

Wes McGee

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Education

Master of Industrial Design, Atlanta, GA: Georgia Institute of Technology, 2005.

Bachelor of Science in Mechanical Engineering, Atlanta, GA: Georgia Institute of Technology, 2001.

Certificate in Composites Engineering, Atlanta, GA: Georgia Institute of Technology, 2001.

Academic Appointments

Assistant Professor of Architecture, University of Michigan, Taubman College of Architecture and Urban Planning, Ann Arbor, MI: 2013-present.

Director of Fabrication Lab, University of Michigan, Taubman College of Architecture and Urban Planning, Ann Arbor, MI: 2008-present.

Faculty Affiliate, University of Michigan Robotics Institute, 2015-present.

Lecturer in Architecture, University of Michigan, Taubman College of Architecture and Urban Planning, Ann Arbor, MI: 2008-2013.

Velux Visiting Professor, Aarhus School of Architecture, Aarhus, Denmark: 2015.

Visiting Lecturer, MATr project, Kent State University, Kent, OH: 2013.

FABLab Coordinator, Harvard Graduate School of Design, Cambridge, MA: 2007-2008.

Instructor, Harvard Graduate School of Design, Cambridge, MA: 2008.

Professional Experience

Founding Partner, Senior Designer, Matter Design, Ann Arbor, MI: 2008-present.

Founding Partner, Thingfarm, LLC, Atlanta, GA: 2005 – 2008.

Production Manager, Dex Studios, Inc., Atlanta, GA: 2005-2007.

Honors and Awards for Research, Practice, or Scholarship

Award for Innovative Research, ACADIA 2017.

Clifford, Brandon and Wesley McGee. "Microtherme". *AZ Award, Finalist (2017)*. Azure Magazine

Clifford, Brandon and Wesley McGee. "Microtherme". *AZ Award, People's Choice (2017)*. Azure Magazine

McGee, Wesley and Geoff Thun, Kathy Velikov, and Daniel Tish. "Infundibuliforms". *Honorable Mention, R+D Awards (2016)*. Architect Magazine.

McGee, Wesley and David Pigram, Iain Maxwell, David Jenny, and Luka Pistoric. *Best Workshop Runner-Up (2016)*. Robots in Architecture, Art, and Design.

Clifford, Brandon and Wesley McGee. (Portfolio Award, Installation). *Boston Design Biennial (2013)*. Boston Society of Architects.

Clifford, Brandon and Wesley McGee. (Portfolio Award). *Architectural League Prize for Young Designers (2013)*. Architectural League of New York.

Thun, Geoff and Kathy Velikov, Colin Ripley, Lisa Sauve, Wesley McGee. "Resonant Chamber". *Architizer A+ Awards, Juried and Popular Vote (2013)*. Architizer.

Clifford, Brandon and Wesley McGee. "PlyShelf". *AZ Award, Juried Award (2011)*. Azure Magazine.

Clifford, Brandon and Wesley McGee. "PlyShelf". *AZ Award, Popular Vote (2011)*. Azure Magazine.

Clifford, Brandon and Wesley McGee. "PlyShelf". *Product of the Year (2010)*. Architectural Record.

Clifford, Brandon and Wesley McGee. "Periscope Tower". *First Place, 10Up! Architecture Competition(2010)*. AIA/AIAS Atlanta.

Books, Edited

McGee, Wesley and Monica Ponce de Leon, eds. *Robotic Fabrication in Architecture, Art, and Design*. New York, NY: Springer Engineering, 2014. Print.

Books, Self-Published

Clifford, Brandon and Wesley McGee. *Range: Matter Design*. Boston MA: ODDI Printing, 2013. Print.

Book Chapters

McGee, Wesley and Geoff Thun, Kathy Velikov, Dan Tish, "Prologue for a Robotic Architecture: Bridging design Environments, robotic additive manufacture, and systemic controls for kinetic information". *Towards a Robotic Architecture*, by Mahesh Daas, Andrew Witt. ORO Editions (2018).

Pigram, David and Iain Maxwell, Wesley McGee, "Towards Real-Time adaptive Fabrication-Aware Form Finding". *Robots in Architecture, Art and Design*. Eds. Dagmar Reinhardt, Rob Saunders, Jane Burry. New York, NY: Springer Engineering (2016). 426-437. Print.

Clifford, Brandon and Wesley McGee, "Round Room: A Solver Method for Advanced Geometries". *Robotic Futures*. Eds. Philip F. Yuan, Achim Menges, Neil Leach. Tongji, China: Tongji University Press, 2015. Print.

Clifford, Brandon and Wesley McGee. "Matter Design". *Young Architects 15: Range*. Princeton, NJ: Princeton University Press, 2014. 46-71. Print.

Feringa, Jelle and Wesley McGee, Asbjorn Sondergaard. "Robotic Hotwire Cutting: Processes for an Architecture of Volume." *Robots in Architecture, Art, and Design*. Eds. Sigrid Brell-Cokcan and Johannes Braumann. 2012, Vienna, Austria: Springer Wien. 62-71. Print.

Clifford, Brandon and Wesley McGee. "Foam Advocates: From Surface to Volume." *Pidgin Magazine*. Princeton, NJ: Princeton University Press, 2011. Print.

Mcgee, Wesley and David Pigram. "Matter and Making." *Fabricate: Making Digital Architecture*. Eds. Ruari Glynn and Bob Sheil, London, UK: Riverside Architectural Press, 2011. Print.

Clifford, Brandon and Wesley McGee, "Round Room: A Solver Method for Advanced Geometries". *Robotic Futures*. Eds. Philip F. Yuan, Neil Leach. Tongji, China: Tongji University Press, 2011. 72-77. Print.

Clifford, Brandon and Wesley McGee. "The Drawn Dress: Fashioning Digital Fabrication." *Pidgin Magazine*. Princeton, NJ: Princeton University Press, 2010. 32-43. Print.

Peer Reviewed Journal Articles

Clifford, B. McGee, W., Muhonun, M. Recovering Cannibalism in Architecture with a Return to Cyclopean Masonry. Stereotomy 2.0. Informing the future of Digital Stereotomy, Eds. Fallacara, G. and Barberio, M. Nexus Network Journal vol. 20. (in review) 2018.

McGee, W. (2018). Book Review for "Prototyping for Architects: Real Building for the Next Generation of Digital Designers", Jane Burry and Mark Burry, published in TAD journal, vol. 1 issue 2, 2017.

Lundeen, K.M., Kamat, V.R., Menassa, C.C., McGee, W. "Geometric Modeling, Planning, and Execution for Adaptive Manipulation in Robotized Construction Work," *Construction Robotics*, Springer, (In Preparation). 2018

Lundeen, K.M., Kamat, V.R., Menassa, C.C., McGee, W. "Scene Understanding for Adaptive Manipulation in Robotized Construction Work," *Automation in Construction*, 82C, Elsevier Science, New York, NY, 16-30, DOI: 10.1016/j.autcon.2017.06.022. 2017.

Feng, Chen and Yong Xiao, Aaron Willette, Wesley McGee, Vineet R. Kamat, "Vision Guided Autonomous Robotic In-Situ Assembly and As-built 3D Scan". *Automation in Construction*, 59 (2015):128-138. Print/Digital.

Thun, Geoff and Kathy Velikov, Lisa Sauve, Colin Ripley, Wesley McGee. "Soundspheres: Resonant Chamber." *Leonardo: The Journal of the International Society of the Arts, Sciences and Technology*. 45.4(2012): 348-357. Print.

Academic Conference Papers

Lundeen, K.M., Kamat, V.R. Menassa, C.C., McGee, W. "Workpiece Modeling for Adaptive Robotized Construction Work," *Proceedings of the Construction Research Congress (CRC)*, ASCE, New Orleans, LA, USA, (In Review). 2018.

Lundeen, K.M., Kamat, V.R. Menassa, C.C., McGee, W. "Adaptive Perception and Modeling for Robotized Construction Joint Filling," *Proceedings of the 35th International Symposium on Automation and Robotics in Construction and Mining (ISARC)*, Berlin, Germany. 2018

McGee, W., Ng, T., Peller, A. "Hard + Soft: Robotic Needle Felting for Nonwoven Textiles", *Proceedings of ROBJArch 2018*. (forthcoming)

- Tish, D., McGee, W., Shork, T., Thun, G., Velikov, K. Topological Design and Optimization of Robotic Additively Manufactured Cable-Nets, Proceeding of IASS Symposium 2018, Boston, MA. 2018.
- Sean Ahlquist and Wes McGee, "PneumaKnit: Actuated Architectures through Wale- and Course-Wise Tubular Knit-constrained Pneumatic Systems," in ACADIA 2017: Disciplines & Disruptions, Paper Proceedings 2017
- Luisel Zayas, Dustin Brugmann, Brandon Clifford, Wes McGee & James Durham, "Quarra Cairn: Incremental Stability Through Shifting and Removal of Mass," TxA Emerging Design + Technology, 2017.
- Luisel Zayas, Dustin Brugmann, Brandon Clifford, Wes McGee & James Durham, "Quarra Cairn: Incremental Stability Through Shifting and Removal of Mass," ACADIA 2017: Disciplines & Disruptions, Project Proceedings, 2017.
- Tsz Yan Ng and Wes McGee, "Thermoplastic Concrete," TxA Emerging Design + Technology, 2017.
- Tsz Yan Ng and Wes McGee, "Thermoplastic Concrete," in ACADIA 2017: Disciplines & Disruptions, Paper Proceedings 2017.
- Tsz Yan Ng and Wes McGee, "Thermoplastic Concrete," in ACADIA 2017: Disciplines & Disruptions, Project Proceedings 2017.
- Ariza, Ines and T.S. Sutherland, J. Durham, C.T. Mueller, W. McGee, B. Clifford, "Robotic fabrication of stone assembly details", *FABRICATE 2017* (accepted from abstract).
- Mcgee, Wesley and Geoff Thun, Kathy Velikov, and Dan Tish. "Infundibuliforms: Kinetic Systems, Additive Manufacturing for Cable Nets, and Tensile Surface Control". *FABRICATE 2017* (accepted from abstract).
- Clifford, Brandon and Wesley Mcgee, "Microtherme: Examining Contradictory Concepts of Spatial and Thermal Comfort," in TxA Emerging Design + Technology, 2017.
- Clifford, Brandon and Wesley Mcgee. "MicroTherme". *Posthuman Frontiers: Data, Designers, and Cognitive Machines, ACADIA 2016. Eds.*
- Clifford, Brandon and Wesley Mcgee. "RoundRoom". *Posthuman Frontiers: Data, Designers, and Cognitive Machines, ACADIA 2016. Eds.*
- Clifford, Brandon and Wesley Mcgee. "Digital Inca: An Assembly Method for Free-Form Geometries". *Modeling Behavior: Proceedings of the 2015 Design Modeling Symposium*, Eds. Mette Ramsgaard Thomsen, Martin Tamke, Christoph Gengnagel, Billie Faircloth, and Fabien Scheurer. 2015. Copenhagen, Denmark: Springer Publishing, Switzerland. Print/Digital. (accepted from full paper)
- Seyedahmadian, Ali and Omid Torghabehi, Wesley Mcgee. "Developing a computational approach towards a performance based design and robotic fabrication of fibrous skin structures", *International Association for Shell and Spatial Structures*. 2015, Amsterdam, Netherlands: IASS. Digital. (accepted from full paper)
- Feng, Chen and Yong Xiao, Aaron Willette, Wesley McGee, Vineet R. Kamat. "Towards Autonomous Robotic In-Situ Assembly on Unstructured Construction Sites Using Monocular Vision". *International Symposium on Automation and Robotics in Construction and Mining*. 2014, Sydney, Australia: ISARC, Digital. (accepted from full paper)
- Ammar Kalo, and Jake Newsum, Wesley McGee. "Performing: Exploring Low-Cost Architectural Variable Geometry with Robotic Incremental Sheet Metal Forming." *Fabricate 2014*, eds. Fabio Gramazio, Matthias Kohler, Silke Landenburg. 2014, Zurich, Switzerland. Print. (accepted from full paper)

Clifford, Brandon and Wesley McGee. "La Voûte de LeFevre: a Variable-Volume Compression-Only Vault." *Fabricate 2014*, eds. Fabio Gramazio, Matthias Kohler, Silke Landenburg. 2014, Zurich, Switzerland. Print. (accepted from full paper)

Pigram, David and Iain Maxwell, Wesley McGee. "Novel Stones of Venice." *ACADIA 2013*. eds. Philip Beasley, Omar Khan, Michael Stacey. 2013, Waterloo, Ontario. Print. (accepted from full paper)

Del Campo, Matias and Adam Fure, Wesley McGee, Arthur Flexer, Sandra Manniger. "Autonomous Tectonics: A Research into Emergent Robotic Construction Processes." *Rethinking Prototyping: Proceedings of the Design Modeling Symposium*. 2013, Berlin, Germany. Print. (accepted from full paper)

Del Campo, Matias and Adam Fure, Wesley McGee, Arthur Flexer, Sandra Manniger. "Autonomous Tectonics: A Research into Emergent Robotic Construction Processes." *Digital Architecture Design Association*. 2013, Beijing, China. Print. (accepted from full paper)

Pigram, David and Iain Maxwell, Wesley McGee, Ben Hagenhofer-Daniel, Lauren Vasey. "Protocols, Pathways, and Production." *Robots in Architecture, Art, and Design*. Eds. Sigrid Brell-Cokcan and Johannes Braumann. 2012, Vienna, Austria: Springer Wien. Print. (accepted from full paper)

Newell, Catie and Wesley McGee, Aaron Willette. "GlassCast: A Reconfigurable Tooling System for Free-Form Glass Manufacturing." *ACADIA 2012*. Eds. Mark Cabrinha, Jason K. Johnson, Kyle Steinfeld. 2012, San Francisco, CA. Print. (accepted from full paper)

Thun, Geoff and Kathy Velikov, Lisa Sauve, Wesley McGee. "Design Ecologies for Responsive Environment Systems: Resonant Chamber, an Acoustic Performative Model." *ACADIA 2012*. Eds. Mark Cabrinha, Jason K. Johnson, Kyle Steinfeld. 2012, San Francisco, CA. Print. (accepted from full paper)

McGee, Wesley and David Pigram, Maciej Kaczynski. "Robotic Reticulations: A method for the integration of multi-axis fabrication processes with algorithmic form-finding techniques." *Association for Computer-Aided Architectural Design Research in Asia*. 2012, Chennai, India. Print. (accepted from full paper)

McGee, Wesley and David Pigram. "Formation Embedded Design: A Method for the Integration of Fabrication Constraints into Architectural Design." *ACADIA 2011*. 2011, Banff, Canada. Print. (accepted from full paper)

Kaczynski, Maciej and Wesley McGee, David Pigram. "Robotically Fabricated Thin-Shell Vaulting: A Method for the Integration of Multi-Axis Fabrication Techniques with Algorithmic Form-Finding Techniques." *ACADIA 2011*. 2011, Banff, Canada. Print. (accepted from full paper)

Clifford, Brandon and Wesley McGee. "Periscope: Foam Tower." *Fabricate: Making Digital Architecture*. Eds. Ruari Glynn, Bob Sheil. 2011, London, UK: Riverside Architectural Press. Print. (accepted from full paper)

Clifford, Brandon and Wesley McGee. "Periscope: Foam Tower." *International Technology, Education and Development Conference*. 2011, Valencia, Spain. Print. (accepted from full paper)

Invited Lectures

McGee, Wesley. "Matter Design." Prairie View A&M University, 2018. Lecture.

McGee, Wesley. "ACADIA Innovative Research Award." Massachusetts Institute of Technology, Boston, MA 2017. Lecture.

McGee, Wesley. "Matter Design." University of Illinois, Champagne, IL 2017. Lecture.

McGee, Wesley. "Matter Design." *Matter Design Computation*. Cornell University, Ithaca, NY 2017. Symposium.

McGee, Wesley. "Matter Design." *Doctoral Robotics Symposium*. University of Technology Sydney. Sydney, Australia 2017. Symposium.

McGee, Wesley. "Matter Design." *ACSA Administrators Conference*. Chicago, IL 2016.

McGee, Wesley. "Matter Design." *Architectural Robotics Symposium*. ETH Institute for Technology in Architecture. Zurich, CH. 2015. Symposium.

Clifford, Brandon and Wesley McGee. "Stereotomic Robotics." College of Architecture, Georgia Tech, Atlanta, GA. 2014. Lecture.

McGee, Wesley. "Matter and Making." LSU, Baton Rouge, LA. 2014. Lecture.

McGee, Wesley. "Forming Machines." *Fabricate 2014*. ETH, Zurich, CH. 2014. Session Chair.

McGee, Wesley. "Robotic Fabrication." MIT School of Architecture. Boston, MA. 2013. Lecture.

Clifford, Brandon and Wesley McGee. "Range." *Architectural League Prize*. Parsons, New York, NY. 2013. Lecture.

McGee, Wesley. "Matter and Making." Kent State University, Kent, OH. 2013. Lecture.

McGee, Wesley. "Matter and Making." *[En]Coding Architecture*. Carnegie Mellon University, Pittsburgh, PA. 2013. Lecture.

McGee Wesley. "Robotic Fabrication." *Digital Provocations Symposium*. University of Minnesota, Minneapolis, MN. 2012. Lecture.

McGee, Wesley. "Matter and Making." *Guest lecture for Skylar Tibbits*. MIT School of Architecture, Boston, MA. 2012. Lecture.

McGee, Wesley. "Matter and Making." TU Delft Hyperbody Lab, Rotterdam, Netherlands. 2012. Lecture.

McGee, Wesley. "Robotic Constructs." *Guest Lecture for Martin Bechthold*. Harvard Graduate School of Design, Boston, MA. 2011. Lecture.

Clifford, Brandon and Wesley McGee. "Periscope." *Input:Output Symposium*, Temple University, Philadelphia, PA. 2011. Symposium.

Exhibitions, Solo

Clifford, Brandon and Wesley McGee. *RoundRoom*. (Solo Exhibition), Keller Gallery, MIT, Boston, MA, 2014. Installation.

Clifford, Brandon and Wesley McGee. *La Voute de LeFevre*. Columbus, OH: LeFevre Fellowship Installation. 2013. Installation.

Exhibited Work

McGee, Wesley, Asa Peller, Tsz Yan Ng. *Hard + Soft: Additive Manufacturing of Nonwoven Textiles*. Ann Arbor, MI: Research Through Making Exhibition, 2018. Installation.

Mcgee, Wesley, Asa Peller. *Elemental | Ornamental*. Ann Arbor, MI: Research Through Making Exhibition, 2018. Installation.

Clifford, Brandon and Wesley McGee. *Cannibalistic Architecture*. Seoul Architecture Biennale. Seoul, Korea. 2017. Installation.

Mcgee, Wesley and Tsz Yan Ng. *Thermoplastic Concrete*. Boston, MA: ACADIA Projects, 2017. Poster.

Mcgee, Wesley and Tsz Yan Ng. *Thermoplastic Concrete*. Ann Arbor, MI: Research Through Making Exhibition, 2017. Installation.

Mcgee, Wesley and Sean Ahlquist, Henry Sodano. *Morphable Architectures*. Ann Arbor, MI: Research Through Making Exhibition, 2017. Interactive Prototype.

Newell, Catie and Wesley Mcgee, Aaron Willette. *Avilae*. ACADIA Exhibition. Curator Sandra Manninger. 2016. Installation.

Clifford, Brandon and Wesley McGee. *Microtherme*. ACADIA Exhibition. Curator Sandra Manninger. 2016. Installation.

Clifford, Brandon and Wesley McGee. *RoundRoom*. ACADIA Exhibition. Curator Sandra Manninger. 2016. Installation.

Mcgee, Wesley and Geoff Thun, Kathy Velikov. *Infundibuliforms*. Ann Arbor, MI: Research Through Making Exhibition, 2016. Interactive Prototype.

Clifford, Brandon and Wesley McGee. *Selected Works*. Aarhus, Denmark: 1965-2015 – 50th Anniversary Exhibition: Engaging Through Architecture, 2015. Images, Drawings

Clifford, Brandon and Wesley McGee. *Matter Design*. Emerging Practices: Material Matters. Curator Illa Berman. Cambridge Ontario: Idea Exchange, 2015. Models, Images.

Clifford, Brandon and Wesley McGee. *Microtherme*. Bigger than a Breadbox. Curator Aaron Willette. Boston, MA, 2015. Installation.

Newell, Catie and Wesley Mcgee, Aaron Willette. *Avilae*. Lyon, France. 2015. Installation.

Clifford, Brandon and Wesley McGee. *Stereotomic Design*. Curated by Giuseppe Falacara, Marmomacc Exhibition, Verona, IT, 2014. Installation.

Ahlquist, Sean and Wesley McGee. *Knitted Architectures*. Ann Arbor, MI: Research Through Making Exhibition, 2014. Installation.

Newell, Catie and Wesley McGee. *In Reflection*. Ann Arbor, MI: Research Through Making Exhibition, 2014. Installation.

Clifford, Brandon and Wesley McGee. *Helix*. Boston Society of Architects Design Biennale. Curated by Chris Grimley, Michael Kubo, and Mark Pashnik. Boston, MA, 2013. Installation, Models.

Clifford, Brandon and Wesley McGee. *La Voute de Lefevre*. EnCoding Architecture, curated by Liss C. Werner, Carnegie Mellon School of Architecture, Pittsburgh, PA, 2013.

Pigram, David and Iain Maxwell, Wesley Mcgee. *Clouds of Venice*. Taubman Faculty at the Venice Architectural Biennale. Ann Arbor, MI: Taubman College Gallery. 2012. Images.

Pigram, David and Iain Maxwell, Wesley McGee. *Clouds of Venice*. Venice Architecture Biennale, Australian Pavilion. Venice, Italy, 2012. Installation.

Newell, Catie and Wesley McGee, Aaron Willette. *Specimen*. Art Prize. Grand Rapids, MI, 2012. Installation.

Clifford, Brandon and Wesley McGee. *Matter and Making*. After Hours. Princeton, NJ: Princeton University. 2011. Images.

Clifford, Brandon and Wesley McGee. *Foam Advocates*. Digital Futures, Curated by Neil Leach. Shanghai, China: Tongji University. 2011. Images.

Clifford, Brandon and Wesley McGee. *PlyShelf*. AZ Awards Exhibition. Toronto, CA. 2011. Images.

Clifford, Brandon and Wesley McGee. *Selected Works*. Machinic Processes, Beijing Architecture Biennale, Curated by Neil Leach, Xu Wei-Guo. Beijing, China. 2010. Images.

McGee, Wesley and David Pigram, Brandon Clifford. *Supermatter, Periscope*. Alumni and Faculty Show, Pratt Institute Gallery, New York, NY. 2010. Images and Prototypes.

Clifford, Brandon and Wesley McGee. *Persicope*. Georgia Institute of Technology. Atlanta, GA. 2010. Installation.

Clifford, Brandon and Wesley McGee. *Persicope*. Atlanta Modern Design Week. Atlanta, GA. 2010. Installation.

McGee, Wesley and David Pigram. *SuperMatter*. Digital Primitives, Experimenta Design Expo. Lisbon, Portugal. 2009. Prototype.

McGee, Wesley and David Pigram. *SuperMatter*. Lot Gallery, Lexington, KY. 2009. Prototype.

McGee, Wesley and David Pigram. *SuperMatter*. Compotech, Turin, Italy. 2009. Prototype.

McGee, Wesley and David Pigram. *SuperMatter*. Rouse. 555 Gallery, Detroit, MI. 2009. Prototype.

McGee, Wesley and David Pigram. *SuperMatter*. Wild Child, Bridge Gallery, New York, NY. 2009. Prototype.

McGee, Wesley and Monica Ponce de Leon, Martin Bechthold. *Surfacing Stone*. (Im)material Processes: New Digital Techniques for Architecture, Beijing Architecture Biennale. Curated by Neil Leach, Xu Wei-Guo. 2008. Images.

McGee, Wesley. *Eightfold I/II*. Cultivate. Gallery MC. Atlanta, GA. 2005. Prototypes.

McGee, Wesley. *Eightfold I/II*. Convergence, Furniture Society of America. San Diego State University, San Diego, CA. 2005. Prototypes.

McGee, Wesley. *Eightfold I/II*. Behind the Green Button. Atlanta Museum of Design. Atlanta, GA. 2005. Prototypes.

Patents

Ahlquist, S., McGee, W., Method for Mass-Customization and Multi-Axial Motion with a Knit Constrained Actuator. 2018. Provisional Patent.

McGee, W., Peller, A., Extrusion Die and Nozzle Cooling System for Large Scale Additive Manufacturing. 2017. Provisional Patent

Ahquist, S., McGee, W., Waas, T., Methods to Increase Structural Performance, Strength, and Durability of Fabric-Reinforced Composite Materials by Pre-Stressing. 2115-005946-US. 2015. Utility Patent.

Citations and Publication of Design Work

Books

Clifford, Brandon and Wesley McGee. "Matter Design". *Expanded + Field: Architectural Installation Beyond Art*. Applied Research + Design Publishing. 2016. New York. 160-167. Print.

Clifford, Brandon and Wesley McGee. (Work by Matter Design). *PostDigital Artisans*. Ed. Jonathan Openshaw. 2015. Frame Publishers. , ISBN 978-94-91727-61-0. 270-273. Print.

Clifford, Brandon and Wesley McGee. (Work by Matter Design). *Robotic the Future*. Ed. Philip Yuan and Neil Leach. 2014. Tongji University Press. Print.

Clifford, Brandon and Wesley McGee. "La Voute de LeFevre." *[En]coding Architecture*. Ed. Liss C Werner. 2013.

Clifford, Brandon and Wesley McGee. (Work by Matter Design, FABLab). *Performative Materials in Architecture and Design*. Rashida Ng and Sneha Patel. Intellect Ltd. 145-154. 2013.

Clifford, Brandon and Wesley McGee. (Work by Matter Design, FABLab). *Contemporary Digital Architecture 2*, Ed. Dmitrios Kottos, Links Intl, 2013

Clifford, Brandon and Wesley McGee. "Matter Design." *Archive: Design Biennale Boston*. Eds. Chris Grimley, Michael Kubo, and Mark Pashnik. Pinkcomma Books. 2013. Pg 22-27, 138-145.

Clifford, Brandon and Wesley McGee. (Work by Matter Design). *Material Strategies in Digital Fabrication*. Ed. Christopher Beorkem, 2012, Routledge.

Clifford, Brandon and Wesley McGee. "Sterotomic Robotics." *Fabricating the Future*. Ed. Philip Yuan and Neil Leach. 2012. Tongji University Press.

Clifford, Brandon and Wesley McGee, David Pigram. "Against Drawing." *DigitalFUTURE: Scripting the Future*. Ed. Philip Yuan and Neil Leach. 2012. Tongji University Press.

Clifford, Brandon and Wesley McGee. (Work from Matter Design). *Stereotomy: Stone Architecture and New Research*. Giuseppe Fallacara. 2012. Presses des Ponts, Paris, France. ISBN: 978-2-85978-468-3

Clifford, Brandon and Wesley McGee. (Work by Matter Design, FABLab). *Digital Fabrication in Architecture*. Ed. Nick Dunn, 2012, Lawrence King Publishers.

Wesley McGee and Monica Ponce de Leon, Martin Bechthold. "Surfacing Stone." *Material Design: Informing Architecture by Materiality*. Thomas Shroepfer. 2011. Birkhauser Pg. 24.

Pigram, David and Wesley McGee. "SuperMatter." *Contemporary Digital Architecture: Design and Technique*, Ed. Dmitrios Kottos. 2010. Pg 212-217.

Mcgee, Wesley. "Eightfold 1/II". *Furniture Studio 3: Furniture Makers Exploring Digital Technologies*. 2005. Cambium Press. Pg. 29.

Periodicals

Clifford, Brandon and Wesley McGee. "MicroTherme." *Concrete Comfort*. July/August 2016. Frame. Issue #108. Pg24.

Clifford, Brandon and Wesley McGee. "Spruce Sauna." *Clad Magazine*. Issue 1, 2016. Pg126.

Clifford, Brandon and Wesley McGee. (Work from Matter Design). *Artpower Creative Space*. May, 2016. Pg 41.

Clifford, Brandon and Wesley McGee. (Work from Matter Design). *Seasons Magazine*. 2015. #29. Pg 41.

Clifford, Brandon and Wesley McGee. "Microtherme." *Think Outside the Breadbox*. Sarah Hagman. 2015. pg 196.

Clifford, Brandon and Wesley McGee. "Microtherme." *Bostonstudion Matter Design skapar nytt med gamla metoder*. Cementa # 3. 2015. pg 15.

Clifford, Brandon and Wesley McGee. "Matter Design." *Next Progressives*. Daniele Rago. Jan 2015. Architect Magazine.

Clifford, Brandon and Wesley McGee. "Steamy Spruce." *Spruce Sauna*. July/August 2014. Frame. Issue #99. Pg24.

Clifford, Brandon and Wesley McGee. *Depth: Matter Design*. Evolo: Digital and Parametric Architecture. Issue 6, 2014. Pg 147-154.

Clifford, Brandon and Wesley McGee. "Matter Design." *More Than Just Speculating: Three Boston Architectural Firms Are Change-Makers*. James McCown. Art New England. Jan/Feb, 2014. Pg 10-11.

Clifford, Brandon and Wesley McGee. "Matter Design." *Ready to Build: The two partners at Matter Design excel at converting their avant-garde ideas into reality*. Ken Schulman. Metropolis Magazine. July/August, 2013. Pg 26-28.

Newell, Catie and Wesley McGee. "Specimen." *Carte of Darkness*. Spencer Bailey. Surface Magazine, 2013. Pg 74.

Clifford, Brandon and Wesley McGee. "Matter Design." Lorena Mariño Torrado. The Issue Magazine. Issue 3, July, 2013. Pg 103-112.

Clifford, Brandon and Wesley McGee. "Matter Design." *It's Volumetric*. Monitor Magazine. No 68, 2012. Pg 40-43.

Clifford, Brandon and Wesley McGee. "PlyShelf." *The Hippest Joints*. Azure Magazine. AZ Awards Issue. 2011. Pg 65.

Clifford, Brandon and Wesley McGee. "PlyShelf." *Architectural Record*. Product Reports Issue. 2011. Pg 111.

Web

Mackenzie Goldberg, "Trying Something New with Matter Design," archinect.com April 10, 2017.

Clifford, Brandon and Wesley McGee. (Work from Matter Design). *5 Ways Architects and Postdigital Artisans are Modernizing Craftsmanship*. Jeff Link. 2016. Lineshapespace.com.

Clifford, Brandon and Wesley McGee. "Matters of Scale: an interview with Jim Durham of Quarra Stone." (Work from Matter Design). Aaron Willette. 2015. Archinect.com.

Clifford, Brandon and Wesley McGee. "Microtherme." 2015. Divisare.com.

Clifford, Brandon and Wesley McGee. "Microtherme." *Matter Design's Microtherme conceals voluptuous concrete forms within a wooden box*. Jenna McKnight. 2015. dezeen.com.

Clifford, Brandon and Wesley McGee. "Microtherme." 2015. suckerpunchdaily.com.

Clifford, Brandon and Wesley McGee. "Helix." *Matter Design's "Helix" Stair Takes Concrete to the Next Level*. Rory Stott. 2015. ArchDaily.com.

Clifford, Brandon and Wesley McGee. "Microtherme." *Experiments in Micro-Architecture*. David Dick-Agnew. 2015. azuremagazine.com.

Clifford, Brandon and Wesley McGee. "RoundRoom." *Digital Incan Masonry*. Anna Bergren Miller. 2015. Architect's Newspaper: Fabrikator Blog.

Clifford, Brandon and Wesley McGee. "Helix." *Fabricated at Michigan*. Aaron Willette. 2013. archinect.com.

Clifford, Brandon and Wesley McGee. "Helix." *Design Biennale Boston*. The Tech (MIT). March 8, 2013. Pg 6.

Clifford, Brandon and Wesley McGee. "Periscope." *Architecture City Guide: Atlanta*. 2011. Archdaily.com.

Clifford, Brandon and Wesley McGee. "Periscope." *Up Periscope: Foam Tower Rises to the Challenge*. 2011. Isnglobal.com.

Grants

Ng, Tszyan and Wesley McGee. "Print, Tilt, Lift – 3d Printing Concrete." *AIA Upjohn Research Grant*, current, Dec 201 – May 2019 (20,000). Co PI.

Wesley McGee, Catie Newell, Zachery Belanger. "Activating Curvature (Phase II)" *Guardian Industries*, current, Dec. 2017 – April 2019 (90,000). PI.

Wesley McGee, Asa Peller, Tszyan Ng. "Robotic Felting." *Taubman College Research Through Making*, current, May 2017 – May 2018 (20,000). PI.

Wesley McGee, Asa Peller. "Ornamental | Elemental." *Taubman College Research Through Making*, current, May 2017 – May 2018 (20,000). PI.

Sodano, Henry, Sean Ahlquist and Wesley McGee. "Morphable Architectures." *MTRAC*, May 2016 – May 2017 (75,000). Co PI.

Ng, Tszyan and Wesley McGee. "Thermoplastic Concrete." *Taubman College Research Through Making*, May 2016 – May 2017 (20,000). Co PI.

Ng, Tszyan and Wesley McGee. "Thermoplastic Concrete." *University of Michigan Office of Research: Small Projects Grant*, May 2016 – May 2017 (15,000). Co PI.

Ahlquist, Sean and Wesley McGee, Henry Sodano. "Morphable Architectures." *Taubman College Research Through Making*, May 2016 – May 2017 (20,000). Co PI.

Newell, Catie and Wesley McGee, Zachery Belanger. "Activating Curvature." *Guardian Industries Innovations in Glass*, April 2016 – April 2017 (30,000). Co PI.

Del Campo, Matias and Sandra Manninger, Wesley McGee. "RGB: Robotic Glass Blowing." *Guardian Industries Innovations in Glass*, current, April 2016 – April 2017 (30,000). Co PI.

Wesley McGee and Kathy Velikov. "Kinetic Architectures." *University of Michigan Office of Research: Small Projects Grant*, complete, Oct 2015 – May 2016 (15,000). PI.

Thun, Geoff and Wesley McGee, Kathy Velikov. "Infundibuliforms." *Taubman College Research Through Making*, complete, May 2015 – Mar 2016 (20,000). Co PI.

Clifford, Brandon and Wesley McGee. *Quarra Matter Industry Partnership*. Quarra Stone, LLC. Current, (60,000). June 2015-June 2018. Co PI.

Wilcox, Glenn and Wesley McGee, Karl Daubman. "Studio/Teaching Grant." *Precast Concrete Institute*. Current, (90,000). Jan 2016-Jan 2019. Co PI.

Wesley McGee. "Tailored Response." *University of Michigan Office of Research: Small Projects Grant*, complete, Oct 2014 – August 2015 (5,000). PI.

Newell, Catie and Wesley McGee. "In Reflection." *Taubman College Research Through Making*, complete, May 2013 – Mar 2014 (20,000). Co PI.

Ahlquist, Sean and Wesley McGee. "Knit Architectures." *Taubman College Research Through Making*, complete, May 2013 - May 2014 (20,000). Co PI.

Kaczynski, Maciej and Wesley McGee, Doug Miller. "Cut, Fold, Pour." *Taubman College Research Through Making*, complete, May 2012 - May 2013, (20,000). Co PI.

Kaczynski, Maciej and Wesley McGee, Doug Miller. "Cut, Fold, Pour." *University of Michigan Office of Research: Small Projects Grant*, complete, June 2012 - May 2013, (15,000). Co PI.

Newell, Catie and Wesley McGee. "GlassCast." *Taubman College Research Through Making*, complete, May 2011 - May 2012, (20,000). Co PI.

Newell, Catie and Wesley McGee. "GlassCast." *University of Michigan Office of Research: Small Projects Grant*, complete, Oct 2011 - May 2012, (15,000). Co PI.

Thun, Geoff and Wesley McGee, Kathy Velikov. "Resonant Chamber." *Taubman College Research Through Making*, complete, May 2011 - May 2012, (20,000). Co PI.

Thun, Geoff and Wesley McGee, Kathy Velikov. "Resonant Chamber." *University of Michigan Office of Research: Small Projects Grant*, complete, Oct. 2011 - May 2012, (15,000). Co PI.

Wesley McGee. "Reciprocal Frame Architectures." *University of Michigan Office of Research: Small Projects Grant*, complete, Feb. 2011 - May 2012, (10,000). PI.

McGee, Wesley and David Pigram, Maciej Kaczynski. "Re-Vault." *Taubman College Research Through Making*, complete, May 2010 - May 2011, (20,000). Co PI.

Daubman, Karl and Wesley McGee. "Robotic Additive Fabrication." *University of Michigan Office of Research: Small Projects Grant*, complete, Feb. 2010 - May 2011, (10,000). Co PI.

Ponce de Leon, Monica and Wesley McGee, Martin Bechthold. "Surfacing Stone." *International Masonry Institute*, complete, December 2008 – June 2010(60,000). Co PI.

Courses Taught

ARCH 739: MS_DMT Capstone, Winter 2018.

ARCH 702: Material Engagement, Fall 2017.

ARCH 509: Advanced Robotic Fabrication, Winter 2017.

ARCH 571: Thesis Fabrication Seminar, Winter 2017.

ARCH 702: Material Engagement, Fall 2016.

ARCH 509: Advanced Robotic Fabrication, Fall 2016.

ARCH 509: Advanced Robotic Fabrication, Winter 2016.

ARCH 571: Advanced Concrete Fabrication, Winter 2016.

ARCH 702: Material Engagement, Fall 2015.

ARCH 571: Advanced Digital Fabrication, Winter 2015.

ARCH 700: MSDT Practicum, Winter 2015.

ARCH 509: Advanced Robotic Fabrication, Fall 2014.

ARCH 702: Material Engagement, Fall 2014.

ARCH 700: MSDT Practicum, Winter 2014.

ARCH 571: Advanced Digital Fabrication, Fall 2013.

ARCH 700: MSDT Practicum, Winter 2013.

ARCH 506: Fall 2012.

ARCH 702: Material Engagement, Fall 2012.

ARCH 571: Advanced Digital Fabrication, Winter 2012.

ARCH 571: Advanced Digital Fabrication, Fall 2011.

ARCH 571: Advanced Digital Fabrication, Winter 2011.

ARCH 571: Advanced Digital Fabrication, Fall 2010.

ARCH 571: Advanced Digital Fabrication, Winter 2010.

ARCH 571: Advanced Digital Fabrication, Fall 2009.

ARCH 571: Advanced Digital Fabrication, Winter 2009.

Invited Workshops

McGee, Wesley and David Pigram. "Spatial Extrusions II." *ACADIA 2016*. Ann Arbor, MI. 2016.

McGee, Wesley and David Pigram, Iain Maxwell, David Jenny, and Luka Pistoric. "Spatial Extrusions." *ROBArch 2016*. Sydney, Australia. 2016.

Clifford, Brandon and Wesley McGee. "Computational Making." Aarhus School of Architecture, Aarhus, DK. 2015.

Newell, Catie and Wesley McGee. "Glass." College of Creative Studies, Detroit, MI. 2015.

McGee, Wesley and David Pigram. "SuperMatterTools." Aarhus School of Architecture, Aarhus, DK. 2014.

McGee, Wesley. "SuperMatterTools." MIT School of Architecture, Boston, MA. 2013.

Clifford, Brandon and Wesley McGee. "MATr Project." Kent State University, Kent, OH. 2013.

McGee, Wesley. "SuperMatterTools." *[En]Coding Architecture*. Carnegie Mellon University, Pittsburgh, PA. 2013.

McGee, Wesley and Jelle Feringa. "Frame Automata." *ROBArch 2012*. TU Delft, Rotterdam, Netherlands. 2012.

McGee, Wesley and David Pigram. "Robotic Fabrication." TU Delft, Rotterdam, Netherlands. 2011.

McGee, Wesley and David Pigram. "Robotic Fabrication." AUS Sharjah, UAE. 2011.

McGee, Wesley and David Pigram. "Robotic Fabrication." Carnegie Mellon University, Pittsburgh, PA. 2011.

McGee, Wesley and David Pigram. "Robotic Fabrication." EPFL, Lausanne, CH. 2011.

Service

Academic Organizations

ACADIA Board Member(alternate), 2014-2015.

Competition Juries

10Up! Competition, Atlanta, GA: Atlanta AIA/AIAS.

Peer Review Committees

IASS 2018, (reviewer), 2018.

ROBArch 2018, (reviewer), 2018.

ACADIA 2017, (reviewer), 2017.

ACADIA 2016, (conference, workshop chair, reviewer), 2016.

ROBArch 2016, (conference, reviewer, workshop leader), 2016.

Canadian Foundation for Innovation, (grant, reviewer), 2015.

Automation in Construction, (journal, reviewer), Ed. Rudi Stouffs. 2014.

Swiss National Science Foundation, (grant, reviewer), 2014.

ACSA Toronto, (conference, reviewer), 2014.

ACADIA 2014, (conference, reviewer), 2014.

ROBArch 2014, (conference, chair, editor), 2014.

Fabricate 2014, (conference, session chair, reviewer). 2014.

ACADIA 2013, (conference, reviewer), 2013.

CAD, (journal, reviewer), Ed. Axel Killian, 2013.

ACADIA 2012, (conference, reviewer), 2012.

ROBArch 2012, (conference, workshop leader), 2012.

University Committees

Search Committee for Director of Duderstadt, 2008.

College Committees

Space Planning Committee. 2017 - present. Member.

Lab Safety Committee. 2015 - present. Co-Chair.

Technology Committee. 2009 – present. Member.

Juries

Thesis Prize Jury. University of North Carolina Charlotte. 2017

Graduate Architecture Review. The Ohio State University: Knowlton School of Architecture, 2012.

Graduate Architecture Review. Cranbrook Academy Department of Architecture, 2012.

Graduate Architecture Review. Cranbrook Academy Department of Architecture, 2011.

10Up! Challenge. YAF Atlanta, 2011.

Recognition/Citations of Student Work

Kalo, Ammar and Jake Newsum. "An Investigation of Robotic Incremental Sheet Metal Forming as a Method for Prototyping Parametric Architectural Skins." Presented in *RobArch 2014: Robotic Fabrication in Architecture, Art, and Design*. Eds. Wesley McGee and Monica Ponce de Leon. 2014, Springer Engineering. Print.

Kalo, Ammar and Jake Newsum. "An Investigation of Robotic Incremental Sheet Metal Forming as a Method for Prototyping Parametric Architectural Skins." *KUKA Young Potential Award for Best Scientific Paper, RobArch 2014*.

MacDowell, Parke and Diana Tomova. "Wave Pavillion." Presented in *Fabricate: Making Digital Architecture*. Eds. Ruari Glynn, Bob Sheil. 2011, London, UK: Riverside Architectural Press. Print.

Byrne, Kendra and Nick Rebeck. "Bent." Presented in *Fabricate: Making Digital Architecture*. Eds. Ruari Glynn, Bob Sheil. 2011, London, UK: Riverside Architectural Press. Print.

Sturgeon, Kyle and Chris Holzwart, Kelly RaczKawski, "Fatty Shell." *Dezeen: Book of Ideas*, Ed. Marcus Fairs. 2010. Spotlight Press.