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## **Foreword:**

# **The City and the Anthropocene**

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Regularly depicted in opposition to more bucolic images, the city has frequently represented the worst excesses of human inhabitation of the natural environment. Often a topos presaging apocalyptic visions in the literature of modernism and post-modernism, the city has a long history as an object of representation. Historically, literature has framed cities in very specific ways. A special issue of *PMLA*, *Cities* (Yaeger), offers a broad set of discussions of some of these representational strategies, yet it does so largely outside the context of ecocritical inquiry. While there are hundreds of books about urban ecologies, there are relatively few on the topic from literary perspectives, and fewer still from ecocritical approaches. Meanwhile, literature has, from the early modern period to the twenty-first century, addressed the city/country binary from positions that are often deeply critical of environmental derogation and of the complicity of cities in the continued ruining of nature. Raymond Williams famously addressed the theoretical matter of the city/country binary from the perspective of class and environment, yet the theoretical trajectory within the environmental humanities since then has been to look at the ecologies of cities (Bennett and Teague; Schliephake). Literature, too, has been deeply concerned with the ecology of cities, and literary cities since the late nineteenth century are regularly the epitome of waste and spoilage. Well-known examples—such as Eliot’s London in “The Wasteland” or Joyce’s Dublin in *Ulysses*—are well within a tradition that envisions cities as filthy. By the end of the twentieth century, with a larger global consciousness about serious environmental issues, these representations take on different and more urgent meanings. While world populations increasingly flow into urban areas and environmental problems continue to become markedly worse, new areas of literary inquiry are rapidly opening up. One of the purposes of this special issue is to look at

the myriad ways that contemporary authors write about urban matters and about how they represent the Anthropocene city.

The “Anthropocene” is an increasingly popular term (one as yet not officially used)<sup>1</sup> describing what Diane Ackerman calls “the Human Age”—namely the period visible in a measurable and clearly anthropogenic carbon stratum developing since the Industrial Revolution. Coined by Eugene Stoermer in the 1980s, the term “Anthropocene” started to become popular after Stoermer and Paul Crutzen co-authored a now widely cited article in 2000 entitled “The Anthropocene.” Yet, although it has only recently achieved the immense popularity it currently enjoys, the term “the Anthropocene” describes things that have been recognized since the nineteenth century.<sup>2</sup> As a concept, “Anthropocene” refers to the period following the Holocene. Within the scientific community, there is no question that the term “Anthropocene” has caused a stir.

Social scientists, too, have been active in pinpointing the root cause, the “mega-problem” of the Anthropocene epoch (Hulme, *Why* 333). American sociologist Jason W. Moore, for instance, claims that “the Capitalocene” is a more legitimate term to characterize Earth’s current geological epoch: “[t]he alternative to ‘The Age of Man’ (Anthropocene) is ‘The Age of Capital’ (the Capitalocene). In this, capitalism is understood as a world-ecology, joining the accumulation of capital, the pursuit of power, and the co-production of nature in dialectical unity” (“Capitalocene” 1). The problem with this logic, however, is that it ignores the fact that anthropogenic effects on climate far predate capitalism.

Another position against the notion of the “Anthropocene” has been voiced by economist Raj Patel, who defines the current status of the Earth as “the misanthropocene”—a period in Earth history in which Western political configurations of catastrophe “as an alibi for misanthropic, racist, and cold-blooded policy” have taken control (21). Richard B. Norgaard, meanwhile, prefers the term “econocene,” Alf Hornborg suggests “technocene,” and Donna Haraway offers “Chthulucene.” While natural scientists continue to reassess the past to find

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<sup>1</sup> The official body that decides on this kind of matter is the International Commission on Stratigraphy. According to the Working Group on the “Anthropocene,” “A proposal to formalize the ‘Anthropocene’ is being developed by the ‘Anthropocene’ Working Group for consideration by the International Commission on Stratigraphy.” A target date of 2016 has already passed, and the proposal is still in motion.

<sup>2</sup> In 1873, Italian geologist Antonio Stoppani coined the term “Anthropozoic” to describe a new geologic era to succeed the Cenozoic Era (which began 66 million years ago with the last major extinction event). For Stoppani, our current era begins with geologic formations that show evidence of humans.

stratigraphic evidence marking Anthropocene changes that have come to define Earth's current environmental condition, social scientists demand a foundational reset by tackling socio-political institutions or grounded worldviews that have instigated a new geological time division.

No doubt about it: “Anthropocene” is a deeply contested term, and part of the problem has to do with how it situates humanity at the center of things, as if humans alone are indifferent to nature. The term Anthropocene seems a kind of self-flattery (and displays ignorance of biological history) that places humanity in a singular position with regard to the natural environment. In reiterating an anthropocentric ethos, the term reproduces the very structure of thinking that has been at the center of this supposedly new geologic period. It is an inevitable paradox: not to acknowledge the centrality of the human as the prime agent of a geologic era—whose prime characteristic is climate change—would be to evade responsibility, to join ranks with Donald Trump and the climate change skeptics and deniers, and to put our heads in the sand (where they have been for far too long). Lesley Head puts it best: “if we are such a powerful agent in transforming the earth, then we are in a way at the centre, or at least the top of the stratigraphic column” (315). Astrida Neimanis, Cecilia Åsberg, and Johan Hedrén, meanwhile, argue that “calling an epoch after ourselves does not necessarily demonstrate the humility we may need to espouse” (68). We are, in fact, not the only species to have caused significant extinction events, to pollute, to kill members of its own species out of self-interest, anger, jealousy, or spite; other earthly creatures too have also radically refashioned the biosphere.<sup>3</sup> No question about it: the term “Anthropocene” is hubristic. Nevertheless, the term has won a place in our daily lexicon and seems to be here to stay.

If the term itself is controversial, no less is the dating of it: when does it begin? Among the implications of dating the Anthropocene at the Industrial Revolution would be that one of the consequences (Capitalism) of the phenomenon (the

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<sup>3</sup> As noted elsewhere (see Estok “Hollow Ecology”), we know this to be true, notwithstanding comments in a *New York Times* editorial on “The Anthropocene” (February 27, 2011), which states that “[W]e’re the only species to have defined a geological period by our activity—something usually performed by major glaciations, mass extinction and the colossal impact of objects from outer space” (n. pag.). We know that what has come to be known as the Great Oxygenation Event (see Torres, Saucedo-Vázquez, and Kroneck) resulted in a radical refashioning of the biosphere, one that resulted in mass extinctions. As Phil Plait explains, “Most of the bacteria thriving on Earth were anaerobic, literally metabolizing their food without oxygen. . . . To the other bacteria living in the ocean—anaerobic bacteria, remember—oxygen was toxic. . . . A die-off began, a mass extinction killing countless species of bacteria” (n. pag.; ellipses added). It is no exaggeration for Plait to say that “[t]his event was monumental, an apocalypse that was literally global in scale, and one of the most deadly disasters in Earth’s history” (n. pag.).

Anthropocene generally, anthropocentric thinking more specifically) becomes the cause of said phenomenon. Assuming that the term is an adequate way to describe the epoch in which “humankind has become a global geological force” (Steffen et al. 843), there are a host of scholars and writers who simply do not accept the notion that the Anthropocene is as recent as the general theory holds. Adam Trexler explains in his original investigation of Anthropocene fiction, that “[d]ating the Anthropocene remains contentious. Possible dates include James Watt’s invention of the steam engine in 1784, the increase in background radiation from Cold War nuclear tests in the 1950s, and the beginning of human agriculture ten to twelve thousand years ago” (1). Elizabeth Kolbert has noted that “[o]ne argument against the idea that a new human-dominated epoch has recently begun is that humans have been changing the planet for a long time already, indeed practically since the start of the Holocene” (n. pag.). For Timothy Clark, “it is not now enough to identify modern capitalism as the exclusive agent of environmental violence” (2). Indeed, as Clark explains, “the processes culminating in the Anthropocene include events that predate the advent of capitalism, primarily the invention of agriculture, deforestation and the eradication over centuries of large mammals in all continents beyond Africa as humanity expanded across the globe” (3).<sup>4</sup> William F. Ruddiman likewise argues “that the Anthropocene actually began thousands of years ago as a result of the discovery of agriculture and subsequent technological innovations in the practice of farming” (“The Anthropogenic” 261)<sup>5</sup>—and this is not just hot air. Ruddiman offers extensive data verifying beyond any doubt that the volume of two of the most powerful gases influencing climate change—CH<sub>4</sub> (methane) and CO<sub>2</sub> (carbon dioxide)—have for thousands of years been deeply regulated by human activities such as agriculture and the wide-spread removal of forests. Bruce Smith and Melinda Zeder similarly place “the onset of the Anthropocene almost ten thousand years earlier, at the Pleistocene-Holocene boundary” (8), claiming that “the beginning of the Anthropocene can be usefully defined in terms of *when evidence of significant human capacity for ecosystem engineering or niche construction behaviors first appear in the archeological record on a global scale*” (8-9; emphasis in original). The scale of human influence is increasing, to be sure, and on what seems an exponential trajectory, but the dynamic itself is not new—certainly not beginning with the Industrial Revolution.

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<sup>4</sup> For a critique of Clark’s perspective and a discussion which highlights the importance of gender, see Estok.

<sup>5</sup> See also Ruddiman, *Plows*; DeFries; Ruddiman et al.

These debates are not likely to be resolved soon, but that does not change the fact that the term seems here to stay. The term, as it is commonly understood, is characterized by the climate change issues that fill our contemporary news media; however, there is much more to the Anthropocene than climate change alone. As Steffen, Grinevald, Crutzen, and McNeill explain, there are at least three other important phenomena associated with the Anthropocene. Firstly, it is characterized by human-caused changes in “other biogeochemical, or element cycles, such as nitrogen, phosphorous and sulphur, that are fundamental to life on the Earth” (843); secondly, it is defined by significant disruptions of water cycles on the planet; and thirdly, it is evinced by the rapid loss of species (by some estimates, up to 150 per day), resulting in the sixth major extinction event on the planet, a loss of biodiversity that is having a snow-ball effect, gaining moment exponentially and unpredictably. And there are very few (if any) who would question the fact that contemporary cities are central to how the Anthropocene is developing.

In many ways, cities are a much better hope for the future than other configurations of human inhabitation. The reason being that they are simply more efficient. Generally, more people together means more efficiency. The detached houses that characterize low density cities, for instance, are less energy-efficient than the apartments that characterize megacities. And the megacities of the twenty-first century are more carbon-efficient than less vertical assemblages such as villages and farms. Recent research on “sustainability and the city” observes that “the average urban dweller in the U.S. has about one-third the carbon footprint of the average suburban dweller” and that “from a climate change perspective, the cities are already relatively ‘green’” (Dunham-Jones n. pag.). But we should not take from this the idea that cities are, in and of themselves, models of sustainability. As Gary Gardner disturbingly points out, “no mature models of urban sustainability are available today, anywhere on the planet” (3).

The city epitomizes an increasing flow of people from rural to urban areas that is unprecedented in human history and is producing cities of proportions that have simply never existed in our history. Moreover, despite popular environmental interests and movements, green drives, and Greenpeace, cities are here to stay. We are not—all 7.3 billion of us and counting—going to take up residence in the countryside. The flow into cities (where approximately 50% of the world’s population resides, as opposed to 3% in 1800),<sup>6</sup> is accelerating, not slowing, and certainly not reversing. How, then, do representations of country and city in literature speak to Anthropocene moments?

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<sup>6</sup> See “Human Population.”

In one of the many books recently published on “the Anthropocene,” Jedediah Purdy notes the heavy irony of the Anthropocene condition—namely, that “the more we understand and the more our power increases, the more our control over nature seems a precarious fantasy” (16). *The City and the Anthropocene* attempts to answer the following questions: In what ways does writing about cities reflect an awareness of this “precarious fantasy”? How might the city be a narrative vehicle that not only addresses the excesses of environmental exploitation but also nails down things that transcend time and space and become visible in times of environmental crisis—the hyperobjects about which Timothy Morton theorizes? What contradictions characterize the modern capitalist city, and how do representations of these contradictions determine narrative forms? In what ways is the city a space for the performance and production of “the human” and the “posthuman,” of nature and the end of nature? How does class and gender figure in the representation and the configuration of cities within the context of the Anthropocene? What is the space and challenge of animals? How do farming, gardening, landscaping, and other environmental practices function in different mega-cityscapes and help envision an Anthropocene future of sustainable urbanism? In addressing these various questions, this Special Issue shows that fiction, fact, and theory are vitally connected. Engaging with questions about the city and the Anthropocene means engaging with very real problems we face in the twenty-first century.

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