

## **DOES THE SUSTAINABILITY MOVEMENT SUSTAIN A SUSTAINABLE DESIGN ETHIC FOR ARCHITECTURE?**

### **Abstract:**

The sustainability movement currently gathering considerable attention from architects derives much of its moral foundation from the theoretical initiatives of environmental ethics. How the value of sustainability is to mesh with architecture's time-tested values is the issue discussed in this paper.

### **Introduction:**

It's doubtful that any theory of conduct claiming the status of an ethic can do so without some nod in the direction of sustainability. Consider an ethic, for example, that was so demanding on its adherents that it ultimately drove them to self-annihilation. This is a criticism sometimes leveled at utilitarianism: In the quest for maximizing the good experienced by people in general, it is too demanding of individuals. In its logical extreme it makes overwhelming demands on everyone to work primarily for the benefit of mankind; thereby leaving no room for agents to prefer their own projects and priorities simply because they are their priorities. If you aren't Mother Teresa, you could be doing more.<sup>1</sup> Such an ethic, in the absence of a concept of the sustainability of the effort it requires, becomes a form of slavery. An outlook that results in slavery to others, no matter the elevation of the intention, is asking too much. It is unsustainable.

On the other hand, imagine an ethic that made almost no restrictions on its adherents' actions on its behalf but instead allowed them to run rampant for the sake of promoting and enforcing the ethic. This sort of outlook is characteristic of cults and fascism; hardly the stuff that reasonable people would allow the status of 'ethical.' Kantian-inspired ethical formulations that insist on absolute rights and prohibitions have lately come in for just this sort of criticism; that in an age of increasing pressure on the earth's resources, insisting on the absolute right to any of its goods is an unsustainable

luxury.<sup>2</sup> Absolutism in any form can ultimately become unsustainable, even absolutism toward such traditionally favored rights as "the right to have food, housing, and medical care, which others must provide."<sup>3</sup> Such absolute rights to the apportionment of scarce resources will turn out eventually to the annihilation of all. Thus, even the right to basic goods must be bracketed by the sustainable production of these goods. A prescribed way of life, to be given the honorific title of an ethic, must seek to be a corrective to current practices in some form, but it must also seek to attain corrections toward an end that is sustainable by reasonable persons in an atmosphere of an open exchange of ideas.

Thus, the idea that an ethic of sustainability might serve architects' efforts to reground their practices in something that opposes the consumer values of the marketplace—something public-spirited and beneficent toward society—has intuitive appeal and makes a certain amount of sense. Notice, however, that the idea of sustainability that must inform any theory or way of life recognized as ethical serves only as a restriction on the *permissibility* of actions. The requirement of sustainability doesn't actually guide actions so much as it constrains them. Should a theory or point of view stray over the bounds of sustainability, that theory or point of view has given up any pretense of the ethical. In philosophic parlance, this ordinary understanding of sustainability is a necessary, but insufficient basis for an ethic. The concept of sustainability provides guidance for determining when a theory or course of action has strayed too close to becoming too demanding on the agent or too cavalier in its treatment of others. But it is, as yet, far from obvious that the sustainability movement automatically provides a strong enough conceptual framework from which to hang an entire design philosophy. Further, it is unexplored territory how the value of sustainability is to interact and inform architecture's traditional, time tested, values. These considerations are complicated by the existence of two distinctly different sustainable design outlooks which parallel the two distinctly different conceptions of environmental ethics: the practical one and the radical one.

## **PRACTICAL AND RADICAL SUSTAINABILITY**

Practical sustainable design makes the simple assertion that the benefit to society provided by a work of architecture will be enhanced to the degree that the work treads as lightly as possible on the planet's resources for the benefit of future members of society.<sup>4</sup> This reflects the practical project in environmental ethics which is “generally concerned with finding some way of making sound decisions in the face of the perceived environmental crisis.”<sup>5</sup> In other words, it constrains traditional architectural values with a long-term time horizon of the impact of one’s design decisions. In consideration of this simple maxim, architects are encouraged to use insulation made of recycled materials, plan for pedestrian access to their buildings to lessen the impact of the automobile on the environment, minimize the energy consumption required to make a building habitable, and to try to use land that has already been disturbed and developed previously; the sorts of actions that obviously minimize a building’s impact on aspects of the environment that are already stressed, thus allowing the environment to sustain longer. This version of sustainability seeks to gently amend architects’ current practices and influence their design decisions in situations where an obvious case can be made for the sustainable alternative. It doesn't claim to be a fully developed ethic of practice in and of itself.

A problem for the sustainability movement when expressed in this way is its tepidness. Its maxims of considering the full interdependence of things and the long term implications of design decisions fails to register a sufficiently motivating response to what is perceived by many to be an urgent situation. It offers the motivational excitement of tinkering with an engine to improve its performance—it’s nice if you can do it, but it doesn’t require a severe overhaul of one’s thought and actions.

This leads to the second problem with the practical approach. As many see it, practical environmentalism doesn’t sufficiently challenge the debilitating ways of thinking that got us in this mess in the first place: Instrumentalism, which regards nature

as fodder for human purposes, coupled with anthropocentrism, which imparts a moral apology for instrumentalism by holding that human actions are the only ones capable of meaning. These attitudes must be overcome for meaningful change to occur and this requires a thorough overhaul of how mankind envisions its relationship to the world. Practical sustainability, while an improvement over naked instrumentalism toward nature, still permits a condescending attitude—a noblesse oblige—towards it that falls short of the intellectual about-face many environmental philosophers are seeking. The radical notion sets up the idea that nature has *intrinsic* value as an antidote to the treatment of nature as only *instrumentally* good toward the realization of human needs and desires found in the marketplace.

A third liability (and more to the point for architects) for the practical version of sustainability is that it does not appear to have many, if any, formal implications. Lacking an impact on architectural form-making, sustainability appears destined to become another set of regulations stacked on top of zoning restrictions, environmental impact reports, and such. It does not appear poised to help architecture recover a strong sense of mission and societal benefit any more than do, say, community aesthetic guidelines.

These problems with the practical approach—its motivational weakness, its complicity with problematic ways of thinking, and its lack of impact on form—give credence to the radical version of sustainability which asserts that sustainability become one of the goals of architecture, along with, or even superior to, the traditional values of beauty, durability, and function. It has been suggested that in addition to the Vitruvian values (*venustas*, *firmitas*, and *utilitas*), “a fourth ideal, *restituitas* or restitution, restoration, reinstatement: where the act of building enhances its immediate and the global environment in an ecological as well as visual sense” be added to incorporate this important new source of consideration.<sup>6</sup> Ian McHarg's *Design with Nature* is a now-classic example of radical sustainability. McHarg lays out the case for a wholesale restructure of humanity's attitude toward nature:

Our failure is that of the Western World and lies in prevailing values. Show me a man-oriented society in which it is believed that reality exists only because man can perceive it, that the cosmos is a structure erected to support man on its pinnacle, that man exclusively is divine and given dominion over all things, indeed that God is made in the image of man, and I will predict the nature of its cities and their landscapes. I need not look far for we have seen them—the hot-dog stands, neon still, the ticky-tacky houses, dysgenic city and mined landscapes. This is the image of the anthropomorphic, anthropocentric man; he seeks no unity with nature but conquest.<sup>7</sup>

This approach explicitly rejects treating the environmental problem as one that can be solved through science and technology alone. As philosopher Warwick Fox flatly states: “Achieving a sustainable way of living is not just a technical issue (although it is often discussed as if it were), but also (and fundamentally) an ethical one.”<sup>8</sup> A chief component of this ethical task, it is argued, is to achieve a non-anthropocentric view of the world.

As one of architecture’s ends, radical sustainability overcomes the motivational weakness of the practical approach by promising to not only constrain architects’ design deliberations but also to help guide them towards new horizons of form-making. This new design imperative provides an exciting prospect of renewal in design for architects exhausted with struggling to assert their modernist predilections against a resistant and mostly unappreciative public. Design informed with a strong concern for sustainability promises to heal the long-standing rift between the values of modernist architecture and those of the public by grounding design deliberations in an imperative of recognized urgency and universal concern—an imperative that already has a receptive (albeit small) public ground-swell on which to draw. This new, sustainable, architecture can evolve

more organically out of the needs of society and future generations in a way that, it is hoped, obviates the dispiriting prospect of appealing to publicly-approved conventions and style to give architecture a welcome social reception.

This is an ambitious agenda for the movement. If sustainability is to take on the role of saving contemporary architecture from itself, then its relationship to established measures of design excellence needs to be thoroughly examined. We need to know, to what degree is *restituitas* a supplement to established design ideals, and to what degree it insists on making them obsolete? In other words, how does the radical concept of sustainability move from a constraint on any deliberation claiming to have ethical merit, to an important objective of all ethical design thinking?

Radical sustainability achieves this emboldened outlook by defining sustainability in deep ecological terms. It defines a view of the world in which things are kept in balance, the earth's resources are not depleted or fouled past the point of future use, and in which humans do not contribute to the further annihilation of species. This leads to a view of buildings as either consumers or conservers of the earth's valuable resources, leading in turn to such form-influencing considerations as the selection of certain building materials over others, to building orientations that maximize solar and wind energy potential, and to certain forms that not only minimize a building's ecological impact, but also are expressive of sustainable ideals. In this way, radical sustainability makes legitimate claims to driving aesthetic as well as a programmatic thinking. Radical sustainability advises that by taking a broad outlook toward a building's impact, an architecture of unparalleled relevance will result by, in part at least, the very fact of its being sustainable. But as a fundamental value, sustainability must in some way interact with architecture's other values. How might it do this?

## **SUSTAINABILITY AND AESTHETICS**

The environmental ethics movement from which the sustainability movement in architecture derives much of its content and structure was initially formulated with a central concern for aesthetics. In what has been called “perhaps the most seminal insight launching environmental ethics in the twentieth century”<sup>9</sup> Aldo Leopold asserts in the now-classic *A Sand County Almanac*: “A thing is right when it tends to preserve the integrity, stability, and *beauty* of the biotic community. It is wrong when it tends otherwise.” (italics added)<sup>10</sup> But this initial emphasis placed on an aesthetic component of environmental consciousness by one of the movement’s originators has been largely neglected in recent environmental ethics. Environmental ethicists have preferred to devote their work to the concepts of integrity and stability instead. Given that aesthetics is so often denigrated in moral argument, either as a source of pleasure but otherwise cognitively trivial, or more strongly, as a perniciously dangerous element which always threatens to subvert and derail moral rationality, it is unsurprising that the third element of Leopold’s sources of judgment would receive scant attention.

This neglect seems a substantial error in recent environmental ethics; one in urgent need of redress. Environmental ethics, while on the one hand eager to find the means to criticize anthropocentric instrumental rationality toward the environment, on the other hand has largely overlooked one of the most potent forces of human achievement for escaping those bonds: the aesthetic, “born of the recognition that the world of perception and experience cannot simply be derived from abstract universal laws, but demands its own appropriate discourse and displays its own inner, if inferior, logic.”<sup>11</sup> The same element that always threatens to derail moral rationality in its attention to the particulars of sense experience could become a tool for destabilizing instrumental rationality as well. Leopold, who derived his insights more from direct observation than theory, did not make this mistake. The idea that aesthetic merit or demerit should inform judgment over the rightness of an action affecting the environment is potentially a radical tool for a new environmental consciousness, but an idea still in its infancy.<sup>12</sup> In reciprocal

fashion, a sense of the beauty of an ecosystem can contribute to ethical judgment, and an informed awareness of an ecosystem's intricacies and balances can inform aesthetic consideration.

The implications for aesthetic form of embracing sustainability is still being sorted out in the architectural community. Some insist that sustainability is only a design approach that results in “a new generation of buildings that perform more efficiently and do not harm the environment.”<sup>13</sup> While others see in it the germination of an entirely new architectural language.<sup>14</sup> Certainly, one must be impressed by the degree to which there is a certain ‘look’ to buildings resulting from a passionately sustainable outlook. Works by such innovators as the Ushida-Finlay Studio in Japan and Eugene Tsui of California<sup>15</sup> display a fondness for organic, curvilinear forms and these forms are often justified on both psychological as well as on material terms. Thus, a sustainability *aesthetic* or even a sustainability *style* is the obvious result. The idea that sustainability in architecture is primarily an influence on aesthetics might seem shocking to those reflexively used to denigrating aesthetics as 'mere aesthetics' in favor of function, but if the older idea of aesthetics being a crucial source of meaning, community, human expression, and appeal to the senses is adhered to, there is nothing 'mere' about it. Returning to this earlier sense of the cognitive importance of the aesthetic may help radical sustainability achieve the intellectual revolution it is seeking.

This sense of the importance of aesthetics in human life is one that the sustainability movement is, perhaps, in a peculiarly privileged position to unlock. By closely associating the senses with a philosophical outlook, the sustainability movement in architecture stands to reacquaint both designers and users with the ways in which aesthetic knowing informs more explicit modes of cognition. If viewers become able to spot a sustainable building by its form and spatial experience, then intimate and pleasurable associations between certain forms and materials on the one hand, and a long-range, humane, and kind outlook on the other can begin to be forged. Repeatedly making



these successful associations, in turn, influences an aesthetic outlook, so that one comes to look for and expect such connections. Buildings which do not allow the senses and thought to connect in this way may eventually appear strange, and ugly.

The important role played by forging an intimate and mutually reinforcing relationship between knowledge and the senses in developing an environmental ethic has been given formulation in the idea that increases or decreases in the value of the natural environment depend on increases or decreases in its perceived 'richness.' Richness is an aesthetically-informed term tracking "natural entities and systems, their outer and inner profusion, unity, and value... these value connotations can apply quite independently of whether the natural entities are conscious or not."<sup>16</sup> The affinities of this idea with concepts for what makes a good built environment are obvious, and make the idea all the more compelling. Further, it is clear that appreciation of environmental richness is enhanced with increased understanding of its inner workings, again in affinity with the way appreciation of art is enhanced by knowledge. Philosopher Janna Thompson draws these parallels even closer. She invites the reader to consider aesthetic appreciation of Chartres Cathedral and such natural wonders as the Grand Canyon or the Olgas in Central Australia to be of the same kind. What makes these natural entities

worth a pilgrimage, and the effort required to look at them closely, to wander around and through them, to spend time in their midst, is much the same thing that motivates people to make a pilgrimage to Chartres Cathedral or the Sistine Chapel. They are undeniably magnificent sights and there is no end to what we can discover there.... As in the case of Chartres, the smallest details are beautiful in themselves: the swirls and knobs in the rock formed by erosion, the plants sheltering beneath overhangs, water finding its way down through the crevices in the rock.... However, it is, above all, the experience of being in the midst of something so magnificent, overwhelming, and endlessly fascinating that persuades us that these natural environments are of great aesthetic worth.<sup>17</sup>

By embracing the potential for unique form-making and the employ of materials, radical sustainability fosters a reconciliation between the senses and the intellect so painfully missing in contemporary architecture. But it accomplishes more than this. It furthers the radical project of implementing an entirely new outlook—one that isn't anthropocentric and instrumental towards the environment—by associating an environmental ethic with something intimately experienced, enhanced by knowledge, and filled with pleasurable associations and the connotations of approval that beauty is peculiarly able to accomplish.

This is no small part of the sustainability movement's appeal to mainstream architecture: It promises to give back to architecture some of its modernist dream of form generated by unassailable hardheaded rational problem-solving: in this case the problem-solving of saving the planet from despoliation. In the process it hopes to generate a new vernacular of buildings that aren't designed self-consciously for beauty, but whose beauty evolves from the work's aspirations of sustaining, possibly even enhancing, the planet's richness. It promises to undercut, issues of style, conventions, bourgeois symbols; all the things that modernism taught generations of architects to distrust. It promises to embrace and promote cutting edge technology, utilitarian materials, and metabolic imagery; things modernism taught architects to savor. Sustainability stands to finally redeem some of modernism's promises to induce beauty out of form-making for human use.

From the perspective of providing some scientific rationale for architectural form, the sustainability movement would seem to be on to something. One troubling aspect of the movement's influence on form, however, is that the flow of influence seems to be such a one-way street: The cause of aesthetics is receptive to a sustainability orientation, but radical sustainability doesn't return the favor. While this characteristic has not been given much attention in architectural circles, in landscape and environmental design, the rift between the ecological designers on the one hand, "who may presume that the

ecological value will speak for itself, that ecological value will replace or supersede aesthetic experience”<sup>18</sup> and those who still emphasize traditional aesthetic concerns in their design work has been acknowledged for some time. This inequality is reflected in the one aesthetic theory to have emerged from the environmental ethics movement: the doctrine of positive aesthetics. Positive aesthetics is the notion that unspoiled nature is only beautiful and incapable of being ugly.<sup>19</sup> Nature’s privileged position would seem to always trump and denigrate certain traditional aesthetic concerns, and this should at least give some pause. This trumping of the natural over the man-made is reflected in the fact that nothing in the doctrine of radical sustainability gives any consideration to such traditional aesthetic concerns as appearance, composition, elegance, the aesthetics of materials, imagery, mass and space. Consider, for example, architect William McDonough’s now-famous Hannover principles:

Insist that humanity and nature be allowed to coexist

Recognize interdependence

Respect relationships between spirit and matter

Accept responsibility for the consequences of design

Create safe objects of long-term value

Eliminate the concept of waste

Rely on natural energy flows

Understand the limitations of design

Seek constant improvement by the sharing of knowledge<sup>20</sup>

The omission of beauty from the list is understandable if one assumes that the aesthetic problems are already solved by the doctrine of positive aesthetics. The idea that a fundamental goal of architecture is to grapple with the problem of creating beautiful objects that enhance their environments has somehow gotten lost, or perhaps smothered,

in the urgency of it all. If the idea that a work of architecture will just naturally be beautiful if it is sustainable sounds distressingly familiar, this is because the word 'sustainable' need only be substituted for the word 'functional' for it to be a page ripped from early modernistic rhetoric. This tactic didn't work the first time and is unlikely to work now. What is so distressing about the loss of the goal of beauty in the rush to save the planet through sustainability is twofold. First, the planet's beauty would seem to be one of the goods that make the sustainability project worth pursuing in the first place. Second, as Leopold's insight indicates, this loss is wholly unnecessary. Nothing in the philosophy of environmental ethics requires aesthetics to take a back seat.

What may be driving aesthetics out of the sustainability movement is that to allow specifically aesthetic concerns to enter design deliberations and influence the deploy of sustainable materials and methods allows beauty to occupy a position on par with sustainability, and the resulting equality of these two sources of value means that conflicts of values aren't squeezed out of design deliberations after all. Sustainability's promise of delivering the strong design imperative that modernist ideology could never quite pull off would be stillborn. Radical sustainability in architecture, despite its predilection for organic curves, provides no hard concepts for resolving these conflicts other than to denigrate as less-than-sustainable purely aesthetic motivations. Either aesthetic concerns must cave-in to the imperatives of sustainability (to be rationally consistent with its ethical imperative), or architects must, once again, figure out how to reconcile conflicts of basic values, in which case design is actually made an even more knotty process, rather than smoothed out by radical sustainability's values.

Thus, while radical sustainability may be form generating, its unreceptiveness towards formal concerns means that nothing ensures that its products won't be chunky, ungainly, plain, impoverished, boring, unsightly, repetitive, formulaic, and insensitive to the built context, unless it is modified with an aesthetic consciousness. But, once that move is made, then the unassailable, hardheaded rational problem-solving orientation it

promised is put at risk. The situation becomes, then, more dialectic than it first appears. Some building designs may tread more heavily on the earth's resources than others, but this need not automatically be a cause for condemnation or rejection. The normative judgment swept aside by radical sustainability is the determination of which building is worth the cost. An ugly building constructed to high sustainability standards does not automatically get a pass in favor of a beautiful one that hasn't taken this moral high ground. Indeed, it may not be worth building at all. Hence, a certain unease over whether radical sustainability will ultimately prove to be a source of an aesthetic, or a source of aesthetic dismay; whether it will turn into something that works to block an aesthetic consciousness as much as it grounds one. This unease is reflected in the polite, but tepid, response it receives in the mainstream architectural community.

## **SUSTAINABILITY AND LONGEVITY**

Perhaps the outlook of strong sustainability would, instead, fare better as a reinterpretation or an enlargement of the basic architectural value of *Firmitas*, or durability. At first glance, it seems there ought to be an intimate connection between a desire for a more sustainable approach to architecture and one of unparalleled longevity. This intuition is reinforced by some of the rhetoric: "Durability of performance involves proper length of life, taking all costs into account including the environmental."<sup>21</sup> Furthermore, green design recognizes that "In general, it is more sustainable to refurbish and reuse existing buildings than to demolish and build anew."<sup>22</sup> If sustainability enhanced architects' ability to make longer-lasting buildings, then sustainability would doubtless prove to be a highly motivating outlook.

The prospects for making a close association between the ideas of sustainability and longevity appear good. It makes intuitive sense that a building better attuned to its environment would enjoy enhanced odds of survival over those of a standard building

that must persist by brute subjugation of its surroundings. Of course, these are not the only factors that influence a building's longevity, but they are factors. Other longevity-influencing factors that an attitude of sustainability informs are a building's flexibility and its recyclability. (It is, however, an open question whether a building's relatively easy recyclability would enhance its longevity or hurt it.) Since sustainability is such a recent phenomenon in architecture, its influence on longevity is still an unproven hypothesis. One way of at least handicapping this hypothesis would be to look at a building that exemplifies longevity and compare the strategies employed in its realization to those advocated by the sustainability movement.

A succinct list of these sustainable strategies would be:

Use local materials and technologies

Conserve energy in construction and operation

Design with flexibility in mind

Be gentle to the environment

Use sustainable harvesting practices <sup>23</sup>

Consider again, this time as an example of longevity in architecture, Chartres Cathedral. Having lasted almost 1000 years and through some tough times, Chartres is a model of, if nothing else, longevity. Of course, the builders of Chartres had a long time-line in mind from the beginning: Their time horizon was immortality. It remains to be seen whether Chartres will live up to such an ambitious time horizon, but it has gotten off to a good start. If one's time horizon is immortality, the tendency will be to build extremely well. Any investment is justifiable. How does Chartres, then, fare as an example of the strategies of sustainability?

Otto von Simson relays that the construction of Chartres "compelled an entire generation to pour its energies and resources into the construction of the cosmos of stone that, between 1194 and 1220, rose gradually and breathtakingly above the town of

Chartres.”<sup>24</sup> The building project consumed vast quantities of resources of central France, booty taken from as far away as Constantinople, and money raised from as far away as England. In short, the building of Chartres was a tremendous drain on Europe's resources at the time. Nor were the materials and technologies all available locally. Though stone came from not far-away, expert labor came from far and wide to create the quality of building desired. The coloring for the glass, for example, was precious and came from far-flung locations.

Regarding energy use, the great building might be said to be energy efficient in the sense that it relies mainly on daylight for illumination, but regarding thermal comfort, it can be said to be energy efficient only because it is so resolutely impossible to heat that no one seriously tries. If it was attempted to actually make the building what might be considered room temperature in the winter, the energy requirements would be astronomical. On the issue of flexibility, Chartres would have to be regarded as obdurately resisting reuse and reconfiguration. It was designed to closely fit one use and one use only: the glory and worship of the Christian God. Regarding harvesting practices, only the best wood from the oldest and most mature trees was used in the structure. Entire forests were cut down just for the fuel to burn lime for mortar and to make glass.

From the point of view of the basic strategies of sustainability, then, Chartres would fare poorly. Perhaps it is even their antithesis. The great building's longevity seems to be in direct proportion – not to the principles of sustainability – but to how thoroughly it flaunts them, how precious were the resources that went into its making. This presents a confrontational question: Is this conclusion a weakness of the sustainability movement, or a weakness of Chartres? Is Chartres an anomaly, or might a direct relationship exist between resources expended and longevity?

Consider, now, a different example. In my hometown of Rome, Georgia, what was once an aberrant trend of building new churches from pre-engineered steel building packages has now entered the mainstream. Metal-building churches have become, if not

exactly desired, at least commonplace. The pre-engineered building trade, quick to see a market developing, even supplies entire church 'packages' now. What would the attitude of visionary sustainability have to say about such buildings? First of all, it is apparent that such buildings meet many of the tests and objectives of sustainability. They use an absolute minimum of materials (wind, not gravity, rules these designs), they are well insulated, and they are easily reconfigured for industrial uses should the church cease to exist. In short, they tread lightly on the earth and would seem to be, if only they would incorporate solar water heaters and composted waste, the sort of structures approved of by radical sustainability. Generally speaking, however, these structures are so ugly that the thought that they might rust to bits in twenty years is actually a comfort.

These examples are admittedly anecdotal, but they do introduce the potential disparity between architecture's traditional values and those of radical sustainability. They do not lead inexorably to the assertion that radical sustainability is in error. What can be asserted with some confidence is that if architects perceived that the sustainability movement would lead to more, rather than fewer Chartres, to buildings of longevity due to their triumphant employ of the resources they consume, to buildings truly worth sustaining over the centuries rather than to buildings simply less trouble to keep up than other buildings; if *these* were outcomes of a sustainable orientation then architects couldn't be stopped from joining the movement. They would be flocking to embrace its principles. They would find the movement highly motivating, instead of more like eating their carrots.

The radical sustainability movement, if the examples given here are any indication, bears only a glancing relationship to the promotion of a building's longevity, and this turn of events seems both odd and unfortunate. It appears to be a failure of the movement to be unable to incorporate an awareness of a way of building that results in works of architecture truly worth sustaining; that is, works that help sustain us, our culture, human imagination, society, hopes, dreams, aspirations, and even the desire for immortality.



Though it is pitched to the masses in revolutionary vestments, the sustainability movement too easily buys into too many of the assumptions of contemporary marketplace economics to overcome the basic presumption that buildings are consumer goods that need to be delivered as efficiently as possible and when used up, easily recycled for new uses. This attitude aids the economics of disposability by enabling it to develop even more creative options for recycling, and by prolonging existing use patterns through greater efficiency. It is only one of the inefficiencies of the marketplace that through ignorance, corporate CEOs haven't been jumping on these initiatives. Sustainability simply fails to confront this attitude, despite its harangue against consumer culture, and hence, appears likely to lead to buildings of even less longevity than those of the preceding generation.

Thus, it seems, neither from the standard of beauty nor from that of durability does radical sustainability find a good fit with architecture's traditional values. It falters against aesthetic standards because it encourages an unreflective attitude toward the resulting forms generated from a sustainable outlook. It fails against standards of longevity because its requirement of considering the sustainability of the larger picture encourages an attitude that makes sustaining the building itself secondary. Radical sustainability doesn't seem to be particularly oriented towards buildings at all, but rather, only towards buildings to the degree that they are potentially ecologically harmful. Buildings that are ecologically innocuous are either held up for praise, or are overlooked altogether. This omission is unforgivable, really. Radical sustainability forgets that architects are not seeking buildings that tread so lightly that they are almost not there, but rather want to make buildings that are deeply worth the thought and resources invested in them. If sustainability gave a foundation for this, any architect would gladly be a card-carrying sustainablist. As is, radical sustainability seems to be a sort of secular religion with little real interest in the proven principles of good architecture.

Practical sustainability, on the other hand, doesn't commit these sins. As an updated

set of constraints and considerations on architects' ability to build well it has real merit. As long as the priests of sustainable design keep to the more modest aspirations of practical sustainability, they won't be making the embarrassing assertions about the primacy of and overall form-generating merits of this approach. But, neither will they be doing much to solve the current dilemma over the lack of a prominent design paradigm. Practical sustainability may well inform any proposals for a design ethic with a new set of constraints on what it means to design ethically, but it will not be able to contribute much to the substance such a design philosophy might take. Practical sustainability will, at least, not make the mistake of making bold claims that aren't themselves sustainable.

## **SUSTAINABILITY AND ARCHITECTURE**

One prospect for making sustainability—*restituitus*—something more than a constraint on ethical behavior remains: that the value of a building's being sustainable, or embodying sustainability, is simply a basic good, no more reducible to considerations of aesthetic merit or durability than *venustas* and *firmitas* are to each other. Following this prospect, we should ask if the virtue of sustainability arises in the same organic way out of the occasion of building as those of utility, durability, or beauty. With the Vitruvian values, good reason exists to assert that in the absence of any one of these elements, a building not only fails to be a good or exemplary work of architecture, but it risks falling outside the class of buildings regarded as works of architecture. The Vitruvian values are both normative and definitional. Architecture is not as temporary as a circus tent, as resistant to aesthetic consideration as historian Nicholas Pevsner's famous example of the bicycle shed, nor utterly without the promise of usable space. Lacking any of these three criteria, reason exists for simply denying a structure the status of being architecture, good or bad. But the value of sustainability doesn't, as of yet at least, exhibit both normative and definitional content. A structure doesn't just fall out of the definition of architecture if it fails to follow sustainable guidelines.

The idea that suddenly, in the late twentieth century, a fourth value, the value of sustainability, was discovered after being overlooked for two thousand years is improbable unless the world has endured some sort of great cataclysm that has forever changed its outlook. Perhaps this is where the advocates of sustainability can change the popular outlook, for they will advise that the cataclysm is indeed in the offing. For sustainability to be regarded as a fourth source of value alongside *utilitas*, *firmitas*, and *venustas*, a doomsday scenario is required. Only then can a definition of architecture include sustainability as a fourth value because we are justified to hold that the world can no longer afford to define buildings which do not incorporate the principles of sustainability (this would become true of other cultural products and institutions as well: government, family, education, etc.) as architecture. Just how close is the planet to an ecological holocaust? No less a public figure than Vice President Gore provides just such a scenario:

We are now engaged in an epic battle to right the balance of our earth; the tide of this battle will turn only when the majority of people become sufficiently aroused by a shared sense of urgent danger to join an all-out effort.... We must take bold and unequivocal action: we must make the rescue of the environment the central organizing principle of civilization.<sup>25</sup>

Can a radical regard for buildings help to either head off this doomsday, or help everyone survive it? To the degree that the prospect of ecological doomsday appears both imminent and avoidable, sustainability as a basic value becomes increasingly plausible. Informed by the prospect of heading off such a cataclysm, buildings that tread lightly on the planet's resources would tend to become regarded as increasingly beautiful and favored for lengthy lives over those that do not. To the degree that predictions of ecological catastrophe appear overblown or unavoidable, sustainability recedes as a

plausible candidate for architectural value. Thus, the question of the basic value of sustainability to architecture turns, perhaps, not on how well it integrates with existing values, but rather on the outcome of empirical research regarding the ecological 'tipping point' of the planet, the degree to which mankind's creative abilities are a match for the problem, and widespread agreement on the meaning of both. It's all too easy to dismiss doomsday scenarios; after all, the world has the weight of history on its side against such cataclysmic predictions, but that doesn't mean that THIS doomsday scenario is incorrect. If the ecological cataclysm is immanent, then a similar cataclysm in architecture's basic values will ensue. Until then, the tenets of radical sustainability will have to exist in tension rather than in harmony with those of architecture's traditional basic values.

## **ANTHROPOCENTRISM AND ARCHITECTURE**

The tension between architecture's traditional values and those of radical sustainability has been treated by the environmental movement as something to overcome rather than investigate, analyze, learn from, and negotiate. But the lack of attention given this tension can only be counterproductive to its aims. If proponents want *restituitus* to become the fourth value, these tensions must be confronted and treated to fair consideration.

First amongst these tensions is the presumption inherited from environmental philosophy that anthropocentrism must be eradicated for meaningful progress to occur. Even well-meaning attempts are discredited for not being sufficiently de-centering. William Godfrey-Smith describes several insufficiently non- anthropocentric outlooks, among these of interest for architects, the "cathedral view" that unspoiled nature provides a "vital opportunity for spiritual revival, moral regeneration, and aesthetic delight."<sup>26</sup> But anthropocentrism, the belief that all justification rests on human priorities, squarely underlies the Vitruvian values. Is it possible to even imagine a non-anthropocentric architecture when the modification of the environment for the sake of humans is the very reason for architecture's existence? Returning to the example of Chartres, an argument

can be made that the great Cathedral is non-anthropocentric, having been built for the glory of God and the Virgin Mary.<sup>27</sup> But the enchanted medieval conception of humanity's relation to the cosmos is not the sort of non-anthropocentrism environmental philosophy fosters. The medieval conception stresses humanity's relation to God and our fundamental difference from the animals and the rest of nature. Humankind becomes a sort of way-station; able to look up at the deity, and look down on the animals. This conception is anathema to environmental philosophy. Environmental philosophy is not atheistic, but instead emphasizes man's relatedness to God's other creations, rather than to God directly. It abhors placing ourselves above the rest of nature. Humans are not beings who exist apart from or in spite of the natural world, but only because of it and in relation to it. This "ecological worldview" as skeptical environmentalist Robert Kirkman terms it "usually encompasses three broad claims about human life in its environmental context"...

The natural world is fundamentally relational.

Humans have a moral obligation to respect and preserve the (relational) order of nature.

Widespread acceptance of the first two claims is the key to solving the environmental crisis.<sup>28</sup>

This emphasis on the relational self leads to an erosion of the strong boundaries which separate self and environment. Thus, an environmental philosopher giving free reign to his relational self while looking out on a lake can start to lose himself in it: "The waters of the North inlet are part of my circulatory system, and the more literally we take this truth, the more nearly we understand it. I incarnate the solar energies that flow through the lake."<sup>29</sup> Following this erosion of the boundary between self and nature, non-anthropocentric architecture could conceivably be fashioned to better tie mankind and nature together rather than its traditional role as a fortress against the elements. So, despite its leading, once again, to fewer, rather than more Chartres, environmental

philosophy's new, 'relational' man could conceivably be implemented, at least, to lead to new and different sorts of Chartres, that is to say, architecture of uncommon distinction based not on human humility before the Christian deity, but our humility before nature.

This line of thought bears similarities to Frank Lloyd Wright's call for 'organicism' in architecture (even though the term's normative content proved to be elusive). Indeed, when pressed for likely examples of what might ensue from this new relatedness to nature, Arkansas architect Fay Jones' work in the organicist tradition, Thorncrown Chapel,<sup>30</sup> a 'new Chartres' if ever there was one, leaps to mind. If the result of the new relatedness doctrine is more works like this, then an enthusiastic reception by architects is virtually assured. This exemplary building encourages the contemplation of a symbiotic relationship between humans and nature, and in this poetic sense can be held to be squarely within the non-anthropocentric tradition advanced by the environmental movement. But can it be similarly held that Thorncrown Chapel is actually the kind of work encouraged by the environmental movement, and by radical sustainability, when it comes down to policy? Ending at this hopeful result is considerably more iffy because in reviewing the Hannover principles, or the concept of *restitutus*, or any pragmatic list of sustainable design principles, its not at all clear whether these principles encourage or discourage such work, and its similarly unclear whether, when considering the actual work, that a convincing argument could be made that it was designed in accord with these principles or in any way in opposition to the anthropocentric placing of humanity at the center, as both interpreter and judge. It could just as easily, and perhaps even more convincingly, be argued that Thorncrown Chapel exists specifically for human ennoblement.

No doubt the sustainability movement would like to claim Thorncrown Chapel as one of its own. Who wouldn't? Thorncrown's success, though, has less to do with its incorporation of sustainable design principles and has much more to do with architecture's traditional anthropocentric values; values it fulfills in copious bucketfuls.

While Thorncrown can certainly be said to place a strong orientation on man's relationship with nature, its success depends on the fact that the design never neglects the centrality of the human being's experience. If this isn't anthropocentrism, pure and simple, then nothing is. Affirming humankind's centrality in the aims of architectural design need not, nor has it ever meant, limiting the designer's sights. The problem is as easily described in terms of the worthwhile or ignoble aims the design or building instantiates (a project well within the resources of traditional ethics) as it is one of decentering the human. This suggests that the 'cathedral view' of nature described by Godfrey-Smith is no more, and perhaps less damaging, to full consideration of the quality of the environment as is the lack of a 'natural view' of cathedrals. Thus, for architecture at least, one of the most important props of radical environmentalism, non-anthropocentrism, would seem to be at least paradoxical and at worst, nonsensical. Paradoxical because it attacks the very reason for building in the first place; nonsensical because ennobling the human experience seems to already include a respect for the environment. This insistence on non-anthropocentrism by recent environmental ethicists is all the more vexing because, as in the case of the neglect of aesthetics, this was not Leopold's intention in the original formulation of his land ethic. Leopold's land ethic is not predicated on overcoming anthropocentrism in general—only in overcoming a narrow one. It is predicated on expanding what counts as kinship; a naturally arising sentiment in humans and one that, so far as we know, exists only in humans, making it doubly anthropocentric.

This brings the question of the sustainability movement's ability to formulate a positive ethic or only a set of constraints on what it means to design ethically to a point of closure; for it seems that no clear positive expression is in the offing. Cured of its post-modern excess—the dislocation of the subject and such—environmental philosophy and the sustainability movement stand to offer a substantial corrective to any outlook claiming to be ethical. Demonstrating that these movements offer something more than a

set of constraints, however, will prove to be a much more difficult enterprise. The possibility exists that the human being can still be left firmly in the center of design deliberations without succumbing to the long slide back into a narrow, individualistic, economic interpretation of humanity and the world in which it lives and that sustainability can play a valued supporting role in this enterprise. Sustainability need not resort to the philosophic excess of its radical branch to help foster a new public-spiritedness. For architecture to recapture its moral imperative, however, it cannot ignore its subservience to the needs and purposes of humankind.

### **Endnotes, Sustainability**

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3. Elliott, B8.
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6. European Commission, *A Green Vitruvius: Principles and Practices of Sustainable Architectural Design* (London: James and James, 1999) Forward.
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10. Aldo Leopold, *A Sand County Almanac* (New York: Oxford University Press, 1968) 224-25.
11. Terry Eagleton, *The Ideology of the Aesthetic* (Malden, MA: Blackwell Publishers, 1990) 16.
12. A few articles buck this trend in the twenty years of *Environmental Ethics*, the flagship journal of the environmental ethics movement: Duane Willard, "On Preserving Nature's Aesthetic Features" *Environmental Ethics* v2 (1980) 293-310. William Chaloupka, "John Dewey's Social Aesthetics as a Precedent for Environmental Thought." *Environmental Ethics* v9n3 (Fall, 1987) 243-260. Allen Carlson, "Nature and Positive Aesthetics" *Environmental Ethics*. v6n1 (Spring 1984) 5-34. Janna Thompson, "Aesthetics and the Value of Nature" *Environmental Ethics* 17 (1995) 171-90. Yuriko Saito "Ecological Design: Promises and Challenges" *Environmental Ethics* (Fall 2002, v24 n3 237-45) addresses the neglect of the aesthetic dimension in the final section of the essay. Saito discusses the problem as one of designers' needing to make more explicit accommodation for human tastes in ecological design decisions. This draws on Joan Iverson Nassauer's helpful idea of 'cultural sustainability,' which recognizes that ecological design which is solicitous of human caring intervention will improve its chances for longevity. So, for example, a patch of ground left to go natural, but framed with landscape timbers, is more likely to be perceived as valuable than is one left

undefined. See Nassauer “Messy Ecosystems, Orderly Frames” in *Landscape Journal* (Fall, 1995, v14).

13. Khaled Mansy and Jeff Williams, “Sustainable Architecture...Is It a New Style...?” *Proceedings of the 22<sup>nd</sup> Conference on Passive and Low Energy Architecture*. Beirut, Lebanon, 2005.

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15. Images of this and other works by Ushida-Findlay’s can be seen online at [www.archilab.org](http://www.archilab.org) or at [www.archiweek.com](http://www.archiweek.com). Eugene Tsui has his own web page at [tdrinc.com](http://tdrinc.com).

16. Peter Miller, “Value as Richness: Toward a Value Theory for an Expanded Naturalism in Environmental Ethics.” *Environmental Ethics*. v4n2 (Summer 1983) 101-114.

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22. European Commission, 22.
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29. Holmes Rolston, "Lake Solitude: The Individual Wilderness," *Main Currents in Modern Thought* 31. (1975) 122. quoted in Westra.
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