# Slow Disaster in the Anthropocene: A Historian Witnesses Climate Change on the Korean Peninsula

# Scott Gabriel Knowles

Despite their seeming reluctance to engage in the politics of the now, historians have a crucial role to play as witnesses to climate change and its attendant social injustices. Climate change is a product of industrialization, but its effects are known in different geographical and temporal scales through the compilation and analysis of historical narratives. This essay explores modes of thinking about disasters and temporality, the Anthropocene, and the social production of risk – set against a case study of the Korean DMZ as a site for historical witnessing. Historical methods are crucial if we are to investigate deeply the social processes that have produced climate change. A "slow disaster in the Anthropocene" approach might show the way forward.

> We will make sure that every leader who hesitates and waffles on climate will be seen as another Donald Trump, and we will make sure that history will judge that name with the contempt it deserves.

—Bill McKibben, 2017

hen it comes to sorting out the good and the bad, "history" is an activist. Placing a bad actor on the "wrong side of history" is a rhetorical strategy deployed by everyone from presidents to popes.<sup>1</sup> In moments of political turmoil, the impending judgment of "history" wields moral power. But what about the historians?

I trained as a historian of technology in the late 1990s. In those days, there was a fascination with the history of technological systems that built America: electrification, dams, highways, the Internet. I was more interested in why systems fail, and I wrote a dissertation about the conflagrations that destroyed American cities from Chicago to Baltimore to Boston in that heralded era of American ingenuity. I was on my way to Chicago to spend a week immersed in the archives of the Iroquois Theater Fire – the greatest fire tragedy of the twentieth century in the United States – and by the time my plane landed, the Twin Towers had been attacked in New York City.

In the months that followed, I listened to the braying of politicians decrying the attacks with an incessant focus on an external enemy, and I dove deeper and deeper into the equally unsettling history of the World Trade Center. The Towers were experimental buildings with known weaknesses to fire. There was no conspiracy here, just a long history of incomplete fire protection that was never fully realized until it was too late. The structural weaknesses had a history connected to the larger story of materials testing, building codes, the insurance industry, and urban politics. Unraveling that tangled knot became a central focus of my 2011 book *The Disaster Experts: Mastering Risk in Modern America*. What started as the history of a fire problem buried in the American past turned into a chronicle of continuity in risk and disaster. Disasters aren't events that float freely in history, and always with deep histories.

historian worrying about a missile attack while baking in a heat wave: that's me in the Gyeongui Line Forest Park in Seoul on a broiling summer day in 2017. I was for that summer a visiting researcher in the KAIST Graduate School of Science and Technology Policy, working with Dr. Chihyung Jeon to understand the causes and implications of the 2014 sinking of the Sewol Ferry. In many ways, it was a continuation of my previous work on the Twin Towers: searching for the obscured history of technological decision-making behind a major national disaster.

Construction on the Gyeongui Line, Korea's first major railway, began in 1902. In Seoul today, the rail line is submerged beneath the congested city, and the Forest Park is an urban oasis with water and trees and plenty of space for my two children to run and ride their scooters and make too much noise. Suddenly, my iPhone let out a terrible sound and the screen was full of text. I could hear other people's phones in the park making the same noise. Since I unfortunately don't read Korean, I quickly snapped a picture and texted it to my friend. What's happening? I asked, a bit urgently.

The summer of 2017 was an anxious one. My South Korean friends have grown up with post–Korean War polarization and the ever-present threat of violence, but I suspected that even to them this period of time was an unusual one. More certain of the diplomatic tactics of the North, they were highly unsure of the United States' recently elected and unpredictable reality-show president. On arrival in South Korea, I felt alarmed to read a recommendation that I should have gas masks for my family, and that we needed to know where to take shelter if a missile barrage were to start – and also that I shouldn't worry too much about such things. But I'm a disaster researcher, worry is my business. Only recently, President Trump had warned North Korean President Kim Jong-un that if he continued testing missiles, the United States would rain "fire and fury like the world has never seen" down on Pyongyang. North Korea's response was a shrug, and then a threat to create an "enveloping fire" around Guam. Meanwhile, that week, the American press was busily churning out grim "scenario stories": What might happen if war returned to the Korean Peninsula? How many would die in the first hour, the first day, the first month? Some of these scenarios ended with full-blown nuclear war, while the rosier scenarios imagined only tens of thousands of civilians and soldiers being killed, primarily in Seoul and Pyongyang.

Back to the Gyeongui Line Forest Park: at last, a text message came back from my South Korean friend. It's a weather warning, he said, advising you to take care in the extreme heat. As I stood there squinting from the sun's glare, my shirt soaked with sweat, I appreciated the wisdom of this advisory. The reality is that the slow disaster of climate change on the Korean Peninsula is every bit as ominous as the threat of war, it's just unfolding at a pace that makes it harder for us to keep it in the front of our minds.

South Korean summer heat records have been broken over recent years: the old high-temperature mark for Seoul was shattered in 2018, in the midst of a heat wave affecting the entire Korean Peninsula, and directly causing at least forty-two deaths. This follows a similar heat wave in the summer of 2013. The trend is clear to climatologists. From 1971 to 2000, South Korea charted on average 8.5 heat wave days per year. By the end of this century, that number is expected to rise to 32.3 days per year – a full month of every year in a heat disaster. A recent public health analysis puts the rising heat in the context of life and death: between 2002 and 2013, 336,000 South Koreans were treated for direct heat-related illness, including heat exhaustion, respiratory difficulty, and heatstroke, with the reported cases increasing steadily year by year. Heat-related death rates are even higher in rural and poorer areas, where agricultural workers suffer and where elderly people often live alone and without good access to health care.<sup>2</sup>

Each of these effects local to Korea will likewise play out at the global scale, according to the most recent report (2018) of the Intergovernmental Panel on Climate Change. The twenty-first century will be one of a gradual and deadly warming – global yes, but uneven in its effects, and not equitable. This warming will be much harder on vulnerable populations: Black, Indigenous, People of Color, the poor, the young and old, the disabled and chronically ill. For nonhuman species, the impacts will likewise be dangerous, sometimes deadly, sometimes extinction-inducing. And, for the built infrastructure, shifts in heating and cooling patterns will affect roads and buildings, water (too much in some places, far too little in others) will challenge sanitation and water delivery systems, demand for air conditioning will stress the electric grid, and, increasingly, extreme weath-

er events will cause damage across all types of infrastructure systems from data to diabetes care with higher frequency and cost.

Of course, when I read my friend's reassuring translation of the warning text in 2017, I was relieved that war had not just been declared. This fear was replaced, though, with another one: a fear that tracks a threat just as grievous (worse even), but moving on a slower time scale. "Fire and fury" and "enveloping fire" are terrifying and poetic phrases, much more so than the rather flat "global warming," but global warming stalks me everywhere I go, not only in Seoul and Pyongyang. When I went home to New Jersey, far away from the emergency drills and gas masks, it was waiting for me there, too.

The Anthropocene is the time in which human activity is the dominant force of change on the planet. The terminology is in the strict sense geological, coined by atmospheric chemist Paul Crutzen in 2000. Geological ages are named for the organisms or processes that define the earth in their time. The Anthropocene is our time, an age marked by the increasingly obvious cumulative impacts of humanity on Earth systems, and more so by the cascading effects of human-crafted systems. If you are looking for the material evidence that scientific advocates of the Anthropocene collect and analyze, you should watch for concentrations out of place: too much phosphorus at the mouths of rivers and acid in the oceans, too much carbon in the atmosphere, radioactive particles and plastics everywhere. There are also absences: ice melt, vegetative loss, biodiversity loss, aridity.

The evidence for the Anthropocene as a stratigraphic layer of the earth with a clear starting point is still a matter of fierce debate among scientists, divided into roughly four camps: those who reject the concept out of hand; those who date the start of the Anthropocene to the advent of agriculture approximately ten thousand years ago; those who date it to the rise of industrialization roughly 250 years ago; and those who insist that the entry into the nuclear age marks the moment of the Anthropocene, beginning in 1945. Start date aside, there is broad consensus that a so-called great acceleration of Anthropocenic growth processes, from globalized industrial production, to GDP, to global population, to oceanic surface temperatures, is obvious from the 1950s onward.

The Anthropocene is by no means the first time humans have contemplated suffering, or even the complete end of humanity: apocalyptic eschatology is quite nearly a universal feature of world religions. It's not even the first time in which humans have contemplated their end brought by their own hand; that would be the Cold War "mutually assured destruction" era.<sup>3</sup> But it is the first time that a mass extinction – including the Anthropos – is contemplated by us as a creeping process producing a slow disaster of global proportions, toxicity and global warming driving us from every corner of the globe to the same fate.

Climate scientist Will Steffen has also described the Anthropocene as a challenge of temporal imagination: "the concatenation of both slow- and quick-onset events...can lead to some unexpected global crises....The Earth System scale adds another twist to the concept of speed of change....Humanity...has no experience of dealing with such combinations of scale and speed of environmental change."<sup>4</sup> How long will it take? Is it too late? Is it reversible? Who will be the first to suffer, and how can their suffering be lessened? Are the same forces of industrialization that created the Anthropocene capable of being turned toward solutions? These are the existential questions of the Anthropocene, and they go well beyond geology.

Historians of disaster have a role to play in grounding these free-floating questions in local contexts: the Anthropocene is a global process playing out in human lives and communities every day. And in every one of those lives and places, there are historical trajectories, inheritances of place and politics that will shape who suffers more and who suffers less. Understanding the everyday politics of the Anthropocene requires the work of historians.

limate change is a product of industrialization, but its effects are known in different geographical and temporal scales. This realization came home to me when I was researching the Twin Towers, but also Hurricane Katrina, Fukushima, and many other disasters of the past two decades. In each case, our naming conventions are to emphasize the *event* of the disaster over the *process* that made the disaster. The rush to name the disaster, investigate the cause, and get back to normal defines the work of the modern disaster preparedness state. I have struggled in my career with the temporal limitations of the term in its general (and I believe quite misleading) usage. What, I have wondered, if we named disasters by the processes that made them? The September 11 Terror Attacks, Fires, and Engineering Failures; the New Orleans Flood and Levee Failures of 2005; the Great East Japan Earthquake, Tsunami, and Failure of Nuclear Safety. This thought experiment takes us into useful conceptual terrain if we care to actually understand the social, economic, and political actors who establish so-called acceptable levels of risk, and why publics accept (or don't accept!) such levels. Following this path demands a history of disaster that is decidedly more complicated than a presidential "disaster declaration."

War is the quintessential example of an anthropogenic disaster that we can apprehend as an "event in the now." In terms of definitions, war fulfills the requirements of what we generally mean by disaster: it overcomes society's ability to cope with stress. That is what war is for after all: it is a human-induced disaster aimed at achieving political ends. As such, warfare cannot last beyond the time frame in which it is useful for the combatants. The time frame of war is short: it may be repetitive, but it is an imminent way of destroying, killing, and dying. War and other

so-called rapid-onset disasters fit the definition of "events" and, in fact, the classic social scientific definitions of disaster were framed in the early years of the Cold War, when governments (especially the United States) were funding research to model the societal impact of nuclear war. The model of disaster that emerged by 1960 in the writings coming from the Disaster Research Center was something that arrives rapidly, with little or no warning, and then it's over. That aftermath phase is what the government planners were keen to predict: would society return to some sort of normalcy, or would society fall apart at the seams? Their conclusions weren't optimistic, but are slightly beside the point here. What's important is to note their framing of disaster as an event, the result of a shock from outside, overwhelming a particular community at a particular time.

The Anthropocene is also a disaster, but a slow one, moving according to a different temporal logic. The traditional definition of disaster describes an overwhelming event delimited by spatiotemporal limits that are tightly bounded with clear cause-and-effect relationships. "Slow disaster" is a way to think about disasters not as discrete events but as long-term processes linked across time. The slow disaster stretches both back in time and forward across generations to indeterminate points, punctuated by moments we have traditionally conceptualized as "disaster," but in fact claim much more life, health, and wealth across time than is generally calculated. The slow disaster is the time scale at which technological systems decay and posttraumatic stress grinds its victims; this is the scale at which deferred maintenance of infrastructure takes its steady toll, often in ways hard to sense or monetize until a disaster occurs in "event time." The experience of war victims fits the concept well, as does the process of climate change, sea level rise, the intensification of coastal flooding, and heat waves.<sup>5</sup>

Yet the old false binaries confront us at every turn. For example, in the aftermath of a disaster - like Hurricane Katrina, or the sinking of the Sewol Ferry, or the Fukushima Daiichi nuclear disaster – the event is often presented as a laboratory of sorts. After each of these crises, we hear a great deal from policy-makers and experts about the opportunity to "learn from disaster." But we should be aware that this learning exercise is trapped in a dynamic that splits the technical from the social. In this mode, if the technical side of a disaster yields inconclusive results, then it is very hard for experts to reform technical practice. Strong pressures exist within technical expert communities to resist outside social and political influence. This is in many ways perceived as the very definition of science and engineering: to be able to deliver analysis and technology that are free from context, relieved of the corruptions of the social world. Of course, such avoidance in the Anthropocene is not only impossible, but the idea that disasters are not combinations of technical but also social and political forces is a dangerous one. Postdisaster investigations are often demanded by government officials seeking to have rapid and acceptable answers to technical questions, seeking to move quickly past useful moments for debate over the larger forces at play in risk-taking. This rush to "learn" something, anything that can restart the reactors or re-open the flood plain for construction puts engineers especially into a very difficult position. What if what is learned from disaster is that there should be more technological restraint in a certain ecosystem, or that the unwanted effects of an industrial process aren't yet knowable? What then? Is the lesson of disaster useless? No, but perhaps the answer will be unpopular, and not attuned to the "event" scale of disaster that so often demands our attention.

In whose interest has it been to define disaster as an event in the now, as an act of God, as an unwanted external, natural event? By way of answer, what you will have immediately observed from the discussion thus far is the lack of texture when it comes to ascribing human agency in the Anthropocene. And here is where history as a discipline can play its most constructive role as a witness. To say the era started with "industrialization" is intuitively correct, but it's like saying a murder was committed by some criminals at some point in the past. We want to know more: Who were these criminals? Where was the crime committed, and what were the motives? In their 2015 book *The Shock of the Anthropocene*, historians Christophe Bonneuil and Jean-Baptiste Fressoz put the problem of causation and agency in the Anthropocene," they note,

"we," the human species unconsciously destroyed nature to the point of hijacking the Earth system into a new geological epoch. In the late twentieth century, a handful of Earth system scientists finally opened our eyes....[But] this story of awakening is a fable. The opposition between a blind past and a clear-sighted present, besides being historically false, depoliticizes the long history of the Anthropocene.... In the twen-ty years that it has prevailed, there has been a great deal of congratulation, while the Earth has become ever more set on a path of ecological unbalance.<sup>6</sup>

The challenge then is two-fold: 1) to build historically rich accounts of the Anthropocene, a globally active process manifesting itself across a countless set of local domains; and 2) to attend to the ways that the Anthropocene discourse is shaping our understanding in the now. Who gets to say, who doesn't, and why does that matter? Rising to this challenge has been a legion of scholars offering historically contextualized modifications to the notion of Anthropocene-as-process. These scholars are looking to take apart that duplicitous "we" and actually put some names with faces, so to speak. There are multiple different historically rich theories of the "social tectonics of the Anthropocene": the nongeological forces that are altering the earth's crust just as effectively as vulcanism or meteor strikes have done in previous geological times. For example, the *Capitalocene*: departing from the old line attributed to Fredric Jameson that we can envision the end of the world more readily than we can the end of capitalism. The Capitalocene has some utility in addressing my previous question about the limits of learning from disaster. In this mode of thinking about the Anthropocene, it makes complete and total sense that learning will be bounded by the limits of ownership and profitability. There are other contenders, each championing a particular ecosocial history of planetary change: Plantationocene (slavery and monoculture), Carbocene (carbon extraction/burning), Thanatocene (species extinction), and Chthulucene (interconnectedness of species), to name just a few.<sup>7</sup>

And so, the Anthropocene as a concept has slipped beyond the jurisdiction of the International Commission on Stratigraphy: the Anthropocene-as-socialprocess is now a mode of inquiry wherever people are interested in disasters and ways to prevent them. As an environmental studies heuristic device, it has some serious advantages. It is inherently interdisciplinary, it traffics in deep time and demands attention to scales from the planetary to the street corner, and it forces us to divest ourselves of the age-old "natural disaster." In the Anthropocene, it is human activity itself interwoven into the natural that shapes reality.

here is only one place in the world where a person can see the Anthropocenic future in its full revelation, a place that simultaneously fully represents humanity while also being devoid of living humans. This place is the demilitarized zone separating North and South Korea. One hundred and fifty-five miles long and two-and-a-half miles wide, the DMZ is the world's longest defended borderland, and by virtue of this fact, it is also the world's largest space uninhabited by humans.

I rode the Gyeongui Line from Seoul Station to the DMZ. Most of the trip would feel predictable to anyone who has ever left a major metropolitan city by train: high rises give way to lesser high rises, smog gives way to clearer skies. But after about an hour, the so-called Peace Train, beautifully decorated with bright flowers and showing cheerful videos, slows considerably, and then you become aware of changes in the land: an intensification of the greens and blues, and a heightened awareness on board as the fences and the soldiers come into view.

I disembarked at Dorasan Station, a beautiful but empty modern station just south of the border. It took me some time before I understood that this was, and is meant to someday again be, a border crossing. A soaring waiting room is edged by a tourism information desk, presumably there to provide aid for South Koreans headed north, and for their North Korean counterparts heading south. One can even see the border crossing station itself, where passports will be checked and bags inspected. And there on the departures board, Pyongyang is listed.

From here we were ushered into a cheerful theater where a short film told us three basic stories: first, the historic story of the war and the partitioning of the Korean Peninsula; and second, the continuing depravity of the North Korean



Soldiers on the Gyeongui Line "Peace Train" to Dorasan Station, South Korea, 2017. Photo by Scott Gabriel Knowles.

military (with its prolific tunneling under the DMZ and into South Korea) and the imminent threat the military posed to democracy in the South. I was prepared to receive these messages in a new way: North Korea was eager for reunification the film told me, and it wouldn't be through nonviolent means. The tunnel was the evidence, the film instructed me; remember the tunnels.

The third story caught me quite unprepared. Because of the incomparable situation of the DMZ, its four hundred square miles of unhumanity, it is in fact the world's largest wildlife and botanical refuge! The buoyant tone of the film carried us to the conclusion that when (not if) Korea is reunited, the nation will be left with this amazing park – a so-called Peace and Life Zone – a reminder of its past transformed into a beautiful symbol of peace. I couldn't help but wonder about the alternative endings for the film, the ending where reunification doesn't easily occur and the DMZ serves as a militarized wildlife refuge for centuries, not decades. Or, an ending darker still, the social tectonics of the Anthropocene eventually render the DMZ useless because of societal collapse. I began to see the DMZ as both a historical record of conflict and also as an experiment station for life-after-humans.

As I contemplated this last idea, the guides herded us back onto the bus for the pinnacle of the tour: a visit to the mountainside lookout where visitors peer across the DMZ and into the North Korean border town of Kijong-Dong. I looked across that emptiness, desperate to see a person – a real North Korean – but I only saw the streets, smokestacks, and houses of Kijong-Dong. I found out later that I was looking for people in vain, Kijong-Dong is only a model town, apparently no one lives there – the lights go off and on in the buildings controlled remotely with timers, and soldiers disguised as civilians sweep the streets.

I was standing on the edge of the most heavily monitored, seen, listened to, tunneled, and militarized spot on the planet, and I felt profoundly lonely. It was a place unlike any other, and yet totally representative of what the Anthropocene portends: high-tech, war-torn, and empty of human beings.

Now if you forget humans for a moment, there is definitely life in the DMZ.<sup>8</sup> There are over five thousand species of plants and animals here, including 106 that are endangered and protected. The geography of the DMZ from one side of the peninsula to the other crosses many different types of ecosystems. It was first proposed as a park in 1966, though this idea has still not been accepted by the North. Thousands of migrating birds from across Asia stop here every year. These include the famous red crowned and white-naped crane. Siberian tigers are rumored to be here, too.

These are, for now, the residents of the proposed Peace and Life Zone of the DMZ. But what if we excavated the Anthropocene layer at the DMZ – a discovery mission for the Korean Anthropocene? What would we find? Could we put together a coherent account of human life, and human death, on Earth? Start with

the North Korean border towns of Haeju and Kaesong, each has a deep human history, with remnants of early farming cultures dating back to the Neolithic period over ten thousand years ago. Pottery and stone tools have been found with a long history of small-scale empire-building through agriculture and through warfare. We could have a look inside Gung Ye's castle, ruins of a tenth-century civilization that sits abandoned today in the DMZ. Closer to the surface, we would discover the industrial layer, zinc mines close to the border, and, of course, railroad tracks. That very railway where my voyage started, the Gyeongui Line, passes through the DMZ. In its excavation we might come to know a much more complicated history of the ways that imperialism and industrialization have shaped the DMZ. The Gyeongui Line, though planned by the Korean government of the late nineteenth century, was replanned and built by the imperial Japanese government that occupied Korea from 1910 to 1945. This railway line was seen by the Japanese colonizers as the tool of modernization in the peninsula, unifying the economic regions of Manchuria and allowing for rapid deployment of Japanese troops. Industrialization and violence, together as always. The DMZ will hold traces of this imperial past, underneath a thicker layer of debris marking the Korean War from 1950 to 1953. Specially authorized excavations here, for example, in the 1990s and 2000s uncovered sixty-four South Korean war casualties from those years. One layer closer to the surface we will find undoubtedly the markers of atmospheric nuclear testing (that's a global marker). The most dangerous reminder of industry is here at this level as well: there are an estimated two million land mines in the DMZ.

Now let's come up to the surface layer of our time: Since 2002, the jointly managed Kaesong Industrial Region has offered the promise of collaboration by the North and South, a sort of protoreunification experiment (closed for a while, due to re-open); it is telling that industrial production was seen as the most promising way to accomplish this détente. To both North and South, since 1953, moving toward vastly different political goals, intensified industrialization has been the strategy. The Anthropocene, we might say, is ideologically pluralistic. To paraphrase sociologist Ulrich Beck: industrialization can be authoritarian or it can be democratic; pollution is pollution and it doesn't respect boundaries.<sup>9</sup>

We don't know how this Anthropocenic excavation will end: another war debris and nuclear layer, or a thicker layer marking the slow disaster of warming, aridity, and pollution?

Or is there another option? I don't think any of us would be willing to work on slow disaster and Anthropocene research if we didn't actually, maybe quietly, hold onto the idea that a course correction is possible, that a path away from the apocalypse is at hand, that we don't have to die in the Anthropocene after all, that the field notes of the Anthropocenic DMZ excavation may indeed someday be collected by a person visiting a wildlife refuge. D isasters concentrate violence in moments. The emergency management bureaucracy draws lines around events that seem containable: dead bodies, acreage burned, insurance claims adjusted. The rush to make sense is met by the push to rebuild. But disasters are also slow. The failure of a levee, like the first shot in a war, is the accumulation of political and material events that stretch back in time, often to indeterminate points. The desire to bound a disaster in time and place is itself a form of politics, a politics of disaster amnesia, cutting effects off from causes, and from futures. Disaster history is one tool useful in filling in the erased moments in the record, slowing down the disaster and analyzing its complete temporality, drawing more players into the drama, tallying more deaths and financial losses than a "disaster event" tabulation would ever allow. A slow-disaster methodology is crucial if we wish to ascribe blame (and sometimes credit) and seek justice for the impacts of disasters in society.

Climate change, in particular, presents a disaster at the global scale where historical analysis proves necessary. The formation of public policy that can meet the challenges of climate reality in the twenty-first century relies on an ability to explain environmental change over long stretches of time, and to connect change to human actions. The historical profession has already been altered by this challenge. Climate change has dragged historians across many subfields of research directly into the public square.<sup>10</sup> Indeed, entirely new realms of inquiry like Anthropocene studies and disaster history have emerged precisely in reaction to the new public demands for knowledge in the climate debate. Inside the academy, but also in the realms of public history, museums, memorials, and artistic practice, a new consensus is emerging over the responsibility of historians to direct their energies toward engagement in ways not seen since the civil rights and antiwar battles of the 1960s–1970s.

The American Historical Association (AHA) with its twelve thousand members serves as the largest corporate body of historians anywhere in the world, and includes U.S. and non-U.S. citizens among its ranks. The AHA's "Statement on Standards of Professional Conduct" inscribes the tension between a responsibility to professional practice and the imperative to bear public witness to contemporary conflicts. "While it is perfectly acceptable for historians to share their own perspectives with the public," the AHA cautions, "they should also strive to demonstrate how the historical profession links evidence with arguments to build fair-minded, nuanced, and responsible interpretations of the past."<sup>11</sup>

This historians' code of professionalism deems it "acceptable" to witness current events, but only with great caution, and always with the tether back to professional practice. There is no claim to a deeper moral understanding or to a stronger sense of responsibility to democracy, or to humanity, than that of the average person on the street. The implication is that a dispassionate analysis of the past may yield useful insights into the present, and that's about as far toward activism as any historian should go.

Professionalism notwithstanding, the silence of experts in the face of wrongdoing is not a neutral act, it is itself a mode of speech, a tacit acceptance of the events of the day, and professional historians know this as well as anyone. Historians, and not just as private citizens, have at crucial times channeled their professional authority in the face of moral challenges: the anti-Vietnam War and civil rights movements counted historians in their ranks. Fifty years ago, a meeting of the AHA boiled over into direct confrontation between defenders of the professional status quo versus upstarts who wanted the profession to take a strong stand on the war in Vietnam and civil rights.<sup>12</sup>

This moment of radicalism in the profession was not a knee-jerk reaction to headlines, but instead reflected a previously obscured dialogue between the past and the present moment. The historiography of the American Civil War before the 1960s undergirded an anti-civil rights politics for many, many decades; it was not neutral. Indeed, in its presumed fidelity to the historical record - a record impoverished of the African American experience - the historical profession stood as silent as a statue of a Confederate general. But engagement of the profession and its leading practitioners in the history of race and racism at that moment in time set a pathway forward to future scholarship. This is precisely how historian E. H. Carr described the process through which new "facts of history" are discovered: by the re-opening of a historical record that was somehow previously silent on an issue. The archive, in other words, is always in formation, and this formation of the past is in direct dialogue with the present, and with the historian as a witness to the urgency of her times. Indeed, when historians start looking, they find a record that screams, and in that volume and dissonance they "make" history. So there is a causal relationship between the present, moral outrage, the historical record, and the historical craft.

The AHA itself, protector of the detached historical judgment, has waded into a number of controversies (not just American ones) over the past three years, issuing statements on the 2020 Census, Deferred Action for Childhood Arrivals (DACA), white nationalism and domestic terrorism, U.S. Immigration and Customs Enforcement (ICE) raids, and even on actions of the Hungarian government. AHA Executive Director James Grossman addressed this more activist stance in 2019. "The current moment presents an unusual landscape of responsibility," Grossman explained. "I have not been among those who see fascism creeping into our political processes, but I do see something happening that differs from anything I've seen before. If a clear and present danger does exist ... the AHA has a responsibility to participate beyond its normal conventions."<sup>13</sup>

The regular Conference of the Parties (COP) meetings and Paris Accord discussions, as well as every climate change summit going back into the 1990s, frame climate change as a forward-looking problem. It is an existential crisis at the global scale. In the midst of these discussions, the past is almost silenced, but not entirely. Those carbon emissions came from real places on the planet, and the environmental assault of climate change can be dated. It is not, of course, one event, one place, one actor – again a problem because such findings would aid in the legal recovery process, such as those brought about by island states looking now at the very prospects of moving their entire populations. As of now, the AHA has issued no statements – and the historical profession has been mostly silent – on the existential threat of global climate change. But if we consider the recent outpouring of works on disaster history and the Anthropocene, we can see the historical profession tuning up for intervention in the politics of climate.

Historians don't offer forensic certainties. But through excavating the layers of history as I have presented in this essay – taking core samples of the land on which we stand today – historians can and must bear witness to the social processes that have produced climate change. A "slow disaster in the Anthropocene" approach might show the way forward.

## AUTHOR'S NOTE

The author wishes to thank colleagues of the Korea Advanced Institute of Science and Technology, and Drexel University, for financial support that led to this essay. Thanks also to Nancy Rosenblum for intellectual encouragement.

### ABOUT THE AUTHOR

**Scott Gabriel Knowles** is Professor and Head of the Department of History at Drexel University. He is the author of *The Disaster Experts*: *Mastering Risk in Modern America* (2011) and is coeditor, with Kim Fortun, of the University of Pennsylvania Press book series *Critical Studies in Risk and Disaster*.

#### **ENDNOTES**

- <sup>1</sup> Ben Yagoda, "Is Obama Overusing the Phrase the Wrong Side of History? Are We All?" *Slate*, April 17, 2014, https://slate.com/human-interest/2014/04/the-phrase-the-wrong -side-of-history-around-for-more-than-a-century-is-getting-weakened-with-overuse .html.
- <sup>2</sup> Jungeun Kim, Kyoung Jun Song, Ki Jeong Hong, and Young Sun Ro, "Trend of Outbreak of Thermal Illness Patients Based on Temperature 2002–2013 in Korea," *Climate* 5 (4) (2017); and Do-Woo Kim, Ravinesh C. Deo, Jong-Seol Lee, and Jong-Min Yeom, "Mapping Heatwave Vulnerability in Korea," *Natural Hazards* 89 (11) (2017): 1–21.

- <sup>3</sup> See the works of Robert Jay Lifton, for example, "Mind and Habitat: Nuclear and Climate Threats, and the Possibility of Hope," *Bulletin of the Atomic Scientists*, April 16, 2014, https://thebulletin.org/2014/04/mind-and-habitat-nuclear-and-climate-threats -and-the-possibility-of-hope/.
- <sup>4</sup> Will Steffen, Asa Perrson, Lisa Deutsch, et al., "The Anthropocene: From Global Change to Planetary Stewardship," *Ambio* 40 (7) (2011): 739–761.
- <sup>5</sup> Scott Gabriel Knowles, "The Other Uncertainty: The View from Disaster History," *Chancing the Storm*, Social Science Research Council, July 23, 2019, https://items.ssrc.org/chancing-the-storm/the-other-uncertainty-the-view-from-disaster-history/.
- <sup>6</sup> Chritsophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History, and Us*, trans. David Fernbach (New York: Verso, 2016).
- <sup>7</sup> See, for example, Jason W. Moore, ed., *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism* (San Francisco: PM Press, 2016); and Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham, N.C.: Duke University Press, 2016).
- <sup>8</sup> Peter Coates, "Borderland, No-Man's Land, Nature's Wonderland: Troubled Humanity and Untroubled Earth," *Environment and History* 20 (4) (2014): 499–516.
- <sup>9</sup> Ulrich Beck, *Risk Society: Towards a New Modernity* (New York: Sage, 1992).
- <sup>10</sup> See Climate History Network, http://www.climatehistory.net/; and Dipesh Chakrabarty, "The Climate of History: Four Theses," *Critical Inquiry* 35 (2) (2009): 197–222.
- <sup>11</sup> American Historical Association, "Statement on Standards of Professional Conduct," updated 2019, https://www.historians.org/jobs-and-professional-development/statements -standards-and-guidelines-of-the-discipline/statement-on-standards-of-professional -conduct.
- <sup>12</sup> Carl Mirra, "Forty Years On: Looking Back at the 1969 Annual Meeting," *Perspectives on History*, February 1, 2010, https://www.historians.org/publications-and-directories/perspectives-on-history/february-2010/forty-years-on-looking-back-at-the-1969 -annual-meeting.
- <sup>13</sup> James Grossman, "The Megaphone at 400 A Street SE," *Perspectives on History*, October 21, 2019, https://www.historians.org/publications-and-directories/perspectives-on -history/october-2019/the-megaphone-at-400-a-street-se-historians-voice-in-public -culture.