The emerging field of Interactive Architecture explores research into system dynamics with far reaching social, environmental, and scientific implications. This field incorporates advances not only in architectural design, design computing and building engineering but also in behavioral science, information technology, and interactive and immersive media using ubiquitous computing and sensor technology. The key idea of Interactive Architecture is that the built environment can monitor the needs of its current occupants, as well as inform occupants on relevant matters, while learning on the basis of these interactions.

From a technological perspective, Interactive Architecture investigates how embedded, pervasive and ubiquitous computing systems will provide information and data about structures, environmental impact, and human behaviors in spaces. In Architecture, this emerging field introduces new possibilities for building sciences and structural engineering, as well as new aesthetics for interactive and transformative structures and facades. For Interaction Designers and Design Researchers, Interactive Architecture opens up new possibilities for engaging with the built environment in which spaces might not only react or respond to human inputs, but come to recognize and interact with people on a daily basis.

The overarching goal of this symposium it to present research that introduces a technology-enabled interaction model for responsive built environments in which inhabitants feel personally responsible for and connected to the buildings they inhabit by developing a human-building relationship over time. Responsive built environments deliver context-aware, personalized and timely information for supporting energy efficiency, learning, and playful interactions. They also must be designed to take into account its users’ preferences and needs and respond accordingly. A set of prototypes developed by an interdisciplinary research team within a testbed campus building, as well as recent conceptual and completed architectural projects, will be presented and discussed. These prototypes and projects explore issues of indoor localization, embedded sensor systems, data visualization models and experience design for these systems.

This symposium brings together a distinguished panel of scholars and practitioners from the University of Southern California, Foxlin Architects, and Steelcase to discuss recent work and new directions within the field of Interactive Architecture. A review of progress made over the past year, as well as an introduction to new concepts and projects will be presented by the panelists, followed by an afternoon discussion session with symposium participants.
Topics will include:
• Immersive, connected experiences in the built environment
• Biomimetics and Adaptability
• BIM and BMS as Systems for Interactive Architecture
• Context-specific computing in the built environment
• Interactive Workspaces and Teaching and Learning Spaces
• Virtual Worlds as Mirror Worlds for the built environment
• Gerontechnology / Physically Challenged
• Economic Considerations/Incentives

Leader
Scott S. Fisher
Associate Dean of Research & Professor, Interactive Media Division
School of Cinematic Arts
University of Southern California
900 W. 34th Street, Room 465
Los Angeles, CA 90089-2211
Tel: (213) 740 - 2804
Email: sfisher@cinema.usc.edu

Symposium Speakers
  Mark Baloga
  Principal
  WorkSpace Futures | Discoveries
  Steelcase Inc
  Grand Rapids, MI 49508
  Email: mbaloga@steelcase.com

  Michael Fox
  Architect
  Foxlin Architectural Design and Consulting
  Capo Beach CA 92624
  Email: mfox@foxlin.com

  Jennifer Stein
  Adjunct Professor, Interactive Media Division
  School of Cinematic Arts
  University of Southern California
  Los Angeles, CA 90089
  Email: jenstein04@gmail.com
Scott Fisher is Professor and founding Chair of the Interactive Media Division and Associate Dean of Research at the USC School of Cinematic Arts. He is an interaction designer whose work focuses primarily on mobile media, interactive environments and technologies of presence. He is also Director of USC’s Mobile and Environmental Media Lab. Dr. Fisher’s media industry experience includes Atari, Paramount, and his own companies Telepresence Research and Telepresence Media, and he is well known for his pioneering work in the field of Virtual Reality at NASA. A graduate of MIT’s Architecture Machine Group (now Media Lab), he has taught at MIT, UCLA, UCSD, and was a Project Professor at Keio University in Japan. His work has been recognized internationally through numerous invited presentations, professional publications and in the popular media. In addition, he has been an Artist in Residence at MIT’s Center for Advanced Visual Studies and his stereoscopic imagery and artwork has been exhibited in the US, Japan and Europe.

Mark Baloga brings over 30 years of insight and invention to the practice of research at Steelcase. Formally trained in systems integration for the profession of architectural engineering, Mark’s career in human-centered design focuses on social, spatial and informational user-values for product and business concepts. He guides interdisciplinary teams on theme-based quests for strategic discoveries. These collaborative explorations generate insight frameworks, points-of-view and experiential prototypes which Steelcase positions with partners in the business of innovation.

As a serial inventor, Mark’s action research has resulted in more than 20 patents for Steelcase. His contribution to the Personal Harbor Workspace earned an IDSA Gold IDEA. His participation in the cross-industry collaboration between Steelcase research and IBM research resulted in the online and offline dynamics of BlueSpace. He is co-inventor of the patent-pending Steelcase media:scape.

Mark is a member of the ACM and a graduate of The Pennsylvania State University. He resides in Grand Rapids, Michigan with his wife, two children and Mojo the dog.

Michael Fox is a founding partner of Fox Lin Inc. He is also the Author of the book “Interactive Architecture” by Princeton Architectural Press. Prior to starting Fox Lin, he served as an assistant to engineer and inventor Chuck Hoberman in New York, and as a design team leader for Kitamura Associates in Tokyo, Japan. In 1998, Fox founded the Kinetic Design Group at MIT as a sponsored research group to investigate interactive architecture. Fox directed the group for three years. His practice, teaching and research are centered on interactive architecture. Michael has
lectured internationally on the subject matter of interactive, behavioral and kinetic architecture. He has won numerous awards in architectural ideas competitions and his masters’ thesis at MIT received the outstanding thesis award for his work on computation and design processes. Fox’s work has been featured in numerous international periodicals and books, and has been exhibited worldwide. He is an Associate Professor of Architecture at Cal Poly Pomona and has taught on the subject matter of interactive, behavioral and kinetic architecture at MIT, The Hong Polytechnic University, the Art Center College of Design in Pasadena and Southern California Institute of Architecture (SCI_ARC) in Los Angeles.

**Jennifer Stein** is a design researcher examining the implications of ubiquitous technologies on the built environment. She completed her PhD in Media Arts and Practice at the School of Cinematic Arts, University of Southern California, where she combined theory and practice to speculate about near future scenarios for Interactive Architecture. Her research explored how the technologies now commonly embedded within architectural spaces could be used to create more personalized and enchanted experiences for inhabitants. Jen is currently Adjunct Professor in the Interactive Media Division and a Research Associate in the Mobile and Environmental Media Lab at the USC School of Cinematic Arts, exploring design for interactive architecture, ambient storytelling, and mobile experiences.