



## Climate Change and the Art of Anticipatory Memory

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In this essay I will explore a narrative device familiar from sci-fi and dystopian fiction that is commonly used in literary and cultural responses to climate change, and which strikes me as particularly suggestive for thinking through the implications of the Anthropocene for memory and the field of memory studies. Works as generically diverse as Franny Armstrong's film *The Age of Stupid*, Naomi Oreskes and Erik Conway's fictional future history *The Collapse of Western Civilization: A View from the Future*, George Turner's novel *The Sea and Summer*, and Jan Zalasiewicz's popular science book *The Earth after Us: What Legacy Will Humans Leave in the Rocks?* all feature a historian, archivist, or geologist who looks back on our present moment from a distant vantage point in a dystopian, (almost) post-human future irrevocably marked by climate change. These works, and others like it, can thus be seen to respond to the challenge of the Anthropocene – an era that requires the future anterior tense for its very conceptualization – to consider human and inhuman scales in relation to one another.<sup>1</sup> The preoccupation with anticipated memory and preliminary or proleptic mourning evident in fictional future histories of climate change, which subvert the customary parameters of memory in terms of both scale and directionality, resonates with recent calls for memory studies to become more future-oriented instead of merely backward-looking. Scholars typically seek to make memory studies relevant to the present and the future by forging more robust links between memory and transitional justice or human rights discourses. Climate change fiction of the future-history variety presents another promising avenue for further research in the same spirit.

### The Wisdom of Hindsight, Today

I will start by introducing three examples of this specific climate change imaginary. The first such work that came to my attention is *The Age of Stupid*, a genre-defying independent feature starring Pete Postlethwaite as a man living alone in the devastated world of 2055, watching old footage from our time – around the year 2008 – and asking why climate change was not stopped before it was too late. The film is a drama-animation-documentary hybrid. Archival news material and animated sequences are used to provide context and background, but *The Age of Stupid* is mostly a documentary following the lives of six individuals around the world who variously contribute to or are affected by climate change. The people we encounter are

an elderly French mountain guide who has witnessed a glacier recede and motor vehicle traffic increase, an English environmentalist whose wind farm has been blocked by a local NIMBY campaign, an Indian entrepreneur who dreams of ending poverty in his country by starting a low-cost airline, an aspiring Nigerian doctor trying to survive amid the pollution caused by Shell's oil extraction, child refugees from Iraq now living in Jordan, and an oil geologist from New Orleans who lost everything he owned when Hurricane Katrina hit.

As director Franny Armstrong acknowledges in the documentary *The Making of 'The Age of Stupid'*, she 'pinched' the original idea for the structure of the film from Steven Soderbergh's *Traffic*, which interweaves multiple stories that show the drug trade in the United States from different perspectives. In fact, the original cut of Armstrong's film, with which she was dissatisfied, did not include the fictional subplot set in the future: this was added later to frame the story and link the documentary segments together. It features Postlethwaite as The Archivist, a sad-eyed elderly man who looks back from 2055 atop a great tower somewhere north of Norway which serves as a huge storage facility containing the combined cultural resources and scientific knowledge of the nearly-extinct human race. A quick fantasy montage at the beginning of the film shows what is left of the world: London is largely underwater, Las Vegas has been reclaimed by the desert, Sydney is burning, the Taj Mahal is in ruins, and the Arctic polar cap has melted. Later on, we are told of 'food riots, refugee camps, the collapse of society', and that The Archivist's grandchildren have died, just like the vast majority of humanity, or so it seems. He sits down in front of a computer screen and uses touch-screen technology to record a final message to the future, a cautionary tale about the way in which the human race destroyed itself as well as the rest of the world. Though intended by The Archivist as a warning for whichever civilization finally inherits the Earth, his message is shot as though he were talking directly to us, the present-day audience, through a two-way screen. He reviews archival news and documentary footage as he tries to find out why people in the first decade of the twenty-first century did nothing to stop the environmental catastrophe that was staring them in the face, even when they knew that they could. To quote the film's tagline: 'Why didn't we save ourselves when we had the chance?' Blame is none too subtly laid at the feet of our culture of consumerism, though The Archivist also wonders whether the answer could be that 'on some level, we weren't sure if we were worth saving' – a thought underlined by examples of egotistical and ignorant people. According to Armstrong, the eleventh-hour insertion of this fictional framing device, which injected feelings of 'regret, sorrow, guilt' into the script, is what finally made the film come alive.

My second example is Oreskes and Conway's *The Collapse of Western Civilization: A View from the Future*, a short book published by Columbia University Press in 2014. Part science fiction, part history, *The Collapse of Western Civilization* is framed as an essay written by a historian living in China in the year 2393 who, like The Archivist in *The Age of Stupid*, sets out to answer the

question of why Western civilization failed to respond to climate change despite full awareness of the threat, thereby causing its own demise. In the future as imagined by Oreskes and Conway – which, just as in Armstrong’s film, is evoked only briefly – climate change leads to centuries of misery: floods, droughts, epidemics, riots, civil strife, mass migrations, the end of humanity on two continents. The future historian observes, as if in passing:

There is no need to rehearse the details of the human tragedy that occurred; every schoolchild knows of the terrible suffering. Suffice it to say that total losses – social, cultural, economic, and demographic – were greater than any in recorded human history. [...] The human populations of Australia and Africa, of course, were wiped out.<sup>2</sup>

The book also contains maps of the Netherlands, Bangladesh, New York City, and Florida showing how by the year 2300 these notoriously low-lying areas have been largely reclaimed by the sea. Looking back on our current time from several centuries in the future, the Chinese historian attempts to explain to his or her readers the irrationality of our behaviour.

As Oreskes and Conway write in the introduction to the book, the conundrum being addressed is ‘how we – the children of the Enlightenment – failed to act on robust information about climate change and knowledge of the damaging events that were about to unfold’.<sup>3</sup> Or as the future historian him- or herself puts it,

the people of Western civilization knew what was happening to them but were unable to stop it. Indeed, the most startling aspect of this story is just how much these people knew, and how unable they were to act upon what they knew. Knowledge did not translate into power.<sup>4</sup>

He or she concludes that a second Dark Age had descended on Western civilization: ‘a shadow of ignorance and denial had fallen over people who considered themselves children of the Enlightenment’.<sup>5</sup> Our present era has become known, therefore, as ‘the Period of the Penumbra’<sup>6</sup> – the age, indeed, of stupid.<sup>7</sup> The ‘Lexicon of Archaic Terms’ appended to the end of *The Collapse of Western Civilization* defines the Period of the Penumbra as follows:

The shadow of anti-intellectualism that fell over the once-Enlightened techno-scientific nations of the Western world during the second half of the twentieth century, preventing them from acting on the scientific knowledge available at the time and condemning their successors to the inundation and desertification of the late twenty-first and twenty-second centuries.<sup>8</sup>

One key source of blame for this sorry state of affairs is ‘an ideological fixation on “free” markets’; another scientific compartmentalization and the practice among the scientific community of demanding ‘an excessively stringent standard for accepting claims of any kind, even those involving imminent threats’.<sup>9</sup>

If the fictional subplot involving The Archivist in *The Age of Stupid*, which was something of an afterthought in the process of making the film, remains quite thin, Oreskes and Conway’s future historian is even less fully imagined. We learn very little about life in the fictional future he or she inhabits – in fact, the only reason we know this character lives in China is that the authors tell us as much in the introduction. The narrator remains a cipher; the book’s focus is squarely on the future history of our century. The imaginative challenges faced by the makers of *The Age of Stupid* and the authors of *The Collapse of Western Civilization* pale in comparison, though, with the one taken on by the geologist Jan Zalasiewicz in *The Earth after Us: What Legacy Will Humans Leave in the Rocks?*, a popular science book published by Oxford University Press in 2008. Instead of mere decades or centuries, Zalasiewicz projects his chroniclers of the current era one hundred million years into the future. The book’s guiding question is the one asked in the subtitle: what will be humanity’s ultimate mark on the planet? The first chapter, titled ‘Perspective’, lays out its conceit: the Earth is being re-explored in ‘a post-human future, many millions of years hence’, either by ‘extraterrestrial explorers or colonists’ or by ‘a new, home-grown intelligence’ such as ‘a newly evolved species of hyper-intelligent rodent’.<sup>10</sup> (Zalasiewicz settles on extraterrestrial visitors.) ‘What’, the author wonders, ‘would such explorers, of whatever ancestry, find of our own, long-vanished, human empire?’<sup>11</sup> Over this vast timescale, factors such as plate tectonics, erosion and sedimentation, and global sea level changes will have erased any sign of human activity from the surface of the Earth, and the oceans and atmosphere will have been cleansed of our pollution. What record might remain of us after these geological forces have dramatically altered the face of the planet; what anthropogenic signals might extraterrestrial scientists be able to discover in the rocks one hundred million years from now? Zalasiewicz explains that he has adopted this peculiar approach, which, as he admits, smacks of ‘[t]he purest of science fiction’, in an attempt ‘to get a proper perspective on the human race’, something which ‘[i]t is hard, as humans’ to do.<sup>12</sup> Assuming an imaginary post-human perspective allows us to ‘examine what our ultimate legacy is likely to be, the extent to which the human race and its actions are likely to be preserved within geological strata, and thus transported into the far future’.<sup>13</sup>

The book reads like a detective story. It opens with what seems to be a standard geological timeline, except that it continues into the future, up until the arrival of the imaginary extraterrestrial visitors: ‘alien explorers land’.<sup>14</sup> This is followed by a fictional prologue, written in the third person and printed in italics, which recounts how a group of these explorers – creatures

with ‘tails and sharp claws’<sup>15</sup> – makes a startling discovery in the rocks that puts them on our trail:

There could now be no doubt. There had lived here, many millions of years ago, an ancient civilization, and one that could colonize on a grand scale: the stratum extended as far as their vision carried in the cliffs above. The explorers took samples from above and below that remarkable stratum, but the more experienced of them were convinced, already, of its deeper significance. It was at the same geological level as the traces of the ancient, catastrophic, environmental change that had, over years of their researches, emerged as an ever-clearer part of this planet’s geological record.

So, the catastrophist school of thought was – well, perhaps not altogether vindicated, but at least they now had a basis in hard fact. There was now good reason to think that the ancient, planet-wide catastrophe had not been, as many had argued, a purely environmental crisis. Rather it had been associated with (or caused by? – the arguments would rumble on for many years yet, even as yet more astonishing evidence was to emerge) a major, intelligent yet transient civilization, many millions of years ago.<sup>16</sup>

Every chapter except for the first starts with an italicized paragraph in which a first-person narrator, one of the alien explorers, chronicles the progress of their investigation as they try to put together the history of our species. Most of the first half of the book is devoted to explaining the science that will enable them to make sense of their discoveries. In part, the book is effectively a primer on the earth sciences. In the later chapters, though, attention shifts to what the aliens might actually find of us: climate change, extinctions, strange migrations of wildlife across the planet, the petrified remains of cities, and finally the fossilized bones of the human beings that built them and ended up wreaking havoc on their own environment. In a sense, the aliens have stumbled upon the scene of a crime, albeit a self-inflicted one, and deciphering the message left by the human race amounts to solving this crime. The conclusion they will be forced to draw, Zalasiewicz fears, is that our species ‘combine[d] high intelligence with breathtaking stupidity in equal measure’: it managed to ‘dominate the environment on the one hand and create a technologically sophisticated empire’, but at the same time to ‘dismantle the systems that kept the Earth’s surface stable and habitable’.<sup>17</sup> We are back, once again, at the age of stupid. As a matter of fact, like Armstrong’s film, *The Earth after Us* is tinged with regret: Zalasiewicz has his extraterrestrial scientists mourn the human species’ untimely demise. ‘Their extinction is a great pity’, the narrator of the final italicized section laments: ‘what might we have learned about them – and from them – had they survived?’<sup>18</sup>

Having briefly presented these three case studies of 'future chroniclers' who 'tell the tale of the human species', and particularly of its demise or near-demise, I will now try to account for contemporary culture's tendency to understand and address climate change through a fictional future history of the present.<sup>19</sup> This approach is, or can be, an effective strategy for grappling with the problems posed by a warming planet in that it scales up our vision and breaks through ordinary perception. It offers a way of overcoming the imaginative difficulties created by the vast dimensions and enormous complexity of climate change, making this elusive phenomenon visible, tangible, legible, and morally salient. However, rather than being an arbitrary narrative device that happens to come in handy for writers of 'cli-fi', the perspective afforded by future histories is vital to the self-understanding of the current era. As Claire Colebrook has pointed out, the very concept of the Anthropocene is premised on the idea that there will be a time after the end of humans when, due to our profound impact on the planet, our existence will be discernible as a distinct geological layer: 'the positing of the anthropocene era relies on looking at our own world and imagining it as it will be when it has become the past'.<sup>20</sup> The future anterior or future perfect tense is built into the notion of the Anthropocene itself, which proposes that human life will be readable as having had an impact. Richard Klein has highlighted the 'pragmatic problem of enunciation' opened up by the very posing of the possibility of the Anthropocene:

There will have been no future anterior – no future perfect. Yet we still need to imagine such a future historian in order to speak in the present about a catastrophic destruction of organized life about which it will not have been possible to speak historically.<sup>21</sup>

Insofar as climate catastrophe will cause mass extinction, including of the human species, it cannot actually be represented, remembered, or mourned after the fact for the simple reason that there will be no one left to do the representing, remembering, or mourning – no human beings, at any rate. Works such as *The Age of Stupid* and *The Collapse of Western Civilization* try to get around this problem by situating their future chroniclers not quite after the end but in the dying days of human civilization. Even so, one may wonder at the implausibility of their very existence and their continued ability to practise their profession. In a sense, then, future-history approaches to climate change want to have their cake and eat it: they evoke the inhuman, the end of human existence, but they do so from the point of view of a human being (or human-like being) who can somehow look back on the present moment from beyond (or at least very close to) the end.

Klein acknowledges, though, that this imagined posthumous or near-posthumous mode of speech serves an important purpose. After all, the 'ultimate catastrophe' of which it speaks 'has very material consequences in

the present' – he calls it 'a necessary postulation in order to recognize the symptoms and dangers of climate change'.<sup>22</sup> Assuming such a ghostly or near-ghostly perspective is a way of salvaging the human dimension in the face of the inhuman vastness of climate change – a move which can be seen to counteract a recent tendency in ecocriticism to, as it were, throw the human baby out with the anthropocentric bathwater. If ecocriticism had long been blind to questions of scale and non-human agency, a growing body of theoretical work is now emerging that addresses scale effects, decentres human agency, and blurs the boundaries between human and natural history. Important contributions to this reorientation of ecocriticism have been made by Timothy Morton, Jane Bennett, Bruno Latour, and Tom Cohen, among others. Much of this work is aligned with and informed by movements in contemporary philosophy such as object-oriented ontology, new materialism, and speculative realism, which reject the privileging of human existence over the existence of non-human objects and shift the focus from the human experience of things to things themselves. While this type of theoretical framework can certainly enrich an analysis of literary and cultural responses to climate change that struggle to represent vast non-human temporal and spatial magnitudes, it threatens to discount the human subject altogether. Climate change fiction of the future-history-of-the-present variety, however, remains invested and interested in the level of ordinary human experience, even as it tries to move far beyond it. It can be seen to take up the challenge to reconcile human and inhuman scales, or, as Dipesh Chakrabarty puts it, to 'think[ ] disjunctively about the human, through moves that in their simultaneity appear contradictory'.<sup>23</sup> In the face of the Anthropocene, memory studies as a field is confronted with the same challenge: moving beyond human parameters, thinking along geological lines, and scaling up remembrance without, however, losing sight of the smaller picture. After all, memory risks becoming a mere metaphor when conceived in strictly non-human terms, outside of human modes of experience and representation.

Further support for the notion that anticipatory memory is central to the conceptualization of the present conjuncture can be found in the work of Mark Currie on the temporal structures of narrative. In his books *About Time: Narrative, Fiction and the Philosophy of Time* and *The Unexpected: Narrative Temporality and the Philosophy of Surprise*, Currie develops a future-oriented theory of narrative. According to him, '[t]he present is the object of a future memory, and we live it as such, in anticipation of the story we will tell later, envisaging the present as past'.<sup>24</sup> Think of how these days instead of living in the moment we often spend the moment thinking about how we are going to make our experience into a tweet or a Facebook update: instead of simply enjoying a show, for example, we snap a photo of it with our phones that we can share on Facebook afterwards, along with a caption that sums up the experience but which we start thinking up *during* the experience. The experience is lived in a mode of anticipation of the act of narrating it afterwards. Arguing against the predominance of retrospective models of narrative, which conceive of the present as a place from which we tell stories about the

past, Currie suggests that this ‘anticipatory mode of being’ – which lives the present as the object of a future memory – is ‘characteristic of contemporary culture, the contemporary novel, and even of human being in general’.<sup>25</sup> He points out that the future anterior or future perfect is often invoked as ‘a tense for our times’, a tense definitive of ‘an epochal temporality – some distinctively contemporary experience or understanding of time’.<sup>26</sup> While neither Currie nor the theorists he cites – Jean-François Lyotard and Julia Kristeva – think of ‘our times’ as the era of climate change, such an interpretation is hard to resist. After all, the depresentification of lived experience which the anticipation of retrospection entails and which the contemporary novel allows the reader to apprehend through the use of anachrony is, as we have seen, a key feature of life in the Anthropocene: making sense of our existence in this day and age requires that we adopt a posthumous stance from which we can look back on our impending extinction as a species.

### Memory for the Future

The concern with anticipated memory that characterizes fictional future histories of climate change resonates with a recent shift in the field of memory studies. The sheer quantity of memory research that has been done since the 1980s has given rise to a fear that our apparent fixation on memory has become disabling, in the sense of diverting our attention away from the need to face the future. Concerned about the ‘surfeit of memory’, several scholars have warned that our obsession with memories of the past may block our imagination of the future and have called for memory studies to become more future-oriented instead of backward-looking.<sup>27</sup> As their titles suggest, this concern underlies such collections as *The Future of Memory*, edited by Rick Crownshaw, Jane Kilby, and Antony Rowland, and *Memory and the Future*, edited by Yifat Gutman, Adam Brown, and Amy Sodaro. In his introduction to the former volume, Crownshaw cites Andreas Huyssen’s claim that ‘memory discourses are absolutely essential to imagine the future’.<sup>28</sup> According to Crownshaw, ‘the future of memory studies entails remembering what a better future might look like; that is, different from the remembered catastrophes of the past and their legacies in the present. [...] Memory and memory studies must be future-orientated’.<sup>29</sup> Gutman, Brown, and Sodaro, for their part, begin the introduction to their collection as follows:

For those who study memory, there is a nagging concern that memory studies is inherently backward-looking, and that memory itself – and the ways in which it is deployed, invoked and utilized – can potentially hinder efforts to move forward. It is the purpose of this book to challenge these assumptions by looking at how the study and practice of memory are ultimately about and for the present and future.<sup>30</sup>

Noting that ‘the future has been largely left out of memory studies research’,<sup>31</sup> they argue for a ‘change of focus from a past-oriented inquiry to



one orientated toward the future'.<sup>32</sup> These and other scholars' preferred way of making memory studies relevant to the present and the future appears to be to forge more robust links between memory and transitional justice or human rights discourses, or to disrupt the close association between memory and trauma by recovering happy memories such as memories of successful resistance to oppression that might inspire and empower forces for social change in the present.<sup>33,34</sup> In closing, though, I would like to suggest that examining anticipated memory, pre-memory, or proleptic mourning represents another take on the same general idea. As may already be evident from the discussion of my three examples, future-history approaches to climate change tend to be driven by an activist agenda. They aim to ward off the imagined catastrophe by sensitizing readers to the enormity of the losses they or later generations will face if the current state of affairs continues, by making them feel ashamed about their inaction, and by inviting them to consider how they could prevent the apocalyptic outcome.

This is most obvious in the case of *The Age of Stupid*, which is unashamedly political in its objectives. It was meant to act as a call to arms, and its release was carefully timed to closely precede the important Copenhagen climate summit. The hope was that the film would mobilize large numbers of people and get them to exert pressure on their political leaders to take urgent and meaningful action on climate change. *The Age of Stupid* was accompanied by an action campaign, called 'Not Stupid', which, according to its website, aimed to turn the film's millions of viewers into 'physical or virtual activists', all focused on the upcoming Copenhagen summit, and thereby to help 'prevent runaway climate change and the deaths of hundreds of millions, if not billions, of people'.<sup>35</sup> Another offshoot of the film was '10:10', a climate change mitigation campaign encouraging everyone to reduce their carbon emissions by ten per cent in a year.<sup>36</sup> 10:10, which was founded as a British campaign but later went global, complemented Not Stupid by giving people the opportunity to take positive individual action in the face of this daunting problem.

Oreskes and Conway are more guarded in stating their aims with *The Collapse of Western Civilization*. Their Chinese historian maintains a dispassionate and detached perspective on his topic throughout the essay, and in the interview with the authors appended to the end of the narrative, Oreskes and Conway themselves refuse to be drawn on the question of what they hope readers will take away from the book. Conway answers that they simply 'hope to have helped them think more clearly about the climate of the future'.<sup>37</sup> Oreskes compares books to messages in a bottle, and adds that while what readers will take away is impossible to predict, you hope someone will 'get the message. Whatever that is'.<sup>38</sup> Asked in another interview whether she thinks the collapse of which the text speaks can still be prevented, Oreskes answers in the affirmative: 'It's not too late. We do still have opportunities'.<sup>39</sup> This, presumably, is the book's 'message'.

Zalasiewicz is more forthright about his intentions with *The Earth after Us*. While acknowledging that the peculiar approach he adopts in the book may seem to be 'of little immediate practical value', he claims that it does offer 'a useful perspective on the current effects of human activity on Earth'.<sup>40</sup> After all, if human impact on the planet will turn out to have been profound and enduring – still detectable in one hundred million years – rather than superficial and fleeting, we have every reason to try to limit it by transforming our economies and lifestyles: such efforts would simply represent 'sensible life insurance policies for us all'.<sup>41</sup> Indeed, 'the deeper the footprint that we leave, the greater will be the immediate calamity that awaits our children'.<sup>42</sup> Leaving a signal that remains clear for millions of years spells 'misery or untimely death for billions of people'.<sup>43</sup> 'This', he points out, 'is a denouement that we should strive to prevent, while we are still able to'.<sup>44</sup>

In all three works, then, memory is mobilized in the hope of averting the catastrophe being remembered, which at the time of reading or viewing has not yet (fully) happened. I would venture that the prevalence of the paradoxical phenomenon of anticipatory memory in contemporary culture's engagement with climate change owes at least something to the memory culture that has arisen around historical tragedies, particularly the Holocaust, in Western societies in recent decades. In *Human Rights and Memory*, Daniel Levy and Natan Sznaider speak of a global 'memory imperative' based on the Holocaust.<sup>45</sup> The idea is that Holocaust memory has come to serve as a prompt to denounce and prosecute human rights violations in the present. Conceived as a universal code, the memory of the Holocaust now underpins a global concern to protect human rights beyond national sovereignty. While not explicitly evoked in any of the works I have discussed, the Nazi genocide of the European Jews and the global memory imperative to which it has supposedly given rise do seem to me to hover in the background in all of them. After all, they share a preoccupation with what they see as our culpable failure to prevent the avoidable future deaths of millions if not billions of people. The Holocaust is the closest thing we have to an analogue for human-caused loss of life on such a massive scale, and the moral call to action associated with its memory resonates with and adds weight to these works' appeal for climate change action.<sup>46</sup> Just as the memory of the Holocaust can allegedly help prevent future genocide, so the proleptic memory of climate catastrophe can perhaps function as a spur to action that would prevent the anticipated catastrophe from actually coming to pass. The 'never again' imperative of Holocaust remembrance has morphed into, simply, 'never' or 'never in reality'.

These works can also be seen to lend support to recent attempts to reconceptualize mourning and melancholia as enabling rather than debilitating. According to John Torpey, our contemporary fixation on remembering painful histories necessarily comes at the expense of investment in future-oriented, emancipatory, or utopian political projects. Other theorists, however, have countered this view. Since Douglas Crimp's plea for 'mourning *and* militancy' in relation to the AIDS movement back in 1989,

scholars such as Judith Butler, Ann Cvetkovich, David Eng, David Kazanjian, and Seth Moglen have argued that an interest in issues of trauma, loss, and mourning is compatible with a commitment to radical activism.<sup>47</sup> A desire to make visible the creative and political – rather than pathological and negative – aspects of an attachment to loss is the thread that binds together the essays gathered in Eng and Kazanjian’s volume *Loss: The Politics of Mourning*, which seeks to ‘extend[ ] recent scholarship in trauma studies by insisting that ruptures of experience, witnessing, history, and truth are, indeed, a starting point for political activism and transformation’.<sup>48</sup> Eng and Kazanjian see their collection as moving ‘from trauma to prophecy, and from epistemological structures of unknowability to the politics of mourning’.<sup>49</sup> As Cvetkovich, one of the contributors, puts it, trauma can be ‘the provocation to create alternative lifeworlds’.<sup>50</sup> The prescient grieving going on in fictional future histories of climate change clearly ties in with such efforts to reclaim mourning as a potent political practice. There is a particularly close affinity with Butler’s work on ‘grievability’, which also emphasizes the centrality of the future anterior tense to the recognition of the value of human lives.<sup>51</sup> Mourning future losses proleptically in order for these losses not to come to pass in the first place, the works discussed above refuse to depoliticize mourning, mobilizing it instead as a possibly revolutionary force.<sup>52</sup> Deployed as a strategy to convey the urgency required to address climate change, the phenomenon of anticipatory memory holds great potential for further research on the complex relationship between mourning and activism.

## Notes

<sup>1</sup> Other works in which this trope can be found, albeit sometimes less explicitly, are John Feffer’s novel *Splinterlands*, Richard McGuire’s comic book *Here*, and Dale Pendell’s novel *The Great Bay*.

<sup>2</sup> Oreskes and Conway, *Collapse*, 31–33.

<sup>3</sup> *Ibid.*, ix.

<sup>4</sup> *Ibid.*, 1–2.

<sup>5</sup> *Ibid.*, 9.

<sup>6</sup> *Ibid.*

<sup>7</sup> One can hear echoes here of Theodor Adorno and Max Horkheimer’s critique of Enlightenment modernity in *Dialectic of Enlightenment*. Though Adorno and Horkheimer were not concerned with environmental issues, it can be argued that humanity’s failure adequately to address the climate crisis is a symptom of the struggle for the domination of nature made possible through Enlightenment, as were, in their view, fascism and totalitarianism. Krebber, “Anthropocentrism and Reason,” 323.

<sup>8</sup> Oreskes and Conway, *Collapse*, 59–60.

<sup>9</sup> *Ibid.*, ix–x.

<sup>10</sup> Zalasiewicz, *The Earth after Us*, 1.

<sup>11</sup> *Ibid.*

<sup>12</sup> *Ibid.*

<sup>13</sup> *Ibid.*, 3.

<sup>14</sup> *Ibid.*, xi.

<sup>15</sup> *Ibid.*, xiii.

<sup>16</sup> *Ibid.*, xiv.

<sup>17</sup> *Ibid.*, 217.

<sup>18</sup> *Ibid.*, 219.

<sup>19</sup> *Ibid.*, 121, 7.

<sup>20</sup> Colebrook, *Death of the PostHuman*, 24.

It is worth noting that Jan Zalasiewicz is the convenor of the Anthropocene Working Group of the International Union of Geological Sciences, which announced on 29 August 2016 that it is preparing a formal proposal to designate the Anthropocene as an official unit of geological time. Carrington, “The Anthropocene Epoch.”

<sup>21</sup> Klein, “Climate Change,” 84.

<sup>22</sup> *Ibid.*, 85.

<sup>23</sup> Chakrabarty, “Postcolonial Studies,” 2.

<sup>24</sup> Currie, *About Time*, 5.

<sup>25</sup> *Ibid.*, 6.

<sup>26</sup> Currie, *The Unexpected*, 67, 6.

<sup>27</sup> See Maier, “Surfeit of Memory?”

<sup>28</sup> Quoted in Crownshaw, “Future of Memory,” 3.

<sup>29</sup> Ibid.  
<sup>30</sup> Gutman, Brown, and Sodaro, "Introduction," 1.  
<sup>31</sup> Ibid.  
<sup>32</sup> Ibid., 2.  
<sup>33</sup> See, for example, Levy and Sznajder, *Human Rights and Memory*; Huyssen, "International Human Rights."  
<sup>34</sup> See, for example, Hamilton, "Activist Memories;" Reading and Katriel, eds, *Cultural Memories*.  
<sup>35</sup> See <https://notstupid.org/>.  
<sup>36</sup> See <https://1010uk.org/>.  
<sup>37</sup> Oreskes and Conway, *Collapse*, 79.  
<sup>38</sup> Ibid.  
<sup>39</sup> Quoted in Mooney, "How Western Civilization Ended."  
<sup>40</sup> Zalasiewicz, *The Earth after Us*, 5.  
<sup>41</sup> Ibid.  
<sup>42</sup> Ibid., 239.  
<sup>43</sup> Ibid.  
<sup>44</sup> Ibid., 240. Zalasiewicz's call on humanity to minimize its impact on the planet sits somewhat uneasily, though, with his book's evident fascination with the idea of humanity being remembered in the very distant future, which requires that a clear and

unique mark be left in the geological record.

<sup>45</sup> Levy and Sznajder, *Human Rights and Memory*, 4.

<sup>46</sup> Such a connection between the Holocaust and climate change is also made by Timothy Snyder in his book *Black Earth*.

<sup>47</sup> Crimp, "Mourning and Militancy," 18.

<sup>48</sup> Eng and Kazanjian, "Introduction," 10.

<sup>49</sup> Ibid.

<sup>50</sup> Cvetkovich, "Legacies of Trauma," 453.

<sup>51</sup> See Butler, *Frames of War*; and *Precarious Life*.

<sup>52</sup> This hopeful, politicized type of mourning is to be distinguished from the (non-proleptic) kind of impossible mourning or melancholia described by Margaret Ronda in her essay "Mourning and Melancholia in the Anthropocene." Ronda focuses on Juliana Spahr's exemplary Anthropocene poem "Gentle Now, Don't Add to Heartache," which she analyses as a failed elegy that 'lingers in self-punishing grief because there is no way to cope with or atone for the sense of human culpability that emerges here, no way even to grasp its material or psychological consequences'.

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