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Editors' Preface

Since its inception in the nineteenth century, the design studio has remained at the core of architectural design education. In spite of tremendous changes in epistemology, academe and architectural practice, traditional studio-based pedagogy has remained fundamentally unchanged.

In contrast with its fundamental longevity, at implementation level during the last three decades, there has been a pragmatic shift in architectural design education. Initially, some changes have manifested themselves as an increased criticism of traditional implementations and attempts to rethink the pragmatic nature of design studio culture. The drivers of these changes include epistemological, social, and economical forces. New specialized knowledge and technological developments, increased use of computers and information technology in design education and practice, pressure on institutions of higher education to reduce costs, and challenges in current student demographics have resulted in a teaching/learning environment that is constantly changing.

For instance, the pervasive application of computers and information technology in architectural design education has brought important changes to design studio practices. The introduction of the paperless studios, the e-studio, and the virtual design studio have resulted in a major shift in practical assumptions that were central to the prevailing paradigm, thus putting strain on its adequacy.

It is a fact that we can talk about “Changing Trends” in architectural design education but we need to understand that talking about changes in the design studio is like talking about global warming by describing changes restricted to the tip of the iceberg. At fundamental level the design studio is the pedagogical construct that serves as the melting pot of the newly acquired knowledge base and skills of our design students. Changes in the content of that knowledge base and/or the instrumentation of our skills will have a direct and almost immediate impact in the way we conduct design studio activities. In similar way, changes in the way we practice architecture will have a direct impact on how we conduct studio, and in turn, that will demand curricular changes.

In this multifaceted process of change computer laboratories have emptied our design studios. Not long ago, studio-like activities migrated to our computer labs in search for the strongest computers available. Now we see them coming back to the design studio as the current students purchase more processing power than the schools can possibly provide. But this return of our students to the design studio is not a return to the old design studio culture. Today every student has a computer on his/her desk and the professor conducts desk reviews on interactive plasma screens of large format. Our students don’t use Exacto-knives but laser cutters and we collaborate with studios that are geographically distributed making use of real-time face-to-face videoconferencing… and it is not a big deal!

Our students do not study descriptive geometry anymore because Building Information Modeling allows them to virtually model every aspect of their

design within an integrated data model. Many schools are limiting the number of courses they offer on structure, environmental systems, materials, and methods, in benefit of courses that address business-related content and people skills. Sustainability is the new buzz word and our professional programs contain thematic tracks that provide access to architectural specializations, at the same time, that they provide access to a first professional degree.

What is the knowledge and set of skills that design firms seek and value? When we ask design firms about this, the most common answer is: “We want students who know how to think in creative ways”… “We don’t care much about their skills…we can help them develop their skill in the office”. Is this true? Are we reading this statement correctly? Do they mean it…?

Every year "DesignIntelligence" and the "Almanac of Architecture and Design" conducted a survey in which they interview over 800 leading U.S. architecture firms. The fundamental question is: “In your firm’s hiring experience within the past five years, which schools do you feel have best prepared students for the architecture profession?”

The programs addressed by the ranking are 5 years and 4+2 years professional programs and are located in large cities as well as small towns. They are a diverse group of institutions. In closer analysis, each program has peculiar implementations that make them unique but as a common denominator it is possible to say that consistently all 10 programs profess a philosophy of “Knowledge-Based Design”.

Within a “Knowledge-Based Design” philosophy, students acknowledge as a fact that the field of architecture holds a knowledge base of its own and that we are not:

-Scavengers of the knowledge of other disciplines.

-Generalists who know a little about everything but not a lot about anything.

-Unpredictable artists who “will be finished when they are finished”.

From the general characteristics of the “top 10” it is clear that design firms are after, not only students who “know how to think in creative ways”, but students who can deliver a sound product in time. It is interesting to see that in the requirements for licensing in the US and the Intern Development Program (IDP), the majority of experience earned will not be in design but in the preparation of technical documentation. Schematic design requires only 15 credits for IDP, while the category of construction documents requires 135 credits.

As part of the same survey, design firms have also noted a number of deficiencies in their new employee. These deficiencies can probably be divided into three groups:

The Bad News:

90% of employees are deficient about the knowledge on how the buildings are put together.

The OK News:

16% of employees need to improve on their computer skills.

14% of employees can not hold a pencil with dignity.

The Good News:

02% of employees have problems conducting research activities

02% of employees have very limited design skills

From this response we can finally demystify the historical confrontation of digital and traditional design communication media. It is clear that for our students such a conflict is a non-issue and that they feel confident in the use of both digital and analogue media. From the same set of data, it is very gratifying to read that the design firms that hire our students feel that we are providing good researchers and designers, but it is truly disturbing to find out that those same “good designers” have no idea of how buildings are put together.

Overall we have good reasons to celebrate. We have successfully managed to address change without loosing the fundamental validity of traditional studio-based pedagogy, but at the same time, we need to review our implementations and seek a higher level of satisfaction when it comes to serve our profession. Maybe even to target providing leadership in the evolution of our profession.

"Changing Trends in Architectural Design Education", captures the spirit of this discourse. More than two hundred authors from a diverse community of researchers responded with abstracts, and one hundred twenty authors submitted papers for blind review. The forty five papers selected have the potential to broaden our knowledge and understanding of how digital technology is developing and is being applied to architectural education and practice. The papers are organized in the book under nine themes or categories that correspond and match the sessions in the conference program. The themes are: virtual and distributed design education, digital design education, digital visualization and design teaching, reflections on architectural design education, integration of studio with other teaching, theoretical issues in learning and teaching design, creativity & critical thinking, alternative studio/design built studio, and teaching studio. This publication has exceeded its original regional framework. Its authorship is not restricted to the Mediterranean Ring. The critical nature of the subject has attracted authorship from around the word and therefore its content also provides a global perspective on the subject.