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Value

An answer to Jean-Pierre Protzen's article, by Christopher Alexander

The discussion which Jean-Pierre has begun, in his article "The Poverty of A Pattern Language", cannot be usefully continued at the level at which it has been begun: with the detailed examination of minutiae, until the fundamental issues in the debate, the difference in underlying assumptions, are made completely clear.

I believe that the criticisms which he has raised follow inevitably, from certain assumptions which he makes about the world. These assumptions concern the role of value, and its relationship to facts. Further, I believe his assumptions in this sphere to be wrong.

I shall therefore do my best, in this article, to lay out the most crucial difference between his point of view, as I understand it, and my own.

I believe that Jean-Pierre holds the view, that propositions, statements of fact, lie in one realm of discourse, commonly known as the discourse of science, and that values, lie in another different realm of discourse. Further, I believe that he holds the view that while values are of immense importance, they are nevertheless, personal, and that differences in different people's values can therefore not be reconciled by appeal to any one fundamental value, but only by conflict, and argument, and compromise.

This point of view is entirely consistent with the overall mechanistic view of the world, which has been growing in strength since the time of Descartes. It is true that it does not entirely exclude value from the realm of discussion, as positivism does. However, it does maintain that value is purely personal and cultural, and not connected, in any deep way with facts or discussions of fact.

I shall label this point of view neo-positivism. This view has been greatly influenced by Kant, and has been proposed, and discussed extens-

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The Poverty of the Pattern Language

Part II by Jean-Pierre Protzen

The 253 patterns included in "A Pattern Language" do not all share the same status. "Some are more true, more profound, more certain, than others." A varied number of asterisks used by the authors identifies the status of each pattern. Of those patterns marked by two asterisks, the authors say, "...we believe that we have succeeded in stating a true invariant: in short, that the solution we have stated summarizes a property common to all possible ways (emphasis theirs) of solving a stated problem. In those two-asterisk cases we believe, in short, that it is not possible (emphasis mine) to solve the problem properly, without shaping the environment in one way or another according to the pattern that we have given--and that, in these

ively by Churchman, Rittel, and many others.

I believe this point of view has arisen in a serious attempt to combat the fact that positivism essentially excludes all mention of value: excludes it from discussion. But while allowing discussion of values, indeed even focussing on it very intently, it is still essentially positivism, and does nothing to help us out of the mechanistic barbarism which positivism creates in society - except

cases the pattern describes a deep and inescapable (emphasis mine) property of a well-formed environment."

Now, this is no modest claim, and in the face of it, the readers or the potential users of the proposed pattern language are certainly entitled to expect that--as stated by Edgar Singer--the claimants have done the best that inquiry can possibly accomplish, i.e., that before reaching their conclusions they have exposed their ideas to the most severe test imaginable.

What is the evidence offered in favor of the various patterns? Does it stand up to Singer's criterion? Lets look at some examples. "Sheltering Roofs," pattern no. 117 (two asterisks): the problem part of this pattern states "(1) if the roof is hidden, if its presence cannot be felt around the building, or if it cannot be used, then people will lack a fundamental sense of shelter."

Two kinds of evidence are used to support this view.

First, three sources are quoted --one referring to Western cultures, the other to the U.S.A. and the third to France--which assert that pitched roofs are the strongest symbols of shelter. The authors are aware that this evidence in favor of pitched roofs "can perhaps be dismissed on the grounds that it is culturally induced." A second type of evidence is therefore introduced.

Only this second kind is no evidence at all. It is a list of three characteristics the authors assert "A roof must have in order to create an atmosphere of shelter."

"1. ....The whole feeling of shelter comes from the fact that the roof surrounds (emph. theirs) people at the same time that it covers them...."

"2. Seen from afar, the roof of the building must be made to form a massive part of the building...."

"3. And a sheltering roof must be placed so that one can touch it--touch it from the outside...."

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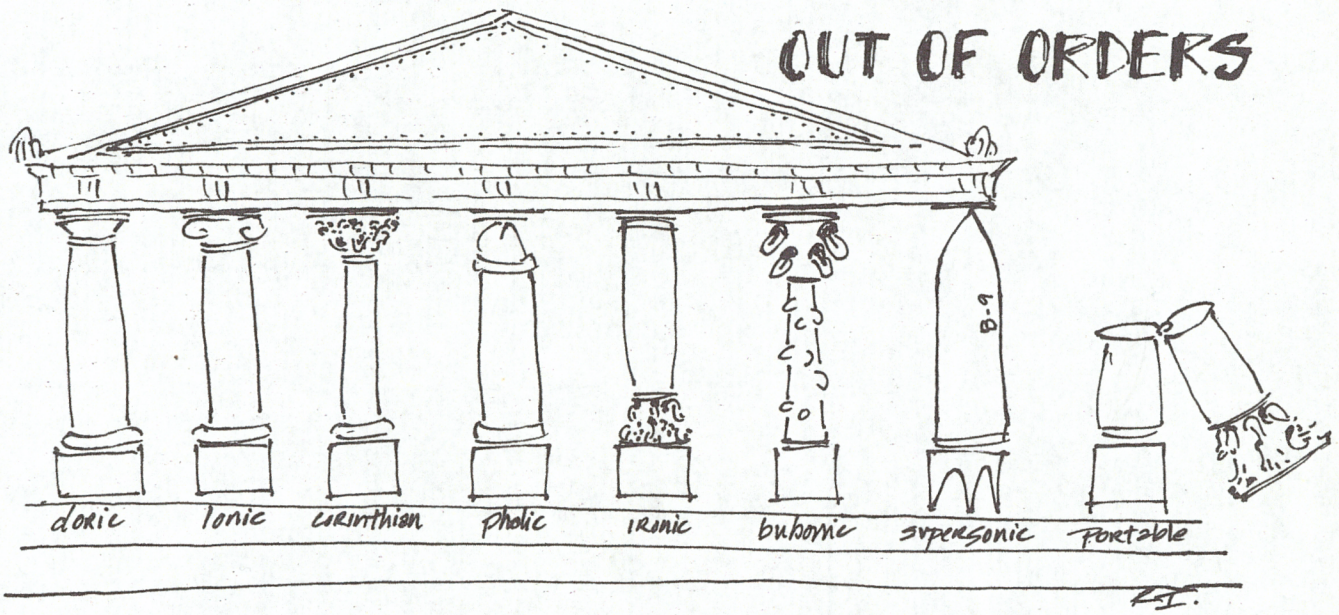

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These three statements may readily be accepted as reasonable departing points for an empirical inquiry by which it may be established whether or not only roofs with these characteristics impart a "feeling of shelter." (I emphasize 'only' because the authors have said that it is impossible to get a "well-formed environment" otherwise.) However, the results of such a study are not offered in "A Pattern Language," and without those results the evidence in favor of this pattern is slim indeed.

But even if the results of such a study were in, this would not do. One would want to know how the results are to be treated, what would be considered confirming evidence, and better yet, what would be considered refuting evidence. We know that roofs exist which do not correspond to the characteristics of "sheltering roof" advanced by the authors. There are flat roofs (that are neither roof gardens nor otherwise useable or accessible) such as the Hopi village of Old Oraibi; there are roofs that slope inward, rather than cascading outwards as may be found in Peniscola, Spain; and there are roofs that are "stuck on" very much like the "bad" example shown in the book, almost all over the southern slope of the Alps. Now, assume for a moment that all of these roof forms would pass the test of imparting a "feeling of shelter"--which is not an unreasonable assumption, since all of these examples are indigenous building forms--how would this evidence be treated? Are these examples to be declared accidents or oddities (the exception that confirms the rule), reinterpreted so that they fit the pattern, or accepted as potentially refuting evidence?

No empirical research makes sense unless the ground rules for that research are made explicit.

It may be useful and necessary at this point to remind the reader that it is not I who ask that the evidence offered in favor of the proposed patterns follow the canons of empirical research, but rather it is claimed by the authors of "A Pattern Language" that each pattern may be subject to that kind of research.

Omitting to specify what would constitute a refuting case as in the shape of a roof, is not an isolated phenomenon. It pervades many patterns. "Promenades" is just another example where nothing is said about why the solutions are necessary and where no mention is made of what would happen if they did not exist.

When "positive" evidence in favor of patterns is offered, this evidence often suffers from one or all of the following weaknesses.

1. The evidence is superficial. In pattern no. 3, "City-Country Fingers," a Gallup Poll asking people where they would like to live is used to support the contention "that people living in cities need contact with true rural land to maintain their roots with the land that supports them." In "Promenades," a survey of 37 people is cited to demonstrate that promenades are not exclusively a Latin institution. With respect to this latter example, as with many others, one wonders why the authors of "A Pattern Language" feel such an urge to present pseudo-scientific data to support something that could be demonstrated much more simply and convincingly another way. All they had to do here, for instance, was to mention such names as Kalverstarass (Amsterdam), Rohr (Berne), or Kurfuerstedam (Berlin), which are all famous promenades in non-latin countries.
2. The evidence is taken at face value, uncritically and unchecked. In many patterns the authors resort to studies made by others, a practice which is certainly legitimate and common in research. However, one expects that before such studies are introduced as evidence the authors will have checked the quality of these studies in terms of the methods used, the reliability of the data, and the soundness of the interpretation of the findings (among other things). In the pattern "Four Story Limit," Oscar Newman's work on "Defensible Space" has been introduced as evidence against high-rise buildings. This work has been thoroughly criticized by William Russell Ellis for being biased and unreliable. Furthermore, as Ellis has pointed out to me, if Newman's data and inferences were correct, they would support, rather than condemn, high-rise buildings as good defensible spaces. While I am not trying to replace one authority with another, one is led to the troubled conclusion from the arguments presented, that the authors only seek evidence which supports the pattern, at the expense of excluding potentially refuting

Zvi Hecher's Polyhedra

by C. L. Yip

Zvi Hecker, an Israeli architect, makes all of the classic errors embedded in the Western Rationalist tradition. For Hecker, design and architecture begin with geometry: the polyhedron. He then organizes polyhedra into lattices and decides by some unvoiced mechanism to stop the lattice at an aesthetically pleasing form.

Once the form is established, people and situations are stuffed into the forms. Social reality must either be general enough to survive the contortions, or else be redefined until it fits.

Hecker notes that architects have favored the cube as the basic unit. "Why not other polyhedra?" he asks us. Maybe, because people would have trouble standing on, sitting on, or placing furniture against sloping surfaces of a dodecahedron. Maybe, because a tetrahedron stool would be uncomfortable even if it could be placed in a nice lattice when not in use. Maybe, because the user wants a vertical wall or a window placed to capture a pleasant view rather than where it works best as a polyhedric module.

Hecker notes that buildings should capture the essential qualities of the past without copying the forms. This does not mean that hexagons on some surfaces of one synagogue design are the essence of the Star of David for the users; this is just another version of intellectually fitting square pegs into round holes.

There is no virtue in making easy analogies that are meaningless. Hecker notes that his modular buildings parallel the basic stages of construction found in the construction of the pyramids. Ergo his creations capture the essential quality of all human building endeavors. Gas stations, billboards, and fast food outlets also share this essence. So what? Worse yet, Hecker argues that, because lattices are good for crystals and other structures found in Nature, they also make good synagogues, apartment buildings, and city halls!

Although Hecker's designs are visually fascinating and often beautiful, it is just as well that we can only appreciate them from a distance.

We hope that our readers have enjoyed the discussion of the ideas and opinions that have been inspired by the pattern language. We think that enough has been said in this format and that the discussion should move elsewhere and into other forms, eg. public debate, classroom discussion ro other journals. We are sorry to make this restrictive policy but feel that we should not limit the subject matter. In next week's issue we will feature an article on the state competition for an energy efficient office building which, because of constraints of space could not appear in this week's issue. Concrete

facts or hypotheses.

3. It is based on what I refer to as the "Consensus Theory of Truth." "Many people will agree with these arguments," is a pervasive mode of presenting evidence in "A Pattern Language." "Everybody loves window seats, ... (pattern no. 180), or "No one enjoys his work if he is a cog in a machine," (pattern no. 80). While I find myself in sympathy with both of the latter statements (whether they are empirically substantiated or not), I certainly object to the logic which would conclude that because everybody wants something we ought to have it, or, conversely, that because everybody hates something we ought to do away with it. History is witness to the fact that people can agree to do the stupidest and most horrendous things, and that they have been reinforced in that precisely because they all have been in agreement.

In the discussion so far, it has been assumed that patterns could, at least in principle be tested individually by empirical research. There are, however, grounds to believe that the patterns, in isolation, escape any attempt at refuting them. It is said that "Each pattern can exist in the world, only to the extent that it is supported by other patterns: the larger patterns in which it is embedded, the patterns of the same size that surround it, and the smaller patterns which are embedded in it." And indeed this is true: I could not test the pattern "Alcove" alone since it only makes sense when connected to "Common Space at the Heart." If this latter were ill-conceived, a test of the former would be meaningless. But it is easy to see that to construct a well-conceived common space in an attempt to test "Alcove", some other patterns must be satisfied, such as "Intimacy Gradient" and "Farmhouse Kitchen." If these in turn were ill-conceived, then "Common Space" could not work, and "Alcove" could not work. For these reasons, it is clear that an individual pattern, or any subset of the language, can never conclusively be tested. Only the language as a whole may be refutable.

After having read "A Pattern Language" and having reviewed its supporting argument, I could not help but be reminded of Feyerabend's assessment of a much more powerful construct, the quantum theory in Physics: its "appearance of success cannot in the least be regarded as a sign of truth and correspondence with nature." (Emphasis here and in the remainder are in the original.) Quite the contrary, the suspicion arises that the absence of major difficulties is a result of the decrease of empirical content brought about by the elimination of alternatives, and of facts that can be discovered with their help. In other words, the suspicion arises that this alleged success is due to the fact that the theory, when extended beyond its starting point (in the case of the pattern language "what makes people comfortable?) was turned into rigid ideology. Such ideology is 'successful' not because it agrees with the facts; it is successful because no facts have been specified that could constitute a test, and because some facts have been removed. Its "success" is entirely man-made. It was decided to stick to some ideas, come what may, and the result was, quite naturally, the survival of these ideas. ... This is how empirical 'evidence' may be created by a procedure which quotes as its justification the very same evidence it has produced." (Feyerabend, "Against Method").

I have attempted above to show that "A Pattern Language" is an all-encompassing theory in that you cannot refute any part of it, but must refute the whole. Feyerabend goes on to show that such a theory (which he calls a second-rate myth) can only be investigated by comparing it with "a different set of equally all-embracing principles." In the case of "A Pattern Language", it could only be investigated by comparing it to a set of principles arranged around, say, the notion that there are no invariants, that every problem is unique, etc. But this procedure has been excluded from the very beginning. "The Timeless Way of Building" does not accept that there is any other valid way of building. The "Timeless Way of Building" is, as Feyeraband says of the quantum theory, "therefore of no objective relevance; it continues to exist solely as a result of the effort of the community of believers and of their leaders, be these now priests or Nobel prize winners." This, I think, is the most decisive argument against any method that encourages uniformity, be it empirical or not. Any such method is, in the last resort, a method of deception. It enforces an unlightened conformism, and speaks of truth; it leads to a deterioration of intellectual capabilities, of the power of imagination, and speaks of deep insight; it destroys the most precious gift of the young--their tremendous power of imagination, and speaks of education."