Moral Responsibility in the Anthropocene:
Conceptions of the Environment and Environmentalism in *Our Common Future* (1987), the *UNFCCC* (1992/94), and Bill McKibben's *The End of Nature* (1989)

Lena Pfeifer

ABSTRACT: [to be included]

KEYWORDS: Anthropocene; moral responsibility; Bill McKibben; *The End of Nature*; US-American literary environmentalism; *Our Common Future*; *UNFCCC*

Introduction

1989—a year that went down in history as one of global upheaval and radical change. Two years prior, the United Nations World Commission on Environment and Development (WCED) under the direction of the Norwegian Prime Minister Gro Harlem Brundtland was commissioned to critically (re-)consider the reciprocity of development and the environment; the result, *Our Common Future*, was to become a milestone in the conceptualization and political realization of sustainable development. Three years after 1989, the *United Nations Framework Convention on Climate Change* (known as *UNFCCC*) would form the basis for most international climate negotiations and regimes to come. And in 1989 as such, the year of endings, McKibben spectacularly announces that we now live in a post-natural world, one in which "we have killed [nature] off" (*The End of Nature* 88). *The End of Nature* has been both hailed as a cornerstone of US-American literary environmentalism[1] and sharply critiqued—mostly for its loyalty to the by now contested notion of 'wilderness' and for its conceptual inconsistencies. As a work of creative non-fiction, *The End of Nature* differs clearly in tone and purpose from these two policy documents; however, all three exemplary texts have been influential in contributing to a changing discourse on the environment and environmentalism that took shape and gained momentum in the late 1980s and the early 1990s. This essay attempts at bringing these

[1] I borrow this designation—US American literary environmentalism—from David Mazel, arguing in line with his definition of literary environmentalism as "the *textual manifestation* of a larger *cultural practice* […]—a formation within which the environment has been *invented* and *naturalized*" (21-2; emphasis added).

diverse texts together on grounds of their role in formulating notions of the 'environment' that differ from hitherto predominant ideas of 'nature' through putting to the fore notions of ethics and moral responsibility; I understand the latter as a mode of response to one's surroundings as well as the ability to make ethically informed decisions. Moral responsibility thus entails reflection, the process of decision-making, and the final decision to act upon a given set of problems. I will show in how far reading these texts as threshold texts of Anthropocene thinking rather than as reports of the status quo allows for laying bare the liminal character of this specific moment in history and for pointing towards directions that US-American literary environmentalism was to take in the decades after.

In the first section of this essay, I will outline the nexus between the concept of the Anthropocene and the domain of ethics. My aim is to present possible ways of conceptualizing what can be called the human condition with regard to intrahuman justice, therein drawing in particular on Dipesh Chakrabarty's ontological distinction between *homo* and *anthropos*. Following this, I will illustrate how this need for a new ethics of the Anthropocene is articulated in the three select texts. I read these texts as exemplars of Anthropocene writing and as partaking in the discourse on the Anthropocene; throughout this paper, I assume the basic tenets of the Anthropocene to be true, namely that human beings have been acting as a geophysical force and that they have been shaping the surface of the Earth more profoundly than any natural-physical processes.[2] Along these lines, the second section will establish the connection between the human condition and the notion of responsibility with regard to conceptions of the environment by taking a brief look at the Brundtland Report *Our Common Future* (1987) and the *United Nations Framework Convention on Climate Change* (*UNFCCC*, 1992/94). The third section then focuses on modifications of responsibility in Bill McKibben's *The End of Nature* (1989). I will show in how far McKibben's text tries, but oftentimes falls short as to capturing the implications of responsibility and culpability within the framework set by the text. Following on this, I will nonetheless make the larger point that through his approach to knowledge, McKibben yet contributes a crucial component to the changes needed for developing a sense of moral

[2] On early discussions of the Anthropocene within geology and the Earth system sciences see Crutzen 2000, Crutzen/Stoermer 2002, Steffen/Crutzen/McNeill 2007, and Zalasiewicz 2008. On the Anthropocene as a conceptual tool and narrative taken up within the humanities see, for instance, Chakrabarty 2009, Bonneuil/Fressoz 2015, and Bergthaller/Horn 2019.

responsibility and for understanding complex conceptions of responsibility. This essay will culminate in the argument that McKibben's deconstruction of 'nature' is not only concurrent with emerging concepts of the environment such as formulated in the two policy documents, but much more a necessary prerequisite for the measures described in *Our Common Future* and the *UNFCCC* to finally take shape and be put into action.

Section 1: The Anthropocene and the Ethical in the *Anthropos*

Within the wider context of the humanities, debates on the Anthropocene mostly focus attention on three distinct aspects: (1) conceptions of agency, (2) the extension and intricacies of temporal and spatial scales, and (3) a resultant change in the human condition. A shift from the local to the global and the interconnections between those two perspectives, the focus on human agency in altering the planet and the unpredictability of the alterations done—all these reconfigurations have afforded as well as necessitated new conceptions of an ethics of the environment in the Anthropocene. As this essay is firmly grounded in Anthropocene thinking and in order to make sense of some of its implications for an ethics of the environment, I will attempt at giving a cursory outline of what has recently come to be understood as the 'environment' in the Anthropocene context. The concept of the environment at once gained traction and conceptual plenitude in the post-war period when the experience of two world wars, hitherto inconceivable destructive forces and manifestations of unimaginable evil called for a view of the Earth as a web of interconnections. The detonation of the first nuclear bomb under the code name of Trinity in Socorro, New Mexico, in July 1945 was only the beginning of decades, even an era, of nuclear threat and fear. The Cold War sentiment figures prominently when it comes to understanding the formation of the US-American environmental movement and environmental activism in the second half of the twentieth century and the changes it undergoes towards the turn of the millennium. Suggesting that a single man's decision can, in the wink of an eye, eradicate the life of hundreds and millions of human beings, animals, and plants—and indeed 'end nature' in its physical manifestation—without any chance of resistance provokes an eerie kind of awe in some people and sheer paralysis and fear in others, arguably the majority. Human beings had suddenly acquired a power that is not restrained locally to a specific area, but extends, in fact, across the entire globe. Until then,

such a thought had only dimly been imagined; humanity is put in an entirely new position in relation to the natural-physical world. At the same time, concern about environmental degradation slowly but steadily enters public thought; "[t]he environment", Warde et al. write, "has gone from being the background to the (human) world to [….] an idea shaped by planetary consciousness" (2).

Given that the notion of the environment in its current understanding emerged at a moment in history when concerns about global justice, ecological responsibility, and environmental policy began to be discussed in the public sphere, it can be argued that a certain ethical dimension is inherent in the very concept as such. Dale Jamieson was one of the first to note that climate change and adjacent environmental concerns are not "purely scientific problem[s] that can be solved by the accumulation of scientific information" ("Ethics, Public Policy, and Global Warming" 142),[3] but also problems of ethics and politics: "It is about how we ought to live, and how humans should relate to each other and the rest of nature" (142). Thus, the interesting question is not so much if the concept of the environment touches upon ethical questions as how it does so, which questions it poses, and which traditional understandings it thereby challenges. I now want to probe the claim that the Anthropocene—rooted in an understanding of the 'environment' as just outlined—requires a fundamental rethinking of the human condition (Latour 2004; Chakrabarty 2009 and 2015; Bonneuil/Fressoz 2015).

In the 2015 Tanner Lectures on Human Values, historian Dipesh Chakrabarty suggests a valuable distinction based on a conceptual doubling of the figure of the human. Chakrabarty distinguishes between a collective biological form of human existence—humankind, as it were—, for one thing, and humanity as composed of various political subjects with individual and often divergent interests, for another. He ascribes the term *anthropos* (where 'Anthropocene' takes its name from) to the collective form of human existence and *homo* to "humanity as a divided political subject" (Chakrabarty, "Human Condition" 173). In contrast to the collective shape and working of the *anthropos*, *homo* entails dissensus, debate, a

[3] I am fully aware that the Anthropocene is by no means synonymous with climate change but that it comprises phenomena as diverse as biodiversity, population growth, terraforming, or global consumption. However, I focus on climate change as one possible variant within Anthropocene thinking and as one of the most prominent examples (also, and most notably, in the public imagination) for anthropogenic changes to the natural-physical environment.

clashing of different interests—in short, it entails what Jacques Rancière accredits to 'the political' (*le politique*). Chakrabarty makes a crucial point in arguing that the distinction between the causally responsible mass of humanity and the entity of its political subjects is crucial when thinking about politics in the Anthropocene; for him, humanity is "always already divided by issues that in turn give rise to issues of justice," hence never fully able to function as "an operative singular agency" (159).

Chakrabarty argues that the term 'anthropos' as such is not an ethical or moral one—it "has no moral value […] and does not signify any moral culpability" ("Human Condition" 157)—, but one of causation. With that said, Chakrabarty goes back to the disciplinary origins of the Anthropocene in geology and the Earth system sciences; for proponents of these scientific fields, a new geological epoch is essentially characterized by permanent changes in the strata of the Earth, hence by changes that can be scientifically investigated and observed. While Earth system scientists might ask for the causes of such geological changes, they, to begin with, neither assess the value of these changes nor apply criteria of justice, let alone assign guilt on particular agents. It is then only by accepting the Anthropocene as a conceptual framework *beyond* the geological—as has been the case with the introduction of the Anthropocene to mainstream culture and public debate around 10 years ago—that what is at stake also becomes a question of ethics. The recent documentary film *Anthropocene: The Human Epoch*, produced by Nicholas de Pencier, Jennifer Baichwal, and photographer Edward Burtynsky in 2018, ends on the following note: "We are all [as *anthropos*] implicated, some [as *homo*] far more profoundly than others." It is with "the moment we define climate change not just as a physical phenomenon but as dangerous," Chakrabarty declares, that "we are in the realm of values and hence of disagreement and politics" ("Human Condition" 157).

At first sight, policy documents may not seem like the prototype of text that deals with value judgments and ethical considerations, given that their primary purpose lies with defining a certain set of problems and formulating concrete policy recommendations as solutions to this problem. The two policy documents serving as exemplary texts here are, however, just as much part of a larger cultural and political context of their time as Bill McKibben's philosophical-scientific comment; by partaking in value judgments such as outlined above, all three texts can be seen as examples for how *anthropos* is rendered an ethically contested

category via discourse. All international climate regimes and agreements can essentially be seen as value frameworks, both the measures proposed and their implementation being dependent on a common understanding of what counts as 'right' behavior and on a system of mutual obligations between the parties involved. Article 2 of the *UNFCCC*—in this sense the normative foundation for climate agreements—states its objectives as the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent *dangerous* anthropogenic interference with the climate system" (4; emphasis added). The evaluation of climate change as 'dangerous' is affirmed and substantiated in the *Second Assessment Report* (1995) of the Intergovernmental Panel on Climate Change (IPCC; 'Weltklimarat'), in which the IPCC commits itself to Article 2 and to subsequently "provid[ing] scientific, technical and socio-economic information that can be used, inter alia, in addressing the[se] challenges" (in Howe 2017, 251). As a UN report decidedly oriented towards the future, *Our Common Future* makes use of the imaginary so as to design potential visions of future development and global intergovernmental policies; much more, it has contributed meaningfully to conceptualizing and popularizing the concept of sustainable development (on this Caradonna 2014, especially 143-44), which has by far exceeded the limits of policy making. As concerns the Brundtland Report *Our Common Future*, its indeptedness to the history of sustainability and sustainable development makes it a document concerned with values and ethics on the very surface. Last but not least, Bill McKibben sees the reasons for what he terms 'the end of nature' in anthropogenic environmental impact and allocates guilt and responsibility clearly on humanity. Placing these texts side by side brings to the fore their diverse ways of assessing the past, commenting on the present, and imagining the future.

Section 2: *Our Common Future* (1987) and the *UNFCCC* (1992): The Human Condition and Ethical Responsibility

Keeping in mind that the Anthropocene verges on the realm of ethics as soon as value-judgments are formulated (climate change as "dangerous" [Chakrabarty, "Human Condition" 157]) and causal responsibilities become moral ones, the distinction made between *homo* and *anthropos* crystallizes the very essence of the conceptual difficulties of thinking responsibility and justice in the Anthropocene. As one of the core documents for sustainable development and "[a] global agenda for change" (*OCF* 6), the Brundtland Report *Our*

Common Future (*OCF*; 1987) serves as a foundation for discussions on global justice and responsibility.[4] The report creates the narrative of a "threatened" (*OCF* 25) future against the outlooks of nuclear war—a future which can be saved only if all parties join forces. The word 'common'—addressing humankind as a whole, as it were—finds various expressions throughout the report. The 'common' of 'our common future' unfolds a truly global and Anthropocene perspective; what this idea gestures towards is "common understanding and common spirit of responsibility" (9) and the idea that sharing a future on an inevitably interconnected planet requires sharing responsibility. Particularly pertinent is the notion of a "common interest" (38) all parties involved supposedly share: that is to alleviate global poverty and the destruction of planet Earth so as to ultimately render it a habitable planet for present and future human and other-than-human life forms alike. A similar use of 'common' is advanced in the notion of 'acting in the common interest' (39). 'Common interest' signifies compromise and overcoming one's own partial interests "as a divided political subject" (Chakrabarty, "Human Condition" 173). In keeping with Chakrabarty's understanding of *homo*, however, one has to concede that 'the common interest' can, in fact, never be fully common in the sense of entailing all parties involved. While acting in the 'common interest' presupposes that all parties include others in their considerations, and premises that alleviating global injustice counts as the ultimate moral goal, some parties might weigh individual interests—such as economic profit or national security—first. The 'common' in 'common interest' is hence predicated upon the assumption that all parties are equal in their priority to save the planet (implying either that all parties prioritize sustainable development above all else or that this goal in independent from other economic, social, political, etc. interests). *Anthropos*—humankind as it collectively shares 'our common future'—and *homo* are not easily brought together.

The attribute of 'common'—particularly in relation to responsibility—then recurs in the *United Nations Framework Convention on Climate Change*. The UNFCCC was adopted in

[4] When discussing *Our Common Future*, one needs to bear in mind that the report still runs very much in line with the predominant economic paradigm of neoliberalism. The first entry of the 'General Principles, Rights, and Responsibilities' encapsulates the underlying anthropocentrism: "*All human beings* have the fundamental *right* to an environment adequate for their health and well being" (*OCF* 235; emphasis added). Taking this background seriously, I would still like to argue for acknowledging the relevance of the report as an early proponent of fostering a global debate on intra-human justices.

1992 at the Rio Earth Summit, entered into force in 1994, and has since then been the legal foundation for international climate policy. In the opening section of the Convention, the UN owns up to the effect human beings have had on the Earth: "[H]uman activities have been substantially increasing the atmospheric concentrations of greenhouse gases, […] and […] this will result on average in an additional warming on the Earth's surface and atmosphere and may adversely affect natural ecosystems and humankind" (*UNFCCC* 2)—a statement that can be interpreted as a confirmation of the Anthropocene. The contracting parties of the *UNFCCC* are divided into three groups: industrial states and emergent powers within the OECD, industrial states and emergent powers outside the OECD, and developing countries. What the convention importantly ascribes to all the parties involved are "common but differentiated responsibilities" (9)—'common' as in the 'common future' the Brundtland Report invokes and 'differentiated' as to how large a contribution a particular country can make to the reduction of carbon emissions and the socio-ecological transformation needed. Here I am borrowing from a reading of the expression 'common but differentiated responsibilities' which Chakrabarty conducts in his Tanner Lectures, although wrongly attributing it to the Kyoto Protocol rather than the Rio Summit. Analogous to my reading of 'common' in the context of the Brundtland Report, the 'common' in 'common but differentiated responsibilities' adverts to *anthropos* in the sense that the human species itself has an interest in surviving—and, at best, also in letting other-than-human life forms survive on this planet. However, it is the addition 'differentiated' which brings to light the truly global facet of the Anthropocene (Chakrabarty, "Human Condition" 139); humanity is divided both in its interests and in the way its different parts have already used up their respective share of the atmosphere and of natural resources (*UNFCCC* 2). The expression 'common but differentiated responsibilities' therein also illustrates the discrepancy between the central role humans have played in processes of globalization, on the one hand, and as a species "on an expanded canvas of history" (Chakrabarty, "Human Condition" 142), on the other, conflating the clear-cut distinction between human and natural history in the Anthropocene.

By referring to environmental policy and sustainable ways of living, *Our Common Future* and the *UNFCCC* purport specific facets of understanding the environment as a concept which does away with the binaries between two spheres—a sphere of 'nature,' devoid of any

human influence, and another socio-political sphere. Instead, *Our Common Future* states that "[t]he environment does not exist as a sphere separate from human actions, ambitions, and needs" (7). By quoting the voice of former liberal Canadian MP Charles Caccia, the report explicitly foregrounds an entangled approach and distances itself from a notion of the environment (or 'nature,' as it were) as separate from human society:

> How long can we go on and safely *pretend* that the *environment is not* the economy, *is not* health, *is not* the prerequisite to development, *is not* recreation? Is it realistic to see ourselves as managers of *an entity out there called the environment*, extraneous to us, an alternative to the economy, too expensive a value to protect in difficult economic times? When we organize ourselves starting from this premise, we do so with dangerous consequences to our economy, health, and industrial growth. (*OCF* 32; emphasis added)

Instead, the environment is presented as a concept of global relationality and the interplay of natural-physical and socio-political or -economic processes. As the *UNFCCC* states: "'Adverse effects of climate change' means changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare." (4) The environment here becomes a *politicized space*, a space in which social, economic, and cultural action and negotiation is made possible and takes place.

Section 3: Bill McKibben's *The End of Nature* (1989): Moral Responsibility, Knowledge, and the 'Reference Crisis' of Literary Environmentalism

Let us now return to the agency of the collective 'we' invoked earlier on—a form of agency which suggests unity and thereby seems to speak for *anthropos*—humankind as a collective whole. If, however, one follows Chakrabarty's contention that the anthropos as such does not convey any moral or normative assertion, then "we read […] *homo* back into the word *anthropos*" the very moment "we say 'we' should do something to prevent dangerous climate change" ("Human Condition" 160).

The interrelation of *homo* and *anthropos* complicates itself further in collective forms of agency frequently found in writing about climate change of the last few decades. Bill McKibben's *The End of Nature* (1989) is one such and a particularly prominent example. It has oftentimes been hailed as one of the most influential writings on climate change of the

last few decades, at least in a US-American context, paying attention not only to scientific findings themselves, but also to the flow of information and the affective dynamics of climate change. The interrelation of the scientific and the affective or aesthetic dimension of knowledge also finds expression in the very make-up of the text itself; frequently changing tone and diction, McKibben alternates between anecdotal, journalistic, and scientific styles, thereby in line with much writing in the vein of the New Journalism of the second half of the twentieth century. In fact, *The End of Nature* features many of the aspects which would, a decade after its publication, become the hallmarks of the Anthropocene as introduced by Paul Crutzen and Eugene Stoermer. "My basic point was," McKibben writes 20 years after the publication of *The End of Nature* in the opening note to his most recent book *Falter*, "that humans had so altered the planet that not an inch was beyond our reach, an idea that scientists underlined a decade later when they began referring to our era as the Anthropocene" (1). *The End of Nature* clearly has to be read in the context of a widespread mood—oscillating between apocalyptic visions and the outlook of change—that pervaded much of political and cultural discourse in the late 1980s and the early 1990s. Just as the shift McKibben sketches from 'nature' to what comes after, the late 1980s are a moment in history deeply shaped by global upheavals and conceptual changes. By marking the end of an idea that had prevailed for centuries and had determined most US-American variants of (literary) environmentalism—'nature' as an independent force as opposed to culture and society—, the text's heralding of a paradigm shift in thinking and understanding the world mirrors the kind of paradigm shift which the Anthropocene symbolizes.

It is against this backdrop that Bill McKibben promulgates the end of a conception of 'nature' that had predominated Western thought over decades and centuries. Not only has this conception of an independent 'nature' ended; "[w]e have killed [it] off" (*End of Nature* 88), McKibben reminds his readers with an urgency that is as pressing as it might have been eye-opening to readers in the late 1980s and early 1990s. "*We have substantially altered the earth's atmosphere*" (17; emphasis in the original), McKibben declares, "we have changed the atmosphere—changed it so much that the climate will be dramatically altered" (42). Foregrounding a collective 'we,' McKibben puts on a par—if not to the fore—human agency with the changes it effects. The problems this entails, McKibben admits, are "outside our

normal way of thinking" (34); in other words, the problems humanity was facing in the late 1980s and is still facing today call for new ways of thinking.

The End of Nature abounds with allocations of blame and statements about responsibility—both causal and moral. The following passage illustrates the sheer overabundance with which the first-person plural pronoun 'we' is used throughout the entire text:

> So—*we* have increased the amount of carbon dioxide in the air by about 25 percent in the last century, and will almost certainly double it in the next; *we* have more than doubled the level of methane; *we* have added a soup of other gases. *We have substantially altered the earth's atmosphere*. (*End of Nature* 17; emphasis in the original)

Interestingly, this passage is less exposed in its emphasis on collective agency in the eponymous prolonged essay version of *The End of Nature* published in *The New Yorker* (1989/9/11). The emphasis on the collective 'we' is therein substituted by the simple statement that "the air around us […] is significantly changed"; only then does he add: "We have substantially altered the earth's atmosphere" (*The New Yorker*, 56). One might argue that this passage presents what Chakrabarty has termed 'causal responsibility'—the collective 'we' locates the causes of the changes mentioned. Nonetheless, there is reason to believe that the very—undoubtedly imposing—use of a collective 'we' in the book version was a very deliberate decision on McKibben's part, already prompting an array of questions about responsibility, culpability, and justice. It is by reading this passage alongside other passages of the same text that the second viewpoint gains significance. Accompanied by a sudden change in tone and diction as well as the text's hybridity in alternating between fact and anecdote, McKibben superimposes ethical and moral considerations on causal responsibilities: "But forget the carbon for a moment," he demands from his readers, "forget the feedback loops. Consider nothing more than that—just that the trees will die" (*End of Nature* 31). What is problematic about his account, however, is that he does not, in Chakrabarty's phrasing, bring *homo* into the *anthropos*, but instead takes an ethical stance towards *anthropos* without differentiating between the various agencies involved. There is space, so to speak, neither for the pre-ethical *anthropos* nor for the differentiating *homo* in his text. Although McKibben is sensible to the fact that only parts of the world are responsible for the actions which have brought about the conceptual changes he presents (*End of Nature* 80), he seems surprisingly unattuned to the various distributive differences.

Criticism on McKibben often takes the form of a social-constructivist critique of the main thrust of his argument that 'nature' as an idea has ended (e.g. Vogel 2015). The gist of this form of criticism is that nature as separate from the socio-political realm cannot end since it has never existed independently in the first place. This idea reverberates the central claim of Bruno Latour's study *We Have Never Been Modern* (1993), namely that the overarching dichotomy modernity is characterized by and rests on—the ontological distinction between 'nature' and society—is not tenable. Latour exposes modernity to have always been a paradox in which processes of purification—the separation of nature and society into two distinct ontological zones—and translation—the creation of hybrids at the intersection of these two—exist at the same time as mutually dependent (Latour 10-1). Interestingly enough, for Latour, the primary reason why this distinction cannot hold stems not from changes in the ontological conditions of 'nature' and society, but in a crisis of the habitual ways of thinking within Western societies. He assesses that the problems humanity was facing in the late 1980s and the early 1990s (and is arguably facing even more strongly today) make it impossible to *think* this distinction. The intricate intertwinement of politics, society, culture, and 'nature' and their relation to the realm of discourse and the imaginary is fittingly illustrated by the newspaper-anecdote with which Latour open his book. Hence, the change Latour sketches is primarily an epistemological change and only secondarily one of the geo-physical make-up of the planet (an ontological change, as foregrounded in geological and Earth science understandings of the Anthropocene).

The late 1980s and early 1990s see a range of studies (often based in the field of environmental history) delivering both empirical and theoretical evidence of human influences on land long before the first Western settlements (e.g. Guha 1989 and 1997). By situating McKibben's writing within this larger context, social-constructivist critiques dismiss of the idea of 'wild(er)ness' (e.g. Cronon 1995) and thereby challenge "the foundation of [much of] American environmentalism" (Wapner 8). McKibben is, in many ways, committed to the idea of wilderness and partakes in later forms of wilderness discourse through lamenting its loss. Yet, "[t]he time has come to rethink nature" (69), William Cronon apodictically states at the beginning of his influential essay "The Trouble with Wilderness; or, Getting Back to the Wrong Nature" (1995)—potentially a "heretical claim" (69) he himself adimits, given the central status of 'wilderness' in the US-American environmental

imagination. Cronon identifies two sources for the pervasive influence of positive conceptualizations of 'wilderness': the sublime of the Romantic period and the frontier myth, both of which are responsible for "freighting [wilderness] with moral values and cultural symbols," the latter in particular revealing the troubled history of 'wilderness' due to its relation to 'frontier primitivism' and forms of dispossession which had located the core of American identity in the open lands of the West. Thoreau takes a formative place in the history of the idea of 'wild(er)ness'; he has given wilderness a positive, even sacred connotation as "the preservation of the world" (273). Thoreau's writings on wilderness were influential for John Muir, whose approach to nature leaves plenty of room for the construction and the appreciation of American 'wilderness,' yet is more driven by a geological interest than Thoreau's is. Cronon sees Muir as a proponent of a "late sense of a domesticated sublime," thereby paving the way for the development of wilderness tourism, a form of "elite tourism" for mostly wealthy white men from the cities (also Purdy 2015). Wilderness had become "the false hope of an escape from responsibility," a phenomenon Cronon grounds in the status of wilderness as separate from human civilization and thereby automatically outside history and its socio-political dynamics. "We thereby leave ourselves little hope of discovering what an ethical, sustainable, honorable human place in nature might actually look like," he critiques—an undertaking that was to be pursued by many in the years and decades after.

The development of the Anthropocene discourse over the last two decades has profoundly changed the epistemologies of nature and the environment as well as our means of access to the object of study. In his influential study *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept* (2015), Timothy Clark describes these changes as follows:

> The Anthropocene blurs and even scrambles some crucial categories by which people have made sense of the world and their lives. […] As a bewildering and often destructive contamination of human aims and natural causality, the Anthropocene manifests itself in innumerable possible hairline cracks in the familiar life-world, at the local and personal scale of each individual life. Something planetary is breaking through, entailing *a politicization of what may once have seemed insignificant*, as familiar day-to-day practices incite an engaged 'green' political awareness. (Clark 9; emphasis added)

Clark describes the Anthropocene as an interference and a disturbance of common categories of sense-making, even more so as an intrusion into the very fabric of everyday

life. The meat we choose at the counter, the car we buy, the supermarkets we frequent, the fashion we wear and the flowers we plant in our front yard—these once were decisions that, to be sure, contributed to a desired way of life, but other than that were largely seen as individual decisions. In the Anthropocene, however, these decisions cease being personal decisions. The effects these decisions have, no matter their motives, are global in scale.

McKibben's *The End of Nature* comments on and, in fact, contributes to the transformation in knowledge cultures, a change in our perceptions of what counts as 'viable' sources of knowledge, how to make use of these sources, and why some forms of knowledge count as secured in some contexts while not in others. In the following excerpt from which I have already quoted earlier, McKibben places scientific and personal, or 'worldly,' knowledge side by side:

> *But forget the carbon for a moment, forget the feedback loops.* The trees will die. Consider nothing more than that—just that the trees will die. *When I walk outside in the morning*, instead of the slopes of trees, instead of the craggy white pines on the ridge towards Buck Hill, there may be yellowing and browning leaves and needles, thinning crowns, dead branches and rotting stumps. (*End of Nature* 31; emphasis added)

What is entailed in passages such as this one is an interesting argument not only about the synergies of scientific and worldly knowledge—the scientific attributes of carbon dioxide and the observations made while taking one's morning walk—but also about cause and effect. For one thing, the causes—increasing carbon emissions, the feedback loops—are far removed from the effects they may have on an individual garden somewhere in Minnesota. What happens in some other part of the world or in the stratosphere, even, seems to have little to do with what happens in one's own garden, on one's very own premises. For another thing, however, these effects matter hugely; they do not so much matter in scale, of course, as render an issue graspable that is often felt to be too far removed from day-to-day life. "The salient characteristic" of this new situation "is its unpredictability," McKibben states (*End of Nature* 88). The assumption that arises here is that, given the unpredictability of cause and effect and the fact that "[t]he changes are global" (41), observation on the small and local scale becomes as important as scientific research and predictions on the global scale.

> [W]e have come to accept, and enjoy, *the intrusion of scientific explanation*—to know that we can marvel with undiminished awe at the south wall of the Grand Canyon even while understanding the geological forces that carved it. The Grand Canyon is so grand that we can cope with not being the first people to see it. The wonder of nature does not depend on its freshness. (50; emphasis added)

Although McKibben has often been criticized for romanticizing a notion of wilderness the loss of which he bitterly laments, he leaves no doubt as to the compatibility and potentially even need of aesthetic appreciation and a scientific interest in the workings of the physical world. The appreciation of the natural world through a Kantian 'disinterestedness' detached from worldly interests gets substituted by a process that allows for clearly-directed 'interestedness' while still "wonder[ing]" (McKibben, *End of Nature* 50) at 'nature.' To that effect, Bill McKibben stands in the tradition of what could be termed a scientifically informed ethics.

Conclusions

Throughout this essay, I exemplified how focusing on the notion of responsibility offers an entry-point for inquiring into dynamic discourses on the environment in the late 1980s and early 1990s. I hope to have shown how placing *Our Common Future*, the *UNFCCC* and *The End of Nature* side by side can elicit synergies which constitute the changing 'climate' of their time: challenging the hegemony of scientific knowledge and (re-)discovering the affective dimensions of environmental changes. All of them partake in mapping a latent "crisis in meaning" (Jamieson, "Anthropocene" 15) which environmentalism was to take up and engage with in the decades after.

I would like to end this essay by testing the, admittedly provocative, thesis that McKibben's *The End of Nature* can be read as a symptom for a 'reference crisis' of US-American environmentalism around that time. By this I mean that the previously dominant preoccupation of US-American environmentalism with 'nature' as a realm separate from society and its central reference point of 'wilderness' is in a crisis since it does not adequately address the real-life problems of the day. This is not to say that previous variants of environmentalism necessarily addressed the real-life problems of their days. It is more to say that in the 1980s and 1990s, a kind of thinking dawned which rendered these older forms obsolete, or difficult to think, to say the least. Common criticism of McKibben as being

inconsistent as "[h]e claims that it is 'the idea' of nature that has died, and yet draws on accumulated empirical evidence as our only proof that nature has changed radically" (Elliott 65) can then be countered by a reading that sees McKibben's reliance on empirical evidence as an impetus for calling into question predominant ways of thinking. In line with what Margaret Ronda (2013) calls the 'logic of the break,' what McKibben would then be said to sketch is not so much a state in which nature has ended, but rather one in which the idea of nature *is about to end*. According to this thinking, McKibben writes in a time in which the notion of 'nature' gradually gives way to an idea of the environment as surroundings politicized (Ronda 2013) or as a "built environment" (Vogel 2015)—a time in which the idea of 'nature' is being re-politicized after the century-long subordination of natural history to human history (Chakrabarty, "Climate of History" 201-7; Clark 13).

Works Cited/Referenced

Anthropocene: The Human Epoch. Written by Jennifer Baichwal, directed by Nicholas de Pencier, additional photography and camera by Edward Burtynsky, Telefilm Canada, 2018.

Bergthaller, Hannes, and Eva Horn. *The Anthropocene: Key Issues for the Humanities*. Routledge, 2019.

Bonneuil, Christophe, and Jean-Baptiste Fressoz. *The Shock of the Anthropocene: The Earth, History and Us*. Verso, 2016 [*L'événement anthropocène: La terre, l'histoire et nous*. Seuil, 2013].

Caradonna, Jeremy L. *Sustainability: A History*. Oxford UP, 2014.

Chakrabarty, Dipesh. "The Climate of History: Four Theses." *Critical Inquiry*, vol. 35, 2009, pp. 197-222.

---. "The Human Condition in the Anthropocene." *The Tanner Lectures in Human Values*, Yale University, 18 Feb. 2015, https://tannerlectures.utah.edu/Chakrabarty%20manuscript.pdf. Accessed 9 May 2020.

Clark, Timothy. *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept*. Bloomsbury Academic, 2015.

Cronon, William. "The Trouble with Wilderness: Or, Getting Back to the Wrong Nature." *Uncommon Ground: Rethinking the Human Place in* Nature. Edited by William Cronon, Norton, 1995, pp. 69-90.

Crutzen, Paul. "Geology of Mankind." *Nature*, vol. 415, no. 3, (3 Jan.) 2002, p. 23.

---, and Eugene Stoermer. "The Anthropocene." *IGBP Newsletter*, vol. 41, 2000, pp. 17-8.

Elliott, Brian. *Natural Catastrophe: Climate Change and Neoliberal Governance*. Edinburgh UP, 2016.

Garrard, Greg. "Environmental Humanities: Notes towards a summary for policymakers." *The Routledge Companion to the Environmental Humanities*. Edited by Ursula Heise, Jon Christensen, and Michelle Niemann. Routledge, 2017, pp. 462-72.

Guha, Ramachandra. *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalaya*. Oxford UP, 1989.

---, and Joan Martinez Alier. *Varieties of Environmentalism: Essays North and South*. Penguin India, 1997.

Howe, Joshua P., editor. *Making Climate Change History: Primary Sources from Global Warming's Past*. University of Washington Press, 2017.

Jamieson, Dale. "Ethics, Public Policy, and Global Warming." *Science, Technology, & Human Values*, vol. 17, no. 2, 1992, pp. 139-53.

---. “The Anthropocene: Love it or leave it.” *The Routledge Companion to the Environmental Humanities*. Edited by Ursula Heise, Jon Christensen, and Michelle Niemann. Routledge, 2017, pp. 13-20.

Latour, Bruno. *We Have Never Been Modern*. Harvard UP, 1993 [*Nous n’avons jamais été modernes: Essai d’anthropologie symétrique*. La Découverte, 1991].

Lockwood, Alex. “The Affective Legacy of *Silent Spring*.” *Environment Humanities*, vol. 1, 2012, pp. 123-40.

Mazel, David. *American Literary Environmentalism*. The University of Georgia Press, 2000.

McKibben, Bill. *The End of Nature*. Viking, 1989.

---. “The End of Nature.” *The New Yorker*, 11 Sep. 1989, pp. 47-105.

---. *Falter*. Wildfire, 2019.

Purdy, Jedediah. *After Nature: A Politics for the Anthropocene*. Harvard UP, 2015.

Ricoeur, Paul. “Le paradoxe politique.” *Esprit*, vol. 250, no. 5, 1957, pp. 721-45.

Ronda, Margaret. “Mourning and Melancholia in the Anthropocene.” *Post 45*, 6 Oct. 2013.

Steffen, Will, et al. “The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?” *Ambio: A Journal of the Human Environment*, vol. 36, no. 8, 2007, pp. 614-21.

Thompson, Allen. “Responsibility for the End of Nature: Or, How I Learned to Stop Worrying and Love Global Warming.” *Ethics and the Environment*, vol. 14, no. 1, 2019, pp. 79-99.

Thoreau, Henry David. “Walking.” Walden*,* Civil Disobedience*, and Other Writings*. Edited by William Rossi. Norton, 2008, pp. 260-87.

United Nations. *Our Common Future: Report of the World Commission on Environment and Development*. United Nations, General Assembly, 1987.

---. *United Nations Framework Convention on Climate Change (UNFCCC)*. United Nations, General Assembly, 1992.

Vogel, Steven. *Thinking Like a Mall: Environmental Philosophy After the End of Nature*. MIT Press, 2015.

Wapner, Paul Kevin. *Living Through the End of Nature: The Future of American Environmentalism*. MIT Press, 2010.

Warde, Paul, et al., editors. *The Environment: A History of the Idea*. Johns Hopkins UP, 2018.

Zalasiewicz, Jan. *The Earth After Us: What Legacy Will Humans Leave in the Rocks?* Oxford UP, 2008.