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BACK & FORTH IN TIME

IN 2000, I wrote an article in *Perspectives* about the future and direction in which architecture was moving. In order to do so, I began by first reviewing what appeared to me to be the pertinent forces of the past century that had brought western society into the new millennium. In doing so, I identified 15 trends (see above) that I predicted would dictate the future direction of the field.

I looked back at the 2000 article with some apprehension, fearing that the field hadn't evolved as anticipated. To my surprise, I found that, after 13 years, the predictions, to a greater or lesser degree, remain current.

The rise of the avant-garde to influence the direction of society (1)* continues to wane. Instead, free-market economics and the interests of multinational corporations seem to dictate the agenda. Architects remain largely ineffective at influencing the social agenda because architecture cannot detach itself from those individuals, corporations and institutions that have wealth and power.

In architecture, the avant-garde have risen to be identified as "star architects," a fact that has attracted envy and criticism from those who have yet to reach that plateau. The terms "iconic" and "landmark" have been overused to describe their work, to the point that these terms are becoming clichés. Most architects, who are not "stars," are either striving to get there or are advocates of contextual, functional, sustainable, and/or economical architecture.

In the earlier article, I quoted Charles Jencks who termed the new radical breakthroughs in form and light materials as "ecstatic" (2).

> "We reached for our liquid guns and plastic fur and started up, erect as a new breed of creators, armed with the latest technology and began to spray new enticing shapes, never seen before…Together, we activated brain-cells, the super organism which, like a vacuum in outer space, lifted our confines of a heavy architecture and our bodies…floating, floating, floating…"
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> — *Charles Jencks, "Fur and Ice Manifesto," 1968.*

The term "ecstatic" has not been adopted because the architectural freedom and fluidity that defined it have become commonplace as a result of software advances. Architectural freedom and the fluidity of space and form (3) have been made possible because of advances in computer software. To achieve the so-called iconic buildings of the star practitioners, there have been major advances in the design of building envelopes. In parallel, improvements in envelope design were mandated because green building and sustainable architecture (12) moved to the forefront of design objectives.

The prediction that new lightweight materials (9) and construction methods would be developed has been realized and the trend is flourishing. The advance of the smart building and the proliferation of computer technology to monitor and control all aspects of a building's operations remain largely in its infancy. The "Electronic Cottage" (10) has not arrived, but developments in computer technology and telecommunications are advancing at such a rate that the future portrayed in *Star Trek* is not far off from being realized. Some view *Star Trek's* creator, Gene Roddenberry, as a true visionary in that the world he created appears to have become the blueprint for the technical advances that we're currently witnessing. The space age, however, has yet to arrive in the construction industry. (4)

In a short time-span, we have seen faxes replaced by emails and the desktop computer has become increasingly obsolete following the release of smart phones and tablets. Watches can fully monitor your daily activities and staying connected can mean surfing the internet through your eye glasses. Architects, however, remain somewhat like neo-Luddites in this techno revolution, as highlighted by the field's slow transition from 2-D to 3-D modeling software and the continued debate surrounding the merits of hand drafting and drawing versus computer generated imagery. It's not that such debates don't have value, but when technological advances have revolutionized nearly all areas of industry and all aspects of daily life, it appears that architects are looking to the past rather than setting our sights on the future. (5) Even the Dean of the Yale School of Architecture, Robert Stern, has admitted to never using a computer, even for email, and that he prefers the rectangular grid over the curvilinear forms generated by computer.

Some theorists see a dramatically different future for architects. In a world where complex industrial fabrication is undertaken by robots and vehicles can be driven by computers, it's reasonable to predict that the mechanical drafting of architecture can and will be done safely by computers. The role of the architect may soon be to provide the design objectives and specify the program. Whereas the computer equipped with the relevant codes, precedents and smart technology, will generate the design options. In the future, the inherent limits of human intelligence to rapidly analyze and produce solutions will be supplanted by the computer's calculating

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logic. As a result, the risk of human error will be eliminated. In many fields, computers and robotics have drastically eliminated, reduced or changed the scope of work performed. In this vision of the future, the architect is more a project manager directing and implementing the tasks to create buildings rather than the currently associated roles of building design and drawing preparation. The visceral nature of experiencing architecture will mean that for the few who are able to create the art in architecture, there will be an ongoing design role.

One of the interesting pursuits of futurists has been the pursuit of Utopia. (8) In 2000, at the dawn of the new millennium, there appeared to be ongoing optimism. There was a recurring architectural pursuit of this challenge over centuries from grand master plans to the architectural design of megastructures and domes encompassing entire cities. Unfortunately, the pursuit of Utopia has ended. At this point in history, our focus is on survival. Climate change has elevated sustainability to be a major driver of architectural design. The media is dominated with stories of the end of the world, and of the struggles of good and evil that will destroy life as we know it. In *Under the Dome*, Stephen King's new television series, the dome is an entrapment rather than a Utopian environment. A sense of uneasiness and fear is a result of what now is an unstable world, economically, politically and environmentally.

In this age of communications, the world and its troubles are at your doorstep. This is not to say that the modern age is without benefits. Architecture has become international; there are no borders. As a result of working globally, national culture has become less influential. Similar architecture can occur in Mississauga and the Mongolian desert. With the rise of industrialization in countries such as India, China and Brazil, a rapidly growing middle class provides Ontario architects with opportunities for new clients, in an era where the North American middle class is shrinking.

Since the last article, another force that has become increasingly influential is global warming. The majority of industrialized nations are attempting to address this problem, as major environmental changes can no longer be ignored. Sustainability and the environment pervade all aspects of daily life. The term "green" (12) has been applied to almost every new product, thereby reducing its significance and credibility. The green movement, as is the case with any movement in its infancy, will face conflicts in how best to achieve its goals, particularly for architects, who are not the masters of their agenda. There are different standards and a lack of critical science to validate the varying approaches to achieve sustainability. For example, the desire of modernists to dissolve the visual barriers between indoor and outdoor space has created glass boxes with enormous energy loss. This conflicts with the current goals of energy conservation and sustainability.

Due to the major impact of the Green Movement, the Global Village and the Electronic Era, styles have become less important. Currently, the only prevalent "ism" is modern-ism. It is largely a retro return to the modern style that began in the 1920s and '30s, with buildings by architects such as Gerrit Rietveld, Corbusier, Richard Neutra and Rudolf Schindler.

High-tech was a topic in the 2000 article, (5) but that term no longer has any currency. In an era, when startling new forms are appearing rapidly from a wide variety of architectural practitioners around the world, everything new is high-tech.

The 2000 article ends with "What Now?" Since so much of what happens in the future depends on what steps we take now, here is my sense of what our profession should be doing:

- As in 2000, I would suggest that architects become increasingly involved as the drivers of change. That means liaising with institutions and industry.
- To help shape change for the benefit of the profession and to better understand the future, architects will commit to research and development and balance subjective opinion with supporting facts and analyses.
- Architects will embrace technology and will adapt more rapidly to change.
- Architectural education will recognize that few architects are designers and that architecture includes the role of engineers and financial managers who base decisions on facts and figures.
- Architects will regain their role as Master Builders.
- Architectural awards will be more than beauty contests.
- More Canadian architects will participate in the competitive world of international business.

Lastly, in order to write an essay about the future, one has to step back and try to achieve some sense of perspective. Gaining perspective is an important activity for any architect – I highly recommend it. Take time to make your own assessments of the current direction of architecture and to plot your own future. ■

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*Parenthetical numbers refer to the predictions in Alex's 2000 essay, as enumerated above.