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## A Period of Consequence

Environmental Literature of 2006

Shaun O'Connell

### Fire and Ice

Some say the world will end in fire, Some say in ice. From what I've tasted of desire I hold with those who favor fire. But if I had to perish twice, I think I know enough of hate To know that for destruction ice Is also great And would suffice. —*Robert Frost* 

The era of procrastination, of half-measures, of soothing and baffling expedients, of delays, is coming to a close. In its place, we are entering a period of consequence.

-Winston Churchill, 1936

n the final weeks of 2006, as the days grew shorter and darker, but remained unseasonably, somewhat eerily warm in the Northeast — while Boston recorded its warmest December on record, snow storms paralyzed the Plains States between Thanksgiving and Christmas — signs of imminent environmental disaster increased: more alarming reports on the poisoning of the atmosphere, the seas around us, the lands we walk and ride upon, and dire predictions for the Earth's future. On the eve of 2007, for example, the Interior Department proposed to designate polar bears as a threatened species because melting Arctic ice has reduced their hunting grounds, though Interior Secretary Dirk Kempthorne would not admit what was obvious to environmentalists — that the ice on which the polar bears hunted was melting as the result of global warming.<sup>2</sup> At year's end, magazines and

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television programs commemorated the long lists of the year's wars, plagues, famines, and "natural disasters," most of which were intensified by our unnatural alteration of the climate.<sup>3</sup> Shakespeare's poignant sonnet 73 came to mind: "That time of year . . . when yellow leaves, or none, or few, do hang/ Upon those boughs which shake against the cold, . . . where late the sweet birds sang." The holiday season became a time of dark thoughts of demise and destruction, visions of life's resemblance to a fire, "consumed with that which it was nourished by."

Fittingly, the History Channel played "Last Days on Earth," a report on the seven deadliest threats to humanity. Climate change came in at number seven, behind black holes, artificial intelligence, supervolcanoes, asteroid strikes, nuclear war, and disease. But most of those who wrote of the environmental threats posed by global warming saw it as a far more immediate hazard to life as we have known it. These writers and speakers are public intellectuals — translating the findings of environmental scientists into clear and compelling statements designed to reach a wide audience who bravely bear the bad tidings of pending disaster that most American citizens choose to ignore. These writers, dutifully repeating the wellestablished and thoroughly documented dangers to all life on Earth posed by global warming, sought original ways to effectively convey the bad news that so many don't want to hear. They use vivid and increasingly elaborate metaphors and images to make their case to heed global warming. They present original narratives and design brilliant multimedia strategies to help us to see and to urge us to act — to, at the very least, slow the pace of destruction that we have been moving toward at an accelerating rate for the last century. These public intellectuals wrote contemporary versions of the jeremiad, a form of the sermon perfected by New England Puritans in which laments for past sins are recounted, followed by prophesies of either damnation or salvation, choices that depend upon the listeners' will to reform, and that conclude with exhortations to actions that could save their souls and redeem their community — "lavish outrage" accompanied by "an exhortative hope of reform."<sup>4</sup> These environmental jeremiads set out to present readers with a terrifying vision of a future hell on Earth and a plea to do something about it.

Some, of course, refused to acknowledge these threats, particularly the apologists for the gas and oil industry and the Bush administration. (Shortly after he was elected president, George Bush pulled the United States out of the Kyoto Accord because he believed it might harm the American economy.) Memorably, Justice Antonin Scalia addressed this issue from the bench of the Supreme Court, during a hearing on the Bush administration's refusal to regulate carbon dioxide in automobile emissions and to admit, as in the case of the polar bears, the direct relation between heat-trapping gasses from vehicle emissions and environmental warming. A dozen states, along with three cities and several environmental groups; had gone to court to challenge the Environmental Protection Agency's limited interpretation of its mandate: that it has no authority to restrict such gasses under the Clean Air Act. Chief Justice John G. Roberts, newly appointed Justice Samuel A. Alito, and Justice Antonin Scalia expressed doubts that the plaintiffs, represented by Assistant Attorney General James R. Milkey of Massachusetts, had standing, or legal legitimacy, to argue their case by showing, in the words of *New York Times* reporter Linda Greenhouse, "that global climate change presented a sufficiently tangible and imminent danger that could be adequately addressed by regulating emissions from new cars and trucks."

Justice Scalia: "I mean, when is the cataclysm?" Attorney Milkey: It's not so much a cataclysm as ongoing harm."<sup>5</sup>

Majority members of the Supreme Court seemed unmoved and it appeared unlikely that standing would be granted the plaintiffs to argue the case and even more improbable that the court would undertake to regulate the EPA. The "cataclysm," it appeared, not only had to be "ongoing," but it had to present a clear and present danger to persuade Justice Scalia and the Bush administration to listen.

Two thousand six might be thought of as the year of "the tipping point" as the Earth teetered over an abyss of melted ice that warms the oceans and steaming fires that choke the air, so suggested Jim Hansen, Director of the NASA Institute for Space Studies and Professor at Columbia University's Earth Institute, in a succinct, devastating *New York Review of Books* essay.<sup>6</sup>

The Earth's climate is nearing, but has not passed, a tipping point beyond which it will be impossible to avoid climate change with far-ranging undesirable consequences. These include not only the loss of the Arctic as we know it, with all that implies for wildlife and indigenous peoples, but losses on a much vaster scale due to rising seas. Ocean levels will increase slowly at first, as losses at the fringes of Greenland and Antarctica due to accelerating ice streams are nearly balanced by increased snowfall and ice sheet thickening in the ice sheet interiors. But as Greenland and West Antarctic ice is softened and lubricated by meltwater, and as buttressing ice shelves disappear because of a warming ocean, the balance will tip toward the rapid disintegration of ice sheets.

Hansen and others drew upon the form of the jeremiad to warn us that life on Earth is threatened by not only inevitable but imminent destruction unless we stop poisoning the air, the land, and the sea. We now seem to have become what Jonathan Edwards called "Sinners in the Hands of an Angry God," dangling over the fires of destruction.

You hang by a slender thread, with the flames of divine wrath flashing about it, and ready every moment to singe it, and burn it asunder; and you have no interest in any Mediator, and nothing to lay hold of to save yourself, nothing to keep off the flames of wrath, nothing of your own, nothing that you ever have done, nothing that you can do, to introduce God to spare you one moment.<sup>7</sup>

Bill McKibben, a public intellectual who has long been engaged in translating scientific knowledge into public awareness, issued the year's first sustained catastrophe alert in "The Coming Meltdown," a review essay in the same issue of the *New York Review of Books* (January 12, 2006).<sup>8</sup>

McKibben makes it clear that as temperatures rise, the Earth is collapsing in on itself. Arctic ice and tundra permafrost are melting at an alarming rate. Storms, notably hurricanes Katrina and Rita, are more intense. But politicians and journalists have paid insufficient attention to the imminent threat of extinction. "Climate change somehow seems unable to emerge on the world stage for what it really is: the single biggest challenge facing the planet, the equal in every way to the nuclear threat that transfixed us during the past half-century, and a threat we haven't even begun to deal with."

In this essay McKibben reviews Mark Bowen's *Thin Ice*, a study of the science of global warming, and focuses upon Lonnie Thompson, "the preeminent explorer of tropical and semitropical glaciers today, and the principal decoder of the secrets trapped in their ice." In February 2001, Thompson made an announcement that shocked environmentalists when he told the American Association for the Advancement of Science that the snows atop Mt. Kilimanjaro would disappear within twenty years and that "little can be done to save them."

Ernest Hemingway's "The Snows of Kilimanjaro" (1936), a story of a writer who allowed his talents to be corrupted by wealth and women, has as its epigraph a cryptic reference to a leopard.

Kilimanjaro is a snow covered mountain 19,710 feet high, and it is said to be the highest mountain in Africa. Its western summit is called the Masai "Ngage Ngai," the House of God. Close to the western summit there is the dried and frozen carcass of a leopard. No one has explained what the leopard was seeking at that altitude.<sup>9</sup>

Of course the symbolic leopard, in contrast to the failed writer who is dying of gangrene in the hot jungle at the base of Kilimanjaro, was seeking the House of God when he froze to death. With the dramatic and inevitable meltdown of the actual Kilimanjaro, Hemingway's leopard will rot, just like the infected writer, and no one will be left to seek the House of God.

"Are humans a suicidal species?," asks Alanna Mitchell in *Dancing at the Dead Sea*, also reviewed by McKibben, who agrees that

It's a question that in some way or another needs to be near the center of our public debates. It rose for the first time in the wake of Hiroshima and Nagasaki; for a while, many people seemed to expect an Armageddon-like nuclear exchange, and then they seemed to discount the possibility. The attacks on New York and Washington at the beginning of this millennium have raised the question of our being a suicidal species again. Small wonder that McKibben seems weary: not hopeless, but daunted by his own failure and the failures of the scientific community, despite their persistent warnings, to make the peril we all face persuasive. "There are almost no words for such a change: it's no wonder that scientists have to struggle to get across the enormity of what is happening." Thus the pending environmental crisis is paralleled by a daunting rhetorical challenge to convey its urgency.

In 2006, Bill McKibben also reissued his influential environmental study, The End of Nature (1988), with a new introduction that compared the state of the world, then and now.<sup>10</sup> Things had gone from bad to worse in two decades with increased greenhouse gasses, methane releases from melting permafrost and disintegrating Arctic ice. "The world is a different place more chaotic, storm tossed, disease ridden." Droughts, fires, storms, and floods increase, even as lobbyists for industries and pseudo-science fiction writers like Michael Crichton (one of our president's favorite novelists) who has argued that "a belief in extraterrestrials has paved the way, in a progression of steps, to a belief in global warming"<sup>11</sup> — provide eccentric counter-theories and disinformation that questions the relation between fossil fuel emissions and global warming. For McKibben "by now it is an intellectual fraud to continue spreading the notion that global warming is one more theory that may or may not prove true." Politicians have failed us since he published The End of Nature: the Clinton-Gore administration allowed Americans to drive swollen, tank-like SUVs without penalty, and George W. Bush renounced the Kyoto treaty. Despairingly, McKibben wonders if it may be "too late to do anything about it all." Earth will continue to warm, with dire results, though the pace of warming and consequent pollution might be lessened with determined efforts; however, there seemed little sign that alternative energy sources currently under consideration (nuclear, solar, and wind power) will be little more than palliatives to the wounds we have inflicted upon the Earth and ourselves.

McKibben concludes his grim introduction to the reissue of *The End of Nature* by extolling the places where he lives, the Adirondack Mountains of upstate New York and the Green Mountains of Vermont — "one of the few regions on the planet that gets more wild with each passing season." McKibben makes it clear that he is hunkering down and holding out in this primal landscape in *Wandering Home* (2005), a narrative account of his two-hundred-mile walk between his two houses, which mark the boundaries of his chosen landscape.<sup>12</sup>

I've not been able to drag myself away from this small corner of the planet. To me, this country on either side of Lake Champlain, though it has no name and appears on no map as a single unit, constitutes one of the world's few great regions, a place more complete, and more full of promise, than any other spot in the American atlas. So does Bill McKibben, America's leading environmental writer, retreat before the gathering storm of global destruction.

In "How Close to Catastrophe?" a review essay for the *New York Review* of Books (November 16, 2006), Bill McKibben cites the "Gaia hypothesis" of James Lovelock, English environmental scientist and public intellectual:

It holds that the earth is "a self-regulating system made up from the totality of organisms, the surface rocks, the ocean and the atmosphere tightly coupled as an evolving system" and striving to "regulate surface conditions so as always to be as favorable as possible for contemporary life."<sup>13</sup>

The homeostasis described by Lovelock "is now being disrupted by our brief binge of fossil fuel consumption, which has released a huge amount of carbon dioxide into the atmosphere." As a result, Lovelock predicts, "teeming billions" will perish. Ice is melting faster than ever, warming forest soils are emitting toxic levels of carbon gasses and Katrina-level storms are more intense and more frequent worldwide. Can anything be done to stop this apocalyptic disaster bearing down on the earth like a tsunami wave? After surveying suggested options to reduce carbon dioxide levels, which result from the burning of fossil fuels — nuclear reactors, solar panels, wind farms — McKibben concludes that change must begin with a post-Bush administration policy revision and a tax on carbon emissions.<sup>14</sup> Despite this possible prospect of hope, McKibben's vision of the future is bleak: "Some scientists have estimated that it would take an immediate 70 percent reduction in fossil fuel burning simply to stabilize climate change at its current planetmelting level."

James Lovelock is also in retreat from the rising tide of destruction. In 1977, he left "the agribusiness desert of our previous home in Wiltshire" and moved to Coombe Mills, set in the idyllic West Devon countryside, where farmers followed the traditional seasonal pattern: growing grasses, making and storing hay to feed sheep and cattle during winters. But new methods of nitrate-controlled slurry farming resulted in streams polluted with dung, so "I was obliged to watch the river and the countryside die," Lovelock's metaphor for the threats posed to Gaia.

Lovelock, assuming the role of "planetary doctor" who "brings the worse news" of Earth's fevered crisis, its near-terminal state, added to his Gaia studies in 2006 — see Gaia (1979), The Ages of Gaia (1988), Homage to Gaia (autobiography, 2000) — with The Revenge of Gaia: Earth's Climate Crisis & the Fate of Humanity.<sup>15</sup> The concept of Gaia suggests that Earth is "a living planet," not exploitable property. But "as we go about our daily lives we are almost all of us engaged in the demolition of Gaia." Lovelock repeats a single, staggering fact: the yearly "output of carbon dioxide gas would make a mountain one mile high and twelve miles in circumference."

In midsummer Jim Hansen published "The Threat to the Planet" in the New York Review of Books (July 13, 2006).<sup>16</sup> Hansen takes a different approach to the topic of global warming, but his message is similar to that of McKibben, Lovelock, and many others. Hansen calls attention to the animals and plants that are "on the run," migrating to colder climes to survive. "Each decade the range of a given species is moving one row of countries northward." At the current rate "as many as 50 percent or more [of Earth's species], may become extinct. Ironically, humans may owe their existence to a previous mass extinction caused by global warming, fifty-five million years ago, between the Paleocene and the Eocene epochs, which killed off larger life forms and gave rise to such adaptive creatures as rodents and other mammals. For a range of reasons, however, that process is not likely to happen again. Hansen, like McKibben, offers little solace. "For all foreseeable human generations, it will be a far more desolate world than the one in which civilization developed and flourished during the past several thousand years."

In November 2006, the *Stern Report*, a seven-hundred-page report to the British government on the economic impact of global warming, was published, authored by Nicholas Stern, former World Bank economist.<sup>17</sup> Wildfires, rising oceans, hurricanes, and melting glaciers are predicted, unless immediate, internationally cooperative action is taken; furthermore, Stern argues that global warming could eventually cost countries from 5 percent to 20 percent of their gross domestic product. What is needed to avert this catastrophe, says Stern, is 1 percent of the GDP of all nations, which should be invested in programs to reduce greenhouse gas emissions. Stern set forth the prospect of unprecedented floods, famines, droughts, crop failures, drinking water shortages, diseases, and vast migrations, all of which could result in an economic depression. In flat, understated, bureaucratic language, Stern makes the point lucidly: "The scientific evidence is now overwhelming: climate change presents very serious global risks, and it demands an urgent global response."

Just before Thanksgiving, climate journalist Elizabeth Kolbert published "The Darkening Sea," an essay on the destruction being inflicted on the ocean by carbon emissions for the *New Yorker* (November 20, 2006).<sup>18</sup> This bracing essay, like so many others in 2006, contemplated the heretofore unimaginable: "the chemistry of an entire ocean changing." By now nearly everyone acknowledges that carbon emissions have transformed Earth's atmosphere.  $CO_2$  concentration (380 parts per million) "is higher than it has been at any point in the past six hundred and fifty thousand years, and

probably much longer." As a result, hurricanes are more frequent and intense, droughts more lasting and devastating, glaciers and the Arctic ice cap are melting, threatening major coastal cities around the world. But, Kolbert adds, "this is only half the story." The seas around us are threatened by "ocean acidification," resulting in the extinction of a vast range of sea life and coral reefs, around which more than a million distinct species live. Ken Caldeira, a climate modeler cited by Kolbert, puts it bluntly: "It's a do-or-die situation." Thomas Lovejoy, famous for his phrase "biological diversity," puts it another way, suggesting that the effect of ocean acidification is "running the course of evolution in reverse": that is, coherent, longstanding food chains are collapsing into slime.

Kolbert concludes her ominous essay on a note of hope, which is characteristic of many employing the jeremiad form in their writings on environmental threats in 2006. "That there is still a chance to do something to avert the worst consequences of global warming is thanks to the oceans," since the oceans absorb most of the  $CO_2$  from human activities. Ocean acidification, however, threatens life in the ocean, which, in turn, affects life on land. Therefore, Kolbert concludes in withering understatement, "to alter the chemistry of the seas is to take a very large risk, and not just with the oceans."

Kolbert's Field Notes from a Catastrophe: Man, Nature, and Climate appeared just before Christmas, 2006.<sup>19</sup> The book began as a series of essays that appeared in the New Yorker, a journal which, like the New York *Review of Books*, has published a series of important environmental essays by distinguished public intellectuals. Like McKibben's reissue of The End of *Nature*, the publication of these magazine essays in book form provided Kolbert an occasion to reflect on the perilous state of nature. As Americans focused on the dire results of the Bush administration's foolhardy war in Iraq — at year's end, American military deaths reached 3,000 — Kolbert had larger threats to the Earth's welfare in mind. In her Field Notes essays she travels to the Arctic Circle, visiting sites in Alaska and Greenland, to contemplate the implications of melting ice and permafrost; she journeys to northern England to report on migrating butterflies and to the Netherlands to view floating houses — journeys of understanding "to convey, as vividly as possible, the reality of global warming." With gravity and specificity, Kolbert — like McKibben, Lovelock, Hansen, and others — performs the task of the public intellectual who takes up the hard personal and literary task of telling the rest of us what we need to hear. Kolbert's concern with method, manner, and audience — ways to strike the right tone: honesty without hysteria — are clear in the concluding paragraph of her preface to Field Notes:

My hope is that this book will be read by everyone, by which I mean not only those who follow the latest news about the climate but also those who prefer to skip over it. For better or (mostly) for worse, global warming is all about scale, and the sheer number of figures involved can be daunting. I've tried to offer what is essential without oversimplifying. Similarly, I have tried to keep the discussion of scientific theory to a minimum while offering a full-enough account TO CONVEY WHAT IS TRULY AT STAKE.

What is truly at stake becomes clear enough for Kolbert in Shishmaref, Alaska, an island village off the coast of the Seward Peninsula, where, along with permafrost disintegration, glacial melting is obvious, offering a model of diminishment and eventual destruction for every glacier in the world, a catastrophe that will result in warmer and rising oceans, animal and plant migration, and a host of related problems addressed by all of these commentators.

In Greenland, Kolbert saw evidence in ice sheet probes "that our own relatively static experience of climate is what is exceptional" and that global warming will induce climate swings and extremes that will make this planet uninhabitable for millions of humans and other species. Many civilizations, including the Classic Mayan, have collapsed due to drought. "You can argue that man through culture creates stability, or you can argue, just as plausibly, that stability is for culture an essential precondition."

"Business as usual" (BAU) is what ecologists call a world in which emissions continue, unchecked. Every American, Kolbert notes, "generates twelve thousand pounds of carbon per year," largely from use of electricity and vehicles. If we continue our prodigal ways, says Marty Hoffert, New York University physics professor, "we're going to just burn everything up; we're going to heat the atmosphere to the temperature it was in the Cretaceous, when there were crocodiles at the poles. And then everything will collapse."

New coal-fired energy plant installations will soon bring China up to the USA's level of carbon emissions. The United States produces nearly a quarter of the world's greenhouse gasses, yet the Bush administration rejected the Kyoto Protocol, designed to cut emissions, in 2001. The administration's spokesperson on Global Affairs, Paula Dobriansky, is interviewed by Kolbert. Dobriansky, in defending administration policies, was reduced to a repeated motto —"We act, we learn, we act again" — and a pat phrase: the Bush administration sees economic growth as "the solution, not the problem." In other words BAU and full steam ahead!

Kolbert's final words in *Field Notes*, composed with grace and quiet power, take us to the brink of extinction. Ten thousand years ago Earth's volatile climate settled down and civilization was born. Now, with six billion people on the planet, Earth's resources are being stretched and destroyed. "It may seem impossible to imagine that a technologically advanced society could choose, in essence, to destroy itself, but that is what we are now in the process of doing." In early December two articles appeared on the same day in the "Science" section of the *New York Times*, reports that calmly set forth the bleak prospects for our future on Earth. New studies model an iceless, open Arctic by 2040, reports Andrew W. Revkin, who cites the finding reported in *Geophysical Research Letters*.<sup>20</sup> Polar bears and Arctic residents will suffer and weather patterns will shift; on the other hand, "this would greatly ease the task of maintaining shipping lanes with icebreaking vessels,' said Lawson W. Brigham, deputy director of the Arctic Research Commission, which advises the White House on Arctic matters." Perhaps the Bush administration, which adamantly opposes any plan to set limits on fossil fuel emissions, will be able to find funds for new icebreakers. The idea of limiting the nation's carbon dioxide output is growing, reports Steve Lohr in an article in the "Business Day" section of the *New York Times* on the same day.<sup>21</sup> Some coal company executives, like James E. Rogers, chief executive of Duke Energy, see the wisdom of taking emissions seriously.

Climate change is real, and we clearly believe we are on a route to mandatory controls on carbon dioxide... And we need to start now because the longer we wait, the more difficult and expensive this is going to be.

Even Republican presumptive presidential candidate, John McCain, is moving around the policy-rigid Bush administration to suggest ways to limit the nation's carbon dioxide output. Perhaps there is some faint hope in seeing the story of global warming and its costs move from the science section to the business pages of the *New York Times*. On New Year's Day, 2007, a *Times* editorial also struck a note of hope:

The Democrats' return to power in both houses has raised hopes that some of the old cooperative spirit can be restored and progress made on vital matters like global warming, oil dependency, national parks and threat-ened wetlands.<sup>22</sup>

In *Field Notes*, Kolbert describes Al Gore as the politician most "closely associated with the subject of global warming." In 1992 Gore published *Earth in the Balance*, a book that insisted environmental protection should be the "central organizing principle" of society; in 1997 Gore helped to save the Kyoto talks when negotiations were breaking down, though the Clinton-Gore administration did not push for its acceptance in Congress.<sup>23</sup> In 2006 Al Gore's film, *An Inconvenient Truth*, accompanied by a book of the same title, appeared.<sup>24</sup>

At year's end, *Time* magazine once again chose its "Person of the Year," but this time it was not, as in the past, a significant and famous world figure, but none other than "You," a distorted image reflected in a Mylar mirror on the cover, because "you control the information age," which

seemed far more interesting to *Time* than bursting Iraq or the boiling environment. Still, in their "People Who Mattered" section, *Time* did include former vice president Al Gore, near winner of the 2000 presidential election and long-time environmentalist. "Trying to sell tickets to a movie about such a complex topic that is narrated by one of America's less electrifying speakers prompted snickers about a new kind of mission impossible," noted the patronizing, bottom-line voice of *Time*, but the magazine could not help but admire the film for drawing some \$39 million in ticket sales, for attracting "Oscar buzz," and for the film's companion book's place atop the *New York Times* best seller list. Clearly *Time* was sensing a minor trend!<sup>25</sup>

Al Gore's An Inconvenient Truth was, by far, the most dramatic, creative, convincing, and moving case for environmental protection made in 2006. As the most famous public intellectual committed to the spread of environmental awareness, Gore draws on the authority of his standing as a political celebrity, his political experience and awareness, as well as his family history in a foregrounding of personality that humanizes the topic. Furthermore, he adapted into a dramatic and persuasive media event the slide show on environmental threats that he had been delivering for decades, more than one thousand times, all over the United States and countries around the world.<sup>26</sup> This incorporation of a college lecture format into a brilliantlyproduced film and illustrative book drew a wide audience and brought new respect to Al Gore. Many liberals who might be still peeved at Gore for losing the contested 2000 election to George Bush have been won over by his authentic presence in this powerful film. Gone was the Gore of stilted, Senatorial rhetoric; instead the Gore persona who narrates this film is a relaxed, often witty, sincere, straight-talking man, addressing auditorium audiences while standing before a huge screen onto which is projected a series of compelling images, a man who is informed and passionate about his purpose: to address this "moral issue" clearly, "city by city, person by person, family by family."

Now it is up to us to use our democracy and our God-given ability to reason with one another about our future and make moral choices to change the policies and behaviors that would, if continued, leave a degraded, diminished, and hostile planet for our children and grandchildren — and for humankind.

Gore traces his environmental epiphany to the near loss of his young son, Albert, who was struck and nearly killed by a car, in 1989. His son eventually recovered, but this event was Gore's "turning point," or, in religious terminology, his conversion experience. After the accident Gore realized how fragile and transient are all living things, so he spent more time with his family and he made environmentalism, long a concern, his primary public service issue. He wrote *Earth in the Balance* and commenced a journey of education and exhortation that led to *An Inconvenient Truth*. What was a "turning point" for him and his wife, Tipper, became a moral mission "to try to make sure that what is most precious about God's beautiful Earth — its livability for us, our children, future generations — doesn't slip from our hands."

Gore's film and book cover topics familiar to scientists and other public intellectuals, but *An Inconvenient Truth* presents a series of images that impinge on the public and personal consciousness. He leads (in lecture, film, book) with two striking pictures of Earth: the first taken during the Apollo 8 mission in 1968, showing half of the cloud-covered planet; the second taken during the Apollo 17 mission in 1972, picturing the whole gorgeous globe in swirls of white clouds and blue oceans, a jewel spinning in space. One of the final images in Gore's presentation is a photograph of a far more vulnerable Earth, a picture taken by a robotic spacecraft from a distance of four billion miles beyond our solar system. Here Earth appears as a pale blue dot set again an infinite, black, blank universe, seemingly lost in space, "our only home," as Gore humbly and movingly puts it.

Between these compelling images of Earth, Gore offers hellish visions of industrial plants and vehicles spewing carbon dioxide gasses into the thin atmosphere; alarming graphs showing rising temperatures and CO2 concentration levels; awesome sights of glaciers cracking apart, crumbling into torrents of water headed toward the seas; news footage of increasingly frequent and violent storms and, paradoxically, more intense droughts worldwide as warmer oceans alter weather patterns. Gore gives particular attention to the disintegrating ice in the Arctic, the Antarctic, and Greenland; melting in these regions promises to raise sea level by at least twenty feet, submerging, for example, the lower one-third of Florida, the Netherlands, Beijing, lower Manhattan and on and on. Fires, floods, famines, droughts, death and destruction, long prophesized in Puritan jeremiads unless the community renewed its covenant with God, now loom as probable prospects for the twenty-first century. It is enough to make the viewer of An Inconvenient Truth, or the reader of its text, recoil, and turn away from the vision of destruction that is too painful to contemplate. But Gore refuses to allow us to go from denial to despair. He insists that America, which has been tested by so many challenges in its history, has the will and the moral commitment to meet this challenge and he offers a series of steps individual and nations may take, from home insulation to political involvement, moral actions that may save a threatened planet.

By the summer of 2028, the Asian Brown Cloud will have spread across the northern hemisphere. By then most of the world's amphibians and birds have been poisoned and are extinct. Mammals, including humans, appear to be next in this enveloping ecocide. A Harvard toxicologist, Helen Michaelson, "struggles to save herself, her family, and ultimately the world itself from a demonical conspiracy spawning on the fanatical fringes of the Green movement," but "she knows that the notion of self-extinction is loose

in the world like some deadly social pathogen that will persist until *Homo* sapiens comes to terms with Nature." So suggests Alfred Alcorn in his terrifying, dystopian novel, *Extinction.*<sup>27</sup> This as-yet-unpublished work — which draws upon Alcorn's well-established fictional skills and his knowl-edge of environmental conditions resulting from his extensive studies and his frequent world-wide travels — promises to have a wide impact, for it accurately and gracefully dramatizes a nightmarish world we will soon become, unless we immediately heed the warnings of the environmental public intellectuals who have tried to reach us with their messages in 2006, a period of consequence.

## **Notes**

- 1. Cited in Al Gore, "The Time to Act is Now," Rollingstone.com (November 3, 2005). The warming of the Northeast at the end of 2006 was also due to the effects of El Niño.
- 2. Felicity Barringer and Andrew C. Revkin, "Agency Proposes to List Polar Bears as Threatened," *New York Times* (December 28, 2006), A16.
- 3. See, for example, "The Lives they Lived," *New York Times Magazine* (December 31, 2006).
- 4. Alan Heimert and Andrew Delbanco, *The Puritans in America: A Narrative Anthology* (Cambridge, Massachusetts, 1985), 275.
- 5. Linda Greenhouse, "Justice's First Brush with Global Warming," *New York Times* (November 30, 2006),A23.
- 6. Jim Hansen, "The Tipping Point?" New York Review of Books (January 12, 2006).
- 7. Jonathan Edwards, "Sinners in the Hand of an Angry God" (Enfield, Conn., July 8, 1741). http://www.ccel.org/e/edwards/sermons/sinners.html.
- 8. Bill McKibben, "The Coming Meltdown," *New York Review of Books* (January 12, 2006).
- 9. Ernest Hemingway, "The Snows of Kilimanjaro," from *The Short Stories of Ernest Hemingway* (New York: Scribner's, 1966), 52.
- 10. Bill McKibben, "Introduction," *The End of Nature* (New York: Random House, 1989, 2006).
- 11. Michael Crichton, "Aliens Cause Global Warming," a lecture delivered at California Institute of Technology (Pasadena, Calif., January 17, 2003). In *State of Fear* (2004), a "techno-thriller," Crichton argues that it is eco-terrorists that threaten the Earth.
- 12. Bill McKibben, Wandering Home (New York: Crown Publishers, 2005).
- 13. Bill McKibben, "How Close to Catastrophe?" New York Review of Books (November 16, 2006).
- 14. McKibben called for "the technology of community" in "How Close to Catastrophe?" but was chastised for doing so by Donald J. Boudreaux, Economics Dept. Chair at George Mason University, who insisted that the economic system that put the shirt on his back refuted McKibben's position. McKibben replied to Boudreaux's complaint by granting that cooperation for self-interest is evident. "What is in dispute is whether this cooperation carries over into more crucial matters like keeping the planet from overheating in the next decade." "Letters," New York Review of Books (December 21, 2006), 102.
- 15. James Lovelock, *The Revenge of Gaia: Earth's Climate Crisis & the Fate of Humanity* (New York: Basic Books, 2006).

- 16. Jim Hanson, "The Threat to the Planet," New York Review of Books (July 13, 2006).
- 17. Nicholas Stern, "Executive Summary," Stern Review: the Economics of Climate Change, http://www.hmtreasury.gov.uk/independent\_reviews/
- stern\_review\_economics\_climate\_change/stern\_review\_report.cfm (October 30, 2006).
- 18. Elizabeth Kolbert, "The Darkening Sea," *New Yorker* (November 20, 2006). Kolbert's three-part series on climate change appeared in the *New Yorker* in 2005.
- 19. Elizabeth Kolbert, *Field Notes from a Catastrophe: Man, Nature, and Climate Change* (New York: Bloomsbury USA, 2006).
- 20. Andrew C. Revkin, "By 2040, Greenhouse Gases Could Lead to an Open Arctic Sea in Summers," *New York Times* (December 12, 2006), D3.
- 21. Steve Lohr, "The Cost of an Overheated Planet," *New York Times* (December 12, 2006), C1, C5.
- 22. "Environmental Harmony," New York Times (January 1, 2007), A22.
- 23. Al Gore, Earth in the Balance (New York: Houghton, Mifflin, 1992).
- 24. Al Gore, An Inconvenient Truth: The Planetary Emergency of Global Warming and What We Can Do About It (New York: Rodale Books, 2006).
- 25. Jeffrey Kluge, "For His Second Act, Saving the Planet," "People Who Mattered," *Time*, (December 26, 2006/January 1, 2007).
- 26. In 2005, Gore was urged to adapt his slide show to a film by Laurie David, environ mental activist and film producer. David has written her own polemic on the topic: *The Solution Is You: An Activist's Guide* (Golden, Colorado: Fulcrum Publishing, 2006). Laurie David is married to Larry David, co-creator of *Seinfeld*, HBO author, and star of *Curb Your Enthusiasm*. Environmentalism, it seems, has become a fashionable cause for Hollywood celebrities, who bring to it not only money but also glamour, personality, and media skills. In 2004, after the reelection of George Bush, Laurie David vowed to "do everything I could in the next year to permeate pop culture on this issue. My whole thing is to get it off the science page and onto the front page. Get it off PBS and onto TBS." Cited by Jonathan Goldberg, editor-at-large of *National Review Online*, in "Al Gore's Horror Theater," http://www.townhall.com/columnists/ JonahGoldberg/2006/06/14/al\_gores\_horror\_theater (June 14, 2006).
- 27. Alfred Alcorn, Extension, "Synopsis," copyright 2006.