

Village Design as a Retrofit Solution for Suburbia

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By:

E. Christopher Mare, MA-WSD, MA-HOS

Village Design Institute

1221 Harris Ave., Suite 24

Bellingham, WA, 98225, USA

(360) 927-2224

ecmare@villagedesign.org

www.villagedesign.org

I wish to begin by providing a context – the multi-layered context in which Suburbia appeared as a distinct socio-cultural phenomenon and through which Village Design will be offered as a comprehensive solution. The context will be painted in broad generalities yet will be limited to the geographical boundaries of the United States; for while suburban settlements have now appeared world-wide, “Suburbia,” as an ideological institution, is surely an American marvel. I use the term “American” here loosely; for while in common parlance the United States is often referred to as “America,” in reality America is not a single nation-state but rather an entire *hemisphere*: There is a North America, a Central America, and a South America – and citizens of any nation-state within this hemisphere are wholly justified in referring to themselves as Americans. In that sense, suburbs in Australia or Canada, having common British cultural roots, will have more in common with those in the United States than will suburbs in, say, Mexico or Venezuela. What we all have in common is the experience of *colonization* within the last 500 years – and I hope to be convincing in describing Suburbia as an extension of the colonizing effort. To offer Village Design as a “solution” implies that there is a problem with Suburbia – and this probably will be less controversial.

To those of us who have grown up in the fully-formed United States, extending from “sea to shining sea,” it may be difficult to imagine the incredible *vastness* perceived by the early European colonizers. After the British colonies hugging the North Atlantic seaboard won independence from their Mother Country, an entire continent of possibilities lay before them, a virtually infinite expanse of so-called “virgin land” (Smith, 1950). A doctrine of Manifest Destiny was articulated to direct and justify the westward expansion of the newly-formed United States – and this expansion proceeded at a mind-boggling pace. For instance, the Constitution did not even take effect until 1789 and already by 1803, just 14 years later, the vast expanse of the Louisiana Purchase was inherited. With each passing decade, the administrative boundary of the United States was extended by hundreds of miles, until by the 1890s it could be said that the continent was “secured.” All of this dizzying westward expansion was blatant, and often brutal, *colonization* since it forcibly displaced dozens of indigenous nations as well as existing settlements of Spain, France, Russia, and finally Mexico. I consider this important to re-emphasize only because this expansion is usually regarded as *settlement*, as if there was free and open territory to be inhabited, a sort of mindset that continued right on through Suburbia.

Quite early in its existence, the government of the United States recognized the need to *expedite* westward expansion:

The long and dramatic history of the federal government’s role in shaping the land began with the “Ordinance for ascertaining the mode of disposing lands in the western territory” passed May 20, 1785 (commonly known as the Land Ordinance). The title reflects the legislators’ major concern: orderly transfer of an immense, poorly known territory to private ownership through sales (Johnson, 1990, p. 128).

This was the origin of the U.S. rectangular survey, the ubiquitous grid of Range and Township that crisscrosses the continent, translating a topology of diverse 4-dimensional ecologies into a

simplistic 2-dimensional abstraction. Apparently there was some debate as to whether a more natural system should be used but the grid won out: “townships of thirty-six square miles were to be subdivided into “sections” of 640 acres” (Johnson, 1976, p. 55).

The reason for choosing the Cartesian grid was nothing more than expediency of sale: it was far quicker to survey a square township of 6 x 6 miles, and then subdivide that into sections and quarter sections, than it would have been to bother with sinuous contours and other non-linear natural features. Hildegard Johnson (1990, p. 136) provides a glimpse into the frenzied and forceful pace of the endeavor:

In northwestern Ohio land sales began in 1829. In northern Indiana Indians delayed settlement relative to the heavy early influx from the Ohio River in the south. On Indiana’s prairies settlement proceeded fast, with farmsteads of 80 acres being the most numerous to this day. From 1820 to 1829 Indiana’s land offices sold almost 5 million acres for \$2.5 million [averaging 50 cents/acre]. By 1900, 221,897 farms totaling 5,700,000 acres established on the former Public Domain were in Indiana. In Illinois settlers began to look for wood along rivers; in upper Mississippi country, some bought wooded forties for \$50 which they subdivided and resold at \$5 per acre.

This was the early days of the “great land grab.” how fortunate it must have been to be a homesteader in those days! Is it possible that there are still some of these 80-acre pieces passed down within families that have never known a land payment? How many times over the years could the original cheap purchases be subdivided for profit?

A few points warrant closer attention: First, the notion that land is first and foremost a commodity is obviously innate to the USA experience, with Uncle Sam himself being the first national realtor. Second, the highly individualistic nature of the settlement patterning stands out, for these were individual properties obtained by individual persons for individual use. Third, speculation for profit, including the act of subdividing, was apparently an accepted practice from the beginning – *and all three of these characteristics were still very much alive during the settlement of Suburbia*. How very different all this was from the settlement patterning of the Old World, which grew organically to fruition over long periods of time, whereby family- and clan-based groups would come together cooperatively to form hamlets which evolved into villages, these human constructs intimately associated with their underlying ecologies and patterned accordingly. It’s also interesting to note that the square grid was the preferred pattern of colonization throughout history: the Greeks were the first to use it when they colonized Asia Minor, and later the Romans would lay down a square grid wherever they conquered and subdued a population. The USA grid began at an arbitrary point in eastern Ohio and then surveyed westward all the way to the Pacific Ocean.

As for the introduction of the distinctly suburban pattern, Fishman (1987) explains that the first modern suburbs originated on the outskirts of London in the mid-1700s as a merchant-class flight from the chaos, grime, and immorality of the inner city. Interestingly, he calls this emerging settlement pattern “bourgeois utopia” since “it expresses values so deeply embedded in bourgeois culture,” including the recent evolution of the “closed domesticated nuclear family.” According to Fishman (1987, p. 5), “The suburb must be large enough and homogenous enough to form a distinctive low density environment defined by the primacy of the single family house set in the greenery of an open, parklike setting.”

These very same features characterized the first suburbs to appear in the United States. Jackson (1985) provides a detailed account of how advances in transportation technology defined suburban morphogenesis: The first suburbs were in Brooklyn, permitting a ferry commute to Manhattan. Shortly thereafter, the steam railroad made it convenient enough for professionals and businessmen to purchase a country home and commute into the business districts of New York, Boston, and Philadelphia. Later, the electric streetcar made it possible for even middle-class families to deploy themselves outside central cities all over the United States. Finally, the automobile, though becoming common by the 1920s, did not have enough of a road base to support a suburban pattern until after WWII, and then it exploded onto the scene, allowing the formation of Suburbia. Thus, along with the characteristics mentioned previously, the suburb is a strictly residential pattern from which *commuting* is necessary – though these days, one is as likely to commute to another suburb as to a central city.

Reading Jackson's *Crabgrass Frontier*, I also was struck by how intrinsic the phenomenon of the "developer" is to the suburban configuration, beginning right there in Brooklyn in the 1830s and extending all the way to the present day. And what is a "developer?" In this context, a developer is an individual (or entity) with access to capital who purchases property with the intention of subdividing into residential lots and constructing single-family houses for profit. A developer is a self-interested land speculator: education in the art of town planning, for example, is not a prerequisite, and concern for the public welfare diminishes returns. The developer has no long term stake or interest in whatever is developed. Since profit is the overriding motive, houses will embody quality only in proportion to what is deemed 'affordable' within margins. Under the developer-led system, suburban housing soon took the form of mass-produced commodities, of which Levittown on Long Island is perhaps the most notorious example. I also would argue that the developer-led system ensured that the suburban pattern would be another *abstraction*: With the goal of maximizing lot numbers on any given speculative piece, site plans could consist of simple 2-dimensional layouts of lots and streets with no provision for natural features. Indeed, standard practice would become bringing in the bulldozers to level and grade the land in conformance with the site plan – a plan that may have been drawn in an office somewhere by a technician who may have never even *seen* the site – instead of the site plan conforming to the land. What resulted throughout the United States was the bizarre phenomena of abstractions within abstractions: 2-dimensional suburban development situated within 2-dimensional sections of the national grid. And what is it like to live within strata of abstractions?

James Kunstler (1993) calls this situation the *Geography of Nowhere*. It is the very essence of an abstraction to be lacking in particulars, and a suburb is no place in particular. This absence of connection to a real place is compounded by the fact that the suburb is just a collection of houses: nobody is prepared to call it *home*, in the sense of establishing a family lineage for generations to come, really rooted to that one particular place. Of course not; a house in the suburbs is a *real estate investment*: as soon as the value appreciates sufficiently, that house is ripe for selling and moving on. That's what my Dad did; and he was pretty fortunate at arriving in a region during a buyer's market and then selling a few years later for significant gain – though I don't think automatic appreciation is guaranteed anymore; and I probably never will own a suburban real estate investment since I opted for education instead, and now have student loan debt the size of one of my Dad's earlier houses! And let's be frank: 'ownership' is an overstatement anyway: the banks own Suburbia. With sufficient credentials you can qualify for the privilege of assuming a mortgage (which literally translates as "death pledge"), whereby you

(and now your spouse) will be required to come up with a hefty monthly payment every single month *for the next 30 years* – and woe to the aspiring homeowner who should happen to arrive at a life situation where no monthly payment is forthcoming! But here I begin to ramble, critiquing instead of clarifying. I still want to capture the consequences of living in abstractions, for this is the heart of the problem for which Village Design is a solution – and that is coming shortly.

In a “geography of nowhere,” where any place is no place in particular, and all places look pretty much the same, it can be rationalized that any place is as good as another – and so Americans (i.e. citizens of the United States) have a penchant for periodically picking up and moving residence. When they get to the new location they will be reassured to find the same superficial geometry of spatial layout, with the same chain stores, the same transnational banks, and the same suburban pattern of single-family houses all grouped together and segregated from the rest of the built environment. They also will find the same television programs; for that is what keeps the monotonous uniformity under control. In the Old World, culture used to grow from place, and so there were diverse cultures representing the diverse life-ways arising from unique human-environment interface. In 20th century USA, however, television became the medium for cultural transmission; and despite its superficial glamor, television is a marketing tool. The type of culture that television transmits, therefore, can be called *consumer* culture: viewers are subconsciously programmed to desire the acquisition of advertised goods and services. Television portrays an abstract world where everybody is happiest when out shopping and buying things, even if it depends on credit; television also portrays the abstract image that the suburban way of life is ‘perfectly normal.’ Corporate sponsors want to ensure that the population remains organized into “consumer units” of the isolated nuclear family, so that each suburban house will be stocked with 1 lawnmower, 2 cars, 3 television sets, etc. This is the emergence of Suburbia: an ideological institution designed to instill and promulgate the values of consumer culture: *the people are being colonized from within*. The essence of colonization is the occupation of a land-base for the purpose of channeling resources back to the occupying power center. In bank-owned Suburbia, people work their lives away to ensure the systematic transfer of wealth from local communities to the boardrooms and shareholders of distant power centers. This would not be so easy in a village-based society, where people are rooted to and invested in a very particular place, because such a society would be able to see right through the abstractions.

Kunstler (2004) calls Suburbia “the greatest misallocation of resources in the history of the world.” He further claims that Suburbia “is a living arrangement that has no future.” Part of the reason that it has no future is because it was designed to encourage and facilitate the maximum throughput of resources, and such a practice has a limited life-span on a finite planet. Absolute dependence on the internal-combustion automobile is especially problematic. Thus, it doesn’t really matter if retrofitting Suburbia is a good idea or not; out of necessity the suburban pattern will need to undergo a transformation to bring it back into accord with the real world of geography, ecology, biology...and even economics. A conspicuously wasteful configuration like Suburbia was only possible during the recent glut of terrestrial energy reserves, what Heinberg (2003) has clarified as a “one time bonanza.” Now that the world has entered a trajectory of “energy descent,” we can expect a corresponding era of what the French call “le décroissance” – *degrowth*. It is within these dynamics that the revisioning of the suburban pattern should abide: contraction, concentration, containment, definition. There is far too much embodied energy invested in the suburban pattern to simply abandon it; therefore, we need to figure out how best to reorganize so that it can become “sustainable.”

That's where Village Design comes in. Village Design is the conscious creation of sustainable, full-featured, multi-use settlements at *village* scale. The sustainability discussion can become vapid without reference to scaling; therefore, it is proposed that "village" is the most sustainable scale around which to organize human habitation systems. In a self-published book entitled *The Urban Village: Synergy of Ecology and Urbanism* (2008), I devoted a whole chapter to answering the question "What is a Village?" I found this to be quite necessary since "village" is another one of those terms that gets used exceedingly loosely. For example, in the mythical land of "America" (which gave birth to the consumer abstraction of "Suburbia") it is quite common for shopping centers, subdivisions, apartment complexes, and even strip malls to bear the homely title "village." Businesses nowhere near a village routinely attach the "village" name, as if intuiting that will boost sales. There's even a brand of SUV called "The Villager," which is about as contradictory as you can get! The point I want to make is that there is enormous sentimental value attached to this image of "village." All of us, no matter our heritage, have ancestors who lived and died in *real* villages. The United States, however – excepting maybe a few places in Vermont (Bryan & McCloughry, 1990) – grew so fast that it bypassed the village stage. It's almost as if everybody now wishes to recapture that sense of belonging, of wholeness, of purpose and moral integrity, by naming everything a "village." Village Design, then, is the multi- and inter-disciplinary effort to instill a genuine organic village pattern into a landscape that was unsustainably abstracted for quick speculative gain.

The Village Design Institute (www.villagedesign.org) identifies the following as being characteristic of genuine villages:

- They tend to be compact, with well-defined boundaries and well-defined centers, these centers usually being some sort of village green, square, or plaza, often with a tree, obelisk, fountain, or statue – something symbolically meaningful to the history of the village – as a focal point. These centers invariably contain a marketplace, the economic hub of the village, lined with administrative buildings;
- They tend to be small enough so that everyone can be recognized – there are no strangers – yet large enough so that all essential economic functions can be produced or serviced entirely within that habitation system. This makes the "village" very self-reliant in a way the "hamlet" could never be, with a strong sense of collective identity and purpose that starts to disperse at "town" scale;
- Villages, by definition, have some sort of primary production capacity, usually based on agriculture or at least complemented with an agricultural component – in other words, the village produces its own food and staples with surplus for trade; thus, it is incongruous to label a settlement a "village" if it has no agriculture;
- Villages tend to maintain their population levels, in a self-organizing way, within the ecological carrying capacity of their encompassing environs – and there are social taboos to compel this;
- Villages, as self-contained organic unities, are capable of self-maintenance by enforcing their own laws internally; and these laws are consistently derivative of timeless natural laws;
- Individual villages tend to have something distinctive about them – either in custom, speech, or dress – so that when traveling about the region, one's village of origin can be instantly recognized by others;

- Actual population for a village, taking into account all the above factors, will not exceed 5000 persons; settlements larger than this move into “town” scale. At the lower end of the spectrum, a population of 500 persons is the bare minimum for achieving the social, cultural, and economic potentials of the village; settlements smaller than this move into “hamlet” scale.

In a very insightful section of the *Sustainable Communities* book, Sim Van der Ryn, before introducing a project called “Marin Solar Village,” speaks knowledgeably about the “village:”

[P]erhaps the village represents an organic vision of community, because the central theme of village is that of a community directly tied to the productivity of the land. The size of a village is usually defined by how far one can walk to outlying fields. The village is an organism that literally builds itself and feeds itself and today would also grow or collect its own fuel and energy. In the village, everyone is both a producer and a consumer of goods and services to be sold, exchanged, or given freely. The composition of the village includes all age groups living together, not segregated spatially or by institutions. A village might have from a few hundred to a few thousand people. At the latter size, the village’s core is its trading center and stores, also containing the centers of local governance, communication, education and religion, the town square or commons, and places to gather together – in other words, it contains coherence, stability, continuity, sustainability (1986, p. 57).

In another influential book entitled categorically *Villages*, the result of many years of field research, author Richard Critchfield exclaims unequivocally “villages endure,” and proposes: “History suggests that there may be no adequate substitute for this universal village culture...It just could be the most harmonious way of life for human beings who choose to live in groups” (1983, p. 346).

There is not enough room here to provide a full account of village life, village economics, village morphology, etc. By citing just a few examples I wanted to demonstrate that there has been some serious thought put into this subject. The village has a certain size and shape; it embodies certain qualities and characteristics; it performs a certain function within the larger bioregion. What may be the most distinctive feature of all is that *it is symbiotically integrated right into its local living ecology*; it becomes a sort of anthropomorphic outgrowth of the landscape into which it is embedded; it is thoroughly the opposite of an abstraction, for it is very substantially particular, and that helps to make it very sustainable.

With all of the above in mind, then, here are some suggestions for using Village Design as a retrofit solution for Suburbia:

- Begin by surveying existing maps of suburban sprawl, identifying “population catchment basins” of approximately 5000 persons. The number 5000 is cited repeatedly in the literature as the optimum size for a human settlement. This is because that size is large enough to accommodate the diversity of vocations required for a full-featured, self-reliant economy; yet, at the same time, it is small enough to maintain a sense of social cohesion, a sense of common purpose.

- Within each population catchment basin, identify a well-defined center. This need not be the precise geometric center, yet it ought to be positioned internally. Similarly, establish a well-defined boundary that demarcates the outer limits of each emerging village. Natural features such as streams, crests, or woodlands make excellent boundaries; however, major thoroughfares may also serve this purpose. By establishing a well-defined center and a well-defined boundary, a process has been initiated that will give each village the chance to grow into a genuine living system, able to assume a life of its own.
- At the center, clear a space large enough to establish the central plaza. This plaza ought to be commodious enough to contain the entire population of the village during special events like ceremonies or political gatherings. The parking lots of some shopping centers are large enough to fill this purpose; yet the asphalt will need to be covered with tiles or paving stones for aesthetic reasons. This plaza also will be home to the weekly market. Circumscribing the plaza, prepare for the construction or conversion of civic and administrative buildings such as the Village Hall.
- Around the boundaries of each emerging village, begin to remove existing development such as houses and streets: the goal here is to provide a natural buffer zone of some 200 yards between neighboring villages. The buffer zone may be filled with agriculture, aquaculture, agroforestry, or pasture – keeping in mind the advantage of having at least one edge of the village be a busy commercial corridor, perhaps lined with a boulevard that separates the neighboring village. Regenerative ecology will need to be practiced around these boundaries to restore the vigor of natural functions that were suppressed during the Age of Suburbia.
- As development is being removed from the edges, begin to increase density in the center, creating a pedestrian-only environment. Eventually, concentric rings of density will be highest in the village center while dispersing toward the buffered edge. This provides for a variety of residential options, with apartments and studios in the center, row houses lining arterial lanes, single-family houses in the interior, and multi-family dwellings situated around agricultural, educational, commercial, or industrial nodes – and yes, it's perfectly reasonable to expect 21st century villages to possess light industrial capacity.
- An ideal village of 5000 is best subdivided into a variety of hamlet-size neighborhoods of approximately 500 persons. This sort of differentiation allows for diverse subcultural possibilities with the additional opportunity for economic specialization. Each of the neighborhoods of 500 ought to have its own sub-center with functions appropriate to that scale; existing schools or prominent intersections may serve this purpose. Corbett & Corbett (2000) provide a learned sociological discussion, based on experience, advocating this 500-person neighborhood scale.
- It's going to be quite a challenge creating an organic unity out of the existing abstractions. Since automobiles other than emergency or delivery vehicles will be restricted to the perimeter of the settlement, many existing streets may be removed, narrowed, or redirected. The underlying natural topography will once again reveal itself, and may be accented or embellished for aesthetic effect. Former 2-car garages will be converted to bungalows and artisan workshops, while infill construction can begin to form clusters out of formerly detached houses. Spatial dimensions within the village will return to the human scale of walking or cycling, among a flowing network of pathways, and everybody will be the healthier for it.

This has been the general outline of a morphogenesis that could transform the haphazard and dysfunctional suburban pattern into a coherent and highly productive village system. Once the initial layout has been defined, development proceeds *organically*. By organically I mean in discrete measured and cyclical phases, in accord with the needs of the settlement at each stage in its evolution to maturity, season after season, as resources and opportunities become available. Such a process could very well take *millennia*. Organic development also means that the stages of accretion are enacted entirely by the residents themselves, internally, in a self-organizing process reflective of biological living systems – in other words, there is no need for an outside “developer.” Whereas the developer-led model encouraged instant settlements, whole pre-packaged ensembles as a function of the profit motive, organic village development is never actually finished but becomes an ongoing procession of refinement and adaptation. Whereas suburban development implied moving in to a ready-made environment, so that residents could be free to commute to their actual work, village development *is* the actual work of the residents. Whereas suburban residents were primarily concerned with the short-term appreciation of their real estate investment, village residents have an innate investment in the long-term appreciation of their *community*, both human and natural. Obviously, the transition to Village Design entails a new paradigm in the relationship between individuals and the place they call “home.”

Something needs to be said about the ideal of “sovereignty;” for the above could sound like wishful thinking without it. It may sound as if I am promoting some form of “socialism” by suggesting shared responsibility of ownership among the village residents, but that is not the case. The contention between socialism vs. capitalism arose in the 19th century as a debate over who would own the tools of production in a newly-industrializing society: the individual or the state? In these days of information economy, that debate has lost context: the future prospect is neither capitalist *nor* socialist. When thinking about the emerging need for sustainable community development, the big issue seems to be who will own the land-base? Will it be a distant transnational bank, subsidized through bailouts, committed to nothing more than profit for its shareholders? Or will it be the community itself? Varying levels of private ownership are possible within a village system, while ensuring that investment gets recycled back into the community and not leaked out to some distant – and disinterested – power center. This seems to me to be an issue of sovereignty: lawful self-determination at *village* scale.

In summary, the territory that became the United States was colonized in a mad rush of expansion called Manifest Destiny. In order to facilitate rapid development, the landscape was geometrically abstracted for ease of sale. A great land grab resulted, through which speculative developers were entrusted with constructing the built environment. A combination of rapid growth, an abundance of land, and new transportation technologies gave rise to a suburban pattern of residential development. After WWII, the ubiquitous advent of the automobile, fueled by cheap oil reserves, enabled the suburban pattern to spread loosely all over the continent. What resulted came to be known as Suburbia: an ideological institution promulgating the values of consumer culture. Now that the oil reserves appear to have peaked, heralding a coming era of energy descent, the haphazard, piecemeal, abstract landscape built by speculative profit will prove to be increasingly dysfunctional. This awareness has led to a mounting call for “sustainability,” and, more contextually, for a sustainable community development. Village Design was offered as a comprehensive retrofit solution to the problem of Suburbia, for, as Critchfield noted, “[the authentic village] just could be the most harmonious way of life for human beings who choose to live in groups” (1983, p. 346).

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