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Brian Glaser

Chapman University, bglaser@chapman.edu

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Assembly for Expanded Perspectives on Learning

Containing the Jeremiad: Understanding Paradigms of Anxiety in Global Climate Change Experience

Brian Glaser

Abstract: *This essay uses Bion's concept of "containing" to read the psychological dynamics of jeremiads about global climate change, arguing that their structure reveals a strategy of communication that may be useful for more broadly raising awareness about this challenging state of the planet. More specifically, I argue that contemporary global climate change jeremiads have a structure that first elicits alarm and then moves to discuss solutions, and that this structure may be beneficial to those who are awakening to the reality of global climate change by rendering anxiety bearable and therefore open to purposive and creative response.*

As the hubbub surrounding the hacked records of climatologists known as Climategate demonstrated, in talking about global climate change, we are dealing with a particularly unstable kind of common knowledge. But the community of experts has reached a consensus. Global climate change anxiety is realistic. One measure of the rising level of such anxiety in anglophone culture is not only a fictional treatment like Michael Crichton's *State of Fear* but also Hollywood's embrace of the issue as a source for the extravagant special-effects film, *The Day After Tomorrow*. But global warming anxiety has not only had a significant impact on some existing genres of science fiction writing and film. It has also, I would suggest, generated a new genre, one in which the relationship between realistic anxiety and imaginative response has a different character than in those texts where dire scenarios are elaborated on fictive grounds. For in global warming novels, imagining the unreal is a kind of path of escape from realistic anxiety. Even a relatively realistic fictional treatment of the effects of global warming like the one found in Kim Stanley Robinson's *Science in the Capital* trilogy moves the reader to some extent out of the world that is known by science and into a virtual environment that he or she can dispel. More readerly experience of those fictive future worlds is not more experience of the world that is actually warming.

I see a new genre in the growing number of nonfiction books which direct their imaginative energies towards anxiety about the world that is known scientifically and empirically. These books, I mean in this essay to claim, offer a diverse range of variations on a core theme, or perhaps, an experience—one that we might call the climate change experience. These are books that bring considerable imaginative resources to bear on one of the central challenges facing thinking people today—how to adapt to troublesome knowledge about the physical world. These works do this in a sustained, intensive way that writing is particularly good at facilitating. By reading these books as something more than what they might be taken to be in a casual reading—that is, as books for a general audience about a scientific subject—and paying some attention to where their considerable imaginative energies are located, I think we learn a good deal about the patterns with which anglophone culture is living out and living with the anxiety that has been brought to it by new knowledge of the warming globe: which frightening reali-

ties that culture is willing to look at, how its anxiety encourages it to think about itself differently, and what it is inclined to do when that anxiety becomes too much to bear.

Methodologically, my approach brings together thinking in the psychoanalytic tradition with those from a rhetorical branch of the study of texts. Bion's concept of containing, in which a therapeutic relationship allows for the transformation of intense anxiety into a more bearable state, can help us to explain the sudden ubiquity and popularity of texts that have been described as jeremiads—morally urgent discussions of a threatening fate and then highly specific arguments about what can be done to avoid that fate. To the arguments of those who see this centuries-old genre to have new life in an age of anthropogenic climate change, I offer the insights of a psychoanalytic thinker about how these texts might work most optimally, for teachers and critics as well as for general readers.

Global Anxiety

Bill McKibben was the first to sound the alarm in popular culture about global warming with his 1989 *The End of Nature*, a book that appeared in the wake of the groundbreaking and startling testimony of James Hansen about anthropogenic climate change before a congressional panel during a summer heat wave in 1988. In the two decades since, McKibben has broadened his efforts to take on imaginative projects that can probably be brought fairly well under the umbrella of the term sustainable living. As a complement to his work with 350.org, an organization mobilizing and coordinating demonstrations in support of national and international policies to lower the amount of carbon in the atmosphere to 350 parts per million, McKibben published in 2010 the manifesto *Eaarth: Making a Life on a Tough New Planet*. It is an anxious book. In it, McKibben, as Paul Greenberg noted in a *New York Times* review, “brings the reader uncomfortably close to climate change.”

The book has a preface and four chapters. The preface establishes the anxious tone. Noting the melancholic mood of *The End of Nature*, McKibben draws a contrast between his point of view in writing that book and his current perspective: “that sadness has turned into a sharper-edged fear” (xii). The first chapter seeks to establish that fear as distinctive in a certain way to climate change. McKibben gives evidence from around the globe to demonstrate not merely that the average temperature is rising—that is not disputed—but that there is virtually no part of the world that is unaffected by this change. On one particularly dense page, he mentions the melting of the Arctic ice cap and the Greenland glacier, acidification of the oceans, drying of the Amazon rainforest, effects of rising sea levels on island nations like those in the Maldives as well as on the accessibility of drinking water in Bangladesh, and danger to the forests of North America from the pine beetle as well as threats to the cedars of Lebanon (45). So one of the early purposes of *Eaarth* is to globalize global warming anxiety, not only to raise the issues of environmental justice that appear in the text from time to time—the disappearance of island nations is one instance, the rise in dengue fever in Bangladesh is another—but also to make clear the power and inescapability of the changes that are underway (71-3). Though, as I will discuss briefly below, McKibben makes use of a subnational paradigm at certain crucial points in the book, his approach to anxiety

about climate change is to accumulate enough instances that the reader senses in a concrete way that there is really no local counterforce adequate to this particular form of globalization.

If the book's anxiety is globalized in that way, it is also presented as the source of a smaller kind of community, one constituted by McKibben and his readers. "I know that I'm repeating myself," he says at the end of one catalogue of threatening changes. "I'm repeating myself on purpose. This is the biggest thing that's ever happened" (46). The purpose of the repetition is unstated but seems obvious—emphasis. But the emphasis has a rather textured communicative function. For his repetition conveys an emotional charge that is absent in scientific or even journalistic texts where statement of fact is the writer's job and repetition of information is more or less inappropriate. Here, rather, as at other points, McKibben both expresses and invites anxiety, offering his own ability to absorb distressing information about the consequences of climate change as a sort of path by which readers may themselves come to be able to do something inwardly with the data they've been given, to integrate it into their understanding of the world. The reader is allowed to participate in McKibben's anxious process of knowing with the implicit assurance that McKibben himself has found the anxiety it produces bearable, and that he can offer himself as a model of agency that is not paralyzed or undone by fear. In this way, a community is imagined, if not created.

And a good deal of the final two chapters of the book is a performance of purposive response to global warming anxiety. The second chapter "High Tide" continues the work of the first chapter, mostly by looking towards the future, discussing consequences of global warming that have not yet been pervasively felt—political destabilization and epidemiological issues, among others. After this continuing performance and evocation of anxiety, McKibben shifts remarkably in the last two chapters: "We've turned our sweet planet into Eearth, which is not as nice. We're moving quickly from a world where we push nature around to a world where nature pushes back—and with far more power. But we've still got to live on that world, so we better start figuring out how" (101). In the text that follows there is both a shift in subject and a shift in mood—the threat is ominous but somewhat vague, whereas the response to that threat will be pragmatic and rather specific.

His suggestions about how to "live on that world" are in a way written around his investment in 350.org, which he mentions only at the very end of the book. Instead, he recommends in the third chapter "Backing Off," which involves thinking of the nation differently, "*The project we're now undertaking—maintenance, graceful decline, bunkering down, holding on against the storm—requires a different scale. Instead of continents and vast nations, we need to think about states, about towns, about neighborhoods, about blocks*" (124). In what is perhaps an unsurprising irony, McKibben makes this point about the importance of subnational thinking first through an extended history lesson about the conflicting views of national government held by Alexander Hamilton and Thomas Jefferson. His point is that what he calls the "National Project" is no longer relevant to the challenges facing Americans on "Eearth," but also that there is an American tradition of thinking the subnational or the local (114). In the fourth chapter "Lightly, Carefully, Gracefully," McKibben argues for small-scale farming, non-carbon-based sources of energy, and sustainable communities linked and held together by the internet, again dis-

cussing both what needs to be done in his view and the evidence that such a program of action is practical. In the final pages of the book he tells the story of how 350.org came to be, ending with a prophecy that knits together much of what he has said in the course of the book: “We will keep fighting, in the hope that we can limit that damage. And in the process, with many others fighting similar battles, we’ll help build the architecture for the world that comes next, the dispersed and localized societies that can survive the damage we can no longer prevent” (212). The announcement of Eearth turns out to be an announcement of the end of civilization as we know it, but it is also the catalyst for a new idea of community that can be rationally understood, realistically created, and pleasurably sustained. The book does not aim to displace global warming anxiety, but rather to evoke it and then contain it—first to make it intensely felt, and then to make it bearable through a specific and carefully thought-out plan for a whole community.

McKibben’s book moves away from an acute form of global warming anxiety. McKibben does not escape from problematic knowledge to the problem of knowledge—he does not use what we might call the epistemological defense—and indeed a part of the performance of his text is to use knowledge to arouse anxiety. But his book does do the work of coping with that anxiety by its end. Dreaming of alternative futures is meant to allay a state of fear. In this respect it might be said to be avoidant of difficult knowledge in its own way, since it supplants a focus on troublesome realities with what it seems fair to call utopian visions of the future. It is possible that in its fiercely optimistic schemes *Eearth* is in its own flight from the anxiety that is emotionally concomitant with knowledge of global warming. But there is another way to understand what the second half of the book is doing, one that tells us something different about how the culture is coming to terms with global warming, and one that helps to make perhaps better sense of the prevalence of the basic structure of *Eearth* among recent popular global warming books.

Containing and the Genre

In “Tracking the Elusive Jeremiad: The Rhetorical Character of American Environmental Discourse,” John Opie and Norbert Elliot make the persuasive case that the form of the jeremiad in American literary history as analyzed by Perry Miller and Sacvan Berkovitch exerts a powerful influence on a tradition of environmental writing that extends from a seventeenth century sermon by Samuel Danforth through Al Gore’s 1992 *Earth in the Balance*. In a diachronic analysis, they notice four markers of the genre: the jeremiad chides its audience for failures; it uses this chiding as a persuasive force; it aims to revitalize its community; and it provides a message of hope (10). Among the jeremiads they survey, they identify two classes—one which relies on emotional or pathetic appeals, and the other which makes use of logical, or what they call implementational, rhetoric. “If we generalize,” the authors say about their conclusions at the start of the essay, “we might say that writers employing evocative strategies tend to perceive the world as wonderful in its immediacy and in need of our intuitive perception for its maintenance; writers employing implementational rhetoric tend to view the world as chaotic and in need of control” (10). Jeremiads on environmental issues are divided into those that use pathetic appeals and those that make logical ones, and this bifurca-

tion also splits the texts along the lines of more positive and more negative or anxious attitudes, respectively.

There is reason to read McKibben's book as fitting quite neatly into the genre of the "elusive" environmental jeremiad as Opie and Elliott define it, since it does fault industrial civilization with causing climate change, and it seeks to offer something like hope in a way that will "revitalize" the community the book addresses. If it is somewhat problematic to call *Eaarth* an American jeremiad because of the global scope of its concern and the even anti-national color of its proposals, it still can be described as a jeremiad with strong links to the literary tradition that McKibben's national identity, place of residence, and historical frame of reference connect him to. Like many in its genre, it is a text that belongs to an American tradition, but that does not limit its impact on global and local levels of significance.

The greater difficulty in reading McKibben's book according to Opie and Elliot's otherwise largely appropriate schema is that their distinction between evocative and implementational subgenres would encourage one to make a limiting choice about the book at precisely the point where it very likely becomes distinctive in the development of the genre. For *Eaarth* is, as my brief analysis was intended to show, first evocative in its approach, and then implementational. McKibben invites anxiety, expresses anxiety, and then copes with anxiety. The pattern is deliberate, and it offers a specific and somewhat controlled path to take readers through the process of coming to terms emotionally with the experience of knowing the earth. It is, as I try to demonstrate below with a look at a number of other works in the genre, the pattern of the climate change experience.

Before I get to those works, and then to some reflections on the genre's role in the larger cultural project of knowing the environment, I want to introduce an idea that will be useful in understanding the therapeutic purpose of a jeremiad like McKibben's. The psychotherapist and theorist W. R. Bion employed the term "containing" to describe a dynamic process between two minds, a process by which what is initially an unbearable state of emotion for one of them gradually becomes tolerable because of the way that it is experienced and reflected on by the other. In a recent book that attempts to sort through how well Bion's term can be integrated into the field of psychology some fifty years after its coinage, Duncan Cartwright defines a contemporary understanding of therapeutic containing this way:

It is a state of mind that attempts to apprehend experience that is felt at the edges of consciousness but cannot yet be understood, fully experienced, or held in mind. In this way Bion's view of analytical containment concerns a process of transformation whereby previously unbearable states of mind that prevent thinking and development are made more bearable and thinkable. As Bion put it, the containing process works on parts of the individual (or the analytic couple) that "feel the pain but will not suffer it and so cannot be said to discover it." (25-26)

Experiencing the way another can bear a state of mind that one finds intolerable oneself can empower one to "discover" the reality of that affect or emotional state, and so to integrate it into one's mental world and bring rational and conceptual faculties to bear on it.

That is what containing is. How does it work? As Cartwright notes, Bion explains the process through an analogy with what an infant experiences while nursing. In the course of that form of connectedness, Bion argues, the infant's own internal life is significantly impacted by what he calls the reverie of the mothering figure. The impression of balance and evenness created by this dreamlike state helps that figure to render manageable anxieties experienced by the infant. "Maternal reverie" returns initially intolerable anxieties that are projected by the infant in a form that is not debilitating: "Normal development follows if the relationship between the infant and breast permits the infant to project a feeling, say, that it is dying, into the mother and to reintroject it after its sojourn in the breast has made it tolerable to the infant psyche" (Bion, "A Theory" 309). In a word that one finds in a number of discussions of Bion's term, containing "detoxifies" anxiety by giving one the vicarious experience of being undisturbed by it. In another passage Cartwright draws attention to, Bion discusses his conclusions about a particular relationship this way: "An understanding mother"—the analogy with the therapist is implicit—"is able to experience the feeling of dread that this baby was striving to deal with by projective identification, and yet retain a balanced outlook" (Bion, "Attacks" 313). So the process of containing anxiety works through a projective identification, in which one mind locates its own unbearable anxiety in another with whom it identifies, and then is able to experience and cope with its own anxiety more fully by watching how that figure manages to function under the burden of its fear.

I think that approaching a work like *Eaarth* with the concept of containing as a resource for understanding can give us a sense of what the genre aims to do that is significantly more specific than Opie and Elliott's description. The climate change experience is not created by an address that first chastises and then inspires, evoking fear and then evoking hope, as the jeremiad is said to do. It is an attempt to make anxiety-producing knowledge fully affectively assimilated and, consequently, fully known. Fear is not, as Berkovitch would have it, the means to an end of producing a spirit of consensus. Coping with fear is, rather, a significant part of the work of knowing. The hope offered at the end of the text is in the service of enabling the reader to grapple and come to terms with a distressing but not overwhelming reality.¹

If such a focus on how the text orchestrates an experience of anxiety is strongly interpretive, it is also less suspicious than the alternative way of reading the jeremiad criti-

1. At this point it is important to note that the infant's fear of death and the reader's fear of climate change catastrophe are different in at least one important way—the infant's fear is unrealistic while the threat of climate change is wholly realistic. This raises the question of whether containing is an appropriate strategy for addressing climate change, and whether it is not better to panic altogether than to have one's anxiety rendered bearable by the containing function of a text. On this point I would say only that I side with the tropism of psychoanalytic thought to insist that it is in general maladaptive to be overwhelmed. And yet it is also important to note that while I am prepared to defend my method against this challenge, and to decide in favor of containing as a paradigm for responding to anxiety, for the culture at large no such decision for or against has to be made—those who can turn panic into adaptive responses can do so without the influence of the containing jeremiad, which is all to the good.

cally. *Eaarth* does not marginalize or exclude dissent to invite and create a community, as Berkovitch claims about the genre. Rather, by first eliciting anxiety, and then inviting a kind of identification with the author's own expression of anxiety, and ultimately performing a balanced, poised response to that anxiety, *Eaarth*—and other books in its genre—allow readers to feel fear about global warming in a way that allows them to “discover,” in Bion's words, the measure of its reality. The paradox is plain but remarkable: it is not the data or the drama but the reverie—the purposive dreaming about alternative futures—that functions to make global climate change an emotional reality for many readers.

Other Stars of the Genre

A number of books published within a few years of McKibben's have a similar structure. “Some may quibble about the timing,” writes the environmental activist and educator David W. Orr in his 2009 treatise, *Down to the Wire*, “but it is clear we are headed toward a global disaster that has the potential to destroy civilization” (21). Orr, who rose to prominence among environmental writers in the early 1990s with a text championing the ideal of environmental literacy, makes quite clear nearly twenty years later in *Down to the Wire* that that form of knowledge is becoming increasingly frightful: “Climate change, like the threat of nuclear annihilation, puts all that humanity has struggled to achieve—our cultures, art, music, literatures, cities, institutions, customs, religions, and histories, as well as our posterity—at risk” (4).

Like McKibben, Orr seeks to both arouse and express anxiety. When he aims to create anxiety, as in the passage above, his focus is broad and often global. The expressions of anxiety, by contrast, work on an individual scale, as when he discusses in a postscript the source of his commitment to the cause of disseminating environmental knowledge. In the summer of 1980, Orr narrates, he was working on a farm in Arkansas with his brother. Temperatures hit record highs, climbing to well over 100 degrees. Nearly a decade before there was a widespread popular concern about global warming, he was left with a sense of apprehension about climate grounded in his body and its memories:

After the summer of 1980, climate change was important to me, not because I'd thought a great deal about it in an air-conditioned office but because I had first felt it viscerally and somatically. My interest did not begin with any abstract intellectual process or deep thinking but rather with the felt experience of the thing, or what the thing will be like. That summer is recorded both mentally and bodily in memories of extreme heat with no respite. (218)

Orr's global warming anxiety is rooted in embodied experience, and his knowledge of “what the thing will be like” is a part of him at a level that is situated perhaps even more deeply than his capacity for reflection, thought, and judgment.

Something remarkable about this book, then, is that despite the intensity of its anxiety and the spirit of realism in its assessment of the threat, Orr insists on offering, what he calls in one chapter, “Hope at the End of Our Tether” (189). The particular emphasis of Orr's reverie is governance and leadership. He offers a model, based in heroic American leadership of the past—including a lengthy appreciation of Abraham Lincoln—for

how forward-thinking legislators, politicians, and judges can stand at the head of a crusade to slow emissions of carbon dioxide and other greenhouse gasses. This is the basis for what Orr calls “hope of the millennial kind” (9). His plan has at its center both an immediate reduction in carbon emissions—he says less than many other authors about how this should be accomplished—and, just as crucially, a series of proposals for engaging communities of experts in the political and legislative processes. Power to make policy will devolve to those who understand the issue best. Orr appreciates, and even celebrates, the radical dimension of this vision: “Our situation calls for the transformation of governance and politics in ways that are somewhat comparable to that in U.S. history between the years of 1776 and 1800” (205). McKibben and Orr both draw on American history to demonstrate the plausibility of their grand plans. But where McKibben had proposed downscaling what he called the “National Project,” Orr proposes reinventing it in a way that strengthens it and heightens its importance. Both follow their evocations of anxiety with sustained dreaming.

Another recent global warming book that is structured in a similar way is James Lovelock’s *The Revenge of Gaia*. Lovelock calls the earth Gaia with the purpose of making a controversial—even eccentric—argument that there is a symbiotic relationship between the physical environment of the planet and the forms of life it sustains. The one modifies the other in support of the conservation of existing forms of life. Usually, in Lovelock’s analysis, this mutual adaptation is brought about through modification of the chemical makeup of the atmosphere. This, he argues, has been the state of the planet since long before homo sapiens, and the Gaia principle will, he implies, outlast the species. But anthropogenic climate change complicates this picture—hence the title of Lovelock’s book. The revenge of Gaia will be its refusal, as it were, to sustain many of the forms of life currently found on the planet:

We suspect the existence of a threshold, set by the temperature or the level of carbon dioxide in the air; once this is passed nothing the nations of the world do will alter the outcome and the Earth will move irreversibly to a new hot state. We are now approaching one of these tipping points, and our future is like that of the passengers on a small pleasure boat sailing quietly above the Niagara Falls, not knowing that the engines are about to fail. (6)

Lovelock predicts a temperature rise that experts locate on the higher end of the spectrum of possibilities. He is less inclined than either Orr or McKibben to perform his own anxiety about this threat, but the ominous tone of the Niagara metaphor is present in a muted way in a number of clear statements of his apprehension about what might be in store for a clearly warming planet: “Nothing in science is certain, but Gaia theory is now robustly supported by evidence from the Earth and it suggests that we have little time left if we are to avoid the unpleasant changes it forecasts” (65). Oscillating between doom and apprehension, Lovelock generates the impression that his spells of uncertainty are more defensive than genuine, that the revenge of Gaia will be realized either sooner or later, as his sailing metaphor suggests.

Like Orr and McKibben, however, Lovelock has a plan. Indeed he has two plans.² The main one is a hard sell for the importance of developing nuclear sources of energy. In “Sources of Energy,” he discusses wind, solar, wave and tidal energy, hydro-electricity and bio fuels only long enough to argue that renewable sources are not viable responses to the need and demand for power. This leaves him with the alternatives of fossil fuels and nuclear energy, and he enthusiastically embraces the nuclear option, spending the rest of the chapter dismissing concerns about safety, even arguing against claims that the Chernobyl disaster should be taken as a caution against nuclear power. He makes no grand claims about how quickly the nuclear revolution might be realized, and he acknowledges the significant cost of that form of generation. But the longish interlude of dreaming about solutions in the book does counter the anxious projections that make up most of the rest of it.

The same pattern can be found in Thomas Friedman’s extended screed, *Hot, Flat, and Crowded: Why We Need a Green Revolution—and How It Can Renew America*. (My discussion is of the edition extensively revised to incorporate reflections on the credit crisis and recession.) Much of the work of the first half of Friedman’s book is to draw connections between population growth, the global rise of a middle class with attendant consumption patterns, and global climate change. Where any one of them is framed as a threat to the stability of the planet, the other two are often presented as exacerbating factors. So passages like this one, in which Friedman’s alarm is clearly evident, in a sense have their anxiety-quotient amplified by the context of his larger argument:

How bad could things get? . . . Since we can’t stop CO₂ emissions cold, if they continue to grow at just the mid-range projections, “the cumulative warming by 2100 will be between 3 and 5 degrees Celsius over preindustrial conditions,” says the Sigma Xi report [a report commissioned by the U.N.], which could trigger sea level rises, droughts, and floods of a biblical scale that will affect the livability of a range of human settlements. And these are just the mid-range projections. Many climatologists think things will get much hotter. (81)

Quoting Sigma Xi, Friedman claims that the goal of the global community in combating climate change should be to “avoid the unmanageable and manage the unavoidable” (81).

These are the basic data which Friedman connects to the phenomena of increasing global prosperity and population growth to give his meditations a sense of greater urgency. Unlike McKibben, who intensifies the anxiety of his book by listing and even imagining catastrophes in detail, Friedman’s anxiety is sustained and deepened by an exploration of the logistics by which the planet becomes warmer:

if we, as Americans, do not redefine what an American middle-class lifestyle is—and invent the tools and spread the know-how that enable another two or

2. Lovelock’s more desperate plan, laid out in the final chapter of the book, is to compile a text that will serve as a kind of guidebook to Gaia for future human beings, once Gaia’s revenge is complete: “What we need is a book of knowledge written so well as to constitute literature in its own right. Something for anyone interested in the state of the Earth and of us—a manual for living well and for survival” (157).

three billion people to enjoy it in a more sustainable fashion—we will need to colonize three more planets. . . . Cities all over the world have caught America's affluenza—surely one of the most infectious diseases ever known to man. (87-88)

The focus on America in this passage, and the book's subtitle, can be misleading—Friedman's net of apprehension is cast widely, and it brings in diverse phenomena like energy poverty in non-industrialized countries and what he calls "petrodicatorship." His recurrent preoccupation is about the globe, and his overriding fear is named in the lead word of his title: it is getting dangerously hot.

Like Orr and McKibben in their different ways, however, Friedman initially turns in his reverie to a fantasy of the nation. "Green Is the New Red, White, and Blue" reads one chapter heading. Friedman makes many recommendations, including, repeatedly, that the U.S. government send what he calls a price signal to make the cost of carbon-based fuels register some of the damage and risk that they entail, and that Americans shift to the use of appliances that are able to regulate when and how much they draw from the power grid. In one uninhibited rhapsody, Friedman imagines cars as energy storage units to be used for non-peak power, free home energy audits which result in rebates from energy companies, computers that draw nearly no power and net-zero school buildings. These are, he reports, not only realistic ideas but experimentally tested ones (283).

As this passage suggests, the second half of the book won't and can't really be contained by a national frame. In his discussion of the REDD proposal—Reduced Emissions from Deforestation and Forest Degradation, a program by which "developed countries would pay poor developing countries to keep their forests intact"—Friedman identifies a plan with international applicability (369). Similarly, in his provocative final chapter "China For a Day (But Not For Two)," Friedman's suggestion that America emulate the ability of China to implement centralized controls on the economy clearly has relevance to other developed nations. Specific and wide-ranging, Friedman's plan for a "green revolution" carries as much energy into hopeful visions of the global future as was present in the dire warnings of the first half of the book.

Another example of work arguably in the vein of the jeremiad is Philippe Squarzoni's *Climate Changed*. It is a graphic novel that narrates the author's search for a deeper understanding of the problem of global climate change and his interviews with many experts to think through both the source of the crisis and possible solutions. Like the other books described here, Squarzoni's account moves from problem to a kind of hopeful reverie. But because it is a graphic novel, it has recourse to two communicative strategies not found in the other books. One is that the concern of the experts interviewed comes across not only through their words but through their facial expressions and bodily posture. This helps to both intensify the sense of crisis and to magnify the urgency with which solutions are proposed. A second resource is humor—because of the contextualizing visual information, Squarzoni can create sometimes humorous tensions between what is said and what is seen. This is another kind of containing, I would argue—a sense of distance and poise in humor that detoxifies some of the anxiety that many of the figures in his book clearly feel.

Not all recent books about global warming for a popular audience are written according to this structure. Fred Pearce's *With Speed and Violence*, a 2007 book about mechanisms by which climate change could lead to drastic, irreversible shifts in environmental conditions for much of the globe, and the 2007 *Field Notes From a Catastrophe*, by Elizabeth Kolbert, a series of essays about how global warming is having an impact on a wide variety of scientific fields, both lay out their ominous warnings without any effort to offer hope or a plan for escape.³ But books like these in a way make the two-part structure of books like *Eaarth*, *Down to the Wire*, *The Revenge of Gaia* and *Hot, Flat, and Crowded* more remarkable. For why, given the urgency of the problem these books address, should a plea for recognizing it be coupled with a far-fetched plan for redressing it? To emphasize that these books are written in the tradition of the jeremiad would beg the question: what makes that genre so appealing for the popularizers of climate change?

The Value of Containing

In a skeptical review in *Reason* charging that McKibben's *Eaarth* gleefully imagines "we'll have to return to living in villages and farms, becoming 21st-century peasants," Ronald Bailey reads the book as conforming to "the time-honored structure of environmentalist tracts, opening with a quick rehearsal of the science that allegedly seals our terrible fate, followed by a much longer disquisition outlining the author's elaborate plan for salvation" (58). In Bailey's view of the relevance of the form of the jeremiad to McKibben's text, the commonality signals the author's reliance on a formula to appeal to the expectations of an environmentalist base. This may be so. According to "Climate Change in the American Mind," a report released in June 2010 by the Yale Project on Climate Change Communication and the Center for Climate Change Communication at George Mason University, 12% of Americans are "very worried" about global warming (3). Clearly this is a rather large niche as markets go. The jeremiad form may indeed make a convenient match with the reading appetites of this anxious audience.

But if we think of a book like *Eaarth* as designed to have a therapeutic benefit for those who are engaged in the emotionally demanding process of assimilating knowledge of global climate change, its "time-honored structure" seems to be not so much tailored to the expectations of a sympathetic readership as it is designed to help a much larger audience move out of a state of denial. According to "Climate Change in the American Mind," 45% of Americans agree with the statement "There is a lot of disagreement

3. This may be a good place to address the omission in my review of climate change jeremiads of one of the most well-known books on the subject of climate change, Naomi Klein's *This Changes Everything*. One could certainly make the argument that her text carries out the process of containing that I have described. But my impression of the book is that it doesn't really shift from problem to solution so much as it broadens from a discussion of climate change into a much more far-reaching discussion of the problems of capitalism. It replaces, I would say, one problem with another, a problem even more intractable than climate change. So I could not in good faith argue that this book has the containing function of the others I have discussed. This choice clearly reveals at least some of my values and priorities, and—if it is not grandiose to say so—I hope it might invite a critical discussion on the question of anti-capitalist climate change rhetorics.

among scientists about whether or not global warming is happening" (3). This is a significantly larger number than those who know that most scientists are in agreement. Faced with anxiety-inducing knowledge about climate change, Americans are using some version of denial and unrealistic thinking en masse.

A few ecocritical thinkers have sought to redress this by turning their attention to the psychological challenges that accompany the experience of knowing that the world is warming. Frederick Buell's chapter on environmental degradation in *From Apocalypse to Way of Life* draws a distinction between what he calls a "many-stranded nature tradition" that "keeps people valuing, defending, experiencing, and scientifically investigating ecosystems and biota that, however degraded, still are the necessary and only planetary kin and companions human beings have," on the one hand, and, on the other a "focus on second nature" that "instructs people not just about ecological decline, but also the social deformation, human conflict, and injustice that are integral parts of environmental crisis" (110). Buell claims that it is the first of these that "leans toward . . . psychological solutions" in its contributions to the project of coping with or minimizing anthropogenic environmental degradation, of which global warming is a part (110). Buell is not specific about what the "psychological" dimensions of these solutions are—one thinks of the celebrated work of E. O. Wilson to raise awareness about human impacts on global biodiversity as an example. Wilson's "biophilia hypothesis," the claim that humans have an inborn affinity for living beings, offers theoretical grounds for both the pleasure and the ethical value of nature writing.

But as McKibben's *The End of Nature* suggested twenty years ago, the issue of climate change makes any turn to nature less simple than an opposition between first and second nature would have one believe. Buell's schema of a restorative world of nature set against a conflicted world of "social deformation" and "injustice" locates the psychological resources for coping with environmental degradation in a genre of cultural production that is characterized by defensive exclusions, if not nostalgia. This claim has limits—recent literature of global warming has in places been written from an elegiac perspective within the nature writing tradition, as for instance Robert Hass's "State of the Planet" and Jorie Graham's *Sea Change*. But to locate the psychological resources available to the culture for coming to terms with global warming mainly in nature writing significantly underestimates the range of genres in which this work can be carried out.

A report recently published by the British arm of the World Wildlife Foundation takes a broader and deeper view of how cultural forces can act as therapeutic facilitators of the process of coming to terms with global warming anxiety. In *Meeting Environmental Challenges: The Role of Human Identity*, Tom Crompton and Tim Kasser argue that there are "three therapeutic steps" to reducing "environmentally problematic defence and coping mechanisms," among which problematic mechanisms they include "strategies for reinterpreting the threat"—a fair description of the epistemological defense (48). The three steps are: to identify the maladaptive defense; to allow for the anxiety that has been sealed off to emerge into consciousness; and to develop more adaptive coping mechanisms (46-7). The alternative ways of coping that they recommend are "problem-solving" and "mindfulness" (50-1).

The work of Crompton and Kasser is important, particularly if we view it in an ecocritical context where arguments like Buell's are more the norm. Their short book is pretty obviously marred by uncritical parallels between the threat of death and the threat of environmental crisis, but it treats a question that has been neglected for a long time, perhaps too long. Likewise, I think that the argument I have been making here complements their ideas about how cultural texts can be therapeutic in the process of assimilating threatening knowledge about the planet. For where Crompton and Kasser present problem-solving as a part of developing more adaptive coping mechanisms for environmental challenges, I have tried to show that understanding how the process of containing is at work in efforts to face these challenges helps us to see that problem-solving can play a crucial role in allowing anxiety to be felt and so, eventually, more ably managed. Problem-solving, or environmental reverie, is *preliminary* to the work of knowing the earth, and of adapting optimally to climate change. It might be the path of strategic action by which human civilization can, in Friedman's words, avoid the unmanageable and manage the unavoidable. But what it is still likely doing more often is helping a culture be equal to what it knows.

And so it is not to the discredit of these books that they propose plans for action that are unlikely to be realized without an improbable and sweeping change in the way millions, and perhaps hundreds of millions, of people think about the problem they address. And their indisputable anthropocentrism, their almost exclusive focus on the human consequences of climate change, should be understood in the context of their rhetorical and affective strategies. For the work of their proposals is not to point in a practical way towards immediate solutions, as necessary as these appear to be. It is to help people apprehend the reality of the problem. I think it is quite likely that the project of coming to terms with knowledge of global climate change is demanding enough to require this sort of enduring engagement. These books are doing important therapeutic work that is not being carried out elsewhere in the space of environmental literature.

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