Suburban Sensibilities

David Salomon
University at Buffalo

ATMOSPHERE

In his seminal essay on Houston, "Stim and Dross: Rethinking the Metropolis," Lars Lerup observes that the city is bound by two irregular yet constantly present surfaces: "The Zoohemic Canopy" of trees that hovers just above the ground plane, and "The Oceanic" mass that floats high above it. The former provides dappled light and shade, blanketing and protecting the intimate and endless interior of its residential and leisure zones. The latter frames the skyline of the downtown work zone and provides the moisture that defines the city's climate. Connecting them is the raised bed of the freeway. Surgically penetrating each, it serves to simultaneously reveal and distance the one from the other.[1]

While Lerup refers to these features as a set of "megashapes," diffuse "fields" and interconnected "ecologies," it is perhaps more accurate to describe them in terms of atmosphere—in both the environmental and psycho-geographic sense. In both contexts atmosphere is that which isn't often seen but is always active and felt; it envelopes you and creates a particular mood.[2] While the Zoohemic and Oceanic zones literally outline the four functions of a modernist city (working, dwelling, leisure, and traffic), they also—along with the naturally humid and artificially chilled air—provide Houston with its physical and psychic sensibility. More than most cities, the palpable air of Houston is responsible for establishing its vibe. Its atmosphere is generated by its atmospheric conditions.

As Lerup makes clear, far from an index of the city's operations, this sensibility is an active agent organizing the city's occupants and their behaviors. It is what establishes the relationship between what Lerup calls the unending Stim(ulations) and the endless Dross(scape) found in Houston. Without falling into the trap of demonizing or celebrating his subject, Lerup's text is a plea for, and an example of, the new methods necessary for studying and understanding such suburban cities and spaces. His provisional conclusion is that one must first examine and understand their atmospheric qualities and sensibilities in order to comprehend their social and cultural ones. This suggests that in order to know and eventually to act on such places requires

one to be an expert at manipulating atmospheric and aesthetic conditions. As Jacques Rancière notes, such a "redistribution of the sensible" will require both design and political skills.[3]

In looking at historical and contemporary examples of suburban design, the remainder of this essay asks how working with atmosphere, sensibility and aesthetics may serve as a *"guide [for] conceiving new relationships among existing urban parts.*[4]*"* We tend to think of sensibilities and styles as either being superficial or as the result of some other (economic and political) cultural forces. That is, as something that covers up or comes after the important stuff. This paper looks at designs for suburban spaces and cities that reverse this sequence. It asks: What is to be gained by starting with sensibility and aesthetics when analyzing and producing suburban architectural objects and spaces? Might they be effective *"organizational strategies that provide alternative formal and experiential identities for urban scenarios outside of the traditional compact city?"*[5]

In attempting to answer this question this paper first turns to the ideas of Gregory Bateson to examine the potential of thinking and acting aesthetically. It then examines to the work of Ian McHarg, whose work on the relationship between the natural and the urban overlap with Bateson's. It will be argued that the limits of McHarg's design method—with its emphasis on analyzing existing ecological systems—while extremely valuable, lies in the fact that it is relatively inflexible in comparison to an aesthetic method favored by Bateson. Better illustrating the latter's position is the work of Frederick Law Olmsted and that of Frank Lloyd Wright, whose schemes for subdivisions will be discussed. This is followed by a brief look at a new suburban town from the 1970s, The Woodlands, Texas, which serves as a case study for illustrating the advantages and limits of McHarg's method. Finally, it will look at more recent proposals for suburbia with an eye toward identifying examples that combine the aesthetic emphasis of Bateson with the ecological focus of McHarg.

The paper argues for the efficacy of using aesthetic methods for creating new environmental and social conditions in suburbia; a process that privileges the "what if?" approach of an artist, without negating the "if … then …" logic of the engineer.

DOUBLE-BIND

In a letter supporting new environmental legislation being considered by the state of Hawaii in 1970, the polymath Gregory Bateson included a diagram that showed the double-bind in which industrial civilization had found itself. The three inner circles represented the causes of this culture's prosperity, while the three outlying ones revealed its unexpected and increasingly dangerous side effects.[6]

In the accompanying text Bateson argued that a reduction in the size or speed of any of the causes could reduce the dire threat posed by the unwanted ills. In his own work he focused on the "hubris" portion of the diagram. He held that it was a dangerous epistemological mistake to
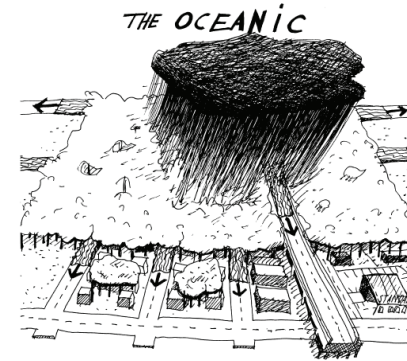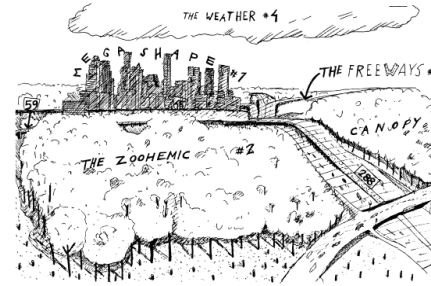
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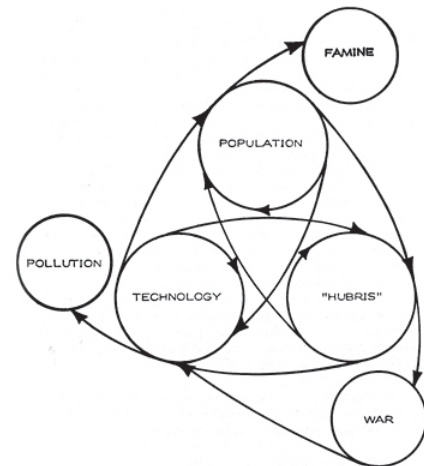
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Figure 1: Lars Lerup, "Megashapes" and "The Oceanic," from "Stim and Dross: Rethinking the Metropolis"

Figure 2: Gregory Bateson, "Dynamics of Ecological Crises," 1970

overemphasize logical, conscious, and purposeful thinking at the expense of aesthetic, subconscious, and primary mental processes. The latter, especially as embodied in art, was positioned as an antidote to the dangers of too much means-ends rationality. He was not, however, suggesting the overthrow of reason or science, or the replacement of one mode of thought for another. Rather, he argued that the two needed to be recombined to form a more complete and robust "mental" system. As he saw it, the power of art, or aesthetic thinking, is its ability to see and make complete mental circuits, not just uni-directional arcs. In other words, it doesn't conform to the limited "if … then …" equations found in engineering and science. As such, he saw this way of thinking and working as having the capacity to "correct" the dangers of too much rationality and too much technology by supplying the culture with a supplemental system for gaining knowledge about itself. Again, it was not a question of abandoning science or reason, but of augmenting them. Bateson never abandoned the discoveries or methods of scientific inquiry he had used in his work in the diverse fields of anthropology, psychology, and communication.[7]

Released in 1969, Ian McHarg's influential book *Design With Nature* echoes many of the themes found in Bateson's work, especially the notion that the basic evolutionary unit (both biologically and social) was an organism *plus* its environment. McHarg's position held that natural processes are synthetic and holistic, whereas most cultural ones—especially those related to urban development—are highly fragmented and isolated.[8] Thus, in contrast to Bateson's emphasis on art, for McHarg the solution was to make cities behave more like nature. Where McHarg seeks to mimic the integrated processes and products of nature, Bateson argues for the integrated processes and products of art.

This perhaps exaggerates things. In practice, each emphasized a combination of natural and aesthetic processes. In McHarg's 1963 study of "The Valleys" (located northwest of Baltimore) the overriding goals were the preservation of both its natural resources and its rural aesthetic. The solution was as much an ecological machine as it was an instrument for preventing the "visual pollution" associated with unchecked suburban development. His influential mapping process and design sketches of the different zones of occupation show how the environmental and aesthetic means were intertwined.

Nevertheless, it is at the level of technique—or means of inquiry—that the limits of McHarg's methods, with its focus on natural processes, are revealed.

For example, when studying air pollution in Philadelphia, McHarg takes an interesting approach. Embedded in a study on the current and future land use, the city's existing "pollution corridor" is taken as a given. The proposed solution is not its removal (which might have severe economic effects) or its reduction via a new technology. Rather, it is to re-design and build a city-wide strategy that combines the existing atmospheric conditions with new botanical regions that will help to disperse the unwanted particulates
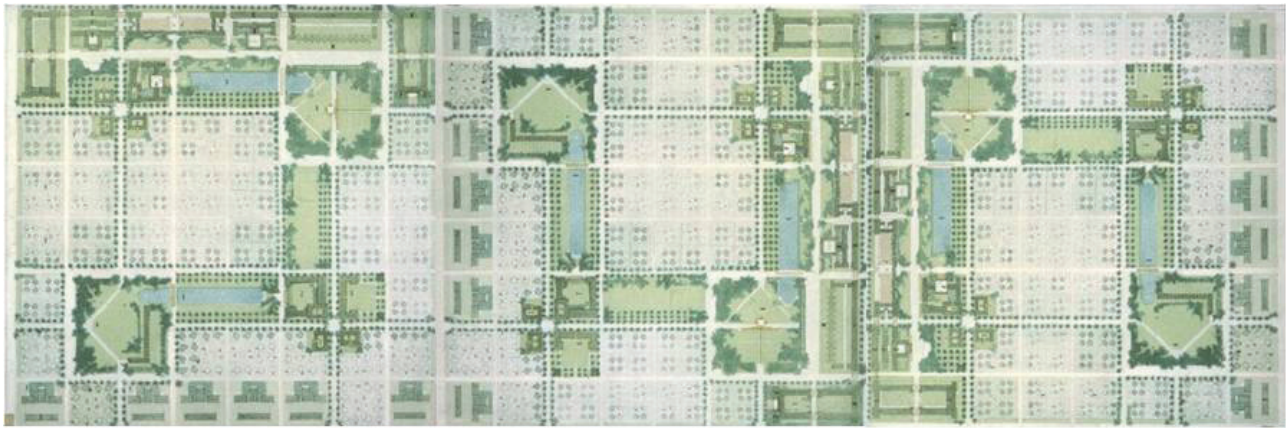
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through natural convection. In addition to taking advantage of prevailing winds, this meant creating large corridors of air-cooling vegetation below these currents. Such zones may subsequently be used for recreational or residential purposes, but their primary function was to ventilate the city. When understood within a larger ecological system, even industrial pollution can be accommodated and integrated; just as long as everything is in its correct place. While not dependent on machine technology, the process and solution is no less mechanical than any other modernist one. The scale of the intervention is enormous and permanent, and the relationship between cause and effect oversimplified.[9]

In contrast to McHarg's large-scale and permanent solution, at a conference he organized on urban planning in 1970, Bateson proposed a somewhat different approach to thinking about designing a city, one based on flexibility and change. In his essay written for the event, "Ecology and Flexibility in Urban Civilization," he argues for "a single system of *environment combined with high human civilization* [emphasis in original] in which the flexibility of the civilization shall match that of the environment to create an ongoing complex system, open-ended for slow change of even basic (hard-programmed) characteristics."[10] Such qualities demand one to not just think systematically, but to build in the potential for both redundancy and randomness found in stochastic processes—those that are common to both biological and aesthetic (i.e., human) processes.[11]

Is such flexibility possible in the built environment, and if so, at what scale? How might aesthetics provide this flexibility and serve as a means for establishing "*new organizational strategies that provide alternative formal and experiential identities for urban scenarios outside of the traditional compact city?*" Of course, at the time McHarg and Bateson were writing in the late 1960s, the most common non-traditional city in the United States was the post-war suburb; a phenomenon with deep roots in aesthetics, if not flexibility. It was also a time when new models for suburban "towns" and "cities" were being designed and constructed. Before looking at one such town, designed in part by McHarg, it is worth reviewing a few historical examples that show the relationship between suburbia, aesthetics, and nature.

AESTHETIC ANTECEDENTS
The relationship in the United States between aesthetics, ethics, suburban architecture and nature is foundational. A.J. Downing's writings and designs (circa 1845) make it clear that it is the quality of its "country houses" that represents and produces the superior moral character of an individual and a nation. Similarly, in Llewellyn Park in New Jersey (1858)—the first planned U.S. suburban development—beautiful, picturesque, and sublime zones were purposefully distributed to produce corresponding spiritual associations.[12] Further, Fredrick Law Olmsted's design for Riverside, Illinois (1870) legislated a picturesque sensibility that emphasized the shared social experience of its residents. While emphasizing different goals—the moral, the spiritual and the social—the discourse and design of each recognized the efficacy of aesthetics to produce desired social and physical effects.[13]

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Figure 3: Frank Lloyd Wright, "Plan by Frank Lloyd Wright," in *City Residential Land Development*, 1916 (tesselation by author)

Olmsted's project differentiates itself from the other two in its ability to combine and synthesize both experiential and infrastructural elements into its plan. The seemingly formalist arrangement of the streets performs visual, social, and climactic functions. When circulating on them one is exposed to a perpetually changing scene. With regards to the house, they help to establish its unique position and view. And, when it rains, they help with the drainage. Likewise, the presence and absence of shrubs or trees reinforces the visual continuity of landscape, while simultaneously marking individual lots and shading the houses. At Riverside the technical/ecological issues are not established first, nor are they subservient to the aesthetic ones. Rather, aesthetics provide the overall logic for organizing the pragmatic, experiential and ideological objectives, but aesthetic validity is tested against each one of them. As Bateson argues regarding aesthetic logics—the parts are not conceived of independent of one another. Rather, they are composed to produce a complex, never fully rational, whole.

Frank Lloyd Wright's 1916 design for a prototypical city block exhibits similar flexibility. However, where Olmsted integrated the movement of bodies, vision, and water through a picturesque, cellular, curvilinear system, Wright's plan uses a modernist, gridded, orthogonal one to combine a greater variety of urban functions and scales. In addition to different housing types, commercial and recreational zones, the design is such that the blocks can be repeated in a variety of ways (such as bookmarked, linearly, flipped and rotated) to generate a linear, patchwork, or centralized arrangement of spaces and programs. As designed, no matter how they are oriented and repeated, the streets in each quadrant will line up with one another to produce continuity, while the difference of each edge guarantees that different (but not all) types will be juxtaposed. In short, this highly formal, literally symmetrical and tessellated system accommodates and produces a variety of urban effects.[14]

The examples by Olmsted and Wright are distinct from the work of turn-of-the-century land speculators, the progressive new town planners of the 1920s, and the community builders of the 1950s, in that they emphasize the combination rather than the separation of functions from one another.

Unlike the piecemeal development of the land speculators they incorporate commercial and civic spaces. And unlike the internalized and isolated neighborhoods proposed by Clarence Perry and Stein and Wright, they have the potential to be created as a continuous urban environment rather than a series of juxtaposed, inward-looking zones. Such continuity is achieved primarily via the aesthetic logic that defines the street, block, and lots of their schemes (i.e., the self-similar cells of Riverside and Wright's tessellated blocks).

The question of continuity is crucial, for it was the (rational) logic of independent activities, developments, infrastructure, and architectural objects that would increasingly define post-war suburbia. The isolation of house from land, street from yard, subdivision from subdivision, work from home, all followed an industrial or mass-produced logic of specialization and rationalization that by definition is inflexible.

THE WOODLANDS

By the late 1960s the limits of this isolationist approach were clear. In 1971 Ian McHarg was asked to serve as a consultant on a HUD-sponsored "new (suburban) town" north of Houston called "The Woodlands." It would distinguish itself from normative subdivision and strip developments in two ways: first, by being a larger, multi-functional community; and second, by intimately linking it to its physical site through environmental-based design. The challenges posed by these new criteria were (1) to prevent it from becoming just another (albeit larger) self-contained zone, and (2) to avoid making to rigid a connection to particular sites.[15]

Planning for The Woodlands (initiated and financed by oil and natural gas magnate George Mitchell) was begun in 1966. McHarg's firm was brought in after it became a HUD sponsored project in 1971. His team focused on the presence and movement of water on the 50,000-acre site. An emphasis was placed on protecting and working with the hydrology of the site, specifically issues related to flooding, drainage, and recharging of the existing aquifer. In other words, the first step was to identify, isolate, and protect the most vital and dynamic natural system already present on the site. And, as with his study of the *Valleys* and Philadelphia, the end result was a plan that established areas that could and could not be built upon—a strategy that both reinforced natural processes and minimized (visual) pollution. The resulting site plan clearly articulated specific functional zones (such as traffic, residential, commercial) as well as an ecological one. The latter literally surrounded and separated the residential nodes from one another. These neighborhoods were subsequently tied together with vehicular, pedestrian, and bike paths.[16]

The emphasis on hydrology had implications (both functional and formal) for what happened above ground as well. Instead of curbed streets with gutters, open ditches and swales were placed adjacent to the road to contain and distribute rain water. Large, reed filled drainage channels meandered behind some houses. Formally, this resulted in blurring the line as to where the street/infrastructure ended and the yard began.[17]

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Figure 4: (Top) Early and (Bottom) more recent sections of Woodlands, Texas, c. 2009

The existing trees (newer pines mixed with some large hardwoods left over from the site's previous logging operation) were integral to ground water management and hence their removal was severely constrained. Instead of the typical clear cutting, trees were almost surgically removed. Strict deed restrictions limited the percentage of each lot that could be cleared in the future. This also had the effect of making the distinction between yard and forest, and between one property and the next, difficult to establish.[18]

In general the sensibility is scruffier but also more uniform than the typical subdivision. This homogeneity, however, is at the level of forest-as-infrastructure rather than the typical repetition of self-similar houses and empty lawns. The same strategy was applied to the few commercial properties, where, even when not adjacent to hydrologically sensitive zones, trees and shrubs acted as visual barriers. In other words, it became the aesthetic norm.

In short, the Woodlands plan is closely calibrated with the site's marshy soil and mostly second-growth forest. If it had been located in a different eco-system, a very different strategy, and sensibility, would have been produced. In fact, in neighborhoods developed later, especially ones with less dense tree coverage, the aesthetic is more conventionally open and divisions between landscape, infrastructural, and architectural elements more clearly articulated. Still, such areas read as variations on the theme, not as independent fragments. In other words, the strategy reveals some flexibility.

In this and other ways the project shares a few qualities with Olmsted's Riverside. Both fuse infrastructural elements with aesthetic effects. However, at The Woodlands the logic is reversed; the aesthetic is a result of the infrastructural process, whereas at Riverside it drives it. As such, the Riverside strategy is more easily expandable and adaptable to different site conditions. A close look at its plan suggests that it could easily expand in all directions, with interruptions for ecological features (such as rivers, streams, hills) easily integrated within the overall logic. In contrast, and despite the consistent sensibility, the mini-neighborhoods of The Woodlands remain isolated from one another. Though they are located to avoid the most sensitive ecological zones, their near-identical layout, lot size, and common spaces appear to have more to do with economic rather than environmental or aesthetic protocols.

Interestingly, in the more recent developments and in the larger commercial zones the presence of the environmental infrastructure is almost absent. These elements did come much later—the first enclosed shopping center arrived in 1994, twenty years after the first residents. Regardless, they do not share the sensibility that defines the rest of the town. This may be attributed to the changed historical circumstances, or to the different scale of such projects, or to different site conditions. Either way, they are inconsistent.

This illustrates the most difficult aspect of McHarg's and other environmental strategies. Fined tuned to specific phenomenon, it is difficult to adapt to changing scales and circumstances. Instead, a new strategy must be developed and a juxtaposed or isolated sensibility emerges. In contrast,

the changes in use, size, and type present in both Olmsted's and Wright's scheme are accommodated via aesthetic flexibility. While such a strategy is often seen as superficially deterministic, here they prove to be surprisingly robust.

A closer look at the plan of Riverside also exhibits a capacity to expand or contract as it adjusts to different conditions. Picturesque and curved rather than geometric and modern, it too is highly elastic. While not dependent on any specific environmental feature or function, its sensibility is able to incorporate and use them. This flexibility can be seen in Olmsted's own work, for example, where he adjusts this aesthetic logic to meet the dramatically different contextual and functional requirements of Boston's "Emerald Necklace."

In contrast, any deviation from The Woodlands ethic and aesthetic appears alien and out of place. Such consistency has its merits, as it clearly met the goals of producing something different from the then status quo. Nevertheless, by relying on the "if … then …" logic of engineering, it proves to be inflexible relative to aesthetic approaches. This is not to say that they are ineffective or irrelevant. Following Bateson, it is not a question of abandoning these processes, but of putting them at the service of aesthetic means of organizing the decentralized city.

JEIT-SUBURBIA

In the wake of the housing bubble suburbia is getting more architectural attention than it has at any time since the late 1920s and early 1930s. The MoMA exhibition and catalogue "Foreclosure" is the tip of this iceberg. However, a study of the projects in that show reveals that the earnest and inflexible ethic of infrastructural and environmental thinking dominates it. Despite their emphasis on generating new sensibilities and relationships between them, they are still conceived of as a set of isolated problems to be fixed, rather than experiments in aesthetic integration. As such, both the discourse and designs seem destined to repeat the pitfalls of thinking of the suburbs via the isolating logic of means-ends relationships. In other words, most of the projects either reproduce the existing suburban logic of juxtaposing inflexible, identity-oriented mono-cultures (MOS, WORK), or they substitute it with well-meaning (either eco or social) monuments of self-similarity (Visible Weather, Gang)—Andrew Zago's being a notable, but unfortunately underdeveloped exception.

More successful in this regard are the recent suburban schemes proposed by !ndie architecture. The consistently thin, continuous, filleted forms found in the *Hydrogen House* and *Invisible Garage* proposals are designed to both accommodate new or improved infrastructural functions (i.e., fueling and parking) and generate new house and block types.

The *Hydrogen House* scheme avoids the dual traps of mono-cultures and monuments by, (1) adding a new function (fueling) at both the house and development; (2) incorporating these new functions and forms in a precise and incremental way; (3) marking these changes with objects and spaces that are clearly new, but which are scaled and oriented so as to not

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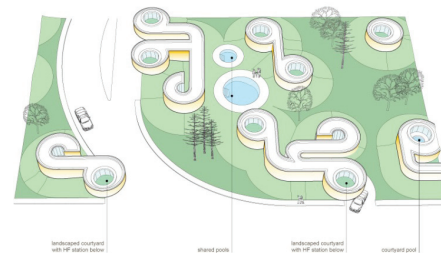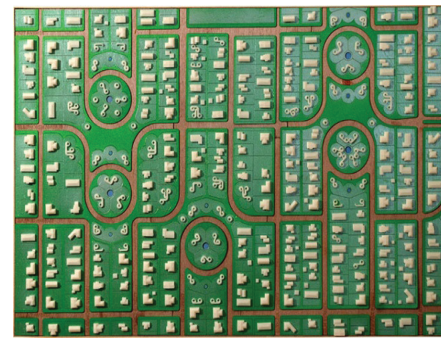
Figure 5: !ndie architecture, *Hydrogen House Development*, 2010.

ENDNOTES

1. Lars Lerup, "Megashapes" and "The Oceanic," from "Stim and Dross: Rethinking the Metropolis," *Assemblage* 25 (1994): 89-90.

2. Given his emphasis on atmospheric conditions, it is surprising that the one adjective Lerup does not use to describe it is "polluted." Air pollution is what renders the atmosphere visible. Smog reveals what should have remained hidden, and, once seen, is immediately recognized as something that can hurt you. Despite substantial gains in air quality over the past two decades, Houston was recently found to be in violation of the EPA's limits on smog causing pollutants.

3. Jacques Rancière, "The Aesthetic Dimension: Aesthetics, Politics, Knowledge," *Critical Inquiry* 36, (No. 1, Autumn 2009): 1-19.

4. Lerup, op cit.

5. Ibid.

6. Gregory Bateson, "Dynamics of Ecological Crises," in *Steps to an Ecology of Mind* (New York: Ballantine, 1972), 488-493.

7. Gregory Bateson, "Style, Grace and Information in Primitive Art," *Steps Towards an Ecology of Mind* (New York: Ballantine, 1972), 144-147.

8. Ian McHarg, *Design With Nature* (Garden City, N.Y: Natural History Press, 1969), 65; Bateson, "Style, Grace and Information …," op cit.

9. Mc Harg, op cit, 55-65; 79-93.

10. Bateson, "Ecology and Flexibility in Urban Civilization," in *Steps Towards and Ecology of Mind*, 494.

11. See Bateson, "Style, Grace and Information …"; see also Gregory Bateson, *Mind and Nature* (New York: Dutton, 1979), 1-21.

12. Richard Guy Wilson, "Idealism and the Origin of the First American Suburb: Llewellyn Park, New Jersey," *American Art Journal* 11, No. 4 (Oct., 1979), 79-90.

13. Fredrick Law Olmsted, *Preliminary Report Upon the Proposed Suburban Village at Riverside, near Chicago*, 1868; Cynthia L. Girling, Kenneth I. Helphand, *Yard, Street, Park: The Design of Suburban Open Space* (New York: Wiley, 1994), 47-53.

14. Frank Lloyd Wright, "Plan by Frank Lloyd Wright," in Alfred B. Yeomans, *City Residential Land Development*, *Studies in Planning: Competitive Plans for Subdividing a Typical Quarter Section of Land in the Outskirts of Chicago* (Chicago, IL: University of Chicago Press, 1916).

15. For the history of these projects, see Ann Forsyth, *Reforming Suburbia: The Planned Communities of Irvine, Columbia, and The Woodlands* (Berkeley, CA: University of California Press, 2005); Cynthia L. Girling and Kenneth I. Helphand, *Yard, Street, Park: The Design of Suburban Open Space,* 158-168.

16. Forsyth, op cit.

17. ibid

18. See Jinki Kim and Christopher D. Ellis, "Determining the effects of local development regulations on landscape structure: A Comparison of The Woodlands and North Houston, TX," *Landscape and Urban Planning* 92, No. 30 (September 2009): 293–303.

dominate their adopted environs; and (4) including a hypothetical yet plausible environmental innovation (the substitution of hydrogen for fossil fuels). An attitude of surprising plausibility and recognizable innovation permeates all aspects of the project, and reveals a "what if?" approach of an artist rather than the "if … then …" logic of an engineer.

Further, the dual emphasis on innovation and integration is reinforced by the plans of the new houses and streets that are at once directed and centered. In short, the use of this looped sensibility to simultaneously address both physical and socio-economic problems associated with suburbia (i.e., pollution and isolation) reveals the efficacy of using aesthetics to address environmental and cultural issues. In turn, it illustrates a new strategy for generating alternative formal, social and environmental scenarios and sensibilities within the existing suburban condition. In other words, it uses architecture, and architectural design, to re-imagine and rearrange suburbia's natural and psychological atmospheres. Roger that, Houston. ◆