

Computing in Architecture

Re-Thinking the Discourse

**The Second International Conference of the
Arab Society for Computer Aided Architectural Design
(ASCAAD 2006)**

Editors

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Zaki Mallasi

**Sharjah, United Arab Emirates
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[Say: "Are those equal, those who know and those who do not know? It is those who are endued with understanding that receive admonition]. [Al-Zomor, 39, Verse 9, The Holy Qura'n]

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Editors' Preface

The influence of computing and information technology on architectural design education and practice is increasingly evident. Architectural design, practice, fabrication and construction are increasingly aided by and dependent on computing and digital technology. Digital technology has reconditioned the design process and how we operate as architects, and established new processes and techniques of fabrication. New computerized studios such as the paperless studio and the virtual design studio have been introduced in many architectural schools as new ways of practicing and teaching architectural design.

In the last decade or so, there is a continuous demand to deliver new skills in digital media and to rethink architectural design education and practice in the light of the new developments in digital technology. The proliferation of computers and telecomputing in design education and practice has resulted in a major paradigm shift and a reorientation in theoretical and conceptual assumptions considered to be central to traditional paradigm(s) of designing, practicing, and producing architecture.

The pervasiveness in the use of digital technology in architecture has given rise to a discourse and debate on the relationship between computing, digital technology and architecture. Topics in the debate are continuously changing in light of developments in the use of the digital technology. Current debates are focusing on a wide range of related issues among which virtualization of design education, digital design methods and pedagogies, future architecture with digital design, web-based design, computer-mediated collaborative design, virtual reality and design, virtual design studio, paperless studio, digital studio, design support environments, digital thinking, digital practice, digital production/fabrication, and digital visualization. Despite the extensive literature on the subject, the impact of digital technology on how we design, practice, teach, fabricate and produce architecture has not been sufficiently examined. Furthermore, architectural discourse is still dominated by the prevailing traditional analogue paradigm which puts great constraints on our understanding of recent developments in teaching, designing and practicing design.

Our goal in formulating the Call for Papers was to encourage discussion of these and other issues. The theme of the 2006 conference is "Computing in Architecture: Re-Thinking the Discourse". This captures the role of the conference as a forum to debate and reconsider current understandings of the way we design, practice, and produce architecture. The conference aimed to provide the participants an occasion to share and exchange experiences and research findings, and to stimulate more ideas and useful insights regarding how computing and digital media affects the design, production and evaluation of the built environment. More than eighty people from a diverse

community of researchers responded with abstracts, and sixty nine authors submitted papers for blind review. The thirty papers selected for presentation at this conference have the potential to broaden our knowledge and understanding of how digital technology is developing and applied to architectural education and practice. The papers are organized in the book under six sections or categories that correspond and match the sessions in the conference program. The sections are: digital design education, computer applications and future architecture, theory and critical evaluation, conceptual design and digital design process, digital visualization and reconstruction, environmental quality modelling and evaluation