

## Mark L Collins

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Mark Collins, in collaboration with Toru Hasegawa, is principal of **Proxy Design Studio LLC**, an innovation-focused design firm working across a range of scales and platforms. Proxy works on a wide range of projects, from architecture and design to research in CNC fabrication, book publishing and software development. More information can be found at <http://www.proxyarch.com>

Mark is co-director of the **GSAPP Cloud Lab**. The Cloud Lab is an experimental lab that explores the design of our environment through emerging technologies in computing, interface and device culture. The lab resides at the Graduate School of Architecture, Planning & Preservation, Columbia University. More information can be found at <http://www.thecloudlab.org>

Mark is also a founder and co-creator of **The Morpholio Project**, a group of mobile applications built for creative empowerment. The project includes thousands of members and a suite of design tools powered through a shared cloud infrastructure. More information can be found at <http://www.morpholioapps.com>

### Selected Exhibitions, Press, Publications and Events

- 2014
  - Van Alen Institute** "How does the Brain Respond to the City?" Co-organizer and Speaker, May 2014
  - Atlantic Cities** "The Quest to Measure the Brain's Response to Urban Design" May 2014
  - Gizmodo.com** "An iPhone App Knows How You Feel By Checking Your Pulse" April 2014
  - Shapeways.com** Featured Artist, Mechaneu V1
  - Landscape Architecture Magazine** "Do Over...and Over: Morpholio Trace 2.0" May 2014
- 2013
  - Fast Company** "Here's A Machine That Shows What 3-D Printing Can Really Do" December 2013
  - Architect Magazine** "Mechaneu Pushes the Boundaries of Current 3D Printing Tech" December 2013
  - Gizmodo.com** "Mind-Boggling Spherical Gear Made from 3D-Printed Moving Parts" December 2013
  - 3D Printing Industry** "A Thinking Person's 3D Printed Gear-Ball" December 2013
  - Wired.com** "This iPad Drawing App Brings Tracing to the Touchscreen" December 2013
  - Design Intelligence: Advanced Computational Research DADA 2013** "Brain Hacking" July 2013
  - Fast Company** "Morpholio 2.0: A Portfolio App With a Built-In Studio Crit" September 2013
  - Not Smart Enough Symposium**, Presenter. Princeton University School of Architecture April 2013
- 2012
  - Architectural Record** "Leaving a Trace with an iPad" November 2012
  - Money Today Network** "The Cloud Computing Boom" (MTN) November 2012
  - Architect 50 Leadership Lab** "Linking Big Data with Big Design" October 2012
  - Architect Magazine** "Building App-titude" August 2012
  - Architect Magazine What's Next Video Series** "Computational Literacy and Programming" June 2012
  - Metropolis Magazine** "Possibilities of Touch" March 2012
  - Going Viral: Blurred Borders** Presenter, "Morpholio" NYC Center for Architecture May 2012
  - Digispeak: An Illustrated Guide to Digital Architecture Design Terms** Contributor, 2012
- 2011
  - Perspecta 44: Domain** "Processing Architecture" with Casey Reas & Ben Fry September 2011
  - Scripting Cultures: Architectural Design and Programming** Contributor, 2011
  - Volume: Internet of Things Archis 2011 #2** "Smart Environments" "The Importance of Random Learning"
  - A+U 2011:10 Manhattan Grid** September 2011

- OpenJapan NYC**, "Community Design Charette for Disaster Relief" With OpenSimSim, Studio-X NYC
- THERE 06: Craft**, "Good Objects Make Themselves". University of Minnesota
- ALGODE 2011** Algorithmic Design for Architecture Conference, "Human Computer Interaction in Architecture: Exploring the Brain-Body-Environment Continuum"
- Machinic Processes: Architecture Biennial Beijing 2010** "Computing Kaizen" studio,
- Cloud Computing and Architecture Symposium**, Osaka Sangyo University, April 2013
- 2010 **A+U 2010:5 "New Directions: Sustainability and Technology in New York"**
- Programming Bodies: Last Computing Counter-Culture Symposium** Hosei University March 2013
- Processing.org** Digital Exhibitions, "Computing Kaizen"
- AIA New York Design Awards Program**, Toni Stabile Student Center, Architecture Honor Award
- Japan Business Press** "Small Shifts Bring Large Changes: Kaizen and Innovation", 2010
- 2009 **Rouse[d]** Exhibit, invited exhibitor
- The Brian Lehrer Show** "Applying Government Data" *BuildingBeat for iPhone*, NYC BigApps
- AD Closing the Gap: Information Models in Contemporary Design Practice** Toni Stabile Student Center, Wiley April 2009
- Out of Water: Innovative Technologies for Arid Climates** "Liquid Wrap" April 2009
- Algorithmic Design: New Methodologies of Architectural/Urban Design** "I Remember You" Architectural Institute of Japan. Kajima Institute.
- 2008 **(Im)material Processes: New Digital Techniques for Architecture** Beijing Architecture Biennial 2008
- Oficina des Ideias** Exhibition supporting the release of *Informal Toolbox*
- Informal Toolbox** Co-Editor, Author and Designer. 2008 ISBN 9780982078303
- SUPERFRONT** "Something About Rooms and Walls" StatWall April 2008
- 2007 **ScriptedByPurpose: Explicit and Encoded Processes Within Design** F.U.E.L. Collection "Rich Fields"
- Maker Faire 07** Presenter, Happy Family Lamp
- Architecture Week** "Strutting Space" Trusset Wall
- 2006 **ON MADRID** "Architecture Made in the USA" No 17 2006
- Columbia 125<sup>th</sup> Anniversary** 'Trusset wall' GSAPP Office of Development + Office of Special Events
- Architecture Biennial Beijing 2006** "Emerging Talents, Emerging Technologies" Happy Family Lamp and (un)Natural Selection
- Build Boston 2006** 'Topological House' BSA's Young Designers Exhibition
- ACADIA 2006: Synthetic Landscapes**
- ACADIA 2006 Proceedings** - *The hexEnvelope system: a cross-platform embedding of material and software logic into descriptive geometry*
- Imagined Spaces: Emerging New York City Architects** Picasso Mio Gallery, Barcelona Spain.
- (un)Natural Selection** Avery Hall, Columbia University

## Professional Experience

- 2011-present **The Morpholio Project** - Founding Partner
- A group of applications that reinvent creative processes for designers, artists, photographers and any imaginative individual. Recent apps include:
- Morpholio Trace**, *the unique sketch utility that allows you to easily develop ideas in layers, communicate via drawing markup, and connect fluently with your global network.*

***Morpholio Board** allows users to effortlessly layout, collage and illustrate with a series of photos, images, sketches and annotations to generate beautiful and informative boards that are easy to share.*

***Morpholio**, the unique portfolio utility that allows you to not only create and manage image collections, but to also collaborate in private or public forums.*

2011-present **The GSAPP Cloud Lab** - Co-Director with Toru Hasegawa

An experimental lab that explores the design of our environment through emerging technologies in computing, interface and device culture. Recent projects include:

***Neural Cartography Project**, A project to visualize a day in the mental life of a neighborhood.*

***Code Dojo**, Competition-based code instruction. Learn to program with simple visual programming challenges.*

***Computational Geometry Library**, and open-source library for generating 3D printable meshes within Processing.*

2006-present **Proxy Design Studio LLC** - Founder and Principal

A research based practice that looks for ideas and processes across disciplines, defining a new domain of architectural production. Recent projects include:

***Modular Ceiling Systems for Arktura**, a commissioned series to be retailed by Arktura.*

***Solar Chimney**, a continuing research into green building structures and urbanism.*

***Melody Shafie Memorial**, a sculpture that honors the memory of a victim of Neuroblastoma. The memorial provides a contemplative space for the family as well as an educational tool for the Melody Shafie Foundation.*

***NYU Advanced Media Studio**, a rehabilitation of an existing space that serves the NYU community with Rapid Prototyping services. The new space features the potential of RP equipment to realize tangible, intelligent spaces.*

***FDNY Engine House Facade**, a procedurally generated façade pattern produced in collaboration with Marble Fairbanks architects. Using custom software, Proxy designed a complex façade that is based the science of light refraction.*

***"I Remember You..." House in Tokyo, Japan with N Maeda Atelier**. Using solar analysis tools and custom software, Proxy and the N Maeda Atelier were able to create a unique home that strategically opens itself to the available light.*

***Toni Stabile Student Center at the Columbia School of Journalism**, with Marble Fairbanks, a folded-metal ceiling that features a complex perforation pattern generated from acoustic simulation. Winner, NY 2010 AIA Honor Award.*

***The Trusset**, a structural system that can assume an arbitrary shape and is suited for complex shapes, rapid deployment and unskilled assembly. Research is supplemental to initial design and prototyping by Phillip Anzalone and Cory Clarke in the context of the GSAPP FABCON Lab.*

***The Topological House**, an experimental structure that uses topological description to motivate programmatic layout and construction technologies.*

2003-2005 **Davis Brody Bond Architects**, Intern Architect New York

2002-2003 **Brock Green Architects** Intern Architect, Atlanta, GA

2001-2002 **Stang & Newdow Architects** Intern Architect, Atlanta, GA

## Education

2003-2006 **Columbia University** GSAPP Master of Architecture Program

2000-2001 **Ecole Nationale Supérieure d'Architecture de Paris La Villette**

1997-2001 **Georgia Institute of Technology** Bachelor of Science, Architecture Program

## Academic Teaching Experience

Current **Studio** Advanced Studio VI: Brain Hacking Studio, Columbia University GSAPP

The "Brain Hacking" series of studios explores the exponentially growing culture of devices and algorithms that are re-shaping the physical environment. With a focus on understanding and future shock technologies like brain computer interfaces

**Seminar** Search: Advanced Algorithmic Design, Columbia University GSAPP

The seminar promotes simple, visual programming as a vehicle for designers to take their ideas to the next level by collaborating with the computer at its most potent level: code.

**Seminar** Evolutionary Design. Columbia University GSAPP

This seminar presents evolutionary systems, alongside other iterative design approaches, as pragmatic and open-ended tools for realizing architectural structures

Legacy

**Seminar** Introduction to Digital Media Spitzer School of Architecture, City College of New York 2011-13

**Seminar** Fabricating Information, NYU Interactive Telecommunication Program, Tisch School of the Arts

**Studio** Participating Bodies, WUSTL Sam Fox School of Design, Fall 2010

**Seminar** Proceduralism, WUSTL Sam Fox School of Design, Fall 2010

**Workshop** 2GBX Workshops, Southern California Institute of Architecture, Spring 2010

**Studio** Slum Lab Studios, Columbia University, GSAPP

*with Alfredo Brillembourg and Hubert Klumpner, from 2006 to 2009*

**Seminar** 'Digital Detailing/Complex Assemblage' Columbia University, GSAPP

*with Toru Hasegawa and Phillip Anzalone, Spring 2007*

2006 – present **Invited Lecturer** Columbia University, Hosei University, Osaka Sangyo University, University of Toronto, University of Nebraska, Princeton University