Human/Nature: American Literary Naturalism and the Anthropocene

At some point in 1893, not long before Frederick Jackson Turner rang the death knell of the American frontier, Frank Norris learned of what we now call the Anthropocene.

In a Berkeley lecture hall—probably among the wood panels of South Hall, then home to the geology department, and probably fidgeting, if tales of his woeful scholarship are to be believed—he would have sat listening to his favorite professor Joseph LeConte elaborate his theory of a human-centered unit of geologic time. He might also have been following along in one of the two consecutive geology textbooks, *Elements of Geology* (1877) and *A Compend of Geology* (1884), that “Uncle Joe” (as his students called him) released and re-released in the years leading up to Norris’s course (Lester, [citation from chapter 2]). In either case, he would have found an account of geologic time capped with an “age of man,” defined by the “reign of mind” in place of the brute ferocity that had reigned till then (LeConte *Elements* 586): the “Psychozoic Era,” one of several theories of the era that sought to define humanity’s place in geologic time and as a geologic force, a schema in which the mind becomes an ethereal stratum governing the sedimentary material that is the more traditional subject of stratigraphy.

In some senses, what Norris heard in the lecture might have resembled Turner’s impending frontier thesis, for whether one defined it as a garden of paradise or as a wilderness “red in tooth and claw,” both theories announced the conclusion of “nature.” The conditions of the frontier, in which “wilderness masters the colonist” and “the environment is at first too strong for the man,” could not coexist with a planetary state defined by human mastery (#). But if LeConte’s lecture followed his textbooks, what Norris heard would also have resembled contemporary theories of the Anthropocene, the proposal almost 125 years later for nearly the same thing, a geological epoch defined by human activity. LeConte:

The Quaternary, and, indeed, all previous ages, were reigns of *brute force* and *animal ferocity*. A condition of things prevailed which was inconsistent with the supremacy of man. The age of man, on the contrary, is characterized by the *reign of mind*. Therefore, as was necessary, the dangerous animals decreased in size and number, and the useful animals and plants were introduced, or else preserved by man. (LeConte *Elements* 586)

Although in length of time this is not to be compared to an era, nor to an age, nor to a period, nor even to an epoch, yet it deserves to be made one of the primary divisions of time, not only on account of the dignity of man, but also, and mainly, because through his agency there is now going on in organic forms a change as sweeping as any which has ever taken place. This change has been going on ever since the introduction of man, and is going on now, but will not be complete until civilized man occupies the whole earth. (LeConte *Compend* 381)

LeConte’s theory reaches even further than the contemporary theory of the Anthropocene: where the latter is a mere epoch, the former announces an era. And unlike most formulations of the Anthropocene, LeConte proposes his Psychozoic Era with an apparent sense of approval, contrasting the orderliness of human-controlled spaces with the “*brute force* and *animal ferocity*” that reigns when nature is allowed to take its own course. Nevertheless, it anticipates the Anthropocene in its recognition that humanity’s impact on the life systems of the planet has expanded to a scale unaccountable except in geologic terms, that despite the temporal insignificance of humanity in comparison to eras and even epochs, the potency of the human force is as great as any that has come before it or coexists with it.

Six years or so after studying with LeConte, Norris would publish the masterpiece of American literary naturalism, *The Octopus*. His novel is hardly a vehicle for LeConte’s theory of nature or any other—though, as I will show, it most nearly anticipates Jason W. Moore’s theory of the “Capitalocene”—but it is clear that LeConte’s well documented influence on Norris’s fiction includes the theory of the Psychozoic Era. Beneath the human dramas of freight rates, predatory landlords, and sputtering revolutions is the drama of the human supplanting the natural: the brutal intercourse of a mechanized and unified humanity with the “panting” Mother Earth conceives the monster of the Wheat, a resistless cyborg that sweeps over the planet, a force as human as it is nature, and one that leaves only exhausted stubble in its wake (#). Where many critics have seen a romance of human nature, there is also a tragedy of human/nature.

What is true of Norris is true of many of naturalism’s major authors. Jack London’s late agricultural novels attend to the impoverishment of the soil by industrialized farming practices, framing this development not as a temporary or incidental occurrence but as the expression of an inborn species trait. His “Anthropos,” which he problematically gives the visage of whiteness, is thus defined by pervasive environmental despoliation and ruinous population growth, a process that his essays and plays extend to the scale of the planet. London’s papers are filled with clippings on sustainable farming practices and projections of planet-wide despoliation from various scientific, journalistic, and government publications, a scientific and agricultural background to his own extrapolative imagination; and though not influenced to the same extent as Norris, London was at least aware of LeConte to a great enough extent to mention him by name in *Martin Eden* (#). Charlotte Perkins Gilman depicted a world-in-miniature in *Herland*, in which the all-female human residents assumed absolute control over the organization, composition, and interactions of non-human and human life. Humanity’s ubiquitous influence on the planet in this schema has the potential to be pernicious and lead to ruination, as is generally implied by invocations of the Anthropocene today; but it is not the case in *Herland* because they have grown into a wiser and more knowledgeable species. Again the human species is the measure of environmental possibilities and futures, an association that ultimately links Gilman’s environmental thinking with her troubling support of eugenics. In the background of this dubious environmental ethos is Lester F. Ward, best known now as the father of modern sociology but then an influential biologist and paleogeologist who likewise linked the future evolution of humanity with planetary environmental transformation.

In contrast to these universalizing—and generally (if differently) racist—accounts of human/nature, Charles W. Chesnutt understands that the universal “human” conjured by the notion of a human-centered geological epoch is more accurately a composite of vastly different naturecultures (to borrow a phrase from Haraway), that exist regionally and defy expected stratifications of race, class, and social status; and yet the emergence of regional difference is threatened by the homogenizing force of plantation capitalism, a social and ecological monoculture that creates profit out of universalization. Despite his interest in Darwinian evolutionary theory, Chesnutt has not been read as a naturalist until recently, with some scholars placing him at the center of a growing conception of “black naturalism” that recognizes the hand of the (usually white, usually rich) human in the supposedly “natural” conditions determining the fortunes of the poor and especially people of color. Understanding his depiction of this co-determinative, multifaceted relationship to nature—and crucially, the ways that relationship was being negotiated and renegotiated across different communities and environments—helps place Chesnutt in the context of a newly nature-focused conception of naturalism.

The purpose of this dissertation is to develop a such conception of naturalism’s environmental thinking by placing it in the global scientific context of what I will call the “proto-Anthropocene”: a cluster of related theories of the human-nature relationship that figure humanity per seas a newly powerful geologic force determining the shape of the entire non-human environment, beginning with George Perkins Marsh’s *Man and Nature* in 1864 and capped by Vladimir Vernadsky, Pierre Tielhard de Chardin, and Edouárd LeRoy’s theory of the Nöosphere in 1923. The naturalist conception of humanity’s impact on nature is best understood in the context of these theories, but that is not to say that the response is univocal. The authors discussed in the following chapters are unified not by a single answer but a shared set of questions deriving from a common premise, a recognition of the scale of humanity’s determinative influence on the planetary environment. The diversity of their responses anticipates the same diversity of responses to the Anthropocene in the 21st century, with differing representations of both the causes—humanness per se versus capitalism, for example—and the nature of the effects: whether humanity’s geological status is an apotheosis to be celebrated or a ruinous trend run out of control. The proto-Anthropocene thinkers to whom their responses are most indebted include figures whose influence is generally acknowledged in naturalist criticism but is read in different terms: Joseph Le Conte, discussed above; Lester F. Ward, an important early sociologist; [and Herbert Spencer?]. Especially where sustainable agriculture is involved, the authors discussed below also engage with the nascent conservation movement and the maturing science of ecology.

**Naturalism and Human/Nature: Redefining a Genre**

There is a potential problem with this understanding of naturalism, one that will not have escaped those versed in the ongoing critical conversation around literary naturalism: to say that this genre is partially defined by its attention to the pervasive impacts of human activity on non-human nature is to assert the exact inverse of the human-nature relationship normally ascribed to it. Naturalist determinism is usually represented as a unidirectional determination of human nature and consciousness by environmental conditions, tracing the losing struggle of internal forces against external ones that leads to a “plot of decline” as protagonists degenerate into primitive immorality or atavistic bestiality.[[1]](#footnote-1) The Anthropocene and proto-Anthropocene alike propose that such a relationship has been reversed, and that the human is now the overriding environmental force determining all others. If naturalists admit such a high degree of determinative human influence on nature, the terms of the naturalist conversation are not yet expansive enough to account for it.

In fact, the terms of the naturalist conversation as they have been traditionally constituted are hardly capable of describing any engagement with non-human nature whatsoever, leading to a common conception—as I will argue, *mis*conception—of the genre as primarily urban and only concerned with biology as an explanation of human social dynamics. Naturalism has often been taken as a lesser cousin of realism, beginning with V. L. Parrington’s enduring designation of the genre as merely “pessimistic realism.” This sense of pessimism has often been directly connected to a definition of the genre by the philosophy of determinism mentioned briefly above: the naturalist character is not an agentive consciousness so much as a nexus for warring, external forces. Charles Walcutt, in *American Literary Naturalism: A Divided Stream* (1956),would argue that Parrington only told half the story, and that the philosophy of pessimistic determinism was counterposed by an equally powerful belief in political and social progress. A decade later, Donald Pizer, an institution of realist and naturalist criticism in his own right, would refuse to define the genre according to any “philosophical coherence” in either a pessimistic or optimistic direction, opting instead for a coherence based on “material and method,” and often the conflict between the two (qtd. in Newlin 4). Even through the eighties and nineties, despite a booming critical trade in theories of naturalism, non-human nature as an object of study is nowhere to be found.

There is room for objection to my characterization of the naturalist conversation: after all, it is a commonplace of naturalist criticism to assert that the genre is defined by an exploration the changing relationship between humanity and nature in the post-Darwinian moment of scientific rationality: as Jennifer Fleissner’s puts it in *Women, Compulsion, Modernity* (to pick just one influential example), “the changing status of ‘nature’ in human life” (cf. Fleissner #, OUP handbooks sources). But this statement and the “redefinition” it promises are generally followed studies primarily of *human* nature as it is depicted in naturalism, with non-human nature being left by the wayside. In a recent collection surveying the state of naturalist criticism, *The Oxford Handbook of American Literary Naturalism* (2011), Eric Carl Link frames naturalists as those authors “who engage, at the thematic level, post-Darwinian reconsiderations of the relationship between humans and nature,” but this ultimately entails a naturalized sense of social laws, atavism, and degeneration, all on an essentially human level (#). In the same volume, Bert Bender begins his discussion of “nature in naturalism” by equating the “idea of studying the human’s place in nature” in naturalism’s scientific context with “study[ing] human nature as a branch of Darwinian natural history” (53). Innumerable other studies frame the discussion in much the same way, and in many senses, they are right to: it would be preposterous to suggest that human nature and a post-Darwinian sense of the human do not play a constitutive role in defining naturalism. At the same time, this unremitting focus on nature-in-humanity, in the form of a kind of primitivism or animality, has largely eclipsed the question of humanity-in-nature, which in the era between industrialization and the Great Acceleration was shifting rapidly and portentously to become the planetary force it is today.

More recent scholarship has begun attending to depictions of non-human nature in naturalist novels, almost enough to constitute an ecocritical turn in naturalism studies—and this new moment of naturalism studies often trouble or at least complicate our understanding of the genre’s supposed unidirectional determinism. Cara Elana Erdheim, pointing out Theodore Dreiser’s interest in and intellectual debt to Ernst Haeckel (coiner of the term “ecology”), devotes an article to “[l]ocating…ecological systems within the industrial landscapes” of Dreiser’s *An American Tragedy* and several other short pieces, uncovering a commitment to the preservation of waterways and his depiction of wealth as a matter of appropriating and transforming natural space (9). Recognizing the place of non-human nature in Dreiser’s work leads her to reconsider the “dualistic determinisms” traditionally ascribed to literary naturalism.[[2]](#footnote-2) Reading *The Octopus* and *The Grapes of Wrath*, Florian Freitag has argued persuasively that the defining environment of the naturalist novel may not be the city at all, but rather, the farm. He connects the major definitions of the naturalist novel to the tendencies of the farm novel: V. L. Parrington’s definition of naturalism as “pessimistic realism” to attempts by Hamlin Garland and others to burst the idyllic picture of rural life; the definition of naturalism as a deterministic genre defined by repetitions (cf. Mitchell) to the repetitions of natural agricultural cycles; and Donald Pizer’s naturalist sub-genre of the “group defeat” story, in which social movements are thwarted by corporations and institutions run out of control, to the financial traps of incentivization and foreclosure that appear again and again in the farm novel. Paul Formisano has read *Herland* and *The Octopus* in terms of a broader context of transformations in California’s ecology around the turn of the twentieth century, in the former case attending to Gilman’s reorganization of natural environments as a form of “land eugenics” and in the latter placing Frank Norris’s depiction of wheat distribution and production in the context of imperialist narratives of the American West. Attending to one of the most widely discussed wings of recent ecocriticism, Kevin Trumpeter finds a natural affinity between naturalist determinism’s deemphasis of unbounded human agency and the New Materialism’s attempt to extend agency beyond the human and even to inanimate matter.

The Anthropocene has remained largely absent from this conversation until now, however. One explanation is the apparent anachronism of taking a concept coined in the twenty-first century to understand a geological epoch beginning in the middle of the twentieth century to read a genre usually understood to be at its height between 1890 and 1915. Anthropocene studies of the Romantic and Victorian eras have proceeded by taking a longer view of the Anthropocene than the one prescribed by the stratigraphers union and relating their texts to major figures in nineteenth-century geology such as Charles Lyell.[[3]](#footnote-3) The former move is justified by the strict standards of stratigraphic evidence required to assert a new epoch geologically—the so-called “golden spike” in the geological record, a clear footprint caused by human activity—and the range of possible alternative start-points for the Anthropocene that might be more historically descriptive, ranging as far back as the industrial revolution or even the invention of agriculture. The close tie between geology and narrative in the moment of Lyell has created an opening for a field of literary study newly interested in geology, attending to the narrativization of natural processes and the different forms of agency depicted therein.[[4]](#footnote-4) Broadly speaking, these studies use a twenty-first-century consciousness of a human-geologic epoch to reread periods of environmental and scientific change in a new light.

Though it builds on the foundation of this body of work on literature and the Anthropocene, this study differs slightly in its approach: I reread American literary naturalism in terms of the contemporary theory of the Anthropocene, yes, but most directly through the lens of the proto-Anthropocene theories of humanity-as-force with which naturalist authors were directly engaged. Though I recast this context in terms of contemporary Anthropocene discourse—via the four terms Anthropos, Capitalocene, good Anthropocene, and Plantationocene—I intend to assert the commonalities between the proto-Anthropocene and the Anthropocene without letting the contemporary elide the specificity of the range of human-nature formulations that defined the period of American literary naturalism. Methodologically, then, I join what has recently been termed the “strategic presentism” of other literary studies of the Anthropocene, which recognizes the critical (and especially ecocritical) utility of collapsing the time between distinct historical periods to better trace trajectories and similarities across historical time. It is a particularly justifiable method when addressing something like the Anthropocene, which necessarily exists across multiple temporalities. Generations of human history are a hair’s breadth in geologic time, and living in the early twenty-first century we are forced to imagine what effect the actions of our grandparents will have on our grandchildren.

Bringing the insights of Anthropocene studies to bear on American literary naturalism, then, means not only attending to the ways that these authors represent the human-nature relationship, but expanding genre’s definition enough to account for the ways it adopts, forwards, and transforms contemporaneous understandings of the humanity as a force. I join generations of naturalist criticism in defining American literary naturalism as a genre at its height from 1890 to 1915 that engaged post-Darwinian science to address the changing relationship of humanity and nature; yet I do not restrict my understanding of post-Darwinian science to Spencerian social Darwinism, as many critics before me have done implicitly, because doing so leaves out the influence of theories of non-human nature that were just as influential on the naturalist project as theories of human nature. I accept engagement with determinism as a defining factor of the naturalist genre, especially environmental determinism, with all the implications (many of them problematic) for economics, race, and theories of the human that this deterministic philosophy implies; yet I will seek to replace the prevailing model of *unidirectional* determinism, in which the human is a blank canvas for the imprint of naturalized external “forces,” with a theory of a dialectical determinism in which humanity and non-human nature are co-constitutive—with humanity having a dramatic impact on the developing forms of nature and that human-influenced nature in turn having a deterministic effect on human behavior. Finally, I will understand naturalism as a genre that takes the human species as a problem of representation, and define the genre by the range of formal experiments it uses to capture human life beyond the scale of the individual and to depict the interaction of natural phenomena on a super-individualistic scale. In each of these areas—philosophical, historical, scientific, and aesthetic—naturalism is defined not by a uniform response or method so much as a common set of questions.

Ultimately, this response to American literary naturalism constitutes less a wholesale redefinition than an expansion of the common ways of defining the genre so that its Anthropocenic environmental consciousness can be accounted for. It is not a matter of making it visible—the traces of it are already visible on their own—so much as theorizing it. But theorizing this consciousness requires first theorizing the scientific moment of the proto-Anthropocene.

**Defining the Proto-Anthropocene**

Commonly, accounts of the Anthropocene begin with Paul Crutzen and Eugene Stoermer’s 2000 article in the International Geosphere-Biosphere Programme’s “Global Change Newsletter” as the first official call for an Anthropocene epoch. It is a chronology that immediately complicates itself. In the first place, Stoermer has suggested the 2000 article merely formalized and officially proposed a concept and term that he had been casually using since the eighties. In some senses this move, from a longstanding but casual notion to a formal theory provisionally accepted by an international body of geologists and earth scientists, suggests the real significance of the 2000 pronouncement. For it is less the creation of a new theory out of whole cloth than the culmination of a century and a half of thinking to make it more contemporary in its theoretical backing and political valences, much more rigorous in the stratigraphic basis for its proposal, and more robust in its understanding of human agency in the context of a whole-earth systems theory. In fact, Crutzen and Stoermer themselves allude to the long history of human-geological theorization. Like other commentators in the years since, they sketch a succession of theories from 1864 through the first quarter of the twentieth century that propose, using various terms and framings, a human entry in geologic time ranging from eras to epochs, or more broadly the designation of humanity as a natural force with the same or greater impact as any other natural force (Crutzen and Stoermer 17-18).

Understanding naturalism’s environmental ethos requires an understanding of this cluster of anticipations that I am calling the proto-Anthropocene, but understanding these theories as anticipations (and therefore as a coherent theoretical body of work) first requires an overview of the contemporary theory of the Anthropocene and the mainlines of the arguments that define it. I will therefore first outline the contemporary state of Anthropocene discourse before summarizing the recognized anticipations of it in order to define the contours of the proto-Anthropocene.

*THE ANTHROPOCENE: 2000 –*

In many ways, the conceptual basis of the Anthropocene theory has remained stable since Crutzen and Stoermer first proposed it. They propose that our current geological epoch be named the “Anthropocene,” as opposed to the prevailing understanding of our moment as still part of the Holocene epoch that began around 9,700 BCE.[[5]](#footnote-5) Their reasons are many and multiscalar: population growth, urbanization, fossil fuel emissions and pollution, land use for agriculture, and major changes in the composition of plant and non-human animal life across the globe, particularly through human-driven extinction. These and other transformations will leave an indelible mark in the geological strata of the Earth, legible into the distant future—a framing that geologist and prominent Anthropocene theorist Jan Zalasiewicz dramatizes in *The Earth After Us*, in which he imagines an extra-terrestrial race visiting the Earth some 100 million years in the future to read the traces of our existence in the sedimentation of a post-human planet (Zalasiewicz *Earth*). But the question of legibility is, or ought to be, secondary to what it indicates. Underscoring humanity’s ascension to the status of a geological force is not about identifying visible entries in an archive few can read, but about our unwitting, collective interference with the complex of overlapping systems that make life on our planet habitable by human and non-human organisms alike. Thus, the Anthropocene has been from its beginning inseparable from the call for a robust and global environmentalism, one capable of matching the scale of humanity’s unintended actions with intentional change for the better. As Crutzen and Stoermer put it in their auspicious letter: “To develop a world-wide accepted strategy leading to sustainability of ecosystems against human induced stresses will be one of the great future tasks of mankind” (18).

In this scientific-cum-political struggle to define the Anthropocene, one issue has become both unavoidable and charged with the weight of the political ramifications of admitting humanity’s (or part of humanity’s) responsibility for the fate of the planet: when the Anthropocene is supposed to have begun. Simon Lewis and Mark Maslin, despite writing in *Nature*, point out that it is hardly a matter whose significance is constrained to science. An early start-date—say the extinction of Pleistocene megafauna at the hands of human hunters—risks “normalizing” the Anthropocene and undercutting its potential as a mobilizing force. Meanwhile, a later epochal shift like the Industrial Revolution, would suggest “assign[ing] historical responsibility for carbon dioxide emissions to particular countries or regions during the industrial

era” (171). Crutzen and Stoermer demur, saying that assigning a more specific start-date would be “somewhat arbitrary,” but ultimately recommend the late 18th century to correspond with industrial revolution in Britain. Since then, the Anthropocene Working Group of the International Union of Geological Sciences[[6]](#footnote-6) has officially recommended a start-date of 1950 (Zalasiewicz “Summary”).

[note: make a damn chart]

*THE PROTO-ANTHROPOCENE: 1864-1923*

[on Proto-Anthropocene: “Proto-Anthropocene might seem to more naturally designate the period before the yet-to-be-determined starting point of the Anthropocene as a geological epoch—at the time of writing not officially ratified stratigraphically, but likely to be placed at the midcentury Great Acceleration. I use the term pre-Anthropocene, and implicitly also Anthropocene, to instead refer to the reign of the theories themselves. This is meant to emphasize their construction as theories of the human-nature relationship without intending to cast doubt on the scientific basis of the Anthropocene theories; I merely study them as intellectual phenomena rather than as scientific ones.]

1. cite. Is this a straw man? [↑](#footnote-ref-1)
2. In Erdheim’s case, the evidence seems less to threaten the structure of determinism in naturalism than actually to reinforce it… [↑](#footnote-ref-2)
3. Uuuh footnote, I guess reading in the Anthropocene?? [↑](#footnote-ref-3)
4. That one essay in reading in the Anthropocene??? [↑](#footnote-ref-4)
5. It is more common to date geologic time using the “before present” (BP) system, which records years relative to January 1, 1950, or the Megannum (ma) system, which measures time in millions of years. For ease of reference to events in human history, I will instead use the BCE system. [↑](#footnote-ref-5)
6. Technically, a working group of the International Commission on Stratigraphy’s Subcommission on Quaternary Stratigraphy. [↑](#footnote-ref-6)