



Can We Stay in the Suburbs?

Posted by [Prof. Goose](#) on April 17, 2008 - 10:00am

Topic: [Alternative energy](#)

Tags: [climate change](#), [food](#), [peak oil](#), [self sufficiency](#), [suburbia](#), [united states](#) [[list all tags](#)]

This is a guest post by Aaron Newton, who is working with coauthor Sharon Astyk on the forthcoming book, [A Nation of Farmers](#). [Aaron contributes at Groovy Green](#); he also blogs at [Powering Down](#). Aaron is a land planner and garden farmer in suburban North Carolina, seeking ways to transform the current course of human land use development in an effort to prepare for the effects of global oil production peak and its outcome on automotive suburban America.

There is little doubt that during that last 60 years we here in America have transformed our manmade landscape in a way that is fundamentally different from any form of human habitation ever known. While many have flocked to this new way of organizing the spaces in which we live, critics have noticed the shortcomings and have loudly pointed them out. It's been suggested that the development of the suburbs here in the U.S. was a really bad idea. Author James Kunstler describes suburbia as, 'the greatest misallocation of resources in the history of the world.' The ability of most citizens to own and cheaply operate an automobile means we've had access to a level of mobility never before experienced. The outgrowth of which has been a sprawling pattern of living that changed the rules about how and where we live, work, and play and how we get there and back. We are now more spread out than ever before, mostly getting back and forth from one place to another by driving alone in our cars. This could turn out to be a really bad thing.

As the cost of fueling those cars increases, it's becoming obvious we've foolishly put too many of our eggs into one basket. And as America wakes up to the realities of a changing climate, it's also painfully obvious that soloing around in a huge fleet of carbon emitters isn't the most thoughtful way to transport ourselves from one side of suburbia to the other. The question is, as the expansive nature of suburban life becomes too expensive, both economically and ecologically, what will we do with this great 'misallocation' of resources?

Will we, as some suggest, simply abandon this experiment? The likelihood of moving everyone out of suburbia and into mixed use, walkable communities is quite remote. Likewise moving everyone from the suburbs out into the countryside and onto farms is unlikely. To be sure many, many people will move. Some people are already choosing to move to places where they can safely walk and bike to meet more of their daily needs. Others are choosing to reruralize, but completely depopulating suburban America is a project we have neither the fiscal resources nor the fossil fuel energy necessary to accomplish. It seems reasonable to assume that lots of people are going to continue to live in the suburban communities we've created all over this country during the last 60 years.

Will these places simply devolve into slums with roving bands of thieves stripping building

materials and other valuables from abandoned homes and formerly homeless drug addicts burning them down while trying to keep warm? They'll probably be some of that especially if the housing crisis worsens (and it will) and the government continues to address it largely by bailing out banks. The following is from a recent article in [The Atlantic](#),

At Windy Ridge, a recently built starter-home development seven miles northwest of Charlotte, North Carolina, 81 of the community's 132 small, vinyl-sided houses were in foreclosure as of late last year. Vandals have kicked in doors and stripped the copper wire from vacant houses; drug users and homeless people have furtively moved in. In December, after a stray bullet blasted through her son's bedroom and into her own, Laurie Talbot, who'd moved to Windy Ridge from New York in 2005, told The Charlotte Observer, 'I thought I'd bought a home in Pleasantville. I never imagined in my wildest dreams that stuff like this would happen.'

That is to say, this is already a problem. And with more people defaulting on their mortgages and losing their jobs as the economy slumps we're likely to see this scenario play out repeatedly. But it's important to take a moment and assess the possibilities presented by the problem. That is, if we're going to do anything other than whistle while a large number of the communities in this country turn into the slums of the 21st century, we're going to have to comprehensively address the problem and that means starting with an assessment of not only the disadvantages of suburban America but the advantages we might have in this arrangement of living. Could the problem actually turn out to be the solution?

One of the results of a declining in the availability of oil and other fossil fuel resources will undoubtedly be a rise in the cost of food or even outright shortages of certain types of calories we've grown accustomed to acquiring quite easily. Lots of people have written about this. It seems increasingly obvious that we're going to have to grow food differently if we have any chance of adapting to a low energy lifestyle with any semblance of grace. Growing food means using land for some sort of agriculture. Exactly what land we use is entirely up to us. It's worth noting that while David Pimentel et al have suggested that it takes 1.8 acres of land to feed each of us now. That number could be reduced to 1.2 acres per person while still meeting the nutritional needs of the average American. But by 2050 we are likely to have only 0.6 acres person both because of the rise in global population and the loss of land due to desertification, salinization and soil depletion. In the very near future we're not going to have enough land to feed ourselves in the manner in which we've been doing so. Where will more 'new' land come from?

The suburbs were born out of an idea that each man could have his own cottage in the forest, his own unmolested paradise outside of the nastys of the industrializing cities and still go to work in those cities each day. (Just how many of the problems we're facing today are born out of us wanting to both have and eat our cake?) The idea was that a man could still earn a living in the dirty city but return to his pristine piece of land where his wife and children could be free from pollution, crime, brown people, noise and traffic. It never quite worked out that way, which is to say it has, since the beginning, failed to achieve what this experiment set out to accomplish; [to say nothing of the negative aspects of this way of developing our countryside](#). But nevertheless, the end result is that a lot of people live on small amounts of land in communities that aren't completely paved over with asphalt and concrete. Many of us here in this country have access to land albeit in small amounts. This provides us with the most important resource needed to address the rising cost of food- soil. In other words, the fact that we've chopped up much of the

existing farmland that once surrounded major metropolitan areas in this country and parceled it out in fairly small sizes to many more people ultimately may or may not prove to have been a really bad idea. But, not only is it the hand we have now been dealt, it might turn out to have been a fairly nifty way of developing and maintaining a moderately democratic land ownership policy here in America. We still have, albeit in another form and with a reduction in the quantity and quality of soil ready for food production, a reasonable amount of land for growing food. Again from the previously mentioned article,

Arthur C. Nelson, director of the Metropolitan Institute at Virginia Tech, has looked carefully at trends in American demographics, construction, house prices, and consumer preferences. In 2006, using recent consumer research, housing supply data, and population growth rates, he modeled future demand for various types of housing. The results were bracing: **Nelson forecasts a likely surplus of 22 million large-lot homes (houses built on a sixth of an acre or more) by 2025, that's roughly 40 percent of the large-lot homes in existence today.**

What do you do with a surplus of more than 22 million large lot homes during a period of failing industrial agriculture and rising food costs? You establish new microfarms of course. Those people who do continue to live in the suburbs either because they cannot move or because they don't want to, could feed themselves by using this land to grow food for themselves and their neighbors. The food could be grown largely free from fossil fuel inputs and would be produced very close to the people who will eventually eat it. This solves two of the really big problems associated with the industrial model of agriculture. It provides a ready land base not for the reinstatement of plantation style farming whereby wealthy landowners who profited from energy descent reintroduce a horrible form of feudalism that enslaves the former paper pushing population of America who are likely to lose their jobs as the American economy continues to decline. No, this land has already been subdivided into manageable parcels that could serve as the basis for a revolution in agriculture.

Mention this idea to an ordinary citizen unaware of the prospects we face in the near future and you're likely to get a host of responses about how unlikely or unreasonable such a solution might be. It's likely we haven't reached the pain threshold necessary to get the real attention of average Americans, but one response certainly will be that we can't grow very much food by just tearing out our lawns. This of course isn't true at all.

Several recent studies suggest that small scale, sustainable agriculture is actually *more productive per unit of land* than industrial farming. We've come to think of farming efficiency in terms of human labor, with the adoption of the idea that the fewer people doing it the better. But in terms of what the land can yield, we're better off farming it intensely on smaller plots of land and the math is there to back up that claim. Yields can be substantial even on such small plots as would be available to the average suburbanite. The Dervaes family of [Path to Freedom](#) provides an excellent example of what is possible in our front and backyards. They live on an urban lot of about 1/5th of an acre. They cultivate about 1/10th of an acre or about 4,400 square feet. That's 67 feet X 67 feet. In other words, that's not much land and yet they consistently produce more than 6,000 lbs of vegetables annually. The four adults living there eat about 85% of their vegetarian diet from the yard during the summer months and are still able to get more than half of what they eat out of their gardens in the winter. This and they sell some produce to nearby restaurants. It should be noted that they live in southern California where the weather is

extremely generous to those who growing food (and have access to water), but Eliot Coleman and Barbara Damrosch point out in *Four-Seasons Harvest: Organic Vegetables from Your Home Garden All Year Long*, even people living in Maine are capable of growing a tremendous amount and variety of nutritional, tasty food regardless of where they live.

And let us not forget all those paper pushers I just hand pink slips to earlier in this post. Our government and a lot of well meaning business-as-usual types are going to put together all sorts of plans to try and reemploy all the people who lose their jobs in the post carbon economy. There is already talk of a kind of 'Green Works Project Administration' like the WPA seen during the New Deal era. At one time the WPA was the largest employee base in the country and was designed as a way to build up American infrastructure while reemploying those negatively affected by the Great Depression. Such an effort now could get much needed projects up and run in terms of new forms of energy that aren't fossil fuel based. To say nothing of conservation and energy efficiency projects such as home insulation that needs to be done on a national scale. But this or any other response that doesn't include a large measure of self sufficiency for the average American would be missing out on a great opportunity to redemocratize America. It is painfully obvious that we are at our greatest disadvantage when we are in debt to others for the basics we need in order to survive. Growing more of our own food in our own personal gardens, parks, school yards and community gardens is a great way to address this problem while providing for the nutritional shortfall likely to be experienced in the wake of the decline of industrial agriculture.

Luckily the sun is still shining and even those of us who live in heavily wooded neighborhoods have the option of modifying the canopy of those trees to gain access to sunlight. The soil is still under our feet and we can use it going forward to meet more of our food needs. The suburbs also offer a certain amount of impervious surfaces or surfaces that shed water. This is often a problem in many communities. The idea is that if too many roofs tops and too many roadways shed too much water during a rainstorm. The result is a high volume of water after a storm that has to be diverted out of these neighborhoods before rushing into our creeks, streams and rivers. This often leads to flooding and/or substantial amounts of soil runoff, the number one water pollution problem in many communities. I find it annoyingly amusing that while my county has storm water problems to such an extent that we are under EPA mandate to address this problem, we are simultaneously experiencing water restrictions due to the drought in southeastern America. In other words, we have two water problems where I live, too much water *and* not enough. Is it too simple to suggest that we collect some of what we get where it falls and use it?

The point is that the structures of suburbia- specifically rooftops and roadways- could be used to gather the water we would need to grow food for ourselves. This could be especially important going forward as global climate changes throws weather curveball after curveball at us. The solution is to designing simple, elegant ways to collect this water for use during times between rain storms. 600 gallons of water can be collected from 1,000 square feet of rooftop in just a 1' rainstorm. Many McMansions are much larger and as such have the capacity to gather much more rain. It's worth noting that 65% of the water we use in our homes each day goes to irrigation, toilet flushing and laundry. Rainwater could be used to do all three with simple filtration. Doing this could go a long way towards restoring the health of our waterways.

In *Garden Agriculture: A revolution in efficient water use*, David Holmgren notes that 'Australian suburbs are no more densely populated than the world's most densely populated agricultural regions.' Anecdotal evidence suggests that American suburbs are populated in roughly the same way. This suggests to me that it is at least within the realm of possibility that the suburbs could be transformed in a way that helps us: A) take advantage of new soil for

growing food, B) foster a redemocratization of America by offering a reasonable amount of food self sufficiency for families during the coming era of change and volatility and C) capture the rain water necessary to address the deepening water crisis being experienced worldwide. We may find that in a time in which we are unable to build out grand new responses to peak oil and climate change, agriculturally at least, we may not have to. We might do best to just stay put.



This work is licensed under a [Creative Commons Attribution-Share Alike 3.0 United States License](http://creativecommons.org/licenses/by-sa/3.0/).