The Inescapable Logic of Local Community Self-Sufficiency

(Paper #1 in a series on community self-sufficiency)

This paper makes the seemingly improbable argument that a long string of apparently unrelated, intractable social and environmental problems have a common root cause and a common, locally approachable solution.

- The misery of refugees and displaced jobless populations with continuing dependency on government or private charities,
- Decay of cities (large and small),
- Deplorable conditions of Indigenous Peoples "reservations" and the continuing loss of their languages and cultures,
- Increasing violence, apathy and mal-treatment of children,
- Destruction of whole ecological systems,
- Desertification,
- Inability of people to adapted to changing climate conditions,
- Toxification of natural and human environments,
- Overwhelming increasing stockpiles of commercial waste products in the general environment:

All these problems, though they may seem to stem from different immediate causes, surrender to a surprisingly mundane, non-miraculous, locally implementable solution. While in many cases it may be very difficult or even impossible for a local population to bring about this solution by themselves, with temporary outside aid it will be possible. And once a well-defined point is reached, outside aid will no longer be necessary.

What is Self-Sufficiency?

Self-Sufficiency basically means "able to provide for ones own needs without outside aid or support." However, embedded within our use of this word lies the idea of *sustainability*: The ability to meet the needs of the present without compromising the ability of future generations (human and non-human) to meet their own needs.

What is a Community?

Communities are created because few individuals survive long or happily on their own. The word itself is usually defined as "a group of people with common interests living or operating in a particular area". Typically only indigenous peoples have had a concept of community that necessarily included non-humans. It is historically borne out that any culture that fails to consider the good of all creatures in the environment almost inevitably ends up making their habitat unlivable one way or another.

> "Unlivable" includes situations where the long-term survival of the population is dependent upon plundering the resources of regions beyond their own borders – that is, transferring the problem to elsewhere.

If one can accept the above definitions, and

If one can also accept arguments made by many, many others that human life is only healthy when long lists of non-human creatures (and *their* communities) are also surviving well, and

If one has the honest intention to broadly raise the level of survival of such communities,

Then one should consider

What are the basic, minimum functions the humans in these communities would have to perform in order to produce a reasonably happy, healthy, self-perpetuating level of community life

while also

Being able to apply their knowledge, skills and resources to help other communities achieve at least the same standard of life.

While thinking about what these functions might be, one should keep in mind that:

- It is now generally accepted as a scientific fact that our agricultural, manufacturing and energy practices are contributing to the acceleration of climate change on a global scale[1]. The catastrophic events on the US Gulf of Mexico coast during the 2005 hurricane season have given us rather a graphic sense of the magnitude of possible consequences of climate change even if predicted effects are only "slightly true".

- Most Americans (like people in most Western societies) have long since ceased to value self-reliance. Long gone are all the brilliant, simple techniques and inventions that kept our ancestors alive during earlier times. Indeed, our dependency on mass-produced solutions purchased off-the-shelf is complete; as a group we have forgotten there was ever any other way. This same trend is now becoming prevalent in so-called "Third World" countries.

- Communities run huge risks by having most vital infra-structure services (energy & food production, water, sanitation, transportation, etc.) so highly centralized, oil-dependent, easily disrupted and outside local control as they are now.

- When essential supply and service systems break down and survival becomes personal, people fight (rationally or irrationally) to protect and defend their families and other individuals they care about. They will cannibalize their local environment – and the environment of others – thus producing short-term survival and long-term misery (like the parable of the man who froze to death by tearing down pieces of his house to use as firewood.)

Simply put, ***with the arrival of hazardous social, economic or environmental conditions, any community that is not constructed to be fully self-reliant and locally self-sufficient under imaginable worst-case scenarios is likely to fail and become a burden or threat to its neighbors.***

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[1] See the Intergovernmental Panel on Climate Change (IPCC) report "*Climate Change 2001: The Scientific Basis"* (http://www.ipcc.ch/pub/spm22-01.pdf) and more recent papers at http://www.ipcc.ch/ . Also see Pentagon report of October 2003: "*An Abrupt Climate Change Scenario and Its Implications for United States National Security: Imagining the Unthinkable*" (prepared for the Pentagon by Schwartz and Randall, October 2003) at http://www.ems.org/climate/pentagon_climatechange.pdf)

This is a very uncompromising datum; unfortunately it is also very true.

Economics and Solvency for Real, Living People

Endless media-fueled rhetoric to the contrary, all economics start at home. (The word "economy" itself is derived from an ancient Greek word meaning "management of the home".) If one's house is not producing more than it consumes, it is insolvent. That is, the house is not able to pay its debts by virtue of its normal functioning. People of our commercial culture don't usually think of a house in this way because they assume it's normal to have to work at some outside job their whole lives to subsidize it.

If one is taking more from his environment and extended community (human & non-human) than he is contributing, then he is making himself insolvent. Rampant insolvency results in the failure of individuals, families, societies, civilizations and often whole lists of species that couldn't get out of the way in time.

If one accepts that

1. the family, extended family or other self-identifying group plus its symbiotes (non-human creatures that share a cooperative relationship) form a community, and that

2. this community is an indivisible unit of survival (one member cannot get along well or at all without the others),

then solutions get simpler. We find we need to solve the problems of survival at a highly personal, local family/small community level before we can expect meaningful results on any larger scale.

On a physical level, an important part of what makes people feel secure is a sense of being in control of the availability of the materials and services essential to comfortably sustain their lives.

In this paper, when we speak of *functional human communities*, we will assume the extended family (perhaps a nuclear family of some kind plus various in-laws; plus spontaneously "adopted" brothers, sisters, uncles, grandmothers, friends & guests) as a useful starting point. A very small group or "nuclear family" alone is usually too small to easily survive under difficult conditions. In all our planning, the extended family will be the "atomic unit of survival" – the place where the buck stops when it comes to sheltering, feeding, nurturing, and caring for the individual people & environments of our world.

We will knock off the useless fantasy that some corporate or government program will ever care for living beings (human or non-human). People only feel truly cared for by other people who actually care about them and treat them as family.

Similarly, no environment on Earth will ever be cared for by government decree. People will care for them because they understand how indispensable are the relationships amongst humans, non-humans and the physical environments.

The Self-Sustaining Extended Family Homestead

Just as a plant requires nitrogen AND phosphorous AND potassium AND water AND air simultaneously, so does any community require its interrelated components (food production, education, fuel availability, shelter, transportation, mechanical construction and repair, etc.) to be initiated, available, and functioning at roughly the same time. The absence of any vital ingredient eventually destroys an entire community – either in an obvious manner (no food) or a not-so-obvious manner (very inconvenient household systems that fray nerves and cause domestic stress.)

A *homestead* (a home and the land it occupies) that is intended to withstand shocking social and environmental upheavals must be virtually self-sufficient, easy to live in, resilient to extreme demands and easily replicated. By its very design it should virtually ensure the survival of itself and its occupants. This is so uncommon in our world that the concept needs to be explained.

For example, a self-sustaining rural or suburban homestead would:

- Provide its occupants with small livestock & plants (for food, medicinal and other uses) on a year-round basis, independent of the availability of other sources
- Recycle all of the inhabitants' organic wastes and with it produce rich soil
- Require little or no energy input to maintain comfortable temperatures and ventilation
- Provide any needed electric power via wind, solar or other sustainable means.
- Be easily repaired with locally available materials
- Provide water via wells and/or rooftop collection for greenhouse, gardens, washing and drinking
- Withstand extremes of the local climate, weather (storms), geology (seismic events), politics (social disturbances, bad governance), and external economics (recessions).
- Provide quarters for extended family and guests.

The "urban homestead" might provide most of the same functionality though perhaps implemented differently than under rural or suburban conditions.

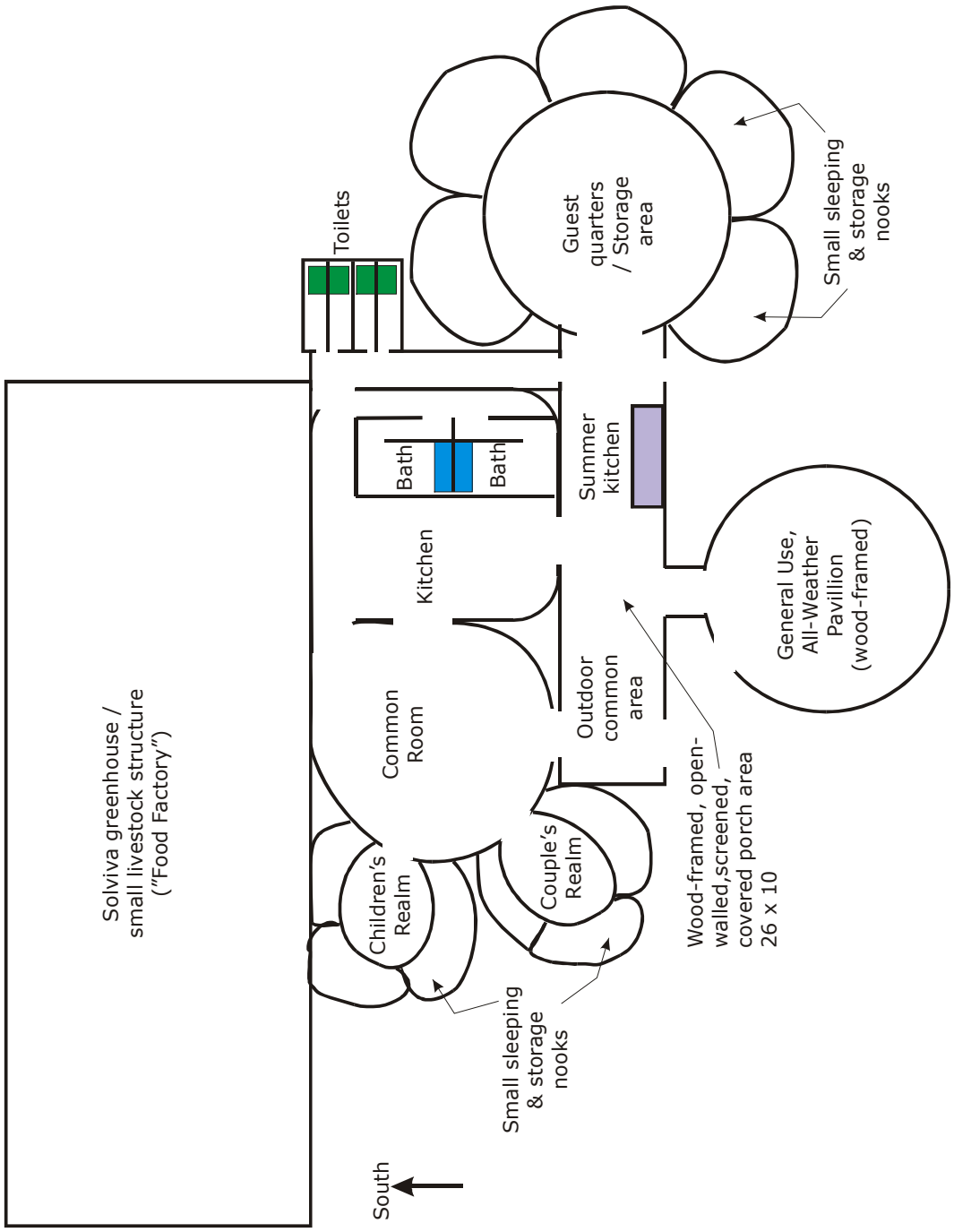

Figure 1: Sample layout of a rural or suburban homestead

A Core of Micro-Industries

If we seriously consider long-term survival for a group of extended families, we also have to imagine and create the context in which they will be living. Clearly they would do better if they were physically somewhat near each other in some kind of village or settlement that also provided a variety of services. These service facilities (not all would normally be considered "industries") include all the various functions the inhabitants have come to depend upon.

These might include:

Skill	Use
Agro-ecology (sustainable agriculture)	Greenhouse, Animal husbandry, Aquaculture, medicinal herbs Care-taking the external environment such that it becomes healthy, abundant and amply supports its human and non-human populations
Machining & Metallurgy	Tool- and part-making, tool repair
Mechanics	Maintenance of transport vehicles, earth-moving equipment, wind generators, water pumps
Glass-making	Replace damaged greenhouse panels, windows, craftwork
Weaving, sewing	Clothing manufacture & repair
Ceramics	Crockery, ceramic containers, craftwork
Fuel-making & Chemistry	Bio-Diesel, methanol, ethanol, glues, dyes,
Auto mechanics	Passenger vehicles & heavy equipment
Electrical / Electronics	Radios, computers
Outdoor ("Primitive") Skills	Outdoor awareness & survival skills, ethnobotany (all traditional skills of the American Indian scout)
Martial Arts	Self-defense, physical competence
Medicine	Surgery, midwifery, dental
Salvage & Recycling	Metals, plastics, wood, etc.
Construction	Housing, HVAC, water wells, etc.
Food Prep	Cooking, drying, salting, cooking, baking, bottling, canning
Woodworking	Wood harvesting, milling, cabinetry, boat-making, etc.
Schooling	Cultural traditions, languages, mathematics, reading
Arts & Spiritual Practices	In all their infinite, beautiful forms

These skill centers / micro-industries would serve as both village service providers and educational facilities to transmit skills to others in the community and from outside. While these tiny industries might have a hard time competing in external marketplaces with the huge manufacturers and their economies of scale, neither would there be an overwhelming need to compete with outside producers. Given their internal capacities to satisfy the vast majority of their internal needs, the community would, after all, be effectively self-sufficient.

Aside from keeping itself running, the primary products of the community would be:

1. Bringing health and abundance to the natural environment within its zone of control or influence
2. Artisan outputs of each of the micro-industries (new homesteads, glassworks, ceramics, food stuffs, bio-diesel fuel, weaving, on-site training class, etc.)
3. Replicating its entire community infra-structure patterns elsewhere and being a training base for others who wish to learn how to create one in their own home areas. Thus the pattern is perpetuated.

Solving Thorny Problems

This paper began with a claim that this approach could help unravel some very thorny social and environmental problems. How could this be true?

Refugees / Displaced Populations / Domestic Groups Stuck in Grinding Poverty

Morale knows no bottom when you are powerless to change the misery of your own conditions. If repatriation is not currently possible, why not at least make the best of whatever land they have been place upon? Imagine a refugee camp or (in a city) a whole neighborhood given the infra-structure to:

- Grow adequate quantities of food regardless of how adverse the climate
- Recycle all their own organic waste (including human & animal manure) into rich, productive soil
- Have the tools, equipment, shops and skilled craftsmen necessary to provide the functions listed above (not all may be needed and others may be required that are omitted on the above list)

In other words, instead of letting these people decay on the dole lines or splitting them up against their will to be sent to distant places, how about letting them build their own self-sufficient communities right where they are?

Indigenous Peoples

Their situation is usually about the same as the last; they have normally been forced out of their chosen areas and confined to the least desirable lands. "Giving them jobs" and "integrating them" into the commercial world is the proven road to cultural annihilation.

Their first job is the internal physical survival of their group, their values, their language, their beliefs, their culture. Unless one's plan is to shatter their sense of

self-worth and thereby subjugate them, then provide them with whatever is necessary to become completely internally self-sufficient, including training in all the necessary skills.

Violence, Apathy and Mal-treatment of Children

Imagine growing up in a community where, from your earliest years, you were encouraged to participate in all the activities that add up to the survival and health of yourself and your community. Every day you learned things of importance just from listening to and watching artisans (who know you well) going about their daily tasks. And when you were ready, you could apprentice with any or all of them.

Your relationship with the natural world – even in a city environment – would be encouraged by all those who are caretaking the non-human worlds in greenhouses and outdoor environments.

It is difficult to imagine violence, apathy and mal-treatment flourishing under such conditions.

Ecological Devastation / Human-Caused Climate Change

It is hard work restoring forests to areas now deserts or cleaning up the damage of wars and misguided commercial enterprises. But this is a central theme in the mission of the community and is fully supported by its micro-industries.

Food self-sufficiency under adverse climatic conditions is accomplished by specially constructed (but low-tech) greenhouses – using well-tested designs that permit high production under even the most extreme conditions without dependency upon exotic (non-locally-available) energy sources or materials. Even under such difficult conditions, a small group of people well-trained in greenhouse operation can grow far more food than their community could consume.

Urban Environments

Some special adaptations may be required to implement these ideas in a dense, heavily regulated city environment. Imagine, for example, an abandoned warehouse or other trashed-out commercial property cleaned up, renovated and outfitted with a full complement of living units and workspaces including the above functionality. There might be a minimum of natural environment available to work with; however, the greenhouses would be vast spaces still capable of producing an abundance of food.

Where restrictions make certain aspects of the model difficult or impossible (raising chickens or goats), other activities would be augmented, ensuring that trade for unproducible items would most certainly be possible even under very difficult economic conditions.

As with all other versions of this model, the urban self-sufficient community would have the non-profit mission of reaching out to and establishing good relationships with their surrounding communities, working with residents to make their neighborhoods into self-sufficient communities, if the residents so desired.

Creation of a Distributed Safety Net

By organizing the tools, infrastructure and capital necessary to make communities and families or other self-identifying groups self-sufficient, they can care for themselves. By making them more than self-sufficient, they can become part of a "Distributed Safety Net" for their neighbors and the larger regional community by having the resources to help their neighbors through a disastrous event and to help them rebuild. Creating a network of loosely linked but individually self-sufficient communities across a region would mitigate risks of catastrophic losses.

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This community design is composed entirely of well-tested elements (the greenhouse, solar electric systems, composting systems, internal economic systems, etc). Then why hasn't this been done before? Well, as a matter of fact, it has been done many times before, but mostly not intentionally and usually not completely. These types of communities evolved and, with lack of attention and protection, "de-evolved".

You can throw all the airplane parts you want into the air but they won't ever fly. It is only an exact combination of parts, well-assembled, well-operated and well-maintained that makes flight possible. Getting all the parts gathered up is just one part of the job. We've got all the pieces; but the airplane still needs to be *built*.

So, shall we do it?

Bob Rich
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av923@yahoo.com