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EDITORIAL

COMMITTED EDUCATORS ARE RESHAPING STUDIO PEDAGOGY

The process of educating future architects and designers around the world varies dramatically. However, there is one striking similarity - the dominance of the design studio as the main forum for knowledge acquisition and assimilation, and for creative exploration and interaction. Such a setting encompasses intensive cognitive and physical activities, which ultimately result in conceptualizing meaningful environments proposed to accommodate related human activities. The design studio is the primary space where students explore their creative skills that are so prized by the profession; it is the kiln where future architects are molded. It has occupied a central position since architectural education was formalized two centuries ago in France and later in Germany, the rest of Europe, North America, and the rest of the world.

My personal experience of the design studio comes principally from being academic, studio educator, and researcher on architectural education and studio teaching practices for over fifteen years. Continuous endeavors have resulted in a number of publications that analyzed traditional studio while probing into the motivations of my colleague educators and allowing for critical examination of studio pedagogy (SALAMA, 1995; 1996; 1998; 1999; 2002; 2005; 2006). My passion for a continued exploration and investigation of the studio underlying rituals, teaching styles and learning outcomes, design processes and studio projects motivated me to entertain the idea of guest editing this issue and to venture a call for contributions for soliciting visions and experiences on the theme. This initiation was further encouraged and supported by the Editor in Chief - Nicholas Wilkinson.

This issue of Open House International-OHI is concerned with the studio pedagogy's increasing importance within the context of contemporary architectural and design education, a crucial subject that poses itself confidently on the map of current academic research. Twelve papers are included; of them, nine were selected from over 30 submission responses to the call for contributions. These are of NISHA FERNANDO; KEVIN MITCHELL, MALIKA BOSE, ELIZA PENNYPACKER, and TOM YAHNER; TASOULLA HADJIYANNI; CARLOS BALSAS; RABEE REFFAT; JEFFREY HOU and MIN-JAY KANG; JAMAL AL QAWASMI; and JEFFREY HAASE. Three papers were selected as they won the first three awards of the International Architectural Education Competi-tion entitled "*Alternative Educational Ways for Teaching and Learning Architectural Design*," which was organized in 2005 by Open House International and the Faculty of Architecture, Eastern Mediterranean University, Northern Cyprus. Results were announced in April 2006 and the three winners were JOONG-SUB KIM (1st Prize); NOAM AUSTERLITZ & AVI-GAIL SACHS (2nd Prize); and GUITA FARI-VARSADRI & USTUN ALSAC (3rd Prize).

Efforts of these concerned and committed educators are integrated to openly debate the delivery system of education in the studio. Actually, they are advancing the discussions on how this subject has become a recognized area of research in recent years, how studio teaching invigorates the attitudes of future architects and designers, and how it may contribute to the creation of better environments. The papers in this edition of OHI capture the body of knowledge about design studio teaching. However, they can be regarded as different studio typologies that delineate a paradigm shift. Such a shift is from the traditional approach that follows principles and practices developed in the past, and not equipped to deal with the practical realities of contemporary societies, to a more responsive approach that effectively challenges recent advances in social and behavioral sciences, and telecommunication technologies. Such an approach is characterized by committing itself to a student-centered learning process by shaping and identifying studio objectives and thereby recognizing the impacts they may have on the lifelong learning skills of future architects.

The papers of NISHA FERNANDO, KEVIN MITCHELL, and JEFFREY HAASE address some gaps inherited in the traditional approach to studio teaching. They share the concern for *Learning from the Environment* whether through systematic investigation of potential users or from exemplary built projects, or through the actual involvement in the building process. However, they differ dramatically in terms of the arguments they introduce. FERNANDO argues for integrating environmental design research as

a form of knowledge on one hand and creativity on the other. She proposes a model by which knowledge resulted from research is incorporated into the creative endeavors undertaken in the studio in a systematic manner. Her implementation of the model adopts the view that design processes are as vital as the end- products. An important finding in her work is that students become more aware of their own potential as socio-culturally sensitive design professionals because of their engagement in a studio setting that promotes active investigations, interactive dialogues, peer critiques, and mutual learning.

MITCHELL, on the other hand, calls for *Learning from Practice* without adopting the model of an office of junior practitioners led by a principal instructor that can impart all of the skills and knowledge necessary for successful practice. He bases his argument on his belief that those who argue for the appropriation of concepts and methods from other fields often do so, on the basis that it is necessary for "critical thinking," asserting that borrowing from other disciplines often results in the compromise of intellectual rigor. Whether or not one would agree with his statement, he argues for more responsive approaches developed within a defined field that are capable to respond to discipline-specific challenges. He adopts the view that an emphasis on teaching discipline-specific fundamentals using examples from practice presents students with knowledge on how practitioners attempt to achieve conceptual clarity, respond to contextual constraints and develop three-dimensional environments.

In fact, the similarity in the work of the three authors lies in the gaps they attempt to avoid. However, HAASE introduces a studio model that bridges the gap between conventional design studio settings and professional practice, by adopting a Design-Build Studio Model that incorporates *Experiential Learning Theory*, derived from the early work of education theorists. He bases his model on the fact that many design educators tend to teach representational techniques without teaching a clear understanding of what they represent. HAASE sheds lights on the gaps between education and the act of building, and concludes that by providing a hands-on studio approach, and by introducing more realistic problem parameters, students are better equipped to critically understand and overcome challenges they might confront in other traditional studios and their future careers.

The work of NOAM AUSTERLITZ and AVIGAIL SACHS capitalizes on the *Hidden Curriculum Concept* introduced to the design community by Thomas Dutton in the late eighties (DUTTON, 1987; 1991), a concept that refers to those unstated values that stem tacitly from the social relations of the studio. An important aspect of their argument is that the design studio setting should allow for informal learning to occur. Thus, it is not only a place for practicing architectural skills or developing habits but also the locus for inculcating students, with professional attitudes and values. The fact that design in any domain involves the process of vast amounts of information and that this information must be communicated between those who interface with the process of design is reflected on this work.

AUSTERLITZ and SACHS see communication as a key to three major issues: design as a social act, the importance of the everyday environment and the distribution of power in the architecture profession. In their studio experience, they introduced role-playing to reflect the needs and personalities of future inhabitants and of municipal design committee members, utilizing everyday knowledge and language that are not typically debated in the studio. The ideas introduced in this paper reveal that the intellectual fluency we impart to future architects and designers depends in large part on the efficiency and effectiveness of *Studio Linguistics* (WEBSTER, 2005). In essence, design pedagogy is not simply the imparting of knowledge and skills necessary for successful practice; it involves the development of values, cultural and philosophical positions. The incorporation of aspects underlying the hidden curriculum concept fosters this understanding.

MALIKA BOSE, ELIZA PENNYPACKER, and TOM YAHNER go beyond the critical analysis and descriptive cases as they conducted systematic investigation for measuring learning outcomes. Their observation is that the traditional master/apprentice model of studio instruction involves heavy reliance on faculty for decision-making. They contend that this traditional model promotes a studio environment that inhibits students thinking capabilities. It actually establishes

a dynamic that encourages students to look to the instructor for design ideas and wait for faculty approval before making design decisions; a ritual found in most studio teaching practices worldwide. Thus, they attempted to solve the tension between *Critical Thinking* and decision making dependency, and developed a teaching method termed "Independent Design Decision-Making." They argue, and rightly so, that by transferring the responsibility for design decisions from the instructor to the student, students could improve their critical thinking and gain confidence in their decision-making capacity.

In their paper Let's Play Design, GUITA FARI-VARSADRI and ÜSTÜN ALSAÇ argue that play and joy are embedded in design acts. Whether in their beginning or upper level studios, play is employed for design learning. This is based on a conscious interpretation of the literature with reference to the role of play and design games in cognitive development processes. Notably, the idea of introducing *Play and Gaming* in studio teaching goes back to the mid-seventies when Henry Sanoff introduced gaming techniques in his community design studios (SANOFF, 1978, 1984; 2003). In this context, it is essential to refer to games as simple constructs involving interaction among a group of people to reflect a *"Real Life Situation;"* they offer players an opportunity to interact with others, make decisions and act on those decisions. Good design games can help students understand how design issues interrelate, and how one decision leads to the next. Design games allow learning to occur under specific pedagogic orientation while developing the skill of thinking in contingent situations. Games can be designed to abstract the essential elements of a design situation, and they can be designed specifically to increase students' awareness of the range of options available to solve a particular design problem in a collaborative manner.

The papers of JOONGSUB KIM, TASOULLA HADIYANNI, and CARLOS BALSAS introduce *Action Research* as a driving force toward solving the needs of a particular community. This corresponds to the ideas generated in the paper of NISHA FERNANDO. However, each incorporates a different set of tools and techniques to accomplish that objective. KIM argues for the need to respond to the lack of diversity as an aspect that characterizes the traditional approach. Diversity in this respect is referred to in terms of the methods utilized in the studio and the targeted population. He argues for a social construction model based on *Multi-disciplinary Research* that encompasses four techniques utilized to address aspects that pertain to neighborhood revitalization. These are inversion that reflects the vision of the client, simulation that involves group discussion with users/client representatives, reciprocity that encompasses role-switching between expert partners and non-expert participants to counter conflict of values while building mutual understanding, and at the end, research in action that tests hypotheses while design decision making takes place. KIM asserts that by introducing this social construction model major responsibilities can be assigned to both students and community members and a sense of ownership among them is established.

HADJIYANNI sets a clear case for a *Research based Design Studio* to emphasize the need for students to understand *Cultural Diversity* in solving housing needs of immigrant communities. She argues that design pedagogy must respond to multiculturalism in order to prepare future professionals to practice in cross-cultural contexts. Her studio exposes students to the design process through the exploration of cultural differences in housing design. Thus, they used verbal narratives collected through focused interviews with members of the Hmong and Somali communities living in the Twin Cities metropolitan area to define true programmatic needs that are ultimately utilized in their designs. By focusing on the programming phase that integrates social science tools into design teaching, this work advances the debate on the development of pedagogies that respond to cultural differences while understanding the specific needs of under-represented communities. In this context, one would note similarities in the studio intentions of HADJIYANNI and FERNANDO.

The concerns of KIM and HADJIYANNI can be seen in the paper of BALSAS who draws comparisons between architecture and planning studios. He introduces a descriptive analysis of planning and architectural studios at the University of Arizona and the approaches utilized to address the needs of the Capitol Mall area in

Phoenix, a deteriorated urban area. The two studios were conducted simultaneously and addressed the needs of the area where planning students were to develop a revitalization plan and architecture students were to establish specific programs and projects of urban design and architecture. Such a mechanism raises the crucial interface of architecture and planning as two different but related disciplines. They - in academe and in practice-exist in a contrast dichotomy and have historically experienced competitive and juxtaposition-al relationships. Thus, an important finding in this work is that *Interdisciplinary Studios* can benefit from different methodologies, while the community can benefit from different studio outcomes.

Advances in computers and telecommunication technologies are offering opportunities for reconfiguring the face of studio pedagogy. They can invigorate learning to take place on a global scale, with students and faculty reaching across the boundaries of geography, culture, and their own studio environment. The work of RABEE REFFAT, JEFF HOU and MIN-JAY KANG, and JAMAL AL QAWASMI addresses the nature of change in studio settings based on the incorporation of *Digital and Virtual Design Practices*. However, while AL QAWASMI introduces an argument based on literature reviews on the impact of computers and information technology on design studio Teaching, REFFAT, and HOU and KANG analytically describe actual cases of *Virtual Design Studios.* AL QAWASMI investigates the pedagogical shifts resulting from integrating digital media into studio instruction by examining a number of aspects in paperless and virtual design studios including resources, processes, settings, review mechanisms, and the emerging role of studio instructors.

REFEAT proposes a concise studio teaching model- implemented at the University of Sydney-that allows for collaborative learning to occur through four major phases; inhabiting, designing, constructing, and evaluating - IDCE that really simulate real life conditions. He analytically outlines the application, benefits, and constraints of implementing this model. In terms of benefits, REFFAT states that it has favorably impacted students' motivation for active, creative and explorative learning, social dynamics between studio participants, and that it

enhanced learning electronic communication, collaborative techniques and etiquette in addition to design technology. As a commitment for further development of this model, and although it sets the stage for a collaborative learning environment amenable to shared responsibility, persistence and sensitivity, he sheds light on the drawbacks of the virtual environment platform, which hindered establishing a design environment responsive to users' needs.

In the work of HOU and KANG cultural diversity is emphasized in a sense that differs from the arguments of HADJIYANNI and KIM. Unlike mainstream discussions on virtual design studios that focus primarily on technical and operational aspects, their work examines social and cultural dimensions of virtual studios and the implications they may have on design pedagogy.
They argue that through dialogues, collaboration, and negotiation of cultural, contextual and methodological differences, collaborative virtual design studio offers an alternative to traditional design studio. Such an argument is introduced based on a case study that places emphasis on their experience of the UW-Tamkang studio, which provides an example in which dialogic learning and negotiation of cultural, spatial and methodological differences contribute to a critical and diverse learning environment.

The papers introduced in this issue convey that teaching architectural design means different things to different instructors and that each teaches according to his/her own set of ideologies and beliefs and in a manner that is distinct from others. Thus, there is a tremendous diversity of contents, approaches, methods, and even in expressions and reflection on the same set of ideas. However, on one hand, experiential learning appears to be a common key issue across the board with different interpretations. This goes along the line of thought of several eminent education theorists including Benjamin Bloom; David Kolb; Jean Piaget; John Dewey; and Paulo Freire who voiced the opinion that experience should be an integral component of any teaching/learning process. In design pedagogy, one should note the work of Teymur and Sanoff who introduced a spectrum of techniques that incorporate experiential learning components in studio pedagogy (SANOFF 2000; TEYMUR, 1996). Their work can be traced back to the famous dic-

tum of Confucius around 450 BC "*Tell me and I will forget. Show me and I may remember. Involve me and I will understand.*" Experiential learning refers to learning in which the learner is directly in touch with the realities being studied. It is contrasted with learning in which the learner only reads about, hears about, talks about, writes about these realities but never comes in contact with as part of the learning process. On the other hand, there are a number of common concepts or key issues found in one or more arguments, which relate to experiential learning. These are learning from the environment; learning from practice; critical thinking; the hidden curriculum concept; play and design games; real life situations; action research; multi-disciplinary research; and cultural diversity, A number of studio types accommodate one or more of these concepts or issues namely, design-build studio; research-based design studio; joint studio; and virtual design studio.

The debates in the papers of those committed scholars and educators assert that the mission of a school of architecture or a design program should foster an environment that nurtures exploration and critical thinking. Today, inquiry and investigation are viewed as activities central to studio pedagogy. The papers advocate the integration of research into teaching by arguing for the exposure of students to primary source materials that enable them to get as close as possible to the realities being studied. While some colleagues may argue that the concerns generated in this issue of OHI are not new, I would argue that the level of concern is intensive and the flood of issues, ideas, and outcomes is crested at an alarmingly high level. Most important is not the quantity but the focus of this round of debate; an emphasis on issues central to our own mission as design educators that simply involves the development of design skills and critical thinking abilities through active learning. These papers present new opportunities for us as educators to strengthen our studio environment, to enhance our role in shaping design education, and to improve the quality of that education.

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Author's Address:
Dr. Ashraf Salama,
Associate Professor of Architecture
College of Environmental Design,
King Fahd University of Petroleum &
Minerals - KFUPM
Dhahran, Saudi Arabia
E-mail: asalama@gmail.com