Environmental humanities

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The environmental humanities comprise a large, growing, and diverse body of inquiry spanning a multitude of academic disciplines. Along with the social sciences, these humanities disciplines have long been devoted to the study of human affairs, leaving the natural sciences to study things such as ecology, ice sheets, and climate. Broadly, where humanities disciplines differ from social science ones is as follows: unlike, say, economics, which treats social phenomena as possessing universal qualities regardless of location, the humanities focus on the many ways different people make the world meaningful in various registers (e.g., through their ethical beliefs). The humanities thus acknowledge the relativity of belief, the intersubjective nature of human existence, the situatedness of life, the complex ways people apprehend the world, and the many disagreements that arise about moral, aesthetic, and existential issues. They pivot on the human capacity for free will, creativity, and imagination. They explore profound questions such as “How should we live?” “What are human rights?” and “What is justice?” For some humanist scholars, their aim is to identify “the best of human thought,” using cross-cultural analysis, critical thinking, and engagement with the (often contentious) value questions avoided by many social scientists. Beginning in the 1960s and achieving considerable momentum since the start of the twenty-first century, a number of

humanists have taken an “environmental turn.” They have engaged with the question of how people perceive, act toward, and are affected by the biophysical world. They have thereby frequently engaged the content and implications of scientific knowledge and technology; after all, science not only reports the realities of the biophysical world but, through technology especially, can alter those realities for good or ill. Because the environmental humanities originate in many separate disciplines, they are loosely related rather than tightly integrated. Because they take forward a humanistic preoccupation with how people interpret the world in different ways, they add distinctive insights to scientific knowledge of the biophysical realm. Some of these insights pertain to scientific knowledge itself and its social role. This entry details the origins and growth of the environmental humanities. It explains the recent expansion of the field. It then summarizes arguments about the value of the environmental humanities. The fourth section outlines recent arguments about their future trajectory. Finally, the relationship of geographers to the environmental humanities is explored briefly. Geography has contributed richly to the environmental humanities for many years and will continue to do so long into the future.

The origins and evolution of the environmental humanities

To understand the environmental humanities (hereafter EH), we need first to understand the focus of the humanities. Examples of humanities disciplines are philosophy, theology, law,

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literature, and languages. Humanistic forms of inquiry also occur in social science disciplines such as politics and sociology, even if they are not labeled “humanistic.” “The humanities,” notes Helen Small in her book on the subject, “study the meaning-making practices of human cultures, past and present ...” (2013, 23). Paraphrasing cultural anthropologist Clifford Geertz, we can say that people are suspended in webs of signification of their own spinning. Or, to use science writer John Horgan’s neat formulation, human beings “are matter that seeks to matter” (2017). Meaning-making is both cognitive (framing the world descriptively and causally) and normative (passing judgment on the world). Expressed through media such as language, music, photographs, monuments, and clothing, the meanings different people project onto the world deeply influence what they do in it (and to it). The doing congeals into habits. In turn, habits get solidified as norms, rituals, rules, procedures, and institutions. Together, these iteratively shape thinking and action until, eventually, something occurs to foster a “new common sense” in a society (by force or consent).

Humanists study these meaning-practice dynamics in disciplines such as anthropology and sociology, and through interdisciplinary fields such as media studies (see Box 1). Some humanists study “ordinary” culture, while others focus on “high culture,” seeing their own scholarship as an attempt to shape cultural values and goals for the better within the wider society (e.g., via their university teaching). Some study leading meaning-making organizations, like newspapers or Facebook. Increasingly, they have had to reckon with a world that is both more “mixed up” (e.g., because of human migration and long-distance trade) and fast-changing (e.g., because of new technologies such as 3-D printing). The human condition is more dynamic than ever before, challenging some humanists

Box 1 The scope of the environment humanities

The term “environmental humanities” directs our attention to humanities disciplines such as history and philosophy, shading into the study (and practice) of the arts. But it’s worth noting that some social scientists would consider their research, teaching, and public outreach as part of the EH. They are sometimes called “interpretive social scientists.” This may seem confusing insofar as it blurs the social science/humanities distinction. Social sciences such as psychology and economics try to approach human affairs as a physicist approaches nuclear fission or an ecologist approaches the phenomena of lake eutrophication. They presume to describe and explain the world as it really is by testing theories, models, and hypotheses against credible evidence, looking for universal rules, laws, and processes. They search for “true meaning” and eliminate false beliefs about human affairs. However, not all social scientists are committed to the axioms and techniques of natural science. Many recognize that people are interpretive animals whose preferences, prejudices, beliefs, morals, creativity, imaginative capacities, and so on are contextual, varied, and dynamic. They recognize that disagreement and “path divergence” are essential components of life within and between societies. They recognize that a great deal of human life is political in that it could be otherwise if circumstances were to allow different pathways to be followed. They thus recognize a world of many truths and possibilities, where plural

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perspectives on people and environment prevail. Understanding the content, effects, relative merits, and disadvantages of these perspectives is a worthy endeavor, particularly in a world where power imbalances cause some perspectives to be marginalized while others dominate in certain situations. In this light, some environment-focused work in disciplines such as sociology, education, and politics is “humanistic” in its focus on how meaning and matter (or signification and action) intertwine in various societal arenas (e.g., the news media; government debates and policies; green activist tactics used by the Sea Shepherd and similar protest organizations). Some of this is work is overtly political in the sense that its questions and insights are geared to supporting the agendas of specific groups. An example is research into “environmental injustice,” which has grown in size and sophistication since scholars such as Robert Bullard initiated it in the 1980s. Another is research in environmental education, which has long had a “green” political slant to it. Note that EH research is not thereby “anti-scientific.” It adheres to the broad investigative values underpinning science, such as honesty, integrity, and the pursuit of accuracy. But it often uses different methods, refraining from things such as experiments and statistical techniques and favoring close interpretation of actors’ “lifeworlds” using discourse analysis, ethnography, focus groups, participant observation, narrative, and the like. These actors may be in positions of power, authority, and influence or else ordinary people in their capacities as students, workers, parents, citizens, and so on. A sample

of humanistic work in the broad sense, including parts of social science, can be found in Marcus Boström and Deborah Davidson’s edited book *Environment and Society* (2018).

to more stringently defend their version of what the “best” of human thought and practice now looks like. However, for many decades the humanities operated as if the world of people could be studied with little reference to the world of plants, animals, microbes, water, air, and rocks. This is because peoples’ “humanity” was thought to be irreducible to their biology or to the world that provides people with essential water, food, warmth, and shelter. The animate and inanimate phenomena out of which societies are constructed were largely bracketed off from consideration. Indeed, by the early 1960s there was talk of the “two cultures” in academia (Snow 1959): one devoted to revealing universal truths about things such as molecules and meteorites, the other devoted to studying the complexity and variety of the human experience (and to elevating that experience by identifying exceptional works of literature, film, and so on). The EH began as an attempt to bring what we call nature into the realm of humanistic inquiry, thereby narrowing the two-cultures divide. In part, they were inspired by the wave of pro-environmental concern that swept through the Western world in the 1960s. In part, this wave was generated by environmental calamities (e.g., the first oil tanker spills) and by scientific reports of environmental degradation.

An early example of the EH was an essay by American historian Lynn White Jr. Published in the high-profile periodical *Science*, it was called “The Historical Roots of Our Ecological Crisis” (1967). The crisis referred to was the transformation of land and water

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bodies in rapidly industrializing countries where large-scale agriculture reliant on chemical inputs was rapidly replacing family farms employing organic methods. The scale and scope of this “denaturalization” of the environment had been signaled in *Silent Spring* (1962), the best-selling book of American biologist Rachel Carson. White observed that “what people do about their ecology depends on what they think about themselves in relation to things around them” (1967, 1207). While industrialization and modern agriculture were the immediate causes of environmental destruction in the United States and beyond, White directed his readers to deeper causes: namely, widespread patterns of thinking about the nonhuman world. The patterns, he argued, preceded the modern era and could be traced back to Judeo-Christian theology in Europe, which dominated everyday life by the Late Middle Ages. Disseminated by churches through their many local congregations, the Judeo-Christian view elevated humans above nature. Without this anthropocentric and hierarchical view of the world, White argued, modern industry and agriculture could not have expanded unchecked in an increasingly secular West. For White, it followed that the solution to the “ecological crisis” lay primarily in challenging fundamental societal beliefs and engendering new values in whole populations. His paper was thus diagnostic and critical at the same time, one striking implication being that science and technology, far from being neutral, were vectors of anthropocentric thinking that devalued the nonhuman world. That same year, Roderick Nash – also a historian – offered far more detail about how Americans had perceived their physical environment since the time of the first settlers. *Wilderness and the American Mind* (1967) traced the evolution of value-laden perceptual norms over two centuries, from Europeans’ initial fear of primeval forests to twentieth-century attempts

to conserve what came to be seen as “natural resources.” Within a decade, the new subfield of environmental history was thriving courtesy of other pioneers such as Alfred Crosby, Donald Worster, William Cronon, Richard White, Carolyn Merchant, Donald Hughes, and Peter Coates.

A parallel process occurred in philosophy. The needs and rights of animals became a particular preoccupation as regular meat eating became normalized globally. Peter Singer published *Animal Liberation* in 1975, and others followed, such as Tom Regan, with his book *The Case for Animal Rights* (1983). More broadly, still other philosophers attempted to identify persuasive principles and arguments designed to foster a more “nature-friendly” mode of living in the fast modernizing West. An example is a 1973 paper entitled “Is There a Need for a New, an Environmental Ethic?” It was written by New Zealand philosopher Richard Routley. It argued that the fields of philosophical and legal ethics were largely anthropocentric and had not seriously entertained the notion that nonhumans are entitled to proper ethical consideration. Relatedly, legal theorist Christopher Stone (1972) had provocatively asked “Should Trees Have Legal Standing?” answering in the affirmative. In the subsequent years, environmental ethics grew as a branch of philosophical and legal thinking as the likes of Holmes Rolston III, Baird Callicott, Bill Devall, George Sessions, and Val Plumwood published agenda-setting books.

Meanwhile – to take a third disciplinary example – human geographers began, from the early 1980s, to engage the environmental issues normally investigated by their physical geography colleagues. Some took an institutional-material approach, others a more discursive-linguistic one. For instance, in 1983 Michael Watts published one of the pioneering texts of political

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ecology, which is now a major interdisciplinary field of inquiry. It was called *Silent Violence: Food, Famine, and Peasantry in Northern Nigeria*. Watts showed how natural resource scarcities affecting Nigerian peasant society in the late nineteenth and early twentieth centuries were no mere function of drought. Instead, food shortages and famines were, he showed, a result of vulnerabilities created by British colonization. British norms, values, and institutions conspired to reduce the resilience to drought previously achieved by pre-colonial Nigerian society. Increased malnutrition and death were the tragic result of the combined cultural, economic, and political effects of colonialism. Meanwhile, other human geographers attended more to the semiotic aspects of the material world. For instance, in his 1984 *Social Formation and Symbolic Landscape*, British geographer Denis Cosgrove showed that elite power was usually expressed in the arrangement of landscape features and learned ways of seeing them which tended to “naturalize” social hierarchy. His point was that material landscapes do not speak for themselves but are subject to socially conditioned forms of perception whose social constitution is hidden.

It was by way of independent contributions like these in different humanities disciplines that the “environmental turn” slowly began. As such intellectual developments occurred, so attempts were made in a number of countries to progressively institutionalize them within humanities disciplines. These included the founding of the American Society of Environmental History (1977), the International Society for Environmental Ethics (1990), the journal *Ecumene* (later *Cultural Geographies*) in the 1990s, the Association for the Study of Literature and Environment (1993), and the International Association for Environmental Philosophy (1997). However, cross-disciplinary

fertilization was not yet too evident. This began to change on the eve of the new millennium. Australia was a key country in this regard. A number of scholars working at the Australian National University and, later, the University of New South Wales were responsible for opening channels of communication between the nascent “ecological humanities” (as they called it). In the late 1990s, a National Working Group on the Ecological Humanities was set up by historian Tom Griffiths and legal scholar Tim Bonyhady. Its first meeting was hosted by environmental anthropologist Deborah Bird Rose at the Australian National University’s Centre for Resource and Environmental Studies (founded in 1973 as Australia’s first interdisciplinary environmental studies research center). Other participants were ethnographer Stephen Muecke, sociologist Tim Rowse, eco-philosopher Freya Mathews, and literary critic Catherine Rigby. By early 2004, the journal *Australian Humanities Review* had created dedicated space for the ecological humanities (McMahon 2004). Later, in 2012, the open access journal *Environmental Humanities* was launched by the University of New South Wales (Sydney), to which Bird Rose had moved. This illustrates how action by a few key scholars inspired larger-scale, collective action.

In Australia and beyond, many environmental humanists had thus begun to recognize their shared concerns and to learn from each other a decade ago. In the inaugural issue of the eponymous journal, the editors used the term “environmental humanities” for one of the first times in print. “The environmental humanities,” they wrote, “engages with fundamental questions of meaning, value, responsibility and purpose in a time of rapid, and escalating, change.” (Bird Rose *et al.* 2012, 1). A year later another peer review journal was launched, by the University of Nebraska Press, called *Resilience: A Journal*

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of the *Environmental Humanities*. At the same time, a number of universities in the United States, Australia, Sweden, and beyond began to forge their own EH networks, degree modules, and degree programs. A particularly significant development was linked to the Consortium of Humanities Centers and Institutes, which was established in 1988 as a global network-ing enterprise between dozens of universities. Funded by a large grant from the United States' Andrew W. Mellon Foundation, the Consortium initiated a "Humanities for the Environment" project from 2013. The first phase of the project was organized by three universities – the University of Sydney (Australia), Trinity College Dublin (Europe), and Arizona State University (USA). They each sought to network universities together and to develop the profile of the EH internationally, both within and beyond universities. At the time of writing, it has eight theme-based "observatories" located in almost every continent of the world (<https://hfe-observatories.org/>). It has been key to ensuring many humanists worldwide identify themselves as "environmental humanities" scholars as much as, say, "eco-critics" (in literary studies) or environmental anthropologists.

The various developments recounted above have been mutually reinforcing. The EH have achieved "take-off" since around 2010, even though they existed long before this (minus the name). For instance, the two peer review journals showcase research across the disciplines, while new university research centers and the eight global observatories link humanists of different stripes together. Discipline-specific and thematic journals have also flourished, such as *Environmental Values* and *Ethics, Policy & Environment*. Certain thinkers have advanced ideas of sufficient profundity and breadth that they have become key reference points across different fields of humanistic inquiry. Examples

are Timothy Morton, Bruno Latour, Lawrence Buell, Tim Ingold, Isabelle Stengers, and Donna Haraway. These and many other authors have produced books of considerable substance. Examples include anthropologist Anna Tsing's (2015) *The Mushroom at the End of the World*; geographer Jamie Linton's (2010) *What is Water?*; cultural theorist Cary Wolfe's (2010) *What is Posthumanism?*; philosopher Dale Jamieson's (2014) *Reason in a Dark Time*; anthropologist Bird Rose's (2011) *Wild Dog Dreaming*; geographer Mike Hulme's (2016) *Weathered*; philosopher Steve Gardiner's (2011) *A Perfect Moral Storm*; literature professor Ursula Heise's (2016) *Imagining Extinction: The Cultural Meanings of Endangered Species*; geographer Andreas Malm's (2018) *The Progress of this Storm*; legal theorist Jed Purdy's (2018) *After Nature*; and *Inhuman Nature* (2011), written by another geographer, Nigel Clark.

Universities with EH initiatives now include Arizona State (USA), Linköping University (Sweden), Bath University (UK), Princeton (USA), Oregon-Eugene (USA), National Sun Yat-sen (Taiwan), New South Wales (Australia), Oxford (UK), Stony Brook (USA), Stanford (USA), Sydney (Australia), Tamkang (Taiwan), Trinity College Dublin (Ireland), UC Los Angeles, UC Davis, and the University of Utah (all USA). Research-level edited collections have been published – such as *Humanities for the Environment* (Adamson and Davis 2017) – as well as textbooks-cum-introductory volumes (e.g., Robert Emmett and David Nye's *The Environmental Humanities* (2017)). An academic book series also exists, coedited by Iain McCalman and Libby Robin in Australia (and published by Routledge). A further open access journal was launched in 2020, called *Ecocene: Cappadocia Journal of Environmental Humanities*. Then there is the Bifrost website (<https://bifrostonline.org/>), behind which sits ongoing work by the Nordic

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Why are the environmental humanities burgeoning?

Network for Interdisciplinary Environmental Studies. Such has been the success of mutual learning across disciplines that new interdisciplinary areas within the EH have emerged, such as animal studies (see Waldau 2013). Likewise, certain big topics are attractors, such as the notions of “wilderness” and “wildness” that animate much pro-environmental rhetoric and policy. These areas and topics allow multiple ontological, epistemological, methodological, and ethical perspectives to converge, yet without merging together and losing their distinctiveness. In addition, while university-based, the EH have achieved something of a public profile. For instance, Australian philosopher and environmentalist Clive Hamilton writes best-selling books about the negative impact of consumerist societies on the Earth, as does American Bill McKibben. Meanwhile, feminist historian Carolyn Merchant has recently published a book extolling humanistic insight about the Anthropocene and addressed to members of the “educated public” (Merchant 2020). Though he is not an academic researcher, such humanistic insight was absolutely central to the so-called encyclical released by Pope Francis in 2015. Entitled *On Care for Our Common Home*, it both criticizes and offers positive reasons to replace the habits of thought and action that – in the Pope’s view – are despoiling our planet.

In sum, the EH are thriving some six decades after their disparate foundation stones were first laid. They represent a large, highly multidisciplinary enterprise that is widely distributed in universities (albeit largely in Europe, North America, and Australia). They have a certain visibility outside academia, but not under the name “environmental humanities.” This leads to an obvious question. Why have the “environmental humanities” grown in size, scope, and visibility since the term was coined, most especially in the past decade?

There are at least four key reasons why the EH have expanded so much, at least within universities. Each reason is about filling a metaphorical gap in the current landscape of understanding and environmental action.

First, science and scientists have become the recognized “voices” of the nonhuman world since the late nineteenth century. They carry the prestige and worldwide visibility that the humanities and humanists typically lack. Specifically, geoscientists have proven themselves to be successful at coordinating and publicizing their ongoing research into human impacts on the Earth. Though now famous, the Intergovernmental Panel on Climate Change (IPCC) is in fact only one of several organizations that assess the biophysical state of the planet. Others are now garnering attention, such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). Behind these organizations have stood four global research programs studying different aspects of environmental change: namely, the World Climate Program (est. 1979), the International Geosphere-Biosphere Program (1987–2015), DIVERSITAS (studying biodiversity, 1991–2014), and the International Human Dimensions Programme on Global Environmental Change (IHDP, 1996–2014). They were joined in an Earth System Science Partnership for a decade (2001–2011). While the first still runs, the other three programs have been replaced by Future Earth (2015–). Geoscientists involved in these endeavors frequently attend intergovernmental meetings (e.g., the 2012 Earth Summit (Rio+20)), interact with government science advisors, and are reported in the news media. By comparison, humanities scholars working on environmental questions

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have lacked similar organizations, programs, and access. Though some have been, or remain, involved in the IPCC, IPBES, the IHDP, and Future Earth, their contributions are not widely known. Attempts to build up the EH in universities worldwide are, in part, a direct response to this relative invisibility. They lay an academic foundation for matching the public prominence of geoscience in discussions about environmental change.

Second, related to this is the particular message conveyed by geoscientists. They have published a growing volume of research attesting to the escalating scale and magnitude of human impacts on the Earth. Global environmental change driven by human activities has become a defining issue of the early twenty-first century because geoscientists have made it so. Successive reports of the IPCC have, of course, been key to this recognition that the people–planet relationship now poses considerable risks to both parties. Another key ingredient has been new geoscience “meta-concepts,” specifically the Anthropocene and planetary boundaries. These concepts are designed to capture the unprecedented influence human activity is having on the Earth, as well as the strong possibility of “runaway” behavior by what geoscientists call the Earth system. The Earth system comprises all the phenomena and processes within and between the cryosphere, hydrosphere, biosphere, atmosphere, and pedosphere. The Earth system has been broadly stable during the 11 700-year period during which *homo sapiens* have, by and large, flourished (the Holocene). However, geoscientists warn of a “bad Anthropocene” if too many planetary boundaries are crossed, one that will irreversibly diminish life on our one and only planet. Indeed, several speak openly of a “global environmental crisis.” But what has caused the crisis, who is responsible for resolving it, and what sort of future world do

we want? It is clear that the humanities should have something important to say about the role that humans presently play (and should play) in the unfolding drama of global environmental change. Indeed, many recent books about the EH reference the warnings being sounded by geoscientists as a key impetus for the field’s rapid recent growth. Furthermore, many of these geoscientists have been calling for analysts in the “people disciplines” to speak out about the causes of, and solutions to, problems of society and environment. The problem, for environmental humanists, is that geoscientists tend to turn to economics first, believing that prices and taxes can steer us out of a crisis into a greener future. This forgets that there are other means and ends to life beyond money, profit-making, and the mass consumption of commodities. The EH can direct us to these other means and ends, asking elemental questions about the point of human existence and the status we should accord nonhumans. In part, this defines their value.

Third, closely related to this second point, the geoscience warnings appear to have fallen on deaf ears in the worlds of government, commerce, and civil society. For instance, for years “climate change skepticism” was evident in countries such as the United States, Australia, and Canada. More recently, there is evidence that skepticism about the human causes of global environmental change is much less prevalent. Even so, this has not translated into significant political action designed to address the underlying societal drivers of atmospheric warming, species extinctions, ocean acidification, ice sheet collapse, and so on. The 2015 Paris Agreement, brokered by the United Nations, is a case in point. The Agreement obliges governments to take measures to reduce atmospheric warming to an additional 2°C (or less) compared to preindustrial levels by 2100. Currently, the

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measures in place will see the 2° target overshoot by between one and two degrees. This means the Earth will be far hotter than at any time since *homo sapiens* have existed. Clearly, geoscientific evidence and predictions are not enough to spur governments into significant, coordinated action that can reduce the deep and wide human footprint. In this context, some humanists see their urgent task as suggesting strategies, arguments, metaphors, information, discursive frames, images, and stories that can help people seriously rethink the way they interact with the nonhuman world. They hope they can help to close the “sustainability gap” so that humans do what is necessary to protect the environments they depend upon, or, more radically, so that more humans can adopt an “ecocentric” (or green) perspective on life that changes their sense of what it means to be human.

Fourth, concerns about global environmental change aside, patterns of “development” in advanced capitalist and emerging economies have concentrated people into cities. In tandem with technologies such as private motor vehicles, laptops, and smartphones, this has distanced many people from direct contact with the nonhuman world as they occupy “artificial environments” of a specific kind for years on end (e.g., video games, shopping malls, and office spaces). In other words, the extended material connections and transformations required to sustain urban dwellers are often hidden from view. In addition, lack of physical engagement with landscapes, places, and species outside the urban realm creates an experiential loss, even deficit. As one commentator evocatively phrases it, “the new media ecology roars in to fill the void left as old nature exits” (McMurry 2014, 493). In this context, the EH have arisen, in part, to foreground the neglected connections, transformations, and experiential aspects.

Why do the environmental humanities matter?

As noted, the EH comprise a large, diverse, and international field of inquiry spanning multiple disciplines (reaching into social science, as Box 1 explains). As we have seen, in significant measure they have emerged as a response to wider changes in both academia and the world beyond universities. On environmental issues, though the scale and global visibility of the natural sciences are very hard to match, the humanities are seeking to be better heard outside lecture theaters and seminar rooms. Practitioners have identified several overlapping reasons why the EH are worth paying attention to. As we consider each of these reasons (there are nine, but readers may wish to sample three or four), they usefully shed light on the range of work environmental humanists undertake across both traditional humanities disciplines and some social sciences ones too. Note that some of the reasons below pertain to the nonhumanistic “people disciplines” too, such as economics.

The need to reframe “environmental issues” as socioenvironmental ones

Even though all humans are dependent on the biophysical world, there has been a very long-running tendency in many parts of the world to talk about “environmental issues” as if “social issues” are separate. For instance, despite its anthropogenic causes, even today many people regard climate change as a matter of degrees Celsius or parts per million concentrations of greenhouse gases (GHGs). This narrow framing externalizes a whole set of processes, institutions, and activities that have driven – and continue to drive – changes to land, air, ice, and water. It thereby diminishes understanding of how, why,

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and when decisions are made to (i) degrade, restore, or conserve the biophysical environment, (ii) expose certain people to, or protect them from, the vagaries of natural events, and (iii) alter resources and ecosystems upon which people depend for their physical and cultural wellbeing.

Across these three areas, environmental humanists have approached such understanding from two sides so as to create a wide and symmetrical framing. On the one hand, they have “socialized the environment,” which is to say they have shown that what we call “nature” never speaks or acts for itself. A classic example is historical geographer Bill Cronon’s essay “The Trouble with Wilderness” (1995). It was among the first studies to argue that the precolonial wilderness North American environmentalists once envisioned as the ideal form of nature never existed in the way they imagined. Instead, it was a cultural projection and aspiration whose empirical confirmation was only possible once indigenous peoples in the United States and Canada had been placed into small government-designated reserves. As geographer Bruce Braun later went on to show in his brilliant book *The Intemperate Rainforest* (2002), modern attempts to explore and protect wilderness areas are thus neocolonial. They dispossess indigenous North Americans in the name of environmental protection and thereby embed contentious political decisions about cultural survival, rights, and justice.

On the other side, environmental humanists have “re-naturalized society.” That is, they have made it clear that social values, norms, preferences, relationships, and institutions are deeply intertwined with the biophysical world, as is people’s emotional and physical quality of life. For instance, in his many books, Bruno Latour has demonstrated how various living and nonliving actors are arrayed so as to make human life possible, from microbes and door

hinges to roads and runways. Even the most “advanced” societies, he shows, are immersed in complex animate and inanimate ecologies (what he calls “actor-networks”) both near and far. The German sociologist Ulrich Beck (1992) famously described this in terms of living in a “risk society,” one where the unintended material consequences of high-technology, mass production, mass consumption societies come back to hurt their citizens. In parallel, and focusing largely on the so-called developing world, many political ecologists have shown how natural hazards (such as floods) have real but highly uneven consequences on people according to their social status. The material impacts of hazards are mediated through a mesh of economic, cultural, and political arrangements that often creates jagged patterns of exposure to harm. As noted above, Michael Watts pioneered this sort of analysis.

In this two-sided endeavor, environmental humanists have sought to reconcile “social constructionist” and “realist-materialist” positions, with philosopher Kate Soper’s monograph *What is Nature?* (1995) being an early example. In the first 25 years of its evolution, the EH focused more on the former than the latter, but a balanced focus now prevails so that reframing is both a semiotic and a physical project in equal measure.

The need to reflect on “issue” and “problem” definition

As we have seen, the EH grew during decades when “the environment” became a prominent issue, in large part because a whole set of “problems” were progressively uncovered by scientists, such as the thinning of the atmospheric ozone layer in the late 1970s. From the mid-1960s, “green” activists began to press for change to alleviate these problems. A classic example is

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the Greenpeace campaigns against whale and seal killing some 40 years ago. But what many environmental humanists have done since this time is challenge the very idea that there are “environmental issues and problems.” This does not mean they deny the reality or seriousness of, say, the bleaching of the Great Barrier Reef in Australia (an indirect effect of GHG emissions into the atmosphere). Instead, it means that they believe that a wider understanding is required. They ask: what *counts* as an issue or problem, and on whose authority? For instance, as reported in the news media, many people are led to believe that anthropogenic climate change is a “pollution” problem. This means that it is caused by “excess emissions” from power stations and so on, along with a loss of “carbon sinks” such as natural forest. However, what if one sees the cause as the worldview identified by Lynn White in combination with a voracious, growth-orientated capitalist economic system, as the public intellectual Naomi Klein did in her best-selling book *This Changes Everything* (2014)? This shift of analytical perspective suggests that so-called environmental issues are, at one and the same time, issues of culture, economy, and politics. The environmentalist slogan “system change, not climate change!” recognizes this. To address the issues, then, alterations on a wide range of fronts are required, something captured in the idea of a Green New Deal, which Klein (2019), among others, has written about. By opening up the question “what is the problem?” different possible remedies come to light. But note too that by opening it up, the “wickedness” of the issues becomes quickly apparent. That is, the perceived problems are not just large and complex in an ontological sense. In addition, there are plural perspectives on *to what degree, how, and why* the problems are large and complex.

The need to supplement geoscience and avoid “science imperialism”

In presenting the two “needs” above, it’s clear that environmental humanists are seeking to take a dual stance with respect to their scientific colleagues on the “other side of campus.” They take seriously the insights provided by, say, the IPCC; and they also want to supplement scientific understanding of the environment with humanistic understanding. The desire to supplement understanding has arisen out of a recognition that factual information and reasoned predictions about environmental behavior are not sufficient for people to properly make sense of the biophysical world and their relationship to it. Science trades in knowledge (i.e., justified true belief). Its descriptions, explanations, and projections appeal to our cognitive faculties. They can inspire fear and wonder, but in themselves miss a great deal out (e.g., moral questions). However, there is also a third stance to be taken toward science, beyond exploring topics it does not explore: namely, constructive critique. Humanists working in the field of science and technology studies (STS, which began in the 1960s and has flourished since) have been especially important here. While having huge respect for science, these humanists recognize its potential to frame nonscientific issues in scientific terms, albeit often unintentionally. We might call this “science imperialism” in that scientific understanding sometimes “colonizes” other domains of knowledge, with consequences for action.

Two examples of such colonization come to mind. STS scholar Paul Edwards (2010) has traced the history of geoscientists thinking that the Earth system is “objectively” that: a *system*, comprised of links, feedbacks, amplifiers, and thresholds. In his book *A Vast Machine*, he shows that this way of depicting the Earth is metaphorical not literal: it’s but one of several

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possible ways of describing the “realities” of the planet. Yet, with the authority of science behind it, it can too readily be taken as the only or best description. This might then invite “engineers” to propose ways of “controlling” the system in high-risk geoengineering ventures. Related to this, the former climate scientist-turned-humanities scholar Mike Hulme (2019) has strongly questioned the “obviousness” of the crisis pronounced by leading geoscientists such as James Hansen and Michael Mann. The Swedish schoolgirl Greta Thunberg has, since 2018, become a global amplifier of the crisis claim. Hulme urges caution in taking the claim at face value. Any crisis, he argues, must in part be *socially recognized*. Biophysical change, in itself, means nothing without a set of extrascientific judgments about things such as harm, loss, and risk. Thus, if people unthinkingly accept (or reject) the idea of a “global environmental crisis,” they are robbed of the opportunity and responsibility to explain why something *qualifies* as a crisis. This is one area where humanistic inquiry can help by “de-scientizing” the notion that any crisis is objectively defined by “the facts.” It can explore the values and arguments required to confirm or deny the reality of a scientifically pronounced crisis.

We should note here that science imperialism can extend to social science too. A prime example is environmental economics, the branch of economics devoted to understanding the economic roots of environmental harm and improvement. Consider the widely reported *Stern Review* (2006) led by Nicholas Stern and prepared by a team of economists in the British Treasury. It framed the “problem” of anthropogenic climate change as one of “missing price signals.” It calculated the real, but presently unpriced, monetary costs of deferring serious action to reduce atmospheric warming. It thereby made a case for acting now

to mitigate climate change based on a “rational” appeal to people’s interest in cost reduction. Regardless of the technical merits of Stern’s argument, it presumes to present the human dimensions of climate change as “obviously” a problem of economics amenable to an economic solution. It thereby risks marginalizing other ways to approach these dimensions, such as those highlighted by anthropology or moral philosophy.

The need to assess the socioenvironmental impacts of technology

Scientific research underpins all the world-changing technologies we take for granted, from the railways and telegraphs of the nineteenth century to the artificial intelligence, smart-phones, and genetic modification techniques of the twenty-first century. As sociologist Ulrich Beck (1992) noted, many of these technologies have very significant direct or indirect impacts on the physical environment. Equally, technologies can be developed to prevent or ameliorate negative impacts. There are two different ways to understand any technology, both of which matter equally. First, can a technology work (i.e., perform the function it is designed to perform)? Scientists are very good at addressing this question. They use their knowledge and creativity, trial and error, to design and test technologies such as cars, planes, satellites, closed-circuit television (CCTV), and water treatment facilities. Second, is a given technology desirable on ethical, aesthetic, or other grounds? In *Silent Spring* – arguably among the first works of the EH – Rachel Carson (1962) offered reasons to question pesticide and herbicide use in the American environment. Six decades on, and environmental humanists analyze the way technologies impact on people and environment in a variety of registers. Geoengineering technologies

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provide an example. In his book *Can Science Fix Climate Change?* (2014), Mike Hulme examines proposals to use “solar radiation management” to cool the global atmosphere. He explores a range of arguments for and against it. He takes readers well beyond the practical science question how and when to inject reflective particles into the stratosphere. For example, he asks whether humans have a moral right to continually tamper with the Earth’s environment on a large scale. Hulme’s book exemplifies a wider point: namely, that humanistic inquiry is essential to make sense of technologies well *before* they get rolled out worldwide. Too often, technologies get developed and the big questions about their propriety are made secondary, as businesses press ahead with their development, aided by government agencies and university-based science.

The need to infuse science and technology with humanistic insight from the beginning

As the previous points indicate, the power and prevalence of science and technology create a need to ensure they are properly anchored in humanistic insight. “Pure” science activity, leading to technologies “downstream,” is a notable feature of modern life in both universities and government research facilities, as is “applied science” in still other universities and in large private firms (e.g., in the agrofoods sector). The onset of the Anthropocene suggests a need to alter this state of affairs. The most far-reaching alteration would be for science disciplines to do what was long ago attempted in university-level geography, though with limited success. That is, they would institute working across C.P. Snow’s “two cultures” within new “interdisciplines.” Moves in this direction have been made in numerous university institutes and research centers worldwide, such as the National Socio-Environmental Synthesis Center

(SESYNC) in the United States, funded by the National Science Foundation. The wider challenge is to foster mutual learning without disciplines being incorporated into each other or only engaging with each other in purely instrumental ways that leave them largely untouched. Rising to this challenge requires unconventional practices of inter-, multi-, cross-, and transdisciplinary working. Almost by definition, instituting these practices is difficult because they take participants out of their comfort zones.

A radical example is the idea of “ethnogeomorphology” (see Wilcock, Brierley, and Howitt 2013). Geomorphology is a scientific subdiscipline within geography and Earth science. How, though, should this science be practiced if it studies landscapes in the context of indigenous cosmologies in countries like New Zealand, Canada, and New Zealand? Traditionally, scientific knowledge would have been seen as different in kind from indigenous knowledge and, in the eyes of European settlers, as superior knowledge too. But the idea of ethnogeomorphology proposes that science can learn from, and should be responsive to, the worldviews of marginalized peoples. These worldviews can condition the questions and topical foci of the scientific research, as well as the manner of its operationalization, while recognizing that science can actively support indigenous interests without losing its quality or integrity. Eliciting these worldviews, brokering indigenous–scientist relations, and reaching for a responsibly “political science” are tasks some humanists can perform.

The need to understand the human causes of environmental change and impact at a range of spatiotemporal scales

Whether technology, economic activity (Stern), colonialism (Watts; Braun), capitalism (Klein),

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Judaean-Christian thinking (White), or other things are seen as the causes, there is a clear need to understand them and discuss which are the most important. As we have seen, geoscientists tend to focus on the *immediate* societal causes of environmental problems and their multiscalar character, but refrain from a deeper investigation of culture, political systems, forms of social organization, and so on. Environmental humanists together explore what has been called “the social heart of environmental change” (Hackmann, Moser, and St. Clair 2014). They ask how and why different societies value and act toward the material world in the ways they do. While some social scientists (like Stern) may presume to search for “true” causes that we can all agree are pivotal ones, many environmental humanists are keen to challenge this presumption. Again, this is not them denying the reality of people’s collective impacts on the environment. Instead, they seek to acknowledge that how people (including social scientists and humanists themselves) perceive causes depends, in part, on the mental and affective “lenses” through which they look. There’s no neutral “court of appeal” that can determine whose lenses are the most perspicuous. The scientific lens used by Nicholas Stern is one lens, while – say – the aboriginal Australian lens of Country is a very different one that some humanists believe deserves parity of esteem. One of the grandest ways in which some environment humanists have pluralized the understanding of what causes environmental change relate to the geoscience idea of the Anthropocene. While they endorse the broad conclusions of geoscience, they sometimes question the utility of the overarching concept used to communicate those conclusions. Terms like Capitalocene, Thanatocene, and Phagocene have been proposed as alternatives that can shed light on causes that the abstract term “anthropos” does not readily capture (see Bonneuil and Fressoz 2016).

The need to understand the dynamics and diversity of human emotions in relation to the environment

It is obvious and important to recall that humans are emotional creatures. Emotions are partly social, not only physiological. That is, we learn certain emotional responses depending on our life experiences engaging with other people in the realms of family, school, church, and so on. The academic discussion of emotions involves two things: understanding how and why different people respond in different ways to things like pandas, parasites, or porpoises; and arguing why they could and should have a new and different affective response. Key things such as care (or lack of care) for the environment, and the motivation needed to relate differently to the nonhuman world, require emotion, not simply knowledge. Major areas of the EH are devoted to exploring the emotional dimensions of people–nature relationships. For example, early work in the field of ecocriticism often focused on works of literature which – unlike the so-called classics (e.g., works by Shakespeare) – foregrounded the beauty and wonder of (or threats posed by) the natural world. More recently, the global environmental “crisis” pronounced by many geoscientists has led many to focus on hope. When people perceive a catastrophe on the horizon, they need hope in order to respond. By contrast, despair is disempowering. Accordingly, some environmental humanists have systematically explored the barriers to and ingredients of hope. One is Australian geographer Lesley Head. Her 2016 book *Hope and Grief in the Anthropocene* explores the importance of grieving for loss as part of any journey toward hope for a better future. One key loss that hundreds of millions may have to reckon with is the loss of everyday things – such as overseas annual holidays – that are highly valued. Threaded into the fabric of everyday

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life, these things have contributed to large-scale threats such as runaway climate change. Learning to value differently will, Head shows, be an emotional as much as a practical or intellectual endeavor. Keying into the emotional registers of human–environment relations can happen in a range of ways. Writing about them is one, but there are others, such as making documentaries, science fiction films, sculpture, paintings, photographic exhibitions, video games, and more besides. Many environmental humanists study these media as well, sometimes, contributing to their creation. An example of the latter is the film *One Table, Two Elephants* co-directed by my Manchester University geography colleague Henrik Ernstson (Von Heland and Ernstson 2018). Focused on modern Cape Town, it challenges the norms of nature conservation and advocates for socially just management of the environment in post-apartheid South Africa.

The need for visions, value, and arguments about how best to live together and with the nonhuman world

Like the wider humanities, the EH routinely examine normative issues. That is, they address questions about what *ought* to happen, what *needs* to change, and what *should* be done. Addressing these questions effectively requires a mixture of empirical evidence and reasoned argument, predicated on well justified values such as justice, equality, rights, entitlements, and so on. It also necessitates reaching beyond cognitive issues to grapple with both moral and aesthetic ones. Answers need not always be tethered to what is deemed “practical,” not least because there are rival views on what is doable and achievable in light of the present-day resources, capacities, and skills available to society. Sometimes the answers might be highly aspirational, even idealistic, that is, radical, revolutionary, and utopian. In the

broadest sense, normative questions oblige us to consider how best to live and are existential in character. What is “a good life” for people and living creatures? This is the profound question answered in the Papal encyclical of 2015, and one that many academic humanists address, such as eco-philosopher Eileen Crist. Her recent book *Abundant Earth* (2019) argues for an “ecological civilization” and questions all the principal elements of the so-called good life associated with what she calls the “human superiority complex.” Further back in time, Bruno Latour (2004) proposed a “new constitution” that would allow humans to broaden their consideration of who, and *what*, is entitled to political consideration as we enter the Anthropocene. For example, how can both unborn humans and nonhuman entities be given a voice in any new constitutional arrangements that are less short-term and anthropocentric than at present? Humanists can offer systematic answers to far-reaching normative questions of this kind.

The need for mature debate about how to interact anew with the nonhuman world based on alternative perspectives

Judgments about, and behavioral changes toward, human interactions with the physical environment require an assessment of evidence, arguments, and proposals for new policies, practices, technologies, and goals. In the contemporary world, many important decisions are taken with limited consent among those the decisions affect. Alternatively, those affected may have a limited understanding of what they are consenting to. In still other cases, decisions may be taken that are contentious, even when people understand the reasons for them. For instance, consider geoengineering once more. Implemented on a large scale, it could be a very risky enterprise with negative knock-on effects that impact multiple

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countries. Citizens would need to understand the major benefits and drawbacks before any group of governments could take action in “the public interest.” Many commentators adduce evidence that we live in a “post-political” era, marked by a combination of misinformation, fake news, a fragmented media landscape, incivility in the public sphere, resurgent populism, opinion substituting for reason, anti-science sentiment, and general skepticism about expert knowledge. In this context, it is imperative that significant political decisions about how people can live differently with nature are legitimate in the eyes of those they affect. Legitimacy is not just about agreement that the decisions are good ones, but also requires a perception that the decisions have been taken for valid reasons and have been communicated in appropriate ways. As the previous eight points together make clear, the EH have a great deal to offer here. They can furnish a spectrum of information, arguments, and visions reflective of diverse perspectives on the world as it presently is, and as it could be in the future. They can help to spark a rich conversation about problems and solutions that can feed into decision-making by local, national, and supra-national governmental bodies. This conversation requires evidence, analysis, and emotion to combine to good effect. The notion of a Green New Deal, mentioned earlier, provides an example. It requires a mixture of fundamental reasoning about values and goals, with practical policy proposals that can deliver a “sustainability transition” quite quickly in a way that is just toward people in different situations. These proposals need to account for how transnational governance can be effective in a world of over 190 nation-states.

Clearly, the research agenda of the EH is very large indeed. It’s an agenda of profound importance, and not only for academic reasons (i.e., to satisfy curiosity and expand knowledge horizons). In pursuit of this agenda, the EH have

significantly affected the humanities *tout court*. Between 50 and 25 years ago, most humanities disciplines were largely untouched by the work conducted by the likes of Roderick Nash, Peter Singer, Christopher Stone, and Michael Watts. However, today their impact is wide and deep within the humanities disciplines that have incubated them. The currency of the term “posthumanities” captures this graphically (see Box 2). Looking ahead, the interlocking needs described above most certainly ought to be met with high-quality contributions from educated, thoughtful practitioners. To what extent are the EH poised to meet this need?

Box 2 From the environmental humanities to the posthumanities

Around the turn of the millennium, a number of humanities scholars began to use the term posthumanism. They included literary scholar Neil Badmington, STS researcher Karen Barad, and theologian Elaine Graham. Their at the time provocative use of the term was designed to question how far “the human” can be understood separately from various technological devices, animals, infrastructures, ecosystems, microbes, and so on. In other words, they asked how far what we take to be distinctively human attributes and concerns are, in fact, enabled by a plethora of ostensibly non- or extra-human processes, relationships, and entities. As new technologies came to fruition, such as genetic modification, one question was how far humans could and should be re-engineered. The research conducted under the banner of posthumanism was thus (and remains today) a challenge to the supposed ontological uniqueness of “the

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human” that has underpinned humanities inquiry for generations. Some of this research has been historical, revealing the contingent construction of the very idea of “the human” and showing how it has been implicated in racism, nationalism, and sexism within various societies. Geographer Kay Anderson’s (2007) *Race and the Crisis of Humanism* is a fine example, focusing on British encounters with Australia from the time of Captain James Cook onward. Other research has been contemporary, posing cognitive and normative questions about the character and future of “the human condition” in a high-technology world. While inquiries into the ideas of the human and humanity often use “constructivist” approaches such as Derridean poststructuralism, other work employs “post-dualist” ideas of actor-networks, assemblages, cyborgs, and the like. It does so to expand understanding of what “human” capacities are, who possesses them, and what ethical issues arise from dissolving the human/nonhuman distinction. A notable early example in geography was Sarah Whatmore’s book *Hybrid Geographies* (2002). A decade later, a brilliant exemplification of the co-constitution of the human and the nonhuman was provided by Lesley Head, Jennifer Atchison, and Alison Gates (2012). Their book *Ingrained* details the way wheat has shaped the biological and cultural lives of modern people, just as people have remade wheat and the various ecologies that allow it to be grown. A wide-ranging introduction to posthumanism that covers the disciplines is provided by Stefan Herbrechter (2013) in his *Posthumanism: A Critical Introduction*.

As the EH have grown in size and scope, so numerous attempts to take stock of them have appeared in print. For example, there are recent reviews authored by Joni Adamson (2017) and Ursula Heise (2017). This entry has drawn on them extensively. Each stock-take identifies next steps for the EH, focusing variously on their focus, content, audience, and worldly impacts. As Astrida Neimanis and colleagues phrase it, at this point in time “the environmental humanities need a *transition*, and not only a tradition” (2015, 69, emphasis added). We can relate the suggested transitional steps to the overlapping needs just identified under the following four headings.

Beyond analysis and critique

The EH offer many acute insights into people–planet relationships, wherein evidence, interpretation, and argument together point to problems, gaps, oversights, and opportunities in the way the relationships are presently configured. As noted earlier, a lot of work is normative in focus: implicitly or explicitly, it points to a need to reformat the relationships. However, this fact notwithstanding, more of the work could usefully address practical issues of how best to deliver change in different locations and at different scales. Catalyzing, steering, and monitoring change requires many ingredients, and these include humanistic insights about “structure and agency,” that is, the combination of enabling/constraining conditions and decision options that together define change pathways that are considered both achievable and desirable. In a highly integrated yet intensely differentiated world, insights about these will be as complex as they are necessary. To date, the science-inflected

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parts of social science have probably done more than the EH to think practically about change pathways. For instance, business school professor Frank Geels has, with some influence, combined economic history with the tools of systems analysis to identify how sustainability transitions can be triggered and kept on track (e.g., Geels *et al.* 2016). But humanities insights of a philosophical, theoretical, and empirical kind will be essential if consumers, firms, governments, communities, charities, and others are to transition in a just, tolerable, even aspirational way that avoids social disintegration. This is because humanistic scholarship looks beyond the mechanics of transitions to ask moral and existential questions about transition goals and whose needs and rights they should serve. Answers to these questions will rebound on the mechanics, possibly in radical ways.

Closer and constant engagement with the various geosciences

While frequently inspired by the insights of the geosciences, environmental humanists often remain deferential to, at arm's length from, or misunderstood by geoscientists. Like the wider humanities, the EH are often seen as “adjuncts” by geoscientists, that is, their job is said to begin once the science has been completed. This relegates them to a downstream role and can enable the science imperialism discussed earlier in this entry. A key challenge is to multiply the venues where environmental humanists can engage with geoscientists early and as equals, because it can usefully affect the questions scientists ask, the things they measure, and so on. In a world where science commands huge resources and still enjoys high prestige, rising to the challenge is difficult. An example is IPBES, established in 2012 as a “biodiversity twin” to the IPCC. It was set up to allow disciplines

beyond ecology, zoology, and botany to play a key role. Yet the Panel has struggled somewhat to engage environmental humanists, perhaps because many are accustomed to working alone in familiar university settings as opposed to the world of large panel meetings where governments are involved. Perhaps its key success has been to involve ecological economists, who take issue with the narrow mode of valuing nature associated with the social science sub-field of environmental economics. Ecological economists bring humanistic insight to bear on how to properly value and protect biodiversity, but there are other humanistic perspectives and skills that could usefully be more prominent in IPBES's work. For instance, anthropologists could help elicit indigenous peoples' views of ecosystem management, help bridge the gap between certified scientists and people whose rural livelihoods are at stake. We might say the same of Future Earth, the unified platform for global change research. A great many of its multidisciplinary, multinational research projects cut across the society/environment divide that has long cleaved academic inquiry in universities. But overall, social scientists tend to be better represented in it than humanists are, narrowing the scope of investigation and thereby bracketing out important questions (e.g., about the moral aspects of how we measure and use “natural resources”).

Greater visibility outside universities

By no means all current or prior work in the EH is squarely academic. For instance, almost from the start, research about environmental injustice was engaged with local community activists. Yet there is an enormous body of inquiry in the EH that remains largely invisible to governments, businesses, and citizens. It is often esoteric in content as well as stylistically; it is produced by

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academics for academics (and degree students); and it usually lacks established mechanisms for wider dissemination. It is telling that most of the prominent figures who advance humanistic thinking about people and nature today are not academics. Pope Francis and Naomi Klein were earlier cited as examples, while others include former journalists such as Emma Marris, Fred Pearce, Michael Pollan, and Oliver Morton. By contrast, the geosciences are increasingly visible beyond university campuses. They have global platforms such as the IPCC and IPBES; are adept at working in teams and speaking with one voice (as with various “climate emergency” declarations issued in recent years); have a representative body behind them (the International Science Council, which also covers social science); and the authority of science means the news media tend to report their research widely. In this light, a major challenge for environmental humanists is to find stable and effective ways to get their contributions noticed in the nonacademic sphere. It may be possible to build on the Humanities for the Environment project to do this, perhaps with more Andrew W. Mellon Foundation support. There are other networks to harness too, such as European Consortium for Humanities Institutes and Centres (ECHIC) and the Nordic Network for Interdisciplinary Environmental Studies (NIES). In addition, there are already existing global bodies whose profile could be bolstered, such as the International Panel on Social Progress (IPSP; www.ipsp.org). At a time when the United Nations has goals – the Sustainable Development Goals – that speak loudly to the concerns of the EH, enhanced visibility is a priority. It can help widen public understanding of how to measure and attain the goals in a world of great human and environmental diversity. Otherwise, the environmental humanities’ public contribution will be sharply curtailed. Usefully, the field of “environmental

communication” is a specialism within the EH. Its lessons about the forms, pathways, and audience impacts of communication could be applied to the wider EH, and to good effect.

Greater openness to alternative perspectives

The EH are highly heterogeneous; they hew to no one “paradigm” and resemble a large and rambunctious family occupying a multistory house of variously furnished rooms. Insofar as they try to present the human condition past, present, and future, this is highly beneficial: it reflects the diversity and disagreement characteristic of people’s lifeways (albeit suppressed in authoritarian political systems). However, complacency cannot set in. Some practitioners have noted that, for all their inclusiveness, the topics and perspectives advanced in the EH can still be extended. This matters at the levels of both principle and practice. Environmental humanists should represent the full range of ways people make sense of themselves and nature; it is arbitrary to exclude things that seem too radical, immoral, or even offensive to warrant serious consideration. This principle aside, debates about how to engage the nonhuman world in new ways are richer when more voices are heard: new policies and practices are robust when debates have been inclusive and when mutual learning has been achieved among interlocutors.

An example of where the EH could be expanded and revised is in regard to indigenous peoples’ knowledge and political agendas. As noted earlier in this entry, many attempts have already been made by humanists to present this knowledge and advance these agendas (e.g., by Bruce Braun). But some have suggested that the EH nonetheless remains “captured” by categories, axioms, and values that, in often subtle ways, render the indigenous voice as

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somehow lesser, traditional, and premodern. Recent attempts to “decolonize” Western academia have prompted a greater respect for non-Western ways of knowing people and environment. For instance, in 2016 a special issue of the journal *Humanities* (vol. 5, no. 3) sought to link the EH with the vibrant, interdisciplinary field called indigenous studies. Current estimates of the global indigenous population vary between 250 and 600 million individuals, there being some 4000–5000 indigenous “groups” dispersed worldwide, from the Americas to Africa, Asia, Oceania, and on to Europe. Allowing indigenous knowledge and politics to properly “speak back” to the largely Western EH may in time render the latter more epistemologically just than they presently are. In a striking example of speaking back, a group of geographers and indigenous people in Australia have sought to voice Bawaka Country (in North East Arnhem Land) through the medium of academic papers, allowing it to speak for itself rather than be spoken for by others. Bawaka Country is not “nature”; instead it is the indissoluble union of past and present, Yolŋu culture and nonhumans, ancestors and moderns, understanding and matter. It challenges the sense-making apparatus many humanists would otherwise wish to deploy (see Bawaka Country *et al.* 2016).

In different ways, the four pathways to change above are about making the EH more consequential with and beyond universities. Going back many decades, the wider humanities (and arts) have often been seen as “useless” by many politicians, businesspeople, fee-paying university students, and parents keen to see their children in good jobs post-graduation. The years following the global financial crisis of 2008 sharpened this negative view in some countries, just as the COVID-19 pandemic of 2020 is posing the question of “relevance” anew today.

As philosopher Agnes Callard candidly notes, “Even in good times, the humanistic academy is mocked as a wheel turning nothing; in an emergency, when doctors, delivery personnel, and other essential workers are scrambling to keep society intact, no one has patience with the wheel’s demand to keep turning. What is the role of Aristotle, or the person who studies him, in a crisis?” In light of her rhetorical question, it may seem ironic that many environmental humanists reference their work to the unfolding environmental crisis declared by many geoscientists. But of course the key point they are making is that we need to rethink what *counts* as “relevant knowledge” in a crisis. Without a rethink, business as usual is likely to prevail, or else high-risk ventures like stratospheric geoengineering could be justified (dubiously) as “necessary emergency measures.” But moving the EH along the four above-mentioned pathways will not be easy. Leadership and determination will be required if they are to have a wider impact.

Geographers and the environmental humanities

How do geographers relate to the EH and vice versa? As examples offered earlier in this entry indicate, the contributions have been plentiful and wide-ranging, originating with political ecology (e.g., Michael Watts’s work) and interpretive studies of landscape by Cosgrove and others in the 1980s. Despite being a discipline devoted to the study of society–nature relationships, anglophone geography was marked by the “two cultures” divide C.P. Snow identified in academia more widely in the 1950s. But from the early 1980s, the “middle ground” between human and physical geography began to be (re)occupied, especially from the human side

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of the discipline. Since then, as we have seen, geographers have seeded this expanded ground with a rich ecology of knowledge. Rather than being substantively connected to developments outwith geography, their initial efforts coincided with the “environmental turn” in history, literature, philosophy, politics, economics, and other disciplines in the humanities and social sciences. The focus was very much on forms of human perception and use of local and regional environments, though in the context of global interconnections. For many years – with the possible exception of political ecology, landscape studies, and agrofood studies – geographers’ contributions to the EH were rarely noticed in these other disciplines. For instance, my own coedited books *Remaking Reality* (1998) and *Social Nature* (2001) drew on philosophy, science and technology studies, political economy, cultural studies, and sociology for inspiration, but were little known outside geography until quite recently. But that has changed as the overlapping concerns of environmental humanists have become more evident for all to see, not least because search engines such as Google Scholar and Scopus make it easier to locate research relevant to one’s own interests, regardless of discipline. Today, geographers work on topics, and use approaches, that key into the full spectrum of EH work outside geography, from companion species and new materialism to the Anthropocene and “hyper-object” ontology through to rewilding and discourse analysis. Interestingly, even some physical geographers are being drawn to think anew about their science in relation to humanistic concerns. The earlier mentioned example of “ethnogeomorphology” is part of a wider, exciting endeavor called critical physical geography. All this is fostering new ways to think about the “unity” of geography as a discipline and how interactions across the “human/physical” divide

should properly operate in a “pluriversal” world chock-full of wicked problems.

It’s worth noting a quirk and an irony in geographers’ relationship with the EH today. Even now, geographers who might be seen externally as “humanities” scholars would not necessarily identify with this label. Many of these geographers are self-styled “critical” ones who variously employ Marxist, feminist, antiracist, queer, and de-colonial approaches. The irony here is that, outside geography, many environmental humanists are precisely critical in this Left-political sense. A key reason why geographers who might otherwise be classified as environmental humanists may eschew the label goes back to the 1980s. At that time, in anglophone human geography, “humanistic” and “radical” approaches to studying people developed in opposition to “positivist” ones that had dominated from the early 1960s. The humanistic approaches aimed for a “thicker” (less quantitative, rationalistic) understanding of the humans in human geography. But they were often seen by radicals as lacking a sufficient appreciation of how “structures,” power, and inequality governed peoples’ life experiences and capacity to act. Several decades later, and the term humanistic still, for some, signifies approaches that are somehow insufficiently attentive to these important things. This said, attempts have recently been made to re-signify and update the term “humanities” within geography. The contents of the young journal *Geohumanities* reveal just how critical and ecumenical work in the field now is. So does research in many other geography journals, such as *Progress in Human Geography*, *Cultural Geographies*, and *Antipode*. Even so, it seems likely that the term EH may be slow to catch on in geography, even as many geographers are recognized externally as contributing richly to this interdisciplinary field.

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SEE ALSO: Actor-network theory; Affect; Anthropocene and planetary boundaries; Construction of nature; Critical geography; Cultures of nature; Environmental discourse; Environment, democracy, and public participation; Environmental knowledges and expertise; Environmental performance, practice, and affect; Environmentalism; Environmental valuation; Geography and the study of human–environment relations; GeoHumanities; Humanistic geography; Imaginative geographies; Indigenous knowledge; Interdisciplinarity and geography; Nature; Political ecology; Postcolonial geographies; Posthumanism; Representation; Social constructionism; Socio-nature; Wicked problems

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ABSTRACT

The term “environmental humanities” was coined early in the new millennium. It describes diverse forms of research, teaching, and public outreach spanning several humanities disciplines, from philosophy and anthropology to history and large parts of human geography. Historically, the humanities have explored people's distinctly “human” characteristics over and above their shared biological capacities. For most of their twentieth-century history, humanities disciplines tended to bracket environmental issues: like the social sciences, they mostly analyzed human ideas and activities separately from nonhuman things such as climate, water, and forests. The environmental humanities challenge this bracketing, noting that our “humanity” is achieved in relationship with the biophysical world, in both a symbolic-hermeneutic and a material sense. In recent years, the environmental humanities have grown in size. They have also become more institutionalized within and between numerous countries. Additionally, significant and ongoing attempts to make them more visible and influential have occurred. In large part, this is because escalating human impacts on the Earth have instilled real urgency among many humanists. They wish to shape the “conversation of humankind” that will, they hope, be sufficiently rich and inclusive to allow humanity to navigate through what is called “the Anthropocene.” According to a number of geoscientists, this is the new planetary epoch humans have inadvertently created. As the epoch unfolds, it could threaten human wellbeing on a very large scale, having already involved massive change to the nonhuman world. This entry offers a comprehensive overview of the environmental humanities. It first defines and traces their evolution since the late 1960s before explaining their recent expansion. It then identifies arguments in favor of the environmental humanities. It goes on to consider recent recommendations made about their future trajectory. It ends with a brief discussion of how geographers are shaping this large and complex field of research, teaching, and public outreach. No one discipline dominates work in the environmental humanities, but geographers have been key players for some time and will remain so for the foreseeable future.

KEYWORDS

colonialism and decolonialism; critical theory; culture; environmental risks/threats; environmental studies; environmentalism; geography; human–environment interaction