OMNI
CLIMATE CATASTROPHE, MITIGATION, ADAPTATION NEWSLETTER #2, August 31, 2016

COMPILED BY DICK BENNETT FOR PEACE, JUSTICE, AND ECOLOGY.
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Newsletter #1, January 23, 2016,
http://jamesrichardbennett.blogspot.com/search?updated-max=2016-08-31T16:01:00-05:00&max-results=30.

Bill Nye: “…right now in the summer of 2016, my overwhelming concern is human-caused global climate change. I strongly believe it’s the most serious kind of trouble, and it’s coming at us like a runaway train.” “Promote Reason, Prevent Climate Catastrophes: Let’s Get ‘Er Done.” Skeptical Inquirer (Sept.-Oct. 2016). Nye, “The Science Guy,” is well-known via his TV shows and more. He is CEO of the Planetary Society.

Ecology: the branch of science that deals with the interrelations between the physical environment and the life it sustains.

Mitigation: to lessen force or intensity of the climate catastrophe by confronting the causes of the increasing floods, fires, drought, storms, all extreme weather. To avoid the worst consequences, humans must stop using fossil fuels now in order to reduce C02 to 350ppm swiftly. Specifically we must end the subsidies to the fossil fuels industry, make fossil fuels reflect their true costs, and subsidize wind and sun industries.

Adaptation: countless human adjustments on a massive scale against these conditions of climate catastrophe—flood walls, forest fire brakes, local food production, biking and walking.

The hitch: we don’t have much time. For both mitigation and adaptation, humans must
organize quickly with the scope of a Manhattan Project, Marshall Plan, Apollo Space Project.

Contents: Urgency of Global Warming and Mitigating and Adapting to Its Consequences, Newsletter #1, August 28, 2016

Coming to Grips

During September banners will be displayed (Is This Trip Necessary?) at the intersection of Joyce and Mall on Saturdays from 11 to 12. Holding one’s hand up to a forest fire or flood to stop it will kill you or put you into a straightjacket, unless many hands are held in many ways. OMNI’s many hands are responding to C02 numerously and variously: particularly our committee to keep carbon in the ground, OMNICCL; our OMNI350 Book Forum (for a decade); OMNI Earth Day; OMNI World Peace Wetland; OMNI Climate Newsletters. And these we give to the global movement for peace, justice, and ecology.

The following Newsletter is organized in three parts:

1. Urgency of the Global Warming Peril
2. Why the US Government and Populace Have Looked Away
3. Miscellaneous Readings on Mitigation and Adaptation

Part One: Urgency

Books and Articles from 1990 to 2016 Explaining the Imminent Danger of Global Warming. Mitigations and Adaptations are discussed in all of the books and articles also, at least briefly; for example, all agree fossil fuels use must cease and quickly.

Part Two: Why So Little Public and Government Mitigation and Adaptation?


Michael, *Doubt Is Their Product*

Hoggan and Littlemore, *Climate Cover-Up*

Oreskes and Conway, *Merchants of Doubt*

Grant, *Denying Science* (And many more.)

Why So Little Effective Action for Mitigation and Adaptation Continued:
Two Books on Inherent or Socially Conditioned Factors, especially Conformity:
Irrationalism, Anti-intellectualism, Group-think, Fear, Bullies, Demonizing, Creating Enemies, Myth-making, Deception, Socially Constructed Silence, Ignoring, Manufactured Uncertainty and Confusion, Short-term over Long, Lack of Imagination, etc.
Marshall, *Don’t Even Think About It: Why Our Brains Are Wired to Ignore Climate Change.*
Seidel, *There Is Still Time*

KEEPING OUR EYES ON THE FUTURE: THE ANTHROPOCENE

*Facing the Anthropocene: Fossil Capitalism and the Crisis of the Earth System* by Ian Angus (2016). Naming the present epoch *Anthropocene* is crucial to coping with the future.

Humanity in the 21st century faces radical changes in its physical environment, not just extreme weather, but a *crisis of the Earth as physical and social system, caused by human activities.* Thus in the Anthropocene, survival “requires radical social change, replacing fossil capitalism with an ecological civilization, ecosocialism.” (In the Appendix, Angus offers two important clarifications of “Anthropocene.”)

**PART THREE: MORE ON MITIGATION AND ADAPTATION**

(Sometimes the distinction between the two concepts seems clear, sometimes blurred. I have tried throughout to follow the definitions given at the beginning. Dick)

**MITIGATION**

The books on urgency contain a steady insistence upon ending C02 fast and cite many ideas for accomplishing that goal.

Shelley Buonaiuto to Senator Boozman on Keeping Fossil Fuels in the Ground

Literally Bury Greenhouse Gases (GHG)

Copenhagen: Model City Becoming Free of Fossil Fuels

**ADAPTATION**

Two Books (of many!) on Strengthening Communities


Dick, *People Asleep?*

Mann, *How to Talk with Others about Climate Catastrophe*

Film: *Wisdom to Survive*
Ostrander, Deciding Whether to Have a Child in the Anthropocene

Legal Scholars
Two on Treating CO2 as Business as Usual:
  Casten, Make Emissions Profitable
  Funk, Business of Global Warming

URGENCY

BOOKS AND ARTICLES EXPRESSING THE URGENCY OF GLOBAL WARMING AS CLIMATE CATASTROPHE.

In chronological order by publication dates; actual date of writing probably a year earlier. The urgency was well-established several decades ago.

1867
Karl Marx, First Vol. of Capital with its warning of the metabolic rift in the human relation to the earth.

1926
Vladimir Vernadsky, The Biosphere, early use of key concept of integrated living organisms and nonliving environment (not trans. into English until 1998). In the same time period Aleksei Pavlov referred to the Anthropocene and anthropogenic era as the new mainly human driven geological period.

1963
Rachel Carson, “Our Polluted Environment” introduced the concept of ecosystem—an integrated ecological perspective—to the US public, and “the need to take it into account in all of our actions” (Foster, “The Anthropocene Crisis,” 11).

1982
William Catton. Overshoot: The Ecological Basis of Revolutionary Change. There must be limits to our tremendous appetite for population growth, energy, natural resources, and
consumer goods.

1988

**United Nations Intergovernmental Panel on Climate Change Established.** IPCC is a scientific body under the auspices of the United Nations (UN). It reviews and assesses the most recent scientific, technical and socio-economic information produced worldwide relevant to the understanding of climate change. It was first established in 1988 by two United Nations organizations, the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), and later endorsed by the United Nations General Assembly through Resolution 43/53.

1990


1992

**Al Gore. Earth in the Balance.** (One of the earliest books inspired by the IPCC reports.) Before the expression “Green Apollo program” gained usage, Gore “and numerous others” had urged such a program (Hertsgaard 272). “Gore had urged the U.S. government to initiate a green Marshall Plan.”

1995

**UN IPCC 2nd Second Assessment Report (SAR)**

1998

Mark Hertsgaard in *Earth Odyssey* foretold massive dangers ahead and “proposed a Global Green Deal, modeled on the New Deal” of FDR. (from his *Hot*).

**Thomas Casten. Turning Off the Heat: Why America Must Double Energy Efficiency to Save Money and Reduce Global Warming.** Notable for having been published so early, and in fact he had started his warnings about CO2 in 1975.
2001

UN IPCC Third Assessment Report (TAR)

2004

Ross Gelbspan. *Boiling Point: HowPoliticians, Big Oil and Coal, Journalists, and Activists Are Fueling the Climate Crisis—and What We Can Do to Avert Disaster*  Note the date—Gelbspan’s book the earliest true and strong book-length warning of the climate cover-up that I know of.

2005

Jared Diamond. *Collapse: How Societies Choose to Fail or Succeed.* Diamond says that a society can either see environmental problems or not. If they recognize the problem they can act to solve it or they can ignore it or they can take ineffective action. (from Malcolm Cleveland)

Mark Lynas. *High Tide: News from a Warming World.* From a review by Nicholas Lezard in *The Guardian,* 25 March 2005. “It really ought to be read by everyone. . .a passionate argument, with much evidence, for us to do something about the catastrophe facing the planet as a result of our dependency on fossil fuels.” "If there’s one message above all that I want people to take from these pages," Lynas writes, "it’s this: that all the impacts described here are just the first whispers of the hurricane of future climate change which is now bearing down on us."

James Bovard. *Attention Deficit Democracy.* Why the public ignores political and corporate frauds and swallows pervasive lies, why they are indifferent to facts and increasingly incapable of judging when their rights and liberties are being destroyed.

2007

UN IPCC Fourth Assessment Report (AR4)

George Monbiot. *Heat: How to Stop the Planet from Burning.* Climate change “is the greatest danger the world now faces” (212). Monbiot favorably cites an article by Colin Forrest that makes the case that if CO2 concentrations in the atmosphere remain what they were in 2005, the average temperature would reach 2 degrees centigrade above pre-industrial levels. “Beyond this point, in other words, climate change is out of our hands” (xi). The “only means” to stop this rise “is for the rich nations to cut their greenhouse gas emissions by 90 percent by 2030” (xii). Monbiot tells why he thinks this is feasible.

Collectif Argos. *Climate Refugees.* (Orig. Fr. Ed. 2007). By 2050, 150 million
climate refugees resulting from permafrost melt, island nations submerged, desertification, floods, glacial melt, hurricanes.

2008

Mark Lynas. *Six Degrees: Our Future on a Hotter Planet.* Lynas cites the Katrina hurricane flooding of New Orleans as “what the 21st century may have in store for many more of us, in a thousand locations across the world, as climate change accelerates” (14). “With up to 6 degrees Celsius, or 10.6 degrees Fahrenheit, of global warming in the cards over the next hundred years,” according to the IPCC, “will we all...be reduced to eking out a living from shattered remains of civilization...?” (15). Lynas is optimistic humans can muster the scientific/technical knowledge and the political will, but “we need to cut emissions [to 400 ppm to “keep us within the two degrees safety target’] and do so within a decade” (300) (i.e. 2017).

James Gustave Speth. *The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability.* “There is a bridge at the edge of the world. But. . .there is not much time” (13).

2009

James Hansen. *Storms of My Grandchildren: The Truth about the Coming Climate Catastrophe and Our Last Chance to Save Humanity.* “...we are running out of time” (xi). “It’s crucial that we immediately recognize the need to reduce atmospheric carbon dioxide to at most 350 ppm....” (xi). “…a change of direction is urgent. This is our last chance” (xii). “Our planet...is in imminent danger of crashing” (277) yet our politicians hesitate to act. “…the biggest obstacle to solving global warming is the role of money in politics, the undue sway of special interests.” (x).

German Advisory Council on Global Change (WBGU), led by Hans Schellnhuber, chief climate adviser to the government of Germany, argued that 2 degrees centigrade temperature rise must be the limit, which would “require bringing down atmospheric concentrations [of CO2] fast.” “Greenhouse gas emissions had to fall at incredible speed.” Hertsgaard, *Hot*, 249.

Schellnhuber “put a new name on a set of ideas and policies that Al Gore and numerous others had already proposed” (272).

Al Gore. *Our Choice: A Plan to Solve the Climate Crisis.* Gore stresses urgency in every chapter. For example, Chap. 14: “In communicating the
urgency of the climate crisis….” (315). Referring to the market economy, “change is urgently needed….(Chap. 15, 320). Chap. 16, “We urgently need solutions to remove the political obstacles that block us from confronting the mortal threat of the climate crisis to the future of civilization.” [This is a magnificent textbook, illuminating and stimulating in both text and graphics. –D]

Larry Schweiger. Last Chance.

“Decades of complacency and inattention…eight years of …Bush administration coupled with procrastination and partisan politics of a divided Congress have set the stage for enormous and permanent climatic consequences….we must do much more much faster than we previously believed…to divert a worldwide catastrophe” (8-9). “We cannot take baby steps when much bolder action is required” (6). Schweiger writes elsewhere of his hope in the new President Obama, which was not realized. [Schweiger was president and CEO of the National Wildlife Federation.]

2010

Robert Jensen. “In the Face of This Truth”

YES MAGAZINE. It's time to talk honestly about collapse—no matter how others may respond.

[Thomas Hardy’s poem "In Tenebris II" speaks to this argument, to paraphrase: every solid outlook, philosophy, ethic is based upon knowledge of, a full look at the worst. Oddly (probably the result of being given only two pages to make his case) Jensen doesn’t discuss major causes of “the exceptional truth” of our unsustainable world—for example, the connected capitalist economic and permanent war systems. Yes! is usually upbeat, so this essay is important to remind us that a beneficially positive spirit—Yes!—does not include denial, escape, credulity, or wishful thinking. –Dick]

Bill McKibben. Eaarth: Making a Life on a Tough New Planet. After listing some of the massive changes to the earth in recent decades: “These should come as body blows, as mortar barrages, as sickening thuds. The Holocene is staggered, the only world that humans have known is suddenly reeling. I am not describing what will happen if we don’t take action, or warning of some future threat. This is the current inventory” (5). “We need now to understand the world we’ve created, and consider—urgently—how to live in it. . . .But hope has to be real. It can’t be a hope that the scientists will turn out to be wrong , or that President Barack Obama [or some other magic] can somehow fix everything….Maturity is not the opposite of hope; it’s what makes hope possible” (xiv).

Introduction, “Miami Beached”: “What might make [the increase in sea level] unique is the rate at which it is happening. There is every reason to believe that we are on the cusp of the most rapid rate of sea level rise in Earth history.”(10).

Chap. 3, “The Flood of Humans”: The correlation between increasing population and rising seas. “The rise in our numbers, more than any other reason, will ensure the rise of the sea—which not only will happen but also might be vastly underestimated unless we take immediate action” (90).

Chap. 5, “Greenland, Antarctica, and Sea Level.” Describes from polar melting to rising seas.

Gwynne Dyer. Climate Wars: The Fight for Survival as the World Overheats. Warming will increase militarism and wars. Without drastic reduction in C02 the planet will heat 4 degrees by 2060.

2011

Lester Brown. World on the Edge: How to Prevent Environmental and Economic Collapse. Brown’s long-developed “Plan B” urges “massive mobilization—at wartime speed.” We did it during WWII.

Mark Hertsgaard, Hot: Living Through the Next Fifty Years on Earth.

The “first era of global warming (“the battle to prevent dangerous climate change”) began on June 23, 1988—the day James Hansen told the U.S. Senate that man-made global warming had begun.” By the turn of the century “the second era,” “the race to survive it had begun.” “On the one hand, we must reverse global warming [lower the global temperature], and quickly—before the climate system passes tipping points,” and we must “prepare our societies for the serious climate impacts that are already in the pipeline” (24-25).

Hertsgaard in Hot urged “a crash program,” a “Green Apollo” (272). “for the rapid deployment of green technologies and practices” (273).

2012

Fred Guterl. The Fate of the Species: Why the Human Race May Cause Its Own Extinction and How We Can Stop It. “A fine scientific explanation of our abuse of the natural world that, despite the subtitle, does not explain how to stop it. “ KIRKUS REVIEW

2013

Tomgram: Dahr Jamail, The Climate Change Scorecard, December 17, 2013. What, in other words, is the worst that we could possibly face in the decades to come? The answer: a nightmare scenario. So buckle your seat belt. There’s a tumultuous ride ahead. Tom
Are We Falling Off the Climate Precipice?

Scientists Consider Extinction by Dahr Jamail.

I grew up planning for my future, wondering which college I would attend, what to study, and later on, where to work, which articles to write, what my next book might be, how to pay a mortgage, and which mountaineering trip I might like to take next.

Now, I wonder about the future of our planet. During a recent visit with my eight-year-old niece and 10- and 12-year-old nephews, I stopped myself from asking them what they wanted to do when they grew up, or any of the future-oriented questions I used to ask myself. I did so because the reality of their generation may be that questions like where they will work could be replaced by: Where will they get their fresh water? What food will be available? And what parts of their country and the rest of the world will still be habitable? 

Click here to read more of this dispatch.

2014

IPCC Fifth Assessment Report - Synthesis Report -

The National Climate Assessment 2014

Landmark Report Warns Time is Running Out to Save US from Climate Catastrophe

Joe Romm, News Investigation, NationofChange, May 7, 2014: The National Climate Assessment is the definitive statement of current and future impacts of carbon pollution on the United States. And the picture it paints is stark: Inaction will devastate much of the arable land of the nation's breadbasket—and ruin a livable climate for most Americans. "Americans face choices," explains the Congressionally-mandated report by 300 leading climate scientists and experts, which was reviewed by the National Academy of Sciences. We're already seeing serious climate impacts—such as more extreme heat waves, droughts and deluges—and additional impacts are "now unavoidable."

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Naomi Klein. This Changes Everything. “Faced with a crisis that threatens our survival as a species, our entire culture is continuing to do the very thing that caused the crisis, only with an extra dose of elbow grease behind it. . . .from conventional sources of fossil fuels to even dirtier and more dangerous versions . . . .” (2). We must "change the systems that are making the crisis inevitable" (4). It will require a "Marshall Plan for the Earth," which will cost “billions if not trillions of dollars,” but we can do it if we have the will (5), if we the people quit “looking away” and declare “a crisis worthy of Marshall Plan levels” (6).

George Marshall, Don’t Even Think About It: Why Our Brains Are Wired to Ignore Climate Change. In his conclusion, “Four Degrees: Why this Book
Is Important” (pp. 239-42) Marshall recounts how for a “many years” scientists focused on the catastrophic dangers of allowing global average temperature to rise 2 degrees Centigrade above the beginning of the Industrial Revolution. Here Marshall discusses the increasing conclusion “that four degrees is the actual future we face” (239). These scientists refer not to change, a misleading euphemism, but to catastrophe, Praised by Naomi Klein for having “the courage to look unblinkingly at this existential crisis.”

2015

Nicholas Stern, Why Are We Waiting? “delay is dangerous. . . . I hope we can help bring about the acceleration in action that is vital to the management of climate change.” Stern’s book is for “understanding why we have been moving too slowly….“ (xviii). [A high-level, sophisticated study that weighs seemingly all important factors of the economics of climate change. Lord Stern is the Patel Professor of Economics and Government at the London School of Economics, President of the British Academy, and other distinguished positions.. –Dick]

Peter Seidel. There Is Still Time to Look at the Big Picture…and Act. In his Preface he writes about his earlier (1998) book, Invisible Walls: Why We Ignore the Damage We Inflict on Our Planet…and Ourselves. “Since then, environmental damage has only grown worse . . . It is clear that if we continue on our current course our future will be grim indeed.” But “facing the dismal facts might get us to think and change.” In his Recap p. 171, first of all “We need to: recognize that we are now on a path leading to catastrophe.”

2016

John Bellamy Foster. “The Anthropocene Crisis.” (Monthly Review, Sept. 2016). From his Foreword to Ian Angus, Facing the Anthropocene: Fossil Capitalism and the Crisis of the Earth System. Foster provides a short history of the increasing awareness of the recently accelerated global warming that has produced (possibly to be named) the Anthropocene epoch, given expanded treatment in “Angus’s marvelous new book.” Foster ends his essay by quoting Bertolt Brecht’s poem “The Buddha’s Parable of the Burning House,” in which Buddha exhorted the inhabitants to leave at once, but they did not, but instead asked foolish questions.

Dolack, “No Planet for Optimists.” Z Magazine (May 2016 ), 4-5. A dire conclusion based upon recent studies:

Hansen, et al., in Atmospheric Chemistry and Physics: “swift action is necessary in the face of a ‘global emergency’” because of “a future catastrophic rise in the oceans.”

Science: planet “already committed…to a six-meter rise in sea level,” which is likely to inundate 444,000 square miles of land “where more than 375 million people live today.”

Even if the goals committed to by the Paris Climate summit in December 2015 were
achieved (1.5 degrees Celsius above pre-industrial levels), temperature globally would rise “nearly 3 degrees Celsius by 2100.” “We have a global emergency” and must drastically reduce fossil fuel CO2 emissions quickly.

What to do? Because our economic system requires constant growth, “There is no alternative to a massive change in industrial activity.” --Dick

PART TWO:

Why, Given the Urgency, Have So Little Mitigation and Adaptation Been Achieved?

The following books explain why fossil fuels industrialists and billionaires dislike the science of warming, how they have prevented its spread, and why consequently many of the populace deny the scientific evidence which might save them from extermination.


Naomi Oreskes, Erik M. M. Conway.  *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming.*  2011.  "Merchants of Doubt should finally put to rest the question of whether the science of climate change is settled. It is, and we ignore this message at our peril."-Elizabeth Kolbert.  "Brilliantly reported and written with brutal clarity."-Huffington Post.  Film based on book 2015.  *Merchants of Doubt* was one of the most talked-about climate change books of recent years, for reasons easy to understand: It tells the controversial story of how a loose-knit group of high-level scientists and scientific advisers, with deep connections in politics and industry, ran effective campaigns to mislead the public and deny well-established scientific knowledge over four decades. The same individuals who claim the science of global warming is "not settled" have also denied the truth about studies linking smoking to lung cancer, coal smoke to acid rain, and CFCs to the ozone hole. "Doubt is our product," wrote one tobacco executive. These "experts" supplied it.

-- John Grant.  *Denying Science: Conspiracy Theories, Media Distortions, and the War Against Reality.*  Prometheus, 2011.  Grant covers a wide range of topics in explaining why denialism is rampant in the US:  climate change (last 2 chapters), AIDS, vaccines, evolution,
Another Cause of the Delay: the Cold War

John Bellamy Foster, “The Anthropocene Crisis,” *The Monthly Review* (September 2016). The Foreword to Ian Angus, *Facing the Anthropocene: Fossil Capitalism and the Crisis of the Earth System*. The early vision of the earth system presented by Vladimir Vernadsky in *The Biosphere* (1926) and by his contemporary Aleksei Pavlov’s use of the term *anthropocene* “were for a long time downplayed in the West” during the Cold War. Vernadsky’s book was not translated into English until 1998. Despite the virtual interdiction of Soviet research, a special issue of *Scientific American* was published on the biosphere in 1970, and in 1971 Barry Commoner’s book *The Closing Circle* appeared warning of “the vast changes in the human relation to the planet” already under way, which found strong support in the Soviet Union.

AND the Human Brain and Culture

**George Marshall, Don’t Even Think About It** Bloomsbury, 2014.

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Why, despite overwhelming scientific evidence, do we still ignore climate change? And what does it need for us to become fully convinced of what we already know?  [http://www.climateconviction.org/](http://www.climateconviction.org/)

George Marshall’s search for the answers brings him face to face with Nobel Prize-winning psychologists and the activists of the Texas Tea Party; the world’s leading climate scientists and the people who denounce them; liberal environmentalists and conservative evangelicals.

Along the way his research raised other intriguing questions:

- Why do most people never talk about climate change, even people with personal
experience of extreme record breaking weather?

- Why did scientists, normally the most trusted professionals in our society, become distrusted, hated, and the targets for violent abuse?
- Why do the people who say climate change is too uncertain become more agitated about the threats of cell phones, meteorite strikes or alien invasion?
- Why does having children make people less concerned about climate change not more?
- And, why is Shell Oil so much more concerned about the threat posed by its slippery floors than the threats posed by its products?

Don’t Even Think About It argues that the answers to these questions do not lie in the things that make us different and drive us apart, but rather in what we all share: how our human brains are wired, our evolutionary origins, our perceptions of threats, our cognitive blindspots, our love of storytelling, our fear of death, and our deepest instincts to defend our family and tribe.

With witty and engaging stories, drawing on years of his own research, Marshall shows how the scientific facts of climate change can become less important to us than the social facts – the views of the people who surround us. He argues that our values, assumptions, and prejudices can take on lives of their own, gaining authority as they are shared, dividing people in their wake.

He argues that once we understand what excites, threatens, and motivates us, we can rethink and reimagine climate change, for it is not an impossible problem. Rather, it is one we can halt if we can make it our common purpose and common ground.

And so this book does not talk in detail about the impacts of climate change or the things that make us turn away. There are no graphs, data sets, or complex statistics, because, in the end, all of the computer models and scientific predictions are constructed around the most important and uncertain variable of all: whether our collective choice will be to accept or to deny what the science is telling us. And this, says Marshall, is the most engrossing and intriguing question of all.

[Read his last chapter, “Four Degrees: Why This Book Is Important,” in which he discusses the possibility “that average global temperatures might rise over the threshold of 4 degrees Celsius (7.2 degrees Fahrenheit”) 239.]

Peter Seidel, There Is Still Time to Look at the Big Picture…and Act (2015). This books has two parts, the first by Seidel: Chapter 1: Putting the pieces together. 2: the human record, 3: the many problems. (Summary: “We are in danger of bringing about our own demise.”) 4: being human, the human mind, mental equipment, primary drives, 5: social forces contributing to our inaction, 6: “We Can Change,” “the most important things we need to do.” [Most of the books above, perhaps all at least to small degree, follow the same format: clear and present danger, solutions. Analysis of why we
humans, who caused the peril, have been so unresponsive came later.] The second part of this book, "Our Planet Today," by Gary Gardner, surveys what is happening in the world today in 9 main areas, beginning with population and consumption.

PART THREE: FURTHER READING

MITIGATION

Suggestions are legion, especially for technological fixes.

The books above on urgency alert readers to the necessity of lessening the extremity of climate catastrophe by reducing CO2 and temperature. Many books and articles seek to remove the root causes of CO2 and temperature rise, including the economic system based upon profit, capital accumulation, growth, advertising, particularly the US form of capitalism.

Shelley Buonaiuto’s Letter to Senator Boozman explains to him that to preserve our planet, action is vital to curb carbon pollution

By SHELLEY BUONAIUTO SPECIAL TO THE DEMOCRAT-GAZETTE. Posted: February 10, 2014 at 2:05 a.m.

- Print item
- E-mail

Sen. John Boozman recently signed a letter to President Barack Obama asking him to halt Environmental Protection Agency regulations on power plants. During the Senate Environment and Public Works Committee oversight hearing, Boozman expressed concern about the impact of regulations on energy prices, affecting the poor.

Although I respect his caution, if we do nothing to halt carbon pollution, the impact will be catastrophic and the greatest effect will be on the poor.

Boozman asked, “Can climate science adequately predict and explain the complexity of climate change?” Climate change is admittedly complex, but the modeling is accurate. Models are long-term, from decades to millions of years. They can’t be evaluated by simply looking out one’s window at today’s weather.
Some predictions have, in fact, been conservative. According to Scientific American, a climate scientist at the National Center for Atmospheric Research has obtained results indicating warming “will come on faster, and be more intense, than many current predictions,” and “impacts of that warming … sea level rise, drought, floods and other extreme weather, could hit earlier and harder than many models project.”

Boozman asked if regulations would have significant impact on global climate. Regulations were effective in the 1970s when CFCs were regulated and phased out due to their role in ozone depletion. But there is another approach to cutting carbon emissions: carbon fees and rebates. At least 10 countries currently have such a fee, along with many local and regional governments. Sweden enacted a carbon fee in 1991, and by 2008 Sweden’s emissions decreased by more than 40 percent. In 2008, British Columbia implemented a carbon fee, rebated to citizens through lowered income taxes. Emissions fell 10 percent by 2011 as compared with a 1.1 percent decline for the rest of Canada.

What are the costs of not acting? The Business Coalition report, “Natural Capital at Risk: The Top 100 Externalities of Business,” estimates the economic costs of greenhouse-gas emissions, loss of natural resources, loss of nature-based services such as carbon storage in forests, and pollution-related health costs at $4.7 trillion a year. Non-economic costs include victims of extreme storms, food sources depleted by drought and flood, islands submerged by rising oceans, and risks to national security. This all makes for an urgent case for action.

Industry is interested in a carbon fee. Global droughts have dried up water needed for Coca-Cola’s soda; Nike sees extreme weather disrupting its supply chain; and billionaires Tom Steyer, Michael Bloomberg, and Henry Paulson are working to commission an economic study on financial risks from climate change. Twenty-five of the nation’s biggest corporations and five major oil companies are planning future growth on expectations of a carbon fee.

Boozman added that we should let renewables develop on their own, encouraging a mix of wind, solar, hydro, biomass and nuclear. But can this happen quickly enough?

Suzanne Goldenberg reported in the Guardian that the UN’s Intergovernmental Panel on Climate Change warns that the world has only about 30 years left before exhausting the rest of the 1,000-gigaton carbon-emission budget that is estimated to lead to “only” 3.6 degree Fahrenheit warming. Furthermore, scientists warn that the 3.6-degree target will fail to avoid a climate disaster. James Hansen warns we cannot afford more than 1.8 degrees.

Nuclear power is problematic, expensive, unpopular, and takes many years to become operational. We have the technical ability now to develop renewable resources, but wind and solar have been discouraged because of unreliable tax rebates and because fossil-fuel companies rely on estimated (by the International Energy Agency) subsidies of $544 billion worldwide. Furthermore, those companies do not pay their real costs in damage to the environment and to our health.

I believe we can truly assist families battling the high cost of energy through a revenue-neutral carbon fee on point sources of carbon pollution. A substantial percentage of the money collected should be returned as a dividend to the consumer to compensate for higher energy prices. It is estimated that two-thirds of U.S. citizens would break even or come out ahead. As fossil fuels become more difficult to extract, the price will rise in any case. We have to use this small window to wean ourselves off fossil fuels and prepare renewable infrastructure. Sun and wind are free once the infrastructure is developed.

Only when our energy source does not rely on petroleum and coal production will American families truly know energy security.

Regulations are needed, but are unpopular with conservatives. A carbon fee and dividend is the free-market solution to emission reductions, and will assist in the development of clean technologies. This would
be an economic boon and job creator, keeping America economically in the world market. Renewables may also be our only chance to preserve this planet for our children. SB

BURY GHG

With Surging Emission Global Climate Change Goal Is At Risk, Say UN
By Countercurrents.org
A global goal for limiting climate crisis is slipping out of reach and governments may have to find ways to artificially suck GHG from the air if they fail to make deep cuts in rising emissions by 2030, a draft UN report said. A 25-page draft summary, by the UN panel of climate experts and due for publication in 2014, said emissions of heat-trapping gases rose to record levels in the decade to 2010, led by Asian industrial growth.

MITIGATION MODEL CITY

Copenhagen’s Ambitious Push To Be Carbon Neutral by 2025
By Justin Gerdes
The Danish capital is moving rapidly toward a zero-carbon future, as it erects wind farms, transforms its citywide heating systems, promotes energy efficiency, and lures more people out of their cars and onto public transportation and bikes.

http://www.countercurrents.org/

ADAPTATION

PEOPLE AWAKE!
KATRINA, SANDY, NEMO AROUSING THE PEOPLE FROM THEIR SLUMBER?

Now at last on The Weather Channel, officials and citizens are talking (a little, TWC is advertising their series on storms—battering our coasts?—no: in outer space) about the “battle’ against rising seas and extreme weather. Long silence and denial, and then Talk of War! The US WAY? One coastal Long Islander interviewed wondered if his fellow citizens in the mid-west would help pay for storm rains and snow and floods in the east. Solidarity? One for all, all for one, against the worsening effects of CO2 and Warming, the Mother of all Catastrophes? Well, yes if you are talking about government as steward. But what do our local leaders do and say? Let’s ask them: What are NWA’s and Arkansas’ Emergency Management officials and state legislators doing, or at least thinking about local, regional,
national, and international adaptation? You haven’t heard? Surely a peep? Do we have any such officials? Well, a few years ago the Governor appointed a commission to study warming, and it dutifully made some two dozen, of which the legislature chose the two most innocuous. Oh, the national government will handle it? With the Republicans in control of the House? And what did the Democrats do when they were in control? Who’s in command? Our corporations? They will respond to climate change, deadly weather extremes? Just kidding. So: Silence and denial, and then? We omitted the global problem? What’s our responsibility? Hong Kong will flood, the sea will cover a third of Bangladesh, the Maldives will drown? Solidarity, one for all, a giant step for humankind? What will the Long Islander say? What will Congress do? The President?

But don’t abandon hope. We’re not at the gates of hell, yet. For we have models for coping with this catastrophe, though one might argue that the present one might be different from the earlier in degree to such an extent as to be different in kind. I refer first to the New Deal’s response to the Depression, drought, unemployment of the 1930s. Roosevelt’s Works Progress Administration (WPA) built 1,000 miles of new and rebuilt airport runways, 651,000 miles of highway, 124,000 bridges, 8,000 parks, and 18,000 playgrounds and athletic fields. Jump to today: runways, seawalls, and home removals safely inland; highways and new inland towns for the displaced and refugees; bridges and rigorous forest fire fighting enhancement; parks, playgrounds, and drought projects to save water and land.

If these are insufficient, and many describe the oncoming climate changes horrifically, then we have another we-can-do-it model—the total mobilization organized during WWII. Almost overnight our factories turned from cars and refrigerators to planes and tanks, enabling us to fight successfully two immense wars.

In both historical instances our nation transformed itself not only physically but psychologically and socially. We stared down these cataclysms together, in true affirmative, cooperative government solidarity. And as that government grew in each case equally did hope. In 1933, 4,000 banks failed. In 1934, nine. In December 1941 the Japanese struck Pearl Harbor. In June 1942, the US stopped Japanese expansion in the Battle of Midway, a major turning point in the Pacific war.

In these successive disasters of depression and war, New Deal and Defense of Democracy inspired people to labor together to withstand all shocks and build a new world. And we have their products to inspire us to use government for the benefit of all the people, not another Apollo Moon project, though that shows what we can do in short time, but as with

But warming is progressively destructive. We must prepare now if we are to mitigate weather extremes and adapt humanely with the people of the world. As did the citizens of the 1930s and 1940s in response to their cataclysms, we must recognize the weather assaults ahead as not only our responsibilities but our opportunities, but, if we are to survive, not in terms of battles and wars, but in the languages and practices of cooperation and compassion. --Dick 2-9-13.

Many books and articles promote strengthening local communities, under the headings of resilience, transition towns, and other names.

RESILIENCE

“Finding Higher Ground: Adaptation in the Age of Warming”

Posted on August 8, 2011 by Climate Science Watch

Rather than despair over the inevitable human suffering, loss of biodiversity, rising sea levels, and higher temperatures that accompany anthropogenic climate change, ecologist and author Amy Seidl sees an opportunity for human society to develop new norms through adaptation – norms that will render it more resilient to the extreme and unpredictable events that lie ahead, and more sustainable in terms of environmental impact.

Post by Katherine O'Konski

On August 1, Seidl led a discussion about her book, Finding Higher Ground: Adaptation in the Age of Warming, at Greenpeace USA headquarters in Washington, D.C. The book is a sequel publication to Early Spring: an Ecologist and Her Children Wake to a Warming World, and deals with the potential for human society to adapt to the impending changes in Earth’s climate. She was also featured on the Diane Rehm Show on August 2, 2011 (with archived webcast) to discuss adaptation to climate change.

Climate Science Watch focuses on critical analysis of the collision between science and politics in current U.S. climate policy, defending the climate science community and calling out the actions of policymakers in Washington when they are not in the public interest. Seidl addresses a different and very difficult question – what direct practical actions can be taken by individuals and communities to cope adaptively with climate change?
The book accepts the eventuality of climate change and proposes both mitigation and adaptation as two inevitable courses of action. An emerging body of research is finding that some species have already started evolving in response to higher temperatures, shorter winters, earlier springs, and different patterns of rainfall. One of Seidl’s main points is that, just as these species are being forced to adapt, human society will have to adapt to the changes it has created and to its position as an agent of natural selection.

Rather than a destructive force, humans must become a nurturing force. “Humanity is coevolving with nature just as nature is evolving in response to human action,” Seidl says. “We become the agents that support living systems when we green the roof of factories and provide nesting sites for meadowlarks, or when we design constructed wetlands that not only break down wastewater but serve as a habitat for marsh-loving species.” The realization that our communities are vulnerable to droughts, floods, and rising sea level will encourage us to adapt by building communities to be more resilient to these events. In doing so, we may limit the environmental damage from future disasters.

Fully recognizing our role as a supportive agent will require nothing less than a massive social movement. There must be morality associated with the emission of greenhouse gases. Yet Seidl believes adaptation itself will help move this new thinking along, and thus also encourage mitigation. “Adaptation will be integral to the social transition that will accompany us in the Age of Warming,” she says. “Like social movements in the past – women’s right to vote, the eight-hour workday, and civil rights of African Americans – the climate change movement and its goal to end carbon emissions will involve the reformation of our lives.”

And what will the world look like after this movement has taken hold? Seidl envisions a future when renewable energy is more fully developed and accessible, and where the community scale, rather than the global scale, is emphasized. Developing local self-reliance, she maintains, will establish “a political economy…[that is] less about industrial consumerism and more about environmental sustainability, justice, and persistence.”

In attendance at Greenpeace for Seidl’s book talk, we took the opportunity to ask her a few questions. MORE: http://www.climatesciencewatch.org/2011/08/08/finding-higher-ground-adaptation-in-the-age-of-warming/
Examining Her Summary Conclusion of *Seeking Higher Ground*.. –Dick Bennett

What does Seidl say?

The final section 179-181 summarize her views—of climate change reality, of how we should respond humanely, and what we should do.

She recognizes the fearsome future.

Impending are “tremendous loss” and “horrors of disaster” because “we have changed Earth’s systems” (McKibben’s *Eaarth*) in extremely “complicated” ways.

How We Must Respond in Seeking Higher Ground

We must “believe we can endure.” We must eschew fatalism and struggle through individual actions to find ways to adapt to eaearth. We must be persistently pragmatic, self-reliant, self-sufficient. We must “care about what we love.”

Actions We Must Take

The 3 pages mention many levels for individuals seeking higher ground locally, beginning with “the way we live”—from home gardens and rain barrels, to reducing use of fossil fuels especially through solar power. We can use 19th-century practices and 21st-century technologies for individual adaptations. But she does mention other levels of seeking higher ground— “bullet trains,” low-energy buildings, and migration of nations.

STUDY QUESTIONS

One cluster of questions might focus on local and global.

Is Seidl’s Summary an accurate representation of her book? Her main focus is on the individual and the local? “…we can endure.”

What does she omit or inadequately represent?

Will the local focus save us? “…determination to care about what we love” is enough? Does her emphasis upon “we” suggest caring about ourselves, our family, or town, or state, our country? And that will be sufficient for the planet? What values might she emphasize more? Global empathy and altruism, generosity? Cooperation? United Nations? In the same sentence she urges her readers “to protect life that is threatened, to grieve for what is lost…. Does she refer to a global level here? Does she intend for us to read that paragraph to mean we should learn to love all species of the world, to grieve for what is lost or will be lost soon from Bangladesh to Tuvalu, and to protect all threatened life from Brazil to Tibet? Does her book as a whole clarify? (See chap. 3 on Migration, esp. assisted.) Or is global compassion too much to expect? And self-regarding, pragmatic localities around the world will be the best instrumentalities we can muster to prevent the “tremendous loss” from “horrors of disaster,” especially with the US under the control of government-hating Republicans and Libertarians, the Middle East bombed and burning?
TRANSITION TOWNS MOVEMENT

Old web site where material archived. https://www.transitionculture.org/shop/the-transition-companion/

New site: transitionnetwork.org/blogs/rob-hopkins


“Transition is the most vital social experiment of our times. The Transition movement has already motivated thousands to begin to adapt their lives to the twin challenge of peak oil and climate change. Drawing on this collective experience, the *Transition Companion* offers communities a combination of practical guidance and real vision for the future.”

Tim Jackson, author of *Prosperity without Growth*

“What Rob Hopkins has done—in this book, and with the Transition movement—simply couldn’t be more important. We’re coming to a powerful crunch time for our civilization, and if you read this you’ll be well ahead of the curve in understanding how to prepare your community. There’s much beauty here, and hope.”

Bill McKibben, author of *Eaarth*

“There is no more important journey we can undertake than the transition from our current fossil fuel dependency to locally based economic resiliency. This book is the ideal companion for that journey—optimistic yet clear-headed; informed by experience yet playful and encouraging. Hopkins’s wisdom, creativity, and gentle humor pervade each captivating page”.

Richard Heinberg: Senior Fellow, Post Carbon Institute, author of *The End of Growth*

Hopeful “End Runs” from Luane.

Dear Patrick,

A Global Strategy for Addressing Climate Change....Allan Savory


The Fight Against Global Warming: A Failure and a Fix

A reading list and several videos
Reversing Global Warming While Meeting Human Needs
https://groups.google.com/forum/#!msg/soil-age/2LaSV1IZB8w/Q2GsguoKKugJ

The Brown Revolution: Increasing Agricultural Productivity Naturally
Lisa M. Hamilton, The Atlantic, Sep 29 2011

How to Talk to Others About Climate Catastrophe
Michael Mann: Global Warming: An Uncontrolled Experiment
http://www.commondreams.org/video/2013/09/24-

Dick—

As wonderful as it is to see our loved ones over the holidays, we all know that some of the simplest conversations can turn contentious when politics gets in the mix!

Is it even possible to "talk turkey" about climate without ending up in a food fight? We think so.

To help you out, we've pulled together a set of tips on how to talk about climate change with family & friends—whether they're devoted nature lovers like you, or climate-denying Rush Limbaugh devotees.

You and I know that we have no time to lose in the fight for climate action. From extreme drought and catastrophic wildfires to devastating storms and floods, the climate crisis has arrived. And the key to solving it is educating those around you.

The conversation might be easier than you expect—and we've got your back!

I hope you find these tips useful, I know I'll be using them!

Thank you for your activism and support,

Heather Shelby
FILM

The Wisdom to Survive: Climate Change, Capitalism & Community (2013)
56 min - Documentary | History

Climate change is taking place. Will we have the wisdom to survive? The film features thought leaders and activists in the realms of science, economics and spirituality discussing how we can evolve in the face of climate disruption. Interviewees include Bill McKibbin, Joanna Macy, Roger Payne and young pioneers like Herschelle

Directors and Writers:
John Ankele, Anne Macksoud
Free Online Course at Oklahoma University, "Managing for a Changing Climate." Maybe this is more cheerful.
from: Scharmel Roussel <scharmel2008@gmail.com>
Date: Wed, Aug 3, 2016 at 10:59 AM
Hello Enviro Team & Friends!
I enrolled in an online course through Oklahoma University on "Managing for a Changing Climate." It is free.
Any of you want to join me?
Here is the link.
https://janux.ou.edu/course_tag-nextthought-com-2011-10-
nti-courseinfo-fall2016-geogmetr-3523.html
Scharmel Roussel

OSTRANDEL
How Do You Decide to Have a Baby When Climate Change Is Remaking Life on Earth?

Any child born now could, by midlife, see massive storms inundate coastal cities and the Great Plains turn to dust. Could I have one, knowing I might not be able to keep her safe? By Madeline Ostrander, The Nation

LEGAL SCHOLARS SPEAK
Adaptation to Climate Change: ASEAN and Comparative Experiences. Edited by: Kheng-Lian Koh (NUS, Singapore), Ilan Kelman (University College London, UK), Robert Kibugi (University of Nairobi, Kenya), Rose-Liza Eisma Osorio (University of Cebu, Philippines). 2015.
Adaptation to Climate Change: ASEAN and Comparative Experiences presents a dynamic and comprehensive collection of works from legal scholars around the world that delves into a relatively new frontier on legal aspects of climate change adaptation with focus on the ASEAN region, both at the regional level as well as at the national level in some ASEAN countries — such as Malaysia, Philippines, and Thailand. Other countries not within ASEAN are also represented, such as Bangladesh, People's Republic of China, Sri Lanka, and the Republic of Taiwan. In doing so, it surveys one of the most important issues confronting developing countries today, and the challenges to building resilient societies. It is an essential source of reference for policy-makers, administrators, the private sector officials, scientists, academic scholars, climatologists, NGOs, and CSOs in ASEAN and the world.

Sample Chapter(s)
Foreword (29 KB)
Chapter 1: Asia-Pacific Islander Responses to Climate Change (130 KB)
Contents:

- Foreword by Tommy Koh, Ambassador-at-Large
- Preface and Acknowledgments
- About the Authors
- Keynote Address by Raman Letchumanan, formerly Head of the Environment Division, ASEAN Secretariat

**Theme I: Coastal Warming and Sea Level Rise:**
- Asia-Pacific Islander Responses to Climate Change (*Ilan Kelman*)
- Managing Southeast Asian Ecosystems to Reduce Coastal Population Vulnerability Under Sea Level Rise (*Daniel A Friess*)

**Theme II: Legal Frameworks/Policies/Governance for Climate Change:**
- Adaptive Water Governance: Lessons Learned from Implementing an Ecosystem-Approach in Mesoamerica (*Alejandro Iza, Alexandra Müller, and Valentina Nozza*)
- Legal and Policy Framework for Ecosystem-Based Adaptation to Climate Change in Malaysia: A Reform Oriented Study (*Abdul Haseeb Ansari*)
- Policy and Legal Responses to Climate Change Adaptation in China: New Developments, New Challenges (*Wang Xi and Gao Qi*)

**Theme III: Key Future Impacts and Vulnerabilities:**
- The Laws, Policies, and Institutions Relating to Climate Change in Thailand: Balancing between "Mitigation" and "Adaptation" (*Kanongnij Sribuaiam*)
- The Warsaw International Mechanism: Exploring the Structures and Functions to Address Loss and Damage Associated with Climate Change Impacts (*M Hafijul Islam Khan*)
- Geoengineering: An ASEAN Position (*Jolene Lin*)

**Theme IV: Economic Interconnections:**
- Assessing Green Jobs in Taiwan: A Tri-Pillar Approach (*Fan Chien-Te and Hsu...*)
Yun-Hsiang

- Sustaining Growth, Climate Change, and Meeting Environmental Obligations: What can ASEAN Governments Do? (Euston Quah and Tan Tsiat Siong)

- **Theme V: Some Case Studies:**
  - Options for Adaption to Climate Change (Richard L Ottinger, Wang Pianpian, and Kristen M Motel)
  - Dealing with Climate Migrants: A New Challenge for Developing Nations (Asanga Gunawansa)
  - Climate Change, Migration, and International Law in Southeast Asia (Benoît Mayer)
  - Achieving Human Rights in an Era of Climate Disruption: The Philippines (Amado S Tolentino, Jr.)

- **Theme VI: Adaptation — Disaster Management, Risk Reduction and Humanitarian Assistance:**
  - The Legal Regime of Climate Change Adaptation and Disaster Management in Taiwan: Focus on the Major Amendment Following the Devastating Typhoon Morakot of 2009 (Gao Ming-Zhi Anton)
  - Legal Options for Mainstreaming Climate Change Disaster Risk Reduction in Governance for Kenya (Robert Kibugi)
  - Land Tenure Systems as a Challenge for Disaster Recovery: Adapting to Extreme Weather Events after Typhoon Haiyan (Daniel Fitzpatrick and Caroline Compton)
  - The Role of ASEAN in Disaster Management: Legal Frameworks and Case Study of Typhoon Haiyan/Yolanda (Koh Kheng-Lian and Rose-Liza Eisma-Osorio)

**THOMAS R. CASTEN, Business Opportunities**
The Jan.-Feb. no. of *Skeptical Inquiry* contains an essay by Thomas Casten recounting his efforts since 1975 to alert people to the facts of warming and how to slow or stop CO2 emissions by making it profitable: "Reduce Greenhouse Emissions and Make a Profit: My Forty-Year Focus on Climate Change.". In 1998 his book on the subject was published: *Turning Off the Heat: Why America Must Double Energy Efficiency to Save Money and Reduce Global Warming* (Prometheus). Looks like a talking point for discussions with deniers. I couldn't find the SI article online; maybe avail. now. --Dick

**Windfall: The Booming Business of Global Warming**

*BY MCKENZIE FUNK, EDITED BY VIRGINIA SMITH YOUNCE*
A fascinating investigation into how people around the globe are cashing in on a warming world.
McKenzie Funk has spent the last six years reporting around the world on how we are preparing for a warmer planet. Funk shows us that the best way to understand the catastrophe of global warming is to see it through the eyes of those who see it most clearly—as a market opportunity. Global warming’s physical impacts can be separated into three broad categories: melt, drought, and deluge.
To understand how the world is preparing to warm, Windfall follows the money.

[Read More]

[I found the tiny review in Mother Jones Jan-Feb, 2016 helpful. –Dick]

POEM, “And What Did You Do Once You Knew?”
From hieroglyphic stairway by Drew Dellinger (the epigraph to Facing the Anthropocene):

"It's 3:23 in the morning
    and I'm awake
because my great great grandchildren
won't let me sleep
my great great grandchildren
    ask me in dreams
what did you do while the planet was plundered?
what did you do when the earth was unraveling?
surely you did something
when the seasons started failing?
as the mammals, reptiles, birds were all dying?
did you fill the streets with protest
when democracy was stolen?
what did you do
    once
    you
knew?"

END CLIMATE CATASTROPHE URGENCY, MITIGATION, ADAPTATION Newsletter, August 31, 2016

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Dick Bennett


Blog:  http://jamesrichardbennett.blogspot.com/

For research purposes, specific subjects can be located in the following alphabetized index, and searched on the blog using the search box. The search box is located in the upper left corner of the webpage.


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