

What Exactly is Design?
A Chapter for the Design Key of the Ecovillage Design Education
by E. Christopher Mare – Village Design Institute – 4 April 2008

Broadly stated, design is the art of the possible. More technically speaking, design is the conscious, deliberate process by which elements, components, and potentials are intentionally arranged in the space-time continuum in order to achieve a desired result. In its fullest, most potent expression, *design is the imagining and bringing forth of new worlds*. We could say that design is a very human activity.

Ultimately, all design originates from the creative source of all that is: Prompted by need, speculation, desire or fancy, a vision arises: a creative impulse appears in the mind as an intuitive flash of knowing or a vague sort of imagery – yet this impulse has energy behind it, and so must be pursued! Through further contemplation, and ever-increasing definition of and familiarity with parameters and purpose, the creative impulse comes into sharper focus. Through repeated rounds of trial and error – the testing of hypotheses and prototypes, the inevitable adjustments coming from feedback, the production of variations on a theme – the creative impulse eventually takes form. If pursued to its conclusion, this creative impulse will one day appear to the world as a tangible expression of distinct reality – a reality that began as a dim glimmer in someone’s imagination. Would it be fair to say that design is the *function* of human activity?

Obviously, if design is the tapping of the power and ingenuity of the human mind into a universal source of creativity in order to achieve desired or envisioned results, then the quality and character of the individual minds doing the designing surely will have a determinate effect on the outcome. What informs a person’s design decisions? Sure, personal creativity can be nurtured and cultivated, but when it comes down to it, one’s knowledge base and experience – as well as such immeasurables as worldview, values, and even the perceived meaning of life – will guide and inform the articulation and manifestation of the design at every step of the process. Confident and secure on a firm foundation of theory and praxis, the intuition is then free to soar to virtuosic heights.

Ecovillage Design is a very special form of design. Here, the desired result is a full-featured human habitation system that can be not only sustainable, but a living, supporting environment in which human beings can **thrive**, in personal and planetary plenitude, thus realizing their full potentials. This could be the most complex design challenge in the world today – and one whose broad-scale implementation is most urgently needed.

Growing into competent and capable ecovillage designers will be a life-long quest, since such a wide spectrum of skills, knowledge, and understanding is required. Ecovillage Design Education is the epitome of multi- and trans-disciplinary learning, for everything from physics to plumbing, feng shui to municipal codes, evolutionary biology to architecture, civil engineering to companion planting, etc., etc. – and yes, even finance – is pertinent! The accomplished ecovillage designer will become a nimble generalist, able not only to access numerous diverse disciplines simultaneously, but to cross-pollinate and make novel connections and relationships between and among them. In that sense, the idea of an ecovillage design “expert” – as exalted

in the overly-specialized reductionist economy – may be slightly contrary, for each of us is in varying stages of accumulating and integrating a broadly useful and diverse knowledge base.

There are many established methodologies relevant to a comprehensive Ecovillage Design. Several of prominence include: Permaculture Design, Ecological Design, Whole Systems Design, and Daniel Wahl's Salutogenic (health-generating) Design. While wholly complementary in concept and scope, each of these has its own set of normative principles, and each has particularly appropriate applications at various stages or levels of the design process. Also exceedingly important in a comprehensive Ecovillage Design scenario will be the development of the multi-layered "Design with Nature" approach of Ian McHarg and the timeless, organic "Pattern Language" approach of Christopher Alexander. The serious student will do well to become familiar with all these methodologies, for each has a special place in the pantheon.

The EDE curriculum is presented as an *integrated* ecovillage design – and it was Hildur Jackson who formulated the first Integrated Ecovillage Design Theory. The theory has evolved into a structure where there are now four dimensions recognized in a fully integrated Ecovillage Design scenario. Of course, the four dimensions are: Ecological, Social, Economic, and Worldview (Cultural-Spiritual). The EDE is organized in this way so as to emphasize the importance – indeed necessity – of talking into consideration each of these dimensions in equal measure during the extended and ongoing settlement design process. If the goal, as stated, is a full-featured habitation system in which human beings can thrive and reach their full potentials in conditions of sustainable prosperity, then all the dimensions will need to be vitally present and operational. Thus, by exposing the full spectrum of considerations, the twenty modules in the four dimensions of the four-week EDE become an excellent introduction to the nuanced complexities of comprehensive ecovillage designing.

The art and science of designing and implementing truly sustainable human settlements is a multi-faceted, multi-dimensional, *holistic* enterprise encompassing the full range of human experience. As such, competent, accomplished ecovillage designers will have conceptual access to the vision and purpose *as a whole*, and from there will be able to identify, circumscribe, and manipulate numerous diverse sub-systems as these contribute to or inform that whole. This strategic dance – the ability to seamlessly communicate and direct attention from the whole to the parts and then back again from the parts to the whole – is a criterion of proficiency in genuine integrated ecovillage designing. In philosophical contexts, this interpretive movement back and forth is called the "hermeneutic" circle or spiral – another vivid example of the trans-disciplinary nature of full-spectrum ecovillage designing. In all respects, maximizing beneficial relationships is the key – within, between, and across scales.

As you can see, there's a prescribed course of study and ascension towards ever-advancing levels of achievement. Designing an ecovillage is the most multifarious, multidimensional, variegated task you'll ever undertake, so you may as well prepare for it rigorously. Get as much education as possible – taking an Ecovillage Design Course is essential because of the tactile, contextual, experiential, community-based learning involved. Take what you've learned and keep on practicing. Start with small-scale systems first, and as they evolve document mistakes that were made. Learn from the mistakes, adapt, and continue devising increasingly more self-contained, energetically efficient, diverse and productive systems. Continue balancing the four dimensions while practicing the various methodologies. You'll be quite lucky if you find the

opportunity to intern or apprentice with someone who has actually designed and implemented an ecovillage.

Just think: in a painting, the first few strokes will have primary influence in determining the finished image on the canvas. Similarly, the first few deliberate actions taken in a comprehensive ecovillage design scenario will determine convincingly the eventual shape and fitness of the community – so make sure you get off to a propitious start, because other people will be living with the consequences of your decisions for generations to come. This fact alone is justification for advanced education.

I remember when I had the chance to design and present my first Ecovillage Design Course, back at Fairhaven College in the Spring of 2001. I put a tremendous amount of thought into organizing the ten weeks so that there would be a sequential build-up of important information that would culminate in a Design Studio. The weeks were laid out to simulate a comprehensive design process: the overview and historical background, the community-building games, the site tour and observation exercises, the brainstorming, the affinity matrix diagram, the group consensus on design criteria, the bubble diagram, the sector analysis, the articulation of the program, the readings and slide-shows and guest speakers – all these I thought were essential to the design process, and I presented the course as such. Still, there was one student in particular, one of the brightest in the group, who would sit in the circle rather impatiently, and every week would find an opportunity to ask, “But when are we going to get to the *design*?” And each week, wherever we were at in the process, I would reply, “But this is *part* of the design!” Of course, my friend equated “design” with the act of drawing the site plan. I hope her exposure to my process convinced her that there is so much more to it than that. In reality, design is an ongoing process that’s never actually complete, or final.

Distinguished ecovillage designer Max Lindegger is quite clear on this process point when he instructs, “I found observation the most important element in creating a sound ecological design. This takes time.” Observation here includes researching a piece of land and its history, gathering a variety of useful data, talking to neighbors and old-timers, and perhaps just sitting still at various locations for protracted periods with senses wide open. Lindegger says of this extended phase, “We are “observing,” but we are not yet “designing.” If we jump into action too quickly, abbreviating the observation stage, and skipping a true design stage, we will have regrets later.”

I wish the “manifest destiny” surveyors and developers who raced across my native North America, hastily throwing down abstract, two-dimensional gridiron patterns wherever they went, would have had the chance to listen to and heed Max’s advice. Unfortunately, very little of the North American settlement pattern was actually *designed*. What we have instead is a mechanical assembly of individual plots and buildings that were deployed perfunctorily across the landscape according to the prescriptive and delimiting dictates of zoning and code laws – it was more like filling in the blocks according to a dull standardized script rather than any sort of creative burst of site-specific place-making. At settlement scale, there is no coherent relationship among the various individual entities, no sense of a unifying theme, no vestige of a cultural inheritance, no rapport with underlying ecologies, no escape from the lifeless utilitarianism – and with sadly neglected attention to providing public space, no feelings of civic identity or community purpose. This is a brutal landscape shaped by speculators, not knowledgeable designers. The over-arching mandate has been maximizing profit for private

investment, not creating places that could be beautiful, memorable, enlivening – or even worth caring about.

Maybe it's because I've witnessed such magnificent beauty and grace in the vibrant place-making in other parts of the world that I have such a passion for the prospects of good, intelligent design? The undesigned, profligately energy wasteful North American settlement pattern will prove to be increasingly dysfunctional as we enter the era of energy descent. A massive retrofit is awaiting. Sophisticated design skills will need to be employed at multiple scales as we retract, downshift, relocalize, and realign with natural patterns and processes. Buckminster Fuller foresaw this inevitability forty years ago when he called for a "design revolution," believing as he did that the only way for techno-industrial humanity to climb out of their dilemma was for them to *design* their way out.

Never underestimate the power of design. The sustainability imperative may usher in a whole new renaissance of design science. In preparation, we ought to be concentrating on formulating and transmitting an effective epistemology of design and introducing practical design skills in all our education programs – thus offering the possibility for mass graduates to begin walking down the path of capable designship.

But that's just the beginning: As the world re-stabilizes at some new level of reduced-carbon future, we can begin thinking and designing in terms of *beyond* sustainability. If the potential of a culture is intimately – some might say deterministically – related to the quality and characteristics of the environments wherein the people do their living, then is it not possible, through the power of design, to create holistically-conceived environments wherein the people can thrive, and thus reach their full potentials? Can we not, in fact, influence the very evolution of consciousness through the places we design? With that as the goal, we will want to utilize the full palette: proportions according to sacred geometries; arousing, coaxing, yet gentle stimulation of the nervous system through vivid interplays of colors, hues, textures, shapes, shadows, sounds, and smells; the subtle sequencing of events, transitions, and approaches; hierarchies of social space distributed among polycentric nodes; the judicious use of point and counterpoint, perspective, and depth perception; elegant adornment to ever finer detail; reaffirmation of cultural and bioregional inheritance through vernacular motif; archetypal symbolism from the collective unconscious; recognition of and participation with unseen energies and forces; the overt modeling and enhancement of patterns, structures, and processes in Nature; the ever-present celebration of Life through ubiquitous beauty; taken opportunities to display magnificence and grandeur; the continuous hinting of cosmic participation; etc., etc. Truly, when bringing forth new worlds, the possibilities are limitless, endless...

REFERENCES

- Alexander, Christopher, Ishikawa, Sara and Murray Silverstein, et al. (1977) *A Pattern Language*. Oxford University Press; New York
- Fuller, R. Buckminster (1969) *Utopia or Oblivion: The Prospects for Humanity*. Bantam Books; Toronto
- Jackson, Hildur (2004) "Integrated Ecovillage Design." Unpublished paper circulated within Gaia Education. Gaia Trust; Holte, Denmark
- Lindegger, Max (2002) "Permaculture for Ecovillage Design," in Jackson, H. and K. Svensson, eds., *Ecovillage Living: Restoring the Earth and Her People*. Green Books; Devon, U.K.
- Mare, E.C. (2004) "Theoretical Framework for the Ecovillage Design Education." Village Design Institute; Seattle
- McHarg, Ian (1967, 1992) *Design With Nature*. John Wiley & Sons, Inc.; New York
- Mollison, Bill (1988) *Permaculture: A Designer's Manual*. Tagari Publications; Tyalgum, Australia
- Van der Ryn, Sim and Stuart Cowan (1996, 2007) *Ecological Design*. Island Press; Washington, D.C.
- Wahl, Daniel C. (2006) "Design for Human and Planetary Health: A Transdisciplinary Approach to Sustainability," in *WIT Transactions on Ecology and the Environment, Vol. 99*. WIT Press; London