

Rachel's Environment & Health News

#728 - A Vision Statement -- Part 2

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Here we continue publishing the draft consensus statement that emerged from a 3-day "future search" meeting at Oberlin College in January. (See REHN #727, <http://iee.umces.edu/ESDA/>, and www.futuresearch.net.) The purpose of the meeting was to see if a fairly diverse group of people could reach any agreement about a sustainable and desirable world.

Many community activists who know what they are AGAINST (including us), may not be so sure what they are FOR. But if we don't know what we are for, how can we tell whether we are getting there? How can we devise strategies to reach goals that we have never specified?

The Oberlin group tentatively named itself ESDA -- Envisioning a Sustainable and Desirable America. The group has invited RACHEL'S readers to join in the visioning process. The ESDA group said, "We hope you can take the time to read our vision, and offer us your comments. Would you like to live in this world? Are there elements of our vision with which you disagree? Are important pieces missing? When you are done, please send your feedback to farley@cbl.umces.edu," the E-mail address of Josh Farley at University of Maryland.

The ESDA vision statement is organized into five parts: Worldviews, Built Capital, Natural Capital, Human Capital and Social Capital. In REHN #727 we began publishing the "Worldviews" section, which continues here:

An essential step to reaching a steady state economy is full cost accounting. We must recognize that production and consumption decisions incur environmental costs of pollution and resource depletion as well as social costs such as poverty and misery. At the very least, these costs must be accounted for in prices. The idea of full cost accounting must also be reflected in national accounts. The gross national product will be replaced by measures such as the Index of Sustainable Economic Welfare or the Genuine Progress Indicator. (See REHN #516.) Any effective measure of sustainable economic development must also include indicators of the health of the ecosystems that sustain us.

Finally, values will outweigh technical expertise in the decision making process. No longer will policy makers pay attention to economists' mathematical analysis of whether the costs of global warming outweigh the benefits. Instead, people will recognize that complex moral and ethical values cannot be boiled down to simple equations and pure rationality. Emotion will no longer be disdained in the decision making process, but will be recognized as a fundamental component of the human psyche. Science will still be respected within its sphere, but people will recognize that that sphere does not include moral decisions of right and wrong. Technology will be a servant helping us to meet the moral and ethical ends we decide on together, not an end in itself, not a master.

Though these are some characteristics of the dominant worldview we envision in 2100, we also envision a society robust enough, productive enough and tolerant enough to allow room for a wide range of people with differing world views to live together in harmony.

II. BUILT CAPITAL

Built capital is the human made infrastructure used to meet human needs. Though technological advance over the next hundred years will have a large impact on the type of built capital we find in Sustainable and Desirable America 2100, different priorities will have had as much or even greater impact.

COMMUNITIES : Communities will be dramatically redesigned to integrate living space, community space, and work space with recreational needs and nature. Workspace includes the stores that supply our every day needs as well as production facilities for most of the goods those stores supply. People will live very close to

where they work, where they shop and where they play. Communities in general will be much smaller, though specifics of community size and design are determined by local ecosystem limits.

In addition to these very practical aspects, communities will be designed as "soul satisfying spaces that resonate with our evolutionary history." Most communities will be surrounded by natural areas and incorporate parks and other green spaces (though this is a misnomer in drier parts of the country, where xeriscaping will be the norm) that will also serve as common space for community members. They will also foster social interaction and mutual dependence on community. Rather than something new, this is simply a resurgence of a millennial tradition of settlement patterns.

Because community space is abundant and well designed, private homes will in general be smaller (hence cheaper and easier to care for) though still palatial by world standards. Private lawns will virtually disappear, though lawn-like community green spaces will exist, and private gardens will abound. Private gardens in fact meet a substantial portion of community food needs.

Rapidly increasing energy costs will probably provide the initial incentive behind the unified, largely self-sufficient communities where walking and bicycle riding will effectively become the dominant forms of transportation, except in the worst weather. However, Americans will quickly discover that there were enormous benefits to such pedestrian communities. One of the biggest impacts will be simply getting people out of their cars. Walking to work, to the store, to community meeting places or to nature preserves on the outskirts of town will bring people into direct contact with the other members of the community. People walking together in the same direction naturally converse, establishing friendships, informing each other of current events, and discussing issues of relevance to the community. In fact, developing community and social capital will become one of many explicit goals for designing built capital.

Modern communities will be very healthy places for humans and other species. The invigoration of exercise and the nurturing of the human need for social interaction will replace the stress of hour-long commutes, road rage and the pollution of vehicle exhaust, improving both physical and mental health. Air quality will be very high. Many roads and parking lots will become redundant, and in their space will stand parks, streams and greenways, providing clean air, clean water, and healthy recreation, among numerous other vital ecosystem services. Dramatic reductions in impervious areas will reduce flooding and allow the land and the ecosystems it sustains to filter water, restoring the nation's waterways to health.

Of course, though the near extinction of the single occupancy vehicle will make many roads nothing more than useless pollution taking up space needed for forests and other natural areas, it will not be easy to clean up the mess. The energy costs of simply tearing up all the pavement may prove more than America can afford, and ecological restorationists will need to discover how plants can do much of this for us. Certain plants can thrive when planted directly into cracks in asphalt and others can be planted in holes dug through the roads, the roots mechanically breaking down both asphalt and concrete. Different plants will prove able to chemically break down the pollutants in the soil from both the asphalt and the vehicles that drove over it for so many years, and these will 'pave the way' (an archaic expression) for the return of native plant communities.

The huge cities of course will not disappear in one hundred years, but will be dramatically reorganized. In 2100 cities will be aggregations of smaller communities in close physical proximity, but where each community meets the housing, employment, social, recreation and shopping needs of those who live there. Natural areas will also make a big comeback in urban, and ecological restoration will play an important role in decontaminating urban brownfields. Huge cities will remain of course quite different from more isolated

smaller communities, with both advantages and disadvantages. Communities within a city will still be organized in many cases on ethnic or cultural lines, so cities will provide exceptional cultural diversity and richness. There will simply not be enough land within or nearby most cities to provide all the agricultural production and raw materials for manufacture they require, and much of this must still be shipped in.

TRANSPORTATION: As already mentioned in the description of communities, single occupancy vehicles will be exceedingly rare. The dominant modes of transportation within communities will be walking and bicycling, and between communities it will be high speed rail. Public transportation will be important within communities, and will be designed not just to transport passengers but to transport goods as well, making it convenient for grocery shopping and the like. Because so many people will use public transportation, it will be abundant and extremely convenient. Rail will be common, but so will buses and taxis powered by fuel cells. Traffic will be a thing of the past, so public transportation will get people around much more quickly than private vehicles do today, at a fraction of the cost. Dramatically fewer vehicles on the roads will also cut maintenance costs to a fraction of what they are today, and new roads will be unnecessary. Some people may still own private vehicles -- hydrogen powered hyper-cars -- but these vehicles will be expensive, and their owners will pay a higher share of costs of road maintenance. Most communities will have hypercars available for rent when private transportation is absolutely required, and when not in use for driving, the hypercars may prove a clean and efficient source of electricity for those rare occasions when local solar cells are insufficient.

ENERGY: Renewable resources will meet virtually all of the nation's energy needs, the conversion from hydrocarbons facilitated by continuous increases in efficiency of energy use. Photovoltaic tiles will be ubiquitous roofing materials, and roofs alone will meet over half the nation's energy needs. Much of electricity from wind farms and solar farms will be used to create hydrogen for fuel cells. Large scale hydropower will be decreasing in importance as more and more rivers are restored to their natural states, but low impact mini-turbines will be increasingly common. In spite of the abundance of non-renewable non-polluting forms of energy, energy efficiency research will still be important, the primary goal being to reduce the area of the country covered in solar cells.

INDUSTRY: Industry will change dramatically. Industrial design will be based on closed loop systems in imitation of nature, where the waste product from one industry becomes the feedstock of the next. Wasted heat from industrial processes will be used to heat nearby homes and workspaces. When possible, industrial production will use local materials to meet local needs, and process wastes (the few that are not put to use) locally. Most industries will be locally owned as well. While these characteristics will not always maximize productive 'efficiency', the benefits will outweigh the costs. First, local production will dramatically reduce transportation costs, helping to compensate for sometimes higher production costs. Second, it will make communities directly aware of the environmental impacts of production and consumption. Costs of waste disposal will not be shifted elsewhere. Third, industries will be part of a community. Most of them will be locally owned by the workers they employ and by the people whose needs they meet. Rather than simply trying to maximize returns to shareholders, industries will strive to provide healthy, safe, secure and fulfilling working conditions for workers. Those who produce goods and those who consume them will know each other, so workers will take particular pride in the quality of what they produce. Fourth, the decentralization of the economy will mean that the economy as a whole will be much less susceptible to business cycles, increasing job stability. Fifth, an emphasis on local ownership and production for local markets will reduce the importance of trade secrets and patents -- competition will be replaced to some extent by

cooperation. Finally, decreased competition will lead to a dramatic decrease in the size of the advertising industry. This means that money once spent on convincing people to buy one brand over another will be spent on making those products better, or simply not spent, making those products more affordable. [To be continued]