Fundamentals of Village Design

Prolegomena to the Textbook

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"What exactly is it we're designing?" That is a fair and pertinent question. Having made the theme "Ecovillage Design" the focus of my formalized academic exploration for some seven-and-a-half years now, I have given some critical thought to the answer. I have developed a somewhat Utopian (literally, nowhere) image of the 'ideal ecovillage' and have discovered that what I have in mind contrasts markedly with the common usage of the term. By the standards I have been applying there does not yet exist anywhere on Earth a "human-scale, full-featured settlement, in which human activities are harmlessly integrated into the natural world, in a way that is supportive of healthy human development, and (this is the clincher) can be continued into the indefinite future."[1] There are, for sure, bits and pieces scattered about the globe, in a wide variety of proto-models, some quite impressive, but it hasn't all come together yet in one place, in one space-time event. This makes the 'ideal ecovillage' still latent potential, just waiting to manifest itself.

From what I have observed, the word 'ecovillage' gets used rather loosely: it seems to arouse in people an affirmative, agreeable, even emotional response – "Yes! that is what we want" – with an apparently preconceived notion of what it means, yet seemingly lacking much prior deliberation. For example, most of the people I talk with assume that 'ecovillage' is an idyllic hideaway in the countryside, with the expressed purpose of sheltering itself from the problems of the world. A student at a recent slide-show I gave believed beforehand that an ecovillage was a "hippie commune." A banker I spoke with concurred: "I'm from the other school" he asserted authoritatively, insinuating that an ecovillage was 'communist' versus 'capitalist.' (!) This widespread "back to the land" associated imagery is not entirely accurate, for the ecovillage is being conceived as a comprehensive solution and so most proto-models promote energetic interactive and cooperative relationships with their surroundings, including, of necessity, city, county, and shire governments. The Global Ecovillage Network (GEN), as the center, is developing conscientious relationships with transnational entities, including the United Nations.

Checking the Web, we can find many well-intentioned proposed ecovillages. For example, two or three families may come together and advertise, "We are starting up our own ecovillage," when in reality their purpose is simply to establish another

"intentional community." All ecovillages are intentional communities but not all intentional communities are ecovillages – yet the two terms frequently get used interchangeably. The Ecovillage Network of the Americas (ENA) now boasts some 60 so-called ecovillages in the U.S. alone, of various shapes and sizes, forms and functions, including some located in urban milieus. None of their descriptions or current configurations, however, fulfill the inchoate criteria first forwarded by *In Context* – most notably, none of them "can be continued into the indefinite future" – so they could not be considered "sustainable."[2]

That's why I'm saying the word 'ecovillage' gets used rather loosely: it's being indiscriminately applied as a blanket term to a wide variety of settlement types with a wide variety of forms and functions. These various settlement types could be labeled: "cohousing developments," "shared group housing," "retrofitted urban blocks," "land trusts," "multi-dwelling farms," "villas," "ecoaldeas," "homesteads," "healing" and/or "conference centers," "educational demonstration sites," "spiritual communities," "retreats," even "*un*intentional communities,"[3] etc. As a student of Ekistics – the scientific, multi-disciplinary study of human settlements – I want to enter this discussion with a clear understanding of principal terms, including a categorical taxonomy of settlement types. I believe there is a kernel of identification with something grander in this word 'ecovillage' that people intuitively identify with, and that is the heart of the matter, which I will now attempt to demonstrate.

"What exactly is it about an eco-village that makes it a *village*?" That is a question I posed at my first Village Design course in Australia. Max Lindegger, having grown up in Switzerland, gave an informed and amusing reply that revealed the underlying issue I was alluding to: in essence, "A village is large enough to contain a church. The smaller settlements are hamlets and have no church." Yes, I think my concern comes down to the inclusion of this word 'village:' Is it going to be used consciously or subconsciously? There is a certain nostalgic sentimentality that is aroused by its utterance, a certain familiar remembered feeling of connection and purpose that we, especially in the USA, have long lost. This, I believe, is why people respond so favorably to the sound of 'ecovillage;' I think they intuitively realize that it is the direction to move to recover what has been lost.

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[1] This definition is taken from Context Institute's 1991 report for Gaia Trust "Eco-Villages and Sustainable Communities" – the world's first comprehensive treatment of the matter.
[2] This is a highly debatable issue and I welcome open discussion. In a recent dialogue with a cohousing developer in Tucson I asserted, "cohousing is not sustainable" and he retorted, "yes it is." I think it comes down to a definition and understanding of terms, and that is what I am attempting to clarify in this paper. Like 'love' or 'happiness,' 'ecovillage' and 'sustainability' can mean different things to different people. Our latent potential and opportunity for collaborative inquiry in this endeavor can only be enhanced by a pellucid characterization of terms; otherwise the momentum will proceed capriciously, haphazardly.
[3] Findhorn in Scotland, one of Earth's premier ecovillage models, insists they began unintentionally.

The word 'village' on its own certainly gets used loosely as well. That same nostalgic sentimentality is being aroused in many cases for the simplistic purpose of aiding commercial success. For example, here in my hometown of Bellingham we have many so-called villages. They seem to be packaged in two major varieties: some are merely "shopping centers," as in "Sehome Village" or "Barkley Village," and others are no more than "apartment complexes," as in "Viking Village" or "Varsity Village." None of these examples are even a remote semblance of an actual "village" but the word feels good and attracts customers. There are also many business names around here bearing the same homey title: "Village Books," "Village Lighting," "Village Inn," "Village Pub," and the newly opened "Village School." It seems that everyone wants to be part of the village without thinking about what it really means.

On a recent trip to San Diego, I discovered the standardized California version of the 'village:' the planned, single-use, residential "subdivision." In a newly developed section of the area, spreading unsustainably way out into the desert, I saw many so-called villages: "Village Estates," "The Villages," "Scripps Ranch Village," "Palomar Village," and a couple of shopping center villages. On a single stretch of road in another section of the area, the villages weren't even named: the generic modular subdivisions simply appeared in succession as "Village I" through "Village VI!" If I had stayed longer I'm sure I would have seen many more ersatz villages. I know the former first-lady reminded us that *It Takes a Village* (Clinton, 1997) but I'm not sure this is what she had in mind.

This is my point: there is something deeply meaningful about association with this word 'village.' All of us, no matter our heritage, have ancestors who grew up and lived out their days in *real* villages. In these villages there was a sublime sense of connection to place, to family, to community, to Nature – we could say these people really had roots! There was also a sense of belonging, of purpose, of trust and confidence, of security and certainty in the world. At the core, there was an intimate *identification with something greater,* something primordial and timeless, something spanning countless generations, something truly sustainable. There probably was a reassuring predictability that would have seemed boring to us, as accustomed as we've become to sensory overload, but at least the people knew that when they were to die someone close would be around to bury them.

These traditional villages were the preeminent sustainable communities – above all, "they endured."[4] Many writers have traced the ephemeral nature, the rise and

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[4] This quote was the conclusion reached by Richard Critchfield in his 1983 book *Villages,* a cultural anthropological study taken of numerous villages over a ten-year span. Critchfield draws many more conclusions about village culture that can be used as design criteria by aspiring Village Designers.

inevitable fall of 'civilizations' – that is, *city*-based cultures;[5] but contrarily, there are some *village*-based cultures that have sustained themselves more-or-less intact for over *8,000 years* – what could be more sustainable? If left undisturbed these cultures would probably continue to sustain themselves indefinitely (or until the Sun grows so large and so hot that it can no longer support biological, carbon-based life on Earth). Sadly, due to colonization, exploitation, assimilation, consumerization, internal growth, and/or outright decimation, there may not be any more *genuine* traditional villages left in the world; but in those places where remnants of traditional village-based culture still remain somewhat unimpaired, there can be found those perennial qualities and characteristics to emulate in our quest for true sustainability – and, as Village Designers, to contemplate as fundamental design criteria.

This, then, is why I have come to prefer the more precise, more encompassing title "Fundamentals of Village Design" to describe my learning summations and acquired conceptual focus – the real work of seeing manifest true sustainable communities. *We will not realize true sustainability until we learn how to design, (re)create, and bring forth genuine, authentic villages*, with all that implies – and so we must begin with the fundamentals; that is the thesis. 'Ecovillage,' as it has come to be commonly used, does not quite reflect accurately anymore the comprehensive picture I have in mind, and so in the interim I've resolved to use the somewhat ambiguous title 'ideal ecovillage' as a compromise. But now, this authentic village thesis brings up a whole new dimension of design considerations (uniquely applicable to a Whole Systems Design perspective), for, the truly sustainable village cannot simply be *created,* outright, as one would purposely plan and build an entire subdivision for example, but instead must be skillfully designed to *create itself*. And what exactly does *that* mean?

There is an important sub-discipline of Whole Systems Design called "Living Systems Theory." There has been a fairly recent profusion of intriguing writing – especially in the biological, systems, and cognitive sciences – defining, interpreting, and expounding upon this emergent living philosophy, while presenting rich new conceptual material that can be metaphorically applied to a diversity of other disciplines, including the "Fundamentals of Village Design."[6] In *The Web of Life,* Capra provides a succinct

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[5] For example: Andrew Bard Schmookler in *The Parable of the Tribes: The Problem of Power in Social Evolution* (1984); Edward Hyams in *Soil and Civilization* (1976), Vernon Gill Carter and Tom Dale in *Topsoil and Civilization* (1974); Wm. H. Kotke in *The Final Empire: The Collapse of Civilization: The Seed of the Future* (1993), and the learned historian Arnold Toynbee in many of his writings, including *Civilization on Trial* (1948).

[6] For a sampling of this genre of authorship: *The Web of Life: A New Scientific Understanding of Living Systems* (1996) by Fritjof Capra, *Steps to an Ecology of Mind* (1972) by Gregory Bateson, *Autopoiesis and Cognition: The Realization of the Living* (1980) by Humberto Maturana and Francisco Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding* (1987) by Maturana and Varela, *The Logic of Living Systems* (1970) by Francois Jacob, *Living Systems* (1978) by James Miller, *Design for Evolution* (1975) by Erich Jantsch, *The Self-Organizing Universe* (1980) also by Jantsch, *Gaia: The Human Journey*

definition: All living systems are characterized by three essential qualities: 1) a **pattern** *of 'autopoiesis,'* or self-organization; 2) a **process** *of 'cognition,'* or maintaining self-organization by exchanging information with a dynamically changing environment to keep continually abreast of any needed corresponding internal changes; and 3) the **structure** *of a 'dissipative structure,'* or an autonomous unity operating at highly energized conditions far from equilibrium, maintaining its structure by ingesting and metabolizing highly ordered materials from the environment and then dispelling entropic waste products. That is the scientific definition.

Perhaps it is apparent how these criteria can be applied to a sustainable Village Design. Recalling the precursory permaculture maxim, "In order to be sustainable, human systems must be modeled upon natural systems," we can now elaborate by postulating: "In order to be sustainable, human settlements (or human habitation systems) must be modeled upon natural *living systems*."[7] Since all living systems – from cells to organisms to ecosystems – are foremost *self*-organizing and *self*-creating – or, in the terminology of Maturana and Varlea, *autopoietic wholes* – then we must instill in a truly sustainable Village Design this very same characteristic.[8] In other words, in order for our settlements to have the chance to be continued into the indefinite future, we must design them to be genuine autopoietic *living systems* (created from within) as opposed to contrived allopoietic *mechanical systems* (created from without). Traditional villages were certainly living systems in all regards: they biologically grew into their mature forms all by themselves, without an external authority, over the course of millennia as anthropomorphological outgrowths of particular ecosystems. That's why they endured; they were the manifestations of co-operative, symbiotic co-evolution with the larger living systems in which they were embedded.

Going back to the thesis then, and renewing the intention to design authentic villages (ideal ecovillages) because village-based culture has proven itself to be so sustainable in the long term, then it becomes apparent that the real task of a Village Designer is to *purposefully define, delineate, and introduce the foundational substratum*

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from Chaos to Cosmos (1989) by Elisabet Sahtouris, *Gaia: A Way of Knowing* (1987) edited by William Irwin Thompson, *Gaia: A New Look at Life on Earth* (1979) by James Lovelock, *The Embodied Mind* (1991) by Francisco Varela, Evan Thompson, and Eleanor Rosch, *Autopoiesis, Dissipative Structures and Spontaneous Social Orders* (1980) edited by Milan Zeleny, *General Systems Theory* (1969) by Ludwig Von Bertalanffy, and *Order Out of Chaos: Man's New Dialogue with Nature* (1984) by Ilya Prigogine and Isabelle Stengers. These are just the books I have read or been exposed to on the theme, all fascinating – there are many more titles still left to read.

[7] I explored this postulate in a paper entitled, "Ecovillages as Living Systems: Reviewing and Renewing Organic Settlement Patterning" (2000). I then took it a step further in a paper entitled "The Ecovillage as a Living Cell" (2001).

[8] Besides being self-organizing and self-creating, Von Bertalanffy (1969) assures us living systems are also *self*-maintaining, *self*-repairing, and *self*-differentiating, "moving inexorably toward a time-independent state of equifinality." Maturana and Varela (1987) add that living systems are *self*-referencing, meaning 'informationally closed' (though energetically open).

of patterns, processes, and structures so that the village is capable of creating **itself**, as a genuine living system. This makes the challenge primarily *process*-oriented rather than *goal*-oriented; the village is 'grown' rather than 'built.' This suggests that to come in as a professional design team, an external authority, and draw up the comprehensive and detailed plans and schematics necessary to construct a proto-village of, say, 5000, no matter how beautifully and intelligently orchestrated, will be, in effect, the creation of another *mechanical system* – not a *living system*. In the long run, it will have trouble being sustainable because it will not have been self-created, organically, by the people who will be living there; and perhaps more cogently, because it will not have had the chance to *grow* into its mature form all by itself. This is perhaps a sensitive point.[9]

A *living system* is primordially, indispensably *self-organizing* and grows through time as an autonomous unity with a history of structural coupling to an environment that is also evolving (Maturana and Varela, 1980, 1987). A design team, no matter how brilliant, cannot anticipate all the necessary contingencies to ensure mutually-reciprocating, long-term viable relationships between a settlement design and its dynamically changing, circumambient ecosystem; and still less anticipate the necessary interdependent relationships between the functions of the people who will be living and working in the settlement design. For these reasons, it is far more "timeless" to teach the people how to build (or grow) the village themselves.[10]

All of the above is an initial outline of what I am suggesting by a "Fundamentals of Village Design." It certainly does enter a whole new dimension of design considerations because implementation could conceivably be *multi-generational,* spanning decades or more. Once again, *the challenge is to create a living system that can assume a life of its own*. While seemingly impractical or quixotic when viewed from a standard vocational perspective, I believe these ideas rest on solid theoretical underpinnings. These ideas also place the current "ecovillage" momentum in a new light, for, while none of the current proto-models may be able to be "continued into the indefinite future" in their present configurations, they are, nonetheless, valuable and necessary experiments in fractalized form of what eventually must come to pass. Revisiting "Ecovillage Design," then, as a component of the more-encompassing "Fundamentals of Village Design" –

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[9] As I review this paper, some nine years after its inception, I've come to appreciate the vital role of beginning with imaginative, well-conceived and well-thought-out site plans, originating from a 'seed' Design Studio process that necessarily includes a contingent of all stakeholders. The results of this process, however, are intended to serve as a guiding vision that will inevitably be modified over time rather than as an obdurate schematic.

[10] This quote and image comes from *A Timeless Way of Building* (1979) by Christopher Alexander, an enchanting discourse that amounts to a Taoist perception of self-organization as perceived by an architect-designer. This book is the prelude to *A Pattern Language,* an essential handbook for the Village Designer.

and understanding that the current manifestation of the ecovillage is an interim solution – what are the design considerations for actualizing an ideal ecovillage; or, what characteristics would this ideal ecovillage embody? To answer that, I think it best to go back to the roots, to the germinal definition proposed by Robert Gilman and Context Institute, and examine the five points in course:

Human Scale: From a Human Geography perspective a 'village' is larger than a 'hamlet' but smaller than a 'town.' Actual capacity depends less on population than on function (Hudson, 1970) but size never exceeds 'human-scale,' by definition. A village is large enough so that all the necessary, elemental material and cultural accoutrements of a high-quality life can be comfortably provided for *entirely within that settlement*, if need be, by way of a complex economy, meaning a coordinated specialization of tasks. This makes the village self-contained and self-reliant, though it would not be quite correct to say self-sufficient. At hamlet-scale there are not enough people to form a complex, specialized economy, so an inordinate amount of attention and effort must be devoted toward fulfilling basic needs with little time left for superfluous cultural refinements or re-creational pursuits; thus there is a diminution of creative living potential at both individual and social scales. (A hamlet is too small to contain a church!) Usually a hamlet supplies a natural resource need for a village, which recompenses with an exchange of finished manufactured goods. At homestead-scale, without a supporting external economic structure, the people are reduced to subsistence living and perpetual drudgery. How could any settlement at these latter two scales – hamlet or homestead – be considered 'sustainable' when it relies for its maintenance and prosperity on the products, goods, and services supplied from an external source? If the source dries up or the supply lines are disrupted, then the dependent settlement will be destabilized, perhaps irrecoverably.

At this time it would be propitious to add a further qualifier to the definition of 'sustainable settlement,' especially in the context of the 21st century: A sustainable settlement is one that could continue to maintain its essential identity, integrity, and existence in the event that the supporting and subsidizing, global corporate-industrial fossil-fueled economic system should collapse, unravel, or dissolve. Such an occurrence would completely devastate the composure of a "cohousing development," for example, dependent as it is on the mainstream without an internal economy of its own. Such an occurrence would also thrust most of the "intentional communities" listed as "ecovillages" in the Global Ecovillage Network into serious disarray, even though they are proposing to be sustainable models. Even the ecovillages that *are* approaching village-scale would be hard-pressed since none is self-reliant, especially in food and

energy production – though these larger settlements would fare better than the rest because a cooperative, coordinated, specialized economy of tasks could be mobilized and instituted to restore a sense of stability and self-maintenance; still the people would go hungry. A genuine traditional village would hardly notice an event like a global economic meltdown.

Although the alarm has been ringing since the late 1960s, such a contingency is still a very real possibility, maybe even an eventuality. Indeed, a reading of such intelligently composed books as *Beyond the Limits: Confronting Global Collapse: Envisioning a Sustainable Future*[11] and *Overshoot: The Ecological Basis for Revolutionary Change*[12] would lead one to expect such a global collapse as inevitable; by these accounts it is already well underway. Systems Ecologist Howard T. Odum has been imploring us for years to begin "preparing for a prosperous way down."[13] In this light, the 'ecovillage' becomes experimentation with proto-models of human settlement that could have the potential to withstand and weather this kind of radical change intact and subsequently emerge into the post-collapse world as the quintessential settlement pattern for a sustainable social order. But we still have a lot of work to do to get these proto-models up to the optimum village-scale, to make them 'ideal ecovillages.'

Along with a self-reliant economy of scale, a real village also has the characteristic that everyone living within can be known or at least recognized – strangers are instantly recognized. This creates a sense of social organic unity and collective solidarity, and facilitates a mood of safety and trust. The children can play openly in the streets and the doors don't need locks; neither is a police force needed. A 'town' is a settlement that has grown so large that not everyone can be known or recognized, so it moves beyond human-scale. In a town, the sense of organic social unity begins to fade as people with real mutual interests lose face-to-face, personable human contact. As compensation, abstract, special-interest laws are introduced replacing natural or traditional laws to mediate disputes and temper avarice and supposedly guide the body collective.[14] At this scale, factions inevitably develop over the management and distribution of ever-dwindling resources; the resources are dwindling because a town, by definition, has grown so large that it exceeds the carrying capacity of its local supporting ecological systems. This, then, begins the 'tipping-point' leading to ever-consuming unsustainability; it is primarily and preeminently an issue of *scale*.

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[11] (1992) by Donella H. and Dennis L. Meadows, and Jorgen Randers. This book is a follow-up to the enormously impactful 1972 book *The Limits to Growth,* a report for the Club of Rome.

[12] (1982) by William R. Catton, Jr.

[13] (1996) *Environmental Accounting: EMergy and Environmental Decision Making,* and elsewhere, including *Environment, Power, and Society* (1971) and *Energy Basis for Man and Nature* (1976).

[14] From a cynical perspective, the laws are ineluctably designed to ensure that those who would claim or wield arbitrary power will be able to continue to do so and to increase their influence and holdings.

In summary, a hamlet is too small to realize the benefits and embellishments of the emergent possibilities associated with complex social potential, which, in its collective organization, produces ample creative free time for the pursuit of refined culture and re-creation. A town, in contrast, becomes too impersonal and too large to maintain social cohesion and ecological viability. Village-scale is that magic size in between where the best of both worlds can be achieved in optimum balance – a high-quality life including relatively advanced cultural attainments *plus* long-term ecological viability. As such, it is proposed here that the envisioned 'ideal ecovillage' (for lack of a better term) is the operational 'unit' of sustainable settlement patterning in a theoretical Ekistics for the 21st century.

Actual population in a village can range from 500 to 5000 persons, depending on function and local carrying capacity.[15] From 50-500 is hamlet-scale and above 5000 enters the ever-increasingly unsustainable domain of town-scale and beyond. City-scale – and more monstrously, metropolis- or megalopolis-scale, with populations into the tens of millions – are complete aberrations in this kind of analysis, entirely divorced from any grounding in a human-scale, and so are utterly unsustainable. I know this conclusion will be unpopular with some, especially those working on "eco-city" visions, yet the principles are well-grounded. I detailed my perceptions supporting this conclusion from many different angles in a paper entitled, "Sustainable Cities: An Oxymoron?" (2000). The only possible way to begin moving city-scale settlements toward sustainability is to radically decentralize and retro-organize them into distinct, village-scale sub-units, organically, like cells in a tissue or organs in a body, with well-defined centers and well-defined boundaries – we could call these *urban* villages. The "city" pattern, as it currently exists, with a densely nucleated urban core that radially spreads outward in all directions, is a direct reflection of highly-centralized, unaccountable, arbitrary power structures that can only lead to oppression, imperialism, and perpetual warfare. This is no exaggeration; it has been the case ever since the first real cities materialized in Mesopotamia, circa 3000 B.C.

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[15] This actual number issue is discussed and referenced in some detail in Kirkpatrick Sale's 1980 book appropriately titled *Human Scale.* The number 5000 appears and reappears as an optimum size, for various reasons, though Sale calls this a "neighborhood" scale. Mollison (1988) uses the number 500 as a basic social unit, which then can be aggregated into larger wholes. It is my own choice to use 500 as a minimum and 5000 as a maximum for an 'ideal ecovillage' because these numbers can be easily worked with in a theoretical ekistics: a 'tribe' size full village body of 5000 would be subdivided into 'clan' size groups of 500. These clan-size groups would then be further subdivided into extended families of 50 or so. This is exactly how the Classic Maya organized their settlements, with each social grouping responsible for an essential economic function to contribute to its larger whole, as described in Ashmore (1981) *Classic Maya Settlement Patterns.*

<u>Full-Featured:</u> This point distinguishes the 'ecovillage' from the 'traditional village.' The ecovillage is not intended to be a reversion to a primitive, austere, Spartan level of existence, as is often assumed. Rather, the vision is more of a reversion-*succession* – a conscious synthesization of all the ethically redeemable and life-enhancing amenities of 21st century life with the organic social cohesion and ecological viability of traditional village life. "Full-featured" incorporates widely yet discriminatively employed appropriate technologies, a cornucopia of enlivening arts and sciences, full access to educational and re-creational resources, comfort and convenience in moderate proportion, and abundance and prosperity in those qualities most contributory to an extended, productive, healthful human life. All of this could be achieved by thoughtful design if the intention was there! Full-featured also means enough of a diversity of interests and talents, enough of a skilled and educated populace so that the ideal ecovillage has the capacity to grow and maintain, internally, a lively, vibrant, unique and vernacular sub-culture of its own.

<u>Human Activities are Harmlessly Integrated into the Natural World:</u> This is the 'eco' part of eco-village. The all-too-convincing premise is that, in order to be sustainable, a human settlement must be harmoniously, organismically blended *into* its circumambient local ecology, as a living system within a larger living system. Contrarily, an unsustainable settlement forcefully imposes an abstract order *over* its local ecology, in many cases completely burying it, as under an arbitrary square grid. The ideal ecovillage, then, could be considered a *constructed ecosystem for human habitation*, a constructed ecosystem ecologically embedded within a larger natural ecosystem. This means, for example, that during ongoing site design, attention must be given to maintaining, utilizing, and even enhancing the existing energy flows of the specific location, including wind, water, sun, 'chi,' and information flows. It also means the conscientious, mutually-beneficial and mutually-productive stewardship of indigenous biological resources, including flora and fauna. It means, generally, that the ideal ecovillage has the potential – and ultimately the responsibility – to *consciously assist* the salubrious long-term evolution of the local environment in which it is embedded and from which it draws its sustenance, as a *cooperative partner in co-evolution*.

<u>Supportive of Healthy Human Development:</u> This statement recalls the images of the "vibrantly fertile womb" or the "incubation chamber" in which the unrealized, untapped potential of humanity may be brought to life and nurtured; but it doesn't necessarily need to be spiritually motivated either. Healthy human development can be simply the natural co-product of healthy human relationships, relationships based on truth, justice,

fairness, equanimity, mutual respect and mutual beneficence – relationships based on traditions arising to promote and ensure the long-term health of the Whole; and once the health of the Whole is attended to, it naturally follows that the health of each individual part is also promoted, including individual humans. The absolutely most effective way to ensure healthy human development is to concentrate first on childhood, giving the children a safe, caring, supportive start in life, with full opportunity to blossom into their own unique personhoods. Healthy human development, like community, is an outcome that cannot be purposefully designed but rather arises naturally as a consequence of good, thoughtful design. Whole Systems Designers focus first on providing the context within which the desired result can manifest *itself.*

Continued into the Indefinite Future: ....is a concise and by now familiar definition of 'sustainability' and is the supreme goal of the ecovillage momentum, as I interpret it.[16] That is why I wrote previously that the ideal ecovillage is the ultimate solution to the so-called sustainability crisis. There would be no crisis at all if the five points listed here were used as priority design criteria for the establishment of human settlements. That is the proposition, the potential, the latent promise of the emerging ecovillage vision; it is just waiting to manifest itself, to unfold like a marvelous, intricate, many-petaled flower. There are so many beautiful, talented, well-meaning people all around the globe working so hard from so many manifold and convergent directions to bring this vision to fruition. No matter what terms are used I believe the intent is the same: taking responsibility for proactively bringing forth the kind of world we would *choose* to live in, by desire, *by design,* instead of passively accepting the too often dysfunctional world that has been handed down to us. It will take much time but the vision will eventually appear, *must* appear, for as Buckminster Fuller entreated not too long ago, it is either "Utopia or Oblivion" (1969).

Now that I've taken the opportunity of explicating my own particular vision of the *ideal ecovillage* and how this vision fits into a greater sustainable community design context for the 21st century, it is time to check in with the authoritative source: the very competent, capable people who are managing the emergence of this global permutation: The Global Ecovillage Network. What does GEN have to say about the ecovillage? Checking the web site at www.gaia.org we find that ecovillages are:

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[16] In the interest of equability, another widely used though more materialistic definition of sustainability states: A sustainable situation is one where the current rate of resource use does not diminish the opportunity for future generations to have access to these same resources. By these standards, the current global economic system is grossly unsustainable. How long will it take to collapse?

"urban or rural communities of people, who strive to integrate a supportive social environment with a low-impact way of life. To achieve this, they integrate various aspects of ecological design, permaculture, ecological building, green production, alternative energy, community building practices, and much more.

Ecovillages typically build on various combinations of three dimensions:
   * Social/Community
   * Ecological
   * Cultural/Spiritual"

This definition illustrates the current situation objectively, laconically, and impartially: it is designed to introduce the ecovillage concept to a wide general Internet audience, some of whom may be beholding it for the first time. It neither references philosophical underpinnings nor proposes future possibilities; it simply describes matter-of-factly the meaning of 'ecovillage' as it is currently commonly employed. My interpretation of this definition tells me that ecovillages are apparently the *testing ground* for the experimentation and integration of intentional community living with alternative technologies and innovative design techniques – and what a beautiful image that is! Yet by themselves these proto-models are not going to ensure sustainability; they are merely progressive influential steps in the right direction. What about scale? The most pressing question I have is: What is it about an eco-*village* that makes it a village?

Having approached this topic from a detailed and rigorous, admittedly theoretical, academic exploration, I want to keep stretching the boundaries, pushing forward toward the beckoning potential, projecting out an image as an attractor of just what must eventually come to pass and then postulating the steps to get there. How much longer will it take to see the 'ideal ecovillage,' the synthesization of all the above qualities and dimensions into one, comprehensive, village-scale, space-time event?

The greater ecovillage vision *is* the solution to the so-called sustainability crisis; it is full of rich, fecund possibilities just waiting for the ripe time to manifest themselves. Ecovillage Design is the conscious, premeditated, creative exploration of these possibilities – timely, innovative experiments of various shapes and sizes, forms and functions, purposes and intentions, of varying levels of complexity and sophistication, whose totality constitute the vanguard of an emerging planetary revolution. When viewed individually, these proto-models comprise fractalized conceptual parts that one day will be integrated together into a larger, more-inclusive, holistic-systemic whole. Ecovillage Design, at its best, is the bold effort of imagining, suggesting, and in time

bringing forth *ideal living situations*, idealized human settlements that can provide the living context within which to actualize our deepest aspirations, the unrealized, untapped potential of humanity. Fundamentals of Village Design is the comprehensive theoretical educational preparation for this task.

Taking this all a step further, and aligning the task with mythic-spiritual concerns in a more cosmic context, a Village Designer for the 21st century has the potential to be a willful, mindful participant in co-evolution with the Mother Goddess Gaia, the living essence of planet Earth. Each new project that comes along, at whatever scale, is an opportunity to assist and serve Gaia as she approaches a new threshold of self-awareness and self-realization.[17] The strategy is to first cultivate a fertile, receptive context and then deliberately, consciously seed this context with potent, virile seed-ideas that may sprout and grow and one day bear seeds of their own, thus creating a self-perpetuating, self-renewing cycle that can span generations. The actual context for this work could be an ordinary conversation, an educational slide-show, a shared group household, the presentation of a college course, the formation of a permaculture demonstration site, a Graduate Design Project at Antioch University, or an actual Ecovillage Design project – the organic strategy is still the same. You could go so far as to say that a competent Village Designer must first be an accomplished gardener; it's all a difference of scale.

When conducting this type of seeding operation, it is very important not to become overly identified with or attached to the final form of the outcome; *process is paramount*. The intent is to energetically inseminate an organic unity, a living system that can assume a life of its own, and, as a semi-autonomous being, self-navigate its own unique course of hereditary development. If the time and conditions are auspicious, and the seed-ideas viable, then something prolific will begin to grow and take form *of its own accord*. This does not mean there is absolutely nothing to do; it just recognizes the fact that what can be accomplished operating solely from a controlling, temporal ego-center is limited and often counter-productive to the needs of the project-as-a-whole. There is a time to advance and a time to withdraw; there are natural cycles

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[17] This image is entrancingly illustrated in a series of books I was introduced to in Ireland written by Ceanne DeRohan, including *Right Use of Will* (1985), *Original Cause: The Unseen Role of Denial* (1986), *Original Cause: The Reflection Lost Will Has to Give* (1987), etc. In this series, the Earth Mother is seen as essentially having compromised and lost her Will because of misunderstandings generated in primordial relationships with the Universal Father and other cosmic entities. Lost Will has corresponded with the inability of the Earth Mother to protect herself against ravaging, plundering beings who desire to take advantage of her weaknesses and exploit her beauty and composure for their own gains. Fortunately, the series ends as the Earth Mother recovers her lost Will, casts off those parasitic beings who would emaciate her, and restores her original immaculate beauty and empyrean splendor – the return of a magical Golden Age on Earth.

to align with; there is a life-force already in motion which needs to be attuned to. This strategy could be considered the "art of manifestation;"[18] it stands as the receptive counter-pole to the predominant, assertive, linearly goal-oriented, and usually (in our culture) unilaterally administered "consciously planned creation."

Gaia wants it to happen so there is no need to forcefully press the issue, hurriedly expecting immediate operational results. As Village Designers we have a very powerful, omniscient client – she has many ways of revealing her needs and desires. In our design considerations, we would do well to assume a more patient, receptive posture; by attentively, mindfully observing and listening, we will come to know in our deepest heart of hearts THAT which is attempting to come into being. As human designers we will always be less-than-fully prepared to completely comprehend the manifold dimensions of the actualization of this cosmically influenced, global evolutionary phenomenon. We may as well go with the flow, enjoy the ride, smell the flowers and celebrate as often and as passionately as we can our privileged involvement with this birth of a new Humanity on a new Earth. With an attitude like that we will be balanced and grounded enough to begin equanimously commencing our work, for there is a tremendous amount of work to be done!

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[18] As conceived by David Spangler in his 1996 book *Everyday Miracles: The Inner Art of Manifestation.*