

Love Refuses to Quit

Climate Change and Social Change in the 21st Century

by Ted Glick

“The key to our survival as a civil species during an era of profound natural upheaval lies in an enhanced sense of community. . . As nature washes away our resources, overwhelms our infrastructures, and splinters our political alignments, our survival will depend increasingly on our willingness to join together as a global community. . . To keep ourselves afloat, we need to change the economic and political structures that determine how we behave. In this case, we need to elevate the ethic of cooperation over the deeply ingrained reflex of competition. We need, in the face of this oncoming onslaught, to reorganize our social structures to reflect our most humane collective aspirations.

“There is no body of expertise—no authoritative answers—for this one. We are crossing a threshold into uncharted territory. And since there is no precedent to guide us, we are left with only our own hearts to consult, whatever courage we can muster, our instinctive dedication to a human future—and the intellectual integrity to look reality in the eye.”

-Ross Gelbspan, “Beyond the Point of No Return,” at www.heatisonline.org

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Chapter One

James Lovelock and the End Times

I remember hearing about James Lovelock's "The Revenge of Gaia" several years ago soon after it was published in 2006. But even though I was a full-time climate activist, deeply committed to doing all I could to build a powerful movement to slow, stop and reverse global warming—or the more accurate "global heating" as Lovelock describes it—and even though I knew that Lovelock was a prominent British scientist and environmentalist, I didn't read "Revenge" until July of 2009. This was the month after the U.S. House of Representatives, for the first time ever, passed a piece of comprehensive climate legislation, The American Clean Energy and Security Act of 2009, ACESA.

There is a connection between my not-reading of "Revenge" and the ACESA bill.

Part of the reason I didn't read it was because I knew from reviews that the primary conclusion of the book is that, in Lovelock's words, "before this century is over, billions of us will die and the few breeding pairs of people that survive will be in the arctic regions where the climate remains tolerable." (1)

I was fully aware that this kind of disaster was possible, even the most likely end result of the coal- and oil-burning industrial revolution of the last two centuries (and the concomitant political power of the coal and oil barons). But as someone trying to motivate as many other people as possible to become educated about and active on this issue, I semi-consciously did not read "Revenge" out of a concern that Lovelock's arguments might make it much harder for me to project a sense of hope that, yes, we can solve the climate crisis.

After the emergence in late March and eventual passage in late June, 2009 of a severely flawed, fossil fuel industry-influenced ACESA bill, however, a bill that is not even remotely close to being up to the job of moving toward a solution of the climate crisis, I experienced a months-long period of depression and bitterness. I truly felt as close to hopeless as I've ever felt. I felt like I needed to face up to the fact that the political reality of the United States, an absolutely key player if the world is to have a chance of avoiding climate catastrophe, may be such that Lovelock's predictions could well be accurate.

A large part of the reason that I felt this way, I've come to realize, is because of the hope I had put in Barack Obama, Nancy Pelosi and Henry Waxman. I truly believed that on the issue of climate and energy policy, they would be able to pass, in the House of Representatives at least, an OK or maybe better-than-OK piece of comprehensive climate legislation.

This was not a blind hope. It was hope based on what the three of them had said and done.

Throughout Barack Obama's campaign for the Presidency in 2008, a major issue that he always talked about was the necessity of a major shift from a wasteful, fossil fuel-based economy to one in which major investments in energy efficiency and clean energy were the drivers of both economic and environmental progress. He repeatedly called for a steadily declining cap on overall carbon emissions, a 100% auction of permits to emit greenhouse gases to historic carbon polluters, a return of much of the money raised from the auction to a large percentage of taxpayers and consumers to help them deal with higher energy bills during the transition to a clean energy economy, and investment of some of the money in renewables, efficiency, green jobs and other good things.

After winning the Presidency he put forward legislation to this effect in February of 2009 as part of his budget authority proposal to Congress.

I had had direct experience with Nancy Pelosi's concern about the climate crisis during a long, 107-day "climate emergency fast" I endured in the fall of 2007. During that fast I did outreach to a number of key Senators and House members who had responsibilities for climate and energy legislation, among them Pelosi. Much to my surprise, I ended up talking on a regular basis over the course of my three and a half months of not eating with top Pelosi staff people. They seemed genuinely concerned about this issue.

In the month of November I watched closely as she used the power of her office and whatever other powers she had to force John Dingell, chair of the powerful House Energy and Commerce Committee, to back down from his years-long obstruction of any legislation which mandated stronger fuel efficiency standards for Detroit automakers. I don't think this happened primarily because of my fast, though it helped. I think the primary reason was the coming together of 6,000 young people from around the country at an historic "Power Shift" conference in Washington, D.C. the first weekend of November. Following three days of speeches, workshops, panels and networking, thousands of students descended on Capitol Hill for a day of Congressional lobbying. Pelosi spoke at this conference, and there was a noticeable pick-up in activity on her part right after it to push forward toward what became a pretty good energy bill passed by the House in early December.

As far as long-time environmental champion Henry Waxman, my first direct contact with his office was via his energy/climate staff person in the fall of 2006. At the time Waxman was a leader of the House Government Affairs Committee. In that capacity, in September of that year, he publicized emails obtained by the organization Greenpeace which showed that the George Bush-appointed leadership of the National Oceanic and Atmospheric Administration (NOAA), the parent agency of the National Hurricane Center, had been engaged in deliberate suppression and censorship of NOAA climate scientists.

The NOAA Campaign

Reports by those scientists, eventually released, showed that it was likely that there was a connection between the stronger and more frequent Category 4 and 5 hurricanes that were

occurring in the Atlantic Ocean (think Katrina, Rita and Wilma in the summer of 2005) and the process of global heating. These reports were being kept from the public. I remember talking to Waxman's energy/environment staff person, Greg Dotson, during that time, gingerly and obliquely suggesting over the phone that maybe they could release any additional information they obtained around the middle of October. I did so because I was in the midst of planning what became a four-hour occupation of an 18-inch-wide ledge 25 feet above the entrance to the main NOAA headquarters building in Silver Spring, Md. on October 19th.

This action was the culmination of a six month campaign by the Chesapeake Climate Action Network that I helped to spearhead directed at the politically-appointed leadership of NOAA. Reports had been coming out for months about censorship of climate scientists at NOAA, NASA and other government agencies in relationship to climate issues. We decided to do all we could to try to force a change.

Our campaign began on June 1, the first day of the 2006 hurricane season, when we conducted a continuous, 36-hour vigil at the NOAA headquarters. Our next major action was on August 29th when we organized several hundred people to attend a rally at NOAA on the anniversary of Hurricane Katrina. That action ended with a die-in in front of NOAA by about 100 people as we remembered the mainly-black and mainly-poor victims of Katrina.

Our final action was the ledge sit-in. Paul Burman, a 22 year old CCAN intern who had just graduated from college, and I, with the assistance of another dozen or so people, climbed a ladder to that narrow ledge, posing as window washers, early on that October morning. We unfurled a banner which read, "Bush: Let NOAA Tell the Truth," and clung to the ledge, with news helicopters overhead, until noontime when the police brought in a cherry picker to bring us and the banner down to earth, after which we were arrested. We were eventually fined a total of \$1350 and put on six months probation.

Waxman, of course, had nothing to do with this action. About two years later, however, I contacted Greg Dotson again to congratulate his boss after he successfully challenged John Dingell for the leadership of the Energy and Commerce Committee in December of 2008. I was genuinely heartened that this had happened. It was another sign, I thought, following on the Obama victory, that things were really changing for the better when it came to the soon-to-come passage of climate and energy legislation.

An Intense Two Years

The passage of the very problematic ACESA bill on June 26th of 2009 dashed those hopes and forced me to seriously reevaluate what I should be doing about the climate crisis. What is in the ACESA bill that led me to this state of affairs?

There are a lot of bad things.

The target for greenhouse gas (ghg) emissions reductions over the next 10 years, an absolutely critical period of time if we are to have any hope of avoiding world-wide catastrophe, is way too weak, and it is questionable if even this weak target would be met if the bill passed the Senate and was signed by Obama into law. It contains a huge percentage of problematic "offsets" [footnote: An offset is the investment of money in a project somewhere in the world that allegedly will reduce greenhouse gas emissions as much as if they were reduced at the polluting coal plant or oil refinery and which then allows the company to continue those polluting emissions. There are major problems with the reliability of offset programs.] that will likely allow U.S. corporate polluters to avoid or minimize actual reductions of emissions from their dirty coal plants or oil refineries for 15-20 years or more. It gives away free 2/3 of the permits to emit ghg's to corporate polluters; half are given directly to the fossil fuel industry. It strips the Environmental Protection Agency of its power to regulate coal plants and other stationary sources of ghg's. Its cap-and-trade framework allows Wall Street speculators to get into the huge new "carbon market" being created. It is nuclear power-friendly, and it projects giving the U.S. coal industry tens of billions of dollars for "carbon capture and sequestration" [footnote: Carbon capture and sequestration (ccs) refers to the capture of carbon dioxide, turning it from a gas into a liquid and then pumping it under the ground or under the ocean.] of its CO₂ emissions, an unsafe boondoggle that will never be built in enough time or commercially viable on the scale necessary to justify taxpayer support.

All of this from a committee headed by Waxman, a liberal Democrat who, in the spring of 2008, one year before the release of the ACESA bill, introduced legislation calling for a moratorium on the building of any new coal plants unless they sequestered 85% of their greenhouse gas emissions. The ACESA bill will allow new coal plants to be built until 2020 without having to sequester any carbon dioxide or other ghg's until 2025.

This bill's passage also marked the end of an intense two-year period for me that began in the summer of 2007. During that summer the leadership of CCAN came up with the idea of a serious "climate emergency fast" to begin on the fall day that the Democratic-controlled Congress returned from its summer break. We felt that this was appropriate and needed given that House leader Pelosi, soon after the Democrats had won back both houses of Congress in the November, 2006 elections, had called for global warming legislation to be passed by July 4th of 2007, but it was not happening. The climate movement needed to bring some "street heat," some political pressure, on the Democrats to do what their leadership was saying it wanted to do.

On September 4th, the first day that Congress returned from its summer recess, approximately 2,000 people from a dozen countries and all 50 states fasted, refused to eat. A number of people continued to do so for additional days, some for weeks. By the sixth week, I was the only one still doing so, and I continued fasting while continuing to lobby Congress and speak to the public until the day that Congress adjourned on December 19th. I fasted for 25 days on water only and 82 days on fruit and vegetable juices, miso broth and, for the last month and a half, liquid vegetable soups.

I ended the fast on the day that President Bush signed an energy bill that was passed by both the

House and the Senate. It was not a great bill; Senate Republicans had forced the removal of everything that was in the House version of the bill supportive of renewable energy and which mandated a minimal tax on oil companies to finance that renewable energy program. The bill also mandated a seven-fold increase in the production of biofuels over a 15 –year period, a questionable strategy for addressing the climate crisis. But there were positive provisions as far as stronger energy efficiency standards for lightbulbs and appliances and improved fuel efficiency standards--about 1 mile per gallon per year--for Detroit-produced cars. I felt like my fast was ending with a small victory for the climate movement.

Past Victories and Organizing Experiences

Over the 42 years that I have been working for positive social change in the world, I have seen some victories, many more defeats and many results somewhere in between. The first two personal victories were courtroom wins, one more clear-cut than the other, in 1970 and 1972 during the years that my primary work was against the Vietnam War.

In the first case I was convicted but with a “recommendation of leniency” on every count during a trial with seven other people following the nonviolent destruction of Selective Service draft files and the disruption of other government offices in a Rochester, N.Y. federal building. Instead of the 5-10 years we were expecting—we were facing 38--we were sentenced to from 1 to 1 ½ years. I ended up spending 11 months in prison.

The second case involved charges against me and seven other people in the “Harrisburg 8” case, a major “conspiracy” trial which took place in Harrisburg, Pa in the spring of 1972. After the jury was hung 10-2 for acquittal in that trial, the government dropped the conspiracy charges against all of us.

Two years later I experienced a victory through my role in working to bring about the resignation of President Richard Nixon in August of 1974. Nine months earlier I had co-founded and then co-coordinated the National Campaign to Impeach Nixon, a network of hundreds of grassroots groups around the country that kept up the political pressure on Congress and on the impeachment issue that helped lead to his eventual resignation. I often describe the National Campaign to Impeach Nixon as the shortest-lived but most successful organization I have ever been a part of.

During the time I was doing impeachment organizing I made contact with people who had begun to work towards a progressive political party, an alternative to the Democrats and Republicans. I agreed with their arguments, and they were having success gathering together an impressive cross-section of progressive leaders, so I got involved. Ever since, sometimes more actively than other times, I have been part of various organizations building such an alternative. I’ve run for political office as a “third party” candidate twice, once in Brooklyn, N.Y. in 1991 and then in New Jersey in 2002. From 1995 to 2005 I was the National Coordinator of the Independent Progressive Politics Network, with which I continue to work today, in 2009.

I have also worked as a tenant's rights and community organizer; as a founder and counselor for 10 years for the Future Leaders Network, a national youth leadership development organization; as an active member of the Rainbow Coalition during the 1980's; as the author of a twice-monthly "Future Hope" column of political and social commentary; and in other ways to create a much more just and peaceful country and world.

However, following the death of 35,000 people during a heat wave in the summer of 2003 in western Europe, I realized, following serious study, that the climate crisis was not a far-off thing but an imminent reality. By the end of that year I had made the decision to devote whatever skills, energies and resources I had primarily to the effort to enact a world-wide clean energy revolution.

It was clear that such a revolution was necessary if we were to avoid cascading, catastrophic climate change that would decimate human society and most forms of life over the coming years and decades. I also felt, and have increasingly become more convinced intellectually, that a worldwide focus on solving the climate crisis would open up the possibilities for a transition not just to a world using different forms of energy but to a very different, qualitatively better world.

We won't stabilize the climate without an international, grassroots, popular movement that, working together for the good of the planet and its peoples, is able to force the governments of the world to change their energy policies. Such a strengthened movement—one that has been growing since 2005 and was significantly advanced in 2009 in the lead-up up to a United Nations international climate conference in Copenhagen, Denmark in December—will also be able to bring about other needed social, economic and cultural changes toward a just and peaceful world.

A significant reason why it can do so is because the process of advancing a clean energy revolution is organically intertwined with a qualitative shift in the way human society as a whole, not just pockets of it here and there, views the natural world. The approach of those dominant in business and government today is that nature is a thing to be exploited to make profits and become richer and more powerful. But a successful climate movement of necessity will have at its core the recognition that we must respect nature, protect it and be good stewards of this amazing, miraculous earth environment which has sustained life for millions of years and allowed humankind to develop as a species in all the positive, and negative, ways that we have.

2008 and 2009 Fasts

Following the conclusion of my long 2007 fast, on the first Monday of 2008, I began a one-day-a-week, water-only fast. Every Monday, for almost 17 months, I consumed only water as a way to keep myself focused on the climate issue, as a way to speak to others about the urgency of this issue. And as the Presidential campaign unfolded, as all of the Democratic contenders and McCain among the Republicans spoke up about the climate crisis, I felt firmly that whatever discomfort and loss of energy I would feel each Monday was well worth it. It felt like my fast, this "sincerest form of prayer," as Mahatma Gandhi called it, was timely and appropriate. Once

Obama took office, I began considering the idea of another long fast. I was not committed to doing one but knew from experiences that this could be a useful tactic. At the suggestion of Jere Locke, Director of the Texas Climate Emergency Campaign, he and I initiated what became, for me, a 32-day fast from April 20th to May 21st, 2009.

I was the primary organizer of this “25 to 40 Day Fast.” Close to 250 people participated in it for at least one day. Nine of us fasted for anywhere between 25 and 40 days. We did so as a way to highlight the fact that leading climate scientists and international climate negotiators were calling for industrialized countries to reduce their carbon emissions by at least 25-40% by 2020 compared to a 1990 baseline year. Almost all climate and environmental groups in the United States were supportive of this objective.

For the first two weeks of this fast I consumed water only. For the additional eighteen days I drank juices and broths. The fast, and this nearly 21 month period of fasting for me, ended on May 21st, the day that the House Energy and Commerce Committee passed ACESA and sent it on to the full House.

Many of us in the climate movement were shocked at what this committee had produced. It’s not that we were expecting the kind of a bill that we would write if we had the power to do so; we were aware of the power and influence of Big Oil and Dirty Coal over members of Congress. But given the leadership of Barack Obama, Henry Waxman and Nancy Pelosi, we were hopeful that something half-decent would emerge. It didn’t, and my weeks of depression and bitterness continued. I was already in a funk while I was fasting as reports kept coming out about the weakening of the draft bill. This was happening as a result of behind-closed-doors negotiations between Waxman and Democratic Congressmen like Rich Boucher and Mike Doyle representing coal companies and other historic polluters.

CCAN as an organization and I personally did what we could to protest what people like Boucher and Doyle were doing. I did a semi-impulsive but very-much-called-for sit-in at Doyle’s Congressional office on the day that I read a quote from him in a news article to the effect that we didn’t have to worry about the next ten years, that “we had 40 years to solve this issue.” After two hours of sitting-in and refusing to leave, Doyle showed up, sat down across from me, and we engaged in a half hour, very intense back-and-forth. And on May 21st, the day that the House Energy and Commerce Committee voted out the ACESA bill, CCAN organized a sit-in in front of Boucher’s Congressional office; 14 people were arrested.

Today, one month to the day as I write after the passage of ACESA in the House, I’m out of that depression, and, surprisingly, the reading of “Revenge” and Lovelock’s just-published “The Vanishing Face of Gaia: A Final Warning,” have helped me to do so. This reading was not the primary reason for that change in my emotional state; more significant was the reading I did of the words of some of the world’s great spiritual leaders in the book, “God Makes the Rivers to Flow,” my personal bible. These readings reminded me of the need to step back and look at setbacks and disappointments in a much broader, less personalized context, even setbacks that are of potentially world-impacting significance.

Climate Tipping Points

Unlike those responsible for ACESA, Lovelock fully gets the seriousness of our situation. Throughout both books he presents scientific evidence to support his view that humankind has caused so much damage already to the Earth, burnt so much coal, oil and natural gas, cut down so many forests, and unthinkingly overdeveloped so many cities and towns in an environmentally destructive way that the chances are not good that we can avoid a worldwide climate catastrophe absent a dramatic upsurge of popular demand for strong action.

We are in a race against time, one we are currently losing, to prevent our passing critical climate tipping points, points after which it will be extremely difficult for human beings to stop runaway climate change. There are four major tipping points.

One is the melting of a significant amount of the Greenland and West Antarctica ice sheets. Estimates are that if both of these massive, on-land expanses of ice melted completely, sea level rise worldwide would be about 40 feet. This would happen because both of these ice sheets are on land. As distinct from Arctic sea ice which is in the open water and whose melting doesn't significantly affect sea level, the melting of this ice would do so.

However, the melting of the Arctic sea ice is directly affecting Greenland, and it is alarming how fast the Arctic ice is shrinking. There is less than half as much total mass of ice today as existed a few decades ago, and the process is speeding up. Polar scientists were taken aback when there was a 20% decline in the ice mass in just a two year period between the end of summer 2005 and the end of summer 2007.

When ice melts and there is more open ocean, this means that more of the sun's radiation and heat is absorbed by that open ocean. White ice reflects most of the sun's rays back into space, while dark ocean absorbs almost all of the sun's heat. This is the primary reason why the Arctic region is the part of the earth that has heated up the most—about 5 degrees Fahrenheit hotter—compared to half-a century or so ago. And this is why there has been a significant increase in both the amount and the rate of ice melt on Greenland.

A Reuters news story in December of 2007 quoted a top climate scientist as reporting that “the Greenland ice sheet melted at a record rate this year, the largest ever since satellite measurements began in 1979. ‘The amount of ice lost by Greenland over the last year is the equivalent of two times all the ice in the Alps, or a layer of water more than one-half mile deep covering Washington, D.C.’ said Konrad Steffen of the University of Colorado at Boulder.”

A similar process of ice melt is underway with the West Antarctica ice sheet. A story carried by MSNBC in September, 2009, “Study: ‘Runaway’ Melt on Antarctica, Greenland,” quoted lead author Hamish Pritchard of the British Antarctic Survey: ‘To some extent it's a runaway effect. The question is how far will it run? It's more widespread than we previously thought. . . We infer

that grounded glaciers and ice streams are responding sensitively not only to ice-shelf collapse but to shelf thinning owing to ocean-driven melting. . . Dynamic thinning of Greenland and Antarctic ice-sheet ocean margins is more sensitive, pervasive, enduring and important than previously realized.” (1)

Another tipping point would be the melting of the permafrost regions in the Arctic, Alaska and the northern latitudes of countries like Russia and Canada. An article in the March 26, 2009 edition of The Telegraph in Britain explained the danger:

“A quarter of the land surface of the northern hemisphere contains permanently frozen soil water and rock or ‘permafrost’. When it melts it not only causes buildings to collapse and trees to fall over in ‘drunken forests’ but releases carbon and methane from the dead organic matter in the soil.

“No one knows how much carbon is locked away in permafrost but a study headed by Edward Schuur of the University of Florida recently doubled previous estimates to about 1,600 billion tonnes – roughly twice as much carbon as is in the atmosphere.

“Mr Schuur said global warming could cause 100 billion tonnes of carbon to be released from the permafrost this century. This would have a warming affect equivalent to 270 years of carbon dioxide emissions at current levels.

”It’s a kind of slow-motion time bomb,” he said.”

The methane in the permafrost is of particular concern because, although it stays in the atmosphere for a much shorter time period compared to carbon dioxide, in the first dozen or so years it is 70 times stronger than CO₂ as far as its impact on the heating up of the earth.

There is also deep concern about methane that is found in crystals of ice—clathrates—on the bottom of the ocean. There’s a huge amount of it, between 10,000 and 42,000 trillion cubic metres according to Australian scientist Tim Flannery. If a warming ocean led to a release of this methane, the results would unquestionably be apocalyptic.

Flannery, in his excellent book “The Weather Makers,” refers to “the biggest extinction event of all time. . . Two hundred and forty-five million years ago around nine out of ten species living on earth became extinct.” Volcanic explosions in Siberia led to a warming of 6 degree C. “This co-occurred with widespread acid rain caused by sulphur dioxide, which released yet more carbon. Such was the total impact of the increasing temperature thereby generated that it triggered the release of huge volumes of methane from the tundra and clathrates on the sea floor.” (2)

Flannery thinks it is unlikely that a massive melting of clathrates will happen this century. However, a September 23rd, 2008 article in The Independent newspaper in Britain reported that “scientists aboard a research ship that has sailed the entire length of Russia’s northern coast have

discovered intense concentrations of methane – sometimes at up to 100 times background levels – over several areas covering thousands of square miles of the Siberian continental shelf. . .

Orjan Gustafsson of Stockholm University in Sweden, one of the leaders of the expedition, described the scale of the methane emissions in an email exchange sent from the Russian research ship Jacob Smirnitskyi.

"‘We had a hectic finishing of the sampling programme yesterday and this past night,’ said Dr Gustafsson. ‘An extensive area of intense methane release was found. At earlier sites we had found elevated levels of dissolved methane. Yesterday, for the first time, we documented a field where the release was so intense that the methane did not have time to dissolve into the seawater but was rising as methane bubbles to the sea surface. These ‘methane chimneys’ were documented on echo sounder and with seismic [instruments].’"

This is very sobering news.

The fourth potential tipping point is the drying out of the massive Amazon rainforest, whose function for the Earth has been likened to the lungs within human beings and animals. It is a vital part of the earth’s ecosystem. In relation to climate change, it plays a huge role through its natural sequestration of carbon dioxide in both living plants and trees and in the soil.

The likelihood is strong, absent a serious effort to reverse it, that this rainforest will dry out and collapse in the not too distant future. This will happen in part because it continues to shrink as it is cut down for timber or for industrial farming. In addition, the heating up of the earth and changes in weather patterns are already beginning to affect the rainforest’s natural processes such that there is less rainfall. Flannery believes that by 2040 we could begin to see signs of rainforest collapse and with it the release of massive amounts of carbon. A full 8% of all the carbon in the world’s vegetation and soils is found in the Amazon rainforest.

We aren't at any of these tipping points yet, but each year that goes by without a dramatic worldwide effort to seriously reduce our ghg emissions brings us closer to one or more of them.

Gaia

Lovelock’s deep concern about the global heating crisis is related to his belief that there is an “Earth system science, a self-regulating Earth with the community of living organisms in control.” This is the essence of Lovelock’s Gaia thesis, one which he put forward 40 years ago, has defended ever since and which he now sees gaining more acceptance within the scientific community. He references the “Amsterdam Declaration, made at a meeting of the European Geophysical Union in 2001, where more than one thousand scientists signed a statement that began, ‘The Earth System behaves as a single, self-regulating system comprised of physical, chemical, biological, and human components.’” (3)

Lovelock believes that the likely result of our historic, short-sighted disregard for Gaia, for our

mother the Earth, is the mass die-off of 85% or more of the human population over the course of this century. Despite this severely depressing belief, he has used his considerable intellect to try to think through how we can make the best of a very bad situation, how the several hundred million people or more he thinks could survive the coming climate catastrophe can keep alive the best of what humanity has created over the course of our evolution.

While generally supporting their work, he is critical of the Intergovernmental Panel on Climate Change, a United Nations-supported organization of 2,000 scientists who have been studying climate change since 1989. He is critical of them for underestimating the severity of climate change. “The main reason for doubt is the fact that the [IPCC] forecasts [of what will happen in coming decades] do not agree with high-quality evidence from the Earth obtained by scientists whose job it is to measure and observe. This evidence reveals the failure of the IPCC to forecast correctly the course of climate change up to 2007.” (4)

One example he uses of this failing is the forecast by the IPCC of a range of possibilities of how much sea level would rise up to 2007. The forecast for the most amount of rise was less than what actually occurred. Another major example is what has been happening to Arctic sea ice. Lovelock points out that “the discrepancy is huge” between what was predicted and what has actually happened; “if melting continues at this rate the summer Arctic Ocean will be almost ice-free within fifteen years. The IPCC prediction suggests that this is unlikely before 2050.” (5)

I was glad to see Lovelock’s comparison of our situation today to that of the late ‘30s. “Most of us think that something unpleasant may soon happen, but we are as confused as we were in 1938 over what form it will take and what to do about it. Our response so far is just like that before the Second World War, an attempt to appease. The Kyoto agreement was uncannily like that of Munich, with politicians out to show that they do respond but in reality playing for time [much like what just happened in the House of Representatives]. . . Battle will soon be joined, and what we now face is far more deadly than any blitzkrieg. By changing the environment we have unknowingly declared war on Gaia.” (6)

Others who have studied this issue have made the World War II analogy but from a more positive standpoint. James Hansen, Lester Brown, Bill McKibben and Al Gore, among others, have pointed out that after the Japanese attack at Pearl Harbor, the U.S. was able, within a period of months, to retool industry and society from a peacetime to a wartime footing. Detroit turned out thousands of tanks in a short period of time, as did other industries as far as planes, guns, ships and other needed weapons of war. What these knowledgeable leaders have called for is the same kind of dramatic social, cultural and economic transformation as far as from where we get our energy, a clean energy revolution.

This kind of a major change in the way we think about the crisis of global heating is absolutely essential, although it is unfortunately difficult to see it happening soon absent the emergence of a powerful and persistent, massive popular movement that refuses to accept anything less than a rapid, society-wide mobilization to save the Earth and as many of its life forms as possible.

Lovelock calls for this, kind-of—“We need the people of the world to sense the real and present danger so that they will spontaneously mobilize and unstintingly bring about an orderly and sustainable withdrawal to a world where we try to live in harmony with Gaia” (7)—but, as I write about further ahead, his idea of a “sustainable withdrawal” is problematic. To his credit, on the other hand, he appreciates that “even when we are past the threshold of irreversible climate change, the extent and rate of adverse change will still be affected by what we do. Our aim should now be to try for the least hot future world.” (8)

Energy Alternatives

In both of his books Lovelock reviews the various major alternatives to a business-as-usual energy/economic scenario. Surprisingly, he is fiercely anti-wind power, particularly on-land wind turbines (more on this later). He is a strong supporter of nuclear power, particularly more advanced plants that he says will produce very little radioactive waste. He believes that concentrated solar plants—what he calls solar thermal—have much potential as a replacement energy technology for fossil fuels. He has a full chapter in “Vanishing” about geoengineering [footnote: Human-created, deliberate action to alter the earth’s climate, as in seeding the skies with sulfur or painting all roofs white to reflect sunlight back to space]; he doesn’t see the various proposals for this as “cures, since carbon dioxide would continue to increase and do damage in other ways than heating, but they could usefully provide a stay of execution while a more permanent treatment is developed.” (9)

Surprisingly, there is virtually nothing in either book about the importance of serious energy efficiency initiatives and requirements. Given that, for the United States, estimates are that there are potentials for a 30-35% or more reduction in energy use if we took conservation and efficiency seriously, this is a major failing.

Similarly, there is little support in either book for the idea of “distributed power,” the decentralization of electrical power production via rooftop- or backyard solar or small-scale wind power. Lovelock doesn’t see this approach as of value in the effort to slow our march toward climate catastrophe, nor as a way to help local communities survive if that becomes our future.

Lovelock is a strong proponent of nuclear power. In this he shares, to an extent, the views on nuclear power of NASA scientist James Hansen, about whom Lovelock has nothing but positive things to say. Both of them see nuclear power as essential because it provides power at all times. The wind doesn’t have to blow and the sun doesn’t have to shine for the nuclear fission process to produce the heat which drives turbines that create electricity, a “baseline power” argument not accepted by others who share Lovelock’s and Hansen’s sense of urgency (see below). And both believe that the issue of radioactive wastes is either not much of an issue, in Lovelock’s case, or is solvable via “4th generation” nuclear power, in Hansen’s case.

In a number of other critical respects, however, there are big differences between Lovelock and Hansen.

While Lovelock is deeply pessimistic about the future of the Earth and predicts that the likely future will see a massive die-off of most life forms, Hansen believes that we do have a window of time, no more than 10 years, he said in 2006, to make the changes that can avoid the worst impacts of climate change. This is a very big difference.

Hansen has acted upon his more positive beliefs, taking risks and providing a model for other scientists, other prominent people and for people in general about what we need to be doing right now to avoid climate catastrophe. It's not just that he has been speaking out, criticizing censorship and suppression of climate scientists during the Bush/Cheney years. It's not just that he has been calling for an end to the building of any new coal plants and the end of the use of coal within 20 years. And it's not just that he has been proposing a substantial "carbon fee" to be levied on the fossil fuel industry with the proceeds distributed to the American people to help them deal with higher prices as we transition to a clean energy economy. He has also literally put his body where his beliefs are.

On March 2nd, 2009 Hansen joined about 5,000 other people demonstrating outside the Capitol Power Plant on Capitol Hill in Washington, D.C. This plant burns coal and has been doing so for a hundred years, providing some of the power for the House of Representatives and the Senate buildings. In the most significant climate action to date by the U.S. climate movement, over a thousand people out of those 5,000 blockaded all of the entrances to this plant, risking arrest, preventing all traffic in and out of the plant for most of a day. As a result of this action the Congressional leadership told the plant to stop using coal and shift to using natural gas only. Hansen was one of those part of the blockade, and he was disappointed afterwards that the police made the decision not to arrest anybody.

Three months later, Hansen was arrested deep in coal country in West Virginia as part of an action organized by a coalition of power-past-coal activists fighting against mountain top removal at Coal River Mountain.

Some Serious Concerns

If James Lovelock, and others with name recognition, scientific or other credentials, and influence within the circles of power followed the example of James Hansen, it would be a very good thing. However, it is probably unlikely in Lovelock's case. He has a disturbing point of view as regards political action: "The green community should have been reluctant to found lobbies and political parties; both are concerned with people and their problems, and, like megaphones, they amplify the demagogic voices of their leaders. Our task as individuals is to think of Gaia first." (10)

Anticipating critical response to these words, he goes on to say, "In no way does this make us inhuman or uncaring; our survival as a species is wholly dependent on Gaia and on our acceptance of her discipline." (11)

This is one of a number of problematic statements and beliefs put forward in both “Revenge” and “Vanishing.”

Lovelock takes his belief in Gaia to a questionable place: the belief that, as he puts it in “Vanishing,” “Independence allows me to consider the health of the Earth without the constraint that the welfare of humankind comes first.” (12) He criticizes green activists for that concern for people and asks them to “think again and see that their primary obligation is to the living Earth. Humankind comes second.” (13) He calls for technology to be used “wisely, as Dr Jekyll would do, with the health of the Earth, not the health of people, in mind. That is why it is much too late for sustainable development; what we need is a sustainable retreat.” (14)

What is his idea of a “sustainable retreat?” Nuclear power, some geoengineering to buy us some time, some carbon sequestration, a serious de-prioritization as far as the use of wind as an energy source, and non-wind renewables like concentrated solar plants. But “our greatest efforts should go into adaptation, to preparing those parts of the Earth least likely to be affected by adverse climate change as the safe haven for a civilized humanity.” (15)

Early on in *Revenge* Lovelock reveals his opposition to wind power. Indeed, as he explains on pps. 150-151, it was a proposal to build a wind farm in the countryside close to his home in late 2003 that “awakened me to the dangers” of imminent environmental change due to global heating. Lovelock’s account of how this “awakened my fury” reminded me of the opposition by the Kennedy family and other upper-class residents of Martha’s Vineyard in Massachusetts to plans to build an ocean-based wind farm off the coast because it would supposedly spoil their views of the ocean.

I was personally struck by the fact that it was in the fall of 2003 that this wind farm proposal galvanized Lovelock to seriously take up the global heating issue. It was in the summer of 2003 that something similar happened to me but for a different reason. For me, it was the death of 30,000 people during an unprecedented western European heat wave.

Early on in “Revenge” Lovelock makes clear his strong belief in nuclear power and his problems with wind power. Further along he puts forward as an apparently serious proposition that the “best sites for disposal [of radioactive wastes] are the tropical forests and other habitats in need of a reliable guardian against their destruction by hungry farmers and developers” because, he says, there is abundant and rich wildlife at “the land around Chernobyl, the bomb test sites of the Pacific and areas near the U.S.’ Savannah River nuclear weapons plant.” (16) He uses the figure of 75 as the number for those killed as a result of the Chernobyl nuclear plant explosion even though the Russian Academy of Sciences, not a body you would think would want to overstate the case, says there were over 200,000 deaths.

Lovelock and Hansen may or may not be right that, in the immediate short-term, as a replacement in particular for coal, there is an argument for nuclear because it can provide the round-the-clock power that intermittent wind- and solar-energy cannot. However, this position has been rejected by Jon Wellinghof, head of the Federal Energy Regulatory Agency, who has

said that various improvements to the transmission system, the development of a “smart grid,” advances in battery storage technology, locally-generated “distributed power” and other technological developments would relatively soon allow the U.S. to ensure a steady supply of electricity without either new nuclear or coal. Al Gore has also made a convincing case that, if the political will existed to make it happen, the U.S. could eliminate all fossil fuels from its electrical supply system by 2018 and replace them with serious energy efficiency, renewables and some currently-operating nukes.

Lovelock also argues, as does climate hero and scientist James Hansen, that more advanced nuclear reactors able to “recycle” radioactive waste as a fuel source will yield minimal to-be-disposed-of radioactive waste. To me, this is the strongest argument in support of a closer look at the question of nuclear, although I don’t see it outweighing the argument that the money used for nuclear plants—6-7 billion apiece—is better used for efficiency and renewables, which will provide a better return both for the economy and the environment than nukes.

A Pessimistic View of Human Nature

Lovelock minces no words when it comes to his view of humankind, which may help to explain his “earth first, humans second” worldview. “The idea that humans are yet intelligent enough to serve as stewards of the Earth is among the most hubristic ever.” (17) He believes that “we are over six billion hungry and greedy individuals,” (18) not exactly a generous or objective perspective on humankind.

This pessimistic view of human nature is consistent with his belief that the explosion of population across the globe—a “plague of people” as he describes it (19)—is a primary reason for our environmental plight. “It is not simply too much carbon dioxide in the air or the loss of biodiversity as forests are cleared; the root cause is too many people, their pets, and their livestock—more than the Earth can carry.” (20)

It is true that a rapidly-increasing world population is exacerbating the climate and other crises and that this rise must level off and begin going down in this century. But the vast majority of the greenhouse gases that are in the atmosphere right now are there because of the economic processes over the last two centuries of the world’s dominant capitalist/colonial powers.

Nowhere in Lovelock’s books is there any hint that the climate crisis might have something to do with the huge profits and power that have come from corporate control of oil, as well as coal and natural gas, the fossil fuels. In his view, “we are all the demons,” (21) as if the poor peoples of Africa, Latin America and Asia, not to mention low-income people in the countries of the Global North, are as responsible for our plight as those Exxon executives who have funded think-tanks for years with the explicit purpose of trying to deny the reality of global heating. At one point, he refers to “the baddies [that] were the usual suspects: oil polluting the sea and killing birds; coal that had to be dug by overworked and underpaid miners—both the products of malign multinational companies moved by nothing other than profit. We always forgot or ignored that

for most of the time the coal industry was nationalized [in Britain] so we were the owners of this polluting industry as well as the users who generated the pollution.” (22)

As if “the users” have been given a realistic shot at any non-polluting alternatives, and as if Exxon, Chevron, Shell and others are not among the most profitable and powerful corporations on the face of the earth doing everything they can to keep the economies and peoples of the world hooked on oil so that their shareholders will benefit.

At one point in “Vanishing” he minimizes the impact of what even President George Bush described as the United States’ “addiction to oil” [and coal and gas]. He writes that the U.S. is “among the slowest to perceive the threat of global heating. I doubt that this unexpected ignorance is connected with the fact that the per capita American use of fossil fuel. . . is greater than anywhere else. I see it as more the consequence of most American scientists. . . seeing the Earth as something that they could improve or manage.” (23)

This is a most uninformed, almost naïve, statement of U.S. political and economic reality.

What We Do About the Coming End Times

Lovelock sums up his view of the future toward the end of “Revenge:” “I think we have little option but to prepare for the worst and assume that we have already passed the threshold. Like paramedics, their first priority is to keep the patient, civilization, alive during the journey to a world that at least is no longer undergoing rapid change. We face unrestrained heat, and its consequences will be with us within no more than a few decades.” (24)

Throughout both books he reflects on what he expects the world to be like after the Great Catastrophe (my term) and what we should be doing now to prepare for it.

The one place where he puts a number on future world population is in “Revenge:” “I think we would be wise to aim at a stabilized population of about half to one billion, and then we would be free to live in many different ways without harming Gaia.” (25)

Within “Vanishing” he posits the areas of the world that he expects to be the places where human settlement will continue to be viable. “The northern regions of Canada, Scandinavia, and Siberia, where not inundated by the rising ocean, will remain habitable, and so will oases on the continents, mostly in mountain regions where rain or snow still fall. But the more important exceptions to this planet wide distress will be the island nations of Japan, Tasmania, New Zealand, the British Isles, and numerous smaller islands. Even in the tropics, global heating may not disable island communities such as those on the Hawaiian Islands, Taiwan, or the Philippines. The British Isles and New Zealand will be among the least affected by global heating. Their temperate oceanic position is likely to favor a climate able to sustain abundant agriculture. They will be among the lifeboats for humanity.” (26)

For the other countries found on the continents, he says that “all may depend on their population density. The United States and the Russian states are singularly fortunate in having densities eight and thirty times less than the UK, respectively, and both contain vast areas of previously frozen territory in their northern regions. The Indian subcontinent, China, and Southeast Asia, however, are fully populated, and nations like Bangladesh are already threatened by rising sea level.” (27) Elsewhere he predicts that “much of the continental areas will become barren because of drought. This will have appalling consequences for the already overcrowded nations like China, India, and parts of Africa.” (28)

He paints a more specific picture at one point: “Much of the rest of the world. . . will be changing to scrub and desert and drought and famine will be taking over the once-fertile Earth. Summer heat will have grown unbearable, despite the widespread use of air-conditioning. World food production will be falling as drought and heat make growth ever more difficult. Elaborate schemes to irrigate using the desalination of seawater will alleviate some of the loss, but at a huge price in energy. The flow of climate refugees will continue with many settling in huge encampments possibly near the ethnically similar communities of earlier immigrants.” (29)

What will be our gravest dangers? “Not from climate change itself, but indirectly from starvation, competition for space and resources, and war.” (30)

Warlords? Yes, of course. “Despite all our efforts to retreat sustainably, we may be unable to prevent a global decline into a chaotic world ruled by brutal war lords on a devastated Earth.” (31)

To his credit, Lovelock doesn’t mince any words. If we are to avoid this kind of a future, we need to stare it in the face, reflect on it, understand why we have gotten to this point and take action accordingly.

Preparing for the Great Catastrophe

As far as what we do now to prepare for, in Lovelock’s view, a likely Great Catastrophe, he has some specific and a number of general ideas.

Unsurprisingly, he calls for us “to renew that love and empathy for nature that we lost when we began our love affair with city life.” (32) Throughout both books, and consistent with his Gaia beliefs, he makes this call.

In “Revenge” he calls upon the leaders of his country to “make decisions based on our national interest. . . We should not wait for international agreement or instruction. In our small country we have to act now as if we were about to be attacked by a powerful enemy. We have first to make sure our defences against climate change are in place before the attack begins.” (33)

He reiterates and amplifies in disturbing ways this recommendation for the British elite in “Vanishing:” “There will be time enough for internationalism during the stability of the long hot

age. We have no option but to make the best of national cohesion and accept that war and warlords are part of it. For island havens an effective defense force will be as important as our own immune systems. Like it or not we may have to increase the size of and spending on our armed forces.” (34)

This is a definite escalation from the concluding recommendation made by Lovelock in the last few pages of “Revenge,” for a “guidebook for our survivors to help them rebuild civilization without repeating too many of our mistakes. . . a guidebook written in clear and simple words that any intelligent person can understand. . . What we need is a book of knowledge. . . for anyone interested in the state of the Earth and us—a manual for living well and for survival. . . as a source of facts and even as a primary school text. . . the survival manual for our successors. . . a book written on durable paper and with long-lasting print. . . It would earn the respect needed to place it in every home, school, library and place of worship. It would then be to hand whatever happened.” (35)

In “Vanishing” he calls for people to begin to prepare to “move where it is safe. . . Those who leave for the cooler, still fertile regions have a better chance of surviving, and if enough of us are saved this way it could benefit Gaia as well. . . Our greatest efforts therefore should go to learning how to live as well as is feasible on the soon-to-be-diminished hot Earth.” (36)

Lovelock is of two minds when it comes to the critical question of human behavior during the end times. “Even if we had time. . . to change our genes to make us act with love and live lightly on the Earth, it would not work. . . It is as absurd to expect us to change ourselves as it would be to expect crocodiles or sharks to become through some great act of will, vegetarian. We cannot alter our natures, and as we shall see the bred-in tribalism and nationalism we pretend to deplore is the amplifier that makes us powerful. All that we can do is try to temper our strength with decency.” (37)

Not a very hopeful view of humankind and its possibilities two thousand years after the birth and life of Jesus of Nazareth.

But as he concludes “Vanishing” he does hope that natural selection “chooses from among us those better able to live with Gaia as well as with each other. Are we yet intelligent enough to be a social animal capable of living stably with Gaia and with ourselves now and on the changed Earth that soon will come? As I see it, our hope lies in the chance that we might evolve into a species that can regulate itself and be a beneficial part of Gaia. I wonder if in the great gene pool of all humanity there are the genes that could be selected to meet this goal. . . We have to understand fully that we are still aggressive tribal animals that will fight for land and food. Under pressure, any group of us can be as brutal as any of those we deplore: genocide by tribal mobs is as natural as breathing, however good and kind the individual members of the mob may be.” (38)

He analogizes the situation he believes we will be facing with a lifeboat. And by “we” it is very clear that he is writing from the perspective of a member of the British elite. “Soon we face the

appalling question of whom we can let aboard the lifeboats. And whom must we reject? There will be no ducking this question for before long there will be a great clamor from climate refugees seeking a safe haven in those few parts where the climate is tolerable and food is available. Make no mistake, the lifeboat simile is apt; the same problem has faced the shipwrecked: a lifeboat will sink or become impossible to sail if too laden. The old rules I grew up with were women and children first and the captain goes down with his ship. We will need a set of rules for climate oases.” (39)

A new set of rules? Would those rules in a world going through the Great Catastrophe be much different than the current “rules” which have given us a world where the financial assets of about 400 people, 400 billionaires, is roughly equal to the annual income of almost half of the world’s people? “Rules” under which those most responsible for global heating, the owners and CEO’s of the world’s fossil fuel companies and related industries and the politicians who do their bidding, will continue to be among the small group who make the decisions about who lives and who dies?

Or can we create for ourselves in enough time societies governed by a new set of “rules,” a new way of organizing ourselves, a new way of living with the earth and with one another? Can we create a new way that we live as individuals, day-to-day, that builds upon the life examples and teachings of history’s great spiritual leaders, or the life examples of the tens of millions, if not hundreds of millions, who have come before us who gave their lives struggling and sacrificing for a better world for their descendants?

There are many of us all around the world who believe, unlike Lovelock, that we have it in us not just to try but to have a chance of succeeding. But it’s a race against time.

Footnotes:

- 1) quoted in article, “Nature: ‘Dynamic Thinning of Greenland and Antarctic ice-sheet,’” on www.campusprogress.org
- 2) Tim Flannery, *The Weather Makers*, P. 200
- 3) *The Revenge of Gaia*, p. xiv
- 4) *The Vanishing Face of Gaia*, p. 159
- 5) *Vanishing*, p. 179
- 6) *Vanishing*, p. 39
- 7) *Vanishing*, p. 43
- 8) *Revenge*, p. 10
- 9) *Revenge*, p. 150
- 10) *Revenge*, p. 74
- 11) *Vanishing*, p. 145
- 12) *Revenge*, p. 143
- 13) *Revenge*, p. 143
- 14) *Vanishing*, p. 35

- 15) Revenge, p. 121
- 16) Revenge, pps. 6-7
- 17) Vanishing, p. 68
- 18) Revenge, p. 91
- 19) Revenge, p. 152
- 20) Revenge, p. 7
- 21) Revenge, p. 3
- 22) Vanishing, p. 5
- 23) Vanishing, p. 110
- 24) Vanishing, p. 111
- 25) Vanishing, p. 21
- 26) Revenge, pps. 152-153
- 27) Revenge, p. 141
- 28) Vanishing, p. 17
- 29) Vanishing, p. 17-18
- 30) Vanishing, p. 84
- 31) Vanishing, p. 94
- 32) Vanishing, p. 31
- 33) Revenge, p. 154
- 34) Revenge, p. 8
- 35) Revenge, p. 13
- 36) Vanishing, p. 95
- 37) Revenge, pps. 156-159
- 38) Vanishing, pps. 85-86
- 39) Vanishing, pps. 231-232
- 40) Vanishing, pps. 245-246
- 41) Vanishing, pps. 247-248