four nearly perfect quadrants. The reflection produces a symmetry and order that contains the chaos of stark, silhouetted lines made up by the skeletal derricks. Taken as part of the entirety of *Oil*, *SOCAR Oil Fields #3*, and indeed many of the photographs in *The End of Oil*, is an abrupt shift in perspective, as Burtynsky brings the camera back down to earth to look upon the refuse from a human's eye level. While the detritus feels closer, the ordering of chaos still abounds.

Burtynsky's aesthetic choices create a sense of sequestration and containment, which, as Cariou suggests, is aligned with the ideology of oil extraction. However, it is at odds with the reality of ecological and life processes. Indeed the harm and the threat comes from the reality that none of the processes we see—not the equipment, not the material, not the minerals, not the end product—is contained in any way. The tailings containment ponds are leaching at a rate of about eleven million to twenty-seven million gallons a day, and have been for years.²⁹ Emissions from consumption, extraction and refinement have entered the atmosphere and changed climate globally. The refined oil enters the gas tank of the helicopter from which the photograph is taken, affording the viewer this perspective from the relative warmth and safety of a gallery, museum, or their own homes, connecting them to a process that is potentially thousands of miles away.

Cariou's declaration that Burtynsky's work shows us the "unconscious" of modernity that petromoderns would otherwise prefer not to see affirms how these processes are almost always understood as peripheral and remote. While Burtynsky's subject matter is indeed the substrata of petromodernity, his formal approach to it is almost always high above and removed from the subject, which such a deep depth of field that vast expanses are effectively bound by the compositional space of the photograph. The very fact that he shows us what most of us do not have access to leaves the curtain intact, even as he pulls it back. Viewing the photographs, we know that these scenes are not in plain sight whatsoever. It took great privilege and technological prowess to access them. This creates a sense that the subject matter is far away, contained and sequestered from the photograph's audience.

²⁹ See Nikiforuk, Andrew. *Tar Sands: Dirty Oil and the Future of a Continent*.

Adding to this social and geographical dislocation is the fact that people, which is to say clearly identifiable individuals, are rare in Burtynsky's images. For those individuals who *are* pictured in the photographs, however, the oil is decidedly not distant; it is immersive and immediate. In these instances, the people are treated as subjects in the same way that the decommissioned tankers and discarded tires are treated. They appear as part of the infrastructure of oil, human stand-ins for larger systems of global trade and the far-reaching impact of Western consumption. Important as it is to demonstrate the reality of Western consumption, the specific individual and his or her very real victimization by the processes of oil become abstracted.

As Julie Sze and Michael Ziser have argued of Burtynsky's photography of China, which shares many of the aesthetics of *Oil*, Burtynsky's abstraction is at odds with the commitments of the Environmental Justice Movement or EJM (400). Pointing to the documentary film about Burtynsky's work on China, *Manufactured Landscapes*, Sze and Ziser explain that a group of "canary-uniformed factory workers" appear as "a literal yellow horde," coupling the anxieties of the non-Western Other with mainstream environmentalism's anxieties over third-world consumption and population (400). Such a focus diminishes the racial, class and national critiques offered by the Environmental Justice Movement, which have continually demonstrated "the differences in the burdens of culpability for, and perceptions of pollution" (401). Sze and Ziser argue that the "personal, communal and local histories of environmental justice" are "suspended" through Burtynsky's use of the sublime, a form that is "largely uninterested" in the commitments of the Environmental Justice Movement (401).

The disinterest is present in *Recycling #2*, taken in Chittagong, Bangladesh in 2001 and featuring three men working barefoot in an impossibly black yard of discarded oil (fig. 3). Like *Oil Sands #6* and *SOCAR Oil Sands #3*, the naming convention warrants a reading. Not only is it characteristic of an indexically dispassionate treatment of the subject, it also suggests that this economy, and indeed this livelihood, is only to be understood as the terminus of what is the otherwise primary economic life of oil. Now that its purportedly primary function has been completed, what is left is to “recycle” it, a bit of waste PR that allows those of us in Wastewest to feel a little better about the ease with which we throw things away. The stigma of Cariou’s uncle and so-called “rag-pickers” throughout the global South revolves around an understanding that the waste of petromodernity is defined by the end of its usefulness to a Western consumer. Such a positioning relegates the anonymous men in the photograph as something secondary, both economically and racially.

The othering is particularly striking given that in this image the three men serve as the image’s clear focus. Unlike numerous other images, the humans in this photograph are identifiable, close enough to the camera to distinguish physical features and facial expressions. Two of the men wear *dhotis*, and all three stand with their hands carefully held away from their sides, in what seems like a futile attempt to somehow reduce their contact with the oil that entirely surrounds them. They stand barefoot amidst rows and stacks of oil drums, battered and blackened by heavy use. Behind them is a simple fence that separates the tropical foliage and provides a glaring contrast of green at the upper most border of the image. Despite the intimacy of the photograph, having stopped the men briefly from their work so as to gaze upon them, the men remain nameless others in

a far-flung, rural periphery. Even when the subject matter is the very failure of industrial processes to contain and separate petroleum and its byproducts, *Oil* renders leaking and leaching in a way that ultimately orders and rationalizes what are inherently irrational and in-orderable processes, all the while distancing the viewer from the localized violence depicted.



Figure 3: Recycling #2.

The image is, in a word, Orientalizing. Edward Said explains that Orientalism “has less to do with the Orient than it does with ‘our’ world.” (13). “The Orient,” is not a marker of specific geographic space, but rather the social and political construction of an imagined place that represents that which is intellectually, politically, and morally different. Orientalism “is, rather than expresses, a certain will or intention to understand, in some cases to control, manipulate, even to incorporate, what is a manifestly different

(or alternative and novel) world” (13). Given the ambiguity of place and the anonymity of the three men—mustachioed, barefoot, and clad in dhotis— those pictured serve as markers of Western consumption and oil dependency. Their historical contexts, individuality, and even the specific places where they live, work, play and pray are spirited away. As such, the images retain a hegemonic potency that resists the specific claims of various Environmental Justice Movements, which always seek to specify, rather than generalize, culpability for environmental injustices.

Ultimately, *Oil's* political aim of exposing Wastewest’s “unconscious,” or how things *really* are, relies on a realist assumption that environmental injustices are directly causal and imminently knowable. This kind of rational realism, however, may prove ineffective because it does not take as its ultimate referent ecological and environmental facts of how material passes between bodies and, in part, constitutes them. For example, once petroleum, its products, or its byproducts, enter into human bodies and become part of the human, any notion of sequestration and containment is no longer adequate as a principle of representation.

The tendency of Burtynsky’s images to Orientalize his human subjects and delocalize the violence through the sublime is what Said terms “a distribution of geopolitical awareness into aesthetic” (13). The geopolitical awareness of oil is such that its harms are continuously understood as sequestered and contained away from the centers of petromodernity. Burtynsky’s images similarly erect boundaries and hold the people and material of oil at a distance. They reflect the very rationality of petromodernity.

The Insensible Realism of Warren Cariou

Cariou's artistic work, on the other hand, produces an affective response that allows readers to feel the fundamental irrationality of the petrostate, challenging the very legitimacy of petromodernity by undercutting its fantasy of rationally sequestering and containing the unwanted. The work is deliberately obtuse, ill proportioned, and focused on the immediacy of oil, both materially and culturally. Rather than attempting to represent the affective, political, and environmental impacts of the tar sands project from a distance, Cariou's work knowingly emerges from within these processes and their material products. This substantiates the local—its communities, traditions, and places—while at the same time pointing to a broader globalized network.³⁰

In 2014 Cariou undertook a new project materially derived from the very substance he sought to represent. His “petrographs” are positive transfers of tar sands photography onto photoreactive plates made from the bitumen that is the target of the Athabaskan extraction projects (fig. 4). The petrographs are made by overlaying a digital contact print atop an aluminum plate that has been covered in the bituminous emulsion Cariou has created using the tar sands that naturally ooze from the banks of the Athabasca River near his hometown (“Petrography”). Once exposed in sunlight for around sixteen hours, the image on the contact print imprints upon the reflective metal surface, and it is at this point that a petrograph is made, an amalgamative medium of photography, bitumen, aluminum plates, and lavender oil used in the emulsifying process (“Petrography”). Owing to the reflective properties of the aluminum plate and emulsion,

³⁰ What I identify as insensible realism has resonances with Alan Sekula's “critical realism,” theorized in *Fish Story*. I argue that Cariou's irrationality and insensibility mark a significant divergence from critical realism, though they share a commitment to mapping both the local traces of transnational systems of global capitalism. For an application of critical realism in relation to oil, see Imre Szeman and Maria Whiteman, “Oil Imag(e)inaries: Critical Realism and the Oil Sands,” also published in the *Imaginations* journal in which “Tarhands” appears.

the petrograph is also a mirror, meaning the plates transform as they represent; they depict extraction operations while simultaneously drawing both the surroundings of its display and the viewer into a medium of local Athabasca bitumen.

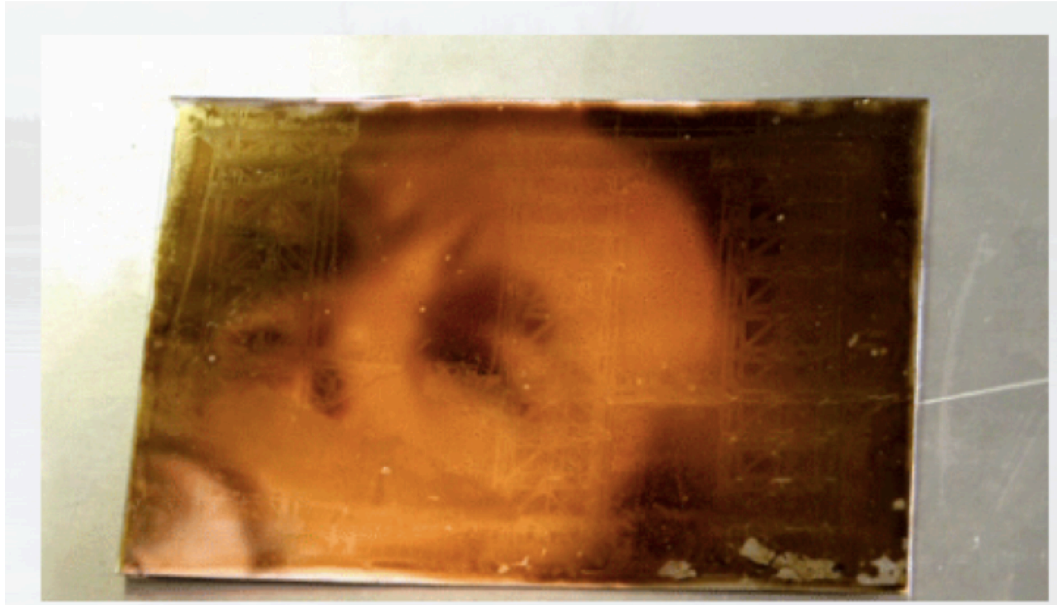


Figure 4. Cariou reflected in his petrograph.

In traditional photography, the photograph represents an image that has passed through the photoreactive medium—either a sensor or film—at a point in time and space removed from the viewer, and the content of the photograph is thus necessarily separated from the time and place of the photograph itself. Typical gallery display settings will go to relatively great lengths to ensure that viewing the photograph is not impeded by glare or lighting, employing antireflective glass so that the photograph itself is fully visible despite whatever environment it might be in. With petrography, however, the reflexivity of the medium is one of its draws, firmly rendering the viewer and their surroundings into the medium of oil. Jon Gordon explains that “the way we see ourselves through the bitumen of a petrograph [...] is a way of showing the viewers their implication in the

process of development that the images depict” (Cariou and Gordon 9). As such, the petrograph is immersive, literally composed, in part, of the viewer and the environment in which it is displayed. Cariou’s petrographs not only depict the process of bitumen extraction and refinement but also literally re-present that which has been made possible by petroleum.

In this regard, the petrograph breaks the separation between viewer and the work. Unlike Burtynsky’s work, which excels at showing the viewer the unseen of petromodernity at a necessary distance from the viewer, the petrograph firmly exposes the viewer as a part of both petroculture and petroleum. The viewer is now in the northern reaches of the Albertan oil fields, thereby forcing an awareness of his or her own implication in the extraction and refining processes. The petrograph dissolves attempts to sequester the oil sands and their impacts in a distant and distinct location; the medium carries with it the specific geographic signature of its origin while simultaneously reflecting the surroundings of its current position. When a viewer looks upon their reflection in a petrograph, they are simultaneously implicated in the local destruction represented by the medium itself and the positive transfer image of the specific damage of the mining processes. As such, the subject matter can never be delocalized in a petrograph, as its very materiality continually interpolates the viewer into a contested space and process.

Through this process, Cariou enacts a fundamentally different relationship with bitumen than that of settler colonial petromodernity. Cariou writes that he initially “thought of the tar sands as unequivocally dangerous and ugly, but that idea was based on a flawed perception” (“Petrography, Tar Sands Paradise” 10). Encountering bitumen in

an ecosystem that had not been stripped for mining, Cariou explains that “the tar scent was still there, of course, but it was no longer offensive. It was only a spicy element in the mélange of verdant humidity, grass-scent, wild-rose blossoms and post-rain freshness” (8). At this moment, Cariou realizes that the bitumen is a natural material, and its caustic, noxious presence is only a result of its misuse, not a result of the material itself. As an example of an alternative relationship with, and use of, bitumen, Cariou explains that Cree, Dene, and Métis people used the material to seal their canoes, meaning “they understood that there was something valuable in this material, that it had a kind of power or unique properties that could help humans if they knew how to use it” (11). Thus, Cariou “sometimes think[s] of bitumen as a kind of medicine. It is gathered from the land, just as someone might gather roots or herbs or other valued substances, and it requires particular knowledge to use it properly” (13). This relationship, informed by traditional practices and understandings, undergirds his petroglyphs. “Instead of using the bitumen to seal a canoe,” Cariou writes of his work, he has “tried to demonstrate that this powerful material can be utilized for something other than fueling the fantasies of modernity” (15–16).

Less overt, but no less materially demonstrative, “Tarhands: A Messy Manifesto” also demonstrates the ubiquity of oil not just in material products but also in the very possibility of cultural representation. Despite its more subtle employment, the medium of oil is again the message. In “Tarhands,” the aim is to demonstrate how oil’s ubiquity paradoxically makes its substance hard to detect, even as it creates the conditions for dominant contemporary society. Though titled a manifesto, the piece begins with an abstract that identifies it as an essay, and it is published in an online journal of “cross-

cultural image studies” (“About Us,” *Imaginations*). The piece, however, strays drastically from the generic conventions of a critical academic publication, as it is comprised of photography, creative nonfiction, journalism, Aboriginal origin stories, and poetry that parodies William Carlos Williams and John Milton. This confusing use of multiple forms and influences is deliberately disruptive, calling attention to impacted communities, traditions, and sacred spaces by shaking readers into an awareness of what seems to have been separated and contained. Since the processes and effects of petroleum are omnipresent, finding their way into nearly every facet of dominant culture and its forms of representation, the deployment of multiple genres in a single text about the tar sands draws attention to oil’s ubiquity and challenges the rationale of the operation.

“Tarhands: A Messy Manifesto” begins with an origin story about Tarhands, an indeterminate trickster personification of bitumen’s pervasiveness and promise, who arises hungry and wearing “a nation on his back” (18). Immediately, “the people” begin feeding him “all kinds of everything,” a totalizing menu that includes infrastructure, drugs, environments, futures, and “pastahowin,” the Cree word for an offense against natural law (“Tarhands” 18; Borrows 85). Tarhands voraciously consumes it all, but he can neither remain happy nor shake the nation from his back. What follows in the rest of the brief creation myth is an origin story that invites an allegorical reading, but Tarhands’s tricksterism constantly frustrates a complete one-for-one correspondence. At times, for example, Tarhands sees the nation as antagonistic; it drags him deeper into the soil, pinning him down and filling his mouth full of dirt. But if we position Tarhands as a victim, he is also a victim of his own appeal, a somewhat sympathetic figure even though he is responsible for fueling the people’s destructive devotion to him. Try as he might,

Tarhands cannot get rid of the nation, and yet the nation is neither appreciative nor vindictive in its response. Instead, the nation remains silent in response to Tarhands's conclusion that "Guess I'm stuck with you for good" (18). Here, he shows a disengaged passivity in the face of what was described, a few lines earlier, as a tremendous enabling. The effect is a frustratingly circular myth from which there seems to be no outside referent to make sense of the intended allegory. In a society made possible by oil, it only follows that its cultural products must also derive from oil. In such a scenario, what possibility exists for cultural products to disrupt an ideology so steeped in the very material it wishes to critique? Cariou's response comes, in part, via a strategic aesthetics of spillage.

Given petrography's material constitution and the multiformal employment of numerous genres in "Tarhands," as well as its self-aware embeddedness in the target of its critique, we might readily understand the work as postmodern, explicitly operating within what Linda Hutcheon marks as a key feature of the aesthetic: a complicit critique. Hutcheon claims that postmodern art underlines "in its ironic way the realization that all cultural forms of representation ... are ideologically grounded, that they cannot avoid involvement with [the] social and political relations and apparatuses" that the work seeks to critique (Hutcheon 3). In doing so, Hutcheon claims, postmodernism works to "de-doxify" cultural representations: it removes from cultural forms what Barthes theorized as the "doxa," the "public opinion or the 'Voice of Nature' and consensus" (3). "Tarhands" and petrography, however, do not stop with a poststructuralist critique that self-referentially dismantles any foundation for a positive politics. Instead of focusing on the "Voice of Nature," Cariou's work places the focus on the interplay of the cultural and

the material through a mixing of genres, forms, senses, and cultures, thereby performing a positive response to the structures—and material—it critiques.

For example, Cariou's "manifesto" produces a disruptive irrationality whereby the act of de-doxifying is also de-noxifying, since it points out that the doxa is in fact noxious. In "Tarhands," the first page after the epigraph and abstract begins with an aerial photograph that evokes Edward Burtynsky's *Oil* series through its grandeur but nonetheless stands in marked contrast to Burtynsky's iconic form. Representationally, the photograph is indecipherable owing to its confusion of scale and tilted perspective angle. Cut roughly in diagonally uneven thirds, the photo is comprised of a brownish-gray mass with ill-defined borders, an alluvial swirling of dark blue, white, and gray, and a clearly defined border beginning a field of green in the upper right third of the image. It is entirely unclear what's before us. Thus, the eye moves below the image, searching for the caption to contextualize and narrate it. The caption reads "Fig. 1," below which is another field of text.

Appearing in a scholarly journal of image studies, the perceived genre of "Tarhands" would lead readers to expect an explanation and analysis of the photo—some keen and precise academic prose that gives a reading of the photograph so that we might understand its importance. At the very least, readers might hope to find a parenthetical reference to "Fig. 1" as a visual depiction of a specific point being made. Other photo essays in the same special issue of *Imaginations*, for example, include a list of figures with titles and explanatory captions. This never occurs in "Tarhands." Where genre is typically used to cue the reader through a set of unstated yet universally understood conventions, Cariou disrupts generic expectations. What follows is not academic

explication or an indexical reference to Fig. 1, but rather the story about the trickster Tarhands. Given the publication, the photograph's framing, the expected function of the caption, and the conventional understanding of the workings of a scholarly journal article, "Tarhands" presents readers with numerous signifiers of genre that cannot be adequately redeemed into a usable currency. The disruption of genre, then, forces an evaluation of the latent frameworks operating beneath the surface that would otherwise construct an idea of common sense. Cariou forces readers to question why they expected what they expected—and why they didn't get it.

The work also invokes the senses of touch and smell, creating synesthetic mix-ups that add to the confusion already generated by the text's formal fluidity. The text explains that upon Tarhands's emergence the people "fed him whatever they could," and this sacrificial shoveling of "all kinds of everything" into Tarhands results in his wide reach (18). Rather than turning everything to gold, however, Tarhands's reverse-Midas touch tarnishes everything and spreads the blemish widely. The transgressive presence of the tarnish is one of many metonymic relations used to identify petroleum's proximity, which is nonetheless largely ignored in petromodernity owing to its familiarity. The growing insensibility resonates throughout the text. Below a photo of a massive tailings pond leading to the exhaust from the refinery, for example, the text further contemplates petroleum's reach by directly addressing readers and their own literal ingestion of petroleum: "That apple you're eating. The milk you drank at lunch. Every little thing you touch, even just to lift it into your mouth. It's there. It rubs off. Think about that" (27). The trans-corporeal effects of extraction and refinement rub off, and petroleum finds its way into everything, even ourselves. The problem, it seems, is that the stain is so

common, so omnipresent, that those dislocated from the immediate extraction sites are incapable of noticing it. Thus, the text urges us petromoderns to contemplate our own imbrication in something so massive that it cannot be escaped.

To reactivate perception, Cariou's response is to "make a stink," considering thought and contemplation as producing their own kind of exhaust in the world, and alternately considering the exhaust from hydrocarbon pollution and sewers as a kind of thinking (28). The text then reconsiders Heidegger's "Denken ist Danken" ("thinking is thanking") as a misquoting of an intended "Denken ist Stinken" (28). Encouraging us to "think outside the nox," Cariou opines that "smell is irrational, of course," and further offers that its irrationality is "what makes it so appropriate to the modern condition" (28). Similarly, on the third page of the text, Cariou tells of his first encounter with the tar sands and the accosting stink, "a dead smell, a charnel residue on the back of my tongue" (20). The smell is so pervasive that he somehow tastes it, and he wonders how anyone could work in this, how the Cree, Métis and Dene people of Fort Mackay could live in it. Then, through the voice of an interviewed security guard, a privatized representative of protected private property, the smell is normalized and dismissed: "'Oh I used to smell it, too' one security guard laughed ... 'But after a week or two you don't notice a thing'" (20). The ease with which something so assaulting can be interwoven into daily life is alarming. Pervasiveness leads to integration. Integration leads to imperceptibility. Imperceptibility allows the process to continue unchallenged and unnoticed. Oil, the thing most present, is the thing never smelled, never seen, never tasted, and ultimately never questioned. Cariou's irrationality thus becomes a tool to use against the dominant logic of a petromodernity that has become so adept at dislocating oil and its effects that it

no longer realizes that it is doing so. The confusion produced by the work's leaky generic conventions and synesthetic leaching forces an investigation into the operative tools used to make meaning in the world.

Cariou's irrationality and formal deployment of "all kinds of everything," specifically informed by Métis, Cree, and Dene traditions, should be understood as a challenge to the legitimacy of the tar sands operations. In their book *Challenging Legitimacy at the Precipice of Energy Calamity*, Debra Davidson and Mike Gismondi argue that the social conditions of tar sands development come through an established and unchallenged ideology. This ideology, created through both verbal and visual government and industry discourse, leads to an establishment of "legitimacy," which they define as a "concession to the 'justness' of given power structures, projects, and ideologies by those subjected to them" (7). They continue to explain that "legitimacy presumes a relation, in which some entity exerts power over another, and the latter concedes to such an imposition, forsaking one's own power to reject or rebel" (7). Legitimacy is thus a product of ideology working hegemonically to conceal a number of irrationalities that, if known, would threaten the existing structure of power.

The modern visual discourse responsible for the established legitimacy, which includes the immortalization of the bucket-wheel on a commemorative postage stamp, demonstrates the grand scale and "wow" factor of the colonial process. Davidson and Gismondi argue that when audiences see images of the heavy haulers, bucket wheels, massive machinery and stripped landscape, they tend to focus on the "gee whiz" without ever really considering the scale of environmental destruction—namely, removing enough land (or "overburden," as the industry terms it) to fill Yankee stadium every other

day (Davidson and Gismondi 63-65; Nikiforuk 15). Giant bucket-wheels, conveyors, and massive trucks play into a notion of human-exceptionalism and the idea of better using nature through domination. Viewers are so amazed with the scale of what they see that the environmental and social harm is visually drowned out. This, combined with the ubiquity of the images creates a familiarity that conceals the irrationality of the project and its attempts at settler-colonial elimination of non-conforming ways of life.

The irrationalities concealed in dominant ideologies are numerous. Theorizing the ideology of tar sands, Davidson and Gismondi explain its irrationalities: “Steadfast ascription to continuous progress from within the confines of an economic system wholly dependent upon finite resources and waste sinks is one such irrationality. The treatment of these same sources and sinks as isolated from the biosphere in which they exist is another” (7). More simply, if the goal of a state is continual “progress” and “prosperity,” attempting to attain this through a resource that will inevitably run out doesn’t make a lot of sense; nor does disposing of its toxic byproducts in a way that directly threatens other resources needed for the state’s continued existence; nor, for that matter, does continuing to increase already harmful climate-altering emissions. Unfortunately, the extraction industry considers the carbon sinks that might absorb emissions to be “overburden,” and they are routinely removed in the extraction process. The presumed availability of resources elsewhere on the planet, rationalizes this self-defeating use of domestic resources. It also assumes that the unwanted impacts will either somehow be contained or else absorbed in other times and places, by other individuals, as simply the cost of doing business. This is a settler colonial move to innocence and ignorance.

Disrupting Elimination, Decolonial Delinking

In response to a logic that rationalizes away the harms of petromodernity, it is necessary to consider how the calculated wellbeing of “the nation” is limited to the specifically economic wellbeing of only certain members. This is a settler epistemology that attempts to eliminate Indigenous peoples, both physically and conceptually. Inuit, Aboriginal, and First Nations people living in the Arctic Circle, for example, have already begun to experience severe disruptions to their ways of life due to anthropogenic climate change resulting from the greenhouse gases emitted, in part, by burning the fuel refined from the tar sands. Either the wellbeing of these people and communities are not at all accounted for in the concept of the nation’s best interest, or they come out on the losing side of a cruel calculus that considers this destruction collateral damage to advance the settler colonial state. Or both.

Cariou’s work, focusing as it does on metonymic relations, sensual perception, and numerous artistic forms, demonstrates that the material of oil is omnipresent, finding its way into our food, our bodies, our thoughts, our land, our water, our air, and even our forms of representation. Equally omnipresent are the socially constructed conditions conducive to tar sands development. Thus, a single genre, a single form, would operate as a single voice, another smell that we’ve all gotten used to. A singular narrative would fit too easily into existing ideologies ready to wholly subsume it and neutralize its disruptive capacity. With mixed and multiple forms, however, there is productive dissonance, and this dissonance brings into relief the settler colonial logic of petromodernity’s rationality.

As Davidson, Gismondi, and Gordon demonstrate, appeals to rationality dominate justifications of tar sands extraction and refinement. This primacy of rationality cannot,

and should not, be disconnected from coloniality and settler colonial projects. In his essay “Coloniality and Modernity/Rationality,” Aníbal Quijano explains how the production of “modernity/rationality” is itself a colonial tool that posits rationality as a universal epistemology for the purposes of erecting modernity as a universal telos. The production of modernity/rationality as a universal concept thereby marginalizes, and ultimately seeks to eliminate, alternative epistemologies that do not serve the colonial project (Quijano 31). Quijano concludes, “it is the instrumentalisation of the reasons for [colonial] power ... in the first place, which produced distorted paradigms of knowledge and spoiled the liberating promises of modernity” (31). To break from coloniality requires a break from modernity/rationality. Thus, Cariou’s work is not just formally innovative for the purposes of interrupting the common sense of capitalism, as Gordon describes it. It also crucially interrupts the settler colonial epistemology that anchors the logic of petromodernity that underwrites states like Canada and the U.S.

The logic of separation and containment, of course, expands well beyond the state’s treatment of environmental hazards and waste. Cariou’s work illustrates how settler colonialism deploys this same logic, built as it is on upon the fantasy of separation, containment, and ultimately elimination of Indigenous populations. Somewhat paradoxically, however, this separation and containment often occurs through seemingly inclusionary practices that strive “for the dissolution of native societies” (Wolfe 388). In the case of the Métis, for example, the Canadian government seeks dissolution via processes of racialization.

According to Chris Andersen, this occurs through a series of Supreme Court rulings and subsequent federal mechanisms like the census that consider the Métis as a

racial category rather than a national polity, owing to the popular understanding of Métis as “mixed” in both blood and ancestry (64). Whereas recognition of the Métis as a nation would require the settler colonial state to engage them in good faith as a political partner, recognition of the Métis as a racialized group means that their issues can be recast as mere social problems within the state of Canada, thereby leaving the legitimacy of the settler colonial state unchallenged (19).³¹ To ensure that the existing political structures of power remain intact, the Métis are kept separate through their structural inclusion with the Canadian settler state vis-à-vis racialization. This approach demonstrates the settler colonial state’s two-pronged approach to treating threats to its own legitimacy. There is straight-up exclusion, and then there is the more insensible tactic of exclusion via inclusion in the form of a watered-down recognition of “difference.” In this case, the threat is not toxic waste but rather an alternative, preexisting polity that must be absorbed lest its presence disrupt a singular claim to nationhood.

The settler colonial logic of elimination also has particular relevance in the realm of the tar sands. For example, arguing that the process of claiming mineral rights under “free-entry principle” and “mineral staking regimes” in Canada follow the logic of elimination, Dawn Hooegeveen notes that “mineral tenure regimes are not innocent or neutral but premised on an erasure of Indigenous claims to land,” which often results in cases of “mineral claim staking regimes in Canada that, in many ways, continue to trump claims to Indigenous title” (Hooegeveen 122, 121). Following Wolfe, Jen Preston points out the “practices and processes” of settler colonialism via neoliberalism undergird Canadian extraction projects:

³¹ See Mark Rifkin, “Making Peoples into Populations: The Racial Limits of Tribal Sovereignty,” which theorizes this concept in a United States context.

“Resource” extraction projects billed as “ethical” economic opportunities for all Canadians obscure and normalise ongoing processes of environmental racism, Indigenous oppression and violence. And Alberta’s tar sands, notably the Athabasca deposits, provide a particularly demonstrative site where these politics play out with every barrel of bitumen extracted from Indigenous territories. (43)

Because of these attempts to “obscure and normalise,” Preston notes that settler colonialism “can be difficult to identify, track, and dismantle” (43).

This is where Cariou’s work becomes doubly impactful: just as Cariou works to disrupt the logic of petromodernity through irrational art forms, he also builds on Indigenous storytelling traditions and alternative epistemologies to make visible petromodernity’s obscured settler colonial premises of elimination. As Lorenzo Veracini explains, the settler colonial logic of elimination extends to the attempted elimination of the very concept of settler colonialism itself (Veracini 3). Settler colonialism “covers its tracks and operates towards its self-supersession” in its attempts to erase the “distinction between colony and metropole” through, among other things, assimilation, absorption, and/or physical removal (3). If the logic of elimination is successful, the settler colonial society cannot be understood as settler colonial because there is no longer an Indigenous community or presence that would point to settler colonial society as such. Like the ills of petromodernity, it seeks to become insensible through its ubiquity. Cariou’s work does not abide either occlusion.

Ultimately, Aníbal Quijano concludes that to fully resist coloniality and its epistemology, “it is necessary to extricate oneself from the linkages between rationality/modernity and coloniality” (31). Quijano argues that such a stop is necessary

in order “to liberate the production of knowledge, reflection, and communication from the pitfalls of European rationality/modernity” (31). Walter Mignolo understands this as a process of “delinking.” He explains that delinking “leads to de-colonial epistemic shift [sic] and brings to the foreground other epistemologies, other principles of knowledge and understanding and, consequently, other economy [sic], other politics, other ethics” (307). Through the use of Métis storytelling traditions, parodies of European traditions, geographical embeddedness, and interactions with bitumen informed by Indigenous practices, Cariou’s work performs an irrational response to the settler colonial rationalization of petromodernity. Breaking from rationality is not just a way to resist the logical structures of petromodernity; it is specifically a decolonial move. Through the epistemology it mobilizes, Cariou begins the process of opening possibilities for different forms of economy, politics, and ethics that neither rely on an ideology of separation and containment, nor on the faulty logics of elimination.

Cariou’s work therefore prompts readers to pay greater attention to the settler colonial premises of petromodernity, a move that brings into relief the overlap of racialization, settler colonialism, resource extraction, and environmental injustice. To truly grapple with petromodernity, its logic, and the geologic epoch of the Anthropocene, theories of settler colonialism must inform the way scholars, artists, activists, and the public at large understand this modern life made possible by cheap petroleum. Only then can the logic of separation, containment, and elimination be refused. Without such a framework, the settler colonial processes will continue to seep out dangerously undetected.

CHAPTER III

A NOVEL APPROACH TO ENVIRONMENTAL JUSTICE

Introduction and Overview

The previous chapter demonstrates how Warren Cariou's formal experimentations reveal the Anthropocene's local and material basis. One of the effects of this is a way of making visible the local damage of bitumen extraction and refinement even while pointing to an invisible ubiquity. Cariou's work refocuses attention on the local effects by critiquing an ideology of separation and containment through formal techniques that leach, leak, and break. These forms also show that contested histories of recognition and processes of racial formation are entangled throughout the Anthropocene and its environmental justice implications. Following a critical environmental justice perspective, a richer understanding of environmental justice issues that operates outside of the constricting logic of petromodernity must therefore account for vast networks of actors and expansive spatial and temporal contingencies, all of which pose significant representational challenges.

This chapter builds off of Cariou's forays into space and material to show that historical processes of racial formation and alternative authoritative narratives are necessary for a complete understanding and theory of environmental justice in the Anthropocene. How can this information and understanding be conveyed in forms of cultural representation? Does it require increasingly complex forms of risk assessment and visual mapping of this data? Is such an approach too reliant on techno-scientific expertise and its underlying rationale? And might literature, as a complex cultural product, simultaneously theorize and represent this complexity in useful ways?

In this chapter, I continue to demonstrate the ways that forms of environmental justice representation function as sites of critical environmental justice theory, particularly when they employ techniques of insensible realism. I begin by reading Richard Misrach and Kate Orff's *Petrochemical America*, a joint project that combines Orff's "throughlines" with Misrach's photography of Louisiana's Cancer Alley. I argue that the text's complexity and self-engagement reveals the unseen products of historical racial formation and toxicity, phenomena that escape a camera's lens. Misrach and Orff reveal these phenomena through their visual forms, exposing many elements of the Anthropocene that traditional photography cannot capture, such as the historical displacement of communities that had different ways of interacting with the non-human environment and the various interactions between invisible chemicals with bodies.

To further build out a critical environmental justice approach, one that is multi-scalar and engages social structures rather than isolated events, I then turn to Percival Everett's 1996 *Watershed*. The novel limns the complexities of environmental justice and environmental racism by mobilizing alternative ways of understanding through its form. I argue that *Watershed's* insensible realism draws heavily on the formal techniques of collage, an art form tied to African American artistic traditions that builds complexity and overlaps fragments of information that alternatively reveal and conceal meaning. As a collage, the novel moves fluidly through both time and space, accounting for numerous voices and subjectivities along the way. It also formally positions its contents in a way that causes the readers to evaluate the veracity of the information against the world built by the novel's narrative and plot. Following the convention of noir detective fiction, this puts the reader in a position of navigating conflicting sources of information and

presumed authority, constantly needing to account for the diverse histories and actors present in the novel in order to make meaning. These formal qualities necessitate evaluative processes that align with calls by environmental justice geographers for more robust forms of risk assessment.

This is not to say, however, that *Watershed*, or novels more generally, merely demonstrate what geographers have pointed out. Nor is it to suggest that novels do this work more effectively than these geographers who have real commitments to real communities and are seeking and attaining justice for disproportionately affected communities. Rather, I argue that *Watershed* demonstrates how novels can theorize the complexities of critical environmental justice differently. In fact, geographer Carolyn Finney explains the inclusion of cultural analysis in her work, contrasting it against the “formal theories of knowing” that come out of the discipline of geography. Finney argues that “cultural sites that express alternative ways of knowing and seeing the world offer an opportunity to ‘draw outside the lines’” of the traditional or formal theories of knowing, given the way that these dominant forms of knowledge “don’t always capture the nuance of lived experience of non-dominant cultural groups, such as African Americans” (7).

Finney argues that cultural forms of representation and expression “give credence to practices and cultural spaces that are often devalued or dismissed in more formal sites of knowledge production” (7). Through Everett’s novel, we can see an alternative epistemology that might help break some of the disciplinary and ideological boundaries that limit conventional environmental understandings. Relying too heavily on techno-scientific rationality will produce only techno-scientific results, which are often legitimated by systems of capital and hegemonic authority that themselves have produced

the environmental justice issues of the Anthropocene in the first place. Through an insensible realism, *Watershed* brings into relief the complex forms of history, racial formation and settler colonialism that produce differential vulnerabilities, thereby dismantling the assumed authority of so-called official narratives and technocratic knowledge.

Petrochemical America and the Techno-scientific Imagination

Given the frustration with Burtynsky's political plasticity and the limits of photographic representation discussed in Chapter II, it is of some wonder that Richard Misrach and Kate Orff's *Petrochemical America* is not more prominent in the discussion of petromodernity and its associated aesthetic attempts. While Misrach has not enjoyed the star-status of Burtynsky, he's certainly critically acclaimed. So much so that he was commissioned to make photographs for the High Museum in Atlanta for its "Picturing the South" series in what would become his initial point of contact with the subject matter that evolved into *Petrochemical America* ("Conversations"). The subject matter is the social and ecological landscape of the petrochemical industrial corridor along an eighty-five mile stretch of the Mississippi River between Baton Rouge and New Orleans, now colloquially known as "Cancer Alley" due to the disproportionately high rates of cancer clustered around the area's petroleum refineries and petrochemical plants. Misrach enlisted the help of landscape architect Kate Orff to "unpack" the larger context of his photographs, an artistic and editorial choice that suggests a limitation of the photographic medium for documenting the processes and effects of this particular environmental hazard ("Conversations").

Misrach explains that he was shocked to see the refineries and infrastructure so imminently present and in close proximity to the surrounding communities (“Conversations”). His previous work had depicted massive environmental impacts in so-called sacrifice zones—remote areas that conceal their destruction (such as the Athabasca region discussed in Chapter II).³² With *Cancer Alley*, however, Misrach found that the toxic landscape is immediate. What’s more, accompanying the immediately visible landscape is an invisible landscape of chemical compounds and social history. This proves to be a significant representational challenge: extraction and refinement are highly visible, but the consequences of abundant petrochemicals which manifest themselves in histories of community displacement and, on a molecular level, within the very bodies of those exposed lie beyond the formal limits of traditional photography. Generally speaking, photographs capture what can be seen.³³

Petrochemical America is divided into two parts. The first, “Part 1: Cancer Alley,” contains Misrach’s original photographs, some of which are accompanied by paragraph-long captions explaining the subject matter. The second, “Part 2: Ecological Atlas,” features Orff’s “throughlines,” which she explains as “speculative drawings [that] begin to unravel and expand Misrach’s photographs in time and space in a new form of narrative cartography that maps the civilization-wide network” of petrochemicals (117). The atlas’s introduction connects petromodernity to the representational challenges it produces: “America’s oil-based lifestyle, perfected only in the previous one hundred years, is now so ubiquitous in terms of driving automobiles, buying and building with

³² For a deeper discussion of sacrifice zones, see Valerie Kulturez’s *The Tainted Desert*

³³ There are forms of photography that photograph portions of the light spectrum beyond what is visible to the human eye. X-rays are one example. Director Louie Psihoyos has used a thermal camera made by FLIR to document CO2 emissions from a variety of sources.

plastics, and eating petrochemically fertilized and preserved food, that its scale can be difficult to grasp” (115). The ubiquity of petroleum, as I discussed in Chapter II, has produced a kind of blindness to it. Orff explains that the “failure to perceive and cope creatively with these vast interrelated systemic issues is to some extent a cognitive problem” (115). Subsequently, the second part of *Petrochemical America* “aims to frame these issues and make them legible by bridging art, research and action” (115).

The “Ecological Atlas” buttresses Misrach’s photographs by meeting them where they are presumed to fail: communicating the insensible. Formally, this happens by way of Orff’s throughlines, which add information in the form of arrows, maps, and labels that reveal unseen ecological and petrochemical arrays. To “unravel and expand” the photograph, Orff explains that there are three “aesthetic techniques” for the throughlines, each performing a different function: “Maps;” “Data Narratives,” and “Eco-Portraits.” These techniques offer an indexical treatment of the various ramifications of petrochemical America and its constitutive parts, bringing them together into a collective whole while demonstrating the possibilities of new media to enhance and uncover the unseen.

Both “Morrisonville Dream” (fig. 5) and “Past and Future Imagined” (fig. 6) in the “Displacement” subsection of “Part Two” serve to correct the indeterminacy of Misrach’s plates in “Part 1: Cancer Alley.” “Displacement” documents and uncovers the African-American communities that have lived in the area dating back to the days of eighteenth-century slavery. The interrelation between racism and the environment in the region therefore long precedes the relatively recent manifestation of environmental racism carried out by the petrochemical companies in the twentieth century. Misrach and

Orff work to unveil how this environmental racism is a continually unfolding process rather than an isolated event.³⁴ Indeed, Misrach and Orff's project can be taken even further, as the land in question is open to sugar, cotton and petroleum manufacturing only because of the processes of settler colonialism that has sought to remove Indigenous peoples from these very lands.³⁵ Thus, Misrach and Orff task themselves with making visible the invisible. However, because a photograph, by itself, is a depiction of a single moment in time, it suggests a continuous present. When the subject matter of the photograph is an absence, that is, things that are not present, the violence of permanent elimination can be easily overlooked.

To combat this absence and bring attention to what has been lost, Orff's throughlines in "Morrisonville Dream" and "Past and Future Imagined" re-present the



Figure 5. "Morrisonville Dreams," Richard Misrach and Kate Orff.

³⁴ Here, I extend Patrick Wolfe's explanation of settler colonialism as a "structure" rather than "event" to environmental racism. The two are not identical processes, however. Wolfe explains that the settler colonial process is specifically carried out in service of an attempt to eliminate Indigenous peoples. With environmental racism and White supremacy, the process unfolds to maintain hegemonic power structures, but not necessarily to the point of fantasizing total elimination of non-white people.

³⁵ As Andrea Smith explains in "Indigeneity, Settler Colonialism, White Supremacy," anti-Black racism and settler colonialism intersect through White supremacy. Smith explains that anti-Black racism and a belief in the "slaveability" of Black people anchors capitalism, which is made possible by settler colonialism's removal of Indigenous peoples from their lands. (68-69).

insensible absent. In “Morrisonville Dreams,” Orff lays historic images atop Misrach’s plate 32, “Community Remains, Former Morrisonville Settlement, Dow Chemical Corporation, Plaquemine, Louisiana, 1998.” The text explains that over the span of roughly forty years—from the 1950s to 1989—Dow Chemical Corporation bought out the town of Morrisonville, which itself was established in 1932 after the Army Corps of Engineers displaced a settlement of freed slaves known as Australia Point (74). Misrach’s photograph shows two concrete pads, surrounded by grass, in front a large holding tank and complex of pipes, shrouded in fog. The concrete pads are the site of homes which, as the caption explains, were demolished after Dow Chemical Corporation bought them to establish a “‘green’ buffer zone” around the facility that had caused years of “mysterious odors, headaches, and other health ailments” (74).

Orff’s throughline is a collage of African American individuals and community, laid alongside and atop of Misrach’s plate. Over the bare concrete pads, Orff has drawn the once-present structures in an architectural rendering. The porches and front yards of these structures are filled with images of African-American men, women and children, eating, talking and fixing a car. The black and white images appear to be candid glimpses into a thriving community, far more lively than Misrach’s color rendering of the empty concrete pads. The image re-populates the vacant space with a vibrant community, combatting the presumed permanence and isolation of the Dow facility.

Continuing this line of uncovering and reimagining the process of environmental racism and white supremacy, in “Past and Future Imagined” Orff combines throughlines of maps and eco-portraits to show the historical displacement of Morrisonville since its founding in 1889. The map locates the various positions of settlements and the Dow

Chemical Corporation establishment, connecting the geographic locations with temporal arrows that show development over time, ultimately demonstrating that the current location of Morrisonville is far removed from its original site alongside the river.

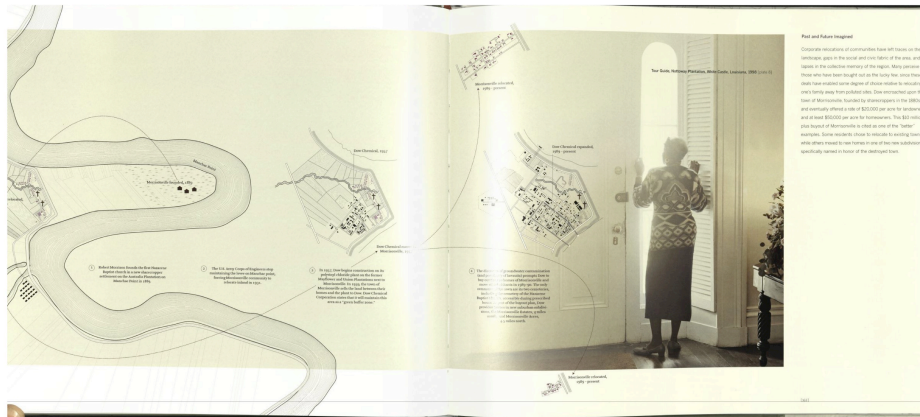


Figure 6. “Past and Future Imagined,” Richard Misrach and Kate Orff

The map and eco-portrait in “Past and Future Imagined” are set on top of Misrach’s “Tour Guide, Nottoway Plantation, White Castle, Louisiana, 1998,” in which an African-American Tour Guide at the recreated plantation stands with her back to the camera, looking out a window. The juxtaposition of Morrisonville’s founding as a Freedman Settlement in postbellum Louisiana, its dissolution at the hands of Dow Chemical, and the image of an elderly African American tour guide in a tourist attraction that celebrates antebellum Louisiana highlight the complicated power of memory and historical legacy. “Past and Future Imagined” calls into view how historical legacies of white supremacy and racism have continuously operated into the present, specifically in the production of petrochemical landscapes. The plantation, as a celebrated tourist attraction, is a haunting symbol of chattel slavery simultaneously offered as a nostalgic pre-lapsarian marker of a world before petrochemicals. Jennifer Eichstedt and Stephen Small explain that plantation museums, in promoting a celebrated version of a lost and noble South with no mention of slavery, promote “social forgetting” with “deep wounds

and anxieties being confined to oblivion” (15). This “symbolic annihilation,” Eichstedt and Small explain, serves the “need of whites to create a vision of the nation and themselves as noble and disassociated from racialised atrocities” (15). Orff’s throughlines, laid over Misrach’s photograph of the plantation museum, suggest that the racialised atrocities continue today by balancing an emotional, unresolved image with a concretized history made present through mapping petrochemical development.

Misrach and Orff employ these same formal techniques to demonstrate the environmental impacts on the more-than-human world. For example, “Requiem for a Bayou” is built atop of Misrach’s “Cypress Swamp, Alligator Bayou, Prairieville, Louisiana, 1998” (fig. 7). Misrach’s image centers a dead cypress tree that provides a surveillance point for what appear to be carrion-eating birds of prey. Surrounding the dead snag is a mix of dead and scraggly cypress trees rising from the swamp. The image’s color palette is made up of yellowing grays and green. The dead trees, the swamp, the birds, and the color all evoke a sense of death.



Figure 7. Requiem for a Bayou, Richard Misrach and Kate Orff

Even without the lush greenery normally associated with health, decaying swamps can nonetheless be thriving ecosystems. However, to ensure that there’s no

mistake about the condition of the non-human environment in Misrach's image, Orff's throughline extends the photograph in both time and space. Situated on the far right of the page, Misrach's image of the dead tree, here rendered in grayscale, becomes gradually fleshed out towards the left of the page, colored by a glowing green at once reminiscent of algal life and popular representations of toxic waste. The cypress trees become fuller and more densely foliated. A bald eagle, which in the South had been particularly decimated by the petrochemical pesticide DDT, swoops down to the water's surface, while barred owls, and great blue herons (all labeled for the non-ornithologists among us) look on. Here, the photographic images of these birds in full detail are juxtaposed with their symbolic referents as consumers in a trophic web that spreads around them. The images of the birds themselves would thus seem to be insufficient. Without Orff's schematization, their role—or even their presence—in the now-lost ecosystem would have been unknown. Orff, however, is able to imbue Misrach's photograph with a narrative of loss by demonstrating the previous ecological functions of the swamp.

In this way, the text follows Ursula Heise's explanation of how forms of environmental media, including those that seek to index and provide databases of life for the purpose of conservation, often employ a narrative of loss (52). As Heise explains, such works often use the genre conventions of elegy and tragedy to “construct narratives in which the endangerment or demise of a particular species functions not only as a synecdoche for the broader environmental idea of the decline of nature, but also comes to form part of stories that individual cultures tell about their own modernization” (52). Orff's throughline and its title “Requiem for a Bayou” prompt an understanding of Misrach's original photograph as elegiac. Readers are to understand it as a portrait of

loss. The knowledge of this loss is only made possible, however, by the informational overlays Orff provides.

The far left of the page, for example, is marked by the bright yellow arrows and silhouettes signifying the flow of nutrients, sediments, autotrophs, and heterotrophs at all levels. The dotted arrows sweep and bend in lively arcs connecting each member of the trophic web, including silhouetted fishermen—one holding up his/her catch while the other paddles. Organized left to right, this section represents a clear past era of ecological health and vivacity, the subject of the “requiem” that is the throughline. Contrasting this elegiac and imagined trophic web, another throughline directly below Misrach’s photography indexes the assumed present: a cocktail of petrochemicals. Here, straight vertical and horizontal lines are set in a dull gray, contrasting the spirited, verdant arcs of the non-human environment on the opposite page. The lines are surrounded by the names of petrochemical compounds including Atrazine, Benzene, Naphthalene, PAHs, Styrene and Formaldehyde, all in a similar, pallid gray. Because of the limits of human perception unaided by techno-scientific instruments, these compounds are imperceptible in Misrach’s photographed landscape. As such, there’s no information in the photograph itself to suggest the kind of trauma and degradation invisibly occurring in the photograph. Orff’s throughline once again provides this information. This makes the petrochemicals perceptible as a present feature of the environment that simultaneously references the past by signifying loss.

In this way, we can consider Misrach and Orff’s project as a way of “plotting” petrochemical America. As Peter Brooks has described in his seminal *Reading for the Plot*, plot is an organizational logic in narrative that leads us to an understanding of story.

While I consider this more deeply in discussing the implications of Everett's *Watershed*, it bears mention here, as Misrach and Orff's production of this narrative of loss, elegy and requiem comes through the very elements of story. Rather than leave the photograph unresolved and open to multiple interpretations (is it a healthy swamp or an unnaturally unhealthy cocktail of petrochemicals?), the throughlines come together to a sense of the *fabula*, that is, a sense of what's *really* going on. This happens by way of introducing to the photographs various bits of information that readers are meant to connect together. The narrative arc, in this case a story of loss plotted over time and space, is given its plot through captions, image titles, and the visualization of data that informs the throughlines.

The dynamic form of representation and engagement in *Petrochemical America* represents the processes of petrochemical production and their underlying ideology. In indexing the various forms of harm and the historical processes that have occurred to make those forms of harm possible, the text brings together the legacies of racial formation, the production of petroleum, and environmental harm. Yet, owing to the text's own techno-scientific rationale, they are presented as epiphenomenon, occurring separately though in parallel, rather than as mutually constitutive processes.

While individual entries in the atlas go to great lengths uncover hidden interconnections, the pages of the atlas are grouped into subsections that suggest distinct forms of harm. For example section IV, "Displacement" precedes section V "Ecology/Economy." Given that they are a part of the same book, and directly following one another, there is a discernable sense that these categories are related—both products of the same petrochemical America. However, treated as separate sections, the text does not position these categories as *interrelated*, that is to say, mutually constitutive processes

that produce and are produced by the other, such as environmental justice scholars suggest is necessary, as we shall see shortly. In the text, the displacement of African-American and Native communities appears as a separate byproduct from the same toxic source of ecological and economic harm. The map of Morrisonville and the history of its displacement focuses primarily—almost exclusively—on the human, while the elegiac trophic web in “Requiem for a Bayou” makes no mention of the disruptions to the social world. While this could simply be one way to categorize a great deal of information, the organizational choices are themselves arguments. In this case, the argument has the effect of positioning racism as another unfortunate product of petrochemical development, like the destruction of ecosystems.

Through a critical environmental justice understanding, however, racism is not a product of petrochemical America, but a source of it. Harmful practices of extraction and refinement cannot exist without an understanding that some bodies are more expendable or violable than others. As such, displacement and destruction of African American communities allowable by structural racism should be understood as a contributing *source* of ecological destruction. So too should the engagement of Native communities, which does not appear in the “Displacement” section of the text.

Both the “Displacement” and “Ecology/Economy” sections of the atlas do important work to uncover the history of erasure and hidden violence, but the categorization as separate elements suggests that they are essentially separate phenomenon. This formal separation also extends to the treatment of various marginalized peoples. Drawing attention to the displacement of African American communities as an attempt to recover the invisible is necessary and important, but by not

engaging Native communities in a section titled “Displacement,” the process of settler-colonial elimination and erasure seems over and done. This gives the sense that the Native communities and people are entirely absent and unrecognizable in the area, which is precisely how settler colonialism functions according to Wolfe (387). What’s more, it does not engage the interconnections of ecological and social violence.

Sadly, one does not need to look far afield to recognize the interaction between historic white supremacy and environmental damage in the area. In January of 2016, the Isle de Jean Charles Band of Biloxi-Chitimacha-Choctaw was awarded \$48 million to pay to relocate tribal members inland, off of the island that they have inhabited for 170 years (Hansen). As a result of subsidence and sea level rise, a direct consequence of the petroleum development in the Gulf of Mexico and around Louisiana, Isle de Jean Charles has drastically reduced in landmass, shrinking from an eleven miles long and five miles wide in the 1950s down to two miles long and a quarter mile wide at present.³⁶ While this transaction occurred well after the publication of *Petrochemical America*, the problem has been well known and documented since at least 2002, when the community initially rejected a proposal to be relocated (Hansen). Almost fifteen years later, sea levels continue to rise, demonstrating that displacement and ecological destruction are thoroughly interwoven.

The extensive overlays attempting to map the movement of petrochemicals throughout Cancer Alley imply that traditional photography is not enough to engage the complex, often invisible social and ecological realities of petromodernity. Data, that is, information obtained by techno-scientific processes, must contextualize and inform what

³⁶ “Subsidence” refers to the “sinking” of surface land as a result of geologic and/or human activity. Removing oil and gas creates voids and causes shifting and sinking as earth settles into those voids.

is not visibly present. In doing so, however, the data over-determines and truncates the range of responses the art can produce. Through the process of overlaying information, the photograph appears to be sufficiently resolved, thereby restraining interpretation to a single mode of understanding typified by indexing, graphing and mapping. What's more, this technique takes part in the rational process of containment and separating inputs and outputs to attempt to fully trace effects. The presumption is that it is the materiality of petrochemicals, rather than the underlying logic of petromodernity, that needs to be represented. Leaving the logic of petromodernity unchallenged in effect encourages the continuation of what are inherently dangerous and violent processes.

Scholars and activists of environmental justice have long shown that the material harms of chemical levels (and their resulting effects) can never be fully known (Sadd et al 1442). The results of exposure often emerge long after the initial point of contact and manifest in ways that far exceeded the imaginative capacity of those researching the effects. We can take, for example, the EPA guidelines for the allowable amount of toxic chemicals as an example of the limitations of such ordered thinking. While there are clear guidelines on the allowable parts per million of benzene, that number is produced through a necessarily limited process owing to the ways in which scientific experimentation relies upon the separation of variables in order to measure their effects. In other words, that number is reflective of how much benzene, by itself, in a controlled environment, is considered safe. In reality, however, benzene is never present in the environment without the presence of other, potentially toxic or known-to-be toxic chemical compounds and pollutants. Thus, what scientists call the synergistic or cumulative effects of hundreds of

airborne toxins combining together remains hardly studied, let alone regulated.³⁷ That this remains an understudied phenomena, despite the well-documented risks of cumulative effects, points to an approach to regulation and research that itself is built upon the idea of separation and containment, treating each toxin separately as though it were possible to contain it.

By way of its attempts to separate the numerous processes affecting Cancer Alley, *Petrochemical America* inadvertently contains them. As Loraine Daston and Peter Galison explain, this may very well be a formal quality of scientific atlases in particular. In order to share and create a base of knowledge about the species contained in them, atlases must protract specificity in order to demonstrate what the scientific community agrees upon as the essential characteristics of a given species. Daston and Galison explain: “For initiates and neophytes alike, the atlas trains the eye to pick out certain kinds of objects as exemplary (for example, this ‘typical’ healthy liver rather than that one with cirrhosis) and to regard them in a certain way” (22). Moreover, atlases “teach how to see the essential and overlook the incidental, which objects are typical and which are anomalous, what the range and limits of variability in nature are” (26). Thus, the atlas, by definition, is concerned not with the particular, but the general; it abstracts specificity in favor of the communicable. *Petrochemical America* goes one step further by applying the atlas mode to that which cannot be seen at all. In its expansiveness and abstraction, *Petrochemical America* appears to position itself as providing a complete assessment, but this necessarily forecloses the kind of specific, nonlinear, or relational

³⁷ Even if synergistic and cumulative effects were more thoroughly studied, the fact remains that such studies would always be insufficient. Cumulative impacts are dynamic and comprised of an ever-expanding set of variables which, by definition, defies scientific processes of evaluation. This is precisely where literature becomes instructive: it can produce complexity and interrelation without having to isolate or pin down the various contributing phenomena.

thinking necessary to understand the embroilment of racial formation and environmental degradation in petrochemical America, particularly in relation to settler colonialism and environmental racism.

Assessing Environmental Justice

As scholars and activists of environmental justice demonstrate, moving the conversation into technical jargon and data-driven expert analysis is counterproductive to local communities and their diverse interests (“Neoliberalism” 287). Ryan Holifield, for example, explains that early efforts to achieve environmental justice following President Clinton’s Executive Order sought to establish environmental justice concerns through a neoliberal frame work, leading the Clinton administration to “[focus] its approach to environmental justice on data analysis, public participation and economic opportunity” (287). The result is twofold, per Holifield. First, “justice” becomes inextricably linked to economic opportunity. This, of course, is not a bad thing on its own, but it is more pernicious when “economic opportunity” is tied to the continued development of extractive and polluting industry. Rather than focus on the cessation of all toxic products and byproducts, listening to the demands of the communities and Indigenous peoples, such processes become regulated to permissible amounts so as to strike a balance between economic development and toxicity. Of course, the question that then arises concerns who, exactly, defines the permissible amount and whose interests are ultimately served by those decisions.

This is where things begin to become even more complicated, so scientists and scholars develop increasingly complicated methods of data collection. This leads to what

Holifield identifies as the second product of neoliberal approaches to environmental justice: a standardized approach that creates a single EJ community, rather than an attempt to account for the various differences in and amongst differently impacted and socio-historically situated communities (287). Data collection and analysis rely on universal approaches and a strong commitment to “objectivity,” which Daston and Galison have shown to be an epistemic shift in the way science was conducted in the nineteenth century (19). Increasingly global communication gave rise to a need for universal language and measurement, communicated in part by atlases, and thus “aperspectival objectivity” replaced the previous acumen and reputation of lauded scientists who were evaluated based their subjective skills of observation, or perspective (Daston 599). In the environmental justice arena, this kind of latent techno-scientific objectivity drives the federal government to seek a universal basis for evaluating any and all claims of environmental injustice and racism, thereby making “environmental justice subject to calculation, measurement, and mapping” (Holifield 287). Claims of injustice are now subject to data collection techniques and analytical models which are most likely developed well outside of the affected area and do not take into consideration the unique interests of the affected communities.

The primary focus of these techniques is to “translate contaminants and pathways into the universal form of numbers, which provide the basis both for comparison with other sites and for standardized decision criteria” (Holifield “Environmental Justice as Recognition” 595). Thus, these attempts focus on spatial proximity to risk and biological categories that researchers assume to be static and universal. The universalization of communities and risks has obvious deficiencies. For one, toxic elements affect different

people—and different categories of people—differently. For example, a suburban lawyer living a mile away from a toxic waste incinerator will not be afflicted the same as, say, a person who lives a subsistence-based lifestyle relying on hunting, gathering and growing his/her own food also a mile away from the same source. While they are proximally identical, the lawyer does not interact with the soil or eat food grown directly in it, thereby limiting his/her exposure somewhat. By contrast, someone living a subsistence-based lifestyle *does* interact with the soil, *does* eat food that has been marred by the exposure, and thus his/her exposure is greater.

Consequently, assigning the same values for “safe” levels to these different communities would yield different results. Universal approaches and purely data-driven forms of risk assessment ignore this. Subsequently, they ignore the complicated and diverse histories of racial formation that have led to what Robert Bullard calls “differential vulnerabilities,” the idea that some groups are more at risk than others based on their unique histories, social processes, race and biology (Bullard 754). Laura Pulido thus argues that more fully and justly accounting for risk assessment requires more than an investigation into the present-day levels of single chemical emissions. To truly reflect the total picture of risk, scholars and regulators must account for the social relations and histories of racial formation often lost in discussions of geographic proximity: “The emphasis on siting, intentionality, and scale have contributed to conceptualizing both racism and space as discrete objects, rather than as social relations. These dominant conceptions are problematic because they prevent us from understanding how racism shapes places and the relationships between places” (Pulido 33). What’s more, in order to be truly accurate, risk assessment should also account for the interactions of chemicals

with other environmental factors and the presence of other toxic substance, what scholars call cumulative impacts and synergistic effects. While the EPA has begun to develop models of analysis that attempt to understand how multiple chemicals work in concert to produce more extreme effects than any of those chemicals working individually, this is difficult, if not impossible, to do while maintaining an allegiance to universality (Sadd et al 1442).

Formal representation of information reflects the way that those presenting it theorize, understand and organize that information. Their aesthetic choices to represent data indicate their underlying frameworks. The universalizing, techno-scientifically rational approach to environmental justice disregards the complicated interactions and complex negotiations of people, place, history and environment, which, as Holifield explains, produces “technocratic attempts to *normalize* these communities using geographic information systems (GIS) analyses” (Holifield “Neoliberalism” 286, emphasis in the original). Thus, “point patterns, aerial distributions and topologies of exposure” typify the resulting aesthetic treatment of risk exposure (“Environmental Justice as Recognition” 595). Such data-influenced aesthetics are precisely the aesthetic of *Petrochemical America*.

A Novel Approach to Environmental Justice

By contrast, Percival Everett’s *Watershed* (1996) leeches and dissipates, theorizing environmental justice by underlining historical moments—real and imagined—and their complex interactions with racial formation and settler colonialism. The novel’s form is a collage of satirical treaties, noir detective generic conventions, fly

fishing manuals, chemical compound diagrams, excerpts from historical documents, and the story of how Robert Hawks finds himself in a church, armed with an M-16, surrounded by dead FBI agents and armed radicals from the Plata Indian Reservation. Initially allergic to any and all forms of political engagement and social protest, Hawks finds solace in his geological work, which requires him to be in the mountains outside of Denver, a space he understands as non-human and therefore apolitical (152). Throughout the course of the novel, Hawks, a geologist, learns a key lesson of the Anthropocene: the non-human environment is always already political and social, and geology is no longer an un-human discipline. For one, Hawks encounters hostility from rural residents who mistakenly, or so he believes, align Hawks with the interests of the Plata concerning water rights (30). What's more, much to his continual bewilderment, Hawks finds himself repeatedly helping Louise Yellow Calf and her family. These efforts culminate in Hawks's eventual discovery that government agents have expertly diverted a creek contaminated with the leeching contents of a buried tank meant to house the U.S. government's stores of anthrax left over from previous chemical weapon programs. This creek feeds into a watershed that flows through the Plata reservation, conspicuously diverted away from the watershed that feeds the non-Native communities.

The novel theorizes a critical environmental justice approach through both its content and its formal arrangement of that content on the page, or the way that each piece of the collage is placed to interact with the others. The novel reveals the plots of settler-colonial environmental racism alongside diverse passages that may or may not be part of the plot but nonetheless are integral parts of the story. Hawks comes to realize that the rationalization of diverting the creek into the Plata community relies upon the premise

that the tribe is inherently violable. As he does so, he continually recalls stories of how he first learned of his own violability as a Black man, and passages of text from these different strands interrupt and intersect each other. The passages—historical treaties, Hawks's family history of racial struggle and belonging, medical journals, histories of U.S. settler-colonial conquests—combine Hawks's encounters and the environmental racism he uncovers, showing them to be the result of deep-rooted histories of racial formation that would otherwise be invisible.

Many critics, including Sherman Alexie, Alexa Weik von Mossner and Lawrence Buell, have written about how *Watershed* aligns the civil rights movement and the environmental justice movement by tracing the historical legacy of racism and allying African Americans and Native Americans through identifying shared oppressions. Stacy Alaimo has also recognized the novel's engagement with the civil rights and environmental justice movements. Alaimo does so to demonstrate the way scientific objectivity eventually gives way to more embodied, and perhaps more democratic, forms of knowing, disrupting the authority of the scientific process that can often distance the communities involved from their own causes (64-65). Further, Alaimo notes that the “postmodern structure of the narrative” effectively complicates the “the old-fashioned sense of scientific objectivity upon which the protagonist insists” (69). For Alaimo, the disjunction between “the postmodern narrative form and the business-as-usual model of objective scientific practice that the protagonist espouses suggests that playful postmodernism may inhabit its own discursive universe, segregated from material practices, such as hydrology” (69). I agree with Alaimo as she reminds us that form is linked to modes of understanding and, indeed, theorizing. According to Alaimo,

Watershed's form disrupts the scientific objectivity that undergirds much of the claims to authority that work against communities injured by environmental racism, rooted as they are in a scientific expertise privileged above the experiences of the impacted communities (68). Alaimo therefore sees the novel's contribution as one that complicates "simple (scientific) realism," working towards a form of representation that can "capture material realities" (68). For Alaimo, the connection between form, authority and scientific objectivity are inherent within the novel.

Similarly, Kimberly Ruffin writes that *Watershed's* "metafictional structure" is a central strategy of the novel's politics. Attending to the form of the novel, Ruffin explains that the compilation of textual strands causes readers to "take into account the multidisciplinary influences on ecological experiences (i.e., governmental, social, scientific)" (125). In the novel, she writes, "the semantic worlds and ecological outlooks come together in a manner that stresses that no individual discourse exists independent of the others. Both species and discourse are interrelated" (125). The interrelation of species and discourse is a critical component of the Anthropocene, an epoch that names and narrates a species's social and environmental value and impacts.

Alaimo and Ruffin's readings are productive for demonstrating the importance of the novel's form in articulating a non-dominant mode? of environmental commitment and engagement. I want to extend these readings by considering the "postmodern" and "metafictional" structure of the novel within African American literary and artistic traditions which specifically leverage the *collage*. As I have argued above, the ways in which information and thought are organized formally demonstrates a theoretical stance. Rachel Farebrother explains that collage allows a "sense of the production of proximities,

analogies, juxtapositions, frictions and distinctions” to express identity and contest the dominant narratives and external discourses (16). This is productive in theorizing approaches to environmental justice in *Watershed*. As a collage, the novel theorizes environmental racism, racial formation and environmental justice consistent with an intersectional critical environmental justice approach, focused on social structures and not just single instances of harm.

My suggestion that the novel be read as a collage is meant to demonstrate the novel’s specific and situated cultural engagement, one that writes against a dominant, hegemonic discourse while it simultaneously writes to and among non-dominant forms of cultural and historical understandings. As John Hannah explains, collage empowers African American artists “to claim, recover and renegotiate a sense of self and community from within a self-authorizing oppressive, white cultural hegemony. [...] The African American artists challenges and disrupts the assumed, unified, Western subject by dismantling and deconstructing traditional and privileged representations cultural identity” (123). Understanding the novel as other than postmodern also helps demonstrate the potentialities of the form for environmental justice ends, particularly as it concerns questions of authority and experience. The collage form in *Watershed* theorizes environmental justice as a process that is necessarily conjectural, simultaneously illuminating and obfuscating knowledge and experience produced by deep historical processes.

In her understanding of the porous border between experience and scientific objectivity, Alaimo understands Hawks as operating with something like Donna Haraway’s “situated knowledges” or Sandra Harding’s “strong objectivity” (68). To this,

I add Paula Moya and Michael Hames-García's understandings of a postpositivist objectivity and their suspicion of postmodernism and its discrediting of experiencing as a site of knowledge.³⁸ This is a position that *Watershed* illustrates. Moya and Hames-García, arguing for the authority of (racial and ethnic) identities as sites of knowledge, assert that the "postmodernist dismissal of identity is based on a denial of the possibility of objectivity" (12). For Moya and Hames-García, a postmodern critique of objectivity runs against the valuing of identity and experiences as important sites of knowledge, a key framework for environmental justice scholars and activists. Thus, understanding Everett's novel as "postmodern" is insufficient given the way that categorizing it as such disassociates it from the critiques of postmodernism that Moya and Hames-García offer. Alaimo *does* mention that the novel is skeptical of postmodernism itself, though she nonetheless classifies it as having a postmodern structure (67).

Understanding the novel as postmodern is possible and apt. However, positioning it exclusively in such terms forecloses the productive possibilities of understanding it specifically in relation to the environmental justice movement, which, unlike postmodernism, has always been attentive to material forms of oppression, not just discursive ones. Moreover, many of these forms of oppression are built upon identities produced by, and resistant to, racial formation, an important theme in critical environmental justice and one that I argue underscores *Watershed's* contributions to theorizing environmental justice. Therefore, reading *Watershed* as collage, rather than postmodernist, invites the connections between racial formation and environmental injustice, just as it invites an understanding of experiential identity working against scientific objectivity. Thus, I aim to extend Alaimo's argument through an attention to

³⁸ See also: Satya Mohanty's *Literary Theory and the Claims of History*, 1997.

form, rather than disagree with it by becoming overly pre-occupied with categorization of the “postmodern structure of the novel.”

Thinking of *Watershed* as postmodern, for example, might lead us to an understanding of it as a pastiche. Pastiche is closely linked to Frederick Jameson’s understanding of the postmodern aesthetic in *Postmodernism, or the Cultural Logic of Late Capitalism*: collected fragments of texts and styles that work as a “random cannibalization of all the styles of the past, the play of random stylistic allusion” (18). It’s the randomness that makes pastiche a poor fit for *Watershed*. Under this rubric, the text is a random assemblage for the purpose of demonstrating the discursive construction of everyday life, a distancing of the real through an attention to the simulacra of everything. As Linda Hutcheon explains, such a position decidedly forecloses political engagement because the cultural logic of late capitalism has become so pervasive that all cultural production conforms to the logic, thereby unable to mount an effective critique of it (22). *Watershed* is an incisive novel on matters of material violence, racial formation and environmental toxicity. Its constellation of fragments do more than just point to discursive randomness and political inefficacy.

We might, then, alternatively consider the novel’s engagement with medical records, historical treaties (real and fictional), and scientific reports as a kind of “cognitive mapping” that Jameson argues is necessary for escaping the problems of postmodernism (54). Given Hawk’s position as a hydrologist, someone who maps the effects of history on landforms, the process of cognitive mapping seems all the more appealing. This is closer, but ultimately it isn’t quite right either. Hawk is not concerned with capital H History. He’s not interested in constructing a map of history *en toto*, a map

that traces all the various vestiges of late capitalism's seepage into every element of life. Rather, Hawks is concerned with a very specific history of a very specific place and its very specific effects on a very specific people. Namely, he's invested in understanding the material impacts of processes of racialization that produce—and are produced by—environmental damage and settler colonialism.

Thus, instead of the randomness and surface-orientation of pastiche and its invocation of postmodernist forms, I suggest readers understand *Watershed* as collage: purposeful juxtapositions of hegemonic and counter-hegemonic cultural products that force the reader to work out the relationships between the two. While the collage aesthetic has deep connections with modernism and Euro-American traditions in modernist movements, it is a useful and productive descriptor of *Watershed's* aesthetic. For one, African-American literature, since at least the point of modernism, has been engaged with collage as a strategic aesthetic. Drawing on the work of Katherine Hoffman, John Hannah writes about the collagist technique of Romare Bearden influencing the playwright August Wilson. Hannah explains, per Hoffman, that collage primarily serves as a means of “breaking away” from established representational order by “bringing to bear the processes of chaos—disintegration, fragmentation, dislocation—in contesting the nature of 'time, space, reality' within any cultural representation” (123). This act of deconstruction and reconstruction into collage allows “for the transformation of one reality into another” because the collagist “negotiates alternative perspectives and identities through the reordering of these cultural fragments” (123).

For *Watershed*, and novels of critical environmental justice, this is particularly important given the way that the “collagist tension,” as Hannah terms it, between order,

recovery and fragmentation, “resists essentialism in the way that it both disrupts and renegotiates authorized or privileged representational forms” (123). Furthermore, Hannah argues that combining forms, genres and different media “creates a distinct ontological tension within collage as the relationship between the individual and society, the part and the whole, the old and the new and the past and the present becomes indeterminate, subject to negotiation, context and perspective” (123). In short, it produces a way of representing both unique individual experiences and broader social structures, forcing the two into conversation. Drawing specifically on this tactic as a political tool to address racial experiences and social injustices, Hannah concludes that collages empower African American artists “to claim, recover and renegotiate a sense of self and community from within a self-authorizing oppressive, white cultural hegemony. [...] The African American artists challenges and disrupts the assumed, unified, Western subject” (123).

In *Watershed*, this specifically works toward critical environmental justice ends. The cultural form of the collage produces a tension between disparate elements of narrative, fictionalized history, revisionist histories, medical documents and government policy (among other things) to dismantle the objective authority that normally creates the dominant narratives of racial formation leading to environmental justice concerns. What’s more, the authority necessary to decide whether or not environmental racism has taken place--what Pulido describes as fraught with questions of animus and intentionality--is similarly dismantled (“Geographies” 810). Instead, the lived experiences, complicated, multiple, conflicting as they are, produce the form of validation, with a required expertise derived from institutions that propel White supremacy.

As a collage, the novel uses form to express a theory of critical environmental justice that makes visible the importance of historical developments, contested truths and geographical expanses that are non-linear. Given that a narrative is a linear movement that connects ideas through a certain path, the disruption of linearity in the novel similarly calls into question the over-reliance on linearity in assessments of environmental justice. As Pulido demonstrates, attempts to ensure environmental justice are often hamstrung by a focus on intentionality or animas (810). In order to prove injustice and receive retribution through official or state channels, there must be clear evidence of an intent to create harm and, in the case of defending charges of environmental racism, there must be also be proof that such an intent was racially motivated. Likewise, arguing for an understanding of racial discrimination “post-intent,” Imani Perry explains that “in U.S. race talk” racism is predominantly conceived of requiring demonstrated intent to “disadvantage someone on the basis of race and the belief that a person must necessarily be a particular way or have a particular characteristic because he or she belongs to a specific racial group” (15). This carries over into understandings of constitutional law, which as Perry explains, “is an extraordinarily difficult standard to meet and often requires a ‘smoking gun’—virtually irrefutable evidence of intent to discriminate” (16).

Perry therefore argues that “we should no longer frame our understanding of racially discriminatory behavior in terms of intentionality” because racism is not solely produced by individual actors acting on the basis of prejudice towards individuals they identify as being of a particular racial group. Instead, Perry explains that the racism prevalent in the United States is “more appropriately called ‘correlational’ racism,” in

which individuals are treated on the basis of the positive or negative correlations between that individual and the racial group to which they are seen to belong (17). While person A may not *intend* to racially discriminate against person B, the correlative associations that person A makes between person B and the stereotyped behavioral, biological or cultural qualities of person B's racial group nonetheless leads to racial discrimination.³⁹

Pulido and other environmental justice scholars demonstrate that environmental justice is often post-intent and not necessarily the product of the kind of racism that has come to signify "racism" in the United States.⁴⁰ In other words, there's not a "Whites Only" sign floating amidst clean air, nor is there a "Coloreds" sign floating in the muck of pollution. But racism, as Pulido and Perry show, does not need to be so directly intentional in order for it to function. This is precisely the lesson of *Watershed's* form.

The first chapter of *Watershed* provides a good example of how the book as a whole operates. Given that it is the first chapter, there is no sense of an ending that allows for a definitive understanding of how each part of the chapter hangs together. I identify four threads in the chapter, each of which initially seem unrelated, acting as non-sequiturs or possible red herrings or important bits of information that may become useful later.

³⁹ Perry is clear in her explanation that much racial discrimination *is* intentional. Moreover, she argues that understanding racism as correlational and post-intent ultimately forces a reconsideration of intent: "To say we must think post-intentionally is also a means of escaping a problem with what is meant by intentionality. One could read post-intent as simply referring to the growing body of cognition research showing that there is a great deal of unconscious bias. But, at the same time that there is unconscious bias, there are quite conscious racial narratives about groups and places that are expressed all the time, in our humor, our entertainment, our schools, our news, our government, our places of employment, and on and on. [...] It is not a simple matter to assess whether we, collectively or as individuals, are saying or thinking what we mean when it comes to race. So, rather than say that racism is now unintentional, I am saying that intentionality isn't a good measure any longer, in part because the notion of intentional racism truncates the realm of intent" (21). In this sense "intent" goes beyond the individual action and considers the intent of racism itself, which is the production and maintenance of hierarchies of power along racial lines. If any act contributes to this purpose, it serves the intent of racism, though the actor may not be acting for this purpose.

⁴⁰ See Perry 18. Perry explains this form of racism has alternately been called "redneck racism," "blatant racism," and "classical racism."

The chapter—and the book as a whole—is divided by text that is in italics, and text that is not. The italicized text is, in this chapter, an array of information: a breakdown of a fly-fishing fly from a manual about tying them (3, 6); passages from court documents (or perhaps a single court document) regarding the fictional Plata Indians and water rights (12, 14); a physiological explanation of the process of swallowing (16); field reports from geo- and hydromorphology studies of the novel's setting (18, 21); and, what appear to be (given the stilted and clearly racist language such as “half breeds”) historic federal documents of U.S. policy and policy recommendations, one of which is attributed to former Commissioner of Indian Affairs, Edward Parmelee Smith. The non-italicized portions of text are either stories from Hawks's past concerning his familial relationships; or the development of his interaction with the character Louise Yellow Calf; or some initial insights into the troubled relationship Hawks has with his maybe-ex-girlfriend Karen.

Without foreknowledge of the ending or even the rest of the story, these threads of the novel await weaving. That they *should* be strung together is implied by the fact that they are contained within the same chapter in the same book, a practice Peter Brooks suggests is endemic to all novels, terming it “anticipation of retrospection” (23). How they should be strung together is unclear, and this is precisely the productive capacity of the form. The contiguity of each of these passages suggests *some* relationship, but the content of the passages themselves is so diverse that a clear connection between all of them is elusive and multiple. For example, under the “1” that numbers the chapter, the phrase “LANDSCAPES EVOLVE SEQUENTIALLY” appears to serve something as a chapter title or else the start to an extended quotation, in italics, that immediately follows.

The quotation begins, without quotation marks, mid-sentence: “*except under extraordinary provocation, or in circumstances not at all to be apprehended, it is not probable that as many as five hundred Indian warriors will ever again be mustered at one point for a fight*” (1, italics and formatting in the original). With the juxtaposition of the phrase “landscapes evolve sequentially” and the immediate following quotation beginning in mid-sentence, it’s easy to read the two phrases as part of the same passage: landscapes evolve sequentially except under extraordinary provocation. Fair enough. Continuing the quotation in this way, however, soon makes little sense, as another subject and predicate, “it is not probable” are introduced. Thus, at least according to the rules of English grammar, the phrase and the quotation are not part of the same sentence. Trying to make sense of what’s what by looking elsewhere in the novel for a sense of convention is unfruitful. This particular arrangement to begin a chapter does not appear elsewhere in the novel. No other chapter begins with a capitalized phrase. No other chapter begins with an italicized quotation mid-sentence. No other chapter has what approximates a title.

The statement about landscapes might then serve as an organizing principle that can constellate the various passages that follow: these passages are the various stages of evolution in a changing landscape, where “landscape” pertains not just to the geographical, but also the political and artistic. The alarmingly stilted and overtly racist language regarding “Indian warriors” and “Half breeds of said tribes” suggests a change in, at least, the rhetorical landscape of the presumed reader. As the chapter continues, however, the novel thoroughly disrupts the teleological drive suggested by sequential evolution. *Watershed* consistently moves back and forth through time and space, destroying any sense of rigid, identifiable sequence. It does not “evolve sequentially,” at

least not in the way that landscapes do, according to geologic time. The novel is not a linear chain of events. Instead, it moves forward and back through time, in and amongst places, shifting perspectives and authoritative voices. While readers might identify a clear distance between the overtly racist rhetoric in the historical documents, other passages concerning the fictional Plata tribe demonstrate that the sentiment behind the rhetoric remains largely unchanged. What's more, the text does so with obvious self-awareness of its own fictionality.

An excerpt from the court case "*Plata Creek Indian Community v United States, No. C.V.-99-3456-R (filed Dec. 22, 1984)*" summarizes that "The Indian Community seeks a federal review of its charges under the Administrative Procedure Act to the Secretary of the Interior's resolution to omit tribal lands from the Hellhole Creek Project" (12). The intensely juridical form is offset by "Hellhole Creek," a colorful name that follows naming conventions of the nineteenth century West, like "Dead Horse Gulch," which can be found throughout Colorado, Arizona and/or Utah. However, the name of the creek and the lake it feeds becomes less playfully colorful as readers later learn that it has been poisoned with anthrax well after this legal battle to secure water rights to it. Two pages later, another excerpt regarding the lake appears. This passage explains that the Bureau of Indian Affairs originally established "Hell-hole Lake" in 1907 using funds that were "set aside for the Plata Creek Tribe" (14). According to the passage, the tribe sought compensation for the "misappropriation of funds set aside for Indian use," as the resulting irrigation project did not serve them (14). However, their attempts at compensation were denied, the passage explains, for two reasons. First, they were not recognized as a collective polity at the time and thus had no legal or political standing to

sue, demonstrating the fraught politics of recognition brought on by settler-colonial practices that systematically disenfranchise Native peoples. Second, the passage explains, “the Secretary of the Interior at that time, Joe Schmo, called the Indian challenge offensive because of their use of the word ‘theft.’” (14). The names “Hell-hole Lake” and “Joe Schmo” are clearly fictional and glibly flippant. Their flippancy suggests an eye-rolling dismissal that comes from an exhaustion produced by the repeated and continual mistreatment of Native peoples through settler colonialism. These events are entirely in line with historical precedent, so they produce a kind of head-shaking, insider humor that speaks to an audience well aware of the continual legacies of racial formation and structural oppression. The text complicates the idea that the political landscape has evolved at all, let alone sequentially.

Thus, the novel anticipates Holifield’s proclamation that risk assessment for environmental justice should be “products of complex negotiations among things, people, interests, laws and resources that translate and modify, instead of transparent representation of purely objective conditions” (“Environmental Justice” 596). The contiguous presences of disparate passages that range in time, location, and, as I shall speak to shortly, authority, complicates straightforward understandings of the notion of temporal and spatial proximity. As Pulido explains, a full accounting of environmental justice must take into consideration histories of racial formation and disparate sites of transnational capital that lead to the conditions of contemporary EJ issues. The italicized passages are written in various forms of the authoritative, objective voice of Western scientists and professionals (legal and otherwise). As the novel unfolds, their role seems more apparent: when these passages are placed directly after plot, they appear to be

exegetical, giving the reader insight into the story that the characters themselves don't have. Often, however, other parts of the story contest that presumed insight, thus undermining what readers might have thought they learned.

For example, when Hawks first arrives at the Plata Creek Indian Reservation, he is looking for Louise Yellow Calf; instead, he finds an ambulance outside her mother's home (24). Hawks asks Louise what's wrong, and Louise initially responds, "It's my mother ... She's old." When he asks for clarification, Louise offers a similar refrain, "She's old. The pain is in her stomach" (24). At this point her mother's illness is attributed to, and somewhat dismissed as, old age. The text then jumps to the hospital where they have taken the mother, and Louise explains that the doctors "have to do some tests [...] They want to scope her and do a biopsy" (26). Louise speaks as someone without insight into the process, someone who has been informed of the intrusive actions about to be done to her mother, but someone who ultimately has no control over them, conceptually or otherwise.

From here, the text is interrupted by a passage, set in italics, taken from a medical journal. The source is a 1964 "*Annals of Surgery*" article entitled "*Cholecysto-Gastric Fistula Masquerading as Carcinoma of the Stomach,*" an article actually published, in real life, by Robert E. Kravetz and Alfred S. Gilmore. The excerpted passage, however, is a fictionalized summary of the original texts' abstract, made slightly more accessible to Everett's presumed audience, and not the medical community of *Annals of Surgery* (Kravetz and Gilmore 461). A major difference between the fictional version of the text and the one as it appears in *Annals of Surgery*, concerns the patient's identity. The original publication states that the patient is "A 51-year-old Apache woman," who was

“admitted to the USPHS Indian Hospital, Phoenix.” *Watershed’s* version of the article does not identify the patient as an Apache woman, nor does the included citation reference the “Medical and Surgical Services, US Public Health Service Indian Hospital,” specifically cited in the original text (Kravetz and Gilmore 461). This information does, however, appear in the fictional world of *Watershed*.

The original version of the medical journal states that the patient was “admitted with progressive nausea, anorexia, weight loss, epic gastric pain and postprandial vomiting. The pain was nonradiating, increased with eating, and was not relieved by vomiting.” (461). *Watershed* reproduces this information almost directly, in the discussion of the fictional patient, Wanda Yellow Calf, Louise’s mother: “The symptoms of Wanda Yellow Calf, an eighty-one-year old Plata Indian woman, when admitted were progressive nausea, anorexia, weight loss, gastric pain, and postprandial vomiting. It was reported by the daughter that the pain was non radiating, was increased when eating, and relieved by regurgitation” (*Watershed* 28). The reasons for the slight textual changes and adoptions are less important for my argument than the fact of the inter- and extra-textual complications. What’s important is the mixing of fiction and reality, a confusion that extends beyond the text and mirrors the confusion within the text, producing a host of threads whose presences alone invite a weaving. Set within a world known to be fiction, the semblance of a nonfictional element affords readers the opportunity to “verify” the information within the text via a reference to the nonfictional “real” world.

Of course, it’s not so simple as this. The version of the text as it appears in *Watershed*, which seems to convey the basic findings of the original text, explains that “it is not uncommon for gallstones to cause intestinal obstructions.[...] A case was reported

where complicated cholecystitis with accompanying gastric obstruction appeared as carcinoma of the intro of the stomach due to gallstones” (24). Speaking only for my own limited medical knowledge, what I, as a reader, take from this passage is the general suggestion that sometimes things that look like stomach cancer are actually the result of gallstones. With this suggestion, it seems as though the passage, written in the passive voice of medical professionals, serves as a bit of dramatic irony in which the reader becomes more aware of Louise’s mother’s affliction than the characters, at least to the extent that they can parse the dense medical prose. It’s not stomach cancer; it’s gallstones. The real life doctors are telling us this.

In the very next sentence following the italicized passage, however, Louise reports, “They think she might have cancer.” (27). At this point, the text appears to be contradicting itself, and it is unclear whether the information from the *Annals of Surgery* has informed the doctor’s assessment, or whether that article should be dismissed, possibly because *it* is old, outdated and too removed and speculative (“A case was reported ...”), and ultimately fictionalized, to really warrant significant consideration. Regardless of whether or not the excerpt is based on “real” medical findings, its presence in a book of fiction has made it fiction, after all. But then again, perhaps Wanda’s doctors are wrong and Louise is now misinformed. The collage of texts disperses authority, refusing to give any clear indication as to the correct assessment.

To complicate the matter further, the next italicized passage is the version of Wanda’s medical report referenced above, which heavily borrows from the Kravetz and Gilmore publication. After the summary of symptoms that Wanda and Louise report, the text lists a number of medical values. For what it’s worth, Wanda’s “*Serum-glutamic-*

oxaloacetic-transaminase” level was “141mg/100ml” (29). What, precisely, this information is worth is exactly the point. Is this authoritative information that readers should trust as insight into the plot? Should the characters themselves value this information? The next paragraph, continuing Wanda’s medical report, ends with a declarative conclusion: “Interpretation of subsequent film substantiated the earlier conjecture of carcinoma” (29). It *is* cancer after all. Maybe.

The passive voice of the medical rhetoric is particularly striking here. The passage, by way of its deferred subject in the passive voice, explains that “interpretation of subsequent film substantiated the earlier conjecture of carcinoma” (29). The very interpretation of the film confirmed the initial diagnosis, not a particular individual with a particular set of biases or proclivities. The passive voice conveys an unquestionable position because there is simply no person to question. As readers, however, we’re no clearer as to what is ultimately causing tremendous pain and hardship to Wanda. As we come to find out later in the text, anthrax has contaminated the entire community’s watershed, bringing into question the previous conjectures of cancer, gallstones and old-age. Ultimately, the text and the various forms of authoritative voices that make it up give the reader no clear understanding of what is actually going on. This is precisely what makes the novel so compelling as a site of theory for critical environmental justice issues.

This insight, informed by expert knowledge, represents the divide between communities that experience the problems of environmental injustice and the scholars, scientists, and government agencies that study them. Throughout the novel, the plot develops in such a way that the presumed authority of the objective voice is undercut many pages later. Readers learn, or are led to believe, that their previous understandings

may have been misinformed. A similar instance to Wanda's occurs when Hawks stands behind two Plata men talking about mysterious black spots on the throats of their cows (21). The vet field agent says it's screwworm, and so, the man bets it's probably screwworm, even though, when pressed, he admits that he's never seen screwworm and the shots the vet field agent gave to the cows have been ineffective: "My cows, they got them spots and the vet field agent came out and that's what he said. Screwworm. He gave them some shots, but the spots, they are still there" (21-22). To make sense of the conflicting information, readers must reach back to passages they have read long before, or else withhold judgment until they can more completely evaluate the complex matrix of information they soon learn to expect.

As Brooks explains, this is indeed a formal quality of narrative. Readers build an understanding of "what really happened" though "a mental construction that the reader derives from the *sjuzhet*, which is all that [the reader] ever directly knows" (Brooks 13). In the case of *Watershed*, however, it's unclear whether or not the italicized portions of text are meant to be taken as *sjuzhet*, or the narrative events and the order in which they are presented. The italicized elements of *Watershed* are indeterminate and resist the anticipation of retrospection. Formally, this demonstrates the importance of understanding more than the immediate and the local phenomena, which typically tend to dominate understandings of environmental racism and injustice. The reader's anticipation of retrospection is confounded by information that seems to be, or *is*, contradictory. Thus, the future a reader might expect gradually becomes a future that is plural and unique. In the context of environmental justice, this demonstrates that contested histories, processes

of racial formation and distant times and places are always essential to a complete understanding of the operative forces producing environmental racism.

At the root of this understanding is a contestation of authority itself. The name “Joe Schmo” is a clear dismissal of his perceived authority as a government agent and person of power. Indeed, the question of authority occurs throughout the chapter and the rest of the book. As a geologist working in the area, Hawks is a self-professed expert in the geo- and hydromorphology of the watershed. Moreover, the Plata people, members of the American Indian Revolution, and an FBI agent (who assumes that he must be politically involved with the Plata knowing what he must know about their reservation) also assume him to be an expert (56-57). Hawks's own voice is clear and authoritative from its first appearance, boldly proclaiming, in the first sentence, that “My blood is my own and my name is Robert Hawks” (1). This authority is soon embroiled with the veracity of the story Hawks is about to tell, even if he is slightly annoyed at having to tell it: “That I should feel put out or annoyed or even dismayed at having to tell this story is absurd, since I do want the story told and since I am the only one who can properly and accurately reproduce it” (2). Hawks is careful to stress a distinction between telling the story and “properly and accurately” reproducing it. This suggests that, for Hawks, the story is an external truth, an objective reality that exists and has happened whether or not whoever tells the story has reproduced the events correctly. The story must be told by Hawks, he proclaims, because he doesn't trust anyone else to “attempt a fair representation of the events--not that the events related would be anything less than factual, but that those chosen would not cover the canvas with the stain or underpainting of truth” (2). For Hawks, and for the novel itself, truth, story, facts and narration are

separate elements that exist on their own but nonetheless interweave. For Hawks, the truth of the story may not be the only truth, or the entirety of the truth of his situation. Hawks understands that the act of telling a story, that is, selectively choosing events to highlight in a particular order for particular results, produces one of many possible truths, and now, sitting on a wooden bench surrounded by two dead Indians, a dead FBI agent, another bound-and-gagged, and 250 more armed and awaiting him outside, he wants to make sure that the story is fully representative of its complexity.

The contiguous presence of the italicized passages and Hawks's narrative demonstrate an investment in complexity and multiplicity. By appearing to be questionably or tangentially related to the events that Hawks is relating, the italicized selections work as parts of a collage to produce a layered, complicated and self-referential whole, each of which modifies the other, none of which are transparent within themselves. Taken together, they produce a more thorough representation of the truth as Hawks understands it. Though they might be tangential to the plot, they are imperative to the story. In this way, the novel functions how Pulido and a critical environmental justice framework per Pellow suggest that risk assessment must operate. Assessments seeking environmental justice cannot stop with the immediate and proximal. To truly assess risk and injustice, they must understand the distant and historical as contributing factors. In other words, the tangential is never only tangential. Everett's novel makes this clear through its central organizing principle: the watershed.

Like a watershed, the novel is a site of aggregation, bringing together numerous strands into a cohesive whole. Each passage, whether plot, background, fictionalized medical journal, actual treaty language, chemical diagram, or any of the other "streams"

of information, come together, transforming one another in various ways. For the interrelation and co-constitution of racial formation and environmental harm, this organizational premise is especially illuminating.

Throughout the novel, Hawks's familial history in dealing with overt forms of racism that characterized the 1960s in the United States emerges in the moments in which Hawks, and his grandfather, are interacting with non-human forms of environment and nature, specifically through hunting. The novel's first explicit mention of Hawks's own race comes as his grandfather passes on intergenerational knowledge about navigating the complexities of both the social and natural. Given the mention of Hawks involvement with wilderness recreation, fly fishing, hiking, hunting, the novel plays with the racial assumption embedded in these forms of recreation. Geographer Carolyn Finney points out that dominant cultures associate these activities with White people (xii). The novel undercuts these assumptions when Hawks's grandfather asks the young Robert an equally racially coded question: "What would you do if some KKKs grabbed your grandfather right now?" (14). This question, comes at the precise moment that Hawks's grandfather "knelt to observe some sign, his fingers moving over the ground that had been scratched up, feeling the freshness of a bird's excrement" (14). It's in the shit, so to speak, that both the reader and the young Robert learn about his identity. Hawks tells his grandfather that he would run to the police, an answer that seems reasonable. Again, his grandfather gives him another lesson, which, in Moya's phrasing, he has learned from experience: "When you're older [...] the police will stop you and search you and, if they don't shoot you, they'll take you in and say you look like another 'nigger.' They may not use that word, but that's what they'll mean. It's happened to me. It's happened to your father. It will

happen to you” (14). Robert questions his answer, “So I shouldn’t go to the police?” His grandfather’s response is to smile and reply, “Yes, you should go to the police. Where else can you go?” (14).

In this exchange with his grandfather, Hawks learns that the world is an environmental and social minefield. He learns his grandfather’s hardboiled mistrust of the police, and he learns important lessons in how to navigate the world. Here, as elsewhere in the novel, environmental and social problems are inextricable. While Hawks is not, at this point, involved in the toxicity that will mark the novel’s case of environmental racism, the passage establishes a long-standing history of racism built into the operating fabric of American society while simultaneously demonstrating that racism extends well beyond the perceived realm of humans into the natural world. Later in the novel, at the moment Hawks recognizes his own political motivation to help the Plata members of the American Indian Revolution, Hawks begins to question his choice of profession as a hydrologist, a profession that allowed him to be in the natural spaces, away from people.

In fact, Hawks is initially so intent on removing himself from the human, social world that he “didn’t talk about politics, didn’t respond to talk about politics, didn’t care about what I read in the papers, and didn’t feel any guilt about my lack of participation in those issues of social importance. I did not know or associate with many black people. As it was, I didn’t associate with many people at all, trying at most turns to avoid humans” (153). Hawks dismisses humanity with equal opportunity, taking his grandfather’s mistrust of Christians and White people to the point of “complete removal ... I didn’t believe in god, I didn’t believe in race, and I especially didn’t believe in America. I simply didn’t care, wouldn’t care, refused to care” (153). By his own admission, Hawks

had forgotten—willfully or not—the lesson his grandfather taught him about race as a young boy. Now, however, with clear evidence the U.S. government had purposefully diverted a contaminated stream into the Plata Indian Reservation, these ideological phenomena manifest themselves materially. They are readily observable in the same way as the subject of his work as a hydrologist: “terrace formation and sedimentation evaluation were simple, observable things and meant only what they meant” (152). So while Hawks, the geologist, tries to avoid the human, he learns that he cannot, demonstrating the foundational premise of the Anthropocene. What's more, the human imposition manifests specifically through racism and settler colonialism.

At this point in the novel, histories of racial formation, violence, settler-colonialism and environmental degradation become explicitly woven together both in plot and in form. As Hawks begins to become politically mobilized as a result of his findings, he recalls an episode that mirrors his initial lesson about the police and KKK turkey hunting with his grandfather. This time, he and his grandfather are coming back from a pig hunt when “two men cloaked in flowing white and wearing conical white hoods directed the slowing traffic while off in the field behind them similarly dressed men made an impressive crowd around a burning cross” (174). The Klansmen identify Hawks and his grandfather, and begin “to shout ‘nigger’ at us and kick at the car. That’s when I noticed the pistol in my grandfather’s lap” (176). The car in front of them moves, however, and his grandfather is able to speed away without further conflict.

Immediately following this passage is a two-paragraph passage in which Hawks, now fully aware of the dam diverting the contaminated stream, has begun his process of ground-truthing, armed with a camera to fully document the area. Following this short

passage is an excerpt from a hydrological source, perhaps a textbook, perhaps one of Hawks's own reports: "Two adjacent streams might drain to the same base level and form on the mountain front on the alluvial fan above the adjacent inter-fan stream that heads at the front. It is the case, however, that the low-gradient inter-fan stream cannot carry the case alluvium, and when it is arrested by an adjacent stream, an active aggradational phase begins" (176-177). We can metaphorically read the two previous passages, about Hawks' run-in with the KKK and the dammed creek, as "two adjacent streams." Here, in the text, they combine and, following the form of the novel, simultaneously fan out. At this moment, however, these two streams are "arrested by an adjacent stream," in this case, the explanation of hydrology. Thus, "an active aggradational phase," or a moment in which the sediment contained in the passages begins to build, begins. The material—alluvium, in the parlance of hydrology—brought forth by the adjacent streams of racial formation, settler-colonialism, personal history, violence and toxicity aggregate, mixing, combining, building to produce a complex moment in which all things act upon all other things, and should no longer be understood to exist separately.

Finally, the novel's form, as a collage, also impresses on these fictional streams. In *Watershed*, we see these politics engaged specifically to environmental justice ends, suggesting that the collage is a necessary form with which to think through assessments of risk and aggregating histories and phenomena.

Novel Solutions

At the end of *Petrochemical America*, there's a set of solutions and a glossary of terms. In keeping with its form, this guide and the solutions it presents offer an attempt at

a clear way to make actionable the information contained within and an attempt to assure clarity. What might a solutions section following a novel, and Everett's novel in particular, provide? In short, the solutions that the novel proposes are not, in the end, material. Instead, the novel suggests that part of the solution is to think and feel, to question, and to adopt an alternative epistemology by imagining one's self as living through—or at least attempting to do so—the lived realities of those we may not understand.

As we have seen in the work of Pulido, Sadd et al, and Holifield, privileged forms of representation, often the techno-scientific maps produced by GIS, distance the affected community by way of its reliance on specialized, expert knowledge. In the hands of those carrying out the risk assessment, these representational forms reduce unique communities and interests to a set of universalized data points that are then compared to acceptable levels of contamination or exposure. This process, by necessity and design, removes the real, human and vernacular experiences of those affected in favor of translating these experiences into “objective” data.

As Holifield explains, part of regulatory science's operating procedure is to universalize. For the regulated industries, this seems fairer -- everyone is being regulated equally. For the harmed communities, however, it is anything but fair. As we have seen, vulnerabilities are differential: not everyone is affected by the same amounts of the same chemicals in the same way. Thus, the collage approach produces a necessary disruption to this universalization. Rachel Farebrother explains the effect of the collage on readers, one that suggests an alternative means of understanding and making meaning that may be particularly helpful to those theorizing environmental justice:

Faced with collage, viewers are forced to piece together meaning actively: they must tease out relationships between parts. [...] These meanings remain suspended in dynamic play. It is the viewers' task to identify cultural pieces and to hold them in view, never suppressing the heterogeneity of elements. Of course, active interpretation is even more crucial in verbal collage because 'the encoded intent is often less visible than in pictorial of the collage; its identification often depends on a reader's ability to decode intertextual fragments. (8)

Watershed is awash in intertextual fragments. As such, readers must constantly attend to the complexities, contradictions, nuances and translations that occur throughout. This is in keeping with Toni Morrison's characterization of "Black art, whatever it is," noting that the novel "should be beautiful, and powerful, but it should also *work*" ("Rootedness" 58). Morrison explains that it is "the affective and participatory relationship between the artists or the speaker and the audience that is of primary importance [...] to have the reader work *with* the author in the construction of the book—is what's important" (59, emphasis in the original). *Watershed* is difficult, messy, imprecise and subjective. But forms of justice are never universal, and they are never objective. The novel shows us that in order to obtain justice, we must be willing to do the work of navigating and fully honoring complexity. And in those moments when the complexities exceed our own capacities to make meaning of them, we should take that as an indicator that we are encroaching a limiting factor, acting with a precautionary stance rather than waiting on the development of techno-scientific mechanisms to tell us what our histories, our bodies and our communities have long borne witness to.

If we understand, in keeping with Brooks, the *fabula* as a product of the *sjuzet*, then the ways in which the italicized passages contradict the events in Hawks's retelling of the story produce a *fabula* that is fractured while at the same time whole. In narratives, what "really" happened is the product of all the bits of information that the reader has uncovered in the process of reading. The novel's inclusion of extra-textual passages that range from fiction to non-fiction to fictionalized nonfiction, fundamentally disrupts the production of a single, authoritative account of the narrative, even if we are sympathetic and trusting of Hawks's rendition of the events. When this framework of understanding narrative is brought to understanding instances of environmental justice, we might consider risk assessment a form of narrative making, complete with its own *fabula* (what really happened, the "official" account) and *sjuzet* (the information compiled and analyzed in order to produce that official account). Risk assessment is a form of narrative, just as the stories and the lived experiences of impacted communities are forms of narrative. With this narrative form, evident in *Watershed*, we can begin to understand that the "truth" of risk assessments is the products of privileging some elements—or experiences, bodies, lives, existences—over others. The story that gets told is, of course, but one arrangement.

No doubt, this complicates the matter of achieving justice more than it simplifies it, particularly in relation to systemically marginalized communities. However, I believe it does demonstrate that universal approaches are, at their core, inadequate. One cannot understand or assess the risk and injuries of two different instances of environmental injustice using the same approach, just as one cannot understand two different stories by reading for the same plot.

In the next two chapters, I extend this conclusion to reading “the Anthropocene.” Literary critic Kate Marshall has recently begun constructing an archive of novels of the Anthropocene based on their stratigraphic engagements. *Watershed's* geologic histories certainly make a case for its inclusion under this rubric. As I've argued throughout this chapter, however, *Watershed's* geologic engagements cannot be separated from its social engagements, another defining quality of the Anthropocene. I continue to expand the category of “novels of the Anthropocene” to fully consider the epoch's racist and settler colonial foundations. I consider the Anthropocene as a narrative formation that invites an approach so generalized it is planetary. I trace the insensible realism of Mat Johnson's *Pym* and Sesshu Foster's *Atomik Aztex* to show how the Anthropocene, a global environmental justice concern, requires discursive and formal analysis to accurately address the physical and ideological processes it names. In short, addressing the Anthropocene requires a critical environmental justice framework.

CHAPTER IV

AN INVERSE ALBEDO: REFLECTING WHITENESS IN THE ANTHROPOCENE

‘Albedo’ is Latin, meaning whiteness. The albedo of a surface is the fraction of the incident sunlight that the surface reflects. Radiation that is not reflected is absorbed by the surface. The absorbed energy raises the surface temperature, evaporates water, melts and sublimates snow and ice, and energizes the turbulent heat exchange between the surface and the lowest layer of the atmosphere.
– JA Coakley, “Reflectance and Albedo, Surface”

Through the process of ‘white-world-making,’ the construction of a world with values, regulations, and policies that provide supportive structures to those identified as ‘white,’ a world that whiteness then denies having given birth to, a possible slippage between knowing and being is often difficult to encourage. In short, what whiteness *knows* is what there *is*.
– George Yancy, *What White Looks Like*

Whiteness isn’t about something, it is about being no thing, an erasure. Covering over the truth with layers of blank reality just as the snowstorm was now covering our tent, whipping away all traces of our existence from this pristine landscape.
– Chris Jaynes, *Pym*

Introduction and Overview

This chapter extends the idea of the insensible to directly address the Anthropocene as both scholarly and popular conversations conceive of the epoch. As I have stated throughout the project, I consider the Anthropocene both as a set of physical realities and as an epistemological construction that organizes those physical realities into a narrative of both history and futurity. As literary critics have begun constructing an archive of novels that represents and reflects the Anthropocene, I argue that a critical environmental justice approach to the Anthropocene requires attention to novels that conceive of the epoch as a social problem in addition to its ecological and physical realms. Mat Johnson’s *Pym* (2011)—and Sesshu Foster’s *Atomik Aztex* (2005), which I address in the next chapter—is particularly useful in this regard, as it typifies an approach

to the epoch that articulates relationships between the ecological factors, racism, and economic structures that make up the Anthropocene. Deepening my argument that formal strategies are a way of drawing attention to, and simultaneously re-imagining, dominant power structures that produce social and environmental justice issues, this chapter focuses on Johnson's *Pym*, which engages counter-memories and possible futures of a world made by humans, or, more specifically, the human constructs of whiteness and colonialism.

Through its formal strategies, the novel engages the deep irony of the Anthropocene. The epoch's irony comes via the fact that the Anthropocene, as a concept and physical process, at once reflects its origins and threatens them. As a global environmental injustice, the Anthropocene is the product of settler colonialism and white supremacy. These two social strategies have provided the ideological justifications for believing that environmental ills can be safely partitioned away from those who benefit from the processes of extractive capitalism. As I have explained in Chapters II and III, this assumption rests on the idea that some communities and spaces are inherently more violable than others. Thus, marginalized communities and spaces have borne the brunt of these environmental harms. In the Anthropocene, however, these environmental harms build and compound upon each other to produce planetary effects that extend well beyond their local, social, geographical and temporal origins.

We can therefore think of the Anthropocene as the moment in which the social and environmental problems of the margins return back to the center. Having relied for so long on systems of ignoring environmental problems by shifting their impacts onto marginal communities, the material basis of the Anthropocene's ideological foundation is

now threatened by its unwanted byproducts, manifesting themselves as (among other things) global climate change, disrupted nitrogen cycles, biodiversity loss, ocean acidification, and sea level rise. The irony thus comes from the fact that the epoch is self-defeating and self-reflexive: the material resources that have propagated settler colonialism and white supremacy are now threatened by the ideology that has long benefitted from them.

As a concept and narrative, the Anthropocene, envisions, manages, and delivers futures. Whether or not they are futures that correct the problems the Anthropocene names, however, depends upon the ways in which the Anthropocene conceives of its many geneses. Through its insensible realism, *Pym* brings the twin geneses of White supremacy and settler colonialism into view. Taking its cue from the epoch's irony, *Pym* too is deeply ironic, finding hilarity in the Anthropocene's existential crisis. Using formal strategies and tropes of pastoral, fantasy, Afrofuturism and Ramón Saldívar's post-race speculative realism, *Pym* creates an allegory of the Anthropocene in which the whiteness that produces fantasized environments collapses in on itself.

The novel's allegory of the Anthropocene shows that the shift in the Earth system, which predicates the Anthropocene as a distinct geologic epoch, is not a product of humanity as a whole. Rather, the shift is tied to the specific construction of whiteness as a strategy of ignoring and/or willfully forgetting, or, in other words, a strategy of constructing a fantasy of cheap, expendable energy and labor without externalities. As George Yancy explains, this form of fantasy operates through the racial strategy of whiteness. Yancy argues that whiteness constructs a world with "values, regulations and policies that provide supportive structures to those identified as 'white'" (11). What's

more, the strategy of whiteness then denies having constructed this specific reality, which makes it difficult for people who identify as White to see the difference between their specific epistemological constructions of the world and their socially constructed identity. Yancy concludes, therefore, that “what whiteness *knows* is what there *is*,” meaning that Whites assume that the specific knowledge produced by being White (in a world constructed to privilege Whites) encapsulates the entirety of empirically reality.

I suggest that we read the Anthropocene, conceptually and physically, as a “white-world-making.” It is a shift in the Earth system’s function produced by the strategy of whiteness, and it is subsequently conceptualized by the same ideological investments of positivism, empiricism and Western European forms of knowing as primary. I argue that in order to truly address the problem of the Anthropocene, then, begins with addressing the strategy of whiteness.

I argue that the Anthropocene is, by definition, reflective: in its epistemological conception as a totality and geologic era, it functions as a narrative formation of the whiteness and settler colonialism that has produced the set of physical circumstances the narrative term “Anthropocene” signifies. Thus, the epoch is ironically reflective, finding a productive corollary in the phenomenon known as the *albedo effect*. Albedo refers to the reflectivity and whiteness of a surface. In considerations of climate change, the albedo effect refers to glacial surfaces and their capacity to reflect sunlight rather than absorb it as heat, as water does, which has an important role in regulating the climate. When ice is replaced by water—as the result of anthropogenic warming, for example—solar radiation is absorbed rather than reflected, leading to even broader climactic change through the warming of oceans and the continual loss of sea ice. This creates a positive,

or self-intensifying, feedback loop, which produces effects that exacerbate the causes. Just as the reflectivity of whiteness is an important concept for understanding the physical processes of climate change and the Anthropocene, it is also an important concept for understanding the Anthropocene as a social product.

I begin with an overview of the Anthropocene as both a set of physical realities and as a conceptual signifier linked to those realities. I discuss the problems with the narrative imbued in its name, and lay out an initial understanding of how racism and colonialism are foundational to the Anthropocene. From there, I turn to *Pym* to discuss the novel's formal strategies for naming whiteness as a progenitor to the Anthropocene. I offer extended readings of two of the novel's conceits as allegories for the epoch's whiteness: the romanticized pastoral landscapes of fictional painter Thomas Karvel; and the biodome Karvel erects in their image.

Name and Definition of the Anthropocene

Though the “what” and “when” of its referent are contested, “the Anthropocene” refers to the premise that human social systems have produced observable, planetary effects. More than this, however, these planetary effects are massively disruptive, even catastrophic. As Crutzen and Steffen explain, they amount to entering a “no-analog state” in which “the Earth System has recently moved well outside the range of natural variability exhibited over at least the last half million years” (253). Exactly what produces the moment of divergence, and when it occurred has been debated, with some proposing the beginning of human agriculture, the moment of colonial contact with the

Americas, the start of the industrial revolution, or the dawning of the nuclear age and the age of the Great Acceleration (Lewis and Maslin 175).

Even the name “Anthropocene” has been contested and confused since its inception.⁴¹ To clarify the differences, Hamilton, Bonneuil and Gemenne locate three different definitions and usages to the term, which I take as a starting point to demonstrate the ways in which the term and its exact referent necessitate a keen eye towards the precise social systems that have produced the Anthropocene. The first definition and usage concerns primarily the discipline of geology and its area of study. In this case, the Anthropocene, Hamilton et al explain, “proposes a new interval in *geological history*,” which requires an observable shift in the layers of rock or ice that make up Earth’s stratigraphy (2). A second usage comes from the field of Earth system science, which is concerned not with the rock layer, but with the overall functioning of the various “spheres” of the Earth like the lithosphere, atmosphere, biosphere, cryosphere and hydrosphere (2). Under this rubric, Jan Zalasiewicz, the chair of the Anthropocene Working Group, which proposes official designation of an epochal change, explains, “the Anthropocene is not about being able to detect human influence in stratigraphy, but reflects a change in the Earth system” (qtd. in Hamilton et al 2). In other words, it is not just that there is an observable change in isotopes in sedimentary layers, such as would be the case in the first definition. There is, instead, a shift in the way the planet functions, evidenced by “anticipated sea-level rise due to anthropogenic warming, large-scale shifting of sediment, rapid rates of species extinction and the prevalence around the globe

⁴¹ The term first appears in the 1960s amongst Soviet geologists, though the term never caught on. Eugene Stoermer then came up with the term and began using it in the 1980s, but under different contexts than it’s current usage. Atmospheric scientist Paul Crutzen is widely credited with more fully theorizing the term in the 1990s and proposing it as an actual geologic epoch separate from the Holocene.

of artificial organic molecules” (Hamilton et al 3).⁴² A third usage and definition is even more capacious, “marking a sharp change in the relationship of humans to the natural world” (3). This change produces a collapse in boundaries between human and the non-human world, “represented by the ‘impossible’ fact that humans have become a ‘force of nature’ and the reality that human action and Earth dynamics have converged” (3). Here, the Anthropocene is not just an epoch; it is something closely approximating an episteme.

Given the widespread acceptance of the term beyond its geologic and Earth system science disciplines, the Anthropocene is a productive concept. It compellingly collapses long-standing boundaries between the human and more-than-human world, a binary that has been foundational to the production of knowledge in the Western world since at least the Enlightenment (Hamilton et al 4). As Hamilton et al suggest, this has profound effects for the production of knowledge and thought henceforth, requiring among other things a new understanding of what it means to be human and consequently a new set of ethical and political responsibilities (6).

The Anthropocene is not just as a set of physical realities, then; it is also an organizational conceit that narrates history in a certain way, pursuant to certain ideological and epistemological frameworks, namely the systems of Western science and Enlightenment thinking that the epoch now, supposedly, pushes us beyond. As such, those interested in doing the work of thinking with, through and beyond the Anthropocene need to consider the origins of its production, both conceptual and

⁴² Hamilton clearly prefers this definition; he has positioned himself as something of a watch-dog and arbiter of the term, repeatedly claiming that much of the confusion about the Anthropocene’s origin and futurity results in a disciplinary misunderstanding. To Hamilton, anyone focusing on the environment *per se*, rather than the entire Earth system, “dilute and distort the message and the implications of the Anthropocene” by peering through “the narrow lens of landscape ecology” and mistaking the continued impact of humans on the environment for the fundamental rupturing of a change to the Earth system (2016 *Nature*, 251).

physical. As I further argue below, this is one of the ways in which the Anthropocene is reflexive and reflective. The mode of understanding that has produced the current set of physical conditions now articulated as “the Anthropocene” is the same mode of understanding that has produced the social systems responsible for those physical conditions. For one, the physical processes to which the term refers are the product of Western colonialism and, as I lay out below, the production of whiteness. What is more, the organizational conceit—one that arranges time in eras and epochs; one that understands the movement between ages as distinct ruptures from the past rather than gradual continuations⁴³—is a product of the same epistemological framework that that the term names.⁴⁴

Through this reflexivity, the Anthropocene functions as an indelible physical record of what Ulrich Beck has called the “world risk society,” in which “the sciences, the state and the military are becoming part of the problem they are supposed to solve” (338). Beck calls this “reflexive modernization,” explaining, “it is not the crisis but the *victory* of modernity which is undermining the basic institutions of first modernity due to unintended and unknown side effects,” where first modernity refers to the emergence of the sciences, state and military (338, emphasis in the original). Beck explains that climate change, for example, is now a global risk and this risk is produced by the project of

⁴³ Writing in *Nature*, Hamilton focuses on exactly this point as evidence of what he sees is rampant misunderstanding the Anthropocene in scholarly journals : “One thing all these misreadings of the Anthropocene have in common is that they divorce it from modern industrialization and the burning of fossil fuels. In this way, the Anthropocene no longer represents a rupture in Earth history but is a continuation of the kind of impact people have always had. This thereby renders it benign, and the serious and distinct threat of climate change becomes just another human influence.” (251)

⁴⁴ In the next chapter, I specifically consider the Anthropocene’s temporal framework.

modernity that sought establish and expand global markets, fueled by cheap fossil fuel energy sources.⁴⁵

The Anthropocene is thoroughly reflective, embedding the projects of modernity, physically and conceptually, into the functioning of the entire planet or Earth system. Given this reflectivity, the name “Anthropocene” has garnered significant critique as a signifier that does not adequately refer to its true referent. Just as the term’s exact referent is contested amongst those geologists and Earth system scientists who are in support of the term itself, the term is also contested by a number of scholars and critics who take issue with the implicit universality of the “anthro” in “Anthropocene.” Taking Hamilton et al’s third definition, for example, the attribution of these systemic changes to “humans” and “human action” conflates responsibility equally across an entire species. In response to Paul Crutzen’s academic proposal of the term in his essay, “The Geology of Mankind,” Andreas Malm and Alf Hornborg point out that, “depending on the circumstances in which a specimen of *Homo sapiens* is born ... her imprint on the atmosphere may vary by a factor of more than 1000” (65). Thus, they conclude that “*humanity* seems far too slender an abstraction to carry the burden of causality” (65, my emphasis). Instead, the exact causes and systems that have produced the epoch need to be

⁴⁵ Clive Hamilton makes a similar to connection to Beck, but ultimately reaches a far different conclusion: “Beck is the ultimate Modern whose implicit faith in reflexivity, our rationality, guarantees our autonomous capacity to respond to the world as it is. Yet is not the essential lesson of the climate crisis that reflexive modernisation has failed? The most striking fact about the human response to climate change is the determination *not* to reflect, to carry on blindly as if nothing is happening.” Here, Hamilton’s mistake is to assume a universal human response and a universal we that produces “our rationality” and “our autonomous capacity to respond.” As I lay out in this chapter, it is precisely this kind of universalization that needs to be troubled in the Anthropocene. Modernity is not a universal condition or aspiration, and thus Beck’s acknowledgement of it being reflexive is not, as Hamilton suggests, an implicit endorsement. In this chapter, I aim to show how the reflexivity of the Anthropocene comes by way of reflecting Whiteness. This is ultimately a slight derivation of Hamilton’s conclusion: the determination “*not* to reflect, to carry on blindly as if nothing is happening,” is indeed a problem, but it is a problem that many alternative epistemologies and communities are fully aware of and actively working against.

more accurately reflected in its name, if not more generally in the dominant understanding of the concept.⁴⁶

To this point, Eileen Crist writes in the edited collection *Anthropocene or Capitalocene?* that the term is “species-supremacist,” organizing the whole of the Earth through the lens of the human, curtailing the possibility of challenging human domination (15). Other alternative names attempt to shift the focus on who is most responsible, taking the opportunity to pun on the name in an effort to more explicitly name and critique responsible parties: Raj Patel coins “Misanthropocene” (21); Richard B. Norgaard offers “Econocene” (1); Jussi Parrika suggests “Anthroboscene” (2014); Andreas Malm and Alf Hornborg propose “Technocene” and “Capitalocene” to “better integrate social and natural aspects” (note 4); Kate Raworth, noting the propensity of male scientists in the Anthropocene conversation, tweeted a plea to “spare us a Manthropocene”; and Indigenous climate justice activists use the elemental portmanteau “CO₂LONIALISM” on banners and signs to highlight the continuing effects of colonialism manifesting as a changed climate. All the puns and alternative constructions of the term contend the cultural specificity of the modes of society, and the ideological and epistemological foundations that have produced them and are empirically most responsible for the shifts, are lost in the “Anthro” of “Anthropocene.” To these conversations, I add a consideration of race and racial projects that undergird all of the various projects of modernity proposed as the Anthropocene’s genesis.

⁴⁶ Unlike other critics and scholars whose points I largely agree with, I *do not* think a different name, in and of itself, is necessary. The Anthropocene is here, physically, conceptually and linguistically. Instead, I argue to clarify the signified, not the signifier.

A Rose by Any Other Name, An Epoch of Any Other Color

In a blog post entitled “What’s in a Name?” referencing Juliet’s famous consideration of the rose, independent scholar and activist Ian Angus dismisses calls to change the name of the Anthropocene so that it more accurately reflects what those suggesting the name change believe to be its origin. Angus argues that while “the *fact* of the Anthropocene raises important political issues, [...] There is no hidden political agenda in the *word* Anthropocene,” meaning that the term is not intended to make an argument that all humans are equally responsible for the disruption to the Earth System the name signifies (“Name,” emphasis in the original). For Angus, the conversation is a distraction from the actual problem, and to make this point, Angus cites a passage in Douglas Adams’s *The Restaurant at the End of the Universe* about inventing the wheel. Angus suggests that the critics arguing about the name follow a marketer’s defense of their committee’s inability to invent the wheel: “Alright, Mr. Wiseguy ... If you’re so clever, you tell us what colour it should be” (qtd. in Angus). Angus explains that he is “reminded of that scene everytime I read yet another article that responds to one of the most important scientific developments of our time, the Anthropocene, with the complaint that scientists got the name wrong” (“Name”). Angus concludes, “Let’s focus on the wheel, and not get hung up what color it is” (“Name”).

Angus’s point is well taken, especially at a moment when the empirical reality and scientific fact of climate change is routinely denied at every level of American politics. It is absolutely imperative that we address the physical changes that threaten the foundations of life on this planet, and we should do that as quickly as possible. However, the Anthropocene cannot be divorced from its social origins. The very fact of naming the

epoch after humans requires that we attend to the human elements, especially the social systems that have given rise to it and will continue to perpetuate it if left unchanged. So, when we consider the racist and colonial roots of any of the Anthropocene's proposed genesis points, Angus's is an unfortunate phrasing. Color, it turns out, is a profoundly powerful way of organizing things and getting others to buy (into) them, be they wheels or the social hierarchies that justify various forms of violence. Given that the Anthropocene, at least partially, is about people, not wheels, getting "hung up on color" is a significant problem. In what follows, I consider the color of the Anthropocene.

To truly realize the productive capacity of the term and its calls to interdisciplinary engagement, "the Anthropocene" cannot only refer to physical properties and Earth System change. Instead, the Anthropocene must take as its referent the racist and colonialist projects that have led to the changes in the Earth system. Malm and Hornborg, arguing for understanding the Anthropocene through a Marxian lens of social science, explain that "the historical origins of anthropogenic climate change were predicated on highly inequitable global processes from the start" (63). Referring specifically to the British transition to fossil fuels in the nineteenth century, for example, they note that the transition was "geared to the opportunities provided by a largely depopulated New World, Afro-American slavery, the exploitation of British labour in factories and mines, and the global demand for inexpensive cotton cloth" (63). These projects have their basis in racial formation and racial projects that justify such exploitation, and while Malm and Hornborg point to "a clique of white British men," their primary focus is on a critique of capitalism, and thus they do not significantly take up the role of racial projects in the production of the Anthropocene (63).

As Eduardo Mendieta explains, engaging in questions of the current ecological crisis *requires* engaging colonialism and imperialism owing to the fact that “the ecological crisis is itself a political effect of the world colonialism and imperialism built over the last 600 years” (219). Thus, the name itself is a political issue owing to the way the name can frame the set of physical and social conditions called the Anthropocene (219). Mendieta concludes, these ‘planetary’ factors have to be “considered against the background of a series of framework conditions for the interaction of humanity in the coming future” (219).

That the term has the capacity to frame the genesis of the current epoch is, after all, the very premise of the term “Anthropocene.” Whatever it signifies, the name is meant to connote the origin of a change. As Crist offers in her deconstruction of the term, “Modes of thinking mesh with how people act and with the ways of life they embrace. Modes of thinking themselves are made possible and structured through *concepts*” (24). The discourse around the concept of the Anthropocene, and the name itself, Crist concludes, offers nothing to challenge the tenets that have produced it (24). Through the tacit suggestion that it is *humanity* that has caused a disruption to the Earth System, however, exactly which humans are responsible for the change can fall out of focus, and so too might the cultural specificity of the very practice of naming epochs in the ways that they do.

I do not mean to offer an indictment against geologist or Earth system scientists. I am not meaning to suggest that they have a specific agenda to cover up anti-colonial or anti-racist theories of environmental and/or social justice. I do not think that their proposing of the “Anthropocene” and attendant suggestion that humanity is responsible

for the categorical change in the earth's functioning is *meant* to undo the ideas put forth by Indigenous and people of color movements that have long identified colonialism and neoliberalism as the genesis of environmental degradation and the resulting social violence these people have endured and continue to endure. However, as Imani Perry and Laura Pulido have argued, “intent” is often irrelevant. What matters are actions and effects, and so it is impossible to ignore the possibility of just such an occlusion, just as it is necessary to speak to that possibility as a way of making sure that the ideological components of the problem—colonialism, racial formation, and the production of whiteness—are not untethered from the epoch by the positivist approaches of geology and Earth system science.

In what follows, I argue that understanding whiteness is a necessary mode of attending to the strategy of disregarding the planetary boundaries that typify a functioning Earth system in the Holocene state.⁴⁷ The result of such disregard is so massive that it has become a geologic force, disrupting the Earth System's basic functioning and forcing something of a reckoning with the systems that have produced it. The term “Anthropocene” carries with it a political desire to draw attention to the so-called *world made by humans*. Of course, as Mendieta explains above, this is not the world made by humans. Instead, it is the world made by a certain set of humans who, in the phrasing of

⁴⁷ Johan Rockström et al propose “a framework based on ‘planetary boundaries’” as a way of “maintaining the Holocene state” (472). The boundaries refer to thresholds in the Earth system function that, if transgressed, would irrevocably alter the planet's functioning, guaranteeing an entrance in to the Anthropocene. These nine boundaries are: climate change (quantified by presence of atmospheric CO₂); rate of biodiversity loss (number of species per million species lost per year); the nitrogen cycle (amount of nitrogen removed from the atmosphere for human use); phosphorous cycle; stratospheric ozone depletion; ocean acidification; global freshwater use; change in land use; atmospheric aerosol loading; chemical pollution. While Rockström et al explain that more data is necessary for establishing clear boundaries for many of the nine, the boundaries for climate change, biodiversity loss and disruption to the nitrogen cycle have already been significantly transgressed (473).

Baldwin, believe themselves to be White.⁴⁸ Indeed, many geologists offer defenses of the name, accurately demonstrating that the same geologists and Earth System scientists who propose the name specifically demonstrate the role of European colonialism as the dominant ideological framework that establishes the possible origin points of the Anthropocene, be it the moment of contact with the “New World,” the Industrial Revolution, or the moment of nuclear proliferation in the mid-20th century. These references notwithstanding, a discursive analysis of the term, and the narrative it conceals and reveals, remains fundamentally important to the cause, and this is the work that cultural/literary critics are primed to do. The formal and generic play in Mat Johnson’s *Pym* serves as my first site of productive imagining, one that calls attention to the whiteness of the Anthropocene as both concept and set of physical characteristics in the Earth system.

In Which Whiteness Collapses on Itself; or, All the Snow Honkies Come Home to Roost

Mat Johnson’s *Pym* provides a reflective vision of the Anthropocene in which whiteness and colonialism, the ideological determinants of the epoch, ironically collapse in on themselves. Using formal and generic techniques of fantasy and speculative fiction set against the influential literary criticism of Toni Morrison, the novel creates an allegory of the Anthropocene through an extended metaphor of a Eurocentric pastoral landscape made real in Antarctica. In satirical and speculative form, the novel takes literally the concept of a world made by humans. By taking Edgar Allan Poe’s novel *The*

⁴⁸ I draw this phrasing from Ta-Nehisi Coates’s 2015 *Between the World and Me*, which draws the concept from James Baldwin.

Narrative of Arthur Gordon Pym of Nantucket (1838) as though it were nonfiction, the novel mobilizes Toni Morrison's reading of Poe's novel to consider the ways in which the construction of whiteness relies upon and causes ecosystem and planetary collapse.

The novel does not abstract the "anthro" in Anthropocene to a deracinated entirety, positing that all humans are equally responsible for the global risk society typified by a warming world that brings destruction to relatively unknown communities or racialized non-white Others. Instead, it firmly locates the Anthropocene within a context of racial projects and colonialism, specifically considering the ways in which the production of whiteness is responsible. Through its formal and generic strategies drawing on African American literary traditions, it also seeks to disrupt the fantasy of ignoring racial formation in the United States' social and environmental history, which has now become global and planetary.

In Johnson's *Pym*, the Tekelians are mythical, semi-human white beings living in a vast ice cave network in Antarctica. Following his cousin's initial descriptor, Chris Jaynes, the novel's protagonist, refers to the Tekelians as "Snow Honkies," somewhat shamefully noting in a footnote "I realize *honkies* is a racial slur and the Tekelians might not even technically count as a human, but this was the word that Booker Jaynes [his cousin] kept using and as such was stuck in my subconscious as well" (174).⁴⁹ The Tekelians are imperiled by the exploits of landscape artist Thomas Karvel, the self-styled "Master of Light."⁵⁰ Karvel's landscapes are thoroughly pastoral, depicting a construction

⁴⁹ Exactly whether or not the Tekelians are human remains unclear throughout the novel, mirroring early anthropological accounts of non-white people whose humanity has remained in question from the point of contact. Noting his use of the racial slur, "honkies," Jaynes further explains, "In addition, the noises that the creatures made to communicate did have some literal honking sounds, which made the slur that much more difficult for me to shed" (174).

⁵⁰ Thomas Karvel serves as a not-so-subtle derivation (in aesthetics and politics) of the popular artist Thomas Kinkade, the self-styled "Painter of Light." As Micki McElya writes, Kinkade's "images operate

of whiteness so complete that Jaynes believes them to be antithetical to the very existence of African Americans and blackness (or popularly imagined darkness, following Morrison's reading of Poe) more broadly. The paintings show an environment absent of labor, which Jaynes, a professor of African American literature who was recently denied tenure for his study of Poe and unwillingness to serve on the diversity committee, sees to be wholly ignorant to the history of exploited labor that produces the fantasy of nature without work. In the novel, this imagined version of the natural world becomes physical, as Karvel erects a bio-dome in the image of his paintings as a neoliberal, libertarian escape from the growing terror and pollution of the global risk society. Where the biodome is initially meant to be a self-supporting ecosystem, Karvel makes a number of changes to it so that it better reflects his imaginary. This world-made-by-whiteness becomes an allegory for the Anthropocene, as the exhaust produced by the modified dome ends up melting the ice-cave network of the white Tekelians. This prompts a massive battle that quickly turns genocidal when the dome explodes, taking with it Karvel and the entire race of the Tekelians. In sum, whiteness reflexively collapses in on itself under its own fantasy.

As Jennifer M. Wilks explains, the text is directly and near explicitly informed by Toni Morrison's *Playing in the Dark*, especially Morrison's readings of Jayne's central literary interest, Poe's *Narrative of Arthur Gordon Pym of Nantucket*. For Wilks, *Pym* demonstrates that "the history of race in the United States is a constitutive element of contemporary social dynamics" for all its participants, white, black, conservative, liberal,

as potent and penetrating conservative propaganda. His vision of nostalgic nationalism bathed in God's light is widely representative of the suburban, racial, sexual, and economic politics of the Right. His images reflect longing for a mythic American past of simpler times and intimate communities free from the anxieties of alienation, diversity and economic or social inequality, while at the same time promoting whiteness, normative heterosexuality, Christianity, middle-class aspirations, and free-market radicalism as the core of 'American values'" (57).

radical or otherwise (3). Wilks concludes that in the context of the Black Lives Matter movement, the Civil Rights Movement, and the abolitionist movements and subsequent societal reconstruction in nineteenth century, *Pym* suggests that “because race and racism seem to be inescapable in organized societies, the only way to end recurring patterns of alienation, exploitation, and inequality is to end the world itself” (3-4). *Pym* thus adds to the debate regarding whether “substantive, lasting change can best be effected through reform or revolution” by proposing what Wilks considers a “third, even more disruptive option: apocalypse” (4). Ultimately, Wilks concludes that, “*Pym* does not posit a postracial fantasy that enables its characters to escape the complications of race and history so much as it projects a multi-layered, multiracial world in which such complications might be acknowledged and worked through” (12).

I add the Anthropocene as another social context in which to read *Pym*, suggesting that the upheaval and destruction of society implicit to the Apocalypse genre is an ill fit for the Anthropocene, an epoch that destabilizes and complicates gradually, rather than totally in a single event. Much like Wilks’s understanding of *Pym*’s treatment of race, the Anthropocene is layered with multiple complications that must be acknowledged and worked through. Adding the understanding of the Anthropocene to *Pym* shows that the category of race, as Wilks argues, is indeed a constitutive element of contemporary social dynamics, but so too are the ways in which race has mobilized and erected various environmental visions. The Anthropocene is one such environmental vision, and *Pym*’s engagement with race and the complications of a post-race fantasy demonstrate the epoch’s physical and conceptual roots of colonialism and whiteness.

By considering *Pym* as a novel of the Anthropocene, I'm building on Kate Marshall's understanding of novels in the "Anthropocene's reflexive phase" (525). Marshall argues that "a growing body of literary fiction published in this decade understands itself within epochal, geologic time and includes that form of time within its larger formal operations" (524). For Marshall, these formal operations occur through recasting questions of realism in light of Frederic Jameson's conclusion that "our history, our historical past and our historical novels, must now include our historical futures as well" (313). For Marshall, alternative forms of realism in novels of the Anthropocene, like Colson Whitehead's *Zone One*, imagine these historical futures through their "self-identification both within the realist tradition and as a challenge to it" and propose an "alternative form of periodization" that is "tied to geology and geologic time" (530). However, Marshall does not discuss race or racial formation when she invokes Ramon Saldívar's formulations of speculative realism in her discussion of *Zone One*. Where Marshall sees a self-reflexive phase of the Anthropocene through these novels' self-aware positioning of themselves as artifacts of a sedimentary Anthropocene, I argue that the reflexivity demonstrated by these novels is better understood as the reflexivity of the Anthropocene itself, specifically its foundations of whiteness and settler colonialism. In other words, this is not a reflexive *phase* of the Anthropocene; rather the Anthropocene is inherently reflexive and reflective, naming both the physical and conceptual conditions of its productions. More specifically still, the Anthropocene and the novels doubly reflect the construction of whiteness and the racial project of colonialism.

The novel's engagement with the Anthropocene begins with a derivation of the very methods used to substantiate the Anthropocene's existence. Part of the dating

method that geologists use to track changes in the Earth System, specifically in regards to atomic proliferation and levels of atmospheric CO₂, is to examine the makeup of gasses trapped as bubbles in Antarctic ice (Waters et al 4). Evaluating which isotopes of a given element are present in the ice gives a record of when that ice was formed, as certain isotopes of carbon and oxygen only occur before or after certain events. In the case of attempting to designate the start of a new epoch, the proliferation of these isotopes can be accepted as stratigraphic markers of a new geologic period, data needed to substantiate claims of the new epoch such as the Anthropocene (Waters et al. 4-5). The ice becomes a record of history, capturing a time in which the impact of colonial conquest, nuclear proliferation, the industrial revolution or an era of fossil fuel extraction had not yet begun.

In *Pym*, drilling for old ice is used for commercial means, instantiating a confrontation with whiteness through global environmental disasters and risks that operate in the background of the novel. Throughout the novel, a number of vague and ill-defined catastrophes inspire and make possible Jayne's presence in Antarctica to discover Pym, the Tekelians and Thomas Karvel's pastoral dome, which becomes a bunker from these manufactured risks. Following his denied tenure, Jaynes is tipped off to the existence of what seems to be a previously unknown slave narrative—a work that Jaynes is sure will resurrect his career. The document turns out to be the manuscript of Dirk Peters, Arthur Gordon Pym's companion who, until now, everyone presumed was fictional. This prompts Jaynes's deep desire to go to Antarctica, which is only possible through contacting an estranged cousin, Booker, a civil-rights activist turned deep sea

diver and the only one Chris Jaynes knows who can be trusted and captain a ship.⁵¹

Booker is able to secure a contract with the “_____ Cola Corporation” to mine Antarctic ice as a resource for drinking water. Of the plan, Jaynes explains, “The plan made sense too. No one drank tap water since the Dayton Dirty Water Disaster; the clean stuff was worth as much as petroleum. The ice down there was centuries old, formed long before the modern world began collapsing” (74). The Dayton Dirty Water Disaster is never explained beyond what the name implies, which anticipates the environmental justice issue of Flint. Michigan’s leaded public water and invokes past environmental justice issues like the 1969 Cuyahoga River Fire in Cleveland. In the shadow of manufactured risk produced by the modern world, pre-Anthropocenic ice becomes a marketable commodity as valuable as one the Anthropocene’s main fuel sources. Thus, the novel embeds the risk society into the geologic record, a very definition of the Anthropocene.

I focus on the figure of Karvel and the destruction of the Tekelians by reading Chris Jaynes’s critical examination of Karvel’s paintings and Jaynes’s experiences with—and destruction of—Karvel’s Antarctic bunker, the physical place produced as a replica of the imagined landscapes in Karvel’s pastoral paintings. Throughout the novel, the figure of Karvel is deeply intertwined with the production of whiteness and the fantasy of Eurocentric pastoral environments that disregard labor and, as a result, planetary boundaries. Karvel, his painting and his biodome embody a notion of not just a human-altered environment, but an environment that has been produced through a project and projected image of whiteness.

⁵¹ The novel explains that when all of Booker’s comrades went “underground” after the Civil Rights Movement, Booker went “underwater.”

In the novel, Karvel and his work become a focal point for extended conversations about aesthetic worth, fictional worlds, real economic downturns, climate change, terrorism and health, braided together in a thoroughly modern conception of the landscape of risk. Karvel is the favorite artist of Jayne's best-friend Garth Frierson, an ex-bus driver from Detroit who has a deep affection for Little Debbie Snack Cakes. To Jaynes, Garth's choices in art reflect his choice of snack: devoid of substance, overly saccharine, excessively artificial yet wholly palliative, and really White. The cakes and the paintings are frequently connected throughout the book as a way for Garth to comfort himself against the many ills of the world. Where Garth sees the paintings and the snack cakes as calming, Jaynes views both as equally perilous. Following Jaynes's denied tenure, Garth convinces Jaynes to indulge him in "Karvel spotting," the cultural practice among Karvel's fans of finding the exact locations from which Karvel painted his pastoral landscapes. This provokes the first of many disagreements between Garth and Jaynes about the merit of Karvel's work, and in his defense, Garth offers that the paintings "make you all peaceful just looking into that world," an indication that Garth acknowledges the constructed depiction of the Environment, which would be fully evident through the practice of ground-truthing the location, and yet he prefers the fantasized version (15).

Jaynes responds that Karvel's paintings "looks like the view up a Care Bear's ass" (15). While Garth is obviously offended, his defense of the paintings comes from his understandings of the global and local risks that typify the Anthropocene: "I got stress! [...] The whole world's hell. The world is pollution and terrorism and warming and whatever, I don't know, whatever gets dropped next. I drive a bus! Or used to" (15).

Garth is here referring to the fact that he was fired from his position as a result of his actions following the “November Three Bombings,” another ill-defined background of manufactured risk in the novel. At this point, Garth “pushed past me to get another Little Debbie snack cake from the box beneath my legs, and calmed down eating it” (15). But even the palliative ingestion of the snack cake becomes dangerous, as Jaynes seeks to talk Garth down from his defense of Karvel: “My man, you’re like a home experiment in type 2 diabetes. Your picture, it’s real nice, okay? [...] But you need to calm the hell down” (15).⁵²

Where the Snack Cakes threaten Garth’s physical health, the artificiality of the Karvel paintings produces what Jaynes sees as threatening to the very existence of black people. In the paintings, Jaynes sees an environment that is not just absent African Americans, but one that is entirely impossible for them. Reflecting on what he sees as Garth’s odd appreciation for the work, Jaynes muses,

It wasn’t just that there were no black people present, it was also that Karvel’s world seemed a place where black people couldn’t even exist, so thorough was its European romanticization. With its overwhelming quaintness, its thatched roofs and oversaturated flowerings, this was a world that had more to do with the fevered Caucasian dreams of Tolkien and Disney than with any European reality. (184)

The “European reality” invoked here is one that Jaynes, a few lines earlier, situates in a legacy of colonialism, assuring that reality is typified in its racist roots. Rebutting Garth’s defense that Karvel, “Just makes me feel at home,” Jaynes bluntly explains that the

⁵² Type 2 diabetes disproportionately affects African Americans, largely as a result of environmental factors like socio-economic status. See Signorello, Lisa B. et al. “Comparing Diabetes Prevalence Between African Americans and Whites of Similar Socioeconomic Status.”

Karvel environments “didn’t look like our home” of inner city Philadelphia (184). Jaynes goes further:

There were no black people in any of Karvel’s paintings, not one in all the ones that engulfed the room. Actually, that is not a fair assessment, there are no blacks in the paintings of Vermeer either, but I didn’t the same feeling from his work - and Vermeer was Dutch, the old, scary Dutch West Indian kind of Dutch, too, not the modern happy-go-liberal version. (184)

Jaynes's first-person interior monologue and dark humor reveal his navigation of both high and low culture, positioning the two against one another but tying them together through their treatment of “blacks.” This demonstrates the historical continuity of erecting whiteness by way of eliding blackness. The difference between the two paintings, however, is that Vermeer’s paintings elide black bodies, whereas Karvel’s paintings elide blackness in its entirety, foregrounding instead a constructed environmental imagination and romanticization of White European identity that believes itself entirely devoid of black influence, and labor in particular. Such a disregard for the sources and injustices of labor—either human or fossil fuel—is a constitutive element of an ideology that allows for climate change and environmental degradation.⁵³

The pastoral genre traditionally envisions nature as a place that does not require work. Jaynes’s evocation of the Dutch West Indies calls forth the exploited labor of enslaved peoples. Imagining an environment without labor, in Jayne’s approximation, also means envisioning a land without the contributions and presence of those who did the work, namely Indigenous peoples who, through racial projects, were made exploitable as a means of justifying their mistreatment and enslavement. Raymond Williams explains

⁵³ See Andrew Nikiforuk, *The Energy of Slaves*, 2012.

that in the pastoral mode, “this magical extraction of the curse of labour is in fact achieved by a simple extraction of the existence of labourers” (32). In other words, the pastoral romanticizes landscapes, turning them idyllic, by removing the laborers from imaginary, which consequently allows for the exploitation to be concealed and continued. Early American literature, Paul Outka explains, employs the pastoral form as a justification of slavery, viewing slaves as a form of animal labor that existed harmoniously in pastoral landscapes (7). Outka argues that transcendentalism and the rise of the sublime as a dominant literary form replaced the pastoral largely because “slavery made the white racial identification with the pastoral landscape dangerously unstable,” given the clearly non-idyllic suffering of slaves treated as chattel (37). This, however, requires that the slave labor be *seen* as gross human exploitation.

As George Yancy points out, “[w]hiteness sees what it wants to see and thus identifies that which it wants to see with that which is. The power and privilege of whiteness obfuscates its own complicity in seeing a ‘reality’ that it constructs as objective” (10). Whiteness and the pastoral are powerful strategies of occluding oppression and justifying such an occlusion as natural. The pastoral form continues long after the rise of transcendentalism and sublimity that Outka traces as its replacement, evident, among other places, in the paintings of Thomas Kinkade, the basis of the character Thomas Karvel. In *Pym*, Jaynes identifies the pastoral and subsequently reads an environment in which black people cannot exist because their labor, bodies and being have been imagined away. The result is an entirely artificial notion of the natural, which becomes the foundation of *Pym*’s engagement with the Anthropocene.

Significantly, the cakes' and the paintings' threats to black bodies come through their invocation of whiteness. When Jaynes returns home after his failed attempt to get his job back, he finds all of his books, including many rare first editions, left on his door step, soaking in the rain. Seeing him distraught, Garth offers him one of his cakes, "Come on, take a bite of the white girl. It will make you feel good" (15). The whiteness of Karvel and Little Debbie are, to Garth, a way of curing the stress created by risk society. To Jaynes, however, they are merely evidence of the foundational problem of whiteness and its role in creating a risk society, typified by the Anthropocene and made manifest by the overt resurgence of black labor in the form of slavery. The Little Debbies are produced by the production of whiteness for the purposes of the colonial slavery in service of the sugar trade. The exploited labor and justification of humans as chattel is then romanticized in the paintings, which deny and occlude any vestige of the violence that makes idyllic leisure possible.

The pastoral has become an important trope not just in the dominant imaginary, but in a resulting counter-pastoral or post-pastoral movement that seeks to disrupt the fantasy of the romanticized land free of labor, that is, in reality, built on theft, exploitation and slavery. The pastoral can be a retreat from these realities, or, as Terry Gifford explains, it "can be a mode of critique present in society" (11). Similarly, Graham Huggan and Helen Tiffin demonstrate that postcolonial writers adopt and invert the pastoral against the colonialist tradition, predicated as it is on racial formation. While the pastoral traditionally emphasizes the fixity of place and the security of belonging, Huggan and Tiffin explain, these certainties are challengeable. The anxieties around pastoral are exploited by postcolonial writers both to disrupt the ideologies of the pastoral

and to reconstruct it to reconcile the feelings of dispossession and displacement (118-119). *Pym* disrupts the pastoral by focusing on the production of whiteness and the imagined absence of slave labor that undergirds much of the American pastoral imaginary.⁵⁴

In *Black on Earth: African American Ecoliterary Traditions*, Kimberly Ruffin attends to the omission of labor from mainstream American environmental thought. Ruffin theorizes an “ecological burden-and-beauty paradox” to explain the “dynamic influence of the natural and social order on African American experience and outlook” (2). As she explains, an “ecological burden is placed on those who are racialized negatively, and they therefore suffer economically and environmentally because of their degraded status” (2-3). Occurring at the same time and working against this burden, however, is “the experience of ecological beauty” which comes from “individual and collective attitudes toward nature that undercut the experience of racism and its related evils” (3). Ruffin argues that this paradox explains, in part, African American environmental politics built on, through, and after slavery and its forced labor. Attending to the importance of work and labor in and with the non-human natural world, Ruffin explains that African American ecoliterary traditions disrupt what she terms the “limited triumvirate of Ws: wilderness, the West, and whiteness” which forge environmental connection through play and leisure, both products of White settler colonial privilege. Focusing instead on labor and work, brutal though it is, Ruffin examines the ways in which “connections to nonhuman nature through work helped when coping with the lack of national belonging” (29). In doing so, she articulates how most knowledge of the

⁵⁴ Ironically, this happens as a Garth and Jaynes escape slavery from the Tekelians only to find themselves put to work in Karvel’s biodome, an imagined pastoral environment turned real (243-245).

environment is produced through work and labor situated in the non-human natural world, rather than experiences with non-human nature as a place that one must travel to.⁵⁵

In her analysis of the lack of environmental criticism focusing on African American literary traditions, Ruffin points out that the frame of leisure and play is not only historically inconsistent with ways of knowing the environment, it is also racially coded. For most of American history, knowing about the natural world meant knowing about working the land and trying to subsist from it. It was neither play nor leisure. The Anthropocene proposes a new problem for this dynamic. As we come to understand that the categories of nature and human are no longer able to be held at distance from one another, it's not just leisure or toil, in Ruffin's phrasing, that produces environmental knowledge, if that is in fact a category that can remain in the Anthropocene. Though the novel contains a neo-slave narrative, *Pym* presents us with a crew of African American characters that does not adhere to the hard definitions of natural and non-natural spaces. Where eighteenth and nineteenth century slaves developed environmental knowledge through their forced labor, as Ruffin points out, the crew's brief period of slavery yields no such knowledge owing to the fact that their environmental situation is astonishingly biologically sparse. Jaynes, during his work, comes across a beetle that he's certain no one else has ever seen before, and he names it, using the Latin binomial of Western science, *Scarabaeidae colonialis* for its colonial and slavery contexts (179). But that's really it. There's little textual evidence to suggest that the crew develops a deeper understanding of their environment, in part as a result of their labor. Nor are there really any other elements to interact with. Thus, the novel takes the crew's interactions with what

⁵⁵ This is also a central focus of environmental historian Richard White's work, particularly his essay "Are You an Environmentalist or Do You Work for a Living?"

might be another species (the Tekelians) and their experience as slave laborers and frustrates what the traditional slave narrative and its forms of environmental interaction Ruffin point out. Instead, the crew's experience with the environment comes through allegories of climate change and the Anthropocene, in which the category of environment is fundamentally troubled.⁵⁶

Through the invocation of the pastoral as a lens that blinds its users to the presence of African American labor and the construction of ideal landscapes, *Pym* partially demonstrates what Mart Stewart typifies as African American connection with the environment, but not without complication. Stewart explains that African American environmental politics are defined by the qualities of “the pursuit of collective rights, the tendency to see community in broad terms that include both humans and non-humans, [and] the connection of environmental concerns to the world of work and production rather than to lifestyle choices and consumption” (Stewart 20). Certainly, the explosion of the Karvel Dome, in which Jaynes and Garth had been earning their keep by farming, demonstrates “a connection of environmental concerns to the world of work and production rather than to lifestyle choices and consumption.” But such a reading is necessarily selective, and it requires that we only consider the lifestyle choices and consumption of the Karvels, and not those of Jaynes and Garth, or even other African Americans. Both Jaynes and Garth live lives of consumption. Moreover, their connection to work and production—at least in the way that Stewart conceives of work and production, referencing the legacy of slavery and sharecropping—is relatively limited.

⁵⁶ Given the frustration of the traditional neo-slave narrative Ruffin articulates, Arlene Keizer's formulation of “contemporary narrative of slavery” is a more apt descriptor of Johnson's work. Keizer argues that “black writers have begun to represent slavery in order to explore the process of self-creation under extremely oppressive conditions” (11). This produces a sense of black identity that is “consistently marked by fragmentation and differentiation” rather than monolithic unity erected in opposition to white-supremacist ideologies (11).

Furthermore, their successful attempt to eliminate an entire race (or species) of previously unknown Others suggests that they are not overly concerned with “the pursuit of collective rights” and barely “see community in broad terms that include both humans and non-humans.”

This is not to say that Stewart is wrong in his assessment; rather, I argue that the Anthropocene produces a new set of conditions that troubles previous understandings of African American environmentalism that rely upon relatively firm boundaries of environment and human, natural and non-natural. When Jaynes and his crew encounter the Tekelians, the novel once more reasserts the reality of slavery and all it produced. When Jaynes and Garth lose the ice drill used for harvesting clean water down a crevasse, Garth eschews blame: “Goddam global warming ... Ain’t our fault. It was all them Escalades in the ghetto” (92). In their attempt to recover the drill, the crew comes face to face with the Tekelians. To alleviate the tense confrontation, they throw one of Garth’s Little Debbies to the Tekelians, who devour it. The crew then immediately begins conspiring on plans to get rich on their “discovery” of these humanoids. Mimicking the racial project of the nineteenth century, which saw individuals from around the world so thoroughly de-humanized through racial projects that they were exhibited in zoos, the crew’s plans include an ill-fated plot to take two of the Tekelians back for display purposes in exchange for a few barrels of Little Debbie Snack Cakes. However, once the crew is no longer able to travel because of what may be a total Armageddon in the rest of the world (the third ill-defined specter of manufactured risk in the novel), the Tekelians demand that they pay for debts with 100 years of slavery (153).⁵⁷ Garth, however, is able

⁵⁷ Whether or not this Armageddon actually occurred also remains unresolved in the novel. The crew receive word of the Armageddon through identical emails sent to all of their private and public accounts.

to avoid slavery by buying his freedom with his remaining personal stash of the snack cakes.

The ability to trade lives for sugar is due in part to the fact that the Tekelians survive solely on a diet of smashed seal fat and thus have never tasted sugar. As Jaynes observes, “The international sugarcane trade that fueled the colonial world—these beings had obviously missed that” (127). Through the absence of black culture, labor and presence in their world, the Tekelians become whiteness as an absence of blackness. This inverts Poe’s description of the Tsalalians; the Tekelians work as a racial comparator in *Pym* as darkness works as a racial comparator for whiteness in Poe’s work. This conceit stems directly from Toni Morrison’s *Playing in the Dark* in which she argues that certain nineteenth century White authors use an imagined form of blackness to engage ideals of freedom and erect a White identity grounded in this sense of freedom. Using a constructed version of blackness allows these authors to explore the fear and nervousness of a newly achieved American freedom. Crucially, however, the imagined blackness separates the characters from the White authors and presumed audience, allowing these authors to not engage with the fact that it is slavery that gives them the economic power to become free (59). As Wilks shows, *Pym* draws heavily on Morrison, and Jaynes’s academic project is, in many ways, a re-constitution of Morrison’s, who chooses many of

They take the fact that they’ve lost satellite connection to add evidence to this fact. However, Jaynes asserts in a footnote that he later contemplated what he assumed to be a vision of a white-shrouded figure hiding behind a satellite dish at the moment of it cutting out. Following the inexplicable ending of Poe’s narrative, in which Pym is never heard from again but somehow manages to publish his manuscript, Jayne’s manuscript is published as the fictionalized version we are reading by Mat Johnson. This, to be sure, suggests that the world did not end in Armageddon, and yet, the emails are never explained, and the Tekelians show no technical faculties whatsoever, making them a highly unlikely source.

the same passages from Poe's *Narrative of Arthur Gordon Pym of Nantucket* to demonstrate her central thesis.⁵⁸

Morrison concludes that for the authors she studies “[w]hiteness, alone, is mute, meaningless, unfathomable, pointless, frozen, veiled, curtained, dreaded, senseless, implacable” (59). Similarly, Jaynes theorizes that whiteness is “refusing to accept blemish or history. Whiteness isn’t about being something, it is about being no thing, nothing, an erasure” (228). What's more, Jaynes immediately ties this blank whiteness to the physical environment, explaining that whiteness covers over “the truth with layers of blank reality just as the snowstorm was now covering our tent, whipping away all traces of our existence from this pristine landscape” (228). Here, race is read onto the landscape and vice versa. The landscape becomes perfectly pristine at the moment blackness is eradicated from it, covered by processes that are presumed to be “natural,” the very ideological fantasy that drives Karvel and his pastoral landscapes. The Anthropocene can, and should, be understood as the moment in which the refusal to accept the history of violence endemic to modernization is no longer possible, owing to the fact that the exploitation of the earth has transgressed critical planetary thresholds. This means that the firm boundaries previously in place between human and nature melt away.⁵⁹

In the novel, this produces a conflict in which whiteness collapses in on itself, allegorized through the destruction of Karvel's biodome (made in the image of his Eurocentric fantasy of his paintings) alongside the destruction of the Tekelian's homeland, melted away by the exhaust produced by Karvel's manufactured world.

⁵⁸ Jaynes class, which is perennially under enrolled and is thus partially responsible for his tenure denial, is called “Dancing with the Darkies: Whiteness in the Literary Mind,” a clear play on Morrison's title.

⁵⁹ Dipesh Chakrabarty, for example, writes that the Anthropocene is the moment in which geologic history is no longer separate from human history (2009).

Immediately after the November Three Bombing, which occurs right next to his bus, Garth drives directly home without letting his passengers off. This is the offense that gives him the free time to travel with Jaynes to Antarctica, which he only does because he believes it to be “the ultimate in Karvel spotting,” owing to the speculation that Karvel has built a hide-out down there to paint *Shackleton’s Sorrows* and escape the increasingly imperiled world (81).

This becomes Garth’s sole motivation for accompanying Jaynes to Antarctica. Originally, when Jaynes tries to convince Garth to accompany him Garth replies, “You on your own there, dog. Ain’t nothing for black folks down there in the cold” (58). Here, the land is racially encoded, offering “nothing.” Jaynes’ rebuttal is equally encoded, inferring that Garth’s understanding of the place not offering anything to black folk necessarily means the space is white: “White people don’t own ice, Garth. I’m pretty sure they didn’t even invent it” (58). When Garth realizes that there’s potential to find the actual Karvel, however, he relents and becomes excited about the prospect.

As it turns out, Garth is right. Karvel *is* hiding in a secret bunker in Antarctica, and it is that secret bunker that will ultimately save them both from slavery. Following a lengthy escape across the ice away from their enslavers that ends with Garth crashing their snowmobile into a snowbank, Jaynes regains consciousness to find himself in the “*Dome of Light*,” Karvel’s name for his bio-dome in the snow. The dome is physical manifestation of Karvel’s painting, complete with Karvel’s signature scrawled across the ceiling. Following the extended exposure to slave labor in a frozen tunnel-scape, Jaynes finds the lush gardens, warmth, flowing waters, soft ground and perfumed air to be supremely beautiful. In fact, Jaynes finds it to be “too beautiful, too perfect, for my mind

to wrap around” (232). It’s at this moment that he sees a large signature on the sunset sky above him, and he realizes that “this was not my heaven, this was Garth’s. This was my hell. I was trapped inside a Thomas Karvel painting” (234). The voices he hears are looped playbacks of conservative radio programs hosted by Rush Limbaugh, Glenn Beck, Sean Hannity and Bill O’Reilly, all playing simultaneously in various parts of *The Dome of Light*.

As a bio-dome, *The Dome of Light* entirely ignores and refuses its external contexts. As such, it operates with the same strategy of whiteness, becoming a central metaphor in the novel. As Wilks explains, “Karvel believes that he has created a postracial paradise unsullied by the legacies of slavery and inequality that haunt the United States” (10). The dome, however, demonstrates the simultaneous construction of nature and race, meaning that the very possibility of Karvel building his dome relies upon white privilege and aesthetic conceptions of the environment that elide the presence of racialized Others. Karvel, multi-millionaire environmental imagist, explains that he retreated to Antarctica for its seclusion and the possibility to recreate everything that’s great about America, which ultimately means constructing America as a libertarian ideal fully steeped in ideologies of settler colonialism and the liberating promise of the free market (241). To do so, Karvel evokes the concept of *Terra Nullius*, the fantasy of open space that propelled Euroamerican expansion, updated with libertarian values:

A man who lives a life worth living, he’s a hunter. He hunts for his dream. And his dream is always the same thing: to create a world he can truly live in, without Big Brother enslaving him to mediocrity. So I created this free land ... Had to come down here to do it too. As blank as the morning snow. A clean canvas. A

place with no violence and no disease, no poverty and no crime. No taxes of building codes. This is a place without history. A place without stain. No yesterday, only tomorrow. Only Beauty. Only the world the way it's supposed to be. (241)

Karvel's motivation, and indeed the possibility of his endeavor, comes from the imagination of an empty space in which one can reimagine life in the image of fantasy. Karvel imagines Antarctica as a place without history or stain. He makes no attempt to consider his own presence in the land, made possible by the romantic ideals of Eurocentric pastoralism and the systems of capitalist accumulation and the culture industry that provide him his means. By building a space built upon the ability to forget history and imagine blankness, the bio-dome represents the manifestation of whiteness turned environment.

For Karvel, who constructs a space he believes to be absent of history and government intervention (from taxes, building codes, Big Brother), this is an opportunity to create the space as an ideal America, but it is one that must necessarily be built upon a foundation of white supremacy's inability to recognize itself and its contexts. Of the recordings of Beck, Hannity, O'Reilly, and Limbaugh, Karvel remarks that it "keeps me grounded. [...] Makes this hallowed ground, the way I see it. Makes it America. America without taxes, and big government, and terrorist bullshit" (236). The space thus serves as a neoliberal and racial fantasy of America divorced from the systems of oppression and violence that have made it possible.

Not just a fantasy space made real, the dome serves as a literal bunker from the ills brought on by the various violent campaigns that have produced the Anthropogenic

risk society. Karvel built his dome as a response to these events and an anticipation of the Armageddon that may be occurring presently. Justifying the wealth and privilege that allows for his isolation, Karvel claims, “I knew this was coming, end of the world, been saying it since the sixties. I got out because I love it too much, really. But I’ll never leave the U.S. of A. God bless America” (236). Thus, Karvel’s dome is manifestation of his neoliberal and libertarian views of an idealized America. As the manifestation of a European romanticized pastoral, it also constructs a landscape that has chosen to forget what Morrison calls the “Africanist presence” that gave rise to the construction of whiteness. Where Morrison argues that certain nineteenth-century authors create “American Africanism” as a way of distinguishing their freedom as white men from the enslavement of African Americans thereby creating Whiteness as a presumed manifestation of freedom, Karvel’s constructed America does away entirely with the Africanist presence. Instead, it is a space of only whiteness.

Moreover, in his neoliberal, libertarian exclamation of his idealized America absent taxes and big government, Karvel remains completely disengaged from the fact that the bio-dome is the product of the tax-payer funded, big government program that is NASA. Given this oversight, it’s not at all surprising that he fails to see the irony in his prideful boast that “NASA contracted for these things to colonize Mars someday” (240). The bio-dome is a technology of settler colonialism, taken to its interplanetary extreme.

In its construction, design and disregard for its environmental contexts, the dome is an allegory for modern American life, its ideological roots and its associated environmental perils. Unsatisfied with the stock specifications of NASA’s bio-dome, however, Karvel began making “improvements.” Driven by his understanding that “God

created nature. I just improved on it,” and “Nature was created to serve man,” Karvel begins make changes to the hermetically sealed, self-supporting bio-dome to better align with his personal vision of an idealized (read: White) space. The first thing to go was the natural lighting and solar heating: “On the original plans, the whole roof was supposed to be glass. They tried to tell me I had to keep it that way. But the sky, that’s my big thing, my signature” (252). So the glass was replaced with a “real Thomas Karvel heavens glowing above,” which subsequently required artificial light, which requires both an energy source and, since there’s no solar heat coming through the painted sky, a heat source. Karvel claims to rectify this by sparing no expense for solar panels covering the roof. In reality, however the solar panels got nixed in a redesign in favor of use the roof’s real estate for additional satellites to ensure that the conservative radio programming signal is never lost. As Mrs. Karvel explains of her husband’s delusions, “The solar panels there, they’re just so our accountant could get us a tax break. Mostly, this whole place runs on gas. Tommy likes to forget that” (258). Of course, there’s no contingency plan in place for eventually running out of gas. In favor of true sustainability that would actually allow Karvel to continue to exist in place on his own, he has given essential roof space to satellites, guaranteeing a constant reproduction of his ideological foundation. The dream/fantasy of American self-sufficiency is of course dependent upon various exploited energy sources and a refusal—or inability—to acknowledge their impacts.

The novel exemplifies how the exploitation of cheap energy has fueled dominant American life, be it fossil fuels, slavery or poorly compensated labor. Karvel's inability to attend to the exploitations' inherent violence produces both environmental and social destruction. The exhaust from Karvel's bio-dome is pumped directly into the Antarctic

ice (277). This is causing the collapse of the Tekelian's home, prompting a massive military operation in which the Tekelians rally to declare war against "*The Melt*" (195). True to the novel's parodic form, which ironically engages whiteness and the pastoral for the purposes of undercutting their power, the great uprising that occurs between the community marginalized by the exhaust of an American fantasy and the perpetrators of the fantasy unknowingly (and then knowingly and unsympathetically) pumping the destructive exhaust, is not an uprising based on the racial *differences* that created the problems to begin with. Instead, the injury comes to two entities, Karvel and the Tekelians, linked by their whiteness.

As I discussed in Chapter II, the justification of climate altering emissions occurs, in part, via a notion of national interest. Dominant power structures, however, define national interest along the same lines of racialization that produce wealth owing to exploited labor. Moreover, hegemonic power expects marginalized communities and individuals—many of whom are already dealing with the ill effects of global climate change and a disruption to the Earth System—to accept the negative conditions of petromodernity.

The process of racialization, in which social differences and hierarchies are mapped onto the body, positions these people and communities as inherently more violable or expendable.⁶⁰ In the United States, and most of the Western world, those in power are White. This is not by coincidence, but rather by design. As Morrison and Jaynes explain, whiteness is fundamentally defined by the categorization of otherness used to locate the distribution of economic, environmental and social ills. To be white is

⁶⁰ I take this definition of racial formation from Omi and Winant's *Racial Formation in the United States* (2014).

to refuse “to accept blemish or history” (228). Given that the blemish—in this case environmental ills—can only be shifted and never eradicated, those who are not white bear the burden of that blemish. In *Pym*, however, the effect of Karvel's creation of whiteness, which justifies the fantasy of being able to avoid the consequences of a lifestyle well beyond planetary boundaries, ultimately falls upon the novel's other marker of embodied whiteness: the Tekelians. When the biodome explodes, taking Karvel and the entirety of the Tekelians with it, whiteness in many forms collapses in on itself.

Form in a Novel of the Anthropocene

Through its engagements with historical canon, the technological futurity of the biodome, and the fantasy worlds of Karvel's pastoral, the Tekelians and the Tsalalians, *Pym* expands what Ramón Saldívar has termed postrace fictions of speculative realism by drawing on elements of Afrofuturism and African American literary criticism. The novel's explicit engagement with environmental themes, moreover, broadens the scope of justice originally theorized in speculative realism. Johnson weaves together form, constructions of race, and the Anthropocene, demonstrating how an aesthetic strategy expands and reimagines dominant discourses of environmental and social justice.

Saldívar argues that writers of postrace fictions employ speculative realism to show the “*constant and complete* rupture between the redemptive course of American history with its origins in conquest and the psychic facades that bar the way to memories of the traumatic past” (593 emphasis in the original). In postrace speculative realism, formal tropes of fantasy, or more specifically in *Pym*'s case, pastoral fantasy, invert what is fantasy and what is reality. Where the genre of fantasy is typically used as a way of

dreaming a utopia that is free from the perceived ills of the real world, Pym's inverted pastoral fantasy demonstrates that there exists a fantasy in the construction of American history as well as the attendant American literary canon. This fantasy occludes the trauma and continuing injustice produced initially by slavery and continued through racial projects and racial formations that now manifest environmentally. Saldívar argues that the inverted historical fantasy of speculative realism "employs these new forms of fantasy to *reverse* the usual course of fantasy, turning it away from latent forms of daydream, delusion, and denial, toward the manifold surface features of history" (594 emphasis in the original). The Anthropocene, then, is the moment in which the reality that had been hidden by the fantasy of ignoring environmental and social harm becomes literally written in stone, in which the surface features of history are contextualized by recently uncovered stratigraphic layers that bear the mark of colonialism and racism.

In an essay that asks, "What Are the Novels of the Anthropocene?" Marshall draws on the hybridity encapsulated by Saldívar's formation of speculative realism to consider Colson Whitehead's *Zone One* as a novel of the Anthropocene, and more specifically still, a novel that "positions itself" in the "Anthropocene's reflexive phase" (533). I return to Marshall to press further on the overlap of these concepts, specifically in regards to racial projects and colonialism, which are not the focus of Marshall's understanding of how *Zone One* is a self-aware archeological artifact of the Anthropocene. Marshall argues that novels in the reflexive phase of the Anthropocene are "self-positioning," aware of themselves as "temporal artifacts of their genre as they become novels of the Anthropocene, the powerful if paradoxical ascendant concept for defining the geologic contemporary, its forms of art in the present tense, and its

geologically inscribed histories of the future” (524). Speculative realism is one such form of art in the present tense, and Marshall pushes the idea forward by considering speculative realism’s engagement with history and the future through the Anthropocene. In doing so, Marshall positions the novel within considerations of posthumanism, owing to the ways in which *Zone One* imagines itself being read by an unknowable future and unknowable readers in that future who may or may not be human. Figuring the destruction that comes through a modified zombie narrative to function as a future archeological site, *Zone One* “requires thinking proleptically, or registering a future point of view in which the material stratum of the human is no longer that which is the most recent” (533). This demonstrates, for Marshall a “view that by its very constitution must be nonhuman, or at least postterrestrial” (533).

By way of situating my analysis of *Pym*’s construction of whiteness and pastoral fantasy in the conversations of speculative realism and the novels of the Anthropocene, I offer my own brief reading of *Zone One*. *Zone One*’s connection with elements of fantasy parallel those occurring in *Pym*. Held together, *Zone One* and *Pym*, as novels of the Anthropocene, demonstrate that race cannot and should not be read out of the Anthropocene, but is, in fact, part of the epoch’s foundations.

Where Marshall reads “the zombie apocalypse’s analog in geology and geohistory in the novel” alongside the novel’s deconstruction of “the genres of ecofiction and of ‘cli-fi’ that pose climate catastrophe as the greatest threat to the species survival,” I argue that attending to *Zone One*’s consideration of race and racial formation drastically expands the ways in which it, like *Pym*, functions as a novel of the Anthropocene (532). *Zone One* follows a character, who we only know by his nickname Mark Spitz, as he takes part in a

clean up effort in lower Manhattan following a zombie outbreak that has ravaged the city. As Marshall mentions, most critics give scholarly attention to the novel's racial reveal, in which we learn that Mark Spitz is black only by way of explaining how he earned his nickname. Faced with an oncoming hoard of zombies on a bridge, Spitz refuses to jump in to the river to save himself. So, Spitz explains, the nickname comes about because of "the black-people-can't-swim thing" (31). This becomes a central joke in the novel, playing on the fact that—like Jaynes in *Pym*—Spitz, as a fictional character, is racialized discursively.⁶¹

Zone One makes the case that racism will survive even a zombie apocalypse, due to the racist social structures that demand that society be rebuilt in the image of its former self. This includes the municipal infrastructure that Marshall reads as the material stratum of the Anthropocene. Thus, to not read race into the discussion of the novel's engagement with the Anthropocene falls victim to the very point *Zone One* wants us to understand: we cannot understand the character and the world of this character without understanding the way he is racialized as Other and black; ignoring this fact drastically alters the reader's understanding of Spitz's experience. This is also true of the Anthropocene, as *Pym* so clearly points out. Thus, in order to understand these novels of the Anthropocene, readers must account for the racialized experiences of the characters and the ways in which racial projects and racial formation produce the various generic and formal possibilities of the novels. When critics consider which novels are the novels of the Anthropocene, we must consider not just their preoccupation with the self-aware geologic

⁶¹ Up to this point in the novel, the reader has no information to suggest the character's race. The joke about Spitz's race works because the reader most likely assumes that Spitz is white, owing both to the known race of the real Mark Spitz and to the fact that White operates as a kind of default. Whitehead points out the fallacy of assuming a character is White until otherwise proven differently, and he also draws attention to the way that literary characters are typically racialized in literature.

era and reflexivity of the texts serving as knowing artifacts of a present geologic age for future generations; we must also necessarily understand the ways in which whiteness and race are mobilized to produce that geologic age.

A Parabasis for the Anthropocene

Zone One and *Pym*'s mobilization of whiteness comes through genre conventions of fantasy and elements of Afrofuturism. Marshall explains that, as a novel of the Anthropocene, *Zone One* "examines the consequences for narrative form of the naming, near-naming, or self-naming of the Anthropocene," which "requires thinking proleptically, or registering a future point of view in which the material stratum of the human is no longer that which is the most recent" (533). For Marshall, this means imagining a "future point of view that by its very constitution must be nonhuman, or at least postterrestrial" (533). However, Marshall's moving so far into considerations of the future as to posit it as posthuman can elide the very specific social forms that have produced the Anthropocene. *Zone One* and *Pym*'s speculative futures, to the contrary, draw specifically on Afrofuturism, which force long buried racist and colonial projects to the surface.

As Kodwo Eshun explains, Afrofuturism reimagines history for the purposes of reimagining futures of diasporic culture as a way of dealing with various racial traumas like slavery. Eshun explains that "to establish the historical character of black culture ... it has been necessary to assemble counter memories that contest the colonial archive, thereby situating the collective trauma of slavery as the founding moment of modernity" (288). In *Pym*, the trauma of slavery is renewed, and more importantly for considerations

of the Anthropocene, comes as the result of a failed mission to mine Antarctic ice, which itself is motivated by Jaynes's desire to establish a memory of history counter to Poe's canonical vision of darkness. As I explained above, the Antarctic ice is prized specifically because it represents a history that has been spared the mark of racist, colonialist modernity, represented by the triplet disasters of risk society in the novel: the Dayton Dirty Water Disaster, the November Three Bombings, and the possible Armageddon that occurs while the crew is in Antarctic. The ice records a history in which the ills of modernity and colonialism are absent; it becomes a repository of the world before such projects changed both the world and the planet.

Pym's engagement with slavery, colonialism, and nineteenth century American literary and cultural history via the centrality of the NASA-designed biodome demonstrate key elements of Afrofuturism, which rewrites history through proleptic imagination. Eshun concludes that, in Afrofuturism, "it is never a matter of forgetting what it took so long to remember. Rather, the vigilance that is necessary to indict imperial modernity must be extended in the field of the future," extending counter-memory "by reorienting intercultural vectors of Black Atlantic temporality towards the proleptic as much as the retrospective" (288). In *Pym* and *Zone One*, the history of modernity moves forward through the technological futurity symbolized by Karvel's NASA-designed biodome, the world of *Zone One* after a zombie apocalypse, and the Anthropocene as a whole—an epoch that requires considerations of historical futures, as Frederick Jameson terms it. Thus, the geologic temporality of the novels cannot be separated from the social histories they imagine and re-imagine.

Forcing an awareness of these social histories is precisely the work of speculative realism, though I extend Saldívar's initial theorization by considering the environmental. Unlike Marshall's analysis, Saldívar's speculative realism is offered specifically in conjunction with postrace fictions.⁶² Like Afrofuturism, speculative realism is a specific form of realism that draws on elements of fantasy to demonstrate the ways in which social injustices—racial and colonial—have been excised from the dominant narrative of American history. While tradition of fantasy writing might be read as a way of escaping social problems by imagining a utopia, in speculative realism, elements of fantasy are used to demonstrate the way that a dominant narrative history of America is itself the escapist utopia, one that flatly disregards violence and social injustice.

Zone One and *Pym* function as works of postrace speculative realism by drawing our attention to what Saldívar identifies as “the gap or deficit between the ideals of redemptive liberal democratic national histories concerning inclusiveness, equality, justice, universal rights, freedom guaranteed by rule of law, and the deeds that have constituted nations and their histories as public collective fantasies” (594). More specifically, Saldívar explains that this happens formally, and he locates a strategic use of *parabasis*, the formal trope of disrupting the cohesive reality of the fictional work with an outside voice drawing attention to the differences between the “real” world of the audience and the world the story creates (579). *Pym*'s use of footnotes to contextualize the narrative and provide additional information external to the main plot is one way in which the novel demonstrates an awareness of its own construction, drawing the reader

⁶² For Saldívar and the authors he refers to, “postrace” is always used somewhat ironically. Saldívar explains that “postrace” refers to fiction by writers whose writing has been conditioned by racial experiences, not a chronological period that exists “after” race is no longer an important category of experience. Thus, Saldívar clarifies, the post in postrace functions like the post in postcoloniality rather than the post in post-structuralism (575).

beyond the plot to consider the world in which the novel itself exists; namely, the world of racial formation and constructed whiteness that Morrison describes through her engagement with the same source material, Poe. Parabasis also occurs at the novel's outset. The novel begins with a letter from Chris Jaynes, the novel's main character and narrator, who explains the novel's existence as a result of conversation with a number of "brothers outside of Virginia," the most interested of which "was Mr. Johnson, at the time an assistant professor of language and literature at Bard College, a historically white institution" (4). Jaynes continues, explaining the way in which his story, which he asserts is entirely true, came to be "in nonthreatening story form for those folks who, even if they don't believe my story, would be willing to still take a bite and try to swallow it nonetheless. It was also Mr. Johnson's decision to present these revelations under the guise of fiction" (4). Jaynes agrees with Johnson's decision. For one, doing so "provides a level of synchronicity with the seminal text that began my journey," meaning Poe's *Narrative*. Second, Jaynes explains his "more ephemeral motivations" through the form of a rhetorical question, "in this age when reality is built on big lies, what better place for truth than fiction?" (4). Jaynes specifically invokes the fictionality of Poe's narrative, which nonetheless has massive implications for the construction of the categories/strategies of whiteness and blackness in American life. As such, Jaynes is not letting the violent racial history of slavery and settler colonialism pass unacknowledged.

Johnson's engagement with Poe, and the assertion that the most fantastic elements of it—the creatures of pure whiteness and the un-contacted community of Tsalal, a community of pure blackness—are in fact real, Jaynes takes part in a new form of realism, one that understands fantasy as the very basis of the assumed reality of American

life.⁶³ In this way, the novel and Jaynes seek to close the gap between what Saldívar terms the “ideals of redemptive liberal democratic national histories” and the “deeds that have constituted nations and their histories,” namely slavery and colonialism (“Historical Fantasy” 594). Furthermore, the novel does so through a complex allegory of environmental destruction, demonstrating the co-constitution of the Anthropocene and the category of whiteness. *Pym*, therefore, extends Saldívar’s conversations about the justice sought by postrace fictions of speculative realism to include environmental justice, specifically as it must be engaged in the Anthropocene.⁶⁴

In addition to the lenses that stratigraphers, Earth System scientists, ecosocialist and social scientists focusing on capitalism employ, scholars should consider the Anthropocene through lenses of alternative epistemologies. The Anthropocene is an epoch in which marginalized communities endure social and environmental violence without ever interacting with those responsible for the harm. Such is the case with Karvel and the Tekelians. In the Anthropocene it is a distinct possibility that those perpetrating

⁶³ For more on the form of the authenticating preface in African American literature, see: Gates, Henry Louis Jr. “Preface to Blackness: Text and Pretext” (1979); Stepto, Robert B. “I Rose and Found My Voice: Narration, Authentication, and Authorial Control in Four Slave Narratives” (1979); and Sekora, John. “Black Message/White Envelope: Genre, Authenticity, and Authority in the Antebellum Slave Narrative” (1987);

⁶⁴ Many of the novelists Saldívar mentions in his canon of postrace speculative realism (Junot Diaz, Salvador Plascencia, Colson Whitehead) extend social justice to consider specifically environmental justice, in which environmental goods and services are disproportionately meted out along racial lines. Diaz’s *The Brief and Wondrous Life of Oscar Wao* features a pivotal moment in which Oscar is forced to simultaneously navigate the historically fantastic and terrible figure of Trujillo, and forms of masculinity derived from *machismo* and American superhero comics, all while set amidst the literal backdrop of sugar cane, the cash crop that establishes colonial interest, social upheaval and ecological destruction in the Dominican Republic. Diaz’s “Monstro” also demonstrates his interest in environmental issues. Plascencia’s *The People of Paper* prominently figures migrant farm workers dealing with the historical issues of exposure and labor that typify the United Farm Workers, while also dealing with a specter of toxicity and lead poisoning from the mechanical tortoise shells used to keep the omniscient narrator from prying into his character’s thoughts. Whitehead’s *Zone One* considers the urban and built environment, tracing the ways in which racial projects are built into the infrastructure of the city, and are subsequently rebuilt alongside the city following a deadly outbreak that leads to a zombie apocalypse. Certainly a more in depth investigation of this group’s environmental imagination is warranted but requires more time and space than I have here.

the injustices and violence are, in fact, entirely unaware of the existence of those whose lives they are making unlivable.

Pym's engagement with the Anthropocene demonstrates that the fantasy of American history is not only built upon fantasies of racial difference and colonial justification for exploitation; it is also built on an attendant disregard for the non-human world. The construction of a hegemonic racial and settler colonial force thereby requires that whiteness be constructed out of certain forms of engagement (or disengagement, as the case may be) with the willingness to ignore and/or transgress planetary boundaries. With the post racial speculative fiction of the Anthropocene, then, the gap being closed is also the gap that exists between the planetary boundaries of an ideally functioning Earth system and a social and economic system that has begun to collapse upon itself as a result of disregarding that boundary.

CHAPTER V

DROPPING DIMES INTO THE WURLITZER OF THE PLURIVERSE: DISRUPTING THE COLONIALITY OF THE ANTHROPOCENE'S TIME

The Europeans generated a new temporal perspective of history and relocated the colonized population, along with their respective histories and cultures, in the past of a historical trajectory whose culmination was Europe.

– Aníbal Quijano, “Coloniality of Power, Eurocentrism, and Latin America” (542)

Luckily we Aztex believe in circular concepts of time, cyklikal konceptions of the universe where reality infinitely curves back upon itself endlessly so all that has existed does exist and will always exist and so forth into eternity. It's the only POV that makes sense in the end. Which is the beginning. (Don't worry if you don't get it the first time, it all repeats, as you shall see. This happened to you already & and it will happen to you again in the future.)

– Zenzontli, *Atomik Aztex* (3)

Introduction and Overview

As I discussed in the previous chapter, the Anthropocene condenses a single version of society—namely, Western modernity built on global extractive capitalism and justified by the strategies of Whiteness and settler colonialism—and its associated impacts into a single, geologic narrative. In positing the current moment as the result of the entire species (which is the tacit suggestion of “Anthro”), the specific forms of human interaction with the environment that have produced the conditions referenced by the term “Anthropocene” become universalized and naturalized as a geologic process, albeit one that blurs the boundaries between geologic and human.

In this chapter, I turn to the temporal framework of the Anthropocene itself and investigate how insensible realism can close the temporal dislocations of the Anthropocene by reading Sesshu Foster's 2005 novel *Atomik Aztex*. Built on a cyclical, rather than linear, notion of time, *Atomik Aztex* makes visible the settler coloniality of the

Anthropocene's temporal framework. Settler colonialism, according to Mark Rifkin, "produces its own temporal formation, with its own particular ways of apprehending time" ("One. Indigenous Orientations"). The Anthropocene, as a temporal formation, is no exception. Because the physical conditions that have produced the new epoch are the result of Western Eurocentric thought and forms of environmental interaction that ground coloniality, I argue that those who adopt the Anthropocene as either a geologic epoch or a heuristic must not understand the Anthropocene as a singular historical trajectory. To do so would reify settler coloniality and more thoroughly "settle" its epistemological basis as not only primary, but also universal.

I fit *Atomik Aztex* into a developing archive of novels of the Anthropocene for two reasons, both of which I explain in greater detail throughout the chapter. First, its indeterminate timelines and settings reflect both the collapsed boundaries inherent to the Anthropocene and the very methods the Anthropocene Working Group uses to officially declare the Anthropocene "real." Second, through the split narration of its two main narrative voices, the novel connects colonial violence, albeit counterfactual, to industrialized meat production and the environmental injustices it produces. In an interview following the AWG's media note, Jan Zalasiewicz explains that Anthropocene is stratigraphically real owing, in part, to a fossil record that will show a massive explosion in domestic chicken bones following the change in Western meat consumption during the post-World War Two "Great Acceleration" ("Media Note"). Throughout the novel, colonial violence in a counterfactual World War Two mixes with the narrative of a meat packer in a Farmer John plant, the site of numerous environmental injustices. Thus,

the novel offers forth the social components of the Anthropocene through its literary form.

By rejecting the universal narrative of a single temporal framework, *Atomik Aztex* demonstrates and refutes the settler coloniality inherent in the Anthropocene narrative and its material referents in a rapidly changing Earth System. Moreover, by collapsing time and space through its narrative form, *Atomik Aztex* effectively sutures together the geographical and temporal dislocations endemic to environmental injustices, linking past settler colonial violence to contemporary environmental racism. Imagining an alternative reality grounded in the materiality of social and environmental justice throughout colonial history, the novel makes visible how epistemological models of time and history (such as the Anthropocene) can work in the service of coloniality and environmental racism.

In what follows, I read *Atomik Aztex* through the lens of coloniality and time, particularly Mark Rifkin's conceptions of settler time, Kevin Bruyneel's arguments on the politics of settler memory and Aníbal Quijano and Walter D. Mignolo's calls for decolonial delinking through accepting plurality, which I first addressed in Chapter II. Quijano's work on racialization as a tool of Eurocentric coloniality via temporal perspectives, quoted above, provides a means to understand how the local impacts of racial supremacy and settler coloniality expand globally to instantiate the Anthropocene as environmental racism gone planetary. As an ideological tool, the Anthropocene functions as what Kevin Bruyneel terms a "settler mnemonic," an aid to a particular mobilization of memory that organizes history towards settler/colonial ends by occluding Indigenous lives and history. In keeping with the decolonial theory of Quijano and

Mignolo, Bruyneel argues that these sites of memory can also serve as liberatory sites, and thus I read *Atomik Aztex* as a novel that simultaneously inhabits and disrupts colonial organizations of time.

Disrupting Settler Colonial Organization

The first step in the process comes through demonstrating how simply changing accepted conventions of print can easily thwart conventional methods of making sense. The novel eschews the formatting and structure that often make novels legible to their reader. The text is an imposing solid block of words, justified evenly to both left and right margins. The words are periodically italicized, bolded, underlined and set in all-caps across pages-long paragraphs. Through slippery dialects, evident in the title “*Atomik Aztex*,” words are spelled in an inventive Anglicized Nahuatl, replacing hard C sounds with the letter K and using the letter X for plural nouns that end in C. At times, the dialectic spelling is consistent with the narration, but conventional spellings also leak through. These constant stylistic ruptures effectively draw attention to the role of form and convention in making meaning from text. Reading—let alone understanding—the novel is difficult, in no small part because it works against much of what typically makes texts legible, ultimately pointing to the strong link between comprehension, thinking and the form of written communication.

Beyond the stylistic elements, the novel’s temporal structure troubles this link. Reflecting an imagined mental model of the Aztex universe, the novel rejects linear chronology and, as a result, cohesive plot. It also rejects singular subjectivity and even the notion of a singular reality: the text moves fluidly between two narrative voices and

visions of what may or may not be worlds alternative to one another. I say “narrative voices” here to avoid the implication that that are multiple narrators, two distinct and determinate characters separate from each other. While that is a supportable reading of the text, the novel refuses any clear definition as to whether the two narrative voices should be considered separate characters, or whether they are the same character sharing some essential qualities but placed in different contexts, or yet again, that one character is simply the other’s delusional imaginations.

All this makes the task of summarizing the novel particularly difficult. In fact, this is part of the novel’s decolonial delinking; it embraces insensibility by formally and structurally rejecting dominant modes of making sense. However, since most readers are not familiar with the book, and most of my readers exist in the world where summary is an important element of understanding, I offer the following as the most definitive explanation I can give with any responsibility to the text itself regarding what the book is “about”: Two discernable narrative voices, who might be the same person in alternate universes, talk about things that have happened, will happen and/or are happening, but there’s no chronological basis for understanding the order in which they occur or if they occur, have occurred, or will occur at all. Of the two discernable voices, one is Zenzontli, an Aztek warrior in a universe where the Aztecs have successfully defended and defeated European conquest at the point of contact and engage in military warfare to defeat the Nazis of the Third Reich. The other voice is Zenzón or Zenzo, both names referring to a meat packer who lives and works in a version of mid-twentieth century Vernon, California that resembles a world the reader might likely recognize.⁶⁵ Here, he organizes

⁶⁵ Throughout the novel, the name “Zenzontli” is used only in the Aztek warrior world while “Zenzón” and “Zenzo” are used exclusively in the world of the Farmer John plant. However, on 184, “Zenzontli” is used

his coworkers at the Farmer John plant to unionize against worker exploitation and environmental injustices.

At times, elements from each narrative voice seep into the next, sometimes interweaving, sometimes remaining distinct. Through these related, interweaving yet distinct voices, the text rejects any single understanding of its narrative, building and confusing multiplicities without any clear privileging of a primary narrative focalizer, setting (physical and temporal) or plot. Given the implicit coloniality of positing the Anthropocene as a universal totality, the novel performs a perspective necessary to ensure that the concept of the Anthropocene does not reify the modes of environmental interaction that have produced the physical disruptions to the Earth system.

The novel entertains the possibility of multiple time scales and organizations, and thus draws into relief the social construction of organizing time through a narrative like the Anthropocene. These disruptions in the novel, however, actively work *against* the typical forms of geographical, social and temporal dislocations that instantiate the Anthropocene. Rather than hide the connections between disparate times, epistemologies and locations, the novel's disjuncture reveals them, suturing together the various timescales, places and peoples by fluidly moving between imagined pasts and futures in multiple universes.

Rejecting linearity as an epistemological foundation, the novel eschews the traditional structural differences between plot and story. The exact time of the novel is indeterminate owing to the Aztex's understanding of time, or what Zenzontli refers to "cyklikal koncepcions" of the universe (3). In his narration, events happen not just out of

for the first and only time in the world of the Farmer John plant. This comes as the worlds are confused for the characters, the narrator, and, ultimately, the reader.

order, but without order at all, evident in the way he claims knowledge of future events based on his experiences of them in the past, prompting such proclamations as “I knew what was going to happen to me. It had already happened to me in the future” (17).

Through the novel’s split focus between multiple worlds, the order of events and even a general sense of when the novel takes place are indeterminate at best. This results in considerable differences within the limited critical work on the novel, which is itself evidence of how the novel actively frustrates sense making.

For example, Kristi Ulibarri writes that the world of meat packer Zenzón/Zenzo occurs sometime after 1961, but with the following footnoted caveat:

There is some debate on the temporal setting of ‘this world’ in the novel, with the first temporal reference telling us it is sometime after 1961 (Foster 2005, 13)

Esposito (2006) claims that it is circa 2005, while Sascha Pöhlmann sees it as apart of the ‘epistemological problem of the historical narrative’ (2010, 231): it is always unreliable. (215, footnote 1)

While the sentence she references on page 13 supports Ulibarri’s claim, a passage *later* in the novel directly undercuts it. When Zenzón is meeting with Nita, a union organizer who becomes a central figure in the alternative world of Zenzón, Nita tasks him with organizing his fellow meat cutters to join the union to combat the hazardous working conditions of the plant.⁶⁶ During this meeting, Zenzón struggles to locate himself

⁶⁶ This is, at least, one possible reason for Nita’s engagement with Zenzón. By the end of the novel, Nita reveals herself to be not (only?) a CIO organizer, but also an agent from Zenzontli’s world giving Zenzón messages while referencing Zenzontli’s position as a Keeper of the House of Darkness, suggesting that his union organizing in the Farmer John plant will “echo throughout overlapping levels of reality and akross chronologies, parking lots, destinies & pork loin chops.” (184) To compound the confusion, their conversation that follows this remark is made up of mixed metaphors, aphorisms and platitudes that are entirely nonsensical to readers, but suggest a shared cultural fluency via Nita and Zenzón’s ability to readily understand the idiomatic expressions. For example: “‘For every eye that offends thee, burn fiddlesticks into ploughshares and split the difference,’ I agreed” (188).

geographically and temporally: “Glancing out on the unbleached street, I was sure that—meat trucks and traffic whizzing by, a white stepvan pulling up to the curb & a milkman unhooking his dolly from the back—it was December, or thereabouts, 1942” (70). In my reading, this is the earliest explicit temporal reference. While the passage Ulibarri cites appears “first” on an earlier page in the novel, this fact means little in a novel that does not operate chronologically, and thus I hold that it is not possible to claim any fixed time, certainly not sometime after 1961. The text simply does not support such a reading.

In keeping with Zenzontli’s proclamation about things that are about to happen having already happened to him in the future, seemingly anachronistic events and temporal markers figure throughout the novel. For example, at one point the speaker (in this particular passage the narrative voice is unclear) imagines himself standing next to a 1949 police car (197), and earlier Zenzontli—who spends much of the novel actively fighting or preparing to fight World War Two—discusses World War Two and the Holocaust in the past tense (182). He also references the Ali-Frazier fight in Zaire, which happened in 1974 (147), and he supplies URLs to prostitution websites as motivational fodder for the troops he’s commanding in a Stalingrad siege to fight Nazis and further ward off Spanish colonization (102). In a more conventional novel, these temporal disjunctions might be read as flashbacks, or more technically, a fragmenting of the chronological time of the story in service of a creative retelling through plot. Such a distinction between story and plot, however, requires a realist notion of time as linear. There is no such notion presented in the novel, which places all the events on an even temporal ground, so to speak. None can be said to be “right” or used as a framing device to figure the others. As a result, these anachronisms—which cannot truly be called

anachronisms for the same reason they cannot be considered flashbacks—erase the distinction between past, present and future.

Rather than attempt to demonstrate what the “real” time of the novel is—that is, rather than make the distinction between which time is the primary focalizer against which all other aberrational time signatures are set—I want to dwell in this indeterminacy and leave it unresolved. Through its very indeterminacies, the novel reveals how timeframes that *are* clearly signaled, such as the Anthropocene, rely upon the same colonial narratives and epistemologies that have given rise to the Anthropocene both conceptually and materially.

The Temporal Framework of the Anthropocene

The temporal confusion in *Atomik Aztex* reflects the various constructions and collapses of time embedded in the process of officially naming a geologic epoch such as the Anthropocene. Geologic time relies upon structures of culturally specific time scales to organize and date what occurred long before humans existed. Thus, the determined periods are necessarily both human and non-human: their physical existence occurs prior to anything remotely human, and yet their existence as a geologic time exists only as a result of specific cultural understandings of how time works.⁶⁷ The Anthropocene further intermixes the human and non-human scales of time in a number of ways, all of which add to the boundary collapses that typify the epoch. The geologic processes that result in observable stratigraphic changes and shifts in the Earth System, for example, are now occurring at human-speed. That is, they occur in the span of a human life with effects

⁶⁷ For example, geologists firmly divide time into distinct eras, epoch, ages and periods, all of which take as their base unit a year.

observable to human perception. Second, the epoch supposedly notes, by definition, the presence of humans as a force equivalent to the geologic forces that preceded the current eras. Whereas previous epoch, ages and eras existed long before (and therefore absent of) humans, the Anthropocene is precisely the opposite: an era in which geologic phases are no longer conceivable without considering the impact of human activity.

Geologically, determining the moment of this shift relies upon a decision regarding a disciplinary method, and in this way, the decision as to when the Anthropocene begins is evidence of the social construction of a geologic epoch. This is another point of resonance with *Atomik Aztex*, which at times evokes calendrical structures (such as when Zenzón claims that he was sure it was “December, or thereabouts, 1942”) and at other times roundly rejects them in favor of alternative notions of time. For the geologists and stratigraphers that make up the Anthropocene Working Group, using a calendrical date (e.g., 1942) is defining the epoch by a “Global Standard Stratigraphic Age” or GSSA (“Media Note”). In their release, however, the Anthropocene Working Group writes that “majority opinion on the AWG is to seek and choose a candidate GSSP,” or “Global boundary Stratotype Section and Point” instead of the calendrical GSSA. The GSSP, often known as “the golden spike” referring to the physical marker that geologists drive into the ground to demarcate the location, is “a physical reference point in strata at one carefully selected place” (“Media Note”). Essentially, this means discovering a physical location that provides clear, observable evidence of the stratigraphic shift.

The debate around whether the time should be marked calendrically according to a date or whether the time should be conceived of through a place-based record

represents a multiplicity in understanding time. Yet, through its various votes and meetings, the Anthropocene Working Group is actively working towards creating a *singular* understanding of organizing time. As I have discussed throughout this project, however, this singular understanding is one rooted in specific settler colonial and White supremacist understandings of its impacts as universal and therefore translatable to an epoch named for all of humanity. Here, the work of Indigenous scholars and decolonial theory can productively reframe *Atomik Aztex*'s temporal confusions into a demonstration of alternative epistemologies.

Kyle Powys Whyte understands the Anthropocene as his ancestor's future dystopia unfolding in the present, a temporal disjunction that resonates with the structure of *Atomik Aztex*. Whyte, a Nehsnabé (Potawatomi) and climate justice scholar-activist, observes a tendency in mainstream, non-Indigenous conservation projects, to consider conservation through a lens of dystopian future, a lens occasioned by the dawning of the Anthropocene as a conceptual model. While his essay is primarily a discussion of his community's approach to conservation, his comparison between his community's understanding of the problem and the increasing dominance of the Anthropocene dystopian narrative demonstrate the cultural specificity and historical roots of the Anthropocene itself. His assessment is both frank and productive: "In the Anthropocene, then, some Indigenous peoples already inhabit what our ancestors would have likely characterized as a dystopian future. So we consider the future from what we believe is already a dystopia, as strange as that may sound to some readers" (2). Explaining that Indigenous conservation considers not just which species to conserve or let go but also what relationships between species and humans need to be preserved, Whyte explains

that “indigenous conservation approaches aim at negotiating settler colonialism as a form of human expansion that *continues* to inflict anthropogenic environmental change on indigenous peoples—most recently under the guise of climate destabilization” (my emphasis, 2). In other words, for Indigenous peoples who have had culturally important species, land and relationships destroyed by the continual campaigns of settler colonialism, it has always already been the Anthropocene, at least in terms of practical response.

The fact that these impacts have now expanded to the realm of the Earth system (the geologic definition of the Anthropocene) in the form of destabilized climate or disrupted nitrogen cycles is merely an intensification of a system that has been in place for centuries. Whyte explains that “if there is something different in the Anthropocene for indigenous peoples, it would be just that we are focusing our energies *also* on adapting to another kind of anthropogenic environmental change: climate destabilization” (3, emphasis in the original). Thus, for Whyte and his Indigenous community, the Anthropocene as a conceptual marker offers little, if anything, that is categorically new.

This brings into relief the ways in which the Anthropocene is as much a historical narrative of the extended campaigns of settler colonialism as it is a proleptic description of dystopia soon to be shared by colonial society. Whyte explains:

The ecosystems in which we live today are already drastically changed from those to which our ancestors related—a fact that shapes how we approach discussions of Anthropocene futures. Our ways of approaching conservation and restoration, then, are situated at the convergence of deep Anishinaabe history and the vast degradation of settler colonial campaigns occurring in such a short time. (4)

In this conceptualization, Whyte holds Anishinaabe history, which predates the settler colonial campaigns that have produced the Anthropocene, as fundamentally separate from the organization of that time, which an increasing number of thinkers term “the Anthropocene.” This demonstrates that the Anthropocene is not a universal time that applies equally to everyone. It is, to be sure, a recent and narrow conceptual category produced by the same epistemological and ideological forces that have produced the physical changes the term signifies. To accept the premise of the Anthropocene as universal, referring to the activities of humanity writ-large, is to accept the primacy of settler colonial thought and hold it as single, universal totality.

By proclaiming a continual presence that disrupts colonial narratives of the Anthropocene’s futurity, Whyte’s work extends Aníbal Quijano’s theories on race and decoloniality into the Anthropocene. Quijano specifically ties Eurocentrism, the frame of mind that produces whiteness as a strategy for colonial power, to temporal models. In particular, Quijano argues, white supremacy and coloniality occur through erecting “a new temporal perspective of history” which “relocated the colonized population, along with their respective histories and cultures, in the past of a historical trajectory whose culmination was Europe” (542). Quijano explains the creation and mobilization of race as a strategy that naturalizes European ethnocentrism, thereby justifying the exploitation and harm through a process of racialization that makes European colonizers feel “not only superior to all other peoples of the world, but, in particular, *naturally* superior” (542, my emphasis). Racial classification organizes thought in such a way that an idea of global dominance is not only possible but inevitable, shot through with the weight of so-called objective science via the language of evolution. This makes the social organization of

colonizer and colonized seem natural, a product of non-human machinations and not, as it is in truth, a specific set of strategies mobilized to gain and maintain power (542). In short, being European became a telos unto itself, and indigeneity signaled violability because, from the Eurocentric perspective, the colonized are made to represent the European past of lesser humanity.

The Anthropocene, to borrow Quijano's words, is a "temporal perspective," one that mixes past with present and, as Whyte explains, a proleptic future. More specifically, through its species-level understanding of what are actually products of racism, colonialism and the extractive economies they engender, the Anthropocene similarly naturalizes the contemporary moment as an inevitable telos. What's more, the species-level approach—which is actually referring not to the entire species but White coloniality—naturalizes these specific social systems, especially as it transmutes them into a geologic age. However, as Malm and Hornborg conclude, species-thinking "is conducive to mystification and political paralysis. It cannot serve as a basis for challenging the vested interests of business-as-usual" (67). This provides the space for works of cultural representation to "challenge the vested interests of business-as-usual" by denaturalizing some of their basic premises of how the world, and its time, functions.

Atomik Aztex performs some of this work by challenging the notion of linear time that undergirds both the Anthropocene and the strategies of racism and coloniality operative in Quijano's understanding of Eurocentric modernity/rationality. As *Atomik Aztex* traces counter-historical and counter-factual narratives of a world in which European coloniality is defeated, the novel's temporal structures refuse the clear-cut teleology, linearity and primary focalization at the heart of the Anthropocene Working

Group's deliberations. The novel's form makes it impossible to reduce its complex and indeterminate multivalence into a cohesive, manageable and singular totality, which is precisely the proposed project of naming the Anthropocene.

The frustration begins with the "Note" at the beginning of the novel and continues throughout as linear temporality gives way to circular time and focalization constantly shifts. Like Johnson's *Pym* does with Poe, the note demonstrates the novel's clear engagement with canonical American literary history, evoking a hegemonic standard that it will immediately proceed to dismantle. Riffing off of Mark Twain's epigraph at the beginning of *Adventures of Huckleberry Finn*, the note in *Atomik Aztex* begins: "This is a work of fiction. Readers looking for accurate information on Nahua and Mexica peoples or the Farmer John meat packing plant in the City of Vernon need to *read nonfiction*. (See Michael Coe and Miguel Leon-Portilla.) Persons attempting to find a plot in this book should read Huck Finn" (emphasis in the original, Foster n.).⁶⁸ *Atomik Aztex's* note ironically doubles-down on the idea of a book with no plot, simultaneously casting aspersions on Twain's declaration that *his* book has no plot by suggesting *Huck Finn* as the place to look for one. *Atomik Aztex's* invocation of a canonical piece of American literature performs a paradoxical move of simultaneously entering into a literary tradition, one that has been fundamentally linked to a hegemonic idea of "America," while at the same time rejecting it. The note places *Atomik Aztex* in a position to work against the tradition by inhabiting that tradition and breaking it apart from the inside. It calls attention to its historical roots as a means of wresting itself away from those very roots.

⁶⁸ Twain's note reads, in part, "Persons attempting to find a motive in this narrative will be prosecuted; persons attempting find a moral in it will be banished; persons attempting to find plot in it will be shot."

Owing to its lack of clear plot, setting and firm subjectivity, accepting *Atomik Aztex* as anything other than nonsense—which the book itself openly supports as a possibility—requires that the reader be open to the possibility that rational linearity (and its Eurocentric colonial roots) is but one possible epistemology among many. In short, the reader must be open to the pluriversal, rather than the universal. This is a key component of Mignolo’s decolonial “delinking,” as we shall see shortly. The first lines of the novel signal a radical break from rational linearity, proclaiming the narrator to be not just untrustworthy, but mentally and metaphysically indeterminate. The novel begins, “I am Zenzontli, Keeper of the House of Darkness of the Aztex and I am getting fucked in the head and I think I like it. Okay sometimes I’m not sure. But my so-called visions are better than aspirin and cheaper” (1). While the first half of the first sentence is a firm declaration of identity, citizenship and role, the second half immediately calls into question the truth of this identity and its position in society and the world of the novel. The declarative statement that Zenzontli is “getting fucked in the head,” is undercut by the possibility of its own veracity. If it is true that Zenzontli has “so-called visions,” and it is true that these visions are associated with his “getting fucked in the head,” then the narrative authority to relate an accurate version of his world is compromised. This draws into question his own ability to accurately relate his subject-position and thus makes everything that follows in the text subject to intense speculation. This contestation of singular authority continues for the next 203 pages, which move in and out of Zenzontli’s narration and Zenzón/Zenzo’s narration at the sentence level.

The indeterminate subjectivity of the narrator/narrators carries over in to the plural worlds that ground the narration. Throughout the novel, the narrators express

knowledge of certain versions of realities—multiple worlds and settings—but reject the truth of these worlds in favor of their own. After proclaiming an unsteady “I am,” the text immediately equivocates about who “you are” and what worlds “you” might know or inhabit: “Perhaps you are familiar with some worlds, stupider realities amongst alternative universes offered by the ever expanding-omniverse, in which the Aztek civilization was ‘destroyed.’ That’s a possibility. I mean that’s what the Europeans *thot*” (1, emphasis and stylistic spelling in the original). The suggestion here is that the reader operates with the version of history in which European colonization occurred and premised the global power Quijano explains. Zenzontli goes on at length to enumerate the extent of Eurocentric colonial machinations to global ascendancy through ideological, epistemic and physical violence. For example, he describes the European plan as a “planned genocide” through a “Sword and Cross strategy, Bible in one hand gun in the other” in which the Europeans would “fuck us over royally with their bullshit ideology, propaganda, the whole nine yards, massive media blitz, disinformation campaign, low self-esteem, dysfunctional self-image, voodoo ekonomix, war on drugs & terrorism, prison-industrial system, the whole works” (1-2).

Zenzontli continues, listing all manner of colonial operations founded on erasure and enslavement, before concluding that such a world is *not* the one he lives in because it does not fit the Aztek “aesthetic conception” of the universe (2). Deeming the European understanding to be “ugly,” Zenzontli objects to such an understanding of reality on the grounds that it is linear, mechanistic and rational: “To think that they want to foist that vision of Reality on the rest of us. That’s the *insult*. Barbarik, cheap aesthetik based on flimsy Mechanistik notions of the omniverse as a Swiss watch set to ticking by some sort

of Trinity” (2). Here, the rejection of western Eurocentrism comes via rejecting its coloniality and the colonial rise to power, linear organizations of time, and teleological history. In erecting an alternative to European colonial thought, Zenzontli provides an explanation for alternative worldviews as existing in plurality, an “ever-expanding omniverse,” that “you,” the reader, must inhabit and be familiar with (1).⁶⁹

It is important to clarify, however, that despite his rejection of the Eurocentric vision of the world, Zenzontli nonetheless holds such a vision as a possibility, just not the one he lives in or chooses to live in. As I have described earlier in the dissertation, the disruption of rational order and thinking can be understood as what Walter Mignolo calls a decolonial delinking. Quijano uses the term “modernity/rationality” to explain the ways in which colonial modernity is premised on a celebration of rationality—and a specific European form of rationality—above all else. The construction of modernity/rationality is itself a tool of colonialism that posits rationality as a universal epistemology in order to produce modernity as a universal telos (31). Thus, Quijano concludes that to break from coloniality requires that one “liberate the production of knowledge, reflection, and communication from the pitfalls of European rationality/modernity” (31). Following Quijano, Walter Mignolo refers to this epistemic shift as a decolonial delinking that “brings to the foreground other epistemologies, other principles of knowledge and understanding, and consequently, other economy [sic], other politics, other ethics” (307). This, Mignolo argues, leads to what he calls “pluri-versality” as opposed to the colonial project of establishing a singular totality as universal (307). Mignolo’s central argument

⁶⁹ In this way, Zenzontli’s claim to a counter-history defies an understanding the world Zenzontli claims to experience as a counter-factual. The counter-factual, often the tool of postmodern historiographic metafiction, asks “what if,” thereby suggesting *what isn’t* from a tacit authoritative position of *what is*. The counter-factual suggests what “might have been,” if history were different. Even within the counter-factual, history is not different. Zenzontli, however, is not positing what might have been. Rather, he is relating what *is*. And what *is* is a plurality of universes and multiple realities, none more primary than the other.

is that the coloniality of modernity/rationality functions precisely through the way in which it positions itself as a singular totality. Epistemic delinking, then, requires a kind of thinking and processing in which the totality is seen and understood as one of many. This does not make one “outside” of any system; rather Mignolo argues in favor of a “border thinking” that allows for “exteriority” in which the social structures that one is a part of are visible (348). From the correct vantage point, from the exterior or border, one can at last see one’s implication in the system. This then opens the possibilities of entertaining and engaging alternative systems.

As Sascha Pöhlmann explains, *Atomik Aztex* “undermines official history by juxtaposing it with an alternative history that employs narrative strategies similar to those used by any ideological representation in ‘this world’” (230). In other words, the alternative history presented is still readable to those in the world the alternative seeks to disrupt. This, along with the unreliable narrator, is a “classic technique” of historiographic metafiction.⁷⁰ However, reading Zenzontli as merely “unreliable,” Pöhlmann argues, requires a “selective reading” that uses Zenzontli and the world he inhabits as the focalizer for the alternative world of Zenzón. As Pöhlmann points out, however, the text switches back and forth between worlds and times at the sentence level, making Zenzontli so unreliable that readers are ultimately unable to figure him as the primary focalizer. It’s not just his perspective that is to be questioned but his entire

⁷⁰ In her use of *Atomik Aztex* to demonstrate the limits of Ramón Saldívar’s post race aesthetic of speculative realism, Kristi Ulibarri argues that the novel, its characters and even its aesthetics are still firmly located in the logic of late capitalism, offering indigeneity as a fetishized commodity for resistance. Here, Ulibarri’s critique strongly echoes Linda Hutcheon’s notion of the complicit critique found in postmodern literature in historiographic metafiction. This is in line with Frederick Jameson’s classic conceit that capitalism is so pervasive that it has dominated the imaginary to the point of foreclosing revolution. Mignolo specifically addresses this “postmodern objection” that there is “no outside to the ‘global-neoliberal totality’, ‘no outside of capital(ism)’ and so on and so forth” (348). In response, Mignolo explains that “we have not been claiming an *outside* but an *exteriority*” and thus proposes “border thinking” (348).

cosmos (233). Thus, Pöhlmann concludes that *Atomik Aztex* is not historiographic metafiction, it is “cosmographic metafiction,” rewriting and representing “realities and worlds in order to prevent them from being conclusive, from being interpreted according to a single ideology, and from being closed off to any reimagination” (236). In short, the novel works in precisely the ways Mignolo and Quijano call decolonial delinking: using a framework of multiplicity and pluri-versality to disrupt coloniality as a universal totality.

This framework of multiplicity, which denies primacy but refuses to refuse alternatives, is helpful when considering the Anthropocene, a term and concept that is so expansive that it is meant to organize the past, present, and future into a single totality. Pluralities and multiple realities occur within Zenzontli’s personal narrative, extending his formulation of multiple concurrent histories to the novel itself. The “so-called visions” that Zenzontli references in the first three lines invoke the story of Zenzón, who unlike Zenzontli, does not live in a world in which European colonization was successfully thwarted but instead lives in a world that more closely approximates that of the assumed reader, the “you” who might be familiar with “stupider realities.” In this world, Zenzón is the central figure, a meat-packer at the Farmer John plant in Vernon, California.

These distinct passages of narration, which initially appear to have little or no connection to the immediately preceding or following passages, disrupt the specific colonial project of organizing time linearly. What’s more, however, these chunks of text become increasingly tangled and interwoven. The novel deconstructs plot by alternatively referencing things that have already happen and things that will happen, or both at the same time. This occurs in the book itself (the passages reference events in the pages to

come or the pages past as having happened or as things that will happen); it also occurs in the world of the narrator, resulting in what might be considered anachronisms if time were linear.

They are faulty anachronisms, however, and Zenzontli's reassurance to the reader typifies his perspective: "Don't worry if you don't get it the first time, it all repeats, as you shall see. This happened to you already & it will happen to you again in the future" (3). As Zenzontli explains, he and his people believe in "cyklikal konceptions of the universe where reality infinitely curves back upon itself endlessly so that all has existed does exist and will always exist and so forth into eternity" (3). This, he claims is "the only POV that makes sense in the end. Which is the beginning" (3). What's more, Zenzontli knows that this is confusing to the reader, which demonstrates that his presumed reader does not inhabit the same world that he does. Zenzontli's direct addressing of the reader and his knowledge of the simultaneous existence of multiple realities across multiple times within multiple epistemologies opens the possibility to understand these multiple times and worlds as simultaneous alternate realities, each one as available as any other and none more privileged or having more primacy than any other. The novel's fictional worlds function as a totality in and of itself, but they remain open to other totalities as well, a point that demonstrates a radical break from dominant colonial thought as "real" world of the reader conceives it.

In the first two pages of Chapter 8, Zenzontli directly addresses the reader, as he periodically does throughout the novel, to engage settler-colonial history, dystopian futures and utopian futures. He makes a number of prognostications about what the future world of the reader must be like, before then explaining the reasons why "the Council of

Tlatoani of the Party of Aztec Socialism” made the decision to go to war, one of the plot through lines that weaves the disparate chunks of text together throughout the novel. Some of these visions of the reader’s future are accurate descriptions of the world as the reader might experience it, while others tend more towards speculative fiction fantasy. For example, Zenzontli surmises that the reader is reading the novel “way far head in a distant Future of some unknown Space Age year like April 10, 1968 in Memphis Tennessee” (115). The date and place, a week after Martin Luther King Jr. was assassinated, and a day after his funeral in Atlanta, immediately call forth the civil rights era and situate the narration in the context of racial injustice in one of America’s most trying times of marginalized peoples fighting for representation and equal standing. The gravity of this period, however, is offset by Zenzontli’s wild confabulations of what this time must be like:

You’re probably used to taking rocket ship vacations to Mars & Cancun, probably you get all the nutrition you need from a little white pill every day [...] In the Future you probably have no idea what war & disease is like except you have read about diseases in books and books themselves are probably obsolete [...] probably in your world they have discovered amazing stuff like DNA fingerprints, penicillin pencils, free jazz & fusion, 8-track tapes, San Fernando porno-Valley.
(115)

Zenzontli continues on for another page, listing similar speculations that have some resonance with the world of the presumed reader, but appear slightly off: mental telepathy must exist, and so too must potato chips (116). Throughout, Zenzontli qualifies each round of prognostication, repeating that “I can’t even begin to imagine” and “I don’t

know where an idea like that could come from,”⁷¹ and “anything could be possible in the future” (116).

Such wild fantasies about the future might be taken as just that, wild fantasies of the future, were it not for the fact that Zenzontli has elsewhere told us in the novel that time is cyclical, and thus the future has already occurred. Indeed, he reiterates this fact as he ends his speculation about the reader’s world: “That’s why I know it comes as no surprise to you anything involved in this History I am about to relate. Cuz in a certain sense, tho all these events are gonna happen for me in the future, for you it’s all in the Past” (116).⁷² According to the cyclical notion of time, however, Zenzontli *does* know what happens and *can* imagine what happens. They are the dystopic future events of one narrated reality reconceived as the past horrors of a different reality.

Moreover, all of Zenzontli’s speculations about the future on pages 115-116 are grounded by an ironic retelling of the nursery rhyme version of colonial history taught to many American school children: “In 1492, Christopher Columbus sailed the ocean blue, a brand New World I know about & so do you” (115). After the previous seven chapters and Zenzontli’s repeated explanation of how the Spanish colonization effort failed in his world, the rhyme is deeply ironic, containing multiple meanings that undercut accepted historical narratives. The lines, importantly, do not suggest that Columbus discovered anything, a fact made apparent by the novel being grounded in Aztec empire that existed before his arrival. However, even absent the faulty notion of discovery, the idea that a “brand New World” follows Columbus’s voyage is unavoidable. In the world of the

⁷¹ This comes after he imagines a fly with American horror actor Vincent Price’s face getting stuck in a spider web outside of horticulturist Luther Burbank’s house.

⁷² Speaking with an awareness of future history demonstrates another convention Marshall argues typifies novels of the Anthropocene (530).

novel, the arrival of Columbus serves as the initial point of contact between the Aztec world and that of “Europeans,” possibly resulting in the very war (World War Two?) that Zenzontli is now fighting in Russia.

Right after Zenzontli explains why it is that the “History” he is about to relate should come as no surprise to the reader, he explains the justification for engaging Nazis and his mission in Stalingrad. The passage weaves colonial history, popular culture and social justice movements across time, ending in an ironic inversion of hegemonic colonialism, worth quoting in full for the depth and breadth of historic and future references:

It occurs to me that reality gets complicated, time spirals in & out of hidden histories we barely heard about so we don't even remember where we heard it, worlds collide, *The Day When Time Stood Still*, war leaders say somebody must die, NOTICE TO ALL PERSONS OF JAPANESE ANCESTRY, somebody attacked, fuck it, civil rights are suspended, cities on fire, National Guard tracers fired from machine guns into buildings in Watts, you might want to live some kind of quiet life working at a slaughterhouse in Los Angeles, go home to sleep in your stucco bungalow in El Sereno in East L.A., you might suddenly find out something completely different. That's why the Council of Tlatoani of the Party of Aztec Socialism determined we must Defend & protect our way of life thru War, our standard of living (War), our freedom of religion (War) (1000 hears per day minimum), plus links to a thousand other worlds where Aztex & First World peoples faced extermination at the hands of avenging hordes of Europeans released like virulent strains of smallpox bursting from massive pustules. On

some worlds, foreigners showed up wanting to buy Manhattan with glass beads, driving taxis. On some worlds, motherfuckers spread smallpox across continents with blankets & infected clothing. On some worlds, they achieved the same effect with alcohol, crack cocaine & household glue. On some worlds, they went door to door with pamphlets, or stood on the street corner spouting pure lunacy. On some worlds, they used Hotchkiss & Gatling guns, napalm & spent plutonium & left people piled in ditches in infinite variations, mix & match, with European Imperialism aimed like an obsidian dagger at the Heart of Aztec Socialism. That's why when the cool old geezers on the Central Committee said we have to intervene in the European wars, we have to defeat fascism, Hitler won't take no for an answer, *we got a thousand worlds to do something about*, we're not gonna colonize Europe per se, except psychologically, spiritually, economically, ergonomically, contextually, poetically, aesthetically, & most importantly, football-wise, that's why I said yes. (116, all formatting in the original)

The passage narrates history to serve specific ideological ends, justifying the reduction of civil liberties in the name of a state that doesn't protect those who have given up those liberties. This occurs both in the "some worlds" Zenzontli enumerates and in his own eventual acquiescence to the power of his own government, which has now mobilized him to fight on its behalf, and he seems willing to do so. Each event of social injustice—which evidences the state's failure to protect all its citizens equally—figures as multiple worlds, multiple records arranged in a Wurlitzer. The "some worlds" he addresses are part of the thousands that the Aztec must protect from the threat of extermination at the

hands of “European Imperialism.” The mobilization is underway as a preventative move against the perceived horrors of “European” way of life. However, those horrors, the impacts of European and Euro-American colonialism in North America, are figured as always already occurring in those thousand “some worlds.” According to Zenzontli, he goes to Russia in 1942, and yet the Watts riots of 1965 and Vietnam-era napalm are figured as impending imperialist threats alongside mid-nineteenth century U.S. settler-colonialism, Dutch colonialism in the seventeenth century, and 1980s drug policy.

The novel does not take historical events as causal *per se*, but rather understands their alleged causality as the product of being organized according to a dominant ideology as an explanation of causality after the fact. Rather than replicate this pattern, the novel’s temporal structure refuses to construct its events into a narrative after the fact, preferring instead to continually layer similar instances of colonial violence alongside and on top of each other. As a result, the novel does not produce a narrative that justifies the present as an inevitable eventuality. Instead, the narrative of history remains visibly constructed, allowing alternate worlds to exist simultaneously, figuring any given totality as one of many. Accordingly, Zenzontli’s mechanistic metaphor for the world is not a clock, but a Wurlitzer jukebox: “The Wurlitzer of the Universe is packed with 78 rpm realities side by side. Get ready to drop your dime” (5). Each reality is available, ready to be activated by whomever makes the selection. Side by side, the realities are strung together through colonial and racial violence, real and imagined.

The Settler Mnemonic of the Anthropocene

The ideological implications of organizing time and the temporal implications of ideology reverberate throughout *Atomik Aztex*. In keeping with the worldview of the “Aztek Socialist Imperium” to which Zenzontli belongs, the novel undercuts the distinction between the chronological order of events in a story and their narrative plotting. The distinction between the two formal elements is grounded in a linear organization of time that allows the reader to distinguish between the order in which the events are told and the order in which they must have occurred. The difference between plot and chronology is predicated on the notion that there is a realist understanding of time as moving forward, away from a beginning and towards an ending. Pursuant to the “cyklikal konceptions of the universe,” however, there is no linear time in the worlds of *Atomik Aztex*, and thus there is no way to reorganize the disorganized passages into a fixed chronology. There is no beginning or ending to the novel—only a beginning and ending of the physical book.

In fact, the book ends in much the same way that it begins: with a strong demonstration of indeterminacy and an undercutting of the authority of the narrative voice, whoever it may be. As I mentioned above, the text begins with Zenzontli proclaiming that he is “getting fucked in the head” and that he thinks he likes it (1). By the last page of the novel, the reader has gone back and forth through at least two narrative personae that exist in worlds alternative to one another, though it’s not clear how distinctly different they are from one another. The world of Zenzontli, Keeper of the House of the Darkness, is marked by the trappings and material goods of a counterfactual Aztek society; the world of Zenzón more closely resembles mid-century Los Angeles in

the version of reality that most readers can readily recognize. Any attempt to align or even juxtapose these worlds by the end of the novel, however, is undercut by the narrator's final proclamation that such an act is futile:

I could be mistaken. That's the trouble with one's inner life. Monkeys could be playing around with it. They'll fuck around with your stuff if you let them. You'll be looking for something in your inner life, some truth about your situation, in this world or some other level of existence somehow, then you'll have to take care of some other Business, and when you turn around, when you go back and check your inner life again, just watch, the monkeys will have fucked off with something. Some part of your interior life will fucking lost cuz of the monkeys. I don't know what you can do about that. (203)

Thus ends the novel. The text hints at the possibility of figuring out some final, firm truth such that would allow the reader—here interpolated into the story by the use of “you”—to come to resolve the text in typical novelistic fashion. But rather than being presented with a firm ending that allows the reader to look back upon the previous 202 pages through this lens, the text concludes that it could all just be the result of monkeys, real or proverbial, fucking with you. What's more, there's nothing fatalistic about this situation. The claim is not “there's nothing you can do about that,” but instead “I don't know what you can do about that.” Perhaps there is something, but the novel gives no hints.

The indeterminate ending echoes the book's beginning, building a kind of circularity befitting a world that operates on a cyclical conception of time. Such circularity undercuts the temporal framework Quijano explains is operative in colonial projects of racialization, which figure the colonial subject as naturally inferior by way of

their classification as the European past. What's more, the presence of Monkeys in the narrator's inner life comes after he evokes this very question of evolution, suggesting that he sometimes feels part monkey. Evolution is specifically referenced a few lines later, as he explains that he is "a Scientifik Monkey," and "a true believer in Aztek Socialist Sciences and Teknospiritual Advances" (202-203). These sciences and advances, he explains now "say that we are descended from primates ... [They] tell us all now that mythospasmology may simply be inaccurate Theory for the actual processes of evolution where humans, Azteks mainly, achieved preeminence in our current victorious Form. Epitomized by *me*" (203).⁷³ As Quijano explains, the colonial organization of time mobilizes evolution and ties to it a telos, represented by the colonizer. In *Atomik Aztex*, though the roles of the colonizer and colonized are flipped, the framework remains intact, demonstrating how the presumed scientific authority of evolution imbues the social organization of coloniality with the feeling of "natural" fact. Such parodic, even farcical organizations of time demonstrate the constructed-ness of historical narratives and call into question the universality of singular understandings, the ideological function of the Anthropocene.

⁷³ "Mythospasmology" could, in fact, be the "scientifik" explanation for Zenzontli's visions, alternatively called "epileptik" elsewhere in the novel. "Mytho" here referring to the deep story of the alternative world of Zenzón, meant to possibly enrich Zenzontli's life with greater meaning. "Spasm," invoking epileptic seizures; and "ology" referring to scientific practices. Thus, it is possible that this passage reveals that the alternative narrative of the Farmer John plant is a medically induced vision meant to provide meaning to Zenzontli's life in a moment when he begins questioning his role in the vast bureaucratic imperium he serves. Such a reading is supported by a passage in which "Clan Elder Ixquintli, one of the kalpulli administrators I am answerable to, who was about to, in spite of my objections, recommend me for a spot of brain surgery, Kranial Boring to release Xtra spirits from inside my head" (10). Again, while this understanding and organization of the novel is supported by the text, so too are other explanations. For example, at the end of the conversation between the Clan Elder and Zenzontli, Zenzontli remarks that the conversation he has just retold will happen later in the day and then, returning to the past tense of narration, explains that a "vision" comes over him, thereby suggesting no connection between the cranial boring and the alternative world of Farmer John (12-13). The indeterminacy once again proves the point: the novel resists primary focalizers and erects multiple possibilities with no objective position from which to compare them and deem one more true than the other.

Here, Kevin Bruyneel's work on settler mnemonics and settler memory is particularly helpful for understanding how the colonial structures of the Anthropocene work to obscure themselves through universality. Contrary to the predominant assumption that settler states are erected through a process of *forgetting* their past, Bruyneel argues that settler history is actively organized through settler mnemonics, which *aid* settler memory in the creation and continuance of the settler state. "In other words," he writes, "it's not a question of what the settler state *forgets* about its past (that it is built upon theft and a bloody extermination of peoples, for example); rather, the settler state is built upon how it actively *remembers*" ("Amnesia" 240). Bruyneel terms this concept "settler memory" which refers to how settler colonial society "habitually articulates collective knowledge of the past and present of settler colonial violence and dispossession" while at the same time disavowing "the political relevance of memory by refusing and absenting the presence of Indigenous people as contemporary agents" ("Geronimo" 5). The production of settler memory is an active process of creation rather than one of pure negation, and it is aided by what Bruyneel terms "settler mnemonics," or aids that call forth settler memory and further substantiate it. In Bruyneel's work, these mnemonics are things like holidays (such as Thanksgiving and Columbus Day, which articulate a specifically settler history) or the use of the name Geronimo as a codename for eliminating Osama Bin Laden, the United States' most-wanted enemy of the state.

In—or through—the Anthropocene, a collective knowledge of the past and present traces the array of physical disruptions to the Earth System back through Western modernity and the moment of nuclear proliferation, consumption, and fossil fuel use. At the same time, however, these memories are not seen as settler *per se*; instead, they are

offered as the product of a species' history comingling with the non-human geologic history. This effectively erases the specific forms of society and relationship that have produced the same disruptions to the Earth System that the term is meant to contain. As Malm and Hornborg point out, the production of the Anthropocene is the result of extractive global capitalism built upon the exploitation of resources—to which I would add that such resources come from colonized peoples, specifically colonized via strategies of race for access to those resources. Thus, settler presence in the Anthropocene is, in Bruyneel's words, "both there and not there at the same time, before our eyes but also disposed of active political meaning in and by the settler imaginary" ("Geronimo" 4).

A species-level understanding of the causes of the Anthropocene actively writes the lives and actions of people like Whyte's community as irrelevant; their modes of interaction and their values regarding the more-than-human world are not signaled by the "Anthro" of the Anthropocene. While in this case it is arguably a good thing not to be implicated in such a monumentally destructive affair, framing the scope of human agency as primarily Western European and settler North American attempts to eradicate (once more) those epistemologies, forms of society, and human-nature relationships that have *not* contributed to the production of the Anthropocene. Increasingly persistent calls to put aside identity politics and get down to the hard work of dealing with the disruptions of the Earth System (like Ian Angus's call to stop focus on the color of the wheel I discussed in Chapter IV), habitually authorize to the point of naturalizing, meaning that they make the contested form of society and politics unquestionable or irrelevant in the seemingly larger problem of the shift in the Earth System.

In refusing the easy translation of memory to habitual history, *Atomik Aztex*, performs a decolonial move. Bruyneel writes, “Collective memory is central to settler colonialism because among other things the production of the memory of a people in place and time *habituates* settlement, and like settlement, the work of memory in this regard is on-going” (“Geronimo” 8, my emphasis). Settlement becomes habituated through “the active imagining of recollection memory positioned in historical, even linear political time and becomes, through the repetition of the annual calendar, the habit memory of citizens as national subjects” (“Amnesia” 241). In other words, the continual practice of annual holidays like Thanksgiving and Columbus Day simultaneously remember the nation’s past by disavowing Indigenous presence (historical and contemporary) while at the same time creating a sense of national identity via participation in holiday traditions like eating turkey and shopping for Columbus Day sales (which, it should be noted, have little to do with the actual events the days commemorate) (240-241).

Bruyneel concludes that “these routine features of the annual calendar contribute to the production and maintenance of settler sovereignty by making the temporality of conquest and settlement an ordinary feature of the habit-memory of settler nations” (245). Thus, temporal constructions of linearity (through the teleological narrative of “settlement” and “civilization”) combine with the circularity of repeating calendric holidays to produce and reproduce the conditions of the settler state. As a result, the “liberal rationalist approach” (which “fancifully” imagines that uncovering the nation’s *real* history will cure the state’s “amnesia”) is ineffective (239). Such an approach “does

not see that interests and power relations are secured through a tightly structured relationship between political time and national collective memory” (239).

For Bruyneel, in line with Quijano and Mignolo, these same structures of memory can be “sites with the potential for liberation,” provided that they are sites that “refuse the self-evidence and reified status” of the settler colonial state (“Amnesia” 8, 9). In this way, the narrative structure of *Atomik Aztex* reorganizes the historical memory of the colonizer by forcing it through the pluralistic omniverse of the colonized subject. For example, the novel’s introductory note uses the canonicity of Mark Twain to signal a disruption from within, an acknowledgement of being a part of the legacy and memory of Twain’s impact on American literature while at the same time offering something fundamentally alternative to it. This same approach grounds the novel’s narrative structure, as historical events are offered out of time, out of sequence and out of linearity, never arriving at a telos and thereby refusing the basic premise of settler temporal frameworks. Just as Bruyneel explains that “the story of state sovereignty and the nation is not written in sequential chapters but rather in texts that fold on top and through each other” so that “founding moments continually reoccur in the present, not the past,” *Atomik Aztex*’s various chapters and sections fold “on top and through” one another so extensively that any firm grasp of time is fundamentally impossible. But like its invocation of Twain, this parodic use of dominant form is not offered in service of settler coloniality but rather as a simultaneous alternative to it. It is an alternative that resists from within, noting the power of “some worlds” and “stupider realities” rather than denying their existence altogether.

Speeding up the Slow Violence of Environmental Injustice

Figuring each moment as an alternate world keeps the specific injustices of each situation intact without conflating them all into a single meta-narrative. Though related as projects of colonialism, the injustices are not unified into a totalizing notion of historical progress, and this is particularly useful in articulating a critical environmental justice approach that understands injustices as systemic and institutional, rather than the product of single bad actors. The circular time that prevents delineations of past, present and future connects the daily injustices of Zenzón's work in the Farmer John pork packing plant to the more world-shattering events that tend to serve as the constellated moments of colonial memory. As a result, environmental and social injustices in the novel occur simultaneously, linked in both time and space to the coloniality of their roots. In speaking about the harms of working in the Farmer John plant, the day-in-day-out routine of long hours and double-shifts under hazardous conditions reflects the circular notion of time Zenzontli explains of his world, which is reflected in the narrative structure of the novel itself.

In doing so, the novel sutures together the dislocated causes and effects that typify environmental injustices. Laura Pulido makes a similar argument using Exide Technologies, a battery plant in the City of Vernon, the same location as the Farmer John meat packing plant. Vernon's historical development is a particularly effective example of how the slow violence of colonialism eventuates environmental injustice decades later. The City of Vernon's long-standing political corruption, leading to lax industrial regulations that the city touts as "business friendly," has produced a haven for environmental racism and injustice. Public officials for the city ran uncontested from

1980 to 2006, resulting in city officials who primarily served the interests of heavy industry. In the case of Exide, Pulido notes that the company has been operating with a temporary permit for thirty-seven years and since 2002, the company has been found guilty of environmental and health violations almost every year (Pulido 812). The violations are serious: over 110,000 local residents, eighty percent of whom are Latino, face a risk of cancer forty-four times over the legal limit (813). Because citizens of Vernon and the neighboring communities are not represented by the elected (or selected) public officials, Pulido argues that industry face no consequences for their racist decisions to pollute and injure (814).

Adding to the deep complexity of time and space, Vernon is also the site of the La Mesa Battlefield, the last military encounter of the Mexican-American war, resulting in General José María Flores's return to Mexico and the end of resistance to American advance ("La Mesa Battlefield"). Vernon is thus a site of colonial aggression, and this history carries directly through to the environmental justice rampant in the area today. After the battle of La Mesa, the area sat unincorporated until John B. Leonis arrived in 1896, persuading railroads to service the area and beginning to attract heavy industry from the East coast (Hessel 104). Soon, Owens-Illinois, Studebaker and Alcoa were operating in Vernon, and when Leonis died in 1953, he left his estate to his grandson, Leonis Malburg (104). Malburg was soon elected to the city council in 1956, serving until he became mayor in 1974, a position he held until he and his wife were convicted of conspiracy, perjury and voter fraud in 2009 (Leonard and Becerra "Vernon's Ex-Mayor").⁷⁴ In short, the single-family hold on power, made possible by a colonial

⁷⁴ This trial also uncovered that Malburg's son was sexually abusing children, and in at least one case, videotaping it for commercial purposes (Becerra, "Vernon mayor's son").

conquest, allowed and promoted gross injustices, both social and environmental. The violence of the colonial conquest in the nineteenth century slowly unfolded over the next century, eventually allowing for the social conditions and lax political environment that not only permitted, but in many cases encouraged, environmental racism and injustice.

The formal qualities of *Atomik Aztex*'s narrative collapses the distance of time, compounding colonial violence on top of environmental justice suffered in the Vernon-based Farmer John Meat Packing plant. Reflecting on the routine that is his exposure to the mentally and physically exhausting work in the plant, Zenzón notes that “This shit-stink was the stench of work, my job—odor of death, pink burnt flesh, taint of dried blood and shit settling on everything like dust, all mixed up with the photochemical smog of the city pulsing around us” (45) What's more, the smell becomes trans-corporeal: “It's in our hair and our lungs and our eyes and I have long since gotten used to it” (45). The slow violence of continued exposure through double-shifts for days on end has made the hazards insensible, in other words, even as Zenzón complains of constant coughs, “night colds” and esophagi burnt raw from the chlorine they use to disinfect the kill floor (51-52). Zenzón subsequently fantasizes about the factory and the entire city of Vernon being erased through the spectacular violence of disaster, which he sees as part of the everyday life of Los Angeles (45).⁷⁵ But Zenzón cannot will such a disaster into occurring, meaning that the cyclical injustices continue on unabated, mixing environmental and social harms:

But every Monday there it was, the blue mass of Farmer John rising above the L.A. River like a fortress anchoring a Chinese wall of fortified industry, its sheet metal and concrete arteries pumping pig blood into the vast urban sprawl—we got

⁷⁵Mike Davis expounds on this idea in “The Dialectics of Ordinary Disaster” and *Ecology of Fear*.

a clear view of it as we crossed the river on a Soto Street overpass, clouds scudding across a blue sky reflected in a river flowing without depth between broad concrete banks, the smooth surface of the water scummy with brown foam that we didn't have to imagine being partly the blood of 6,000 pigs dispatched between last Friday and today. (45)

Here, the inane normalcy of industrial animal slaughter intensifies the banality of Zenzón's daily work. Zenzón contrasts his work's environmental impact (scummy brown foam) against the more visible specters of catastrophe as he wishes for a “subterranean methane build-up, refinery explosion, fuel leak in the sewer system, nuclear terrorism, something!” (45). Thus, rather than the shocking visibility of more noteworthy forms of violence and disaster, the environmental injustices of Farmer John continue on unabated and unnoticed by the larger public.

What's more, in the narrative they are immediately connected to the *longue durée* of colonial violence. As Zenzón dreams of Vernon disappearing, his companion, 3Turkey, interrupts him by talking about the voyeuristic pleasures of watching women at a car wash organized to help the family of a person killed in a drive-by shooting. Then, to change the subject, Zenzón asks 3Turkey about his plans to join an “armed American Indian Movement standoff against the federal marshals,” should he be able to find one (45). This passage ties together environmental degradation, the unequal distribution of environmental harms, the slow violence of environmental racism, the spectacle of L.A.'s ordinary disasters, animal cruelty, gun violence, and solidarity with resistance movements against settler colonial violence. Through the novel's free movement through time and space, confusing the narrative voice of Zenzontli and Zenzón through traces of

stylistic spellings (“epidemix,” for example,) the novel collapses the distance between colonial brutality normally rendered as past and the more current forms of violence—normally rendered as invisible—that operate in their wake.

This violence and injury are constantly recurring, translating the repetition of daily labor into “cyklical konceptions” of Aztek time. As Zenzontli finishes a graveyard shift only to note the light of day that signals his next shift, beginning and ending have become confused and disoriented about the supposed “end” of their nightly shift:

Except it wasn't the end. [...] Esophagus tracts raw from chlorine, we couldn't even smell the pall of pig shit, smoke flavoring, sodium nitrates, nitrites, carbon dioxide & blood floating over the whole plant. The sky might already be lightening, backlit that cool electric blue beyond the streetlights and halogen spots on smokestacks or rooftop walkways, and even as they talked about other things, I'd hear them thinking, this is the absolute shit. This is how the real shit begins. It starts all over again. (52)

The circular time prevents clear delineations of past, present and future, and it renders Zenzón's daily experiences of environmental and social injustice in the Farmer John slaughter house in the same light as the more world-shattering events that tend to serve as the constellated stars of dominant historical narratives referenced extensively by Zenzontli. As a result, environmental and social injustices in the novel occur simultaneously; they are linked in both time and space, collapsing the distance between event and effect that produces the representational challenges from the slow violence of environmental racism and colonialism.

The novel thereby deconstructs time and its ideological impacts by collapsing past and future on top of one another, simultaneously referencing historical roots while evoking counterfactuals to dismantle historical narratives even as it creates them. The effect of this is particularly useful for interrogating the Anthropocene and understanding its potential as a settler mnemonic. The collapsed time and confused focalization in the novel closes down the distance between historical actions and current social conditions. As scholars of environmental justice have demonstrated, the unbridgeable distance between the time and place of the injustice's genesis and the time and place of the injustice's perceptible manifestations produces both legal and conceptual stumbling blocks for theorizing and attaining justice. Because of their disjointed temporal and geographical causes and effects, attaining retribution for—or even recognition of—environmental injustices proves difficult.

In the Anthropocene violence unfolds in geologic time. In moving specific forms of human action into a supposedly universal geologic realm, the Anthropocene can in fact cover the traces of its origins even as its impacts—disrupted nitrogen cycles, global climate change primary among them—slowly become more pronounced. Achieving environmental justice requires more than just recognizing the harm done to certain individuals in certain places; it requires the ability to understand the social conditions that have developed to make such harms a possibility.

By removing temporal linearity, chronology becomes dismantled and so, too, does the slowness of the violence. Events and impacts are not so separated in the novel that they appear unrelated; rather, they are directly linked. The same occurs with spatial difference, which as I discussed in Chapter III, Laura Pulido argues need to be rethought

in order to secure a more just form of justice. *Atomik Aztex* collapses the boundaries by moving fluidly from place to place as alternate worlds. The simultaneous presence of multiple worlds and times turns the insensible *slow* violence into violence: it makes the historical processes that produce the injustice and the otherwise delayed effects of that violence inextricably and immediately connected.

Other Novels of the Anthropocene

Returning once more to Kate Marshall, I end by considering how *Atomik Aztex* forces an alternative construction of the archive of Anthropocene novels. Marshall notes that “a growing body of literary fiction published in this decade understands itself within epochal, geologic time and includes that form of time within its larger formal operations” (524). Marshall’s analysis turns to novels that she contends are “located firmly within the strata and sediment of the Anthropocene,” meaning that the novels she investigates are particularly interested in sedimentary and geologic formations while also taking part in a self-awareness endemic to the epoch (524). Because *Atomik Aztex* does not have the specific sedimentary interests of Marshall’s archive, it effectively provides an alternative method of thinking about the Anthropocene: rather than considering the Anthropocene only as a distinct epoch evidenced by stratigraphic layers or observable shifts in the Earth system, *Atomik Aztex* lays bare the Anthropocene’s cultural and conceptual veins.

As I have noted throughout the dissertation, I understand the Anthropocene not just as a temporal epoch, but as a condition. Specifically, it is the condition of settler colonial environmental racism becoming both planetary and global in its effects. As a term offered to mark a planetary change in Earth system functioning, the Anthropocene

refers to physical changes as the result of human activity. This human activity, however, is not universal to the species. Thus, the tacit suggestion of the “Anthro” that it *is* a reference to a species is, as social scientists Andreas Malm and Alf Hornborg point out, an ideological tool: “Insofar as it occludes the historical origins of global warming and sinks the fossil economy into unalterable conditions, ‘the Anthropocene’ is an ideology” (67). Malm and Hornborg go on to explain that this is not the result of malicious intent on behalf of ignorant scientists, but more the product of the field of natural science dominating the discussion thus far. Questions of race, colonialism and ideology are not typically taken up by natural scientists, and thus humanists and social scientists must enter the conversation to build out approaches to the concept and epoch. Rather than the product of an entire species, Malm and Hornborg explain that climate change has “arisen as a result of temporally fluid social relations as they materialize through the rest of nature,” and therefore one cannot “write off divisions between human beings as immaterial to the broader picture, for such division have been an integral part of fossil fuel combustion in the first place” (66).⁷⁶ This has its roots, in part, in racial projects and racial formation. Charles Mills, for example, explains that erecting societal structures that justify the environmental mistreatment of certain groups of people is predicated on the idea that those people are understood to matter less by way of being made less human, a sentiment that Aníbal Quijano also articulates (74-75). Mills further explains that the category of whiteness represents what it means to be human and be afforded rights (76).

⁷⁶ Malm and Hornborg here focus on the unequal distribution of fossil fuels, following the argument that the Anthropocene began with the internal combustion engine and the subsequent transition to fossil fuels. On August 29, 2016, the Anthropocene Working Group made an official recommendation for the epoch citing the origin point as proliferation of radioactive elements following the nuclear age beginning in the mid-twentieth century. Though this is not a universally accepted narrative, it does stray from Malm and Hornborg’s analysis. Nonetheless, their central critique remains true – perhaps even more so. If fossil fuel use was unevenly distributed across social groups, nuclear power and atomic weaponry are all the more so.

Thus, thinking of climate change and the Anthropocene as a universally “human” product is limiting the focus of one’s understanding of “Anthro” to Western society or whiteness, thereby perpetrating the same racist foundations that have produced the environmental problems from their beginning.

Atomik Aztex, like all of the novels I've discussed, is thus a novel of the Anthropocene because it engages settler colonial history to demonstrate how the concept of historic and geologic time is organized pursuant to a dominant system of thought in service of a specific ideology born of coloniality, White supremacy, and eurocentrism. The novel allows us to further theorize the Anthropocene as a settler colonial construct that requires those using and mobilizing the concept do so with the full weight of colonialism (and its racial strategies) as the term’s proper referent.

CHAPTER VI

CODA: POST-HOLOCENE, POST-TRUTH

GINGRICH: [...] The Average American, I will bet you this morning, does not think crime is down, does not think they are safer.

CAMEROTA: But we are safer, and it is down.

GINGRICH: No, that's your view.

CAMEROTA: It's a fact.

GINGRICH: I just -- no. But what I said is also a fact. The average American feels -- when you can walk into a nightclub and get killed, when you can go to a party in a county government building and get killed, people don't think that their government is protecting them. When you have Baltimore, when you have policemen ambushed in Dallas -- your view, I understand your view. The current view is that liberals have a whole set of statistics which theoretically may be right, but it's not where human beings are. People are frightened [...]

CAMEROTA: [...] But what you're saying is -- but hold on, Mr. Speaker, because you're saying liberals use these numbers, they use this sort of magic math. This is the FBI statistics. They're not a liberal organization.

GINGRICH: No, but what I said is equally true. People feel it.

CAMEROTA: They feel it, yes, but the facts don't support it.

GINGRICH: As a political candidate, I'll go with how people feel and I'll let you go with the theoreticians.

Former Speaker of the House Newt Gingrich and CNN reporter Alisyn Camerota after Donald Trump's acceptance speech for the Republican nomination for President at the Republican National Convention, July 22, 2016

In the exchange above, Speaker of the House Newt Gingrich's imagines himself and the "average American" living in a country under siege. Despite the fact that the rates of both violent and non-violent crime were down in the United States at the time of the remark, Gingrich justifies racist fears through in quick succession which prognostication

becomes feeling, feeling serves as irrefutable fact, verifiable facts are dismissed as personal “views,” and the use of facts at all is categorically cast aside as an unwise, losing strategy for attaining political power. This fluid interchange between fact, view and feeling signifies what has become popularly known as the “post-truth” era, in which imagined fictions of the world are used to repeatedly deny empirical reality. In addition to justifying Trump's political penchant for demonizing certain populations for political expediency, the political right in the U.S. has also used post-truth politics to disregard scientific fact about environmental problems and their social impacts. Perhaps unsurprisingly, these problems continue to worsen as they are routinely denied, becoming more ingrained and more intractable as they are made to be more invisible.

The post-truth era, racism, settler colonialism and the environmental degradation that has instantiated the Anthropocene are deeply interwoven and causally related. The presidential campaign and ensuing nascent presidency of Donald Trump provide a particularly clear set of examples. In Gingrich’s defense of President Trump’s bleak view of the United States as place of crime and violence, Gingrich uses a long-standing tactic of dog whistle politics that foment racist fears without ever talking about race directly.⁷⁷ Gingrich’s oblique references to crime in Baltimore, Dallas, a party at a government building and a nightclub focus solely on the acts of people and communities of color. The city of Baltimore, for instance, saw widespread civil unrest following the death of Freddie Gray, an African American man who died from a spinal cord injury while in police custody. Gray’s death followed a string of African American deaths at the hands of police around the country, each mobilizing the Black Lives Matter movement to bring attention to the racial bias—often deadly—of law enforcement. However, Gingrich’s

⁷⁷ See Haney-López, Ian. *Dog Whistle Politics*

evocation of “Baltimore” in relation to crime is most certainly meant to reference the ensuing uprising and protest of the African American community, *not* the violence or crime of Gray’s death.⁷⁸ Suggesting “Baltimore” as a reason for people to feel scared subsequently invites connections between the African American community and an imagined ever-present sense of crime and criminality. Similarly the reference to “Dallas” obliquely refers to African American Micah Xavier Johnson’s killing of five police officers during a march to protest the deaths of Alton Sterling and Philando Castile, both African American men killed in police custody. The evocation of the “night club” is a reference to the shooting in an Orlando LGBT club by Omar Mateen, an American-born man from Afghani immigrant parents. The “party in a county government building” is a reference to a shooting in San Bernadino, in which Syed Farook and Tashfeen Malik killed fourteen and injured twenty-two at a government-funded public health building.

The deaths of police officers, the shooting of public health employees and the hate-crime attack on the Pulse nightclub are unconscionable and indefensible. Yet Gingrich has chosen to constellate these specific instances of violence, all of which were carried out by people of color, without any other mention of violence carried out by individuals who are not people of color. It’s not the case that such instances were unavailable as examples. Just a few months before, Robert Dear, a White man, killed three people at a Planned Parenthood in Colorado Springs. Dylan Roof, a White man, killed nine people in the Emanuel African Methodist Episcopal Church in Charleston. But by focusing solely and exclusively on African Americans and Muslim Americans, Gingrich associates these people and these communities with a narrative of crime

⁷⁸ The officers involved in Gray’s death were not found guilty; thus, technically, there was no crime. Therefore, Gingrich’s evocation of crime in Baltimore is not referencing the violence upon Gray that led to his death.

sweeping the nation, even in the face of data that shows that such instances are aberrational, neither representative of these peoples' communities nor the state of crime in the United States.

The same denial of facts and empirical reality also undergirds the Trump administration's actions and statements on environmental issues. The most glaring example comes from the denial of the reality of climate change, which scientists have repeatedly substantiated, consistently warning of its disproportional impact on poor and Indigenous communities. President Trump has repeatedly tweeted that global warming is "an expensive hoax" (Dec 6, 2013), "bullshit" (Jan 28, 2014; Jan 1, 2014) and a concept that "was created by and for the Chinese in order to make U.S. manufacturing non-competitive" (Nov. 6, 2012). Such proclamations are never backed with any evidence, and they willfully disregard overwhelming evidence to the contrary.

Other examples abound, and they highlight the interaction between racism, settler colonialism and environmental degradation, especially when they are carried out with a blatant disregard for empirical facts about risk and impact:⁷⁹ On February 14, 2017, President Trump officially voided the "Cardin-Luger amendment," a rule established during President Obama's presidency meant to increase transparency and limit corruption by requiring corporations in extractive industries to disclose any and all payments made to foreign governments. Repealing the law effectively allows backroom deals between oil companies and corrupt governments, paving the way for further social and environmental

⁷⁹ The Trump administration is by no means unique in misleading the public, lying and perpetrating acts of environmental racism and settler colonialism. In fact, these are foundational practices of the United States. If Trump had lost the election, my general argument about the relationship between racism, settler colonialism and the environmental degradation would still stand. I continue to highlight the Trump administration's actions, however, because they are the most recent and, in many ways, the most clear examples of willfully disregarding empirical fact in favor of alternative realities that justify State violence and an abdication of responsibility for social and environmental wellbeing.

harm in oil-rich nations with horrendous track records of human rights violations against Indigenous communities.⁸⁰ On February 17, 2017, President Trump signed a bill that repeals the Office of Surface Mining’s Stream Protection Rule, which sought to protect waterways from coal mining waste.⁸¹ The regulation used new scientific assessments of mining’s impact to update the previous assessments from three decades prior, well out of date with current mining operations and technology. This also disproportionately impacts Indigenous communities and communities of color. For example, the immediate and long term impacts of coal mining operations have ravaged traditional ways of life, individual health and the ecosystems of the Hopi and Navajo people for decades (Hall 49). Further repealing regulations all but ensures an intensification of these processes.

President Trump has also signed an executive order that specifically revived construction on the North Dakota Access Pipeline, granting an easement to Energy Transfer Partners and suspending the need to conduct a previously mandated environmental impact statement.⁸² The pipeline goes through the un-ceded territory of the Standing Rock Sioux and thus violates tribal sovereignty as well as threatens their main source of water in the event of a spill. Moreover, the oil transported through the pipeline is certain to increase greenhouse gas emissions and further exacerbate catastrophic

⁸⁰ Fossil Fuel giant ExxonMobil lobbied heavily to repeal this rule, led by their then-CEO Rex Tillerson. Tillerson now serves as Trump’s appointed Secretary of State.

⁸¹ This came days after Trump’s appointment of Scott Pruitt to head the Environmental Protection Agency. Pruitt has long been an ally to coal mining interests and, as Attorney General for Oklahoma, sued the EPA numerous times to slacken regulations on coal mining. Prior to being chosen to head the agency, Pruitt touted himself as “a leading advocate against the EPA’s activist agenda” (Mooney et al).

⁸² President Trump has previously invested in Energy Transfer Partners, which contributed five million dollars to former Texas Governor Rick Perry’s presidential bid. Perry served on Energy Transfer’s Board of Directors since leaving public office in 2015. He now leads the Department of Energy, appointed by President Trump. During Perry’s failed presidential campaign, he promised to eliminate entirely the Department of Energy. He then forgot the name and existence of the department during a national debate in which he attempted to promise closing government agencies.

climate change, the effects of which are already unequally impacting Indigenous communities in Alaska, Louisiana, and the rest of the world.⁸³

In all of these cases, the politics of the post-truth era willfully ignore documented social and environmental injustices, often using what Trump spokesperson Kellyanne Conway termed “alternative facts” as a way of rationalizing the administration’s calls for reducing civil liberties and promoting deregulation. In a time when such empirical realities are routinely denied, what recourse do those concerned about social and environmental degradation have for combatting the outright denial of fact? I answer with a question from Chris Jaynes in *Pym*: “In this age when reality is built on big lies, what better place for truth than fiction?” (4).

Throughout the dissertation, I have argued that the formal components of literature and cultural production can serve as an effective means of running contrary to society’s operating (il)logics. As I’ve shown, imaginative works of cultural representations can use insensible realism to reveal and resist the interwoven strategies of racism, settler colonialism, and environmental degradation, making them visible in a way that runs counter to dominant culture’s attempts to rationalize and justify them.

In the face of such an open disregard—and in some cases open contempt—for the work of scientists and scholars, the natural sciences become all the more crucial for documenting the changes to the Earth system during the Anthropocene. At the same time, as it becomes increasingly normal and permissible to deny empirical fact and the lived realities of injustice, the work of cultural production will become increasingly important. The humanities and cultural producers have a unique role to play in a culture that so readily disregards empirical fact in favor of compelling narratives: they can mobilize the

⁸³ See, For example, the 2014 U.S. Global Change Research Program, Chapin et al: “Ch. 22: Alaska.”

theories and data that ground a critical environmental justice perspective through the same mechanisms that the political right in the United States has used to justify racist, settler colonial environmental degradation.

In this way, the current political moment echoes the calls and opportunities first offered by women of color feminists in response to neoliberalism and postmodern global capitalism, both of which have exacerbated the ecological and social crises that make up the Anthropocene. Fifteen years before David Pellow argues that the lives and experiences of non-White minorities and marginalized communities are essential for attaining environmental justice, Chela Sandoval makes a similar argument referring to postmodernism, claiming that “the survival skills, theories, methods, and utopian visions of the marginal [are] not just useful but imperative” in forming what she calls “oppositional consciousness”(26).

Here, Sandoval engages Frederick Jameson’s framing of postmodernism to argue that the uniquely postmodern disorientation, fragmentation, and lost capacity to “act and struggle” is only representative of a “new” moment and aesthetic for the “formerly centered and legitimated bourgeois citizen-subject of the first world (once anchored in a secure haven of self)” (26). However, Sandoval points out such crises “under the imperatives of late-capitalist social conditions” are certainly not new for the “historically decentered citizen-subject,” which includes “the colonized, the outsider, the queer, the subaltern, the marginalized” (26). A similar sharing of experiences is underway in the Anthropocene.

Given that the environmental disruption of the Anthropocene alters the very Earth system that provides the foundations for all life on the planet, there is no longer any space

from which a privileged group can entirely escape the impacts of something like climate change. As Ulrich Beck writes, the global risks of climate change “tear down national boundaries and jumble together the native with the foreign. The distant other is becoming the inclusive other” (331). While the impacts will remain disproportionately burdensome on already marginalized communities, the safe position of the “centered and legitimated bourgeois citizen-subject of the first world” is threatened by the repercussions of the very processes by which these subjects became centered and legitimated.

This is not to say, however, that theorization of an alternative politics alone will solve the material injuries that the Anthropocene and post-truth politics produce. This, too, echoes previous theory. Where Sandoval sees poststructuralist, postmodern theory as “decolonizing in nature” as a result of its new reliance on the “methodologies of the oppressed,” Paula Moya is more dubious of postmodernism’s inherent decolonial potential because of its primary focus on the discursive realm (Sandoval 10). Instead, Moya works to refine Sandoval’s argument by grounding decolonial methodologies and understandings of identity in a “realist theoretical framework,” which I argue is crucial to the ensuing epoch of the Anthropocene (Moya 18). Urging a concentration on the real, Moya agrees extends Sandoval’s assessment that the methodology of the oppressed—what Moya clarifies as women of color feminism—is necessary in a time when “the world’s disparate economies become increasingly linked through the circuits of global capitalism, and as previously distant societies are brought closer together by rapidly developing technological advances in both communication and travel” (85). In the Anthropocene, such frequent confrontations with “[earth’s citizens’] own and others’ ‘otherness’” becomes all the more prevalent.

The epoch is marked by porous boundaries (biological, geological, geographical and cultural among others) that intensify the kind of close contact Moya and Sandoval describe as endemic to postmodernism. Regarding the collapsed distances of cultures, global climate change will continue to produce climate-induced migration, as heretofore peripheral societies move away from uninhabitable environments and move towards the centers of wealth and capital that have a better capacity to withstand the ensuing changes to how life functions.⁸⁴ Similarly, habitable environments for plants and animals will contract and move, bringing species' ranges into new geographical areas and thus facilitating new or intensified contact with other species, including humans. Already, such human migrations have caused anti-immigrant action and speech, evident in the British exit from the European Union and the election of Donald Trump via a campaign that fomented racial fear through far-right and white supremacist informational channels.

Moya's conclusion, then, is all the more prescient: "As it becomes increasingly difficult for different kinds of people to remain separate, it becomes more and more important for everyone to learn the skills involved in acknowledging, negotiating, accommodating, celebrating, and, in some cases, transcending difference" (85). Agreeing with Sandoval's assessment, Moya points out that "women of color, for some time now, have been perfecting these very skills" (85). Thus, in the Anthropocene, it will become increasingly important to look to the strategies of resilience from marginalized communities, many of which have been subsequently theorized in women of color feminism, material feminism, environmental justice scholarship, Indigenous philosophy, and settler colonial studies.

⁸⁴ See, for example, the Intergovernmental Panel on Climate Change's fifth assessment report, part two; and the "Stern Review: The Economics of Climate Change," chapters 3-5.

This also requires attending to the literary and cultural productions of women of color. This dissertation has lacked a sustained focus on gender as a constitutive part of racial, settler colonial, and environmental degradation. It has also not given the necessary attention to the strategies of resilience, response and alternative forms of commitment that women of color produce creatively. As Pellow notes, critical environmental justice studies must take into consideration gender's intersection with other forms of social and environmental categories. Thus, moving forward, that will become a requisite area of expansion and analysis for this project.

There are numerous works of cultural representation that can expand this dissertation's arguments about race and settler colonialism in the Anthropocene. For example, visual artist and sculptor Kara Walker's "A Subtlety, or the Marvelous Sugar Baby" (2014) transformed the environment of a closed Domino Sugar plant in Brooklyn into an art space that drew attention to sexual violence and abuse through the sugar industry. Similarly, novelists Karen Tei Yamashita (*Through the Arc of the Rainforest*, 1990 and *Tropic of Orange*, 1997; Helena María Viramontes (*Under the Feet of Jesus*, 1995 and *Their Dogs Came with Them*, 2007); Linda Hogan (*Solar Storms*, 1994); and Louise Erdrich (*The Plague of Doves*, 2008) all use literary form and genre to engage the material commitments of environmental justice and its impact on women. Women, especially women of color, have been foundational to the theorization and practice of Environmental Justice since its inception, and it simply makes sense that their cultural productions have much to offer in terms of navigating the insensible.

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