

The Nature of Order

Christopher Alexander responds to William Saunders's review of his latest book

The Lack Of A Shared Canon Of Value

Possibly the most dangerous weakness in the architectural profession today, is the failure of the profession to have a legitimate, shared, canon of value, one which resides in the deep feelings of ordinary people, and which resonates with their experience. . . . or to grasp publicly experienced judgments of value as issues of fact, or to respect the values which "ordinary" members of the public have. Instead, the profession has erred, in the past, by looking down on the public, by holding up a highly idiosyncratic and specialized view of value, carried by "the few," viewing the common man as ignorant, and treating architects as people who believe they have the right and authority and political power, to keep on ignoring public opinion about architectural values, and pushing their own special brand of postmodern image architecture, that is largely out of touch with every man and every woman.

It must be said fairly, that Saunders does speak for that postmodern, disemboweled majority of the architectural profession, who have given up knowledge that there is truth about anything in architecture, in favor of the notion that there are merely attitudes, opinions and disguises, and that each person's disguise or point of view is equally valuable. This unhealthy position, inevitable under the impetus of Cartesian thought, is what dug the grave for architecture during the last 50 years. Yet those who espouse it, are wrapped in the necessity of this belief, because it is a necessary belief to bolster and rescue the absurdity of their positions. So any line of thought which actually suggests that feeling, quality, are objective, must be anathema—because to admit the objectivity of these matters, would lay bare the poverty of their conceptions, and expose the whole profession and its activities, in the 20th century, as a hollow sham.

What, then, is the actual content of Book One: The Phenomenon of Life, which Saunders has failed to describe, or to address, preferring to dismiss it, facetiously, with vague waffle? The thesis is straightforward. It says that the positivistic separation of fact from value, and the notion that only facts can be objective while judgments of value can only be personal matters of opinion, is flawed, and that there is a scheme of things, in which judgments of value may be examined empirically and that when so examined, the feelings of ordinary people, about value, when made in a certain special way, provide a plenum of judgment which is stable, and reliable, from person to person, and—by the way—conspicuously different in content from the notions of value which are prevalent among leading architects today.

There is a second part of this thesis: namely, that the value which is identified by these empirical methods, is generated by an identifiable, repeated structure that may be identified mathematically, and seen, repeatedly, in all naturally occurring structure, and especially in those structures which are commonly held to have life. By comparison with this class of structures, the

structures put forward by architects of recent decades, are often lacking in life, and rather belong to a class of structures which must be considered dead.

The key issue, of course, is that both the original thesis itself, and the secondary observation, just mentioned, are supported by a wealth of empirical evidence, according to experiments which can be reported, and checked easily. The experimental procedures involved are unusual, but there are, nevertheless, sharable, and repeatable experiments. It should be said at once that the experiments are not opinion surveys, but rather experiments which use subjective judgments of a very special controlled sort, to obtain measures of life in things, events, and situations.

Thus the whole scheme of things, in which value takes on a new form, and in which judgments of value about buildings, can be checked and discussed in reasonable language, has experimental standing, and would have—if found reliable—enormous impact on the present and future conduct of architecture.

This thesis, momentous if true, and especially momentous for architecture, is clearly stated, and clearly argued in this first book of *The Nature of Order*. It is not summarized, or discussed, in any form, by Saunders.

The Concept Of Wholeness

Scientifically speaking, what is the origin of living structure? Where does it come from? And how may it be defined to be accessible to discussion, experiment, debate?

The core of it resides in the idea of wholeness. In the last two decades, physicists and other scientists and philosophers of science have begun to discover that a wholeness-based view of the world is essential to proper understanding of the purely physical universe. A view of wholeness as an existing, guiding structure is essential in quantum physics; essential in biology; essential in ecology; in one form or another, essential in almost every branch of modern science. Yet even in these rather precise fields, it has been difficult to forge a scientifically precise concept of wholeness. The idea places demands on science which stretch the very notions of scientific inquiry, since they require a view in which value, and the notion of the whole, and the inclusion of the observer in the description of what is observed, seem to be at odds with the scientific method; yet must be included in order to reach results.

For scientists, it has therefore become necessary to find new methods of inquiry and observation, in which the whole, the self, feeling, and value play a role within the very act of observation. Yet if it is to be part of science, these inclusions must leave science objective, unbroken, and reliable. The conception, experimental techniques, and even the way to modify our essentially Cartesian view, so that it can admit self—"I" and feeling—are extraordinarily difficult. Yet they are necessary for the progress of science.

They are necessary, too, for the progress of architecture. This subject is of the greatest importance to architects and to architecture as a discipline—since every time we build a

building, it is the degree of participation in the greater wholeness of the world around it, that will determine its success, harmony, and degree of life.

Why is this so important for architecture? The harmony of a given road or building with its landscape can only be understood, and made profound, if we have a picture of the wholeness that is being harmoniously adapted. The adaptation of the light and movement in a building lobby can only be understood if, once again, we have a picture of the structure of the whole which is supporting the adaptation. To put a window in a wall—well placed, well sized, well designed—and to do it well, we need to understand the whole. I remember Peter Eisenman telling me that he was not interested in harmony! Because the world is so tormented, he wants to express the torment. Well, bully for Mr. Eisenman. Not so bully for the unfortunates who have to inhabit his buildings.

Yet, important as it is, for some odd reason architects have been among the last to wake up to the world-wide intellectual and cultural movement in the sciences that seeks understanding of the concept of wholeness and the whole—and have been, and still are, extraordinarily hostile to this conception.

I well remember how my faculty colleagues at Berkeley reacted with intense hostility, when 25 years ago I first began speaking about wholeness as a necessary basis for architecture at faculty meetings. The very word "wholeness" incensed some of them and made them furious, maddened, as though it was a personal attack on them. And, sadly, it did not stop at that. In 1989 our chair, Howard Friedman, dared to propose that wholeness should, as a subject of study, be included in the Berkeley architectural curriculum. At the next faculty meeting, he was subjected to a vitriolic personal assault made against him by one of our faculty. As a result of the intensity of this verbal assault, the faculty meeting broke up. Within the next few minutes, even before the faculty had left the room, Howard had a fatal heart attack. He was taken to the hospital and died shortly afterwards.

Such a tragic event will not make the subject of wholeness and value go away. It merely indicates how much antagonism the concept can generate, possibly because it threatens to go deep into the fabric of present day practice and assumptions. It is painful to face the fact that Saunders's attack on my book which deals with the same subject, has a similarly irrational attack-dog quality.

A Vision Of Architecture As A Discipline Which Heals The World

The essence of the situation is an entirely different way of looking at architecture, in which every action, small or middle-sized or large, is governed by one all-embracing rule: "Whatever is done must always be done in such a way as to provide maximum possible healing of the whole: the land, the people, the existing structure of the city."

This rule is then applied when a window is placed in a wall; it is applied when a building is placed on a street; it is applied when a neighborhood is constructed or reconstructed in a city. In

every case, what is paramount is the healing of the whole, the living wholeness of the earth, in that quarter, and the love and dedication which sustains it and preserves it and extends it.

This is entirely, totally different from the present conception in which each thing done lives largely for itself and in which development, stylishness, and profit are the guiding motives.

It is a conception in which a new triad (Wholeness, Healing, and Structure-Preserving Transformations) governs and replaces the old triad (Style, Profit, and Advertising and Marketing advantages obtained through design), which governs all classical postmodern architecture of the mainstream today.

These are two different worlds and no matter how much talk there may be today about ecology, it is the second of these triads which ruled the architecture of the second half of the 20th century, in the 2 percent of the world where architect-designed buildings play a role.

The earth, the city, the metropolis may be shaped instead by a process focused on life, and on the healing of the earth's surface in metropolitan areas and in nature, to work towards a living structure. In that case, the geometry, the design, the construction processes will all be different—and what we now think of as architecture—will be given up in favor of a new vision, aimed primarily at the good of the Earth and at its people, places, animals, and stones.

Great Changes Coming In The Discipline Of Architecture: The Idea Of Healing

Mechanistic philosophy and the present arbitrary views of value that hold sway in architecture today are intimately connected.

First, the developer's ideal of profit and the profit-oriented approach to architecture, building, and planning, inevitably work against wholeness and against the healing of the earth. That is because the goals of values that can be stated within concepts of mechanism are inherently unable to increase wholeness or to heal systems.

Second, the very idea of healing, presupposes that we know what it means to heal, what health is, what wholeness is therefore. Still more vital, when thinking and speaking in the framework of a mental world governed by mechanism, any thought of value becomes an arbitrary value impressed on the logic of the machine, external to it in every respect that can be entertained or thought within the mechanistic world.

So our values in architecture during the last 50 years have been arbitrary because they have been invented arbitrarily. They are protected by professionals only because they serve the goal of capital-induced development, the postmodern architect's bread and butter. So the values which have been created, the post modern images—like all other passing styles and images—work for capital, for profit, for development, but against wholeness, against health, against the well-being of the earth.

That is the literary and artistic heritage now being taught in schools of architecture and propagated through architects' buildings that serve the process of capital-induced development.

This heritage does not serve wholeness. It does not serve the whole. It does not help to heal the world, or to rebuild Earth as a place where bees, people, breezes, stones, and lizards can run free... nor the starlings, spiders, urban foxes, water, businesses, restaurants, and taxicabs that populate the city.

I have spent my life trying to find a sharable, rational, scientific model which brings this topic of life, wholeness, and harmony, into the open—especially as it touches the geometry of buildings, so that it allows us to share discussion and observation of its effects.

It is in our power to take an alternative path, one in which every single act of building, design, ornament, and economic improvement is always done in such a way as to be part of the healing of the Earth. This is possible even in the high-density metropolis, since there, too, we are capable of making nature.

But we cannot achieve this or even move in this direction without a respect for wholeness, made clear as a concept and formulated so that it transcends all our current pretensions, concepts, and short-term ideals.

The future lies with profound understanding of wholeness as a concept, and as a basis for practice. Turning away from it is more than just shortsighted. It would be a tragedy for architects to inflict further damage on the troubled Earth.

Going the other way, in search of a viable, scientific view of life, which can become a basis for our architectural practice, is more moral than what we do now, more just, more beautiful. It goes more to the service of life. And all those who practice such a revised form of architecture, will probably feel more wholesome in themselves.

When the life of the environment plays such a fundamental role in the well-being of the Earth, and when science itself is struggling to understand the nature of wholeness in the majority of new scientific fields, it would be a great pity if a philistine attack on preliminary efforts to make progress in this direction were to keep architecture as the last of the philosophical dinosaurs from the mechanistic age.

The Implications Of A Wholeness-Based Architecture

The theory is so rich in detail, that we may draw extraordinary consequences from it. These are presented in Volumes 2, 3 and 4—to be published soon. These consequences from theory have implications for the processes which a successful architecture must use to reach buildings which have life.

They have implications that dictate some, and eliminate other, relationships between design and construction, as a necessary part of architecture.

The Nature of Order (in its complete four volumes) has implications for the involvement of people in the design of buildings and in the detailed ways in which this involvement is likely to be successful or unsuccessful.

It has implications for the flow of money. It has implications for the handling of architectural detail and for the successful integration of structural engineering into the framework of design.

It has enormous implications too for the unholy alliance between architects and developers: an unholy alliance, possibly the darkest secret in the history of modern architecture and one which has made architects little more than salesmen, writing advertisements several hundred feet high, claiming to be art, yet actually designed mainly as sign language to stimulate the flow of money into the developer's pocket.

It affects virtually every part of the profession we now know as architecture, and it indicates necessity for change, in almost all of them.

There is no question, that under the impact of this theory, architecture will be deeply changed and it will be changed for the better.

A Note On Science

It may be worth concluding with a short statement about what science is and what it is not.

You are doing science when you figure out how something works. Especially, if you figure out something that people have not figured out before. You don't need to dress it up, you just need to work it out.

All the rest is dressing. Pompous language, format of summary and text and findings, footnotes, erudite references, carefully marshaled precedents—all those are the trappings of science, the appearance of science, not science itself. Too often the trappings and appearance are presented making something seem like science; but it is rare that someone actually figures out how something works.

The material in *The Phenomenon of Life* and the material in *A Pattern Language* 25 years earlier are both science. In both cases, partial workable answers have been given to questions about the way the structure of the environment affects people. In both cases we did, to a first approximation, genuinely figure how this works. It would have been possible in both cases to dress up the actual discoveries in fancy dress; but it would not have changed the actual discoveries very much.

For example, it would have been possible to dress the 253 patterns in *A Pattern Language*, as anthropology—thus giving them the dressing of science, references, language and so on. It might have helped create an illusion of science. But it would not have changed the fact that we did genuinely work out, in part, how the environment supports human life in society. Of course not all 253 patterns are equally profound; but in nearly all of them something has been figured out

about how the world works, and we knew more about it after the work was done than we did before. And because the book is published in an available form, we know it for all time—or until someone else goes further, and finds out more exactly, or more deeply, how those things work.

In *The Phenomenon of Life* other, deeper discoveries are presented. They would not be made more significant by anthropological dressing or psychological dressing. They stand by themselves, and the reader can see that easily, by studying the text. There will be time for scientific fancy dress later, when the hard work of going into more detail and doing more careful experiments really begins. But the really hard work has been done. It is a pity that Saunders couldn't see it.

The slighting references to "bad science," which appear in Saunders's article, only betray a rather undergraduate notion of what science is and how it is done.

The Phenomenon of Life defines criteria for life in buildings, and offers replicable tests for deciding how much living structure exists in different buildings. Of course the appearance of a real test of value in architecture may give the sweats to the profession. But if architects are worth their salt and fear the concept, they can disprove the argument