

Let's fix the cities now? (Ecocities review)

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This report contains the author's address at the Ecocity World Summit, April 25, 2008 in San Francisco. Richard Register, the Summit's co-convener and Ecocity Builders founder, responds to this report at the end.

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While cities have in the past few years become the main habitat for humans (and for pests attracted to filth), and there are sweeping improvements to be made to cities -- at a fraction of the cost of wars -- I no longer place as top priority "Let's all fix the cities now." It's questionable if not impossible: petrocollapse will be the final deprivation for an energy-poor society that has finally run into limits reflected today by rapidly rising costs.

Part of my change in heart over the years, since I first became aware of the work of Richard Register when he invited me to speak at the first Ecological Cities Conference in 1990, is my growing appreciation for natural living and wild nature. It was the following year that I moved from the Washington, D.C. area to Humboldt County, California, where I lived a car-free life and dabbled in vegetable farming among the redwood forests.

Becoming a musician around that time facilitated my flow of awareness from the subconscious, in part, to reject assumptions that help comprise the indoctrination of Western Civilization: that larger and faster are better, and that "growth" and "progress" are the most desirable and admirable attributes of (our dominant) culture. My appreciation for indigenous, traditional cultures and resistance movements, such as Earth First! and the Zapatista rebellion -- with their cooperative social structures -- only grows.

I knew well how petroleum-dependent are our cities, since before joining the environmental movement full time in 1988. I also knew that we were all going to be witnessing the terminal demise of plentiful petroleum. By the time my small organization had commenced publishing the Auto-Free Times for the Alliance for a Paving Moratorium, I had been thinking long and hard about sustainability and Earth's ecological prospects vis-a-vis climate change. Richard Register's and others' ideas were enriching my work which in turn influenced our readership and occasional mass-media audience.

Eventually, my complete support for Richard's brilliant ideas -- as characterized by his art, books, slide-shows and depaving -- was undermined by my ongoing interest in smaller communities and local-based food production. Richard, as a long-time Berkeley resident (and now Oakland), is the undisputed Depaving Guru -- I never would have gotten Global Warming Melons out of my driveway in 1997 without his inspiration. He is the originator of Ecological Zoning, which would concentrate development around mass transit and allow for wildlife corridors in the outer concentric circles within cities. His Transfer of Development Rights is another good tool for improving density while freeing up urban and suburban space wasted by car culture.

About the time when peak oil started to become a hot topic in 2003, my attention focused greatly on collapse. I started using the term "petrocollapse" in 2005. My work had already mostly ceased its activism for transportation and land-use reform, instead concentrating on the "plastic plague." Our group's name and focus has been Culture Change since mid 2001. Since about 1991 I've anticipated the industrial world's energy use and the whole consumer culture coming to an end soon, for no combination of non-petroleum fuels can substitute and maintain the infrastructure and our vast overpopulation in the time necessary to prevent collapse.

So it was with deafer ears that I heard my friend Richard Register continue to stress that cities must always be addressed first and foremost for redesign and activism, "as they are humans' biggest product and biggest source of problems." My change in my receptivity for Richard's work was despite our still seeing eye to eye on the role of the car as completely without merit in city design and allocation of resources.

I've written three short stories that address my concerns and hopes: The Nature Revolution (2002); The Trojan Horse Sisters (2006), and The Global Coolers (2008), all on the Culturechange.org website. These envision a future wherein humans have survived upon reaching a new equilibrium with nature. An inspiration to me was the book Ecotopia, by Ernest Callenbach, who was a speaker at the recent Ecocity World Summit.

The Summit was an extravaganza of good information from visionaries and seekers who enriched the atmosphere of the Nob Hill venue. Last year, in planning for the 2008 Summit, Richard asked me to just provide music. Not a speaking gig to address petroleum dependence or car-free living, but my eco-tunes, and I was delighted. As to any message I want to get across, the ideas of collapse and hope for a post-petroleum culture of smaller population size are in my lyrics. I would rather reach some minds and hearts through the brain's right hemisphere than to harangue a larger audience with words alone about urgent life-style change.

But my assignment was modified a bit in the huge format of what was being offered at the Ecocity World Summit: with David Room of Bay Localize, I was to discuss peak oil and localized economics, and start it off with a song. This was an honor. When the day came, April 25, I was feeling strange from my return from the tropics, and I sounded quite hoarse as I performed "Have a Global Warming Day" and gave the following presentation before the discussion-portion was to begin: (Added to the panel was Paul Fenn, a Community Choice advocate for local control of electric utilities.)

I've just returned from Mexico and Belize. In my six weeks there I did not see any homeless people or deranged people, whom I started seeing again only after crossing the border into the U.S. So, in our deliberations on cities, we should consider the challenge posed by the mental health of the population, which in this country is relatively sick.

It's time to stop buying. Stop going to work. Bring down the system. This is because the crisis we find ourselves in is on all levels and out of control. Collapse, whether petrocollapse or from some other source such as financial meltdown or political upheaval, is better sooner rather than later because of the dislocation and pain guaranteed at some point. The longer it is put off the more wrenching will be our experience. And, there is something better to replace this system.

This viewpoint is not fundable. But there are many doable things that bring people together and provide basic needs, such as permaculture and our Pedal Power Produce project, that we can delve into during the panel discussion and questions. These activities both counter instability in our lives and happily destabilize the global corporate economy.

There has to be a rebellion if you believe our lives and the world are threatened. The revolution will not be televised or digitized. There is no solution to peak oil or climate change -- just a resolution, along with options for survival.

I will summarize peak oil, prior to posing these questions: What is local? How big can a town be? If there will be petrocollapse, how can we escape massive hunger, as some of my colleagues on the San Francisco Peak Oil Preparedness Task Force assume the population can? Lastly, who really needs all this energy that people are trying so hard to provide when petroleum fails?

Oil discoveries peaked decades ago, and the extraction peak follows, as predicted by M. King Hubbert in 1956. The world is at the point of using four barrels for every single barrel of oil found, and no one big find is going to change the downward trend of extraction. In fact the "production" data show the world peaked in 2005 for conventional (desirable) oil. We are on a short plateau of oil extraction.

I disagree with Dr. Colin Campbell, peak oil geologist, that we are entering with peak the "Second Half of the Age of Oil." My view involves my donning my oil-industry analyst hat and discussing the oil market. I formerly ran Lundberg Survey which predicted the Second Oil Shock in 1979.

Peak oil is a geological concept that pictures the dwindling oil left in the ground after the maximum extraction is achieved. But the effects of peak oil mean a tightening shortage must impact the oil market. The curve of peak oil, with a mirror-image of the upswing of supply applying to post peak, no longer works if there is a cessation of global corporate economic activity due to a severe shortage of oil.

First, there will be the sudden effects of sky-rocketing prices, panic buying and hoarding, the abrupt termination of mass employment, and the unavailability of products and services we have foolishly been taking for granted. Just-in-time delivery for businesses and institutions has become the energy-gluttonous rule of the day. What will happen is like a run on a bank: there is not enough cash if everyone wants it now. So when your cars' tanks and commercial users' tanks are topped off and vast amounts of product are moved over to "tertiary storage," this makes unavailable most of the petroleum that had been in circulation.

Second, the ability of the oil industry to scale down gradually to provide less and less product is not there. A refinery needs to operate at an ideal utilization of capacity, and there is also a balance required for the basic types of product output (light, medium and heavy). As to extraction, wells that don't do well are permanently capped. The oil industry, like the whole economy, is built only on growth. So, orderly contraction is not contemplated, or even possible perhaps. When the effects of petrocollapse [e.g., die-off, which I only implied in this talk] hit, a gradual lessening of petroleum's availability -- to allow renewable energy to somehow rush in -- is only a pipe dream.

So, for these reasons, a transition to a renewable-energy future for anything like today's consumer economy, is just an assumption that is an article of faith for "fundable environmentalism." The substitutes for petroleum are not here on a scale necessary to maintain this economy or the petroleum infrastructure. Nor are the energy-profit ratios attractive

compared to cheap oil that's gone. Products from petroleum will no longer be abundant or even available. [This is consistent with "the final energy crisis" that a few peak oil analysts refer to.]

Cities require vast energy and food production, so will we be able to live here when we have not wisely utilized the last supplies of fossil fuel to depave for food gardens? How can roof-top gardens be maximized on high buildings, and water be pumped?

As we try to picture a sustainable future that acknowledges energy reality and overpopulation, Culture Change has offered localized programs that subvert the global corporate economy. Sail Transport Network is one of my favorites. And, for raising awareness of petroleum in everyone's daily life, we can look at plastics. We ban plastic bags but we must include plastic water bottles, as starters. As we do this locally -- and I urge you to do it in your hometowns -- we get the chance to bring up peak oil, war for oil, climate change, and consumerism enabled by technology that we can start to question.

The oceans suffer from having up to six times as much plastic debris in them as zooplankton, and the plastic does not degrade; it concentrates up the food chain. It's not just an ocean problem or coastal cities problem; in the middle of the continent where they don't eat ocean fish, plastics threaten our health when we consider the chemicals in manufactured products containing fire retardants, for example, in our homes. Wipe the windowsills and find toxics. And we all have plastics in us. Bisphenol-A is a ubiquitous hard plastic in your Nalgene water bottles, babies' bottles, the inner lining of food cans, jar lids, bottle caps, and teeth sealants. It's a powerful endocrine disrupter. The body reads it as estrogen, and .1 parts per billion can trigger a gene change to give the body cancer, diabetes, obesity, and cause birth defects.

I look forward to discussing localization programs that use little energy. We must slash energy use now because of the ecological crisis. And what do we need all this energy for when we should be depaving and replanting?

I yielded the floor warmly to David Room, who gave a graphic talk on how local (or not) are our products that we use every day without question. After that, Paul Fenn gave a presentation on Community Choice Aggregation. It was fun to hear PG&E ridiculed and exposed, and to imagine local control of electric power. But it was not directly about economic relocalization, and the questions that followed were not much about our assigned topic or the points Dave and I raised.

After a couple of technical questions about Community Choice Aggregation, I felt compelled to point out that "we can be misled into thinking that 'if only' PG&E could be replaced, or 'if only' we can replace Bush, maximize solar panels, etc., then everything will be fine. Such a goal can become an excuse not to take action today on slashing energy use and bringing an end to the system. We also fail to question why we need all this energy."

My presentation and overall attitude were colored by the presentations I had seen earlier that day at the Summit, on high-tech city design. I did appreciate that fewer cars was the enlightened goal of some speakers, but the element of urgency was lacking. The underlying hope among Ecocity activists and the consultants presenting in the main hall was for transitional, public-sector-funded change without the total disruption that some of us foresee. Because discussion is so managed, most people do not discuss, let alone plan for collapse and an aftermath. So the goals of ecocities can become blurred or questionable when collapse or petrocollapse are not on the table. Sometimes I get an admission that some people in movements such as ecocities may actually believe collapse will preclude the building of ecocities.

If the proponents of ecocities and transformation-through-policy wish for good funding and corporate-media "respect," they have to sound "reasonable" and not "alarmist." This is the problem also, ironically, at a major peak-oil organization's national meetings and publications: Association for the Study of Peak Oil and Gas – USA. There the idea of collapse is dismissed in favor of faith in corporate continuity, even though ASPO-USA refers to the ramifications of peak oil in nearly apocalyptic terms. In the case of the Ecocity World Summit, fortunately, diversity of views for many a positive vision were on display.

I asked Richard Register after the Summit what he sees as the maximum population size of a city or ecocity. He says it's half a million. (People, not cars). While I enthusiastically endorse car-free cities and I know they can work beautifully, I am not able to picture large population reductions to reach more realistic levels in an orderly, compassionate fashion anytime soon [see the recent Culture Change article "Confronting the inevitable: Population reduction, voluntary and otherwise," by Ken Smail.]

My imagination toward ecological living tends not to be urban, as it calls up a contradiction: Would large urban populations require great amounts of energy that won't be available? Or will serfs outside the city walls provide most of the energy in the form of food and fuels for the ecocity inhabitants? Can a city be ecological if humans try to maintain a separation from nature? This is something Richard has thought about for many years.

All the above is largely why I believe ecovillages, as envisioned by author Albert Bates, are the future, and ecocities are not our future -- as much as I acknowledge people's need for ecocities today. I'm afraid that it's a dream too late and destined to crumble along with today's overgrown cities, although an eventual rebuilding of population size along more ecological principles could be in the offing for successive generations. This would assume we are not going extinct or ending up with just a tiny population that's limited to some cool areas of the planet [James Lovelock, *The Revenge of Gaia*].

If a return to ecological principles happens, it would be a resumption of our track record of over 99% of humans' time so far. Bye-bye bright lights of the big city.

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Richard Register responds:

I don't hold with the view of cities being the total wave of the future, partially because "cities" are so ill defined, and I'm talking about the built infrastructure of cities, towns and villages, all of which are disastrously distorted by cars where influenced by them and that's practically everywhere. Some mountain villages in the Himalayas no, but not many places like that... You may have noticed I always have "ecovillages" in our conferences even though most of them are scattered infrastructures of single family houses and not based on the "traditional village structure" which is a good model for larger population towns and even cities.

I think the viewpoint that collapse is inevitable and better-sooner-than-later is not only not fundable (mine doesn't seem to be either) but also flawed in many ways. The population you recognize as over-scaled many times over won't let even an early collapse be anything less than the worst experience of death and destruction the planet has seen if it is completely unmitigated by sane changes in peacefully reducing population, shifting to much less meat, reshaping cities and getting on to solar and wind. Biofuels are delusional as they compete with food and biodiversity for uses massively more energy consuming than needed for human nutrition. We also need to get on to ways of building that radically reduce energy demand and demand for land too. The chance of convincing many people of this -- with conferences, drawings, books and hands-on projects -- is pretty small, but Peak Oil people's abandoning this message is a large part of the problem.

The principles of permaculture are pretty profound, as I say in my book *Ecocities*. But they work even better applied at greater than the scale/density of the single house, which is unfortunately what 90% of the focus in permaculture circles is. Even permaculture villages are clusters of single houses. Will they rescue us? Fat chance!

I don't think you are doing your math and carrying capacity studies very well. Without massive subsidy of what cheap energy and oil based chemicals have provided, the number of people we have on the planet is way beyond sustainable in the all-rural mode of living you romanticize. We need to wean ourselves from that massive dependence with a whole systems approach of which population reduction, diet change and redesign of the built infrastructure are essential. This is the essence of a "powerdown" strategy that Heinberg seems to be calling for yet he always illustrates "life boats" instead, which like you assumes that rather than steering the Titanic away from the berg as best we can is to just anticipate an earlier collision being better than a later one and look around for the (insufficient) number of lifeboats and decide who can be on them -- at gunpoint? I think my chances of success (getting my strategy off the dime) are slim but I won't just watch the collapse come on without my version of a fight. In the Titanic analogy I'm struggling for the wheel with a lot of people trying to keep me from having anything to do with the steering.

I don't think your study of cultural collapse is very exhaustive or honest -- the kind we are looking at is as total as many of them have been in the past. Not something easily swept under the rug with the notion the we will just have some "options for survival." The only ones that make sense to me are the ones I've suggested above for a real powerdown strategy that makes some sense. Your approach of falling to the bottom then looking around for "options" among the rural disciplines of design and building (that need a context of peaceful society to execute) strike me as naïve to a bizarre degree.

I agree completely that hoarding fuels will usher in an exacerbated crisis of fuel supplies. One aspect of this that may spell quick catastrophe is that nations have been supporting cheap fuel prices by buying high and selling low, so their people could continue in their delusional excessive running about and mindless consumption with little equity and justice in mind. Now we are seeing angry words and maybe the first of the violent protests at simply not being able to afford gasoline any more in various parts of the world, while the national governments court bankruptcy -- spending billions in tax money just to sell fuel at ridiculously discounted prices. That alone could take down governments and release chaos in weeks rather than decades or even years.

It could well be that ecocities may not be realized according to today's optimistic visions. Those who foresee collapse see ecocities of poverty, ecologically healthy as villages in the deep future, with few metals and no fossil fuels to help at all -- probably like small medieval towns, not really cities at all, and not likely to be very Gandhian given the added lesson

that "high" civilizations go bust in violence. We didn't learn those lessons after Hitler and so the notion that it is violence and dominance at the core of human relations at the core of the species will be stronger than ever and will imply nasty societies! That's another reason I'd rather try as hard as I can for a powerdown.

Regarding an optimum population size of 500,000: very provisionally and depending on variable factors. That's anything but a solid figure in my mind. Strictly "gut feeling" and based on my sense of how much density can make sense covering how much land at extremely low requirements for energy.

As for James Lovelock's prediction, we shall see!

JL says:

I'm sorry to say I don't see how ecocities can realistically be created now. If they could be, I don't see how they could have anything but a fraction of today's megacity population sizes. I do not want to see the horrors of collapse, nor rely on humanity climbing up from a total fall (to locate "options" such as depaving). What I see happening today that suggests an unpleasant and iffy future -- until there may be a recovery through complete culture change -- requires an honest and open inquiry that seems to take place in very few places beyond Culturechange.org and our Petrocollapse Conferences of 2005-2006. Massive planning by Ecocity Builders, and by Mark Lakeman's City Repair to apply such concepts on a huge scale, to give humanity settlements beyond small ecovillages and narrow permaculture projects, would be fabulous. But if it's not happening now, can it happen when petrocollapse hits?

Richard's last word:

My mapping system breaks big metropolitan areas (megacities) into patterns of smaller cities. I don't think you've bothered to look at my maps and think through the strategy for a "roll back sprawl" or you probably wouldn't be saying that. (see Auto-Free Times article by Richard, "A Strategy to Roll Back Sprawl and Rebuild Civilization": culturechange.org) (City Repair) has almost nothing to do with the shifting of density from sprawl to development concentrated in smaller areas and opening up of the landscape. (City Repair) helps people "repair"... (W)ithout change in ownership patterns and real change in the basic land uses, can (City Repair) make an ecologically healthy contribution? They can't! Not in that mode and style.

You want to know the cultural change that can save our ass: recognizing that we need to evolve into more compassionate and creative people at the same time. I write about this also in my book. That's the big answer, my man, and ecocities are only part of it. Gandhian non-violence and population reduction at the same time is where it's at!

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Further reading

"Summitgoers push for sustainable cities" by Philip Wenz, San Francisco Chronicle, May 10, 2008:
sfgate.com

Support the work of Ecocity Builders, nonprofit founded by Richard Register:

ecocitybuilders.org

The Ecocity World Summit (needs its proceedings published; please support this!):

ecocityworldsummit.org

Depaving the World" by Richard Register, Auto-Free Times:

culturechange.org

Pedal Power Produce:

culturechange.org

Sail Transport Network:

sailtransportnetwork.org

City Repair, of Portland, Oregon:

cityrepair.org

"Confronting the inevitable: Population reduction, voluntary and otherwise," by Ken Smail:

culturechange.org

Jan Lundberg's post-petroleum short stories:

The Nature Revolution (2002):

culturechange.org

The Trojan Horse Sisters (2006):

culturechange.org

The Global Coolers (2008):

culturechange.org

David Room's Energy Preparedness consultancy:

energypreparedness.net

Albert Bates, author of The Post-Petroleum Survival Guide and Cookbook, runs eco-village projects that have websites here:

thefarm.org/ecovillages

Announcement: THE BIG ONE is coming! June 21-22 in San Francisco.

"The new me is We!"

"Are you ready for culture change?"

Endorsed by Matt Simmons, peak oil expert, THE BIG ONE is a convergence of activists and citizens interested in sustainable living and good health -- and fun. This could be perhaps one of the biggest pot lucks in history! Teach-ins, music, food, depaving, pedal power, and more.

The location is Golden Gate Park, home of the Summer of Love, just west of Haight Ashbury. Jan Lundberg is one of the speakers, on peak oil, fasting and whatever else seems right. Come experience the huge tents for connecting with your tribe! See the website beautifulcommunities.org for more information, where you can also use WiserEarth for networking around the world and for THE BIG ONE!