

Naturalism in the Anthropocene: Posthuman Vulnerability and Ecological Determinism in Contemporary American Fiction

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Abstract

This paper examines the transformation of classical American naturalism into what may be termed Anthropocene naturalism, a revised literary mode shaped by climate crisis, ecological precarity, and posthuman vulnerability. While classical naturalism, as theorized by Émile Zola and later American critics, emphasized heredity, environment, and social forces as determinants of human life, contemporary American fiction relocates determinism within planetary and material systems that exceed human control. Drawing on Anthropocene theory, posthumanism, and new materialism, this study analyzes five key texts: Jesmyn Ward's *Sahage the Bones* and Tom Piazza's *City of Refuge*, which depict climate disaster and ecological determinism through Hurricane Katrina; Don DeLillo's *Falling Man*, which foregrounds urban vulnerability and infrastructural fragility in the Anthropocene city; and Louise Erdrich's *The Round House* alongside Ward's *Sing, Unburied, Sing*, which engage land, law, racial ecology, and posthuman ethics. The paper argues that these novels revise naturalism by decentering human agency and emphasizing non-human forces, shared vulnerability, and environmental injustice. In doing so, the study contributes to ecocriticism, posthuman studies, and contemporary American literary scholarship by demonstrating the continued relevance of naturalism in an era of planetary crisis. This study employs comparative close reading informed by posthumanist theory, new materialism, and Anthropocene studies to examine how determinism is reconfigured in contemporary American fiction.

Keywords: Anthropocene Naturalism; Posthuman Vulnerability; Ecological Determinism; American Fiction; Climate Disaster; Non-Human Agency; Environmental Humanities

Introduction

Literary naturalism has traditionally been understood as a late nineteenth- and early twentieth-century aesthetic movement grounded in the belief that human life is governed by forces beyond individual control. Emerging from Émile Zola's deterministic philosophy and later adapted within American literary traditions by writers such as Stephen Crane, Frank Norris, and Theodore Dreiser, naturalism foregrounded heredity, environment, and social conditions as the primary forces shaping human destiny (Pizer, 1993). Human agency, in this framework, is persistently undermined by biological inheritance, economic necessity, and the indifferent operations of nature. Naturalist narratives thus depict individuals as vulnerable subjects caught within systems that exceed their capacity for resistance or moral choice.

American naturalism, as theorized by critics such as Donald Pizer and Charles Walcutt, has long been associated with urban poverty, industrial capitalism, and social Darwinism (Pizer, 1982; Walcutt, 1956). These frameworks emphasized the mechanistic forces of modernity—factory labor, overcrowded cities, racial marginalization—as determinants of human fate. However, while classical naturalism acknowledged nature as a force, it largely treated the environment as a static background rather than an active, dynamic agent. The natural world functioned as a setting or a symbolic extension of social conditions rather than as an autonomous determinant capable of reshaping human existence on a planetary scale.

The emergence of the Anthropocene as a critical concept has fundamentally disrupted these assumptions. Coined by atmospheric scientists to designate a new geological epoch in which human activity has become the dominant force shaping the Earth's systems, the Anthropocene signals a radical shift in how nature, humanity, and agency are conceptualized (Chakrabarty, 2009). Climate change, rising sea levels, extreme weather events, and ecological collapse have rendered the

environment an active, volatile force that directly intervenes in human life. In this context, environment can no longer be understood merely as social milieu; it becomes a planetary determinant that destabilizes the very foundations of human-centered narratives.

This shift has significant implications for literary studies. Contemporary American fiction increasingly reflects ecological anxiety, climate catastrophe, and environmental injustice, demanding new critical frameworks capable of addressing the complex entanglements between humans and non-human forces. Ecocriticism has played a crucial role in foregrounding environmental themes in literature, yet it has often remained disconnected from earlier traditions such as naturalism. As a result, naturalism has frequently been dismissed as an outdated mode, confined to industrial modernity and no longer relevant to twenty-first-century concerns (Heise, 2008).

This paper challenges that assumption by arguing that contemporary American fiction does not abandon naturalism but rather revises and reconfigures it in response to Anthropocene realities. Through an engagement with posthumanism and new materialist thought, naturalism re-emerges as a vital framework for understanding ecological determinism and human vulnerability in an era of climate crisis. The deterministic forces that once manifested as heredity and social class now appear as hurricanes, toxic landscapes, collapsing infrastructures, and racialized ecologies.

The selected novels—Jesmyn Ward’s *Salvage the Bones* (2011) and *Sing, Unburied, Sing* (2017), Tom Piazza’s *City of Refuge* (2008), Don DeLillo’s *Falling Man* (2007), and Louise Erdrich’s *The Round House* (2012)—collectively illustrate this transformation. These texts span disaster narratives, urban trauma, and Indigenous and racial ecologies, offering a multi-dimensional perspective on ecological determinism in contemporary America.

Salvage the Bones and *City of Refuge* foreground natural disasters—specifically Hurricane Katrina—as overwhelming forces that expose the fragility of human life and the systemic inequalities embedded within environmental catastrophe. These novels depict how marginalized communities experience disaster not as an isolated event but as a continuation of structural neglect, where ecological vulnerability intersects with race and class. Nature, in these texts, operates not as a neutral backdrop but as an agent that magnifies social injustice, reinforcing a deterministic vision aligned with naturalist philosophy yet fundamentally reshaped by Anthropocene conditions.

Urban vulnerability emerges most forcefully in *Falling Man*, where the collapse of the World Trade Center is framed not merely as an act of terrorism but as a moment that reveals the fragility of modern infrastructure and the precariousness of human systems. DeLillo’s novel situates the urban environment itself as a site of ecological and material instability, reflecting what Morton (2013) describes as the “hyperobject” nature of contemporary catastrophe—events so vast and complex that they exceed human comprehension and control.

Indigenous and racial ecologies are central to *The Round House* and *Sing, Unburied, Sing*, where land, memory, and non-human presences challenge anthropocentric narratives. Erdrich’s novel foregrounds the legal and ecological vulnerabilities of Indigenous land, revealing how colonial histories and environmental degradation operate as intertwined deterministic forces. Similarly, Ward’s *Sing, Unburied, Sing* presents a world where human, animal, and spectral presences coexist, emphasizing relationality and interdependence over individual autonomy.

The central argument of this paper is that these contemporary American novels revise classical naturalism through the lens of posthuman vulnerability and ecological determinism. Drawing on posthumanist theory (Braidotti, 2013) and new materialism (Bennett, 2010), the study contends that agency is no longer exclusively human but distributed across human and non-human actors. Vulnerability becomes a shared condition, extending beyond human subjects to encompass ecosystems, animals, and material environments.

By situating naturalism within the Anthropocene, this paper demonstrates that determinism has not disappeared from contemporary fiction but has evolved in response to planetary crisis. The environment, once a contextual factor, now emerges as a dominant force that reshapes narrative structure, ethical responsibility, and conceptions of survival. This reconfigured naturalism offers a powerful framework for understanding how literature responds to climate change, environmental injustice, and posthuman entanglements.

In this context, this paper proposes the term Anthropocene naturalism to describe a revised literary mode in which determinism is no longer rooted primarily in heredity or social class, but in planetary processes, ecological systems, and non-human agencies that exceed human control. Anthropocene naturalism retains the naturalist emphasis on vulnerability and constraint, while reconfiguring determinism through climate catastrophe, infrastructural collapse, racialized environments, and juridical instability. Unlike classical naturalism, which often positioned nature as a passive backdrop to social struggle, Anthropocene naturalism foregrounds the environment as an active, material force that reshapes narrative causality, ethical responsibility, and human–non-human relations. This framework allows contemporary American fiction to articulate ecological crisis without abandoning the realist and deterministic logic inherited from the naturalist tradition. It is important to distinguish Anthropocene naturalism from climate realism or speculative climate fiction (cli-fi). While cli-fi often projects

ecological crisis into speculative futures, the texts examined here remain grounded in realist narrative modes and historical contexts. Their naturalistic orientation lies not in futurity but in the representation of determinism, constraint, and vulnerability as lived conditions shaped by environmental, material, and institutional forces in the present.

The paper proceeds through a comparative analysis structured around four interrelated ecological contexts. The first section examines climate catastrophe as ecological determinism in Jesmyn Ward's *Salvage the Bones* and Tom Piazza's *City of Refuge*. The second analyzes urban vulnerability and infrastructural fragility in Don DeLillo's *Falling Man*. The third explores Indigenous land, law, and ecological determinism in Louise Erdrich's *The Round House*, while the fourth examines racial ecology and posthuman ethics in Ward's *Sing, Unburied, Sing*. Together, these sections demonstrate how contemporary American fiction revises naturalism to articulate vulnerability and determinism in the Anthropocene.

Research Problem

Despite the resurgence of environmental themes in contemporary American fiction, naturalism continues to be treated as a closed historical mode, largely confined to early twentieth-century industrial contexts (Pizer, 1993). Ecocritical scholarship, while expansive, often overlooks the deterministic dimensions of literature, focusing instead on representation, ethics, and sustainability (Garrard, 2012). As a result, there exists limited scholarship that integrates Anthropocene theory, posthumanism, and contemporary American naturalistic fiction into a coherent analytical framework.

Furthermore, existing studies tend to focus on single texts or homogeneous cultural contexts, failing to address cross-racial and cross-ecological narratives. The absence of comparative, multi-text analyses that examine ecological determinism across disaster zones, urban spaces, and Indigenous landscapes constitutes a significant critical gap. This paper addresses that lacuna by offering an integrated, comparative study that redefines naturalism for the Anthropocene era.

Although Anthropocene fiction has received growing critical attention, it is rarely examined through the lens of naturalism. Discussions of climate narratives often privilege speculative, dystopian, or ethical frameworks, leaving the deterministic logic inherited from realist and naturalist traditions largely untheorized. This absence has limited critical understanding of how contemporary fiction narrates ecological constraint, inevitability, and systemic vulnerability.

Research Objectives and Research Questions

Objectives

- To reconceptualize American naturalism within the theoretical framework of the Anthropocene.
- To examine ecological determinism across disaster, urban, and racial ecologies in contemporary American fiction.
- To analyze posthuman vulnerability as a defining condition of modern naturalistic narratives.

Research Questions

- How do environmental and non-human forces shape narrative determinism in the selected texts?
- In what ways does posthuman vulnerability displace traditional notions of individual agency?
- How do race, land, and ecology intersect in the reconfiguration of Anthropocene naturalism?

Significance of the Study

This study extends naturalism into contemporary climate discourse, demonstrating its continued relevance in addressing ecological crisis. By bringing together Black, Indigenous, and urban narratives, it contributes to environmental justice scholarship and posthuman ethics. The interdisciplinary approach enhances its relevance for ecocriticism, American studies, and cultural studies, offering a framework that bridges literary history with planetary concerns.

Scope and Limitations of the Study

The study focuses on post-2000 American novels: *Salvage the Bones*, *City of Refuge*, *Falling Man*, *The Round House*, and *Sing, Unburied, Sing*. While comprehensive in literary scope, it does not incorporate non-fiction or visual media. The analysis prioritizes ecological determinism over economic globalization, acknowledging this as a deliberate methodological limitation.

The selection of these five novels is guided by their representative engagement with distinct yet interconnected ecological contexts within contemporary American fiction. Together, they encompass climate disaster (*Salvage the Bones*; *City of Refuge*), urban infrastructural vulnerability (*Falling Man*), Indigenous legal ecologies (*The Round House*), and racialized environmental histories (*Sing, Unburied, Sing*). This range allows for a comparative analysis across geographic, racial, and

ecological zones, demonstrating how ecological determinism operates differently yet consistently within Anthropocene naturalism. The texts are unified not by genre but by their shared commitment to realist narrative strategies and their sustained engagement with non-human agency and vulnerability.

Review of Literature

Scholarship on American literary naturalism has been shaped predominantly by early and mid-twentieth-century critical formulations that define the mode as a deterministic representation of human life governed by forces beyond individual control. Among the most influential critics, Donald Pizer remains central to the understanding of American naturalism as a flexible yet philosophically grounded literary tradition. In works such as *Twentieth-Century American Literary Naturalism* (1982) and *Realism and Naturalism in Nineteenth-Century American Literature* (1993), Pizer argues that American naturalism is not merely an imitation of Zola's experimental method but a uniquely American adaptation that negotiates tensions between determinism and moral agency. Pizer emphasizes heredity, environment, and socio-economic pressures as dominant forces shaping character and narrative outcomes, while also acknowledging moments of resistance and ethical complexity.

Similarly, Charles Walcutt's seminal study *American Literary Naturalism* (1956) situates naturalism within the broader intellectual climate of Darwinism, positivism, and scientific materialism. Walcutt identifies pessimism, biological determinism, and social entrapment as defining features of naturalist fiction, particularly in the works of Stephen Crane, Frank Norris, and Theodore Dreiser. These foundational studies establish naturalism as a literary response to industrial modernity, urbanization, and capitalist exploitation. However, both Pizer and Walcutt largely confine naturalism to a historical period defined by industrial capitalism and urban poverty, thereby reinforcing the perception of naturalism as a closed or exhausted literary mode.

Later critics have attempted to revise this narrow historical framing. June Howard (1985) and Lee Clark Mitchell (1989) argue that naturalism should be understood as a recurring narrative strategy rather than a temporally bounded movement. Mitchell, in particular, emphasizes naturalism's capacity to adapt to changing cultural conditions by rearticulating determinism in new forms. Despite these interventions, mainstream literary criticism has continued to marginalize naturalism in discussions of contemporary fiction, often favoring postmodernism, trauma studies, and identity-based approaches.

Parallel to the evolution of naturalist criticism, ecocriticism has emerged as a major interdisciplinary field that foregrounds environmental concerns in literary and cultural analysis. Early ecocritical work, such as Glotfelty and Fromm's *The Ecocriticism Reader* (1996), established literature as a crucial site for examining human relationships with the natural world. Greg Garrard's *Ecocriticism* (2012) further systematized the field by identifying key tropes such as wilderness, apocalypse, dwelling, and environmental justice. While ecocriticism has significantly expanded the scope of literary studies, it has often privileged ethical representation and environmental consciousness over structural determinism.

Ursula Heise's *Sense of Place and Sense of Planet* (2008) marks an important shift within ecocriticism by situating environmental literature within global and planetary frameworks. Heise critiques place-based environmentalism and calls for an understanding of ecological narratives that account for globalization, mobility, and transnational ecological risk. However, even Heise's planetary perspective does not explicitly engage with the deterministic logic central to naturalism. As a result, ecocriticism and naturalism have largely developed as parallel but disconnected critical traditions. Recent scholarship on climate fiction or "cli-fi" has emphasized speculative futures, dystopian imagination, and planetary apocalypse. While this body of work has expanded environmental literary studies, its focus on futurity often sidelines realist and naturalistic narratives that depict climate crisis as an already lived condition. By contrast, the present study foregrounds contemporary realist fiction to demonstrate how naturalism continues to shape ecological storytelling in the Anthropocene.

The emergence of Anthropocene theory has further transformed environmental humanities by redefining the relationship between humans and the planet. Dipesh Chakrabarty's influential essay "The Climate of History" (2009) argues that climate change collapses the distinction between natural and human history, forcing scholars to reconsider the human as a geological agent. Chakrabarty's intervention destabilizes anthropocentric historical narratives and challenges traditional humanist assumptions underlying literary studies. His work has been foundational in repositioning environmental crisis as a planetary condition rather than a localized or symbolic concern.

Timothy Morton's concept of "hyperobjects" (2013) further complicates this paradigm by describing entities such as climate change, nuclear waste, and global warming as massively distributed phenomena that exceed human perception and control. Morton's work has been particularly influential in literary analysis, as it offers a vocabulary for understanding how contemporary narratives represent ecological forces that defy narrative containment. Yet, despite its relevance, hyperobject theory has rarely been connected to naturalist determinism, even though both address the overwhelming scale of forces shaping human existence.

Posthumanist theory provides another crucial dimension for rethinking agency and vulnerability in contemporary literature. Rosi Braidotti's *The Posthuman* (2013) critiques liberal humanism's emphasis on autonomy and rationality, proposing instead a relational and embodied subject embedded within ecological and technological networks. Braidotti's concept of posthuman

vulnerability foregrounds shared precarity across human and non-human life forms, offering a powerful framework for interpreting ecological crisis narratives.

Jane Bennett's *Vibrant Matter* (2010) complements posthumanist thought through new materialism, which emphasizes the vitality and agency of non-human matter. Bennett challenges the notion of passive environment, arguing that material forces—ranging from natural elements to infrastructural systems—actively shape political and social life. Her work has been widely applied in cultural studies and political theory, yet its implications for revising literary naturalism remain underexplored.

Critical studies of contemporary American fiction have addressed individual authors relevant to this study but rarely situate them within a shared naturalist or Anthropocene framework. Scholarship on Jesmyn Ward frequently emphasizes trauma, race, and Southern Gothic elements (Hicks, 2016; Yaeger, 2017), while analyses of Don DeLillo's *Falling Man* often focus on post-9/11 trauma and media saturation (Gray, 2011). Louise Erdrich's *The Round House* has been examined through Indigenous studies and legal criticism, highlighting colonial violence and jurisdictional failure (Justice, 2018). Although these studies provide valuable insights, they tend to isolate texts within specific thematic or cultural categories rather than examining their shared engagement with ecological determinism and posthuman vulnerability.

Taken together, existing scholarship reveals a significant critical lacuna. While naturalism, ecocriticism, Anthropocene studies, and posthumanism have each developed robust theoretical frameworks, few studies synthesize these approaches in the analysis of contemporary American fiction. Naturalism is often dismissed as historically obsolete, ecocriticism under-theorizes determinism, and posthumanism is rarely applied to narrative structures inherited from realist traditions. This lack of integration has limited scholarly understanding of how contemporary fiction responds to planetary crisis through revised naturalistic strategies.

By bridging these critical traditions, the present study positions contemporary American fiction as a site where naturalism is neither abandoned nor merely reproduced but fundamentally transformed. Through a multi-text, cross-racial, and cross-ecological analysis, this paper addresses a critical gap in literary scholarship and contributes to an emerging discourse on Anthropocene naturalism. Environmental justice scholarship further complicates this landscape by demonstrating that ecological vulnerability is unevenly distributed across racial, economic, and Indigenous communities. However, environmental justice perspectives are rarely integrated with naturalist theory, despite their shared emphasis on structural constraint and systemic inequality. This study brings these fields into dialogue by reading ecological determinism through racialized and colonial environments.

Theoretical / Conceptual Framework

The study employs posthumanism (Braidotti, 2013) to decenter the human subject, new materialism (Bennett, 2010) to foreground non-human agency, and Anthropocene theory (Chakrabarty, 2009) to situate environmental crisis within planetary history. These frameworks collectively inform the concept of ecological determinism as a revised form of naturalism.

One possible objection to this framework is the claim that naturalism, with its roots in biological and social determinism, is incompatible with posthumanist ethics or Anthropocene theory. Another concern is that ecological determinism risks collapsing into fatalism, thereby undermining ethical responsibility. This study counters such objections by demonstrating that contemporary naturalism does not eliminate agency but redistributes it across human and non-human actors. Posthuman vulnerability does not negate ethics; rather, it reframes moral responsibility through relationality, care, and environmental justice. Far from rendering ecological catastrophe narratively inert, Anthropocene naturalism enables fiction to expose the structural conditions that produce vulnerability while sustaining ethical engagement with human and non-human life.

In this study, ecological determinism refers to the narrative condition in which environmental forces—such as climate events, material infrastructures, land, law, and non-human agencies—function as primary determinants of human action and survival. Rather than locating causality in individual psychology or biological inheritance, ecological determinism foregrounds systemic, material, and planetary constraints that shape narrative outcomes.

Methodology

The research adopts qualitative textual analysis, combining close reading with comparative and thematic approaches. Ecocritical and posthuman interpretive strategies guide the analysis of narrative structure, imagery, and character formation. The selection of these five novels is guided by their shared engagement with realist narrative strategies and their sustained focus on ecological constraint in distinct yet interconnected contexts. Together, they represent disaster ecologies, urban infrastructures, Indigenous land relations, and racialized environments, allowing for a comparative examination of how ecological determinism operates across geographic and cultural zones.

A comparative methodology enables the study to trace recurring naturalistic patterns while attending to culturally specific forms of vulnerability. By reading these texts together, the analysis demonstrates that Anthropocene naturalism is not confined to a single region or identity but emerges as a cross-contextual narrative logic shaping contemporary American fiction.

Analysis and Interpretation

This section examines how contemporary American fiction revises classical naturalism by reconfiguring determinism through ecological and material forces characteristic of the Anthropocene. Drawing on posthumanism, new materialism, and Anthropocene theory, the analysis focuses on two interrelated domains: (I) climate catastrophe as ecological determinism in *Salvage the Bones* and *City of Refuge*, and (II) urban Anthropocene vulnerability and infrastructural fragility in *Falling Man*. Together, these texts reveal how contemporary naturalism relocates deterministic power from heredity and social class to planetary systems, non-human agents, and material infrastructures.

***Salvage the Bones* and *City of Refuge*: Climate Catastrophe and Ecological Determinism**

Classical naturalism, as articulated by Zola and later theorized by American critics such as Pizer (1982), emphasized the determining power of environment, often understood as social milieu shaped by poverty, race, and industrial conditions. In twenty-first-century disaster fiction, however, environment exceeds social context and becomes an autonomous, planetary force. Jesmyn Ward's *Salvage the Bones* (2011) and Tom Piazza's *City of Refuge* (2008) exemplify this transformation by portraying Hurricane Katrina not merely as a backdrop to human suffering but as an overwhelming ecological determinant that restructures narrative causality, agency, and survival.

In *Salvage the Bones*, the approaching hurricane is introduced as an inescapable presence that governs time, space, and bodily perception. "The storm was coming for us, and nothing could stop it." (Ward, 2011) Long before Katrina makes landfall, the narrative is shaped by anticipation, dread, and bodily attunement to environmental signals. This anticipatory structure reflects what Chakrabarty (2009) identifies as the collapse of human historical time into geological and planetary time under the Anthropocene. The characters' lives are no longer oriented around individual choice or progress but around the inevitability of ecological disruption.

Ward's depiction of Katrina resonates strongly with classical naturalist fatalism. Like Dreiser's urban poor or Crane's doomed soldiers, the Batistes are caught within a system that exceeds their control. Yet unlike classical naturalism, where determinism often emerges from economic structures or biological inheritance, *Salvage the Bones* presents weather itself as an agentive force. The hurricane operates as what Bennett (2010) terms "vibrant matter"—a material force that actively shapes human behaviour rather than passively responding to it. Wind, water, heat, and decay possess narrative agency, influencing decisions, movements, and bodily endurance.

This ecological determinism is inseparable from racial and economic vulnerability. The family's inability to evacuate is not framed as a moral failing but as a structural inevitability produced by historical neglect and environmental injustice. Here, naturalism converges with environmental justice discourse, revealing how ecological catastrophe disproportionately affects marginalized communities (Garrard, 2012). However, Ward's narrative does not reduce human characters to mere victims. Instead, it emphasizes what Braidotti (2013) describes as posthuman vulnerability—a shared condition of exposure that binds human and non-human life within fragile ecological networks.

The presence of animals, particularly the dog China, further complicates agency and determinism in *Salvage the Bones*. China's ferocity, maternal instinct, and eventual destruction parallel the hurricane's indifferent violence, suggesting a continuity between animal life, human survival, and environmental force. This alignment destabilizes anthropocentric hierarchies and reinforces a posthuman naturalism in which life is governed by ecological interdependence rather than human exceptionalism.

Similarly, *City of Refuge* presents Hurricane Katrina as an overwhelming force that dismantles urban order and exposes infrastructural fragility. Piazza's novel foregrounds the city of New Orleans as an ecological and material system whose collapse reveals the illusion of human control. Levees fail, communication networks disintegrate, and architectural boundaries dissolve, underscoring what Morton (2013) describes as the "hyperobject" nature of climate catastrophe—an event so vast and distributed that it resists narrative containment. "The city was drowning, and there was no one coming." (Piazza, 2008)

Unlike classical disaster narratives that emphasize heroism or resilience, *City of Refuge* adopts a naturalistic lens that emphasizes helplessness, randomness, and systemic failure. Characters are displaced not only physically but ontologically, as familiar structures of meaning dissolve under ecological pressure. The city itself becomes a non-human actor, its flooded streets and abandoned buildings exerting determinative power over human movement and survival.

From a revised naturalist perspective, Katrina functions as a planetary determinant that fuses environmental, political, and racial forces. Piazza's narrative aligns with Chakrabarty's (2009) assertion that climate change forces humanity to confront

itself as a geological agent while simultaneously revealing profound inequalities in exposure and responsibility. The state's failure to protect its citizens further intensifies ecological determinism, transforming natural disaster into a socio-ecological inevitability.

Both *Salvage the Bones* and *City of Refuge* thus revise naturalism by relocating determinism from individualized causes to ecological systems. Hurricanes emerge as non-human agents that dismantle human agency and reveal the limits of anthropocentric control. These narratives illustrate how contemporary naturalism responds to the Anthropocene by embracing ecological determinism as a defining condition of modern existence.

Falling Man: Urban Anthropocene and Infrastructural Fragility

While disaster fiction foregrounds ecological determinism through natural forces, Don DeLillo's *Falling Man* (2007) extends Anthropocene naturalism into the urban environment by exposing the fragility of technological and architectural systems. Traditionally, naturalism has been associated with nature's indifference to human life; *Falling Man* reveals how modern infrastructures—buildings, transportation systems, and media networks—have become extensions of ecological vulnerability in the Anthropocene.

The collapse of the World Trade Center is often interpreted through political or psychological frameworks, particularly trauma theory. However, *Falling Man* can also be read as an ecological-naturalist text that exposes the entanglement of terror, architecture, and material fragility. The towers, once symbols of human mastery and economic power, are reduced to dust and debris, underscoring Bennett's (2010) argument that material structures possess agency beyond human intention.

DeLillo's narrative repeatedly emphasizes the materiality of destruction: ash-filled air, collapsing steel, disintegrating bodies. "He was covered in ash, like everyone else." (DeLillo, 2007). These descriptions resist symbolic closure and instead foreground what Morton (2013) identifies as the uncanny presence of hyperobjects—events whose scale overwhelms narrative comprehension. The urban environment becomes a site of ecological disruption where human systems fail to contain material forces.

From a naturalist perspective, *Falling Man* reveals a shift from biological or social determinism to infrastructural determinism. Characters are not destroyed by inherited traits or moral flaws but by the collapse of systems they neither control nor fully understand. This aligns with posthumanist critiques of human exceptionalism, which challenge the assumption that rational planning and technological advancement can shield humanity from vulnerability (Braidotti, 2013).

Urban space in *Falling Man* is marked by instability and precarity. Streets are transformed into disaster zones, offices into ruins, and bodies into fragile matter. The novel's fragmented narrative structure mirrors this instability, reflecting a world where linear causality has been disrupted by ecological and technological collapse. This fragmentation echoes classical naturalist pessimism while adapting it to a post-industrial, post-9/11 context.

Importantly, *Falling Man* situates terror within a broader ecological framework. The attacks are not merely acts of political violence but manifestations of global interconnection and systemic vulnerability. Airplanes, fuel, steel, and gravity operate as non-human agents that contribute to destruction. This dispersal of agency aligns with new materialist thought, which emphasizes the participation of non-human actors in shaping events (Bennett, 2010).

DeLillo's depiction of bodies falling through air resonates with posthuman vulnerability, emphasizing the shared precarity of human and non-human matter. Bodies are reduced to weight, motion, and impact, stripped of identity and intention. This reduction echoes naturalist depictions of bodily determinism while extending it into an Anthropocene context where technological systems amplify vulnerability rather than mitigate it.

Through this lens, *Falling Man* emerges as an urban naturalist text that critiques the illusion of control underlying modern civilization. The city, once imagined as a triumph over nature, is revealed as an extension of ecological fragility. The novel thus bridges naturalism and Anthropocene theory by demonstrating how human-built environments participate in planetary vulnerability.

The Round House: Land, Law, and Indigenous Ecologies

Louise Erdrich's *The Round House* (2012) offers a powerful reconfiguration of naturalism within an Indigenous ecological and legal framework, demonstrating how land and law operate as deterministic forces in the Anthropocene. While classical American naturalism foregrounded heredity and socio-economic environment as constraints on individual agency (Pizer, 1982), Erdrich's novel relocates determinism within overlapping systems of colonial law, sacred geography, and environmental dispossession. The result is an Indigenous form of Anthropocene naturalism in which land itself emerges as an active agent shaping trauma, justice, and survival.

The novel centers on a violent crime committed against Geraldine Coutts on an Ojibwe reservation, an event that exposes the jurisdictional labyrinth governing Indigenous lands in the United States. The inability of tribal, state, and federal legal systems to prosecute the perpetrator functions as a form of legal determinism—an inescapable structure that mirrors the fatalistic logic of classical naturalism. However, unlike early naturalist texts in which characters are trapped by urban poverty or biological inheritance, *The Round House* reveals how colonial law itself becomes an environmental force, shaping Indigenous life through structural impotence rather than overt violence.

This juridical determinism aligns with Chakrabarty's (2009) argument that modern political frameworks are ill-equipped to address planetary and historical forces operating beyond human intentionality. "It was the wrong place, and because of that, there could be no justice." (Erdrich, 2012). In *The Round House*, law is not a neutral arbiter of justice but a fragmented system that actively produces vulnerability. The crime remains unpunished not because of moral ambiguity but because the land on which it occurs is legally unstable. Jurisdictional boundaries, imposed through colonial governance, render justice impossible. This legal failure operates as a deterministic force analogous to natural disasters in classical naturalism—unpredictable, overwhelming, and indifferent to human suffering.

Land in Erdrich's novel is not merely a setting but a living presence embedded with memory, spirituality, and resistance. The round house itself functions as a sacred site, representing Indigenous cosmology and continuity. From a posthumanist perspective, this challenges anthropocentric conceptions of space by foregrounding land as a relational entity rather than a passive resource (Braidotti, 2013). The land remembers violence, absorbs trauma, and shapes human action, reinforcing Bennett's (2010) notion of "vibrant matter" as an active participant in social and ethical life.

The ecological determinism in *The Round House* is inseparable from colonial history. Environmental degradation, land theft, and legal marginalization intersect to create conditions of perpetual vulnerability for Indigenous communities. This convergence reflects what Nixon (2011) terms "slow violence"—a form of environmental harm that unfolds gradually and invisibly, disproportionately affecting marginalized populations. In this sense, Erdrich's novel expands naturalism beyond immediate catastrophe to encompass long-term ecological and legal oppression.

From a naturalist standpoint, Joe Coutts's coming-of-age narrative is shaped not by individual choice but by inherited structures of injustice. His actions are constrained by the failure of law, the silence imposed on his mother, and the sacred yet violated land surrounding him. This echoes classical naturalist narratives in which protagonists are shaped by forces they cannot escape, yet Erdrich reorients this determinism through Indigenous epistemologies rather than Euro-American realism.

Importantly, *The Round House* resists fatalism by situating determinism within a moral ecology. While law fails, land and community offer alternative frameworks of meaning. However, these frameworks do not restore agency in a liberal humanist sense; rather, they emphasize relational responsibility and collective vulnerability. This aligns with posthuman ethics, which reject autonomous subjectivity in favor of interdependence and accountability across human and non-human domains (Braidotti, 2013).

Thus, *The Round House* exemplifies an Indigenous Anthropocene naturalism in which land and law function as determinant forces shaping human fate. By foregrounding ecological and legal entanglements, Erdrich revises naturalism to account for colonial histories and environmental injustice, demonstrating how determinism persists in contemporary fiction through planetary and juridical systems rather than biological destiny.

Sing, Unburied, Sing: Racial Ecology and Posthuman Ethics

Jesmyn Ward's *Sing, Unburied, Sing* (2017) further extends Anthropocene naturalism by foregrounding racial ecology and posthuman ethics through intimate entanglements among humans, animals, land, and spectral presences. While classical naturalism often portrayed marginalized bodies as victims of social determinism, Ward's novel reimagines vulnerability as a shared condition across species and generations, revealing how ecological and racial histories shape contemporary life.

Set in rural Mississippi, the novel situates African American experience within a landscape marked by slavery, incarceration, and environmental decay. The land bears the imprint of historical violence, functioning as what Chakrabarty (2009) describes as a site where human history and natural history collapse into one another. The soil remembers suffering; the trees witness death; the roads lead repeatedly to sites of confinement and loss. In this context, ecology becomes inseparable from race, producing what scholars term "racialized environments" (Pulido, 2016).

From a naturalist perspective, the characters in *Sing, Unburied, Sing* are constrained by inherited trauma and structural inequality. However, Ward departs from deterministic pessimism by incorporating posthuman relationality. The presence of animals—particularly the dog Given—reveals a mode of ethical engagement that transcends human-centered morality. "He doesn't belong to anybody. He belongs to himself." (Ward, 2017). Given's loyalty, suffering, and death foreground animal vulnerability as ethically significant, aligning with posthuman critiques of species hierarchy (Braidotti, 2013).

The novel's engagement with animal life reflects Bennett's (2010) new materialist emphasis on the vitality of non-human matter. Animals are not symbolic stand-ins for human emotion but co-participants in ecological systems that shape survival and loss. Given's poisoning is not an isolated act of cruelty but a manifestation of environmental and racial neglect, illustrating how violence circulates across human and non-human bodies within shared spaces.

Spectral figures in *Sing, Unburied, Sing* further complicate agency and temporality. Ghosts of murdered Black men, particularly those who died in carceral spaces, occupy the landscape as persistent reminders of unresolved injustice. These spectral presences challenge linear notions of time and progress, reinforcing what Morton (2013) identifies as the uncanny persistence of ecological and historical trauma. The ghosts function as posthuman agents who demand ethical recognition beyond legal or institutional frameworks.

The prison farm, Parchman, emerges as a central site of ecological and racial determinism. Historically associated with forced labor and environmental exploitation, the prison operates as both a social and ecological system that consumes bodies and land alike. This convergence of incarceration and ecology exemplifies environmental racism, wherein marginalized communities are disproportionately exposed to harmful environments (Garrard, 2012). The prison landscape becomes a naturalistic force that determines life trajectories, echoing classical naturalist depictions of institutional confinement while situating them within racialized ecological contexts.

Ward's narrative foregrounds posthuman vulnerability by dissolving boundaries between life and death, human and animal, past and present. Jojo's ability to perceive ghosts signals an expanded ethical awareness that aligns with posthuman epistemologies. Knowledge in the novel is not produced through rational mastery but through embodied experience, listening, and relational attunement to land and memory.

This ethical orientation challenges liberal humanist ideals of autonomy and control. Characters survive not by overcoming ecological and racial constraints but by navigating them through care, storytelling, and interdependence. Such strategies do not negate determinism but reframe it as a condition that demands ethical responsiveness rather than heroic resistance. This reflects a revised naturalism in which survival is collective and relational rather than individual and triumphalist.

Importantly, *Sing, Unburied, Sing* situates ecological determinism within a moral framework that acknowledges both suffering and responsibility. While the characters are shaped by forces beyond their control—racism, environmental degradation, carceral systems—the novel insists on ethical engagement with human and non-human others. This aligns with posthuman ethics, which emphasize shared vulnerability as the basis for moral obligation (Braidotti, 2013).

Through its integration of racial history, ecological decay, and posthuman relationality, Ward's novel exemplifies how contemporary American fiction transforms naturalism into an ethical mode suited to the Anthropocene. Determinism does not erase meaning; instead, it exposes the conditions under which ethical life must be reimagined.

Synthesis: Revising Naturalism for the Anthropocene

Across disaster zones, urban landscapes, and Indigenous and racial ecologies, the selected texts collectively demonstrate that literary naturalism has not disappeared from contemporary American fiction but has undergone a profound conceptual transformation. No longer confined to heredity, biology, or social class—as emphasized in classical formulations of naturalism—determinism in these narratives emerges through hurricanes, collapsing infrastructures, juridical failures, racialized landscapes, and material systems that exceed human control. This shift marks the emergence of ecological determinism, a defining feature of what may be understood as Anthropocene naturalism. Such determinism aligns with Anthropocene theory's insistence that humanity is irrevocably embedded within planetary processes rather than positioned above or outside them (Chakrabarty, 2009).

In *Salvage the Bones*, *City of Refuge*, and *Falling Man*, environmental catastrophe and infrastructural collapse dismantle illusions of human mastery, exposing the vulnerability of bodies, cities, and technological systems. Hurricanes and architectural ruins function as non-human agents, shaping narrative outcomes through forces that resist containment or moral resolution. These texts reveal that disaster is not anomalous but structurally produced, rooted in ecological imbalance, political neglect, and material fragility. In this context, naturalism is reconfigured as a mode capable of articulating large-scale, systemic vulnerability rather than individual moral failure.

Posthumanism further complicates this revised naturalism by challenging anthropocentric narratives of agency and resilience. As Braidotti (2013) argues, posthuman subjectivity is constituted through relationality, exposure, and shared vulnerability rather than autonomy and control. Across the selected texts, characters are not heroic agents overcoming adversity but fragile beings navigating entangled ecological, material, and historical forces. Agency is dispersed across human and non-human actors—weather systems, buildings, land, animals, and spectral presences—resonating with new materialist assertions that matter itself participates in shaping social and ethical life (Bennett, 2010).

This transformation becomes most ethically charged in *The Round House* and *Sing, Unburied, Sing*, where Indigenous sovereignty and racial ecology foreground land as an active determinant of legal, cultural, and moral realities. In these novels, determinism arises not from biological fate but from colonial histories, jurisdictional violence, environmental injustice, and carceral landscapes. Land is neither inert nor symbolic; it is a living archive of trauma and resistance, shaping human action across generations. Yet, even as human agency is decentered, ethical responsibility persists through care, memory, and relational accountability, aligning with posthuman ethics grounded in interdependence rather than domination.

Taken together, these texts articulate a form of Anthropocene naturalism that acknowledges planetary vulnerability without surrendering moral engagement. By integrating posthumanism, new materialism, and environmental justice with the naturalist tradition, contemporary American fiction emerges as a crucial site for theorizing life under conditions of climate crisis, racialized ecology, and systemic precarity. Naturalism thus endures—not as a deterministic relic of industrial modernity, but as a critically renewed mode capable of confronting the ethical and ecological realities of the Anthropocene. This study therefore introduces Anthropocene naturalism as a critical framework that reconciles naturalist determinism with posthuman ethics and ecological theory.

Findings

These findings directly address the study's research objectives by demonstrating how American naturalism is reconceptualized through ecological determinism and posthuman vulnerability in the Anthropocene. The analysis of *Salvage the Bones*, *City of Refuge*, *Falling Man*, *The Round House*, and *Sing, Unburied, Sing* yields several significant findings that collectively demonstrate the persistence and transformation of literary naturalism in contemporary American fiction. Foremost among these is the recognition that naturalism has not disappeared in the twenty-first century but has been fundamentally revised in response to ecological crisis. Rather than operating through classical mechanisms of heredity or social Darwinism, naturalism in these texts is rearticulated through ecological, material, and planetary forces characteristic of the Anthropocene.

One key finding is that determinism in contemporary American fiction is no longer primarily biological or psychological but planetary in scope. Hurricanes, collapsing infrastructures, toxic landscapes, juridical boundaries, and carceral environments emerge as determining forces that shape narrative trajectories and human survival. In *Salvage the Bones* and *City of Refuge*, Hurricane Katrina functions as an ecological agent that exposes structural inequality and environmental injustice. Similarly, in *Falling Man*, architectural collapse and infrastructural failure reveal the fragility of human-built systems, emphasizing material vulnerability rather than individual culpability. These narratives confirm that environmental forces have replaced classical naturalist determinants as the dominant shaping power in contemporary fiction.

Another major finding is the centrality of posthuman vulnerability as a unifying narrative condition across diverse cultural and geographical contexts. Human characters are consistently depicted as embedded within networks of non-human agency, including weather systems, animals, land, and spectral presences. This decentering of human agency aligns with posthumanist theory, which challenges anthropocentric assumptions and foregrounds relationality and interdependence. In *The Round House* and *Sing, Unburied, Sing*, land and non-human entities actively participate in shaping ethical and legal realities, reinforcing the idea that vulnerability is shared across species and generations.

The study also finds that contemporary American fiction consistently reflects and critiques environmental injustice. Ecological vulnerability is unevenly distributed along racial, economic, and Indigenous lines, revealing how marginalized communities bear the disproportionate burden of environmental catastrophe. Disaster, legal failure, and ecological degradation intersect with histories of colonialism, racism, and state neglect, transforming naturalism into a mode of social and ecological critique. Together, these findings establish Anthropocene naturalism as a critical framework capable of addressing climate crisis, structural inequality, and posthuman ethics within contemporary literary narratives.

This study offers several significant theoretical and disciplinary contributions. First, it reconceptualises literary naturalism as a viable critical framework for the Anthropocene, challenging the long-standing assumption that naturalism is confined to industrial modernity. By demonstrating how determinism operates through ecological, material, and planetary forces, the study expands naturalist theory beyond its traditional focus on heredity and social class.

Second, the paper bridges a critical gap between ecocriticism and naturalism. While ecocritical scholarship has often emphasized ethics, representation, and sustainability, it has tended to under-theorize determinism. By integrating Anthropocene theory, posthumanism, and new materialism, this study reintroduces structural constraint and vulnerability into environmental literary analysis, offering a more robust account of how ecological forces shape narrative outcomes.

Third, the comparative, cross-racial approach of the study foregrounds environmental injustice as a defining feature of Anthropocene naturalism. By analyzing Black, Indigenous, and urban narratives together, the paper demonstrates how ecological vulnerability is unevenly distributed along racial, legal, and colonial lines. This contribution is particularly relevant to environmental justice studies and Indigenous literary criticism.

Finally, the study has pedagogical implications for the teaching of contemporary American literature and environmental humanities. It provides a conceptual framework through which students and scholars can read realist and post-9/11 fiction alongside climate narratives, thereby dissolving rigid distinctions between environmental literature and mainstream American fiction.

Conclusion

This study has reaffirmed the continued relevance of literary naturalism in contemporary American fiction by demonstrating how the mode has evolved in response to the ecological, social, and ethical challenges of the Anthropocene. Far from being an obsolete aesthetic confined to industrial modernity, naturalism persists as a dynamic and adaptive framework that has been reconfigured to address planetary vulnerability, environmental injustice, and posthuman subjectivity. Through a close analysis of *Sahage the Bones*, *City of Refuge*, *Falling Man*, *The Round House*, and *Sing, Unburied, Sing*, the study illustrates how contemporary fiction revises naturalism by relocating determinism within ecological and material systems rather than biological inheritance or moral failure.

The synthesis of insights from all five texts reveals that contemporary American narratives consistently foreground the limits of human agency in the face of climate catastrophe, infrastructural collapse, colonial legacies, and racialized environments. Hurricanes, damaged landscapes, legal boundaries, prisons, animals, and spectral presences function as non-human agents that shape narrative outcomes and ethical possibilities. These elements collectively signal a shift from anthropocentric storytelling to a posthuman orientation that acknowledges shared vulnerability across human and non-human life forms.

Importantly, this revised naturalism does not lapse into fatalism or ethical paralysis. While human agency is decentered, moral responsibility persists through relationality, care, memory, and environmental justice. Indigenous and racial ecologies, as represented in *The Round House* and *Sing, Unburied, Sing*, underscore the necessity of rethinking determinism through histories of colonial dispossession and racialized environmental harm. These narratives insist that ecological crisis cannot be separated from questions of sovereignty, justice, and historical accountability.

Ultimately, this study concludes that contemporary American fiction demands a posthuman and ecological rethinking of determinism—one that recognizes planetary forces as active agents while preserving ethical engagement and social critique. By integrating naturalism with Anthropocene theory, posthumanism, and new materialism, the study contributes to an emerging critical discourse that positions literature as a vital medium for understanding life under conditions of climate crisis and systemic precarity.

Beyond literary criticism, this framework has implications for environmental humanities pedagogy by enabling the teaching of climate crisis through realist and naturalistic texts rather than speculative fiction alone. It also underscores the importance of cultural narratives in shaping public understanding of environmental justice and planetary vulnerability. While this study offers a comprehensive analysis of Anthropocene naturalism in contemporary American fiction, it remains limited to realist prose narratives and does not engage speculative climate fiction, non-fictional environmental writing, or visual media. Future research may extend this framework to global literatures, Indigenous futurisms, or climate-oriented speculative genres in order to further test the adaptability of naturalism in diverse narrative forms. Nonetheless, by grounding ecological crisis within realist and naturalistic traditions, this study establishes a foundation for expanding Anthropocene literary criticism across genres and media. In doing so, it affirms that naturalism remains a powerful and necessary mode for interpreting the complexities of the twenty-first-century world.

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