

Towards a Sustainable Community Design and Development: A Primer for the American Developer

Overview

We sure hear the word “sustainability” a lot these days; but what exactly does that mean for the developer who wants to build “sustainable communities?” A quick review of terms will help to ensure that everyone’s speaking the same language:

Sustainable:

A sustainable situation is one that “can be continued into the indefinite future” – for as far along the time horizon as one can imagine. This perspective implies a shift from focusing on short-term quarterly cycles to paying attention to long-term cross-generational consequences. In tune with this outlook, another useful definition of sustainability is “drawing down resources at a current rate that will not deny future generations access to those same resources.” According to these criteria, standard development practices – and the economic system within which they operate – are not the least bit sustainable: they cannot be continued indefinitely and they certainly draw down resources faster than they can be regenerated. In fact, after evaluating the available data, many theorists have concluded that we already have *passed* the stage of hoping for some kind of “sustainability” – as in consciously and cooperatively leveling off at a point where resource consumption equals resource replacement under conditions that can be continued into the future. For these thinkers, “sustainability” is more of a wake-up call than a set of achievable goals. They are urging a shift toward conceptualizing *beyond* sustainability, beyond mere steady-state material maintenance, to those conditions where human beings can actually *thrive* – economically, socially, spiritually – thus realizing their full human potentials. Objectively speaking, conceptualizing conditions beyond sustainability means accepting that either drastic reductions in consumption patterns or drastic reductions in population levels are inevitable, and evidence supporting these claims will be revealed later in this report.

Community:

A useful way to comprehend the essence of this term is to hyphenate it into ‘community.’ A true community, then, has a common purpose or focus – something that unites the people together into some kind of shared destiny. Too often the term ‘community’

is used to describe a group of people who merely occupy the same geographic space without having any more of a common purpose other than maintaining their property values – as in ‘the community of Bothell’ or ‘a planned residential community.’ These are shallow uses of the potentially rich interconnectedness inherent in this endearing term ‘community.’ Unfortunately, in North America, true community is seriously lacking; instead, what we have are more like collections of isolated individuals or families genuinely wishing for a sense of connection, a deep sense of belonging, but not knowing where to find it. This is not to pass judgment – it’s simply a reflection of the unsustainable settlement patterns that have characterized the rapid, and too often haphazard, development of the continent. The Old World, having developed organically, is full of genuine community – communities within communities – and this is a real delight for the traveler to witness. Interestingly, the term ‘community’ also is used in the field of Ecology to define a group of interacting species inhabiting the same ecological niche. In the human world, an “intentional community,” like an ecovillage, refers to a group of people who have consciously and cooperatively chosen to live amongst one another in order to create a shared sense of purpose.

Design:

The word ‘design’ is generally omitted from the usually institutional approaches to what has come to be called “sustainable development;” but we can assert here that ‘design’ introduces a vitally creative human dimension that the institutional approaches are lacking. Essentially, design is a *process* of deliberately (and hopefully knowingly) arranging the environment in order to achieve a desired result – it’s the art of the possible, and all human beings do it! ‘Process’ was highlighted so as to emphasize that design is an ongoing progression, a series of actions, a course of development that is never really quite finished – it’s so much more than simply drawing some plans on paper. Sustainable Community Design is a potentially rich process of exploring, defining, and enhancing relationships –not only amongst the elements and features to be included but also, ideally, amongst the stakeholders involved as well as with the natural living energies of the place, over time. In this sense, Sustainable Community Design is a 4-dimensional art and science whose goal is the ongoing creation of flourishing habitation systems in which human beings can *thrive* – economically, socially, and spiritually – in harmony with the natural world, far into the future. That may sound like a tall order; yet there have been cultures that have realized these ends quite artfully. Buckminster Fuller, in his later writings, called for a “design revolution” in which human beings begin creatively crafting the situations they really want rather than blithely accepting that which history has passed down to them.

Development:

In its common usage, 'development' is the act of converting parcels of the natural environment into constructions of the built human environment; and so, "sustainable development" has as its stated goal organizing this activity in such a way that it can be continued into the indefinite future. Yet, when you really stop and think about it, 'sustainable' and 'development' are contradictory terms, because the entire Earth cannot be converted into constructions of the built human environment and so 'development,' as it is currently defined, must at some point cease; it cannot be continued indefinitely. Since "sustainable development" is intimately associated with and dependent on 'growth,' then what we may really have here is an effort to mask the need for unending 'growth' in a debt-based financial system in language that can make it appear that concessions are being made for the future. However, as was touched upon above, many researchers have concluded that human beings *already* have overstepped their bounds, that natural ecosystem functions and services are *already* in decline on a global scale, and so any continued expansion of the built human environment can only exacerbate an *already* disturbing trend. Under these conditions, the only players benefiting from a "sustainable development" agenda are those with substantial investment in the debt-based financial system – the Earth as a whole loses. With all this in mind, it is constructive to consider re-thinking 'development' in terms of improving and enhancing the quality, utility, beauty and well-being of *that which already exists* rather than continuing to displace a Nature already disintegrating. In a materially closed system like the Earth, 'growth' clearly cannot be continued indefinitely; at some point the inertia must retract; it's only a matter of time. Those players perceptive enough to recognize this inevitability are uniquely positioned to situate themselves on the leading edge of the retraction, or return as it may be, and so profit handsomely from the coming period of re-integration. Development as integration rather than expansion – improving and enhancing quality, utility, beauty and well-being – this is similar to the practice of *personal* development.

Context

With some clarification of terms, it is now possible to begin moving toward an elaboration of a Sustainable Community Design and Development that can effectively respond to the needs of our times. Since this report is being addressed to "American" developers, it will be constructive to look at the circumstances surrounding American development in particular. Besides the USA, this must also include the rest of North America – Canada and increasingly Mexico – and to some extent all the recently colonized countries, especially Australia.

It's been calculated that eighty percent of all development in America has occurred in the last 50 years! We've certainly been living in the midst of a building boom of unparalleled proportions; and anyone who has grown up during this period has experienced a surge of continuous and relentless growth, as if that was what life is like. The USA returned from WWII to enjoy conditions of unimaginable wealth. Combined with an overflowing surplus of cheap available energy and the interlinked convenience of a federally funded interstate highway program, all the pieces were in place to fuel this building boom that largely *became* our economy. Even today, some twenty-five percent of the GDP is derived in one way or another from the so-called building 'industry.'

The vast majority of this building occurred in a new style of human settlement called 'the suburb' on the periphery of established urban centers and then quickly spread along the interstate corridors to include 'edge cities' and 'new towns' with suburbs of their own. The growth spread so rapidly that there was absolutely no coherency among the various developments, no set of relationships or interrelationships that could combine them together into some kind of coherent whole. Of course, the planners tried to direct the growth and protect property values through the use of zoning, but this only ensured that there would be 'single-use' enclaves widely dispersed about a metropolitan region.

The results of this anarchic period of sprawl are well known: a confused, inefficient, and often quite ugly patchwork of buildings and roads, usually laid out on an abstract square grid, resembling real places but lacking any internal consistency or sense of connectedness. Unless you live near a city center with public transit and some measure of density, you are required to drive your automobile all over the place to meet your needs – driving in one direction to pick up the kids, off in another direction to buy food, then back in the car to visit friends, finally waking up to drive off to work and enter the whole disarray once again. This has become the American way of life, and it takes a *tremendous* amount of energy to maintain it. Ironically, the inbred *independence* has coincided with an unhealthy *dependence*; that is, it's no exaggeration to say that many Americans would helplessly perish without functioning automobiles. What does this imply for a demographic profile that is growing increasingly older?

The situation in the Old World is very different; and here I can speak most knowledgably about Europe. European cities grew up *organically* over the course of millennia: they may have started as a camp way back when, and then grew into a hamlet, then a village, then a town, then city before finally expanding into the metropolitan regions of today. At each successive stage of the growth process, some kind of coherency was maintained with the surroundings – not only with the existing built environment but also with the encompassing ecosystems upon which the

settlement depended. In this way, there was an ongoing association, even symbiosis, with the natural world, so that later structures were built upon what was essentially a nature-encoded substratum. The American settlement pattern is generally overlaid *on top of* existing ecological functions, in one fell swoop, so that natural patterns and relationships are buried and forgotten.

Of course, Europe also experienced an unsustainable surge of fossil-fueled growth after WWII and produced suburbs; but for the most part the European landscape is urbanized, with a coherent network of districts, quarters, neighbor-hoods, and villages each with distinct centers of their own. Each of these sub-centers is interconnected by accessible mass transit, while the urban centers themselves are connected by high-speed rail. Significantly, the most valuable agricultural land has been preserved through the centuries, marked by well-defined and unencroachable boundaries.

The purpose here is not to suggest that America could be fashioned after Europe, for there are two distinct histories and destinies underway. Nevertheless, there are valuable lessons to be learned about the inherent coherency – and thus sustainability – of organic, nature-encoded settlement patterning. In fact, as many writers have acclaimed (perhaps beginning with McHarg's seminal *Design With Nature*), natural systems are the ultimate basis upon which to model sustainable human systems; after all, Nature is an enduring organic process that has been proceeding in ever greater complexity and diversity (until very recently) for some **3.9 billion years**. What could be more sustainable?

Contingencies

The hastily configured, abstract, fragmented, random assembly of an American settlement pattern – laid out as it is on a square grid consisting of widely dispersed and disconnected individual units requiring fossil-fueled automobiles to navigate the disarray – may soon have a chance to demonstrate its unsustainability. Everything was fine in an era of cheap energy and its accompanying unrestrained growth but all that is in the process of changing: We are now entering an era of Peak Oil. For those who haven't had the chance to research this issue, Peak Oil is that point on the oil production curve where demand begins to outstrip supply. The current spike in gasoline prices is not a temporary aberration but rather the beginning of a long-term trajectory. All the easy oil has already been found and tapped; the remaining reserves will incur increasing costs to bring the product to market. Of course, the peak is just the midpoint: the world is currently refining more oil than it ever has before; yet the world's peak means that the rest of the story involves coming down the backside of the curve – a period of

unremitting and irreversible energy descent. The USA peaked in oil production in 1971, and ever since has needed to ensure increasing access to foreign supplies.

For those who *have* had the chance to research this issue, there is a myth circulating that once oil becomes cost prohibitive, all we'll need to do is switch, in a relaxed and carefree manner, to an alternative fuel and then carry on as usual; but please don't buy into this myth. The two most widely proposed alternative fuels are hydrogen and ethanol. Hydrogen is an energy *storage* system that requires a separate energy source to produce it. And what is currently the most widely used source for this energy production? It is natural gas, which is already in decline. Ethanol is currently a net energy loser, requiring more energy to produce than energy obtained. This is because ethanol begins with the agricultural production of sugar cane, sugar beets, or corn. In current industrial agricultural production, it takes 10 calories of fossil fuel to produce 1 calorie of food (!); so, as the availability of fossil fuels continues to wane, how can we possibly rely on industrial agriculture to generate our fuel needs?

Even if we could effortlessly switch to an alternative fuel source to replace oil, where would be the wisdom in this? The widely scattered, random, and disconnected American settlement pattern of isolated individual units has produced people with the same characteristics: Anomie, addiction, alienation, lonely individuals cut off from a sense of community – these are all consequences of the American way of life. Absolute dependence on the automobile has been a direct contributor to social breakdown, since people no longer need to meet each other face-to-face but rather only pass in a blur of high speed mobility. Friends who want to get together often need to make appointments weeks in advance. The family also suffers since so much stressful commuting back and forth means less quality personal time. This stunting of social development and sophistication becomes apparent overseas, as Americans often make spectacles of themselves for their crude arrogance and worldly unknowing, as well as for their common inability to perceive social protocols. For the rest of the world, Americans are generally regarded as living in a fantasyland bubble of media-induced consumerism.¹

Once again, the purpose here is not to pass judgment, but rather to make an objective case for the correlation between the character of the environments in which people do their living and the chance for them to develop their full human potentials. How are people ever going to learn social and communication skills if the environment

¹ To avoid any misunderstanding, I want it to be known that as a junior in high school I wrote a short paper describing the reasons why I love my country. The teacher liked it so much he read it in front of the entire class. That was in 1976. Since that time I have perceived a general moral deterioration. I think that Americans, for the most part, have become lazy, expecting rich rewards for little investment. Of course, this is all highly generalized and does not refer to the many among us still practicing virtue. Could not well-pointed criticism be a form of patriotism?

does not provide a setting for these opportunities? We've learned we cannot necessarily depend on our families to pass on these skills because the parents and their parents before them never had these skills to begin with. We are, after all, a nation begun by wild adventurers, religious crusaders, speculative investors, fiercely independent pioneers – and probably a whole lot of orphans, castaways, outlaws, drunkards, and otherwise social rejects. People *can* develop social skills in their own way and in their own time, if there are features in the environment to provide the opportunities. These features can be really creative: promenades, plazas, pavilions, squares, greens, arcades, fountains, statues, pedestrian only shopping districts lined with rows of outdoor cafes, gazebos with musicians, dance halls, stages, ponds, courtyards, stairwells, and lots and lots of benches. If the people can get to these places just by walking from their residences, then all the better: there will be plenty of opportunities for spontaneous social interaction with their neighbors, without the need for making appointments.

So far the record shows that when designing the built environment is left up to private enterprise, public social space suffers.

Strategies

So, as you can see, there are two ways to approach this Sustainable Community Design and Development challenge:

The first is reactive or responsive: Change is here, and we must adapt to it. The vast majority of the infrastructure in America was built around a one-time bonanza of cheap available oil. As we begin our slide down the backside of the oil production curve during the coming period of energy descent, this infrastructure will prove to be dysfunctional and will need to be retrofitted. The period of frenzied growth that we grew up with, fueled as it was by a surplus of cheap available oil, will come to a halt and then will begin to retract. The so-called global economy will evaporate in its over-extension as economic responsibilities return to regional centers in a massive wave of re-localization. Since industrial agriculture is so heavily dependent on fossil-fuels, during the period of energy descent there will be a drastic reduction in food production followed closely by a reduction in population levels. Global warming will introduce highly unpredictable dynamics into the system, further accentuating the momentum of change. Competent and informed Sustainable Community Design and Development will become, then, not so much a fanciful notion as a moral imperative: "Sustainable" communities, whatever their composition, will be those that can weather the change.

The second approach to the challenge is proactive. In what kind of living situations do human beings most readily *thrive*? What shapes and sizes and scales? What are the features, the densities, the vocations, the activities, the relationships, the

structures, patterns and processes that human beings need to realize their full potentials? By approaching the habitat challenge in this way – that is, by cleverly *designing* an optimum, full-featured, flourishing, nature-encoded living system, instead of simply accepting that which has been passed down – we will be purposely contributing to the evolution of consciousness and the healing of the planet. Such a grand valiant project will require tapping into the full store of human creativity. Such a project will produce prototypes of genuine sustainable community that truly can be continued into the indefinite future – and what better time to begin this venture than *now*, in preparation for the coming retrofit?

Even within these reactive and proactive approaches to the design and development of sustainable communities, there will be a wide range of diversity as to actual degrees of sustainability. No one community could ever be “self-sufficient” – as if an island unto itself – because there are always numerous overlapping interrelationships, so “self-reliant” may be a more realistic goal. For example, will the community have some measure of food security if shipments stop arriving at the local supermarket? How much renewable energy can be generated on site off the grid? Can this community collect and store its own drinking water while treating its wastewater in a recyclable closed loop? What kinds of commodities are produced within the internal economy of the community, and which of these commodities is produced in sufficient quantity to be traded with other communities? What sort of arts and cultural activities are available within the community, and is there enough infrastructure to encourage even more arts and culture? Is there enough social space designed into the community so that residents can casually interact with one another while going about their daily business? Is Nature visible within the community? And are there tracts of land around the community preserved for natural functions? Do all the residents in the community have an opportunity for ongoing education? Does each stakeholder have a say in the political direction of the community? And is there transparency in the decision-making process? Has the community instituted a policy restricting growth? What sorts of beneficial relationships have been nurtured with other sustainable communities within the region and around the globe?

As you can see, there are many factors to consider, for the design and development of genuine sustainable communities is a deeply holistic, broadly multi-disciplinary affair occurring on many dimensions simultaneously. Competent participants need to have access to a wide range of knowledge, and even more importantly, must be able to think across disciplines to appreciate how apparently disparate bits of knowledge relate to one another. There is less emphasis on specialists in this scenario, except as they can contribute to an inter-disciplinary team.

Besides accumulating, integrating, and applying diverse knowledge, competent designers must be able to *perceive* on a very subtle level, for there are unseen energies involved – we are, after all, working *with* rather than *against* Nature. This subtle perception requires a kind of ‘whole body’ awareness where all the senses come into play. It is the multi-sensory stimulation skillfully designed right into the built environment of the community that will contribute to the evolution of the nervous system, and thus of consciousness.

Finally, what about attitude? When one realizes the colossal scope of the project at hand, then it can no longer be business as usual. This is not simply about creating spaces for people to shop or pay rent; nor is it exclusively about maximizing return on investment – ultimately, using one metaphor, it’s about providing those holistically-conceived, vibrantly fertile wombs from which can be birthed the next species of humanity. When it comes down to it, this work of Sustainable Community Design and Development is nothing less than *sacred*, because we are consciously contributing to the positive, salubrious (i.e. healthful) evolution of the planet.

Conclusion

These sure are fascinating times we’re living in. By all estimation, we are on the verge of a transformation of unparalleled proportions. The American developer could have a vital role to play in this transformation. So far, they’ve proven themselves very effective at filling in ‘spaces’ but not so good at creating real ‘places’ – places with enduring poetic or archetypal meaning, places that enliven the spirit, places that can subsist far into the future.² James Kunstler calls this “The Geography of Nowhere,” and insists that the American landscape is an abstraction. Why? Because every place looks like no place in particular and a lack of particularity is the mark of abstraction. Drive down any strip in America and see the same soulless chain stores and restaurants with the same indistinct, featureless architecture. Is this Centerville, Iowa or Centerville, Georgia? What difference does it make? The profits are all going to the same distant corporate headquarters.

Oh sure, lots of people are still going to want their tidy McMansions, secluded away in what used to be trees, surrounded by protective moats of manicured lawn, dimly resembling the feudal manors of times gone by – but for the most part the

² Please see the new genre of literature coming out from the Humanistic Geographers articulating the meaning of ‘place’ and the art of ‘place-making.’ ‘Places’ are the living contexts in which people’s lives are enacted; they are the stage and setting for the unfolding of life’s events; they are rich with symbolic meaning and become richer with each passing generation. The most memorable and enduring places are built by the people who will be living there – they cannot be contracted out. Go and see the Provence of France or the Tuscany region of Italy and witness the sublime magic, beauty, and power that can be the backdrop of people’s lives.

American landscape will be changing. People desire and need *real* communities. This has always been so – it’s the basis of a human ecology – it will just become more apparent in the years ahead. Community is *real* social security.

I know from experience that a lot of developers are seen as predatory by established communities. Take my home town of Fairhaven near Bellingham. There, a proposed “Chuckanut Ridge Development” would add *six* ten-story towers to the existing skyline, blotting out views of the mountains. Along with numerous multi-plexes, the development proposes a total of 739 units – a single-use residential compound that could add up to 7000 car trips per day down a winding 2-lane road, past a middle school and over an old 2-lane concrete bridge just to get to any services. As you can expect, there has been staunch community opposition to this proposed development – but just suppose for a moment that the development goes through, and then imagine that the full effects of Peak Oil manifest as anticipated. Then, there’s going to be upwards of 1500 people woefully stranded in an outdated monolith of a ‘planned residential community’ – a glaring relic from the Age of Oil mindset.

Just to complete the picture, the development proposes to blast away a huge chunk of the ridge to accommodate the plan. This plan most likely was drawn in some distant office by technicians who never even saw the site; thus, the land is being brutally modified to conform to the plan instead of the plan intelligently conforming to the land – another example of an abstraction. A bumper sticker being circulated by residents says, “Excuse me, but I live here.” The proposed site also sits adjacent to a sensitive wetland which breeds a tiny shrimp that feeds the salmon runs which extend far upstream. The runoff from the parking alone, not to mention the construction of such an ill-conceived project, most likely will decimate the shrimp population.

All in all, this Chuckanut Ridge Development – the plan itself as well as the process by which it is being forwarded – is the *antithesis* of Sustainable Community Design and Development. Of course, the developer already has a large financial investment in the proposal, and will do his best to get it pushed through the decision-making process; but should he succeed, then everyone else loses – the established community of Fairhaven, the shrimp and salmon populations, and even the future residents themselves. The developer will pocket his gains and move on to another project with absolutely no long-term commitment to the communities he’s impacted and left behind. Surely there must be a better way.

It remains to be seen whether private enterprise alone will be the most effective way to conduct the massive retrofit of the built environment that awaits the North American continent. Perhaps local government in partnership with civic groups and development interests will prove to be more effectual at implementing truly sustainable communities? America – not so much as a nation-state but rather as a cherished vision

of a more just, equitable, and prosperous way of life – may very well be in a position to lead the world in the innovation and development of authentic sustainable communities for the 21st century. If this is to be so, we must begin now by empowering those ‘developing individuals’ who have awakened to the full possibilities of their talents, and the profound implications of their work; and then we must proceed to educate everyone else. Education here is the key; for circumstances are moving far too fast, with consequences far too serious, to be left to the random outcomes of an outdated and outworn mindset.