

# Thomas John McLeish

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## Education

- 2003 **Massachusetts Institute of Technology, Cambridge, Massachusetts**  
MS in Media Technology, Media Arts and Science
- 1995 **Ball State University, Muncie, Indiana**  
BArch, BS in Environmental Design, Department of Architecture

## Awards / Honors

- 2001-2003 **British Telecom Fellowship, MIT Media Lab**
- 1999 **Townhouse Revisited Competition**

## Research Interests

- Developing user experience concept designs and scenarios based on user data.
- The physical environment as user interface.
- Integration of digital technologies into process and product of physical environment.
- Use of new technologies that lead to better homes for more people.
- Design for aging at home.

## Teaching Interests

- Undergraduate and Graduate design studios.
- Use of traditional digital design tools.
- Use of new digital media in design and fabrication.

## Related Experience

- 2005-2006 **Illinois Institute of Technology: Adjunct Assistant Professor**
  - Faculty with the College of Architecture specialising on digital technology in practice.
  - Taught courses such as Physical Computing, Digital Design and Fabrication, CAD in Practice, and a Third Year Comprehensive Design Studio.
  - Developed custom software [3DIO] for use with existing structural analysis tool to leverage modelling capacity of software students more commonly use.
- 2005-2006 **DMAC Architecture: Architect**
  - Projects include redesign of a prominent Bentley dealership in downtown Chicago.
- 2004-2005 **HomePrime/Abod: Partner**
  - Developed and implemented new technology solutions to problems in multifamily development while providing cost effective means of meeting home buyer needs for a successful Cambridge, MA, residential developer.
- 2003-2004 **MIT Media Lab: Research Affiliate**
  - Responsible for project management, design and construction, of PlaceLab, a highly sensed interactive residential research facility.
  - Directed and assisted undergraduate research assistants: organized assignments, oversaw execution, evaluated and critiqued results.
  - Led seminars on research group's current work.
- 2001-2003 **MIT Media Lab: Research Assistant**
  - Developed and implemented an interactive residential design tool for non-expert designers.
  - Produced documentation materials for the design tool and various software/hardware subcomponents to support further development by other researchers and students.
  - Collaborated on prototype self configuring building components supported by a self addressing network.
  - Produced documentation materials to support further development by other researchers and students.
  - Directed and assisted undergraduate research assistants: organized assignments, oversaw

- execution, evaluated and critiqued results.
  - Led seminars on research group's current work.
- 2000-2001 Consultant**
- Provided visualization and design services to meet the needs of clients including: Murphy/Jahn Architects and DMAC Architecture.
- 1999-2001 (Art)n Laboratories: Artist Collaborator**
- Led documentation, fabrication, and installation of a series of interactive architectural sculptures.
  - Directed and assisted team members: organized assignments, oversaw execution, evaluated and critiqued results.
  - Assisted in documentation, fabrication, and installation of sculptures.
- 1997-2001 Harold Washington College: Set Design/Fabrication Director**
- Developed inexpensive, modular, and portable stage components.
  - Led student theater in design and fabrication of stage sets: organized assignments, oversaw execution, evaluated and critiqued results.
- 1995-2000 Murphy/Jahn Architects: Senior Architect**
- Produced computer generated renderings for architectural competitions and marketing.
  - Produced construction documentation for international projects.
- 1993-2005 John David Mooney Foundation: Faculty**
- Assisted in documentation, fabrication, and installation of international art works.
  - Led design and fabrication of international art works.
  - Directed and assisted interns and apprentices: organized assignments, oversaw execution, evaluated and critiqued results.
- 1993-1995 CERES/Ball State University: Undergraduate Research Assistant**
- Produced support materials for a series of papers on modular urban residential form.

## Publications

### The PlaceLab: A Live-in Laboratory for Pervasive Computing Research (Video)

Intille S., Larson K., Beaudin J., Munguia Tapia E., Kaushik P., Nawyn J., and McLeish T.  
 Proceedings of Pervasive 2005 Video Program, May, 2005.

### Open Source Building - Reinventing Places of Living

Larson K., Intille S., McLeish T., Beaudin J., and Williams R.  
 BT Technology Journal, Vol 22 No 4, October 2004. pp 187-199

### Organizing Residential Utilities: A New Approach to Housing Quality

Topping R., Larson K., Lawrence T., McLeish T., and Spencer J.  
 Prepared for: U.S. Department of Housing and Urban Development Office of Policy Development and Research Washington, DC November 2004

### An Integrated Interior Infill System for Mass Customized Housing

Larson K., Mullens M., Hoekstra R., McLeish T., and Nahmens I.  
 PATH Sponsored research, 2003-2004

### A Network for Customizable + Reconfigurable Housing

Larson K., Lawrence T., McLeish T., Seethram D, and Shrikumar H.  
 Home Oriented Informatics and Telematics Conference: THE NETWORKED HOME AND THE HOME OF THE FUTURE  
 Irvine, CA, 2003

### A Platform for Consumer Driven Participative Design of Open (Source) Buildings

McLeish T., Masters Thesis, MIT, 2003

### Energy Armatures: Ordering and Integration of Passive Solar Resources for Community Sustainability

Proceedings of the 19th National Passive Solar Conference, June 1994. R. Koester, CERES.

## Exhibitions

### (Art)n Virtual Visions: Three Decades of Collaboration

Brunner Art Museum, Iowa State University, October 29, 2002 - January 5, 2003

### N-Space, SIGGRAPH 2001

Los Angeles, CA, August 12-17, 2001

## **SIGGRAPH 2001 Interactive Classroom**

Artist Talk: Telomeres Project on Imminent Immortality and other Installations

## **Virtual Architecture**

Oskar Friedl Gallery, Chicago, IL, June 15-July 21, 2001

## **Midway International Airport Gallery Collection: Memorial to the Battle of Midway**

Chicago, IL, June 4, 2001 - Present

## **Symposium in Art and Technology: Immersive Environments**

Block Museum of Art and John J. Louis Hall, Northwestern University, Evanston, IL, May 25 & 26, 2001

## **Chicago Architecture Foundation: Townhouse Revisited Competition**

March 6- April 29, 2000.

## **SIGGRAPH 2000 Art Gallery**

New Orleans, LA, July 23-28, 2000

## **University of Illinois: Townhouse Revisited Competition**

Champaign, IL

Spring 2000.

## **The Graham Foundation: Townhouse Revisited Competition**

Chicago, IL, April 9- May 5, 1999

## **Technical Expertise**

**Programming Languages and Related:** Visual Studio.NET, C#, DirectX, IntelliJ IDEA, Java, Flash (ActionScript), Microchip ASM, HTML, CSS, Javascript, XML, SVG, ifcXML, AutoCAD VBA.

**CAD:** Autocad, Microstation, 3DStudioMAX, Orcad, Arris, DataCAD, familiar with Rhino, SolidWorks, and Inventor.

**Graphic Packages:** Photoshop, InDesign, Illustrator, Pagemaker, Premiere, AfterEffects, CorelDraw.

**Fabrication:** Simple digital and analog hardware, Stratasys 3DPrinter, Laser Cutter, Water Jet, CNC Milling, a wide variety of woodworking equipment.

## **References Available Upon Request**