Concept Paper
Towards a Neurophenomenology of Settlement Morphology
(with an Introduction to Village Design)

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Homo sapiens began its organization development as peripatetic ‘bands’ of some 25 individuals, associated over a scattered territory by custom and language with larger tribal groupings of up to 500 (Leakey, 1994). These bands would migrate seasonally and topographically to follow animal herds and/or the successive fruiting of plants (Kotke, 1993). Leakey says the modern human form – including encephalic volume – and primary social organization were fully established by 34,000 years ago. Pfeiffer adds that patterns of behavior developed in these prehistoric times “continue to influence current behavior” (1978, p. 394). Since human evolution over these past 34,000 years has been cultural, no longer physiological, anatomical configuration for the modern human – including neural structure – is essentially the same as it was for the earliest Homo sapiens.

What kind of physiology would have developed leading up to these successful hunter-gatherers, our near ancestors? First, the body would have been leanly muscular from continued mobility, packing a few essential items over long distances. This bountiful walking would have developed a sure gait and powerful cardio-vascular system. I imagine there must have been a special kind of joy in simply getting up and walking – or running! The ocular-nervous system would have honed itself to be able to detect the slightest movement in a diffuse background, for opportunity as well as protection. Keen depth perception within simultaneously registered distances also would have been pronounced. The brain would have become imprinted with natural patterns and forms, labeled by Dube (1997) as ‘dendritic,’ ‘deltaic,’ ‘peninsular,’ ‘radial,’ ‘emergence,’ ‘grouping,’ ‘packing,’ etc. – or at even more subtle levels with expressions of the Fibonacci sequence (Doczi, 1994). Joye (2007) is pursuing a research program positing that the fractal organization of the brain is a reflection of the fractal geometry of Nature; and further, that there is a preference for fractal patterns in architecture because of a recognized “self-similarity” with the fractal organization of the brain (see also Hagerhall, et al., 2004). There is even a “savannah hypothesis” (Balling & Falk, 1982) suggesting that humans have a preference for landscapes approximating the character of their evolutionary provenance – that is, “low to intermediately complex settings having a relatively even and grassy ground surface dotted with scattered trees or tree groups.” In all these cases, the parietal lobe of the brain, situated between the visual and motor cortices, is involved with imprinting “cognitive spatial maps” of the environments through which the nervous system is passing (Kim & Penn, 2004; McNamara & Shelton, 2003).

What’s most important to emphasize is that this same body anatomy and neural physiology (including associated endocrinology and chemical constituency) that was developed during long years as a mobile hunter-gatherer has been carried by Homo sapiens throughout its
cultural evolutions up to the present day. Let’s take a brief look at a couple of the most influential of these cultural evolutions:

Approximately 10,000 years ago, Homo sapiens began to settle down to a sedentary existence, initiating the so-called Agricultural Revolution and the constructed habitat of the “village.” While generally considered an “invention” and thus an obvious cultural advancement, Kotke (1993) argues convincingly that people knew for a long time how to cultivate plants, and in fact they did so routinely along their migration routes. Sedentary life was not chosen, however, because it requires more working hours yet yields a less nutritious diet than hunting-gathering. It is proposed, therefore, that sedentary life was necessitated because of depleted harvest on the range, and this due to increasing human population. Nevertheless, once they appeared, Homo sapiens began to flourish in their new village environs. Mumford (1961, pp. 14-15) writes poetically about how the village is a container for “organic, maternal concerns,” metaphorically a “nurturing mother.” Critchfield (1983), after many years of field research, states emphatically, “villages endure.” As a testimony to their ‘sustainability,’ Hudson (1970, p. 38) explains, “Once established, a village may occupy the same site for hundreds even thousands of years,” and goes on to cite villages in the Nile Valley occupying the same location and in continuous usage for some six millennia. In various writings (please see website at www.villagedesign.org), I have proposed that the village is the most sustainable of settlement patterns because it is integrated into its local ecology, becoming an “anthropomorphological outgrowth” of a particular ecosystem. This is not the place to go deeper into this imagery; for now I simply want to assert that the village, by definition, strikes a happy balance between Nature and Humanity, and in its traditional form not only emulates but enhances natural patterns, processes, and structures. In this way, the village exemplifies a sense of self-similarity with neural patterning.

The next major stage of cultural evolution occurred some 5000 years ago with the appearance of the first true cities – this was the advent of civilization, or city-based culture. Once again, this cultural evolution is generally considered a clever “invention” and thus an obvious cultural advancement; yet, once again, this is not necessarily so. There is a solid chorus of scholars (e.g. Schmookler, 1984; Quinn, 1992; Diamond, 1999; Mare, 2003; Jensen, 2006) who assert that the cultural pattern called ‘civilization’ was from the beginning overtly pernicious and thus inherently unsustainable. These critics point to the following characteristics of civilization wherever it has appeared: rigid class hierarchies, including the ever increasing consolidation of arbitrary power into the hands of a few; a genetic selection favoring leaders who are more than willing to use violence to achieve their ends; reliance on external technologies, particularly those that may win advantage in armed conflict; from the very beginning, standing armies and incessant war; by definition, over-population leading to resource depletion and contests over access to remaining resources, etc. One critical resource in particular, topsoil, was documented by Carter & Dale (1974) as being squandered and
eventually depleted wherever civilization entrenched itself. With this kind of legacy, how can it long endure?

This question appears to be increasingly relevant in our day, as a convergence of these unwholesome characteristics of civilization seem to be coming to a head. To illustrate, let’s limit our focus to a brief examination of the current situation in the USA:

1) Contrary to the Constitution, financial power is consolidated in a small elite cadre operating out of the Federal Reserve, a private institution set up for private gain. Members of the Federal Reserve are located around the globe and have no inherent interest in maintaining the financial integrity of the USA or its citizens. For example, the Federal Reserve routinely lends money to the USA with interest, even though the Constitution states explicitly that the coinage of money shall be reserved solely at the discretion of Congress. The exorbitant interest is paid by US taxpayers and finds its way to private accounts, accruing no net benefit for the nation.

2) The US military has become a proxy force deployed to enforce the policies and interests of the Federal Reserve and associated transnational corporations. The USA spends more on “defense” than all other countries combined, and purportedly has some 700 military bases situated around the globe – these to guarantee access to distant resources. Most of the $15 trillion (and growing) national debt was incurred to finance this military over-extension, including numerous simultaneous wars. Direct benefactors of this insidious system are corporate shareholders, large financial institutions, and the military-industrial complex, not necessarily citizens of the USA.

3) Domestic oil production peaked in 1971. Ever since then, the sole remaining superpower has resorted first to political and then military occupation of oil producing regions in order to maintain throughput and thus prolong its highly consumptive lifestyle, translated as GDP. Even so, global oil production is falling while demand continues to increase, and this is projected to be an irreversible trend (for well-documented accounts, including implications, see Heinberg, 2004, 2007; Deffeyes, 2008). Likewise, the production of other strategic resources, such as Mercury and Cadmium, has peaked globally and is now on a downward trajectory (see for example Bardi & Pagani, 2007).

4) The US economy has been gutted, with productive enterprises (i.e. manufactures that make real things for real human use) shipped overseas or to Mexico in the name of

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1 From a quasi-mythological perspective, these days do indeed point to a climax of systems. For example, the accurate Mayan calendar has a cycle of 5200 years called a Katun. This most recent cycle began as the first cities in Sumeria were appearing and will end on 21 December 2012 – just a year from now. This particular cycle could thus be called the Katun of Civilization. And let’s not forget that the Age of Aquarius is a real astronomical event, marked as the Vernal Equinox moves into the part of the sky labeled ‘Aquarius.’ This astronomical event will occur in the year 2040 and will last for some 2200 years; however, there is always a transition period between Ages when characteristics of both are apparent.
corporate profit. What remains is a so-called ‘service’ economy, where college graduates are happy to get jobs as baristas. With the middle class shrinking and 45 million people on food stamps, the military-industrial complex and select financial ‘industries’ continue to thrive with record profits.

5) The USA was founded on the notion of respecting the rights of individuals to own ‘private property.’ What has evolved, however, is a situation where millions and millions of individual properties are owned primarily by the 6 largest banks – absentee landlords who have absolutely no stake in maintaining the integrity of the local communities or economies in which the properties are located. As a result, whole neighborhoods now stand vacant while more and more families resort to sleeping in their cars.

A thorough account of the tribulations facing the USA (and by extension the world) would require many more pages. For now, by focusing on a few key points, I hope I have achieved my purpose of demonstrating that the power consolidating mandate of civilization – the ever increasing concentration of arbitrary power into the hands of a few – has reached crisis proportions. A process that began on the ancient plains of Sumer has now reached a global scale, and this is surely a sign of culmination. This is the very spirit behind the impulse of the 99% beginning to raise their voices (though we are assured the opposed 1% is more accurately the top 1% of 1%). These voices are not going to go away, for there is a vast gulf of inequity that now separates the margins of human potential, once so articulately framed as “life, liberty, and the pursuit of happiness” – and we have not even begun to address the debilitating conditions inflicting Africa, and parts of Asia and Latin America (and increasingly pockets of the industrialized world).

The point is that the entire drama of civilization has become a complete abstraction manipulated for the benefit of a few. Real people living real lives in real communities no longer have any influence in determining the course of events that shape their lives – and much less is there any acknowledgement that an intact Nature is at the foundation of it all. Justice? Accountability? Equitability? These important civil values no longer seem to apply as the ‘will to power’ has become immune to scrutiny. The tragedy is that this avaricious 1% of 1% doesn’t seem to realize that, from a systems perspective, no single ‘part’ can continue to benefit at the expense of the whole. Any kind of aristocracy depends, almost by definition, on a sound and secure community base. This would seem to be the very source of the precarious situation facing the USA today: there is no sound and secure community base.

Analysis of the Settlement Morphology of the USA

I’ve been greatly influenced by the idea that organism and environment co-evolve in a history of, what Maturana & Varela (1998) call, “structural coupling.” The environment influences the
organism as much as the organism influences the environment. The cognitive capacities of the organism do not exist pre-formed and independent of an environment; likewise, ‘consciousness’ could be considered as an emergent property arising from the self-paced probing of the environment: “Consciousness lies at the operational interface between body movement and the body’s surroundings” (Cotterill, 2000, p. 285). I like this image very much because it means that consciousness is not a ‘thing’ that one possesses but rather is a function of relationship – the relationship between a moving body and its environment. Recall that the very essence of being human, for the vast majority of our history, was to be mobile: deftly moving through a landscape alive with natural patterns and forms. Our entire nervous system, concentrated at the brain, was structured in response to this type of lifeway – and the nervous system has not evolved appreciably in the last 34,000 years.

It was just a little over 200 years ago that the USA became an independent entity with its own ‘manifest destiny.’ Some early settlements in New England, notably the center of Boston, retained the organic patterning of the Old World. By ‘organic’ I mean a settlement that would grow bit by bit, from an initial center outward, along the existing natural topography, much like an organism grows to maturity. The resulting morphology – or patterning through time – embodies a natural form, not rigidly geometric, but conforming to the existing natural conditions. Some of the most beautiful organic forms can be found in the villages of Tuscany or the Provence, settlements which grew to maturity over thousands of years.

The vast majority of settlements in the USA, however, were laid out as rigid square grids, a pattern called ‘orthogonal.’ The orthogonal pattern was first used by the Greeks when they colonized Asia Minor. Later, the Romans would lay down a square grid every time they conquered new territory. The grid was a statement of domination and control: it could easily be guarded by placing sentries at the end of the streets. The grid could bypass organic evolution by laying down the settlement pattern all at once, as if by industrial mold. To get a feel for this sense of domination and control, take a look at the initial plan for Savannah, Georgia:
As you can see, the trees have been dutifully removed, the plots have been laid out, and so now the settlement can get right down to business – which is, as in all colonial settlements, the rapid conversion of natural resources into pecuniary instruments. The plan resembles more a barracks or an industrial plant than a comfortable place for people to unfold their lives.

Or how about the other coast? San Francisco is a vivid example because the existing terrain consisted of 7 prominent hills:

In this plan, there’s absolutely no way of knowing where the existing hills might be – the plan is a simplified 2-dimensional representation of 4-dimensional space, and thus an abstraction. The slightly discolored graphic at center-right locates an area where the bay was filled to conform to the plan instead of the plan conforming to the existing outline of the bay! From a
phenomenological perspective, I’m very interested to know what it’s like to live in such an abstraction, a geometric idealization, as compared to living within an organic pattern that can be considered a reflection of the primordial patterns of Homo sapiens’ early development. In order to get an appreciation for an ‘organic pattern,’ regard this overview of Siena in Tuscany:

Once again, I’m very interested to understand and describe the phenomenology, the affect on consciousness, of moving through such a landscape – a landscape where there’s a continual
sense of anticipation as one moves around a curve, where there is a palpable sense of sub-nodes within larger nodes, where there is an occasional sense of tentative ‘arrival,’ where intermittent vistas open to distant hillsides, where residents on second stories periodically come to the window to look out on the street, where tables and chairs are waiting at key junctures, where public gathering spaces of multiple scales are designed right into the system, etc. Additionally, I’m very interested to understand the neuro-phenomenological affect: How does the nervous system respond to moving through such a flowing sinusoidal milieu as compared to moving through a rigid square grid?

Of course, up to now we’ve been assuming that the perceiving agent is walking through these landscapes. What is the affect on the nervous system instead if the perceiving agent is sitting in an automobile? What is the neurophenomenological consequence on a nervous system that was structured by active bodily movement through natural patterns and forms to suddenly be stuck immobile, as it were, sitting with arms and legs stretched forward while transporting through a geometric abstraction? Does this type of experience have an effect on consciousness? On worldview? On the perceived limits of human potential? On a sense of community? On the ability of the body to effectively utilize its senses?

I’d like to take a look at another example of settlement morphology in North America: This one could be called “Anywhere, USA” but instead has the name “Chariton, Iowa:”
Here’s the typical orthogonal plan that was laid down all over the continent. Schmiedeler (2007) explains that the birth of these new “towns” would follow the rail lines. Every twenty miles or so, spaced so that livestock or produce from the interior could arrive at a convenient loading dock, the railroad would lay down another square grid. The people doing the surveying didn’t necessarily need an education in urban design or city planning – they didn’t need any education at all! All that was required was the ability to find an arbitrary point of origin somewhere close to the tracks and begin laying down the grid. Existing features such as topography, tree groupings, rock outcroppings, brooks or streams, view corridors, etc. – features that would have _determined_ the shape of an organic morphology – were ignored. The purpose was simply to create a strict 2-dimensional orthogonal plan. The reason for this vapid lack of imagination was not, as in Roman times, to establish a military outpost with sentries at the street-ends; no, the reason was because the railroads planned to sell all these little squares to new residents! That’s right; it was much easier to determine the price of a lot that is, say, an exact 50 x 100 feet then it would have been to determine the price of an irregular lot following the contour or topography. Strict financial expediency – that’s what determined the settlement morphology of the USA.

But that’s not all: all these individual town grids are superimposed on top of a giant continent-wide grid that was produced by an effort called the National Survey. You can see the effects of this survey while flying over the continent: the entire landscape is ordered according to this grid in mile-square sections whose interstices are commonly called, at the local courthouse, ‘range’ and ‘township.’ Occasionally you can witness a little winding creek with the temerity to cut through just one tiny corner of one of these giant squares. This presents a real problem – who will own the rights to this one tiny segment of creek?

It’s alarming for me to ponder the implications of an entire continent pockmarked with these square grids, grids upon grids, 2-dimensional abstractions superimposed on top of a once living landscape, abstractions that never had a relationship with the underlying ecology. People did not grow into place there, they were simply transplanted to hurriedly begin an economic exchange whose basis _was_ transforming natural resources into pecuniary instruments but which is now dependent on people ‘servicing’ one another. It’s even more alarming to consider that a majority of the current residents are sitting around watching TV while processing pharmaceuticals and processed food, being fed a story line by corporate media about why the United States needs to invade Iran. The individual lots are now owned by distant, faceless entities like “Bank of America” or “Citigroup,” and have been deviously inflated in value by the recent real estate bubble to provide more profits for the banksters. That’s perhaps what alarms me the most: from the very beginning the United States was diced up into so much “real estate.” People never really have secure “homes;” they just make payments to the bank while they can, waiting to sell for a profit at some future date when they’re ready to retire and downsize. I have a feeling, however, that the days of guaranteed appreciation of value may be
over: whatever price is being asked must be matched with the income of someone who can afford it – and there is less and less income these days.

I remember after the devastating tornado hit Joplin, Missouri this past Summer. Jim Santori was interviewing a young couple who had returned to see if they could salvage any of their belongings. You could see people behind them scavenging through the wreckage. The couple said sure, it’s a tragedy, but at least here we are getting a chance to meet our neighbors. The young woman explained that usually they would get off work and drive home into the garage, then turn on the TV and fix dinner. They didn’t know they’re neighbors. There’s a whole continent like that.

I’m not trying to be hard on “America;”² I’m just trying to get to the root of our precariously precarious position, and I believe an analysis of settlement morphology offers a wealth of insight. I have a hypothesis that, since the square grid is a colonizing pattern, the people of the United States are being colonized from within. Sure, there is some discontent appearing around the edges, yet I worry that the people in the heartland, those right in the middle of the abstraction, are never really going to understand what’s happening – and especially if they drive home into the garage and turn on the TV! We might observe that Americans lack a sense of community – most certainly in comparison to a place like Siena! – yet it’s not their fault; how can they help it? The entire settlement geometry of bank-owned “real estate” is set up to prohibit it. Kunstler wryly calls this “The Geography of Nowhere.” Relph (1976) described it as “Placelessness.”

The Solution

I wish to make a bold statement and claim here that a comprehensive “Village Design” is the solution to the USA’s – and by extension the world’s – problems. Not only that, it is through a comprehensive Village Design that humanity can prepare for the next stage in planetary evolution. This is not a paper about Village Design, so I will forego a thorough explanation. Once again, my Committee is referred to my website (www.villagedesign.org) where is posted various papers about Village Design spanning the past 17 years of formalized education. The best place to start might be the opening chapter of my book The Urban Village: Synergy of Ecology and Urbanism, a chapter entitled, revealingly, “What is a Village?” I’ll make sure every Committee member gets a copy of this book (Dottie already has one).

Yet, in order to prepare for a rough outline of my dissertation proposal, the purpose of this Concept Paper, I list here some major features of the village:

² Do you realize that “America” is an entire hemisphere and not just a single nation-state within that hemisphere? Nicaraguans and Peruvians are just as much Americans as are the citizens of the United States. There is a North America, a Central America, and a South America. It seems to me that someone is trying to corner the market on New World ideology, in an almost mythological way, by always referring to the United States as “America,” as if it was the only one.
1) A village is human-scale, between 500-5000 persons. At this scale, a sense of direct participation in local government can be experienced. Likewise, a sense of collective identity can be felt, a sense of belonging to a ‘tribal’ scale unit. This is a consequence of cultural inheritance, part of the genetic legacy of Homo sapiens going back 34,000 years.

2) A village is a self-contained, self-reliant socio-economic unit, meaning that all essential needs can be provided for within the village. This is part of what makes the village inherently sustainable, able to take care of itself. Of course, each village will produce some particular surplus for export and trade. As an example, the Mondragon cooperatives in Basque, organized at the 5000-person scale, produce kitchen appliances such as refrigerators for export to the European market.

3) A village is, by definition, symbiotically integrated into its local ecology. The village becomes a ‘steward’ maintaining the health and vitality of its encompassing ecosystem. The village draws most of its sustenance from the productivity of the local ecology so there is innate motivation to see it thriving: as the ecology prospers so do the people in the village. All villages have an agricultural or horticultural component.

4) The potential here is for the village to become a genuine living system, nestled within larger living systems and comprised of still smaller living systems. In the language of Maturana & Varela (1998), all living systems are autopoietic unities, meaning that they are self-organizing, self-maintaining, self-repairing, cognitive wholes. Living systems create themselves; thus, you would never see a distantly-based ‘developer’ coming in to help build the village.

5) Each village develops a unique sub-culture of its own. Since citizens in a village engage in cooperative economic enterprises among themselves, for the benefit of the whole before the benefit of any individual members, more time becomes available for recreational and leisure activities such as song, dance, theatre, sports, conversation, or fine arts. Each village – and this is true universally – inevitably develops distinctive, quirky habits of speech and dress that can be recognized throughout the region.

I also would venture to say that there is no unemployment or homelessness in a village, since at a human scale, where people must meet face-to-face, there is an inclination to take care of one another. Kirkpatrick Sale (1980) wrote a very helpful book clarifying this phenomenon of scale.

To date, I have developed and participated in three applications of Village Design:

1) Ecovillage – I understand the ecovillage now to be a “research, training, and demonstration site,” a site where all the tools and technologies – including social tools and social technologies – can be brought together and experimented with in their total integration as “sustainable living in community.” When ecovillages first began
appearing, they were way ahead of their time; now, a lot of the technologies are catching up. Ironically, most eco-villages are nowhere near ‘village’ scale, so village here is being used metaphorically. To many participants, ‘ecovillage’ is simply another name for ‘intentional community,’ and that is a big detractor for people who might otherwise be interested yet who are not quite ready for an immersion in ‘alternative culture.’ For that reason, despite the high hopes of early founders for wide-spread application, the ecovillage will always remain marginal, better left as a “research, training, and demonstration site.”

2) **Urban Village** – When I had a chance to engage with city government in Bothell, representing a developer, the term “Urban Village” aroused genuine interest whereas the term “Ecovillage” would not have gotten me in the door – although in both cases I might have been talking about similar principles. So much for semantics! The concept Urban Village is fecund with potential; and although currently being used by Planning Departments, I argue in my book that they are not going far enough. The premise is that during the upcoming anticipated scenario of ‘energy descent,’ as oil becomes increasingly scarce and expensive, the entire urban fabric is going to prove to be increasingly dysfunctional. The obvious solution is to reorganize and retrofit at village scale: self-contained, self-reliant, self-maintaining neighborhood socio-economic units with well-defined centers and well-defined boundaries, aggregated into a metropolitan whole. This proposal is not all that earth-shaking, since this is how cities used to self-organize, in a general way, before the advent of fossil fuels. The difference will be one of design...

3) **Traditional Village** – I had a chance to work with traditional villages in both Thailand and Cambodia. The challenge there was to undo the deleterious effects brought on by ‘globalization’ and help return the village to its previous self-reliance. The term “ecovillage” worked in this context for it meant incorporating modern appropriate technologies into the basically sound, underlying village infrastructure. In the event of a global economic meltdown, these traditional villages the world over will have a much easier time returning to propriety than will more recent settlements developed since the Industrial Era. Within North America, rural agricultural ‘towns’ will benefit immensely from being re-organized along the timeless social and economic principles of the traditional village.

One very promising application of Village Design to which I have not yet focused adequate attention is the retrofit of existing ‘ suburbs.’ There is a vast store of embodied energy invested in the suburbs that presently sits dispersed and so lacking in functionality. The suburban retrofit template would look something like this: locate a well-defined center and then circumscribe with a well-defined boundary anticipating a catchment area of no more than
5000 persons; increase density at the center through vertical development (no higher than 4 stories) until a pedestrian environment is created; position a plaza at the very center, complete with accoutrements, and line this public space with public buildings; initiate straightaway community meetings at the center so that there can be community participation in important decisions; initiate economic functions, most likely beginning at the ‘crafts’ scale of complexity, emphasizing commodities that are needed within the village; economic functions also include ‘primary productive capacities’ such as agriculture, agroforestry, aquaculture, managed wood lots, and animal husbandry – and the relatively large amount of open space in the suburb is ideally suited for this transition; a village corporate entity will need to gain ownership of residential properties so that rents are retained within the village, not leaked out into the ‘global economy;’ spacious former single-family homes will be translated into multi-use dwellings, with ancillary buildings constructed around the house-nucleus; garages will be transformed into productive workshops; existing buildings, originally oriented toward the street, will be retrofitted to be oriented toward the Sun for passive solar gain; etc., etc. – this is just an opening survey...

What’s important to recognize in all these applications is that the basic village-scale template is understood to be the primordial social-economic-cultural unit of sustainable human settlement. “The village endures.” We cannot create community, outright, but we sure can design the conditions in which community may appear, spontaneously, of its own accord – after all, participation in community is a genetic inheritance of Homo sapiens. It’s only been in the last few hundred years or so, with the influx of a massive energy subsidy provided by the exploitation of fossil fuels – a one-time energy bonanza – that large amounts of people have been able to afford to live in relative isolation, as self-contained individuals. A Jungian would say this process of individuation is a necessary stage in the growth to spiritual maturity (at society scale?). Rudhyar (1970) uses a Hegelian dialectic to illustrate this situation at the dawn of the Aquarian Age: tribes were the thesis; individuals were the antithesis; the synthesis will be tribes of individuals.

The Concept

It was important for me to provide a relatively thorough background to my educational project since Village Design is a unique application of Human and Organization Development, and people may not understand what it means upon first glance. As I approach now my Dissertation Proposal, I will need to condense and focus this educational project into a specific and highly circumscribed study that may be considered valid doctoral research – and in this new definition I openly seek and welcome the input of my Dissertation Committee.

My most substantive contribution to “Village Design” to date has been in the development of multi-disciplinary curricula that have helped define the scope and content of
what exactly Village Design is. A self-designed B.A. at Fairhaven College – Village Design: Ekistics for the 21st Century – was the world’s first effort at organizing the emerging field of Village Design into a formal degree. Later, as the Program Development Coordinator for an international consortium called Gaia Education, I coordinated the production of a curriculum that has won recognition as an official contribution to the UN’s “Decade of Education for Sustainable Development – 2004-2014.”

Within these educational productions, my special interest (and passion) has been the development of a multi-dimensional “Design Studio.” My first formal treatment of Design Studio was as the Graduate Design Project of my M.A. in Whole Systems Design at Antioch University Seattle. In the supporting documents, I sought to explain why, especially, ‘whole body awareness’ is an essential pre-requisite to competent ecological design. The line of reasoning followed many of the points outlined in this Concept Paper. Since then, I have been able to deliver Design Studios – as the culmination to full Village Design courses – both through my non-profit and through Gaia Education, in a variety of cultural settings and applications. Naturally, since this is such an exciting part of my life, I now wish to take the Design Studio to a new level through the research of my dissertation.

Therefore, for the Dissertation Research Project of my Ph.D., I propose to design and present an ever-more refined version of a Village Design Course culminating in Design Studio. This Course could be an elucidation at any of the various applications: Ecovillage, Urban Village, Traditional Village, or Suburban Village – or even at a sub-scale of the Village – it doesn’t matter. What’s most important is that attention be given to applying all that I’ve learned through the course of my doctorate degree to the design and presentation of a world-class Design Studio that can be considered a valid research project.

During conversation with my Faculty Mentor, Bob Silverman, as I described the work I’ve been doing around the world, he recommended that I look into a research methodology called “Phenomenography.” This makes good sense since Phenomenography was developed specifically for educational research, where “An effort is made to uncover all the understandings people have of specific phenomena and to sort them into conceptual categories” (Marton, 1988, p. 145). My intuition is that this research methodology may be a splendid manner through which to discover the various qualitative ways participants experience the multi-dimensional phenomena of the Design Studio. By organizing the research data, derived from an interview protocol, into a limited number of conceptual categories, valuable knowledge may be gained that could be useful for the design of future Design Studios. If we understand in detail a limited number of qualitative ways participants experience the Design Studio, future presentations may be oriented to provide meaning for these conceptual categories – in other words, we could have 3 or 4 different tracks, with different emphases, operating at once. These different tracks would become a multi-modal perspective on the design challenge as a whole. Superior results are bound to be realized – yet, in the organization
of design teams, would we want to mix the modes or keep all individuals of like mode together?

With the above as the basic concept, let me know close this Concept Paper with a few more thoughts about conducting a Design Studio as the upcoming Dissertation Research Project:

1) I want to once again emphasize the proposition: whole body awareness is a pre-requisite to good, competent ecological design. A recent Somatics Seminar has provided me with valuable tools and perspectives from which to approach this proposition. In the Design Studio, various somatic exercises will be strategically incorporated right into the design process. These exercises may include: various stretches, breathwork, visualizations or meditations, yoga poses, calisthenics, and free-form movements. The purpose will be to encourage awareness of the whole body, as a body, as participants approach the creative design challenge. Whole body awareness is an effort to counteract the tendency – as exhibited in traditional architecture or planning studios – of approaching the design challenge ‘from the neck up,’ relying exclusively on mental concepts and formulas. Similarly, in the Design Studio traditional artistic media will be employed; CAD programs will not be used. A village is designed for inhabitation by whole bodies; therefore, whole bodies ought to do the designing. What will Phenomenography discover about this approach?

2) A recent Phenomenology Seminar has provided powerful perspectives for informing the very essence of ecological design. In the manner I began to describe moving through the streets of Siena, how can participants in the Design Studio be taught open perception of a landscape, unsullied by pre-conceived notions? How can the perceptual lens be cleansed, clarified, purified, so that it may perceive the subtlest of differentiations or nuances – perhaps detecting unseen energies, potentials, or entities? Phenomenology is a first-person methodology; therefore, part of the instruction must be demonstrating how to practice introspection, learning how to recognize and distinguish meaningful and significant perceptions from normal mind chatter – and to perform this sublime introspection while traversing a landscape with all the senses turned ‘on.’ What will Phenomenography discover about this approach?

3) I’m wondering if we can take the Design Studio to a neuro-phenomenological level? Can we purposely attempt, by design, to activate or enliven certain desired neural circuits or regions? For example, it is well known that Western technological societies emphasize left-brain linearity at the expense of right-brain pattern recognition – yet in ecological design it is the right-brain we want to bring to the fore! What, then, if we performed a design exercise with patches over the right eye so that the right brain would be forced to engage (understanding that the right eye connects to the left brain and vice versa)?
I’m also aware of some movements that are designed to encourage cross-brain communication between the hemispheres. Would there be significant insight into the design challenge after the two hemispheres had communicated with each other? I also perceive a wealth of possibilities playing with the parietal lobe and its “cognitive spatial maps.” Could the parietal lobe be ‘pre-programmed,’ as it were, to recognize the Golden Mean and other expressions of Sacred Geometry? And once again, could a phenomenographic analysis reveal reproducible conceptual categories among successive populations exposed to this experience?

I could go on and on, but I think that’s enough for now to demonstrate the ‘Concept.’ More detailed descriptions will be provided in the actual Dissertation Proposal. Doesn’t this sound interesting?

References


