

# Albert Bates, guide for our post-petroleum, globally warmed future

Contributed by Jan Lundberg  
13 April 2007

Culture Change Letter #157 - April 16, 2007

The April issue of Vanity Fair-online features The Farm, an intentional community in Tennessee. Albert Bates gets a lot of ink in that article, as he has spent most of his life on The Farm making his mark in both publishing and education. There, his original skill set as a lawyer and horseman in 1972 was expanded to include Permaculture design, and he became an author (Climate in Crisis, introduction by Al Gore, 1990). He became a global authority on ecovillages, founding the Global Village Institute for Appropriate Technology. He directs the Ecovillage Training Center at The Farm, where he has instructed students from over 50 nations since 1994.

More recently he has been warning people about petrocollapse and sudden sea-level rise. His latest book The Post-Petroleum Survival Guide and Cookbook came out last fall from New Society Publishers. He has spoken at Culture Change's Petrocollapse Conferences in New York City and Washington, DC, and has just returned from a series of California appearances. Rare is there a fortuitous blend of knowledge, wisdom and patience in one public figure for the task at hand, so let us see what such a person, Albert Bates, has to tell Culture Change readers.

Albert K. Bates is a very busy man, but well-rounded and generous enough to keep abreast of many efforts begging his attention. So when I asked him to comment on a reader's reaction to Alice Friedemann's "Peak Soil" new tour de force on biofuels, I was rewarded with these inspiring words:

"Once we recognize that the fate of all life on Earth is now in the balance and what we do right now matters in that outcome, we can dispense with arguments for cutting, coppicing, pollarding, energy crops or other ways of shortchanging net sequestration. We have to consistently choose maximum sequestration. Everywhere. At once. The tipping points are falling like dominoes and we are in a race now. We are losing. We need to sprint. Now."

He elaborated: "Diverse, multi-species boreal forests supply twice as much, and also sequester twice the GHG, and diverse, multi-species rainforests twice that. The diminishment comes when you slice and dice them for energy, food, or human habitat instead of growing them out and up for maximum carbon uptake."

One vital aspect of Albert Bates' set of knowledge on climate change and energy is that he has delved into net energy -- perhaps the major concern over renewable fuels. In keeping with his long practice of tracking Energy Returned on Energy Invested (EROEI), he told Culture Change "EROEI calcs have to recognize that nothing breaks even; entropy always has a finger on the scale."

The Post-Petroleum Survival Guide and Cookbook: recipes for changing times, 237 pages, has a foreword by Richard Heinberg, author of The Party's Over. People knowledgeable about peak oil have to agree with Heinberg: "There is a profound and growing need for a Peak Oil Survival Guide." But why a cookbook too? Heinberg says, "There is nothing more basic to human life than eating, and Peak Oil will require some serious adjustments in how we feed ourselves." Heinberg concludes his foreword eloquently with a message Culture Change readers (and predecessor Auto-Free Times readers) have heard for over a decade: "Start living a post-petroleum lifestyle now and avoid the rush."

I daresay that Albert's book is essential for the clueless, if they can get a hold of a copy. If they spend just a few minutes perusing it they may start to see the real world opening up to them. And for the clued in, there are countless tips and facts that can bolster our skill-sets and resolve to keep plodding along. The Post-Petroleum Survival Guide and Cookbook is useful for a generation, the way the Whole Earth Catalogue was, as a handy reference guide (first aid, substitutions, recipes, and more).

Albert's experience on The Farm has prepared him for this historic task to

educate us gently yet honestly, while urging us on toward community and simplicity. He cites Dmitry Orlov, who has passed along his knowledge of Russian farming villages and the Soviet Union's collapse to Americans wondering about the effects of peak oil. Albert has taken in much insight and experience for our benefit, to conclude in his Afterword: "Peak oil is a horrible predicament. It is also a wonderful opportunity to do a lot better. Let's not squander this moment. This will be the Great Change."

Albert, your book *The Post-Petroleum Survival Guide and Cookbook* seems to be the only light-hearted -- while very practical -- book on peak oil and the ominous changes to come from society's losing cheap energy and the ability to consume endlessly. Can your book remain eminently relevant even when events get out of hand? To what extent -- recipes and how-to living tips? Or are there major changes possible that could make you want to write a sequel, or, alternatively, give up on publishing?

I am not ready to give up publishing yet, but I am certainly aware of the sudden collapse scenario and in that event all bets are off. A year from now, or a month from now, we could be using books to keep warm and cook our food, not for the advice contained in them. In my lectures of late I have been giving people mind-mapping tools to allow them to plan contingencies in uncertain times. You have to plan for several scenarios simultaneously, and people will weight them by whatever credence they place in reports of where we are and what we are about to experience, now and ten years from now.

I think we have an individual preparedness to be concerned with, and that involves securing a supply of food, water, shelter and other basic needs for yourself and your immediate community. And then we have a larger social preparedness, without which there is no hope for the individual to survive. This second area involves threats that can only be addressed by better public policy and general mobilization of the whole macro society -- threats like world population, climate change, nuclear hazards, biogenetics, toxic timebombs.

Few recognize how close we are to human extinction, or even that we may have passed an irreversible line that could lead to that and worse -- extinction of all life on Earth. History becomes nearly irrelevant in those circumstances, as do most of the plans we have laid for ourselves and our descendants. We will not be colonizing Mars. In the centuries to come, we can speak of success if there are still human colonies on Earth.

I believe we can and should make our own luck. We won't survive unless we stop consuming our seed corn. When you are running out, it isn't enough to slow down. You have to stop. Much as you think you can make it just fine in a cave, saving the whole planet involves getting engaged with public policy, not digging a bunker in Idaho, or sitting on a zafu and chanting om.

Don't get me wrong on chanting om, though. We need to begin from a clear, quiet, peaceful and respectful center. Get there how you will.

You are essentially an activist who knows how to write, speak and educate. Is activism going to come back big-time, or are people waiting for leaders and gurus?

I hope they don't wait. We are already too absorbed with cults of charisma. Charisma has its place and can be a tool for advancing a social agenda, but it is both a dangerous and flawed tool. The best charismatics in history, Lao Tsu for example, understood this.

To quote Elvis Costello, who was post-hippie, "What's so funny about peace, love and understanding?" Can hippie-ism return big time without morphing into survivalism or some doomed pacifist cult that will be eaten alive by hungry, violent rednecks?

I was interested to see Time Magazine have a special feature on 51 things you can do to reduce global warming that included at least a dozen items we owe directly to the hippies, things like going without a tie, wearing vintage clothing, and giving up meat. It seemed to me that people are beginning to recognize that hippies were right about a lot of things. We were right about civil rights, the freedom rides, gender rights, Native Americans, nuclear power, nuclear weapons, organic food, police corruption, the pedagogy of public education, Vietnam, genetic engineering, globalization, hospital birth, funerals and weddings, Christmas-Card religions, meditation, pacifism, private property, corporations... name your poison, long before most of the rest of the population. We also invented iPods.

But I think the hippies were a social movement of the past, like the Diggers, or the Cathars. We can learn from them, but we need to move on and invent our own new best ways. These days I relate a lot to the Chipko movement in India. I

think our children will be tree planters.

Can you say more about that?

There was an award-winning animation made from the book by Jean Giorno, *The Man Who Planted Trees*, and you can now order a copy at <http://www.heredance.org>. This is a children's story, but it is also a parable for our time. It tells the story of a man who just quietly starts planting acorns and reforesting Europe after the First World War. This is the kind of story we need to be telling our children, not *The Robinsons* or *Cars*.

Some time ago The Farm came to recognize that if biodiversity is a serious goal for our land stewardship we need to accumulate larger contiguous blocks of forest. Larger and larger. We founded the Swan Trust, which took its name from our watershed. To date, we have about 3000 contiguous acres under Swan management in addition to the 2000 acres of The Farm. We need to be acquiring 25000 acres to secure the upper reach of the watershed.

I have been planting trees to more than offset my personal carbon emissions for at least 15 years now, but we have started a few initiatives here that are eminently replicable. One is Trees for Tennessee, which accepts donations to help volunteer treeplanting efforts locally. Another is Trees for Airmiles, which adopts various treeplanting efforts around the world and raises money through our website at [i4at.org](http://i4at.org). Our currently sponsored project is following bulldozers around the occupied territories in Palestine and replanting trees, particularly olives and figs, that are being destroyed. This is a joint effort by Israeli and Palestinian permaculture activists, working together. I have been in thousand-year-old olive groves in Palestine and marveled at the husbandry that was required to keep those up. Fifty generations and nary one grandson failed to carry the water up to the grove in dry months in all that time.

You have said that your feelings about the world's condition got more pessimistic by the time your book got printed last year. What exactly has happened?

I think more shoes keep falling almost every day. I have to shut up and stand back for a while just to absorb what is being said.

What has happened is that after six years, 2500 scientists, 450 lead authors and 800 contributors in 130 countries have issued a definitive report that makes no bones about the fact that we are on the road to Hell on Earth, that we won't see the cool planet we had just 20 years ago for maybe 20,000 years more, maybe 200,000 years, if ever, and that there is a chance that nothing we can do can now stop Earth from being reduced to a lifeless desert world like Mars, perhaps even within the lifetime of some of those now alive; my granddaughter, for instance.

What has also happened is that Condi Rice made a trip to India, forgiving them for violating the NPT and TBT agreements and said, "We are going to arm you with your own nuclear weapons manufacturing plants so you can be our front line against China," forgetting that Pakistan is in a nuclear arms race with India, and that Kashmir is a hot war zone. And we have the Chinese arming the North Koreans and the North Koreans arming every little splinter cell in the world that could deliver a nuclear weapon to any city on Earth in a Sealand container. Madness.

Countries like France and China still pursue the fantasy that fission, or worse, fusion, reactors will save us from petrocollapse or warming, heedless of proliferation of wastes, weapons, and greenhouse gases that those efforts only thinly conceal. We are essentially throwing our children into furnaces to heat and light homes. And we are piling up toxics that we soon won't have the energy resources to manage.

I have now watched Albert Bartlett's lecture on the exponential function even more times than Al Gore's slide show, which I have been watching for more than 20 years. We show Bartlett to every group of students at our training center. To borrow his analogy, we are bacteria in a bottle and it is 2 minutes to midnight. We know we double our population every minute but we are seduced by all that open space in the bottle. Even if we could find more bottles they would be too little, too late. Are we humans as smart as bacteria?

Worldwatch Institute's *State of the World 2007* has a graph of our global ecological footprint. As humans, not bacteria, we are dripping out of our bottle now. All biological systems can take stress for a while before they break and wither. We are like prisoners who have been tortured just too long. Recovery may no longer be possible for us now.

Even if you don't subscribe to all this, to what I just laid out, ask yourself if you believe in the precautionary principle. Can you rule out the possibility that we are driving off a cliff and about to make a catastrophic descent, as a life form, from which no recovery is possible? Given the possibility, no matter how remote, that our habits are extinguishing all life on Earth, what should you be doing right now?

It is a question I ask myself a lot.

The name Albert Bates should be a household word. Why isn't it? Is that changing?

I am not sure I would like it to be a household word. It isn't me that has any special importance here. There is a message for our times that isn't seeming to be coming through the mist quite as much as it should be, and although others are voicing it also, and some much better than I can, I felt the pressing need to lend my voice and hopefully raise the volume to more of a chorus. And I think it is beginning to have some effect, although still far too little. I invite more people to also raise a voice. Some strong voices have been silent for a long time. This is not the time to be silent.

You helped educate Al Gore about the Climate back in the 1980s. Why did he omit you in his movie; was it a fear of hippie-association? Do you have access to him? What would be your advice to him, in one sentence, today?

I don't agree with your premise. Al Gore is one of the smartest individuals I have ever met, and he is quite capable of reaching his own conclusions. He was influenced by his former mentor, Roger Revelle, while an undergraduate at Harvard. I actually came to the subject somewhat later. We both started speaking out about climate change, with graphical travelling road shows, at approximately the same time.

As a public interest attorney fighting deepwell injection in Tennessee on behalf of a coalition of environmental groups, I only learned about climate change in the late 1970s because the security of future water resources were being argued openly in court. In a real sense, both Gore and I, as well as Charles Keeling, Stephen Snyder, James Lovelock, Mark Lynas or any of the other lookouts we have been hearing from, came much too late to the party. Svante Arrhenius had the killer powerpoint one hundred years ago. In 1906 he estimated that a doubling of CO2 would cause a temperature rise of 5 degrees Celsius. If he is right, and I believe he is, we are already past a tipping point.

While it is not for me to advise Al Gore, whose talents greatly exceed my own, if I had only two words, they would be, "Illegitimi non carborundum." I look forward to his Nobel speech. I pray it is not an epitaph for our race.

What is your opinion of the Vanity Fair article. Was it fair or vain?

Vain, and it missed the big picture. A fairer view in presenting a hippie history in context is contained in Rupert Fike's book, *Voices from the Farm*, but that also missed much of a bigger picture. The Farm is more than the sum of its parts. It made history. It continues to.

Can you visualize great changes on The Farm soon? Will plastics be banned? Should people be visiting now and taking any lessons away to share with the world?

I don't think our residents are keen to be a travel destination, nor is The Farm set up for that. People can and do visit and are welcome, within our limits to handle the flow and remain hospitable. There was a time, in the Seventies, when we were overwhelmed by visitors. It felt like Disneyland here. We don't want to have that happen again. The Farm offers "Experience Weekends" to moderate the flow, and people who want to visit might first check our online calendar for those dates.

The Farm is what I would call a "proto-ecovillage." It is a long way from being anything approaching sustainable, and I think most of us would agree that our ability to achieve the kind of harmless lifestyle we aspire to is still a work in progress. We steal from our children with every trip to the movies, every kilowatt-hour of TVA power, and every plastic item we carry home from SuperRama. To say we use only a tiny fraction of the gross consumption pattern of North Americans, or that an increasing amount of that is green-sourced, is scant comfort.

Plastics will not be banned because that is not our way. We have no refrigerator police, no bathroom police, no bedroom police. Who among us would want to stop everyone at the front gate and frisk them for credit cards, deodorant or ballpoint pens? What is this, Homeland Security? People change because they gravitate towards better ways of doing things, like buying wooden toys or starting home gardens. Change at The Farm, like everywhere else, comes from seeing better examples and emulating those.

What you will notice as our contribution is that we are still here, still trying to live up to our beliefs, and in our fourth generation now. The first generation wasn't the pioneers in bellbottoms, it was the parents in polyester, who came later. The second was the pioneers. The third was the children of The Farm, and the fourth, now in our grade school, was the children born to the children, often with the assistance of the same midwives who helped bring in their parents. That is a statement of hope.

Why do you not enjoy doing presentations? Your talk at the Regenerative Design Institute in Bolinas on March 31st was a mindblower and the audience stayed for hours. You have the stamina, so what's the problem?

I guess I feel awkward still, presuming that I know something more than anyone else in the room. I keep getting to a point where I stop and listen, but what I am hearing suggests people in the audience are not as well informed as they should be, so I end up talking more. What makes me uncomfortable is any suggestion that I have any special gift or knowledge that most other people wouldn't have if they did what I do. And the thing is, what I do isn't public speaking. That is sort of required as a catalyst of public policy, which is needing to change, quickly. What I do is permaculture and ecovillage, which is to say, creating and cultivating human ecosystems that are better models for the future.

Your book prominently uses the term "petrocollapse," the first time in any book. Is this term going to take firm hold, or will the world experience some other kind of meltdown that will serve to continue to deceive the public about the reality of peak oil's having been reached?

It is a convenient coinage, but language will always be imperfect. We strive to express what we think and feel, and in doing that we limit the ways we think and feel. All expressions through language are only truncated, partial glimpses of our thoughts or our capabilities to perceive and reason. A book that uses imagery other than language can get a more proximate glimpse, and other media, like touch, still more.

Those with ears to hear will catch the signs early and react. Some will help tell others and develop organized responses. Some will not hear, or ignore what they hear, until the hurricane arrives. And then, as this century unrolls before us, we may come to recognize Peak Oil is the least of our troubles.

Your knowledge of climate change gets as deep as a non-scientist can get. How does your knowledge of the book Six Degrees square with the IPCC? Should we run for the hills now?

Six Degrees takes some studies down off the shelf that were put up there by the IPCC. If I can make the analogy to stovepiping, it is as if the IPCC report, going through the consensus UN process, is somewhat muted in what it says. It speaks of those things that have a high degree of confidence, and you know, those are pretty scary by themselves -- a major human die-off and species extinction, inability to reverse the trend, and so forth and so on. Reading Six Degrees is like getting the raw CIA field reports, only filtered by the Office of Special Planning. You have to take that with a grain of salt. Still, there is a whole lot more there. These reports have made me go back and re-read Jonathan Schell's classic work on nuclear war, *The Fate of The Earth*, because it ran out the implications of extinction in a very visceral, eloquent way.

Running for the hills won't help. If you want to help, get a vasectomy and start planting trees as fast as you can.

Are you mainly interested in enjoying your family and life's simple pleasures, or has Earth entered in your mind the waking nightmare stage? Are you going to work for the public until all order evaporates?

Well, I am 60 years old and have to think about my health. Last year I became a grandfather and that has made me wonder what kind of world changes that child will witness. With my family and community, we are preparing for hard times ahead. Simple pleasures are still possible. You have a choice about how to take on this knowledge and still function. I think having something positive you can do matters. My son and I plant and tend bamboo. My granddaughter will grow up learning that too.

You have been attracted to Culture Change for a few years, and our readers would like to hear what you have to say about culture change rather than technofixing and reforming "The System." Do you see a future society with "new" values?

Plan A is no longer possible. If we can mobilize fast enough and get across the hurdles coming right ahead, then we have a chance to redesign human civilization. We could get a second chance. A steady-state economy is really our only option in a physically-finite world. So what does that look like? To me the notion of progress is faulty if it assumes we can have endless growth of consumption (and comparable production to support it), but realistically we can have infinite expansion of creativity, arts, intelligence, and human potential. We need to restrike the balance and restore harmony to nature where we, the bi-peds, have disturbed it. Lynas points out that Earth is an old gal as planets go, maybe in her 60s in human terms. She will burn up some day when our sun expands, even if we don't destroy her first. She is probably too old to do the experiment of life a second time if it gets lost this time, and that would be a pity. We didn't really know how far we could take this life-form, and we had only just begun exploring all its various dimensions.

You know, I am beginning to wonder if there really isn't something to original sin. We are such a flawed species... way too flawed to have become as powerful as we did.

What is your recommended list of books, movies and organizations?

A bit too long for this space. We are creating a library of tools at links at [i4at.org](http://i4at.org), [thegreatchange.com](http://thegreatchange.com) and [thefarm.org](http://thefarm.org). I think people should read *The Party's Over*, *Six Degrees*, *Lovelock's Revenge of Gaia*, Holmgren's *Permaculture* and follow the discussion in journals like *Permaculture Activist* and *Orion*. I read the *Energy Bulletin* and *Oil Drum* websites and many others, pretty much daily. I recommend, and frequently show, films like Robert Newman's *History of Oil*, *An Inconvenient Truth* (with the ongoing updates to the slide show), Bartlett's lecture, *Escape from Suburbia*, *Power of Community*, and *Power of Nightmares*. More good bits are coming out every year.

If there is anyone likely to save us now, it won't be the scientists. It will be the artists.

Hear, hear!

Do you have any final words?

Be well, live long, and prosper. May your children live in interesting times.

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"Between the ice and ocean: The rising tide": Albert Bates, *Culture Change*, July 2006:

[culturechange.org/cms](http://culturechange.org/cms)

Albert Bates' current slide show is available through his website:

[thegreatchange.com](http://thegreatchange.com)

Vanity Fair online article on The Farm:

[vanityfair.com](http://vanityfair.com)

The Farm and Albert Bates' main project The Ecovillage Training Center:

[thefarm.org](http://thefarm.org)

"Relearning how to live as voluntary peasants": John Siman, *Culture Change* (this article will have a follow-up and countering piece in *Culture Change* in spring, written by "Farmies"):

[culturechange.org/cms](http://culturechange.org/cms)

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P.O. Box 4347

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Telephone and fax: 1-215-243-3144

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