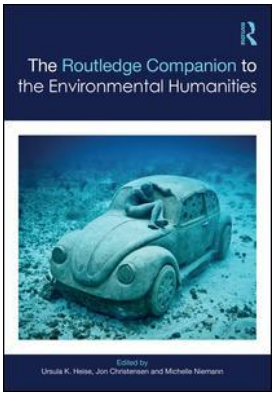

The Routledge Companion to the Environmental Humanities

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Introduction

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INTRODUCTION

Planet, species, justice—and the stories we tell about them

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The emergence of the environmental humanities

The environmental humanities have emerged as a new interdisciplinary matrix over the last decade, accompanied by programmatic statements, new journals, conferences, research initiatives, and the first few academic programs in Australia, Western Europe, and North America. The label of this research area follows a formula of innovation across a whole range of emergent fields that combines the term "studies" or "humanities" with a concept that has in the past been the purview of disciplines outside the humanities and qualitative social sciences: digital humanities, disability studies, food studies, human–animal studies, and medical humanities, for example. Unlike most of these fields, the environmental humanities do not so much propose a new object of study, a new humanistic perspective on a nonhumanistic field, or a particular set of new methods, as they combine humanistic perspectives and methods that have already developed in half a dozen or so disciplines over the last four decades. Environmental philosophy, for example, emerged in the 1970s, environmental history in the 1980s, and ecocriticism in the early 1990s. Although each of them struggled for a decade or more to be fully accredited by its own discipline, their academic recognition has in recent years opened up the possibility of closer collaborations with neighboring disciplines such as environmental anthropology, cultural geography, and areas in political science and urban studies that converge around the theoretical paradigm of "political ecology."

Such collaborations can build on a set of theoretical works that, even though they were originally written in and for particular disciplines such as anthropology, history, or philosophy, have become shared points of reference across the environmental humanities and social sciences. From anthropology, these "classics" include Sherry Ortner's essay "Is Female to Male as Nature is to Culture?" (1972) and Bruno Latour's publications, particularly *We Have Never Been Modern* (1991, trans. 1993) with its coinage of the term "natureculture." Historical research that has shaped environmental work across disciplines includes Alfred Crosby's *The Columbian Exchange: Biological and Cultural Consequences of 1492* (1972), the first sustained study of how European colonialism in the New World reshaped ecosystems around the world, and William Cronon's "The Trouble with Wilderness, Or, Getting Back to the Wrong Nature" (1995), which shows how sometimes erroneous memories of nature past have shaped the North American environmentalist movement. Criticism of the wilderness ideal has also come from the Indian sociologist Ramachandra Guha, who

approached it from the perspective of developing countries in his essay "Radical American Environmentalism and Wilderness Preservation: A Third World Critique" (1989) and elaborated a fuller portrait of the "environmentalism of the poor" in *Varieties of Environmentalism*, the book he co-authored with Joan Martínez-Alier in 1997. The geographer David Harvey's exploration of the connections between advocacy for social justice and for the environment in *Justice, Nature, and the Geography of Difference* (1996) approached the same nexus from a Marxist perspective. Lawrence Buell's *The Environmental Imagination* (1995) and *Writing for An Endangered World* (2001) laid the groundwork, from literary studies, for the analysis of major environmentalist tropes such as place and toxicity. The philosopher Val Plumwood has offered an influential analysis of the cultural roots of ecological crisis in *Environmental Culture: The Ecological Crisis of Reason* (2001), a book that also connects to influential strands of feminist environmental scholarship across disciplines that run from Carolyn Merchant's *The Death of Nature* (1980) to Donna Haraway's work in the history and philosophy of science. In spite of distinct disciplinary trajectories, then, the environmental humanities already share a significant body of theory that has made its influence felt across disciplines.

Unlike most of the other emergent fields of humanistic and qualitative social-science inquiry, the environmental humanities have a clear disciplinary predecessor, the field of environmental studies that took off in many countries through programs, departments, and publications in the 1960s and 1970s. How does the idea of "environmental humanities" modify or improve on the idea of "environmental studies"? As their research has been increasingly recognized as crucial in their own disciplines, quite a few environmentally oriented humanists and social scientists have felt understandably disgruntled with environmental studies programs that, for all their pathbreaking interdisciplinary work, have often limited their reach to the natural sciences, civil engineering, and a few experts on law and policy. Not a few humanists and social scientists who looked forward eagerly to collaborations with natural scientists that they considered essential for their own work have experienced the frustration of interdisciplinary meetings that ended up relegating them to the tasks of communicating and publicizing research agendas and findings mostly shaped by science, engineering, and policy experts (see Neimanis et al. 75).

Environmental humanities as a long-overdue institutional come-uppance, then? Not quite. Most environmental humanists continue to rate the collaboration with scientists as indispensable, even as their own training and research keeps them focused on the differences that divergent histories, cultures, and values make in understanding and solving environmental problems. These differences are more than a matter of acknowledging the "cultural, ethical, and institutional dimensions of environmental crises," in the typical lingo of interdisciplinary programs, international governance offices, and NGOs. They constitute a fundamental challenge to the understanding of environmental crises as basically techno-scientific, with history and culture added on as secondary complications. The environmental humanities, by contrast, envision ecological crises fundamentally as questions of socioeconomic inequality, cultural difference, and divergent histories, values, and ethical frameworks. Scientific understanding and technological problem-solving, essential though they are, themselves are shaped by such frameworks and stand to gain by situating themselves in this historical and sociocultural landscape.

The intractability of some of the most serious global environmental crises has helped to foreground their divergent framing in different communities. Climate scientists, for example, have tended to construe the slow pace of reductions in greenhouse gas emissions as a result

of information deficits and organized corporate resistance that improved means of publicity might be able to overcome. But as the sociologist Kari Norgaard, the philosopher Dale Jamieson, and the climatologist Mike Hulme, among others, have shown, simple insistence on the scientific facts remains politically ineffective when it is disconnected from the political, social, cultural, affective, and rhetorical forms that the climate problem takes in different communities. Similarly, attempts to protect endangered species on the grounds that biodiversity in general and so-called "keystone species" in particular are essential for ecosystem functioning have tended to run into trouble when they have ignored the histories, values, and uses of animals and plants as understood and practiced by local communities. Particularly when conservation efforts were organized by activists and institutions in the global North, the assumption that their scientific understanding of relationships between species would be shared by default or could be imposed through education on communities in the global South often turned potential local allies into opponents of conservation and led to disempowerment, expropriation, and displacement (Agrawal and Redford; Dowie; Heise, *Imagining Extinction* ch. 5). Many of the chapters in this collection highlight other scenarios in which the cultural, historical, and social frameworks that shape the understanding of and engagement with environmental crises can make a crucial difference in the way in which scientists, activists, and organizations understand and engage with them. One of our contributors, the Swedish environmental historian Sverker Sörlin, has commented on this shift elsewhere by highlighting that:

> [o]ur belief that science alone could deliver us from the planetary quagmire is long dead. For some time, hopes were high for economics and incentive-driven new public management solutions. … It seems this time that our hopes are tied to the humanities ... in a world where cultural values, political and religious ideas, and deep-seated human behaviors still rule the way people lead their lives, produce, and consume, the idea of *environmentally relevant knowledge* must change. We cannot dream of sustainability unless we start to pay more attention to the human agents of the planetary pressure that environmental experts are masters at measuring but that they seem unable to prevent.
>
> (Sörlin 788)

The environmental humanities between the Anthropocene and posthumanisms

A great deal of the discussion about the human agents of environmental change over the last decade has revolved around atmospheric chemist Paul Crutzen and ecologist Eugene Stoermer's concept of the Anthropocene. Stoermer coined the term in the 1980s, but it gained public attention in the early 2000s when Crutzen and Stoermer published articles arguing that human impacts on the planet had become so pervasive and enduring that they would leave permanent traces in the Earth's geological strata, which justified postulating the onset of a new geological epoch distinct from the Holocene (Crutzen; Crutzen and Stoermer). Whether geologists will ultimately accept or reject the term is not likely to have much impact on the lively discussions it has generated about the nature of humans' collective agency and their impact. As the philosopher Dale Jamieson argues in this volume, the Anthropocene gives rise to both the impression of human power due to humans' large-scale

transformations of planetary ecosystems, and overwhelming feelings of powerlessness because many of these transformations and their consequences were unintended and are difficult to reverse, especially by individuals or small communities.

The biologist Peter Kareiva has compared the Anthropocene to a process of global domestication. The mix of intended and unintended ecological changes, of desirable and undesirable consequences and side effects that this term encompasses lies at the core of the chapters in Part I, "The Anthropocene and the domestication of Earth." Their focus ranges from debates about the pre-Columbian human "footprint" in the Amazon and how to define domestication (Hecht), the cultivation of plants across migrations and diasporas (Carney), and the voluntary consumption of contaminated foods after environmental disasters (Yuki), to the shift of certain nonhuman individuals and species from domestic to feral, wild, and back, and from native, endangered, or protected to introduced, invasive, and targeted for eradication (Marris; Robin; Sandler), and all the way to manipulations of the Earth's climate (Szerszynski). The categories we use to classify these changes ultimately depend on the ideal visions of nature that cultural communities seek to realize, including visions that voluntarily limit human impact by embracing minimalism (Nersessian). By putting the new concept of the Anthropocene into conversation with older ideas about domestication and utopian social visions, the chapters in this section seek to go beyond the public divide over whether the Anthropocene is merely another name for ecological apocalypse or, on the contrary, for new ecological possibilities (Schwägerl), or even for the triumph of human mastery over nature (Ackerman).

The question of how we can or should envision human agency in the Anthropocene informs the essays in Part II, "Posthumanism and multispecies communities." There is no question that the emphasis on humans' transformative ecological power implicit in the Anthropocene concept runs counter to the thrust of environmentally oriented work in anthropology, geography, history, literary studies, and philosophy over the last few decades, which has sought to analyze human cultures and societies in their constitutive relations with nonhuman species, natural processes, ecological systems, and inanimate landscapes and forces. The idea of a geological era marked above all by humans not only underemphasizes dimensions of nature that continue to be outside of humans' influence, from earthquakes to sunlight (cf. Clark), but also the continuous shaping and reshaping of human bodies, minds, and collectives by ecological processes and interspecies relations.

Even more starkly, the central focus on humans' agency collides with the emergence of posthumanist strains of thought in the humanities and social sciences over the last few decades, from Niklas Luhmann's brand of systems theory, Bruno Latour's Actor-Network-Theory, and certain types of media theory to the recent wave of new materialisms, new vitalism, object-oriented ontology, human–animal studies, human–plant studies, and multispecies ethnography. While these paradigms diverge considerably from each other in their founding assumptions, they articulate varying kinds of philosophical and political skepticism toward the integrity and centrality of the human subject in both its individual and collective dimensions. Instead, they highlight how human identity and agency emerge in the context of systems, communities, and "actants" (a term Bruno Latour originally borrowed from Algirdas Julien Greimas's narrative theory) that include nonhuman species all the way from microbes and plant cultivars to animals, and in some theories also objects, physical processes, and social structures. Against the background of these new theoretical frameworks, the environmental humanities have emerged at a moment when the humanities and qualitative social sciences are reinventing what being human means—and by extension, what it means to study human cultures and societies.

"Posthumanism and multispecies communities" seeks to capture some of this productive tension with the Anthropocene and, more generally, with the anthropocentrism that still characterizes most work in the humanities and social sciences. Anthropocentrism itself is a historical phenomenon, as a look at premodern articulations of humans' embeddedness into the natural world through the genre of comedy highlights (Watson). Contemporary thought challenges it through the focus on how humans are constituted through and with other species ranging from viruses, bacteria, and microbes (Sodikoff) to albatrosses and mistletoe (Rose and van Dooren), and through analysis of how human sociality and national belonging are constructed through affective responses to native and invasive species (Cattelino). In the ocean, a space on Earth that remains profoundly alien to human knowledge and experience, alternative conceptions of what it means to be human can be artistically articulated, whether it be through dancing with dolphins (Chaudhuri) or the encounter with species that we have not had a chance to name, let alone to form cultural connections with (Alaimo). Yet, as is clear in all of these analyses, the oceans, too, are being transformed through climate change and ocean acidification in yet another unintended side effect of planetary domestication.

Questioning humans' exceptionality in their relation with other species has dangers of its own, as many chapters in this and other parts of our volume foreground. On the one hand, rethinking the categorical differences between human and nonhuman agents can lead to the well-known "flattening of ontologies" (in a phrase often used in critiques of Actor-Network-Theory) that makes it difficult—though not impossible—to single out humans as uniquely responsible for environmental destruction and restoration. On the other hand, colonialism, racism, and xenophobia have all too often relied on the strategy of declaring as universal certain historical and cultural ways of being human, and relegating all those who cannot or do not conform to these standards to the subhuman or animal sphere outside the human species. The chapters in Part III, "Inequality and environmental justice," confront head-on the difficulties of reconciling an awareness of different kinds of ecological agency, inflected by socioeconomic inequality and political oppression as well as by divergent historical memories, social structures, and cultural practices, with the generalized "species we" implicit in the Anthropocene.

The posthumanist questioning of the human subject similarly needs to situate itself in this context of pervasive inequalities, even as indigenous and anti-colonial perspectives offer new avenues for thinking beyond the human (see DeLoughrey et al.). Several of the chapters in this section—by Joni Adamson, Barbara Rose Johnston, Jorge Marcone, and Kyle Powys Whyte—explore old and new indigenous perspectives in the Americas in order to consider environmentalism and social justice as dimensions of the same project. Akhil Gupta and Jennifer Wenzel explore the colonial and decolonial contexts of environmentalism today, and Wenzel holds out the hope that what we now call "environmentalism of the poor" or the "environmental justice movement" might simply come to be seen as environmentalism through the lens of a new kind of humanism. Helga Leitner, Emma Colven, and Eric Sheppard explore questions of environmental justice in the context of Jakarta, a modern metropolis—a setting that is particularly significant in view of the fact that over fifty percent of humans now live in cities, and that many cities stand to be radically transformed by climate change.

Our contributors' arguments unfold against the background of a lively and genuinely interdisciplinary debate that was sparked by postcolonial historian Dipesh Chakrabarty's seminal essay "The Climate of History: Four Theses." Chakrabarty argues that the global

scope and long-term impact of anthropogenic climate change challenge humanists and social scientists, particularly historians, to rethink influential theories based on foundational differences of, for example, class, race, sex, gender, or colonial power relations. Since climate change puts at risk the conditions of human existence regardless of such differences, he argues, critiques of capitalism, colonialism, and patriarchy now need to be reimagined within a context of geological time periods, planetary transformations, and humans' agency as a species. This context calls for a new kind of universalism, in his view, but one that he can only define negatively, as a refusal of the older kind of universalism that set one particular mode of being human as a yardstick. Even this constrained gesture toward universalism, however, has been fiercely criticized by Marxist and postcolonial theorists who argue that, in view of vast and persistent socioeconomic inequality, uneven contributions to planetary change, and uneven exposure to ecological risk on the part of different communities, postulating "species agency" amounts to ideological cover-up (Moore; Žižek 333–334; for a different critique, see Heise, "Comparative Ecocriticism"). The environmental humanities, then, are defined by the productive conceptual tension between humans' agency as a species and the inequalities that shape and constrain the agencies of different kinds of humans, on one hand, and between human and nonhuman forms of agency, on the other.

Narrative, aesthetics, and media

Chakrabarty's essay, with its emphasis on the geological time periods that the Anthropocene calls on us to consider, also foregrounds another defining challenge for the environmental humanities—that of rethinking time, memory, and narrative. Historical memories and retrospective constructions of nature as it once was have decisively shaped ecological science—particularly restoration ecology—as well as environmentalist thought and activism at large. Historians, anthropologists, and literary researchers have critically analyzed the inclusions, exclusions, and creative reinventions of historical ecology ever since William Cronon's seminal essay on "The Trouble with Wilderness" (1995), one of the first studies to argue that the precolonial wilderness North American environmentalists used to envision as the ideal form of nature never existed in the way they imagined. Similar misconstructions of the ecological past have informed environmental thinking about Australia, Latin America (Gammage; Mann), and, as Kathleen Morrison shows in this volume, India. As a consequence, the narrative of the decline of nature under the impact of modern society stands on shaky ground in many contexts, especially when it ignores or overwrites countervailing perspectives that envision humans as improving their natural environments—narratives that, as Richard White argues, have been proposed by some of the environmental movement's foundational thinkers, from George Perkins Marsh to Rachel Carson, but have usually been ignored. As Michelle Niemann shows in her chapter, stories about the decline and improvement of nature are complemented by the dichotomy between hubris and humility as dominant tropes of environmentalist discourse that have been criticized and recuperated in the movement's internal struggles up until the present day.

Narratives of decline and extinction or, conversely, of resilience and improvement in nature always intertwine ecological facts with cultural histories and value judgments, as the chapters by Rosanne Kennedy, Brett Buchanan, and Lizabeth Paravisini-Gebert show through the analysis of writing, philosophy, and art about endangered species, multispecies communities, and seashores at risk from climate change. Such stories often seek to define a

particular community's vision of its own place in history and geography, its anxieties over the changes that modernization and colonization impose, and its aspirations for the future. In this context, decline narratives are often a powerful means of expressing political resistance to modernization and colonization, even as they also frequently constrain visions of the socio-ecological future as anything other than a recreation of the past. The expertise of environmental humanists in the critical analysis of fictional as well as nonfictional narrative puts them right at the heart of a vigorous debate between different strains of the environmental movement over what story templates will prove to be most effective in the future. This debate has pitted "eco-modernists" such as Ted Nordhaus and Michael Shellenberger, who claim that "the solution to the unintended consequences of modernity is, and has always been, more modernity—just as the solution to the unintended consequences of our technologies has always been more technology," against the contributors to the volume *Keeping the Wild: Against the Domestication of Earth*, who argue for the accuracy and usefulness of the wilderness idea and the declensionist story template (Wuerthner and Crist). As the chapters in Part IV, "Decline and resilience: environmental narratives, history, and memory," demonstrate, the forms and political functions of environmental narrative vary a great deal more than these two positions allow for.

Not only are they far more varied when we look across different languages and regions of the world, but also when we look across different art forms and media, as the chapters in Part V, "Environmental arts, media, and technologies," do. Environmental aesthetics and communication have long confronted the challenge of mediating between stories and statistics, local experiences and global scenarios, images with instant impact and ideas about long-term transformation, a task that poses problems of scale as well as representation. Environmental art, architecture, and film have sought to convey an understanding of large-scale ecological processes and statistical shifts through techniques that combine realism with abstraction, the animate with the inanimate, and familiar visions with remote or futuristic ones, whether they focus on landscapes, habitats, food, or waste (Nisbet; Weik von Mossner; Barber; Carruth; Zubiaurre). The experimental techniques of the twentieth-century avant-garde in Europe and the Americas—collage, montage, self-reference, combinations of text and image—take on new, environmental functions in this context (Bök).

Over the last four decades, increasingly sophisticated digital tools, from geographic information systems to data visualizations, have generated new maps, images, and narratives about the short- and long-term risks and opportunities of global ecological change (Houser; Sinclair and Posthumus). The challenge for the environmental humanities in this context is not just the study of digital images and artifacts, but the integration of digital tools and methods with older humanistic procedures: the combination of close reading with computational criticism, for example, of thick description with newly accessible statistics about ecological processes and cultural practices, of storytelling with database creation, or of photography with zoomable maps. The role and relevance of these new methods has been fiercely debated over the last decade in the humanities and qualitative social sciences; the environmental humanities, with their dual stakes in histories, cultures, and values, on one hand, and in ecological processes and global risks, on the other, are in a privileged position to showcase the achievements and shortfalls of these innovative approaches and procedures.

In engaging with new archives, tools, and communications venues, environmental humanists seek to make the differences between their own home disciplines productive rather than divisive (cf. Bergthaller et al.), as well as to continue conversations with

scientists, activists, policy makers, and urban and regional planners. The interest of environmental anthropologists, geographers, historians, literary scholars, and philosophers in how ecological systems and nonhuman species interact with particular societies and cultures has over the last decade been reinforced by the "material turn" in the humanities and social sciences that emphasizes the otherness and agency as well as the entanglement of nonhuman actants with human ones (Nash; Sullivan; Bergthaller). But just how such Latourian "imbroglios" are theoretically envisioned matters not just for the foundations of humanistic and social-scientific research, but also for the ways in which they can be made to create interdisciplinary networks and public outreach (Nash; Sörlin; Garrard; LeMenager). Such networks in and beyond the university take on particular importance with the new emphasis on urban ecology, prompted by the realization that, sometime around 2010, the proportion of humans living in cities crossed the fifty percent threshold. Cities—and in many cases, very large cities—will be humans' dominant habitat in the future, a partly natural and partly anthropogenic habitat whose study calls for the integration of insights from anthropology, architecture, biology, cultural studies, ecology, geography, political science, sociology, and urban planning (Sandilands; Christensen and Heise).

Critique, a central way of defining the mission of the humanities and qualitative social sciences, certainly remains an important element in these interfaces. But "[a]n important tension is emerging between, on the one hand, the common focus of the humanities on critique and an 'unsettling' of dominant narratives, and on the other, the dire need for all peoples to be constructively involved in helping to shape better possibilities in these dark times. The environmental humanities is necessarily, therefore, an effort to inhabit a difficult space of simultaneous critique and action," the authors of one of the first manifesto-style introductions to the environmental humanities argue (Rose et al. 3). And as one of our contributors, Hannes Bergthaller, has argued elsewhere with a team of collaborators, "A genuinely inclusive and adventurous approach to the Environmental Humanities might also facilitate collaboration with partners outside the academy, where much of the work of adaptation to environmental change, mitigation of ecological damage, and transition to new social structures must take place" (Bergthaller et al.; see also Neimanis et al. 88–90). Encouraging synthetic as well as analytical perspectives and constructive as well as critical thinking is therefore a central task ahead for environmental humanists (Garrard; LeMenager; cf. Bergthaller et al.).

Combining theoretical and analytical work with creative experiments and public engagement was the task that our local community of environmental humanists found itself facing at the end of a year-long Sawyer Seminar, generously funded by the Andrew Mellon Foundation, that took place at the University of California, Los Angeles, in 2014–15. The seminar brought together humanists and social scientists not only from UCLA and its sister universities in the UC system, but also colleagues from around the United States and from Australia, Canada, England, Germany, Japan, Sweden, and Taiwan. The *Routledge Companion to the Environmental Humanities* combines their contributions with those of other researchers who generously agreed to join us in print even when our funds and time schedule did not allow us to invite them in person. The lively discussions and manifest student interest in the monthly seminars led us to create a new undergraduate minor in "Literature and the Environment" that we envision growing into an "Environmental Humanities" major as more faculty and students in the humanities and social sciences discover the connections between their areas of research and unfolding scenarios of global ecological risk and opportunity. It also prompted us to create LENS, the Lab for

Environmental Narrative Strategies, which launched as a new cell of UCLA's Institute of the Environment and Sustainability in the fall of 2016. LENS focuses on research, teaching, and public engagement around the narratives and visions that different cultural communities create to understand and communicate environmental crises and possibilities across a variety of media. In collaboration with activists, artists, researchers, and writers around the world, LENS undertakes and supports experimental strategies for generating new narratives and images, grounded in an understanding of ecological crises as fundamentally cultural processes, that help to create a more sustainable world for humans and the species that coinhabit the planet with us.

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