

A young person's guide to peak oil and global climate chaos

Contributed by John Siman
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John's peak oil odyssey

[Editor's note: I was surprised at the clear intensity of John's message to unfossilized minds. Let it be heard above the happy talk from hopeless technofixers. - Jan Lundberg]

I have just traveled from the city by the bay to the hills of Tennessee (America still is like a song in some respects), but wherever I go I find that it is usually a waste of time to explain the facts of life to adults (let them read the latest C.E.R.A. report as they drive their s.u.v.s off to nowhere!); my own energy is better spent writing for children and those few adults who maintain some childlike aversion to techno-crafted bullshit. And so I am here to tell, to those with ears to hear, about our Post-Carbon Future.

And just what is our Post-Carbon Future?

To answer this question we must first consider the earth's carbon-laden past, not the past of hundreds or of thousands of years ago, but a far, far more distant past, going back almost a geological æon, almost a billion years.

We must realize that the trillions and trillions of micro-organisms which dominated the ecology of this planet three-, four-, five-, six-hundred million years ago and more are our long-lost friends. For the atmosphere, now rich in pairs of oxygen atoms unattached to any carbon atoms, was once suffocatingly replete with carbon dioxide. The work of our palaeo-ecologic micro-organic friends (viewed anthropocentrically -- and how else should we humans view things?) was to process the atmosphere's surfeit of carbon dioxide: to release the pairs of oxygen atoms back into the atmosphere while burying the carbon below the planet's surface, where it could do no harm to life forms yet-to-be. And the fruit of their hundreds of millions of years of labor was an atmosphere so filled with oxygen that human beings could evolve (or be created, take your pick; the theological argument is moot in this context, which is the necessity of breathing as a minimal requirement for human life).

Now our long-fossilized friends did not dispose of the ex-atmospheric carbon in so unimaginative a way as to ball it up into clumps of coal. No, being truly organic, that is, chemically based on combinations of carbon and hydrogen, they made their (hopefully permanent) deposits into the earth as an array of hydrocarbons, the most famous of which is the fossil fuel rock-oil, in Latin petroleum, in slang black gold and Texas tea, in shorthand oil.

These long-fossilized micro-organisms in effect deposited some two trillion barrels of oil into the earth. So great was the fruit of their labor.

And this miraculous fruit has, in our recent history, proved to be an irresistible temptation to humankind. For if taken from its places of rest and recombined, by means of human technology, with pairs of oxygen atoms, it allows one man to do the work of one hundred, of two hundred men; it allows, even more temptingly, millions of people to live as if they each owned dozens and dozens of slaves. Such power! Such luxury! And so by a profligate indulgence in this fruit, we, the species originally named *Homo sapiens*, have initiated an Age of Carbon-Fueled Hyper-consumption and transformed ourselves thereby into a new and unprecedented species, *Homo colossus*, whose hyper-exuberant economy has now come close to exhausting the earth's finite ecology.

Of the two trillion barrels or so of oil which our micro-organic friends deposited, we humans have burned about half, about one trillion barrels -- and fifty percent of those trillion barrels in the years since Reagan and Gorbachev spoke about the end of the Cold War -- ninety percent of those trillion barrels in the years since Eisenhower and Krushchev brought the Cold War towards its peak: we are on course to almost completely undo several hundred million years of work in a few decades.

And so we are at a crossroads. And at this crossroads some will argue that, as we humans continue to burn some eighty-four million barrels of oil a day (and a fourth of that here in the United States), our global fuel tank is now half empty: we ought therefore to discover some new technology-based efficiencies to promote conservation. Others will retort that, no, our tank is still half full: we ought therefore to implement the latest technology-based efficiencies to promote continued exponential global economic growth and then prepare to burn ninety, a hundred, a hundred and ten million and more barrels a day.

This argument, on both sides, is potentially suicidal for the human race. For both sides argue from the premise that our

salvation lies in our ever-improving technology.

But our ever-improving technology is now (however much we idolize it) our great nemesis. For it is no longer a gift to humankind. With the advent of the Age of Carbon-Fueled Hyper-consumption, it has become a hyper-technology; it has become the over-exuberant technology of Homo colossus and has allowed our economy to expand exponentially far beyond the sustainable natural limits of the earth's ecology.

It allows us to do too much; it gives us too much power.

It puts the remote control box for Gigantor the Space Age Robot into our greedy little hands.

For, in ever-widening spirals, our ever-improving technology feeds on the carbon-fuels which we extract from the earth, and then, growing ever mightier, enables us to extract more and more carbon-fuels with which to feed it, causing it to grow even mightier, enabling us to extract more and therefore feed it (and ourselves!) more, and not just carbon-fuels, but a whole array of natural resources, both renewable and nonrenewable ...

Our ever-improving technology causes us to consume the naturally finite resources of the earth ever more voraciously, ever more destructively ... ever more efficiently.

To put it bluntly: With the advent of the Age of Carbon-Fueled Hyper-consumption, our ever-improving technology has become, with the possible exception of ourselves, our worst enemy.

And so we are not at a crossroads. We are at a dead-end. Right ahead of us lies uncharted territory in which the demand for oil, the natural resource most essential to the voracious appetites of Homo colossus and our ever-improving technology, permanently outstrips its supply, a territory in which, therefore, our modern theories of economics, which take no account of the effects of such ecological disorder, begin to break down.

And the technical name for this dead-end is Hubbert's Peak, the greatest quantity of oil which humans can ever extract from the earth in a year: after we cross Hubbert's Peak, the necessities of Nature remorselessly dictate that, every succeeding year, we will extract exponentially less and less and less, until our work becomes futile, and we stop.

And there is not just this one Hubbert's Peak, but many, for it applies to every nonrenewable resource extracted from the earth.

And as we cross these Hubbert's Peaks, not only do our modern theories of economics break down. Something, far, far worse happens. Crushed by the burden of ecological disorder, our modern economies themselves break down. And pandemic poverty is only the start of The Long Emergency. As Kunstler writes:

Fossil fuels are a unique endowment of geologic history that allow human beings to artificially and temporarily extend the carrying capacity of our habitat on the planet Earth. Before fossil fuels -- namely, coal, oil, and natural gas -- came into general use, fewer than one billion human beings inhabited the earth. Today, after roughly two centuries of fossil fuels, and with extraction now at an all-time high, the planet supports six and a half billion people. Subtract the fossil fuels and the human race has an obvious problem.

So pandemic poverty and population crash, die-off, as the ecologists call it. But there is a third catastrophe looming because, before we subtract the fossil fuels, we are going to burn a whole lot more of them.

This year, for example, we humans will burn about thirty-one billion (84 million barrels/day times 365 days) of the planet's remaining one trillion barrels of oil. Next year, if we can (that is, if Hubbert's Peak does not prevent us), we'll burn more. Ditto the year after that... By burning these billions of barrels of oil, year after year, we will be continuing to inject carbon back into the atmosphere at absolutely profligate rates. And by injecting all this carbon back into the atmosphere -- all this carbon which seemed to have been safely buried, and as if for our benefit -- we will be continuing to turn the ecological clock back to a second Paleozoic Era, that is, one in which humans -- in which all animals in whose nostrils is the breath of life -- ultimately suffocate. Global Warming (it is more accurate to call it Global Climate Change or Global Climate Chaos, for it brings ice as well as fire) is potentially only the first phase of a much more horrible process of global ecological collapse.

Bad news.

Driving hi-tech hybrid cars is not a way out. We have to be willing to stop driving altogether. Nor is turning the thermostat down to sixty a way out. We have to be willing to abandon suburbia with all its accoutrements: the huge supermarkets and the big box stores, the malls and the office parks. And even out of suburbia, we have to be prepared to shiver in the winter and sweat in the summer. We may even have to prepare to die early to make room for other human beings. For our problem is not that we have to reduce the amount of fossil fuels which we burn by a quarter -- or by a third -- or even by half; our problem is that we have to stop burning them almost entirely.

So we can either live the exemplary lives of a Post-Carbon Future or, in the not-so-long run, have no future at all. As William Catton writes:

[W]e must then ask whether we can candidly acknowledge that general affluence simply cannot last in the face of a carrying capacity deficit. That fact is perhaps only a trifle less repugnant than the idea that the buried remains of the Carboniferous Period must not be taken as fuels.

Let me amplify this point.

Mainstream environmentalists talk, and rightly so, about the need for sustainability -- for living within the earth's carrying capacity -- for making our human economy harmonize with the earth's ecology. We need to be mindful of the planet we leave to our children and grandchildren, they say. Their hearts are in the right place, but the situation is far more urgent. It was the generations of our parents and grandparents and even great-grandparents who exceeded the earth's carrying capacity, who, however unwittingly, however unintentionally (as if led by an Invisible Hand!), brought us into an unsustainable economy, and so we, not our progeny, will be the first to face The Long Emergency.

The situation is urgent, the environmentalists will agree. We have to deal with these problems soon, very soon. But to paraphrase Catton, soon came yesterday. To paraphrase Kunstler, the shitstorm is here.

And here's how I say it: Fuck the pious talk about future generations. We're the one who have to deal. And if we don't, we'll be blindsided by heretofore unimagined economic and ecological disconnectivities.

That is what I mean by our Post-Carbon Future.

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1. "Modernity and the Fossil Fuels Dilemma," chapter 2 in James Howard Kunstler's *The Long Emergency* (2005).
2. "Turning Around," chapter 14 in William Catton's *Overshoot* (1980).

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