In a world undergoing global changes at a scale and kind never encountered before, a world not only of unprecedented technological innovation, economic might, and global accessibility, but also a world of unparalleled socio-environmental crises, are our schools of architecture providing the right knowledge required for design and construction?

The global changes, good and bad, that characterize our contemporary world are closely linked with the record upsurge of construction, unparalleled architectural and engineering feats, and frenetic space acrobatics that dominated and still dominate most parts of the world in China, in the US, and in Europe. Never before had architects around the globe at their disposal such profusion of means to construct, financial, technological, and legal. Never before was the desire of clients to create ‘Architecture’ so strong. Yet, during this time, soaring unanticipated, intractable, irreversible crises affected the quality of the environment of most cities economic, ecological, and social that continued to decline steadily, ecological damage surpassed every previous record, and the diversity and numbers of the various biological species collapsed.

An overwhelming amassing of evidence has shown that the accumulation of single buildings, even if they are prize-winning masterpieces, ‘star-buildings’ by ‘star architects’ and by ‘star-developers’, does not lead to a better environment, urban or natural. Can architectural education do something about it? And if it can, does that mean that in addition to the present knowledge for designing and constructing, a new kind of knowledge has to be introduced to enable rethinking of the way we create, preserve, and alter cities and landscapes in our time? And if so, which knowledge has priority and how will it enter the existing curricula?

Talking about the current need to rethink and renew architectural education, one should be constantly reminded that the context within which voices are raised demanding reform and questions are asked about modifying and expanding architectural education today is not that of unlimited resources (as was the case in Europe and the US during the 1950s and 1960s). Ours is the era of increasing costs and diminishing public financial support to academic institutions all over the world and to some degree even China, despite the robust current state of its economy and its serious public commitment to support education.

Thus, time and again architectural educators are confronted with the difficulty to provide a direct link between investment in architectural education (in courses such as history) and economic benefits in the real world. Moreover, although architectural education does not need expensive sophisticated instruments and vast laboratories, like chemistry or physics, its labor intensive courses, such as design studios, are the targets of criticism as uneconomical sectors of education. Last but not least, in many parts of the world economic reasons require the reduction of time for professional architectural education. In some countries, such the Netherlands, where the duration of studies used to take as much as fifteen years it is now squeezed down to five years and as a result diminishing considerably available learning time.
In addition, as opposed to the decades of the 1950s, 1960s, and 1970s, when architectural and planning education was exercising a pioneering role trying out revolutionary ideas and schemes that the profession did not dare yet touch, today, for many complex socio-economic reasons, architectural schools are lagging behind the profession as a place of design innovation and technical experimentation.

Following this brief list of general remarks put together in a rather open ended way, a number of concrete key problems about architectural education emerge that have to be explored and tackled.

It is universally acknowledged that architectural education, after a long tradition of dealing only with objects, needs to recognize as the top priority is the need to focus on the everyday user and uses of the built environment – people, animals and life supporting processes – as opposed to designing for the architectural media, to a very high degree a common practice during the last thirty years. That means bringing into architectural teaching sociological and environmental-ecological knowledge. Linked to it is the need to return to planning (urban, regional, and environmental) that was diminished in architectural practice and suppressed in most schools of architecture during the last three decades, replaced by private entrepreneurship taking over urban and regional development together with the mythology of the omnipotent hero “star-architect”.

This brings us to the dilemma that many schools of architecture around the world face today: the demand to choose between education to form future star-designers and one for designers to confront efficiently, effectively, and humanly ordinary life environmental needs. The pressure for turning schools into design star-making machines originates not only from the top down, administrators or executives in search of publicity and prestige, but also from the ground up, young students under the influence of mass media demanding from schools to provide them with the capacity to win flashy awards and glitzy trophies rather than contributing to the natural and social quality of the environment.

Linked to the demand for ‘star-making’ education is the publicity driven media attitude that prefers to praise star architects offering them awards and trophies for their ‘creativity’, in the sense of bringing about ‘original’ products rather than products that respond inventively to environmental needs and aspirations. Consequently architectural education in many parts of the world talk about education for ‘creativity’, without paying much attention to what creativity is about and how in a rational way it can be enabled with beneficial results for generating environmental well-being and happiness.

Further on, while many architectural schools dream of creating creative solitary star-heroes the reality of professional architectural practice, even if it involves bringing about cultural masterpieces, has to do mostly with complex collaborative, collective process. Few schools are preparing their students seriously towards this pragmatic end.

One most important and exceedingly puzzling phenomenon that asks for responses in architectural education is the technical failure of architectural projects, as if architects were totally ignorant of elementary environmental science or ‘environmental physics’. However, research has shown that most of these failing architects had taken such courses and acquired technical knowledge which subsequently they failed to recruit during their practice. In other words they did not know that they knew. Consequently the emerging pedagogical challenge is not to teach more scientific subjects relevant to contemporary situations but how to teach such subjects in ways that their knowledge is cognitively ‘accessible’ when and where needed in the minds of the designers. (The same is true not only about scientific and technical subjects but also social sciences and humanities knowledge needed in architectural practice).

Finally, a major challenge to architectural education today relates to the dichotomy between a curriculum that focuses on ‘global’, ‘universal’ or ‘core’ architectural knowledge and ‘local’, ‘regional’ one. There are not only philosophical, moral, and political issues associated with this question but also practical ones about educating for ‘global practitioners’ as opposed to one for designer that would serve regional communities towards safeguarding environmental and socio-cultural resources and diversity.

Related to this question is the place of history in the architectural curriculum today. A school that gives priority to ‘global’, ‘universal’ or ‘core’ architectural knowledge tends to handle this knowledge abstractly outside of the conditions that created it. On the other hand an alternative approach considers architectural knowledge and environmental values not as abstract eternal entities but rooted in concrete space-time contexts and in response to specific socio-economic and cultural needs and aspirations. Then in this latter case one can see the possibility of learning the polymorphic dynamic architectural knowledge critically nested in a dynamic historical framework.

When all is said and presented about the endless list of subjects that have to be introduced in architectural education to keep up with the needs and aspirations of our time, in the very end the hardest question of all is how this exploding list fits into an already over-eclectic overblown curriculum without widening the gap between architectural knowledge and practice, theory and reality.

What is needed in this case is a more radical institutional rethinking. The question then is to explore if we should try to invent from scratch such a new model of architectural education or if there are precedents here in China, in Europe, or in the US that combine theoretical academic multidisciplinary teaching with learning from collaborative practice of multiple professional specialties such as the academic hospital.

Given the rigor and the reflective critical way with which cases can be controlled within such academic ‘design practice’, not only do theory and practice meet complementing each other but their complementarity also provides for a framework within which research and innovation can be carried out.

Indeed, there is a formidable task for architectural education today, to identify ways through which a new generation of architects can acquire the knowledge needed to work together creatively, to conceive and construe the future complex, highly interdependent interactive structures of the human-made and natural environment, what one might call the ‘3rd ecology’, free of contradictions and conflicts enhancing through dialog discovery, learning, and community.
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He was educated at Yale University and taught at Harvard University between 1967 and 1981. He has held visiting professorships at Columbia University (1974-1975), the Universities of Montreal (1970-1971), Technion, Israel (1985), MIT (1996), Singapore (2006, 2007), Tongji University (2008), and Tsinghua University (2009-2011). In 2002 he was a visiting professor at the College de France.


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Other books by Alexander Tzonis: Architecture in Europe since 1668, Between Memory and Invention (Thames & Hudson, Fall, 1992 (GB), Rizzoli (US) and Campus (Germany) was written with L. Lefaivre, the first comprehensive presentation of two and a half decades of architectural production, received an American Institute of Architects Award (1994). In collaboration with Ian White, is Automation Based Creative Design (Elsevier, 1994). Architecture in North America since 1960 (Thames & Hudson, Little, Brown, 1995) in collaboration with L. Lefaivre and R. Diamond, and Movement and Structure, the Work of Santiago Calatrava (Birkhauser, 1995). Also with L. Lefaivre, Santiago Calatrava, The Poetics of Movement (University, Thames and Hudson, 1999), Aldo van Eyck, Humanist Rebel (010, 1999). Santiago Calatrava, The Creative Process (Birkhauser, 2001), Tropical Architecture, A Global Regionalism co-edited with Liane Lefaivre, with a preface by H. R. H. Prince Claus of the Netherlands (Wiley, 2001) and Critical Regionalism, Architecture and Identity in a Globalised World (Prestel, 2003), and Emergence of Modern Architecture: A Documentary History, from 1000 to 1800 (Routledge, 2004), both co-authored with Liane Lefaivre. Tzonis also authored Le Corbusier (Universe (USA), Thames & Hudson (UK), Rizzoli (IT), Hazan(Fr), 2001), Santiago Calatrava, Complete Works Rizzoli 2004 (translated in Italian, Spanish, and Chinese) and with P Giannis, Classical Greek Architecture, the Construction of the Modern, Flammarion 2004 (French, English, and German editions). Also published by Rizzoli, Santiago Calatrava’s Bridges and Santiago Calatrava’s the Athens Olympics both, 2005. Also co-authored with Liane Lefaivre, Architecture of Regionalism in the Age of Globalization, Peaks and Valleys in the Flat World, Routledge, London, 2011 (Brazilian edition, 2013).

Prof. Tzonis has been General Editor of the Penguin Books series The Man-made Environment, and of the Garland Architectural Archives, one of the biggest architectural publications, which has published the complete archives; of Le Corbusier (32 volumes), L. Kahn (7 volumes), a Choice Outstanding Academic Book, Mies van der Rohe (18 volumes), W. Grillius (4 volumes), Schindler (4 volumes), H. Sauvage (2 volumes), American Institute of Architects Book Award, Alvar Aalto (12 volumes).

In 1975 he has been Director of the research project Systèmes-conceptuels de l’Architecture en France de 1650 à 1800, the Genesis of Contemporary Conceptual Systems in Architecture, between 1650 and 1800, sponsored by C.O.R.D.A.-C.N.R.S./France, and Harvard University.

Early in his career, he worked in the theatre and the movies and was art director of the film Never on Sunday. In 1990 he published his first novel, a murder story about problem solving, computation and morality, Hermes and the Golden Thinking Machine (MIT/Bradford Press).

He has headed the organisation of several major international conferences among them: The German Werkbund, 12 April 1980 (Harvard University), Automation Based Creative Design Education, May 1992 (a 150th Anniversary of TU Delft Conference), Value Learning in a Changing World (1993, 27-29 October) and The Spiritual in Architecture, a Symposium dedicated to the Holocaust Memorial in Berlin, April 12, 2000, both hosted by Her Majesty Queen Beatrix at the Royal Palace in Amsterdam, under the auspices of the Royal Palace Foundation. The Mediterranean Landscape, Representation, Designs and Identity (Van Leer Foundation, MishkenotSha’ananim), December 1997, Jerusalem, The Mediterranean City (MishkenotSha’ananim), May 2002, Jerusalem.