

GUEST EDITORIAL: COMPLEXITY, PATTERNS, AND BIOPHILIA

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Abstract

This is an introduction to the special issue of IJAR.

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When asked to suggest contributors for and edit a special issue of IJAR, I tried to think in terms of having maximal positive impact on the direction of architecture today. How could one group of writings really turn people's heads and inspire architects, students, and citizens towards a more human built environment? My long-term association with the work of Christopher Alexander naturally led me to try and educate people who are not yet familiar with his groundbreaking work. At the same time, those of us who have been inspired by Alexander have contributed our own body of results to the discipline. The present collection describes Alexander's work and related developments based on his human, sensitive, and scientific approach to architecture. And yet, much of it remains curiously outside the architectural and academic mainstream.

This is not the place to criticize the turn that architecture has taken in recent decades, but to try and remedy what most of my friends consider as an untenable situation. For the fascination with superficial visual novelty, flashy style, and engagement in an energy-wasteful architecture of consumption is leading the earth towards certain disaster. Voices arguing for a more sustainable, human, and ecological future are pleading for a less arrogant architecture for our times. Such humility combines traditional energy wisdom, inherited knowledge, and cultural values with the most recent scientific results. It has always been at the basis of Alexander's work: an approach and design philosophy that is more relevant now than ever.

I am fortunate to have many colleagues working in interesting topics in design, and I turned to them to put together this issue. The essays contained here are samples of original work being done outside the dominant architectural system, which are unaffected by power politics of global money interests tied to the worship of star architects. There are many other researchers and practitioners who are putting together an entirely new and healthier approach to architecture, and whose work is referred to in the present collection. This alternative approach to shaping the built environment is most relevant to the developing world, since that stands to lose most by adopting a philosophy of crazed consumption detached from all spiritual, scientific, and moral values. Consumption does not represent science. I emphasize the distinction between science, which seeks to understand phenomena, and technology, which can be applied for both good and bad purposes.

A few short words on the distinguished contributors to this volume follow.

Ramray Bhat is a biologist who has turned his attention to design and the structure of buildings and cities. His contribution summarizes an innovative biological basis of form generation, and nicely condenses results from Alexander's monumental book "The Nature of Order". From this fundamental synthesis between biology and design, a student can learn and develop what I hope are the elements of design for a truly sustainable future.

Michael Mehaffy is a close colleague of Christopher Alexander. He gives us a general blueprint for a sustainable city that cuts greenhouse emissions. But more than that, he digs deeply into the philosophical underpinnings of the analysis of sustainability, and reveals the surprising inadequacy of other similar blueprints that are based on faulty thinking. This is an

intellectual tour-de-force that changes the paradigm with which we think about design and sustainability.

Jan Michl tackles the problem with architectural education in the past several decades. Why are architects not prepared with the material that we are presenting here in this special issue? Why does this knowledge base seem so totally different from what are accepted as working design tools in the mainstream? Architectural education has been extremely biased, being focused for a long time towards one particular and rather poor design philosophy, and ignoring the problems we face today. Unless we realize the need for radical reform in educating our young architects, nothing is ever going to change for the better.

The essay by architectural historian Martin Horacek is a very down-to-earth examination of new museums in general, and the Acropolis Museum in Athens in particular. In an admirably balanced analysis, he presents both pro and con opinions of the Acropolis Museum (unlike my own previous essay on this topic, in which I condemn the Acropolis Museum in the harshest terms). Beyond talking about a single building, we have here a critical analysis of the procedure and mental traps that many cities and governments fall into when commissioning a new museum. The separate questions of reinforcing national identity and providing a tourist attraction are not automatically resolved by appealing to a star architect, contrary to what is widely accepted today.

Catherine Ryan and her collaborators are practitioners in an innovative firm, offering a superior product that takes into account the biophilic effect. This takes advantage of the evolved human response to a natural environment, utilizing both direct and intimate contact with nature, as well as shapes, spaces, and surfaces that possess the same geometries found in living organisms. All of us working in this topic know that Alexander's *Patterns* anticipated biophilic design, and it is very nice that this paper establishes a close link between Biophilic Design and new Design Patterns. The advantage of using *Patterns* is that they provide a guide and checklist for any architect wishing to embed the documented health and psychological benefits in their own work.

Urbanist Serge Salat and his collaborators study the city as a living organism, following Alexander's lead. A detailed and comprehensive comparison of three of our greatest Western cities, Paris, New York, and Barcelona, reveals their morphological patterns and links them closely in an interpretative framework. The result totally discredits the planning tools widely used since the end of the Second World War. A city that is designed according to modernist principles, which contradict the mathematical qualities of living cities, is neither sustainable nor resilient. And no amount of investment can make it so. These findings are crucial for emerging countries eager to adopt Western methods.

Philosopher and jurist James Kalb gives us an overview of Alexander's work, emphasizing its philosophical and transcendental aspects. The suffocating image-based design industry has made us lose the timeless connection between our societal values and what our built environment embodies. Or, in what could be even more frightening, our society has embraced an anti-human nihilistic movement. In any case, thinking outside contemporary architectural discourse should wake people up to unnoticed developments that actually shape humanity in an undesirable way for its own survival.

Jaap Dawson is an architect and teacher of architecture. His rather philosophical essay makes some key points about design and structure in a very enjoyable, indirect manner. Perhaps this is the way to communicate his message of humanity: if done so more directly, in words that a practicing architect would expect, the message might be resisted. And his message is a crucial one of what we have lost in the architecture of the past several decades. We have lost its human and spiritual aspects. These parables bring us closer to rediscovering that profound missing knowledge.

In conclusion, a reader might wonder how seriously to take this collection of essays introducing a radically distinct approach to design that includes so many non-architect authors. Well, the ecological crisis is also a crisis in morality that architects are ill prepared to solve. And if

innovation is truly welcome, then it is most often found in the periphery of any discipline. At its established center, the urge for innovation very frequently turns into running useless circles around practices that don't really change. People like to continue things just as they are. Thinking becomes locked into conventional models, in which deceptively apparent new ideas serve mostly to reinforce what is already in practice. Yet the present system is promoting inhuman design, with mostly superficial changes, as "innovation". That is a deception. It follows that a new direction in architecture is expected to come not from the inside, but from the outside. I have the honor as guest editor to present this special issue as a contribution to such a hopeful change.

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