

# LOUKAS NICKOLAS KALISPERIS

Curriculum Vitae

lnk@psu.edu

## EDUCATION

- 1988 **Ph.D. in Architectural Design and Data Systems**  
Interdisciplinary Doctoral Program  
The Pennsylvania State University - University Park, Pennsylvania  
Dissertation Title: *A Conceptual Framework for Computing in Architectural Design*
- 1985 **Master of Science in Architectural Engineering, Environmental / Solar Option**  
The Pennsylvania State University - University Park, Pennsylvania  
Thesis Title: *Design Patterns for Mean Radiant Temperature Prediction*
- 1983 **Bachelor of Science in Architecture**  
New York Institute of Technology - Old Westbury, New York
- 1979 **G.C.E. in Advanced Physics and Applied Mathematics**  
College of Arts and Technology - Newcastle upon Tyne, United Kingdom

## TEACHING

- 2007-present **Professor** - CSTRC  
The Cyprus Institute, Nicosia, Cyprus
- 2001-present **Professor** - Department of Architecture  
College of Arts & Architecture - The Pennsylvania State University
- 1992 - 2000 **Associate Professor** - Department of Architecture  
College of Arts & Architecture - The Pennsylvania State University
- 1989 - 1992 **Assistant Professor** - Department of Architecture  
College of Arts & Architecture - The Pennsylvania State University
- 1985 - 1988 **Instructor** - Department of Architecture  
College of Arts & Architecture - The Pennsylvania State University
- summer 1993 **Visiting Professor** - Department of Architecture  
University of Monterrey, Monterrey, Mexico
- 1997-present **Visiting Professor** - Graduate Program in CAD, Department of Architecture  
University of Brazilia, Brazil (occasional Visiting Professor)
- summer 1995  
1997-present **Visiting Professor** - Doctoral Program, Department of Architecture  
University of Sao Paolo, Brazil (occasional Visiting Professor)
- 1998-present **Visiting Professor** - Graduate Program, Department of Architecture  
National Technical University of Athens, Greece, (occasional Visiting Professor)

## RESEARCH & ADMINISTRATION

- 2008 - present **Faculty Fellow** - NCSA, University of Illinois at Urbana-Champaign
- 2005 - present **Visiting Program Director**- Life Long Learning, EPEAEK,  
Ministry of Education, Hellenic Republic
- 1995 - present **Senior Research Scholar**- Visualization Group  
Center for Academic Computing - The Pennsylvania State University
- 2004 - present **Graduate Program Chair**  
Department of Architecture - The Pennsylvania State University
- 2003 - present **Co-Director - Immersive Environments Laboratory**  
Department of Architecture and Information Technology Services - The Pennsylvania State University
- 1994 - 1999 **Director** - Stuckeman CAD Laboratory  
Department of Architecture - The Pennsylvania State University
- 1991 - 1998 **Associate Director** - Special Individualized Interdisciplinary Doctoral Programs  
The Graduate School - The Pennsylvania State University

## PROFESSIONAL

- Registered Architect**  
Greece, Registration #57633
- 1991 - present **Co-Principal** - ErgoTechnica, Architects  
Part Time - Athens, Greece
- 1983 - 1989 **CAD Consultant** - Omeros Architects  
Summer Employment - Athens, Greece
- 1987 - 1998 **Design/Research Consultant** - CDA International, Architects/Engineers  
Part Time - State College, PA

## H O N O R S

- 2008 **NCSA Faculty Fellow**, University of Illinois, Urbana-Champaign
- 2005 **President's Award for Excellence in Academic Integration**  
The Pennsylvania State University, University Park, Pennsylvania
- 2000 **Apple Distinguished Educator**  
Apple Inc, Cupertino, California
- 1996 **Bodossaki Foundation Academic and Cultural Prize Finalist**  
Bodossaki Foundation - Athens, Greece
- 1988 **Graduate Student Research Competition / Exhibition** - First Place  
Faculty Advisor - The Pennsylvania State University, The Graduate School - University Park, PA
- 1986 **ACSA/GM International Interdisciplinary Design/Research Competition** - Second Place  
Faculty Advisor - 21<sup>ST</sup> Century Manufacturing Facility, Washington, DC

## BOOKS /CHAPTERS

- 1991 Kalisperis, L. N., Summers, L. H., and Steinman, M. "**A Human Thermal Response Design Model for Non orthogonal Spaces,**" in *Performance Measurement Applications*, Y. E. Kalay, (ed.), pp. 271-283, New York: John Wiley & Sons, 1991
- 1992 Kalisperis, L. N., contributor, Chapter 15, in *ASHRAE 1992 - Systems & Applications Handbook*, ASHRAE, Atlanta: ASHRAE Publications, 1992.
- 1995 Kalisperis, L. N., and Kolarevic B., *Computing in Design: Sharing, Capturing, and Enabling Ideas*, ACADIA Press, Seattle: Washington, 1995
- 1999 James, A., and Kalisperis, L. N. "**Use of House and Space,**" in *Houses: The Material Dimension of Europe*, D. Birdwell-Pheasant and D. Lawrence-Zuniga (eds.), Oxford: Berg Press, 1999
- 2008 Ioannidis, M., Addison, A., Georgakopoulos, A., and Kalisperis, L., **Virtual Systems and Multimedia on Cultural Heritage**, Budapest, Hungary: Archaeolingua, 2008
- 2008 Kalisperis, L. "*An Introduction to Digital Cultural Heritage*" in **VSMM 08 - Cultural Heritage**, The Cyprus Institute: Nicosia, Cyprus, 2008

## P A P E R S

- 1985 Kalisperis, L. N. and Summers, L. H., "**Comfort Design Patterns for Optimal Combination of Surface Temperatures,**" *American Solar Energy Association, Passive 1985*, pp. 389-394, Raleigh, NC, October 1985
- 1985 Summers L. H. and Kalisperis, L. N., "**MRT33GRAPH - A CAD Program for the Design Evaluation of Thermal Comfort Conditions,**" *American Solar Energy Association, Passive 1985*, Raleigh, NC, October 1985

- 1985 Kalisperis, L. N., Alphin, T. L., and Summers, L. H., "**123-SLR-GRAPHICS, An Easy to Use Spreadsheet Makes the Monthly SLR Method Accessible to All,**" *American Solar Energy Association, Passive 1985*, Raleigh, NC, October 1985
- 1987 Kalisperis, L. N., Bandini, P. L., and Haider, J. "**ACSA/GM Interdisciplinary Design/Research Competition: The Pennsylvania State University,**" *ACSA/GM*, pp. 19-24, Washington, DC, 1987
- 1988 Kalisperis, L. N., Summers, L. H., and Steinman, M., "**Angle Factor Determination from a Person to Inclined Surfaces,**" in *ASHRAE Transactions*, Vol. 94, Pt. 1, pp. 1809-1823, Dallas, 1988
- 1989 Steinman, M., Kalisperis, L. N., and Summers, L. H. "**The MRT Correction Method - A New Method for Radiant Heat Exchange,**" in *ASHRAE Transactions*, Vol. 96, Pt. 1, pp. 1015-1028, Chicago, 1989
- 1989 Kalisperis, L. N., Olesen, B. W., Summers, L. H., and Steinman, M., "**Methods for Measuring and Evaluating Thermal Radiation in a Room,**" in *ASHRAE Transactions*, Vol. 96, Pt. 1, pp. 1029-1044, Chicago, 1989
- 1990 Kalisperis, L. N., Summers, L. H., and Steinman, M., "**Automated Design of Radiant Heating Systems based on Thermal Comfort,**" in *ASHRAE Transactions*, Vol. 96, Pt. 1, pp. 1288-1295, January 1990
- 1990 Kalisperis, L. N., Summers, L. H., and Steinman, M., "**Human Thermal Comfort Design Method for Indoor Climate,**" in *15<sup>th</sup> National Passive Solar Conference Proceedings*, pp. 360-372, Austin, TX, March 1990
- 1990 Summers, L. H., Kalisperis, L. N., and Steinman, M., "**A Human Thermal Response Design Model for Non orthogonal Spaces,**" in *3<sup>rd</sup> International SUNY Buffalo CAD Symposium Proceedings*, pp. 219-232, Buffalo, March 1990
- 1991 Kalisperis, L. N., Summers, L. H., and Steinman, M. "**Angle Factor Graphs for a Person to Inclined Surfaces,**" *ASHRAE Transactions*, Vol. 100, Pt. 1, June 1991
- 1991 Kalisperis, L. N. and Summers, L. H. "**An Energy Evaluative Comparison of a Thermal Comfort Design Model,**" *Building Simulation '91*, Nice, France, pp. 611-618, August 1991
- 1991 Kalisperis, L. N., Hosny, S., and Sanvido, V. "**A Framework for an Integrated Computer Aided Architectural Design Decision Support System,**" *3<sup>rd</sup> International Symposium on Systems Research, Informatics and Cybernetics, InterSymp '91*, pp. 9-12, Baden-Baden, Germany, August 1991
- 1992 Kalisperis, L. N., Summers, L. H., and Steinman, M. "**Human Shape Factor Graphs: Expanded Research on a Person to Inclined Surface,**" *Energy and Buildings*, Vol. 17, No. 4, pp. 283-295, 1992
- 1992 Kalisperis, L. N., Summers, L. H., and Steinman, M. "**Design Knowledge: Thermal Comfort in Complex Enclosures,**" *3<sup>rd</sup> International Conference on Energy and Building*, Thessaloniki, Greece, April 1992
- 1992 Kalisperis, L. N. "**Assessment of Thermal Comfort in Complex Enclosures: A Computer Program,**" *EDRA 23*, Boulder, Colorado, April 1992
- 1992 Haider, J., Kalisperis, L. N., Forsyth, A., and Lawrence, H. "**Urban Issues in Beginning Architectural Design,**" *Making Cities Livable*, San Francisco, California, March 1992
- 1992 Haider, J., Kalisperis, L. N., Forsyth, A., and Lawrence, H. "**Integrating Urban & Landscape Issues in Beginning Architectural Design,**" *METU, Journal of The Faculty of Architecture*, Ankara, Turkey, Vol. 12, No. 1-2, pp. 61-76, Spring 1992
- 1992 Haider, J., Kalisperis, L. N., Forsyth, A., and Lawrence, H. "**Urban Awareness in Beginning Design Studio,**" *The 12<sup>th</sup> National Conference on the Beginning Design Student*, pp. 206-210, Seaside, Florida, April 1992
- 1992 Kalisperis, L. N., Groninger, R. "**Design Philosophy: Implications for Computer Integration in the Practice of Architecture,**" in *Computer Supported Design in Architecture*, Charleston, North Carolina: ACADIA, pp. 27-38, October 1992
- 1993 James, A. J., Kalisperis, L. N., "**Traditional Architecture in Chios, Greece: A Comparative Study of Variation and Meaning,**" *AAA*, San Francisco, California, December 1992
- 1993 Kalisperis, L. N., "**Computer Assisted Architectural Design for Comfort in Indoor Environments,**" *Body, Technology and Design*, Washington, DC: ACSA, January 1993
- 1993 Kalisperis, L. N., Groninger, R., "**Cadd and the Small Firm: A Review,**" *Acadia Quarterly*, Vol. 12, No. 4, pp. 15-18, Spring 1993
- 1993 Kalisperis, L. N., "**Architectural Space Design: Thermal Comfort Constraints,**" *Clima 2000*, Vol. CD, London: CIBSE, November 1993

- 1994 Kalisperis, L. N. Groninger, R., "CADD Utilization in the Architectural Design Process: Implications for Computer Integration in Practice," *JARP*, Vol. 11, No. 2, pp. 137-148, Summer 1994
- 1994 Kalisperis, L. N., "3D Visualization in Design Education," *14 Reconnecting*, St. Louis: ACADIA, pp. 177-184, October 1994
- 1995 Kalisperis, L. N., "Architectural Facade and Energy: A Tilted Window Experiment." *Building Simulation 195*, Madison, Wisconsin, August 1995
- 1995 Kalisperis, L. N., B. Kolarevic, "Preface," in *Computing in Design: Sharing, Capturing, and Enabling Ideas*, L. Kalisperis and B. Kolarevic (eds), ACADIA Press, Seattle: Washington, 1995
- 1995 Kalisperis, L.N., "The Electronic Studio: Beginning Design Education," in *CAAD Futures '95*, M. Tan (ed), Singapore, September 1995
- 1996 Kalisperis, L. N., "The Digital Architect: A Review," *ACADIA Quarterly*, Los Angeles, Vol. 15, No. 1, pp. 29-31, Winter 1996
- 1996 Kolarevic, B., Kalisperis, L. N., "Panel Sessions at the ACADIA '95 Conference" *ACADIA Quarterly*, Los Angeles, Vol. 15, No. 1, p. 4, Winter 1996
- 1996 Kalisperis, L. N., B. Kolarevic, B. Johnson, "Computing in Design: A Preface," *Automation in Construction*. Elsevier Press, The Netherlands, Vol. 5, No. 3, September 1996
- 1996 Kalisperis, L. N., "CAD @ Penn State", *ACADIA Quarterly*, Los Angeles, October 1996
- 1997 Kalisperis, L. N. "Computer-Based Architectural Design Representation," *NUTAU '96 - Seminario- Internacional - Tecnologia, Arquiteutura e Urbanismo*, Sao Paolo, 1997
- 1997 Kalisperis, L. N. Ofluoglou, S., "A Method for Organizing and Sharing Architectural Information on the WWW," *Design and the Net*, Edinburgh: Europia Productions, 1997
- 1997 Kalisperis, L. N. Xie, C., "Design Enhancement through Computer Representation: A Human Visual-Perception Model" *ACADIA '97, Design Representation*, Cincinnati: ACADIA, 1997
- 1998 Kalisperis, L. N., "Design Education in a Digital Environment" *Universidade & Novas Tecnologias, Impactos & Implicacoes*, University of Sao Paolo Press, Sao Paolo, 1998
- 1998 Kalisperis, L. N., Pehlivanidou-Liakata, A., "Architectural Design Studio: Digital and Traditional" *Computers in Design Studio Teaching*, Leuven, Belgium, pp 73-81, November 1998
- 1999 Pradini, E., Kalisperis, L. N., "Modeling with gestures" *CAD Futures '99*, Atlanta, June 1999
- 1999 Kalisperis, L. N., "Transforming ACADIA" *ACADIA Quarterly*, Buffalo, NY: Vol. 17: No. 1 & 2, 1998, pp 35-36, September 1999
- 1999 Kalisperis, L. N., "Virtual Library" *ACADIA Quarterly*, Buffalo, NY: Vol. 18: No 2, 1998, pp 12-18, October 1999
- 1999 Kalisperis, L. N., "Architectural Modeling and Rendering: A Book Review" *ACADIA Quarterly*, Buffalo, NY: Vol. 18: No. 1, 1998, pp 8-9, November 1999
- 1999 Kalisperis, L. N., "Evolution and Adaptation of Digital Technology in Architecture: Two Approaches" in *Media and Design Process*, Osman Ataman and Julio Bermudez (eds), Salt Lake City, Utah: ACADIA, pp 1-3, October 1999
- 1999 Kolarevic, B., Kalisperis, L.N., and B. Johnson "ACADIA Design Competition: A Library for the Information Age", *HABITAT*, 8, pp 20-22, Winter 1999
- 2001 Kalisperis, L.N., "Digitizing the Practice of Architecture", in *Reinventing the Discourse*, pp 88-90, Winter 2001
- 2002 Kalisperis, L., Otto, G., Muramoto, K., Gundrum, J., Masters, R., and Orland, B. "An Affordable Immersive Environment in Beginning Design Studio Education," *ACADIA 02*, Pomona, CA, October 2002
- 2002 Kalisperis, L., Otto, G., Muramoto, K., Gundrum, J., Masters, R., and Orland, B. "Virtual reality/Space Visualization in Design Education" *The VR-Desktop Initiative*, "eCAADe 20", Warsaw, Poland, September 2002
- 2002 Kalisperis, L., Otto, G., and Muramoto, K. "An Immersive Design Studio" *ArchitectureWeek*, Eugene, Oregon, October, 23, 2002

- 2002 James, A., Kalisperis, L. N., and D. James, **“House Decoration on Chios, Greece”** *American Anthropological Association*, New Orleans, November 2002.
- 2003 James, D., Kalisperis, L. and A. James, **“The Mathematics of Color-Reversing Decorative Friezes: Façades of Pirgi, Greece,”** *Meeting Alhambra: ISAMA/BRIDGES Proceedings*, Granada, Spain, July 2003.
- 2003 Otto, G., Kalisperis, L., J. Gundrum, K. Muramoto, G. Burris, R. Masters, E. Slobounov, J. Heilman and Vijay Agarwala, **“The VR Desktop: an Accessible Approach to VR Environments in Teaching and Research,”** *International Journal of Architectural Computing*, Issue 2, Vol.. 1, July 2003
- 2003 Kalisperis, L., G. Otto, J. Gundrum, K. Muramoto, G. Burris, R. Masters, E. Slobounov, and J. Heilman, **“The VR-Desktop: an Easy-to-use and Modular Approach for Use of VR Techniques in Teaching,”** *ACADIA Bits*, September 2003.
- 2003 Otto, G., Kalisperis, L. , K. Muramoto, and J. Gundrum, , **“Affordable and Accessible VR Systems for Undergraduate Architectural Design Education and Research at Penn State,”** *CONVR: Conference on Construction Applications of Virtual Reality*, Virginia Tech, Blacksburg, VA, September 2003.
- 2004 Kalisperis, L. , G. Otto, J. Gundrum, K. Muramoto, Matt Stone, G. Burris, R. Masters, E. Slobounov, and Vijay Agarwala, **“A Commodity Computing, Integrated Multimedia and Open-source Approach for Accessible VR Systems Deployment in University Teaching and Research,”** *VR 2004*, Chicago, IL., March 2004
- 2004 James, A., James, D., and Kalisperis, L. N., **“Unique Art Form: The Freezes of Pyrgi”**, *Leonardo*, Vol. 47, No. 2, June, 2004
- 2005 Kalisperis, L. , G. Otto, and J. Messner **“Expanding the Boundaries of Virtual Reality for Building Design and Construction,”** *ASCE-ICCC 2005*, Cancun, Mexico, July 2005
- 2005 Kalisperis, L. , B. Balakrishnan, and K. Muramoto **“Evaluating Workflow and Modeling Strategies of Pen Computing in the Beginning Architectural Design Studio,”** *eCAADe 2005*, Lisbon, Portugal, September 2005
- 2006 Kalisperis, L. , B. Balakrishnan, K. Muramoto, and G. Otto **“Multimodal Virtual Reality Environment for Architectural Design (re)Presentation,”** *CAADRIA 2006*, Kumamoto, Japan, April 2006
- 2006 Kalisperis, L. , **“Virtual Reality and Architectural Design Comprehension,”** *EREG 2006*, Educacao Grafica, Perspectiva Historica and Evolucao, Salvador, Brazil, August 2006, pp. 25-39
- 2006 Kalisperis, L. , B. Balakrishnan, K. Muramoto, D. Nikolic, and N. Zikic **“Evaluating Relative Impact of Virtual Reality System Variables on Architectural Design Comprehension and Presence,”** *eCAADe 2006*, Volos, Greece, September 2006, pp 66-73
- 2006 Balakrishnan, B., L. Kalisperis, S. Shyam Sundar **“Capturing Affect in Architectural Visualization: The Case for Integrating 3-dimensional Visualization and Psychophysiology,”** *eCAADe 2006*, Volos, Greece, September 2006, pp 664-670
- 2007 Balakrishnan, B., L. Kalisperis, K. Muramoto, G. Otto **“Digital representations! At what cost? A variable-centered approach for empirically studying impact of digital representations,”** *CAAD Futures 2007*, Sydney, Australia, June 2007
- 2007 Balakrishnan, B. Kalisperis, L., K. Muramoto, **“Implications of representation-presentation distinction in developing a presentation environment for CAAD,”** *eCAADe 2007*, Wiesbaden, Germany, Spetember 2007
- 2007 Balakrishnan, B. Kalisperis, L., K. Muramoto, **“Spatial Presence: Explication from an Architectural Point of View for Enhancing Design Visualization Tools,”** *ACADIA 2007*, Halifax, Canada, October 2007
- 2007 Poerschke, U., L. Kalisperis, **“BIM: Defining Opportunities for Environmentally Sensitive Design,”** *PLEA 2007*, Singapore, November 2007
- 2008 Kalisperis, L., M. Ioannides, **“Digital Cultural Heritage: From Concept to Reality,”** *International Journal of Architectural Computing*, accepted for publication, forthcoming
- 2008 Poerschke, U., L. Kalisperis, **“Integrating Energy Simulation Applications and Building Information Modeling in the Design Studio,”** *WITPress*, Oxford:UK, July 2008
- 2008 Kalisperis, L. **“Architectural Education in the Era of Information,”** *JUCy*, The Journal of the University of Cyprus, in print, 2008

## GUEST EDITOR

- 1996 Kolarevic, B., Kalisperis, L. N., *ACADIA Quarterly*, Los Angeles, Vol. 15, No. 1, Winter 1996
- 1997 Kalisperis, L. N., B. Kolarevic, B. Johnson, *Automation in Construction*. Elsevier Press, The Netherlands, Vol. 5, No. 3, September 1996
- 2005 Kalisperis, L. N., G. Proctor, *International Journal of Architectural Computing*. Multi-Science, United Kingdom, Issue 06, Vol. 02, Spring 2005
- 2007 Kalisperis, L. N., M. Ioannides, *International Journal of Architectural Computing*. Multi-Science, United Kingdom, Issue 014, Vol. 02, Spring 2007

## INVITED LECTURES

- 1990 **"Developments in Thermal Comfort,"** Architecture Program, School of Architecture and Urban Planning, University of Michigan. April 24, 1990.
- 1991 **"A Framework for Computer-Assisted Architectural Design,"** School of Architecture, The Ohio State University. March 6, 1991.
- 1992 **"Environmental Comfort Design Methods,"** Arizona State University, School of Architecture, April 27, 1992.
- 1992 **"Architecture Design Computability Methods,"** University of Nevada, Las Vegas, Department of Architecture, May 11, 1992.
- 1993 **"Computer Integration in Architecture,"** National Technical University of Athens, Greece, School of Architecture, August 3, 1993.
- 1993 **"CADD and its Future,"** keynote address at the opening ceremony of the *CAD Center*, University of Monterrey, September 2, 1993.
- 1993 **"CADD & Architectural Design,"** Society of Greek Architects, Athens, Greece, November 4, 1993.
- 1993 **"The Future Face of CADD,"** National Technical University of Athens, Greece, November 5, 1993.
- 1994 **"Computer Visualization,"** University of Southeastern Louisiana, School of Architecture, February 4, 1994.
- 1995 **"Recent Works,"** Cornell University, Department of Architecture, March 12, 1995.
- 1996 **"Pesquisa e Representacao nas Areas de Arquitetura e Urbanismo,"** Seminario Aberto, Higienopolis, Brazil, November 7, 1996.
- 1998 **"Digital Design Studio,"** School of Architecture, National Technical University of Athens, March 21, 1998
- 1998 **"Architecture in the Era of Information Technology,"** Greek Institute of Architects Lecture Series, April 15, 1998
- 1999 **"Digital Sketching,"** University of Pennsylvania, Graduate School of Fine Arts, February 8, 1999
- 2000 **"Digital Sketching in Architecture,"** Kansas State University, Architecture and Planning, February 22, 2000
- 2000 **"Sketching in a Digital Environment,"** University at Buffalo, Graduate School of Architecture, March 23, 2000
- 2000 **"Digital Architecture,"** Texas A&M University, Architecture, April 25, 2000
- 2002 **"Design Education and Virtual Reality,"** Federal Univeristy of Brazilia, Brazil, Architecture, October 12, 2002
- 2003 **"Digital Architectures and Design,"** Catholic University, Architecture, May 105, 2003
- 2003 **"Digital Design Studio and Immersive Environments,"** University of Illinois, Urbana-Champaign, Architecture and Planning, July 18, 2003
- 2005 **"Digital Design Fabrication and Immersive Environments,"** University of Crete, Architecture and Planning, April 16, 2005
- 2006 **"Digital Design and Fabrication: New Models for Architecture,"** University of Bahia, Architecture, August 12, 2006
- 2006 **"Architectural Digital Design and Immersive Environments,"** University of Brazilia, Architecture, August 23, 2006

- 2007 **“Digital Evolution - Architecture in the Millenium,”** University of Cyprus, Cypriot Society of Architects, and Technical Chamber of Cyprus, February 7, 2007
- Keynote Lectures
- 1996 **“Design Studio: Digital and Paperless,”** NUTAU International Conference, University of Sao Paulo, Brazil, October 30, 1996.
- 1997 **“Digital Architecture: Into the Millenium,”** Faculty of Fine Arts, San Paulo, Brazil, November 21, 1997
- 2006 **“Architectural Design and Immersive Environments,”** 5th EREG - *Encontro Regional de Expressao Grafica*, Salvador, Bahia, Brazil, August 10, 2006

## EXHIBITIONS

- 1985 ***Recent Works by Students of the Architecture Department - ACL ComCAD***, COMDEX, Las Vegas, Nevada, November 1985
- 1986 ***Multiple Hands at Work - New Technology in the Educational and Work Place***, Triennale of Milan, Milan, Italy, May-September 1986
- 1994 ***Elastic Visions, Computer-based Representation***, Zoller Gallery, PSU, October-November 1994
- 1995 ***Computer Representations - Student Work***, ACADIA Gallery, University of Washington, Seattle, October 1995
- 1995 ***Architecture and Digital Imaging - Recent Student Work***, ACE Gallery, Baltimore, June 1995
- 1999 ***Digital Studio Work***, CAC-PSU, October 1999
- 2006 ***Digital Studio - Digital Fabrication***, University of Crete, Greece, May 2006

## FUNDED RESEARCH

- 1988-1989 **“Development of Computer Aided Design Studio,”** funded by *World Armstrong Industries*, 1988-1989—(\$3,000)—completed
- 1988 **“A Computer-based Land Form Design Tool for the Macintosh,”** funded by the *Higher Education Program, Apple Computer Inc.*, with T. Johnson and J. DeTuerk, Landscape Architecture Department, 1988—(\$20,000)—completed
- 1989-1990 **“Human Shape Factor Determination in Complex Enclosures,”** funded by the *Research Initiation Grant Program*, PSU, 1989-1990—(\$6,000)—completed
- 1989-1990 **“Thermal Comfort in Complex Enclosures,”** funded by *ASHRAE Grant-In-Aid*, 1989-1990—(\$12,000)—completed
- 1991-1992 **“Architectural Design Decision Support System,”** funded by the *Laboratory of Environmental Design and Planning, PSU*, 1991-1992—(\$11,850)—completed
- 1992-1993 **“Time, Space, and Form: Teaching Spatial Relationships through Computer-based Modeling,”** funded by *CBEL-Teaching and Learning Technologies Group*, 1992-1993—(\$55,000)—completed
- 1993 **“Architectural Education in Rome—Symposium,”** funded by *The Committee for Creative Accomplishment*, PSU, Summer 1993—(\$8,000)—completed
- 1993-1994 **“Teaching with AutoCad,”** funded by *Autodesk, Inc.*, April 1993 and May 1994—(\$65,000, in-kind)—completed
- 1995 **“Computer-based Design for Architects,”** funded by *Distance and Continuing Education*, PSU September 1995—(\$5,000)—completed
- 1991-2001 **“Computer Application in Design with Form-Z—University Joint Study,”** funded by *Autodesys Inc.*, Columbus, Ohio, October, 1991, renewed yearly—(\$45,000 annually)—completed
- 1994 -2002 **“Virtual Reality: Alternative Environments in Architecture,”** funded by *PSU-CAC & CBEL*, September 1994—(\$40,000 initially, total budget \$150,000)—completed
- 1994-2002 **“InterPAWS - New Media Center,”** funded by the *New Media Consortium*, March 1994—(\$335,000)—completed

- 1995-1998 **“Digital Video Technology: Implications for Teaching,”** funded by the *ATT Foundation*, November 1995—(\$25,000)—completed
- 1996-1999 **“TWI: Tourism Web Initiative,”** funded by the Center for Rural Pennsylvania, with Don Kunze, March 1996—(\$147,000)—completed
- 1997-2000 **“Digital Technology and its Implications on the Architectural Design Process,”** funded by Bentley Systems, April 1997—(\$764,755)—completed
- 1997-2000 **“Ciao! Penn State: A Computer Mediated International Study Studio,”** funded by Bentley Systems, with Mike Halm and Darla Lindberg, April 1997—(\$50,000)
- 1998-2000 **“Ciao! Penn State - A Computer-Mediated Foreign Study Studio”** funded by the Fund for Excellence in Learning and Teaching, with Mike Halm and Darla Lindberg, April 1998—(\$8,000)
- 1999-2004 **“The Wireless Digital Studio,”** funded by the Faculty Research Grant - PSU —(\$7,321)—completed
- 1999-2005 **“Greek Antiquities and Representation - The Acropolis of Athens,”** funded by the EU and the Hellenic Ministry of Culture, October 1999, for the *hpclab*-University of Patras, T. Papatheodorou, Principal Investigator—completed
- 2002-current **“Applications of Immersive Virtual Reality in the Design Studio”**, funded by the Faculty Fellow Program, CAC, with Katsu Muramoto and George Otto, —(\$69,980)—in progress
- 2003-current **“The VR-Desktop Initiative”** — funded by the Faculty Research Grants, —(\$7,500), the *University Technology Fee*, —(\$4,000), the *President’s Fund for Research*, —(\$1,000), the *Bowers Fund*, with Katsu Muramoto, John Messner and George Otto, —(\$20,000)—in progress
- 2003-2005 **“The Digital Design and Fabrication Initiative in Architecture”** —funded by the *Stuckeman Endowment Fund*, with Katsu Muramoto and Tim Baird, —(\$66,000)—completed
- 2004-2006 **“Applications of Digital Fabrication Initiative in the Design Studio”** —funded by Incentives & Innovations Fund, with Katsu Muramoto, —(\$6,000)—completed
- 2004-2006 **“Collaborative Design Studio”** —funded by The Smarttech Corporation, —(\$12,595)—completed
- 2004-2005 **“Access Grid and Suitcase IEL Initiative”** —funded by A&A Infrastructure Enhancement Fund, with Katsu Muramoto, —(\$12,000)—completed
- 2004-2006 **“The ‘Electronic Design Napkin’ - Tablet PC Implementation in the Design Studio”**—funded by ITS - TLT, —(\$47,500)—completed
- 2003-current **“Virtual Construction Simulator: Improving Design and Construction Engineering Education with Virtual Reality”** funded by the National Science Education, October 2003, for the Architectural Engineering-Penn State University, John Messner, Principal Investigator—in progress
- 2005-current **“Digital Design Fabrication in Design Education”** funded by the *Stuckeman Endowment Fund*, with Katsu Muramoto, and Tim Baird —(\$40,000)—in progress
- 2004-2006 **“DigeFab: Mobile Architecture”** funded by the *A&A Incentives and Innovations Fund*, with Katsu Muramoto—(\$6,000)—completed
- 2004-current **“Digital Fabrication in Design Education”** funded by the *Stuckeman Endowment Fund*, with Katsu Muramoto —(\$30,000)—in progress
- 2005-current **“Applications of Immersive Virtual Reality in the Design Studio”**, funded by the *Stuckeman Endowment Fund*, with Katsu Muramoto and George Otto, —(\$230,000)—in progress
- 2006-current **“Design Studio and Real 3-D”**, funded by the *Stuckeman Endowment Fund*, with Katsu Muramoto and Timothy Murtha, —(\$24,000)—in progress
- 2007-current **“Participatory Design Studio”**, funded by the *Research Initiation Grant*, with Katsu Muramoto and George Otto, —(\$36,000)—in progress

MEMBERSHIPS/  
EXTERNAL  
COMMITTEES

Greek Institute of Architects, Member

Republic of Cyprus - University Accreditation Committee, Design Curricula Team,  
Member, 1996  
Chair, 1997, 1999-2007  
University Wide Accreditation Team,  
Member, 2007

Hellenic Republic, Ministry of Education,  
Life Long Learning Steering Committee, Member, 2006-present  
National Council on Education, External Committee, 2006-present  
National Accreditation Council, Consultant 2006-present

*International Journal of Architectural Computing*, Multi-Science  
Editorial Board Member

VISTA, ACADIA, eCAADe, SIGRADI, CIPA 2006  
Scientific Committee Member

Association for Computer Aided Design in Architecture (ACADIA), Member  
Steering Committee Member, 1995-1997 - 2002-2004  
President-Elect, 2007-2009  
ACADIA'95 Co-Editor, Co-Chair

World University Network - The Pennsylvania State University  
Member

*Virtual Library, ACADIA International Competition 1999*  
Organizing Committee Member

ASHRAE TC 6.5 Radiant Heating and Cooling, Member  
ASHRAE TC 6.5 Program Subcommittee, Past Chairman

**Technical Paper and Book Review Committees**

Energy & Buildings, Elsevier Publishing, Lausanne, Switzerland, 1991-present  
ACADIA '92-06, Technical Paper Review Committee 1992-present  
ACADIA Quarterly, Acadia Press, Los Angeles, 1993-present  
Van Nostrand Reinhold, New York, 1995-1998  
ITP press, New York, 1996-present  
John Wiley & Sons, New York 1997-present  
Scholars, SSHE, Harrisburg, PA, 1991  
Proteus, Shippensburg University, Shippensburg, PA, 1990