

"Evidences of Decadent Humanity"

Antianthropocentrism in Early Science Fiction

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ABSTRACT

Early science fiction (SF) is noted for, among other things, its conservatism and lack of interest in ecology. Brian Stableford, a well-known SF writer and critic, writes that "there are very few early stories with ecological themes" (1993, 395). This article shows that, in fact, many early SF works (those written between the Enlightenment and World War II) employ ecological themes, especially as applied to questioning our anthropocentrism. These works suggest that humans are but one species among many, that we are not the end of nature/history, that the natural world may be better off without us, and, in some cases, that humanity is fated to go extinct, the result of its own hubris. Such views are undoubtedly pessimistic, yet these works may also be read as warnings for humans to seek a more humble view of ourselves as members of what Aldo Leopold calls the land community.

KEYWORDS

anthropocentrism, ecocentrism, ecocriticism, literature, rhetoric, science fiction



No less than the English Romantics and nature writers from Thoreau to the twenty-first century, many works of science fiction (SF) comprise a rich, varied, and philosophically intriguing tradition of questioning anthropocentrism and some of the time even suggesting or explicitly espousing ecocentrism. Contemporary SF writers such as Kim Stanley Robinson and Joan Slonczewski exhibit subtle, sophisticated treatments of ecology in their widely celebrated novels.¹ By contrast, early SF writers have been noted for their ignorance of ecology. Brian Stableford (1993), for example, writes that "there are very few early stories with ecological themes." Early SF writers "were often oblivious to the simplest matters of ecology" in writing about life on other worlds. Among SF pulp writers, only Stanley G. Weinbaum "showed anything more than a rudimentary consciousness of the subject" (395). This article seeks less to overturn this judgment than to moderate it; although often relatively lacking in sophistication and "soft" in its science, many SF works written between the Enlightenment/neoclassi-



cal period and World War II contain ideas of continuing ecological relevance.

“Anthropocentrism” and “ecocentrism” are concepts much more commonly used by environmental philosophers and practitioners of green studies than by SF writers. Ecocentrism denotes the view of the world by which nonhuman nature has intrinsic values similar if not equal to those of humans. A literary or philosophical work with an ecocentric view addresses the imbalance resulting from a strict, “hard” anthropocentrism that has dominated the world, explores the nature of that imbalance, and, often, espouses a restoration of balance.² It is true that not all people who consciously reject hard anthropocentrism are by definition possessed of an ecocentric—ecologically centered—view, but the two concepts tend to go together. Many people who espouse ecocentrism may acknowledge on the one hand that humans are the planet’s dominant species but hold on the other that this does not support the idea that the world exists solely or even chiefly for human use. It is no coincidence that, in the wake of the modern environmental movement—based in the work of the English Romantics and the New England Transcendentalists, grounded scientifically in the writings of Charles Darwin, Aldo Leopold, and Rachel Carson, and arriving fully near the end of the 1960s—many SF writers would adopt environmental themes in their work. The SF subgenre of “ecocatastrophe” literature flourished around this time and peaked in the early 1970s, in the wake of several widely reported global environmental disasters. Seemingly countless ecological-minded SF novels, stories, and anthologies appeared beginning in the early 1970s. The audience for such literature was and is still forced to think freshly about our species’ place on earth.

Science fiction, almost from its beginning, has been a popular genre, from pulp to cheap paperback, Hollywood, television, and Internet, but it has made inroads into academia within the last generation. Although it is common and partially correct to associate the genre with writers and readers excited by future technologies, its subject matter is much wider than is commonly acknowledged. American SF began to flourish around the time John Muir began publishing his influential nature books at the turn of the previous century. The genre’s Golden Age reached a high point around the time of Aldo Leopold’s *A Sand County Almanac* in 1949, the publication of which had direct influence on the rise of the environmental movement in the United States, and with it the 1964 Wilderness Act, the founding of the Environmental Protection Agency and the establishment of Earth Day

in 1970, and the Endangered Species Act of 1973. Although I focus presently on SF in the United States and Great Britain, ecological SF is a worldwide practice, represented in the fiction of Stanislaw Lem (*Solaris*) of Poland and the animated films of Hayao Miyazaki (*Princess Mononoke*) of Japan. By tracing the development of anthropocentric ideas in this popular genre, one may see the evolution of an idea that commanded the upper reaches of the box office worldwide with *Avatar* (2009). To study the history of antianthropocentric rhetoric in SF in its formative years is to delve into the means by which a sophisticated and controversial but central ecological idea both reflected and was dispersed into culture at large.

Ecocentrism is often associated with Aldo Leopold, who developed the idea of a land ethic: "In short, a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such" (Leopold 1949). Leopold shows how "an ecological conscience" arises with an understanding of science. Post-Darwinian science, which shows that all living creatures have a common ancestry, precludes a hard anthropocentric view. Many literary works before Darwin and even before the rise of modern science in the Renaissance, extending to classical antiquity, suggest this view (see Glacken 1967). But Darwin provided the scientific confirmation for what, until the publication of *The Origin of Species* (1859), had been largely a matter of philosophical and artistic speculation. As shown in studies by Karl Kroeber (1994) and James C. McKusick (2010), among others, the poetry of Wordsworth and other Romantics veers closely toward an ecocentric view. Thoreau, though only nominally a "Darwinian," explores ecocentric ideas in *Walden* ([1854] 1971) and elsewhere.³ Ecocentrism is not so much a motif in *Walden* as it is its overall mind-set, even as Thoreau is focused ultimately, like Wordsworth, on human values. Yet, on occasion, Thoreau directly imagines a natural world free of human (or at least Euro-American) encroachment: chestnut woods lie in "sleep" under the Concord railroad, ready to reappear when the railroad disappears. The arrogance of Euro-American culture represented by "fatted cattle and waving grainfields" has muted the natural world, but, he writes, "let wild Nature reign here once more, and the tender and luxurious English grains will probably disappear before a myriad of foes" (238–39).

Robinson Jeffers's poetry, much of it written prior to the publication of *A Sand County Almanac*, establishes a strongly antianthropocentric

point of view that he termed “Inhumanism.”⁴ “Carmel Point” ([1954] 2001) bemoans a “beautiful place defaced with a crop of suburban homes” and concludes that humanity’s hope lies in our ability to “un-center our minds from ourselves” (676). In the wave of Leopold’s influence, many nonfiction writers made the idea central in their work. It is one of the key ideas in the writings of Loren Eiseley. In *The Immense Journey* (1957) he writes, characteristically, that “we see, perhaps inevitably, through human eyes alone. We see ourselves as the culmination and the end, and if we do indeed consider our passing, we think that sunlight will go with us and the earth be dark” (57).

Some early SF pieces dramatize fantastic situations in which antianthropocentric ideas emerge that are similar to those suggested in Thoreau, Leopold, Jeffers, and Eiseley. Early SF may seem odd terrain for an ecocritical study. In fact, many ecocritics have written about SF, though pre–World War II works remain largely overlooked (see Buell 1995: chap. 9; Murphy 2009: chap. 6 and 7; Baratta 2012; Otto 2012). Ursula K. Heise (1999) writes that “ecocriticism has nothing specifically to do with *nature* writing,” and she identifies SF as a literary genre “in which questions about nature and environmental issues emerge most clearly” (1097). Often, apocalyptic or “ecocatastrophic” SF in particular is one of the most common frameworks by which writers express antianthropocentrism and in some cases out-and-out ecocentrism.

The antianthropocentrism in SF is one manifestation of Brian W. Aldiss’s (1986) well-known definition of the genre: “Hubris clobbered by nemesis.” In the works discussed in this article, characters typically find themselves in situations that subvert the assumption that the human species is the only one that matters. Science fiction is not an inherently antianthropocentric genre, but several SF writers have addressed the genre’s uniqueness in accounting for the nonhuman. C. S. Lewis (1966) identifies a “sub-species” of SF as “the Eschatological,” which includes novels such as H. G. Wells’s *The Time Machine*, Olaf Stapledon’s *Last and First Men*, and Arthur C. Clarke’s *Childhood’s End*. Such works give “an imaginative vehicle to speculations about the ultimate destiny of our species.” For Lewis, “It is sobering and cathartic to remember, now and then, our collective smallness, our apparent isolation, the apparent indifference of nature, the slow biological, geological, and astronomical processes which may, in the long run, make many of our hopes (possibly some of our fears) ridiculous.” Ursula K. Le Guin (2002) writes that SF “is almost the only kind of story that ever really admits of a world not dominated by human be-



ings (or gods, animals, or aliens who act just like human beings)." And Frederik Pohl (1976) writes, "One of the things that most attracts me to science fiction is its capacity to give what [American astronomer] Harlow Shapley calls 'the view from a distant star,' the perspective on our humanity through the eyes of nonhumans."

In a 1933 preface to a collection of his own scientific romances, Wells writes of the genre's unique potential for "looking at human feelings and human ways, from [a] new angle" (quoted in Evans 1999). As Peter Straub (2002) notes, Wells's refusal to honor distinctions between humans and beasts outraged his critics. Arthur B. Evans (1999) writes that early SF critics specifically disliked the genre's lack of emphasis on the human. Some SF works, then, are rhetorical in their unique, extrapolative means of casting humanity in a post-Copernican—and by the later nineteenth century, post-Darwinian—light. Like much later SF, some early works hold implications for the place of humans in the universe by making readers reconsider an underlying and largely unquestioned anthropocentrism that has dominated human thought across the planet from time immemorial.

Karl Kroeber (1988) holds that SF dramatizes "how our world has become so exclusively humanized as to be self-diseased." The anti-anthropocentric response in SF is not an obscure, "niche" theme, but rather one that cuts to the center of the genre. Emerging from such an analysis is the conclusion that at least some SF, including its early representatives and more conventional nature writing, share the notion that we are not alone. It is commonplace and somewhat justified to think of SF as most regularly locating our neighbors in imagined, faraway worlds, but at least in some cases, SF is as focused on the earth—our fellow animals, flora, rocks, oceans, and rivers—as is conventional nature writing. Yet only a few of the works I discuss may be termed accurately "ecological SF," which is, in some respects, a later category represented by Le Guin and Kim Stanley Robinson, among others.

Early SF in particular is decidedly patriarchal, since so few women published SF before World War II. But perhaps at least some early SF is more feminine than has been acknowledged. Similar to feminism, which focuses in part on a critique of androcentrism, the interrogation of anthropocentrism in artistic representation challenges entrenched cultural norms, often explicitly. It is no coincidence that the rather pessimistic views represented in many early SF writers tempered after the women's movement and the appearance of such celebrated female SF writers—many of whose works question anthropocentrism—

as Kate Wilhelm, Joanna Russ, James Tiptree, Jr. (Alice B. Sheldon), Sheri S. Tepper, Ursula K. Le Guin, Suzy McKee Charnas, C. J. Cherryh, and Octavia Butler, among many others.⁵ Darwinian science and its implications for the place of humans in the world did not die out in SF, of course, but the prewar naturalistic-modernist strain did give way to a more humanistic understanding of our relationship with the greater world, and this is, at least in part, an effect of the contribution of feminist thought that arose at about the same time as the modern environmental movement.

Before Charles Darwin

In writing about “early” SF, one is faced with the question of the genre’s beginnings, but there is not a definitive genesis point. The genre developed slowly and by degrees but came into its own with the rise of modern science, culminating, to some degree, with Darwin’s theories.⁶ Copernicus revolutionized every field of knowledge and all arts, including speculative literature. So, too, did Copernicus’s discovery shake up the largely unexamined human-centered view of the earth and the cosmos: there was now solid evidence that the world does not revolve around man in physical and philosophical senses.⁷ Another founder of modern science, Johannes Kepler, wrote *Somnium* (The Dream, c. 1611), which is a fantastic work that describes a trip to the moon, and it is rhetorical in its argument for a heliocentric system. Among his lengthy notes explaining scientific theories and the tale’s context, Kepler makes it clear that his work is in opposition to humankind’s “ancient Ignorance” (quoted in Evans 1999).

A picture of the eroding centrality of humankind in the universe from the early seventeenth to the middle of the eighteenth century, Voltaire’s “Micromegas: A Philosophical Story” was inspired by *Gulliver’s Travels*, which Voltaire read and admired. Published in 1752, the essential elements of Voltaire’s *conte* were contained in the account, now lost, of an imaginary voyage sent to Voltaire’s patron and (then) friend Frederick of Prussia in 1739. Micromegas, a 120,000-foot-tall inhabitant of a planet orbiting Sirius, visits Saturn, where the inhabitants stand at a mere 1,000 fathoms (1,800 meters). Micromegas laments the fact that Sirians possess only 100 senses, “yet there remains in us some vague unease, some nameless longing which ceaselessly reminds us that we are of little consequence.” By implication, humans are in a relatively lowly position, limited to 5 senses, standing



an average of a bit over 5 feet tall, and living only 70 years. Visiting earth, Micromegas, accompanied by a Saturnian "dwarf," observes that humans are the size of atoms. An absurdly tiny human adherent of the Catholic philosophy of Thomas Aquinas prompts ridicule by asserting the (hard) anthropocentric notion "that everything—their persons, their worlds, their suns, their stars—had been created uniquely for Man." In the Newtonian universe, Voltaire shows, it is the law of nature to feel oneself merely a drop of water in the ocean.

Following the work of natural philosophers from the early modern period to the later eighteenth century and philosophes such as Voltaire, Diderot, and Rousseau, the English Romantics formed the basis for much pre-ecological thought, antianthropocentric speculation, and SF-related ideas, including apocalyptic-millennialist rhetoric, found especially in the writings of William Blake and Percy Shelley, but there is little in the English Romantics' work that might be called SF, as opposed to visionary or fantastic.⁸ Mary Shelley's *Frankenstein* ([1818] 1994) inaugurates a number of themes and even genres, including, arguably, SF itself, along with its chief theme of warning against too much scientific hubris. Victor Frankenstein tells his host, Robert Walton, just before relating how he created the monster, "how dangerous is the acquirement of knowledge, and how much happier that man is who believes his native town to be the world, than he who aspires to become greater than his nature will allow." Just before encountering the monster for the first time after its creation, Victor recounts the sublime vistas near Mont Blanc and asks, "why does man boast of sensibilities superior to those apparent in the brute." And much later in the novel, Victor concludes that he cannot comply with the monster's wish that he create a mate for him: "I could not sacrifice the whole human race." Later SF writers, including Shelley herself in her 1826 novel *The Last Man*, would have fewer qualms than Victor in its dramatization of such a sacrifice.

Among American Romantics, a number of works establish ideas that would receive thorough treatment in later SF. These include James Fenimore Cooper's *Leatherstocking Tales*, which at various points bemoans the rapacious development of the American wilderness and imagines it absent of Europeans. William Cullen Bryant's 1834 poem "The Prairies" suggests the mutability of human civilizations within the context of an enduring earth. Edgar Allan Poe is regularly regarded as one of the developers of SF. In the second of his three "spirit dialogues," "The Colloquy of Monos and Una" ([1841] 2000), humanity brings ruin upon itself, at least indirectly. Monos tells his feminine

double Una that, through a lust of the intellect and the destruction of the natural world, humans “worked out our own destruction.” Monos states that the leading “evil” is knowledge: “Man could not both know and succumb. Meantime huge smoking sites arose, innumerable. Green leaves shrank before the hot breath of furnaces. The fair face of Nature was deformed as with the ravages of some loathsome disease.” Poe raises a paradox confronted by such twentieth-century SF works as Walter Miller’s *A Canticle for Leibowitz* (1959) and Philip K. Dick’s “Autofac” (1955), which also regard knowledge as both inevitable in civilizations and potentially the ultimate cause of the end of our species.

Although Poe disliked the Transcendentalists, who were, he believed, not only overly optimistic but also overly didactic, through Monos, he posits not un-Emersonian notions about the uses of “analogy which speaks in proof-tones to the imagination alone.” Monos echoes Jean-Jacques Rousseau and anticipates Thoreau, the forefathers having pondered “the ancient of days when our wants were not more simple than our enjoyments were keen.” Before Monos proceeds into the story’s second half, which concerns his own premature burial, he decries the world’s overreliance on “harsh mathematical reason”: “This the mass of mankind saw not, or, living lustily although unhappily, affected not to see. But, for myself, the earth’s records had taught me to look for widest ruin as the price of highest civilization.” As a catastrophe story, “The Colloquy of Monos and Una” is one of the first to dramatize human-caused apocalypse resulting from unwise use of the environment or the out-and-out ravaging of the earth for private gain.

H.G. Wells

The implications of Darwin’s *The Origin of Species* would have a far-reaching effect on the development of SF in the later nineteenth and early twentieth centuries, just as Copernicus’s discovery influenced neoclassical/Enlightenment writers in the seventeenth and eighteenth centuries. The worldview shifted even further away from an anthropocentric one, in thought if not in action, though not every fin de siècle SF (or speculative) work is a Darwinian parable. Richard Jefferies’s best-known work, *After London* ([1885] 2006), owes less to Darwin than to eighteenth-century British writer (and major Thoreau influence) Gilbert White, though the opening chapters of the novel reflect a dark shift in speculative literature representative of the era. The



novel's opening paragraph front-loads the novel's context: "The old men say their fathers told them that soon after the fields were left to themselves a change began to be visible. It became green everywhere in the first spring, after London ended, so that all the country looked alike." Jefferies proceeds with a pseudoscientific cataloguing of England in the year 3000, after a vaguely described catastrophe has all but extinguished humanity, the remaining Britons of which have resorted to feudalism. The sea has risen, flooding London, and the Thames is nothing more than a poisonous swamp. Jefferies describes the altered ecological chains: crops are eaten by mice, which are eaten by hawks; cats and dogs go feral. Postcatastrophe, the narrator celebrates this natural, largely humanless world through minute details. Unfortunately, the human romance that proceeds after the early chapters doesn't sustain the novel. As Brian Aldiss writes, Jefferies's "people enjoy less animation than his plants" (1986, 114).

The early fiction of H. G. Wells is particularly pertinent to this study. His stories and novels are among the most widely read works I discuss and have left an indelible mark on Western culture. Most of Wells's best fiction centers on shaking up well-entrenched views of humans and the world, including a thorough subverting of anthropocentrism within an ecological framework. Whereas Wells's later writings tend toward the utopian, his earlier scientific romances are dystopian, pessimistic, though Wells was early on aware that evolution is "no mechanical tendency making for perfection ... it is simply the continual adaptation of plastic life, for good or evil, to the circumstances that surround it" (Wells 1964). When the Time Traveler of *The Time Machine* ([1895] 2002) arrives in the 803rd century, he has "happened upon humanity upon the wane," and any vestiges of anthropocentrism are absurd. Humanity had, over the millennia, civilized the world—"One triumph of a united humanity over Nature had followed another"—but an era of stagnation ensues following the "defeat" of nature. There are no more gnats, weeds, or fungi, but "after the battle comes Quiet," and humans—or at least the (once) capitalistic surface-dwelling Eloi—have become soft, lazy, and ignorant. The triumph, remarks the Traveller, is "too perfect."

Evoking the Romantic symbol system of several generations before in the writing of Madame de Staël, Chateaubriand, Byron, and others, Wells includes many ruins images in *The Time Machine* to underscore the mutability of human civilizations. Writing less about the future than about the present and immediate future, the novel serves as a warning about inequalities (the growing chasm between the rich

and poor) and the unchecked human exploitation of the earth. Wells presents the idea more explicitly in his story "A Dream of Armageddon" ([1901] 1998), the internal narrator of which comments on the builders of warplanes, which will eventually lead to the Armageddon of the title: "You know the silly way of the ingenious sort of men who make these things; they turn 'em out as beavers build dams, and with no more sense of the rivers they're going to divert and the lands they going to flood!" Between the lines of such statements is Wells's famous maxim at the end of *The Outline of History*: "Human history becomes more and more a race between education and catastrophe" (1920). The Time Traveller observes the logical conclusion, after hundreds of centuries, of the political system of England, the aftermath of the triumph of the capitalists over both nature and fellow human beings: visiting the far future, the Traveller finds a silent, darkened earth—without humans. After a long interval, as he travels backward to the present, marking eons of time, he at last sees "the evidences of decadent humanity."

Wells would, beginning in the 1900s, reposition himself as a utopian visionary, but his final word, stated in *Mind at the End of Its Tether* (1946), is that all of life—and not just human—is "played out." A reflection, doubtless, of his own ill health (he would die the following year) and the wearying strain of World War II, Wells gives no specifics in explaining his pessimism, other than to echo Darwin on "the struggle for existence." He holds a shred of hope that *Homo sapiens* ("as he has been pleased to call himself") may adapt, but, he concludes, "my own temperament makes it unavoidable for me to doubt, as I have said, that there will not be that small minority which will succeed in seeing life out to its inevitable end."

From almost the beginning of *The Island of Dr. Moreau* ([1896] 2002), Wells's protagonist, Edward Prendick, is placed in a world in which the demarcation between humans and animals is unstable. The novel may be read as a wry take on the English class structure, an antivivisectionist parable (again echoing Victor Frankenstein's warning against scientific hubris), and, of course, an adventure tale, but the blurring of human-animal distinctions is central. Midway through the novel, horrified by scientist Moreau's experiments in creating half-man, half-animal creatures ("Beast Men" or "Beast People"), Prendick realizes that he and the Beast Men share more similarities than he cares to admit. He ridicules their primitiveness, but drilled in their laws ("Not to go on all Fours," "Not to suck up Drink," etc.), Prendick's "I" and the Beast Men's "they" begin to merge in a ceremonial chant: "A

kind of rhythmic fervor fell on all of us; we gabbled and swayed faster and faster, repeating this amazing law. Superficially the contagion of these brute men was upon me, but deep down within me laughter and disgust struggled together." Prendick follows these creatures' example; that is, he "apes" them.

Of course, the monstrosity hubristic Moreau is the novel's true "beast." He should know better. His sheer anthropocentric arrogance is at the root of his terrible experiments. It has caused him to learn the wrong lessons: says Moreau, "The study of Nature makes a man at least as remorseless as Nature." He recounts how, having first laid eyes on the island where he conducts his vivisections, "The place seemed waiting for me." Prendick, trained, like Wells, by T. H. Huxley at the Royal College in Kensington, discovers firsthand that species are mutable. After several weeks among the Beast People, he "fell in with their persuasion that my own long thighs were ungainly." Unlike Gulliver after returning to England from the land of the rational, horse-like Houyhnhnms, Prendick does not regain confidence in humanity or come to terms with his own humanness; returned home, the streets of London, he notes in the final few paragraphs, are filled with "prowling women" and "craving men." He undergoes no positive reaffirmation.

At first glance, *The War of the Worlds* ([1898] 2006) would seem to have little in common with its predecessors, but its biological, detached view of the invaders from Mars correlates with the Time Traveller's discoveries about the finiteness of humanity and the accentuated blurring of the line between human and nonhuman in *The Island of Dr. Moreau*. *The War of the Worlds* reveals, again, Wells's instruction in biology under Huxley. Reflecting the indifference of nature, Wells applies natural selection and speculative science to the invading Martians themselves. Beginning with the book's epigraph (from Kepler: "How are all things made for man?"), Wells uses the Martian attack as a means of attacking a hard anthropocentric viewpoint. In the novel's famous opening paragraph, the Martians scheme the earth's invasion and look at humans the way that we observe "transient creatures" through a microscope, and two paragraphs later he attacks directly the vanity that blinds humans. The oft-filmed novel retains its powerful ability to shake up our assumption that the earth exists mainly for human benefits. Humans are fully capable of being exterminated by outer forces (Martians, for example), just as sailors exterminated "the respectable dodo."

Furthermore, *The War of the Worlds* forces a re-examination of the relationship of humans toward their fellow earthly inhabitants, as

well as England's late Victorian colonizing tendencies (also a theme in *The Island of Dr. Moreau*). As the Martians rapidly gain control of England, institutions that the people have taken for granted such as the police and the railways are "quickly losing shape and efficiency, guttering, softening, running at last in the swift liquefaction of the social body." The veneer of civilization, Wells demonstrates, is thin: the narrator and other human survivors are reduced to mere scavengers; "how swiftly that desolating change had come." The narrator has become "an inferior animal," and "like a rat leaving its hiding place." The displacement of human perspectives is one of the novel's major themes. If the invasion has taught humans nothing else, it "has taught us pity—pity for those witless souls that suffer our dominion." The narrator's description of the vampiric means of Martian feeding is admittedly "repulsive," but he includes a caution against an anthropocentric assumption: it is only repulsive from a human standpoint. The self-appointed center of the universe is reduced to Martian food. Just as humans have transformed the landscape and run rabbits out of their homes, so have the Martians transformed the landscape with their curious red flora. Underscoring human helplessness in a system of blind chance but also affirming humans as a part of the natural order, the invaders are slain not by modern British weaponry, but by "the humblest things that God, in his wisdom, has put upon this earth"—bacteria.

Many of Wells's short stories also reflect the author's Darwin-based rejection of anthropocentrism. His 1897 apocalyptic story "The Star" envisions the events before and during the collision (or, as it turns out, near-collision) of an unnamed star (planet) with the earth. "The Star" echoes Poe's story "The Conversation of Eiros and Charmion," which revolves around the destruction of the earth by a comet, though Wells's story operates not through a single narrator or dialogue but through a series of vignettes of people in various stations responding to the rapidly approaching star. Against the current of opinion, a "master mathematician" makes calculations and concludes, "Man has lived in vain." As the star reaches full impact, the final paragraph transposes to "Martian astronomers—for there are astronomers on Mars" who note little change in the appearance of the earth's surface, unaware that the passing star has all but exterminated human life. The story's concluding idea is characteristically Wellsian: the Martian astronomers' indifference "only shows how small the vastest of human catastrophes may seem, at a distance of a few million miles." "The Empire of the Ants" ([1905] 1998) initiated a subgenre of SF centered on malignant, impe-

rialistic insects. The meticulous British narrator is uneasy with the lack of order in Brazil, a country he finds characterized by an "inhuman immensity." In England, things "grow on lease," but here, humans are not fully in charge. Over time, humans evolved and took charge of the earth; what is there to prevent the invading hordes of ants, which have an intelligence and language of their own, from doing the same?

Early Twentieth Century

Although Wells was hardly the first writer to speculate on the far future destiny of the earth, he (with Jules Verne) established this frame as a norm in SF. The pessimistic idea of a degraded far future humanity does not in itself constitute a questioning of or attack on anthropocentrism, but the two ideas sometimes work together in early SF. In his 1960 survey of SF, *New Maps of Hell*, Kingsley Amis writes that the genre "presents with verisimilitude the human effects of spectacular changes in our environment, changes either deliberately willed or involuntarily suffered." Amis notes SF's recurring themes of human extinction and our need for but lack of security; the genre, he writes, has potential for activism and social critique, and it has the ability to "make some contribution to the security of our" future. All these ideas apply to E. M. Forster's influential story "The Machine Stops" ([1909] 1971), which is a pessimistic response to Wells's utopias (see Hillegas 1974). The story does not concern the extinction of the human race per se, but its world is utterly antiutopian. Anticipating the century's three most influential dystopian novels—*We*, *Brave New World*, and *1984*—humans are completely shut off from the natural world and are raised, sustained, entertained, disciplined, and governed by the machine. There is no indication that a great cataclysm has occurred; life as it is has arisen over time through a gross overdependence on machinery. At the end of the story, as the title of the story is realized through internal malfunction, Vashti (a middle-aged woman) and her fellow machine dwellers (the majority of the human race) face a sort of apocalypse, but it is one that will ultimately break down the system that alienates humans from nature, for better and worse: "Homeless" people have been living outside the machine, in the natural world, all along. Vashti represents the status quo, those unquestioningly content living in the machine. She scarcely knows her own son, Kuno, limited to brief correspondences with him through the machine—difficult for twenty-first-century readers to not identify with the Internet. She mis-

takenly tells Kuno that the earth's surface is uninhabitable, lifeless, comprised only of dust and mud.

The world of this story is one of amazing uniformity: the machine life in Asia is exactly the same as the machine life in Western Europe, though the centralized brain of the machine ensures that nationalities are kept alive. Air ships deposit people around the globe, and few travelers desire to even look outside, much less venture outdoors. Even the stars are "intolerable." Thus, "All the old literature, with its praise of Nature, and its fear of Nature, rang false." Accompanying this utter hatred of the outdoors is contempt for its use beyond commodity. So the forests to the north of the Himalayas were "destroyed during the literary epoch for the purpose of making newspaper pulp." Only homeless dissidents such as Kuno realize that by annihilating space, "We have lost a part of ourselves." Once out of the machine, Kuno tells Vashti he saw "low colorless hills. But to me they are living and the turf that covered them was a skin, under which their muscles rippled." Nature had once been possessed of "incalculable force" to enlighten people, who are dying because of their isolation and their dependence on the machine. As the machine stops at the end of the story, Vashti realizes "that civilization's long day was dying."

Jules Verne is, of course, one of the founders of SF, but it is his very late story "The Eternal Adam" ([1910] 1999), partially written by the writer's son Michel, that concerns us here. The fact that Verne grew slowly more pessimistic over time is reflected clearly in this story, which though not particularly "ecological" is both apocalyptic and antiteleological. As the story, set in the far future, opens, the main character, Zartog Sofr-Ai-Sr, is walking toward a celebration of the 195th anniversary of "The Empire of the Four Seas," which extends from present-day Berlin to Cape Horn. Sofr, a philosopher-scientist, recalls the long, slow movement humankind has accomplished over those centuries as it at last "freed itself from its bestial origin" and the "taming of material nature." He accepts evolution as a fact but refuses to consider the possibility, theorized of late, of a sophisticated society some 40,000 years before. Sofr is reluctant to admit that ancient humans would leave no trace of a civilization comparable with or superior to that of the present. This, he states, "would be to deny the future, to announce that our efforts are all in vain, and that all progress is as precarious and as uncertain as a bubble of foam on the surface of the waves!" In the midst of these thoughts, Sofr personally uncovers in a hidden site a journal, the contents of which unravel Sofr's confidence in human achievement.



The journal, 20,000 years old, was written and narrated by an early twentieth-century French man. The beginning entry establishes a sense of urgency and his purpose in describing "those frightful happenings ... for the enlightenment of those who come after me—if indeed mankind is still entitled to count on any future whatever." In a "revolt of matter," a great earthquake strikes that causes the earth's terra to sink and the water to rise. Escaping by automobile, the journal author, with a few others, ascends to higher land, while all the land surrounding him submerges and disappears. A ship, *The Virginia*, rescues the journalist, and after months of sailing the world on a seemingly endless sea, he succumbs to the realization of "loneliness in the midst of a pitiless universe." The ship finally finds a stark, inhospitable piece of land, where the survivors live on turtle eggs and seaweed until, years later, they are able to grow wheat. Humankind falls rapidly into a state of retrogression. All learning disappears, and sustenance becomes the sole aim. The inhabitants live nakedly, clothes being too difficult to make and maintain, and the journalist grows old. After reading the document to its end, Sofr becomes convinced of the Pythagorean "eternal recurrence of events."

A tale of a less distant future, Jack London's *The Scarlet Plague* ([1912] 2008) functions as part socialist-naturalist rhetorical tract, part ecological novel. After the Great Plague of 2013, which wiped out most of the world's human population, an old man—a former English professor—tells his grandsons the story of the plague and the events that followed. In a fiercely anti-intellectual postplague world, only the man, Ganser, retains some of the old knowledge. To his impatient audience, Ganser mumbles a part of a poem—"fleeting systems lapse like foam ..." (unidentified but from *The Testimony of the Suns* [1902], by London's friend George Sterling)—and concludes, "That's it—foam and fleeting. All man's toil upon the planet was just so much foam. He domesticated the serviceable animals, destroyed the hostile ones, and cleared the land of its wild vegetation. And then he passed, and the flood of primordial life rolled back again, sweeping his handiwork away."

As in Jefferies's *After London*, the absence of humans allows wildlife to flourish. Wolves reappear on Cliff House Beach in San Francisco (the setting of Ganser's storytelling), the grizzly population increases, and the now-thriving mountain lions have driven horses to the beaches, while the "the sea lions, bellowing their old primeval chant, hauled up out of the sea on the black rocks and fought and loved." Such passages involving the fate of domesticated animals and

cultivated land postplague anticipate the more successful apocalyptic novel by George R. Stewart, *Earth Abides* (1949). London's plague is a social evener, as much as it is an ecological resetting, posthuman.⁹ Yet Ganser suggests cyclical history in predicting the human race's fall into primitivism (signs of which are apparent in all but one of the grandsons) and its inevitable "bloody climb upward to civilization." Though flawed, London's novel is admirable in its sense of ecological order.

A similar ecological order is central in many other SF novels and stories written in the 1920s and into the SF pulp era (so called for the cheap quality of the magazine paper). One of these is Murray Leinster's 1920 novelette *The Mad Planet*, the scenario of which is startlingly contemporary: due to high amounts of carbon dioxide in the atmosphere, global warming develops, killing off humans in lower elevations. By the middle of the twenty-first century, the remaining humans fall into savagery and fight over the last habitable places on earth. Most of the earth's trees die out, and humans, now fewer in number, begin to adapt to new conditions. Published the following year, J. D. Beresford's "A Negligible Experiment" ([1921] 1998) dramatizes the approaching destruction of earth by an approaching planet larger than Jupiter. The narrator's fellow observer speculates (echoing the conclusion of Wells's "The Star") that beings in a far reach of the universe "may catch sight of this tiny blaze of ours—and wonder. It will be relatively a very small affair." Although absent of ecological ideas, Edmond Hamilton's "The Earth-Owners," which appeared in a 1931 issue of *Weird Tales*, unsubtly challenges anthropocentrism. When enormous clouds appear over modern Boston, one character, Randon, following the theories he read in a book, posits that the clouds are composed of the earth's "owners," who have returned: "We lords of creation, we humans who dominate the other animals of earth so completely, how few of us have ever dreamed that perhaps our earth and ourselves are owned as completely as we own a game-preserve and its animals!" In fact, it is an alien race that "owns" the earth and battles and destroys the clouds, which have been humans' unsuspected protectors all along. Raymond Z. Gallun's story of the far future, "Seeds of the Dusk" ([1938] 1981), is a parable of evolution and cyclical history in which the humanlike Itorloo have become not further enlightened, humane, and ecological minded, but "cold, cruel, cunning." A sentient spore plant from space, over a long period of time, develops its own supreme civilization, yet, as the story concludes, a future species—perhaps the distant relatives of the Itorloo—may one day return and restore its dominance.



Out of the range of this article are the many SF works with anti-anthropocentric/ecological themes in the latter half of the twentieth century and into the twenty-first century. Among these writers are several I have listed previously, as well as John Wyndham, Clifford Simak, Arthur C. Clarke, Frederik Pohl, Frank Herbert, John Christopher, J. G. Ballard, Margaret Atwood, Thomas M. Disch, David Brin, Greg Bear, Stephen Baxter, Paolo Bacigalupi, and many others. Whereas SF has grown more respectable in academia in recent decades, much early SF appeared initially as popular entertainment for middle- to lowbrow audiences and has fallen into neglect and awaits ecocritical re-examination. At least some of these early works maintain relevance in their potential not just to entertain but to function rhetorically, less to prophecy than warn about the steep, perhaps fatal, price of humankind's inability to be aware of its membership in its land community. The understanding of our anthropocentric biases, a substantial theme in all the works I have discussed, is central to the development of a healthy ecological attitude. Elizabeth DeLoughrey and George B. Handley (2011) posit that "the ecocritical interrogation of anthropocentrism offers the persistent reminder that human and political and social inequities cannot be successfully and sustainably resolved without some engagement with the more-than-human world." Herein lies the enduring value of the works discussed; they account, by fictive, often fantastic, means, for the relationship between the human and nonhuman, and this, arguably, is "the most fundamental question of all for green studies" (Coupe 2000). The cultural impact of all these ecologically concerned SF works is difficult to quantify or make causal claims about, but the impact is clearly significant. They serve as popular entertainment, but they also comprise science lessons that many people may be too impatient to receive otherwise.

While most of the works discussed are pessimistic, few if any of these authors seem to actually *call* for human extinction. The point is perhaps moot: many scientists who have studied past cataclysmic events on earth conclude that human extinction is not a matter of *if* but *when*. Certainly, we are capable of undoing ourselves by environmental degradation as well as by nuclear war, which is also well represented in SF. Such knowledge is not antihuman or mere doom and gloom but should serve as a serious, real-life warning. In a world, our only world, threatened with anthropogenic environmental disasters—climate change, native habitat destruction, oil spills, nuclear meltdowns, city sprawl, environmental racism, and a large number of other ecological disasters—these early SF works are, finally, affirmative.



They lend artistic support to the idea that our attitude toward our land community, flora, fauna, land, bodies of water, and ourselves, should be one of humility. Like the writings of Wordsworth and Thoreau, these SF works can make readers question and alter their attitudes toward exploiting our home planet as if humans were all that mattered.



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Notes

1. See Robinson's Mars trilogy (1993–1997) and the Science in the Capital trilogy (2005–2007); Slonczewski's *A Door into Ocean* (2000) is among her Elysium Cycle novels.

2. Environmental philosophers note varieties in anthropocentrism, from “hard,” which holds that humans are the sole measure of all value, to “weak,” which states that humans are more valuable than the nonhuman, but habitats and other species are good in themselves. See chapter 12 in Oelschlaeger (1991), the first two chapters in Zimmerman et al. (1998), and Schmidtz and Willott (2012).

3. Richardson (1986: 376–379) discusses Thoreau's favorable reaction to Darwin.

4. In the preface to *Double Axe and Other Poems* (1948), Jeffers describes Inhumanism as “a shifting of emphasis and significance from man to not-man; the rejection of human solipsism and recognition of the transhuman magnificence.”

5. For a discussion of the links between anthropocentrism and feminism and other “-centrisms,” see Plumwood (1996). In a special edition of *PMLA: Publications of the Modern Language Association of America*, Marianne DeKoven (cf. DeKoven 2009) and others discuss the importance of critiquing anthropocentrism within the context of animal studies. A major exception to the men-only pre-WWII SF field is C. L. Moore, who often wrote with her husband, Henry Kuttner.

6. Many SF historians contend that the first work that may be called science fiction was produced by the second-century CE Roman comic writer Lucian, author of *A True History*. James Gunn includes *The Epic of Gilgamesh* in his highly regarded six-volume anthology *The Road to Science Fiction* (1977–1998). My decision to begin this survey by discussing a French Enlightenment work corresponds to the growth in the sciences at that time, and astronomy in particular: science was becoming modern. My survey ends before World War II, which initiated our ability to exterminate ourselves quickly and changed SF, along with almost everything else.

7. Of course, Copernican astronomy was one of many elements causing humans to rethink and decenter their conceptions regarding their place in the universe. Renais-



sance humanism, the Reformation, and the exploration of the New World contributed heavily to the erosion of a worldview dominant for 2,000 years. For a concise, scholarly discussion, see Osler (2010).

8. Lord Byron's horrifying 1817 poem "Darkness," in which the sun ceases to shine, is a notable exception.

9. In its social message, London's novel is comparable to W. E. B. Du Bois's uneven but interesting 1920 story "The Comet," in which the near-destruction of New York City temporarily evens out races socially.

References

- Aldiss, Brian W. 1986. *Trillion Year Spree: The History of SF*. New York: Atheneum.
- Amis, Kingsley. 1960. *New Maps of Hell: A Survey of SF*. New York: Harbrace.
- Baratta, Chris. 2012. *Environmentalism in the Realm of Science Fiction and Fantasy Literature*. Newcastle upon Tyne, UK: Cambridge Scholars.
- Beresford, J. D. (1921) 1998. "A Negligible Experiment." In *The Road to SF Volume 5: The British Way*, ed. James Gunn, pp. 149–53. Clarkston, GA: White Wolf.
- Bryant, William Cullen. (1834) 1935. "The Prairies." In *Representative Selections*, ed. Tremaine McDowell, pp. 74–77. New York: American Book Co.
- Buell, Lawrence. 1995. *The Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture*. Cambridge, MA: Belknap.
- Coupe, Laurence. 2000. "Nature/Culture/Gender: Introduction." In *The Green Studies Reader: From Romanticism to Ecocriticism*, ed. Laurence Coupe, pp. 119–122. London: Routledge.
- DeKoven, Marianne. 2009. "Guest Column: Why Animals Now?" *PMLA: Publications of the Modern Language Association of America* 124 (2): 361–369.
- DeLoughrey, Elizabeth, and George B. Handley, eds. 2011. "Introduction: Toward an Aesthetics of the Earth." In *Postcolonial Ecologies: Literatures of the Environment*, pp. 3–39. Oxford: Oxford University Press.
- Du Bois, W.E.B. (1920) 1969. "The Comet." In *Darkwater: Voices from within the Veil*, pp. 253–73. New York: Schocken.
- Eiseley, Loren. 1957. *The Immense Journey*. New York: Random House.
- Evans, Arthur B. 1999. "The Origin of SF Criticism: From Kepler to Wells." *Science Fiction Studies* 26 (2): 163–186.
- Forster, Edward Morgan. (1909) 1971. "The Machine Stops." In *Collected Tales*, pp. 145–197. New York: Knopf.
- Gallun, Raymond Z. (1938) 1981. "Seeds of the Dusk." *Catastrophes!*, ed. Isaac Asimov, Martin Harry Greenberg, and Charles G. Waugh, pp. 226–53. New York: Fawcett.
- Glacken, Clarence J. 1967. *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*. Berkeley: University of California Press.
- Gunn, James, ed. 1977–98. *The Road to Science Fiction*. 6 vols. Lanham, MD: Scarecrow.
- Hamilton, Edmond. 1931. "The Earth-Owners." *Weird Tales*. August, 22–31, 138–140.
- Heise, Ursula K. 1999. "Forum on Literatures of the Environment." *PMLA* 114: 1096–1097.
- Hillegas, Mark R. 1974. *The Future as Nightmare: H.G. Wells and the Anti-Utopians*. Carbondale: Southern Illinois University Press.



- Jefferies, Richard. (1885) 2006. *After London, or Wild England*. Charleston, SC: BiblioBazaar.
- Jeffers, Robinson. (1954) 2001. "Carmel Point." *Selected Poetry*, ed. Tim Hunt, p. 676. Palo Alto, CA: Stanford University Press.
- Kroeber, Karl. 1988. *Romantic Fantasy and SF*. New Haven, CT: Yale University Press.
- Kroeber, Karl. 1994. *Ecological Literary Criticism*. New York: Columbia University Press.
- Le Guin, Ursula K. 2002. "Introduction." In *The Time Machine: An Invention*, pp. xi–xvi. New York: Modern Library.
- Leinster, Murray. (1920) 1970. "Mad Planet: Under the Moons of Mars: A History and Anthology of 'The Scientific Romance'." In *The Munsey Magazines, 1912–1920*, ed. Sam Moskowitz, pp. 221–268. New York: Holt.
- Leopold, Aldo. 1949. *A Sand County Almanac: And Sketches Here and There*. Oxford: Oxford University Press.
- Lewis, Clive Staples. 1966. "On Science Fiction." In *Of Other Worlds: Essays and Stories*, ed. Walter Hooper, pp. 59–73. San Diego, CA: Harvest.
- London, Jack. (1912) 2008. *The Scarlet Plague*. London: Hesperus.
- McKusick, James C. 2010. *Green Writing: Romanticism and Ecology*. New York: Palgrave.
- Murphy, Patrick D. 2009. *Ecocritical Explorations in Literary and Cultural Studies: Fences, Boundaries, and Fields*. Lanham, MD: Lexington Books.
- Oelschlaeger, Max. 1991. *The Idea of Wilderness*. New Haven, CT: Yale University Press.
- Osler, Margaret J. 2010. *Reconfiguring the World: Nature, God, and Human Understanding from the Middle Ages to Early Modern Europe*. Baltimore: Johns Hopkins University Press.
- Otto, Eric C. 2012. *Green Speculations: Science Fiction and Transformative Environmentalism*. Columbus: Ohio State University Press.
- Poe, Edgar Allan. (1839) 2000. "The Conversation of Eiros and Charmion." In *Tales and Sketches Vol. 1: 1831–1842*, ed. Thomas Ollive Mabbott, pp. 451–62. Urbana: University of Illinois Press.
- Poe, Edgar Allan. (1841) 2000. "The Colloquy of Monos and Una." In *Tales and Sketches Vol. 1: 1831–1842*, ed. Thomas Ollive Mabbott, pp. 607–619. Urbana: University of Illinois Press.
- Pohl, Frederik. 1976. Headnote. "The Remorseful." In *The Best of C.M. Kornbluth*, ed. Frederik Pohl, p. 100. New York: Ballantine.
- Plumwood, Val. 1996. "Androcentrism and Anthrocentrism: Parallels and Politics." *Ethics and the Environment* 1 (2): 119–152.
- Richardson, Robert D. 1986. *Henry Thoreau: A Life of the Mind*. Berkeley: University of California Press.
- Schmidtz, David, and Elizabeth Willott, eds. 2012. *Environmental Ethics: What Really Matters, What Really Works*. New York: Oxford University Press.
- Shelley, Mary. (1818) 1994. *Frankenstein: 1818 Text*. Ed. Marilyn Butler. Oxford: Oxford University Press.
- Stableford, Brian. 1993. "Ecology." In *The Encyclopedia of Science Fiction*, ed. John Clute and Peter Nicholls, pp. 365–366. New York: St. Martin's.
- Straub, Peter. 2002. "Foreword." In *The Island of Dr. Moreau*, by Herbert G. Wells, pp. xi–xxi. New York: Modern Library.



- Thoreau, Henry David. (1854) 1971. *Walden*. Princeton, NJ: Princeton University Press.
- Verne, Jules. (1910) 1999. "The Eternal Adam." Trans. I. O. Evans. *"The Eternal Adam" and Other Stories*, pp. 211–244. London: Phoenix.
- Voltaire. (1752) 1961. "Micromegas." Trans. Donald Frame. In *Candide, Zadig and Selected Stories*, pp. 173–191. New York: Signet.
- Wells, Herbert G. (1895) 2002. *The Time Machine: An Invention*. New York: Modern Library.
- Wells, Herbert G. (1896) 2002. *The Island of Dr. Moreau*. New York: Modern Library.
- Wells, Herbert G. (1897) 1998. "The Star." In *Complete Stories*, ed. John Hammond, pp. 281–289. London: Phoenix.
- Wells, Herbert G. (1898) 2006. *The War of the Worlds*. London: Penguin.
- Wells, Herbert G. (1901) 1998. "A Dream of Armageddon." In *Complete Stories*, ed. John Hammond, pp. 547–567. London: Phoenix.
- Wells, Herbert G. (1905) 1998. "The Empire of the Ants." In *Complete Stories*, ed. John Hammond, pp. 585–597. London: Phoenix.
- Wells, Herbert G. 1921. *The Outline of History: Being a Plain History of Life and Mankind*. New York: Macmillan.
- Wells, Herbert G. 1946. *Mind at the End of Its Tether and The Happy Turning*. New York: Didier.
- Wells, Herbert G. 1964. "The Man of the Year Million." In *Journalism and Prophecy 1893–1946*, ed. W. Warren Wagar, pp. 3–9. Boston: Houghton.
- Zimmerman, Michael E., J. Baird Callicott, John Clark, Karen J. Warren, and Irene J. Klaver, eds. 1998. *Environmental Philosophy: From Animal Rights to Radical Ecology*. Upper Saddle River, NJ: Prentice Hall.