

ŞULE TAŞLI PEKTAŞ

Department of Architecture
Faculty of Art Design and Architecture
06800 Bilkent, Ankara, Turkey
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ACADEMIC DEGREES

Assoc. Prof. in Architecture, Inter-University Council, 2009

Ph.D. in Art, Design and Architecture, Bilkent University, 2003.

M.F.A. Department of Interior Architecture and Environmental Design, Bilkent University, 1999.

B.Arch. (Honours) Middle East Technical University, 1997.

EMPLOYMENT

Assistant Professor, Bilkent University, 2010 – Present.

Visiting Scholar, Cambridge Engineering Design Centre, Department of Engineering, University of Cambridge, UK, 2009, 2010

Instructor, Department of Interior Architecture and Environmental Design, Bilkent University, 2001 – 2010.

Teaching Assistant, Department of Interior Architecture and Environmental Design, Bilkent University, 1997 – 2001.

RESEARCH INTERESTS

Human-Computer Interaction in Computer Aided Architectural Design (CAAD)

Understanding and Modelling Design Processes

AWARDS/HONOURS

Visiting Fellowship, Cambridge Engineering Design Centre, University of Cambridge 2010

International Post-doctoral Research Grant, The Scientific and Technological Research Council of Turkey (TÜBİTAK 2219) 2009

Visiting Fellowship, Cambridge Engineering Design Centre, University of Cambridge 2009

Faculty Research Development Grant, Bilkent University 2006, 2009, 2010 (three times)

Scholarship and grant for Ph.D. Studies, Bilkent University 1999 – 2003

Scholarship and grant for M.F.A. Studies, Bilkent University 1997 – 1999

Award for outstanding academic achievements, MNG Group of Companies 1995 – 1997

Award for outstanding academic achievements, METU Development Foundation 1992 – 1995

Scholarship and grant for high school education, Adana Fen Lisesi, Ministry of Education 1989 – 1992

EDITORIAL BOARD MEMBERSHIPS

Editorial Board Member, **International Journal of Technology and Design Education**, (ISI Science Citation Index), Springer, 2017 – Present

Editorial Board Member, The Journal of Information Technology in Construction (ITcon), (DOAJ, ICONDA, ITC Digital Library), Open Access Journal, 2009 – Present

Editorial Board Member, **Open House International**, (ISI Social Sciences Citation Index, Arts and Humanities Citation Index), The Urban International Press, 2007 – Present

Guest Editor, Arkitekt, Special Issue, Designing the Future: Reflections of the Developments in Computer Aided Design on Education, No: 518 – 519, 2008

EXTERNAL REVIEWER/CONSULTANT FOR INSTITUTIONS

Panellist / Expert Reviewer for the Scientific and Technological Research Council of Turkey (TÜBİTAK) Support Programs (1001, 2219, 2214, etc.), 2009 – Present

External Reviewer for Research Grant Application, Israel Science Foundation (ISF), 2013

External Reviewer for Research Grant Application, FCT - Fundação para a Ciência e a Tecnologia (The National Research Funding Agency of Portugal), 2012

SCIENTIFIC MEETING COMMITTEE MEMBERSHIPS

Scientific Committee Member, the 35th International Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe 2017), September 20-22, 2017, Rome, Italy

Scientific Committee Member, the 11th Computational Design in Architecture National Symposium, (in Turkish), June 14-15, 2017, Ankara, Turkey

Scientific Committee Member, the 10th Computational Design in Architecture National Symposium, (in Turkish), June 27-28, 2016, İstanbul, Turkey

Scientific Committee Member, the 9th Computational Design in Architecture National Symposium, (in Turkish), June 25-26, 2015, İstanbul, Turkey

Scientific Committee Member, the 16th CAAD Futures Conference, July 6-10, 2015, Sao Paulo, Brazil

Scientific Committee Member, the 15th CAAD Futures Conference, July 3-5, 2013, Shanghai, China

Scientific Committee Member, the 31st International Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe 2013), September 18-20, 2013, Delft, Netherlands

Scientific Committee Member, the 30th International Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe 2012), September 12-14, 2012, Prague, Czech Republic

Head of the Organization Committee of the Symposium entitled "Designing the Future: Reflections of the Developments in Computer Aided Design on Education" held in Bilkent University, Ankara, 16 May 2008

INVITED REFEREEING FOR CONFERENCES WITHOUT SCIENTIFIC COMMITTEE MEMBERSHIPS

The 7th International Conference on Cooperative Design, Visualization and Engineering (CDVE2010), September 19-22, 2010, Mallorca, Spain

The 12th International DSM Conference: Managing Complexity by Modelling Dependencies, July 22-23, 2010, Cambridge, UK

The 5th International Conference on Cooperative Design, Visualization and Engineering (CDVE2008), September 21-25, 2008, Mallorca, Spain

REFEREEING FOR JOURNALS

International Journal of Technology and Design Education (reviews regularly as an editorial board member)

Open House International (reviews regularly as an editorial board member)

The Journal of Information Technology in Construction (ITcon) (reviews regularly as an editorial board member)

Internet and Higher Education, 2016 – Present

METU Journal of the Faculty of Architecture, 2015 – Present

Eurasian Journal of Educational Research, 2012 – Present

Mimarlik (The official journal of the Turkish Chamber of Architects), 2011 – Present

Arkitekt, 2008 – Present

Design Studies, 2007 – Present

Hong Kong Institute of Engineers Transactions, 2007 – Present

MEMBERSHIP

Turkish Chamber of Architects

Education and Research in Computer Aided Architectural Design in Europe (ECAADE)

CodeNetwork (The National Network of Computational Design in Architecture)

IEEE International Forum of Educational Technology and Society

INVITED LECTURES AND TALKS

An Inquiry into the Individual Differences of Learners in Architectural Education: Cognitive Styles and Performance in Digital Design Media, Public Lecture, January 26, 2011, Middle East Technical University, Ankara.

A Parametric Approach to Process Modelling in Building Design with the P3 Signposting Platform: The Case of Elevator Design, Buildings Ahoy Symposium, June 11, 2010, Kadir Has University, Istanbul. (In Turkish)

Structure and Design, Seminar, July 18, 2006, Bilkent University, Ankara.

Designing a Web Page with Microsoft FrontPage, Seminar, December 21, 2006, Bilkent University, Ankara.

An Information Flow Model for Collaborative Building Design Using the Design Structure Matrix, Public Lecture, February 25, 2003, Bilkent University, Ankara.

Use of Computers in Architectural Education, CAD in Architecture Symposium, Panel Discussion, November 23, 2001, Turkish Chamber of Architects, Ankara. (In Turkish)

ARTISTIC EXHIBITS OR PERFORMANCES

Parametric Sk[in] Light: Parametric Design Studio Exhibition, April 27 – 28 2017, FADA Exhibition Hall (Curator)

Ankara Design Week Exhibition of Bilkent University IAED Senior Students, November 11 – 19 2011, Çankaya Çağdaş Sanatlar Merkezi (Curator)

Graduation Exhibition of Bilkent University IAED Senior Students, June 2012, FADA Exhibition Hall (Curator)

Graduation Exhibition of Bilkent University IAED Senior Students, June 2011, FADA Exhibition Hall (Curator)

TEACHING

ARCH 317 Parametric Design Studio

ADA 134 Designing with Digital Media

ARCH 201 Architectural Design Studio I

ARCH 202 Architectural Design Studio II

ARCH 301 Architectural Design Studio III

ARCH 302 Architectural Design Studio IV

FA 101 Basic Design I

FA 102 Basic Design II

IAED 112 Computers and Geometry

IAED 201 Interior Design Studio I

IAED 202 Interior Design Studio II

IAED 251 Construction and Materials I

IAED 252 Construction and Materials II

IAED 301 Interior Design Studio III

IAED 302 Interior Design Studio IV

IAED 401 Interior Design Studio V

IAED 402 Interior Design Studio VI

GRADUATE STUDENT SUPERVISION

Adel Gürel, "Parametric Design Processes of Expert and Novice Users", 9/2016 – Present

Çetin Tünger, "Comparing Design Processes in Traditional Geometry-based and Parametric 3D Modelling Environments", 9/2012 – 7/2014

SCHOLARLY PUBLICATIONS

Ph.D. DISSERTATION

"Representing Information Flow in Building Design Process Using the Parameter-based Design Structure Matrix," Ph.D. Thesis, 2003, Prof. Dr. Mustafa Pultar (Chair), Bilkent University.

CHAPTERS IN BOOKS

Pektaş, Ş. T. "Elevator Design Process" in **Design Structure Matrix: Methods and Applications**, (Edited by S. Eppinger and T. Browning), pp. 222-226, Cambridge MA: The MIT Press, 2012.

Pektaş, Ş. T. "Interpreting the Collaboration between Architects and Structural Engineers as Superposition of Discipline-specific Dependencies" in **Buildings Ahoy: A Festschrift in Honor of Mustafa Pultar**, (Edited by G. Pultar), pp. 129-139, Istanbul: Tetragon, 2010.

Pektaş, Ş. T. "A Framework for Building Design Process Modeling with Parameter-based Design Structure Matrices" in **Innovative Developments in Architecture, Engineering, and Construction**, (Edited by C. Anumba), pp. 25-31, Rotterdam: MillPress, 2003.

ARTICLES IN REFEREED JOURNALS

Pektaş, Ş. T. "The Virtual Design Studio on the Cloud: A Blended and Distributed Approach for Technology-mediated Design Education", **Architectural Science Review**, Vol. 58, No. 3, 2015, pp. 255-265. (Arts & Humanities Citation Index)

Pektaş, Ş. T., Aybar, N. Ş., Savut, N. Y. & McKinnon, W. H. "Integrating Green Building Approaches to Interior Architecture Education: A Comparative Study", **Open House**

International, Vol. 40, No. 3, 2015, pp. 24-31. (Social Sciences Citation Index, Arts & Humanities Citation Index)

Pektaş, Ş. T. & Gürel, M. Ö. "Blended Learning in Design Education: An Analysis of Students' Experiences within the Disciplinary Differences Framework", **Australasian Journal of Educational Technology**, Vol. 30, No. 1, 2014, pp. 31-44. (Social Sciences Citation Index)

Pektaş, Ş. T. "The Layered Dependency Structure Matrix for Managing Collaborative Design Processes", **Open House International**, Vol. 39, No. 1, 2014, pp. 26-35. (Social Sciences Citation Index, Arts & Humanities Citation Index)

Pektaş, Ş. T. & Özgüç, B. "Virtual Prototyping for Open Building Design", **Open House International**, Vol. 36, No. 4, 2011, pp. 46-56. (Social Sciences Citation Index, Arts & Humanities Citation Index)

Pektaş, Ş. T. & Demirkan, H. "Experiences with MOODLE as a Communication Tool for Design Teamwork: A Users' Perspective", **METU Journal of the Faculty of Architecture**, Vol. 28 No. 2, 2011, pp. 227-241. (Arts & Humanities Citation Index)

Pektaş, Ş. T. "Effects of Cognitive Styles on 2D Drafting and Design Performance in Digital Media", **International Journal of Technology and Design Education**, Vol. 20, No. 1, 2010, pp. 63-76. (Science Citation Index)

Pektaş, Ş. T. "Building Information Modelling Applications in Architecture", **Mimarlık**, No. 346, 2009, pp. 81-84. (Avery Index to Architectural Periodicals) (In Turkish)

Pektaş, Ş. T. & Demirbaş, O. O. "Computer Attitudes, Learning Styles and Computer Experiences of Interior Architecture Undergraduates", **Arkitekt**, No. 518, 2008, pp. 32-41.

Pektaş, Ş. T. "Designing the Future: Reflections of the Developments in Computer Aided Design on Education", **Arkitekt**, Editorial, No. 518, 2008, pp. 14-15.

Pektaş, Ş. T. "Architectural Education in the "Computer-aided" Wonderland", **Arkitekt**, No. 515, 2008, pp. 42-48. (In Turkish)

Karakaya, A. F. & Pektaş, Ş. T. "A Framework for Web-Based Education Systems Supporting Interdisciplinary Design Collaboration", **METU Journal of the Faculty of Architecture**, Vol. 24 No. 2, 2007, pp. 137-148. (Arts & Humanities Citation Index)

Pektaş, Ş. T. "A Structured Analysis of CAAD Education", **Open House International**, Vol. 32, No. 2, 2007, pp. 46-54. (Social Sciences Citation Index, Arts & Humanities Citation Index)

Pektaş, Ş. T. & Pultar, M. "Modelling Detailed Information Flows in Building Design with the Parameter-based Design Structure Matrix", **Design Studies**, Vol. 27, No. 1, 2006, pp. 99-122. (Science Citation Index)

Pektaş, Ş. T. & Erkip, F. "Attitudes of Design Students toward Computer Usage in Design", **International Journal of Technology and Design Education**, Vol. 16, No. 1, 2006, pp. 79-95. (Science Citation Index)

Taşlı, Ş. & Sagun, A. "Proposals for Creative Uses of Computer Graphics in Architectural Design", **Digital Creativity**, Vol. 13, No. 3, 2002, pp. 189-192. (Arts & Humanities Citation Index)

Taşlı, Ş. & Özgüç, B. "Dynamic Simulation in Virtual Environments as an Evaluation Tool for Architectural Design", **Architectural Science Review**, Vol. 44, No. 2, 2001, pp. 139-144. (Arts & Humanities Citation Index)

ARTICLES IN NON-REFEREED JOURNALS

Taşlı, Ş. "A Novel Approach to Building and Cityscape Drawings: The Miniatures of Matrakci Nasuh", Türkiyede Sanat: Plastik Sanatlar Dergisi, Vol. 48, 2001, pp. 30-33. (In Turkish)

PUBLICATIONS IN PROGRESS

Tünger, Ç. & Pektaş, Ş. T. "Comparing Designers' Cognitive Behaviors in Geometry-based and Parametric 3D Modeling Environments" Article in progress

REFEREED PROCEEDINGS

Tünger, Ç. & Pektaş, Ş. T. "The Use of Design Patterns in Parametric Design Processes," in the Proceedings of the 11th Computational Design in Architecture National Symposium, (in Turkish), June 14-15, 2017, Ankara, Turkey (accepted for publication)

Tünger, Ç. & Pektaş, Ş. T. "Comparing Cognitive Aspects of Traditional and Parametric Modeling Environments," in the Proceedings of the 10th Computational Design in Architecture National Symposium. Istanbul, Turkey, 2016, pp. 300-307. (In Turkish)

Tünger, Ç. & Pektaş, Ş. T. "A Phenomenographic Analysis of Design Students' Experiences with the Traditional and Parametric 3D Modeling Environments," in the Proceedings of the 8th Computational Design in Architecture National Symposium. Izmir, Turkey, 2014, pp. 153-162. (In Turkish)

Pektaş, Ş. T. "Correlations between the Visualizer/Imager Cognitive Style and Achievement in Digital Modeling Tasks", 5th World Conference on Educational Sciences. Rome, Italy, 2013, Procedia Social and Behavioral Sciences, Vol. 116, 2014, pp. 5053–5057. (ISI Proceedings Citation Index)

Pektaş, Ş. T. "The Blended Studio: An Appraisal of New Delivery Modes in Design Education", World Conference on Design, Art and Education 2012 Conference. Antalya, Turkey, Procedia Social and Behavioral Sciences, Vol. 51, 2012, pp. 692-697. (ISI Proceedings Citation Index)

Pektaş, Ş. T. "Virtual Design Studio Revisited: A Blended Approach for the Digital Natives" in the Proceedings of the Education and Research in Computer Aided Architectural Design in Europe (ECAADE) 2012 Conference. Prague, Czech Republic, 2012, pp. 69-75. (ISI Proceedings Citation Index)

Pektaş, Ş. T. "The Complementary Use of the Parameter-based Design Structure Matrix and the IFC Process Models for Integration in the Construction Industry" in the Proceedings of the 12th International Dependency Structure Modelling (DSM) Conference: Managing Complexity by Modelling Dependencies. Cambridge, UK, 2010, pp. 389-402. (ISI Proceedings Citation Index)

Pektaş, Ş. T. "Cognitive Styles and Performance in Traditional Versus Digital Design Media" in the Proceedings of the Education and Research in Computer Aided Architectural Design in Europe (ECAADE) 2009 Conference. Istanbul, Turkey, 2009, pp. 769-772. (ISI Proceedings Citation Index)

Pektaş, Ş. T. "Effects of Cognitive Styles on Performance in Computer Aided Design and Drafting Processes" in the Proceedings of the Education and Research in Computer Aided Architectural Design in Europe (ECAADE) 2007 Conference. Frankfurt/Wiesbaden, Germany, 2007, pp. 177-183.

Pektaş, Ş. T. "Lean Design Discourse: Searching for Structure and Eliminating Waste in Design" in the Proceedings of the European Academy of Design 2007 Conference (EAD07). Izmir, Turkey, 2007, pp. 421-427.

Pektaş, Ş. T. "Studying Correlates of Design Students' Computer Attitudes" in the Proceedings of the 1st International CIB Postgraduate Conference on Built Environment and Information Technologies. Ankara, Turkey: METU, 2006, pp. 1-13.

Pektaş, Ş. T. "Process Integration in Building Design Using the Parameter-based Design Structure Matrix" in E-Activities and Intelligent Support in Design and the Built Environment: Proceedings of the 9th Europa International Conference. Paris, France: Europa Productions, 2003, pp. 63-72.

Pektaş, Ş. T. "A Framework for Building Design Process Modeling with Parameter-based Design Structure Matrices" in Innovative Developments in Architecture, Engineering, and Construction: The Proceedings of the 2nd International Conference on Innovation in Architecture, Engineering and Construction, Loughborough, UK, Rotterdam: MillPress, 2003. pp. 25-31. (ISI Proceedings Citation Index)

Taşlı, Ş. "What does Computer Aided Design Offer for Producing Livable Buildings in the 21st Century?" in Proceedings of the Livable Environments and Architecture International Congress (LIVENARCH 2001). Trabzon, Turkey: KTU, 2001, pp. 278-282.

Taşlı, Ş. "Bridging the Gap between Theory and Practice in Architectural Education: The Case of CAAD Teaching" in Re-integrating Theory and Design in Architectural Education: Proceedings of the 19th European Association for Architectural Education (EAAE) International Conference. Leuven, Belgium: EAAE, 2001, pp. 203-209.

PUBLISHED CONFERENCE ABSTRACTS

Pektaş, Ş. T. & Demirkan, H., “Experiences with MOODLE as a Communication Tool for Design Teamwork: A Users’ Perspective”, Computational Design in Architecture Symposium, In Extended Abstracts Book of Computational Design in Architecture Symposium, Yıldız Technical University, Istanbul, 2010, pp. 55-58. (In Turkish)

REFEREED CONFERENCE PRESENTATIONS WITHOUT PROCEEDINGS

Pektaş, Ş. T. & Demirbaş, O., “Computer Attitudes, Learning Styles and Computer Experiences of Interior Architecture Undergraduates”, Designing the Future: Reflections of the Developments in Computer Aided Design on Education Symposium, May 16, 2008, Bilkent University, Ankara. (In Turkish)

Karakaya, A. F. & Pektaş, Ş. T., “A Framework for the Use of Web-Based Systems for Teaching Interdisciplinary Collaboration in Design”, Computer Aided Design in Architectural Education: Integrated Approaches Symposium, March 23, 2007, Middle East Technical University, Ankara. (In Turkish)

TOTAL NUMBER OF CITATIONS (LISTED IN ISI CITATION INDICES) TO PUBLICATIONS

Total number of citations: 88

Citations by others: 60

h-index: 5

RESEARCH PROJECTS

“Utilization of the Parameter-based Design Structure Matrix as an Integration Tool in Design Process Modelling”, The Scientific and Technological Research Council of Turkey (TÜBİTAK 2219), 2009 – 2010

“Design Students’ Cognitive Styles and Performance in Several Stages of Computer Aided Design Processes”, Bilkent University Faculty Research Development Grant Project, 2006 – 2007

SERVICE AT BILKENT UNIVERSITY

Faculty Search Committee Member, The Department of Architecture, 2015 – Present

Summer Internship Program Coordinator, The Department of Architecture, 2014 – Present

Graduate Program Admissions Committee Member, The Department of Architecture, 2014 – Present

Building Technology, Materials and Fabrication Lab Establishment Committee Member, The Department of Architecture, 2014 – 2015

Curriculum Development and Accreditation Committee Member, The Department of Architecture, 2014 – Present

Bilkent University Publicity Events, 2014 – Present

Disciplinary Committee Member, The Department of Architecture, 2014 – Present

ADA 134: Designing with Digital Media, Course Coordinator, The Faculty of Art, Design and Architecture, 2012 – Present

FA 101: Basic Design I, Course Coordinator, The Faculty of Art, Design and Architecture, Spring 2016

Arch 202: Architectural Design Studio II, Course Coordinator, The Department of Architecture, Spring 2015

Graduate Program Admissions Committee Member, The Department of Interior Architecture and Environmental Design, 2010 – 2014

PhD Qualifying Exam Committee Member, The Department of Interior Architecture and Environmental Design, 2013 – 2014

IAED 401 – IAED 402 Design Studios Coordinator, The Department of Interior Architecture and Environmental Design, 2010 – 2012

Coordinator of the International Online Senior Design Studio in collaboration with East Carolina University, Department of Interior Design, the U.S. and Bilkent University, Turkey, 2011

Marshal, Bilkent University graduation ceremony, Department of Interior Architecture and Environmental Design, 2011, 2012 (two times)

Faculty representative at the Quality of Life at Bilkent Focus Group, 2012

Design Studio Curriculum Improvement Committee Member, The Department of Interior Architecture and Environmental Design, Bilkent University, 2010-2014

Disciplinary Committee Member, The Department of Interior Architecture and Environmental Design, 2004 – 2014

IAED 212: Computers and Geometry, Course Coordinator, The Department of Interior Architecture and Environmental Design, 2001 – 2012

Designed and maintained the official Web pages of the Department of Interior Architecture and Environmental Design, 1998 – 2007