

Ryan Hoover

www.ryanhoover.org
ryan@ryanhoover.org
4400 Arabia Ave
Baltimore, MD, 21214 USA
+1 410-585-7457

Education

MFA	2006	Interdisciplinary Art	Maryland Institute College of Art – Mount Royal School of Art
BFA	2001	Sculpture	UNC Asheville (with Research Scholar distinction)
BA	2001	Philosophy	UNC Asheville (with Academic distinction)

Areas of Knowledge and Experience

Art and Design Fields:	sculpture, emerging technologies, art-science collaboration, conceptual, interventionist
Biological Fabrication:	biomaterials, bioprinting, biodesign, basic genetic engineering, ecosystem design
Digital Fabrication:	3D modeling, 3D printing, CNC milling, laser cutting
Traditional Fabrication:	woodworking, mold making and casting, metal fabrication, metal foundry
Electronics:	Arduino, Circuit Python, digital and analog circuitry, motor control, Internet of Things
Software:	Rhino (+Grasshopper, +RhinoCAM), Adobe Design Suite, Office, others
Web:	HTML, CSS, JavaScript, PHP, MySQL, WordPress, “Internet of Things” methodologies
Theory:	science and technology studies, biopolitics, craft, ontology, network, contemporary political

Current Areas of Research

Biological Fabrication:	biocement, ecological restoration, developing bio-printers, building with microbial cellulose
3D Printing:	developing printers, writing software for slicing and machine control, engineering materials
Software Development:	Custom software for bioprinting, 3D CAD-based software for genetic engineering

Professional Experience - Current

Full-time Faculty, Interdisciplinary Sculpture, Maryland Institute College of Art, 2014 – present

- Served as Interim Chair AY22
- Developed biofabrication curriculum, creating three new courses at the intersection of biotech and making
- Led the development of a new Biofabrication Lab to support coursework and research on novel materials and biotechnology, including lab design, equipment purchase, and environmental health and safety
- Developed the mica.bio website which serves as a repository for classes, lab protocols, and student projects
- Fostered research-based studio practices with new courses and student mentorship
- Developed advanced digital fabrication curriculum, creating three new courses on emerging technologies
- Integrated science and engineering into art and design education with course material, guest lecturers, and helping to establish the “visiting engineer” position
- Supported international exchange with collaborative coursework between MICA and the Willem de Kooning Academy with student travel to the Netherlands, a summer travel intensive course in Seoul with MICA and the Korean National University of the Arts, and a winter intensive at the Central South University in Changsha, China
- Assisted with the design and implementation of the expanded and relocated Digital Fabrication Studio
- Recognized by the MICA Board of Trustees with the 2017 award for teaching excellence

Professional Experience - Previous

Director of Fabrication Studios, Maryland Institute College of Art, 2007 – 2014

- Worked closely with Chairs, Deans, and others from the school to ensure that the fabrication studios met the current and near-future needs of the college.
- Developed, launched, and supervised multiple fabrication studios including the Model Shop, Graduate Studio Center Wood Shop, 2D Prototyping Studio, and the Digital Fabrication Studio.
- Initiated, designed, and implemented the Digital Fabrication Studio with advanced equipment, effective software, and a unique hands-on approach that rapidly brought MICA into the forefront of this field.
- Provided oversight and support of the departmental studio managers in Interdisciplinary Sculpture, Fiber, Foundations, Ceramics, Printmaking, and the Rinehart Graduate Sculpture program.
- Maintained an excellent record of safety and increased compliance with local, state, and national regulations through effective management and partnership with the Environmental Health and Safety department.
- Maintained balanced budgets through detailed management of operating, compensation, and capital budgets for all non-departmental fabrication studios.

Part-time Faculty, Maryland Institute College of Art, 2006 – 2014

- Taught courses Brought a higher facility and critical understanding of technology to Interdisciplinary Sculpture students by proposing, designing, and teaching new classes, including Digital Fabrication and the Object of Networks.
- Integrated conceptual development with technical training in Introduction to Sculpture and range of other classes that spans multiple disciplines and levels.
- Elevated the technical skills of Environmental & Architectural Design students by re-introducing Fabrication Technology into the curriculum and adding a design-focused Digital Fabrication course.
- Taught freshman to think critically about electronic media and to integrate digital technologies into their artistic practice through the foundation-level Electronic Media and Culture course.
- Advanced the work of Graduate students through the grad-level Fabrication Technology course, thesis advising, incorporation into undergraduate courses, teaching internships, and individual mentorship.

Wood Shop Manager, Maryland Institute College of Art, 2007 – 2010

- Dramatically increased the safety and effectiveness of the Wood Shop with improved policies and management of the studio.

Adjunct Instructor, Harford County Community College, 2006 – 2010

- Expanded the scope of the Visual, Performing, and Applied Arts division by teaching a wide range of web, interactive, and time-based media.
- Effectively taught a diverse student body through clear instruction and multivalent assignments.

Owner and Designer, Developed Design, 2006–08

- Successfully launched and operated a bespoke web design and development company by creating unique and user-friendly sites and applications.
- Created dynamic interactive sites and custom content management systems with HTML, CSS, Flash, PHP, and MySQL.

Carpenter, 1997-06

- Created custom furniture and cabinetry
- Served as job foreman on new home construction and up-scale remodeling projects

Courses Taught

- “Art and Algorithms” MICA Interdisciplinary Sculpture, 2020-present (co-taught w/ Margaret MacDonald)
- “Grow the Future” MICA Interdisciplinary Sculpture 2018-present
- “A Romance of Bastardizing Machines” MICA Interdisciplinary Sculpture 2018-present
- “Intro to Biofabrication” MICA Interdisciplinary Sculpture 2016-present
- “Co-Lab” MICA Sculptural Studies 2016-present
- “Unravel the Code” MICA Interdisciplinary Sculpture 2013 – present (co-taught w/ Annet Cowenberg)
- “Unravel the Code, International Collaboration” (co-taught w/ Annet Cowenberg and Jon Stam at WdKA)
- “Digital Fab: Studio Research” MICA Sculptural Studies 2013 - 2016
- “Digital Fabrication” MICA Interdisciplinary Sculpture 2013 - present
- “Digital Fabrication” MICA Environmental & Architectural Design 2013-14
- “The Object of Networks” MICA Interdisciplinary Sculpture 2010
- “Fabrication Technology” MICA Environmental Design and Graduate Studies 2010-11
- “Soul of Seoul” MICA Continuing Studies / Interdisciplinary Sculpture 2009-12
- “Sculptural Kinetics” MICA Interdisciplinary Sculpture 2008-09
- “Introduction to Sculpture” MICA Interdisciplinary Sculpture 2008-10
- “Electronic Media and Culture” MICA Foundations 2006-08
- “Multimedia I” Harford Community College Visual communications 2007
- “Design for the Web” Harford Community College Visual communications 2007
- “Interactive Design” Harford Community College Visual communications 2006

Conference Presentations and Lectures

- 2021 “Collaboration across Disciplines and Species for Ecological Rehabilitation” University of Maryland Center for Environmental Science Horn Point Laboratory, Cambridge, MD
- 2020 “Interdisciplinary + Interspecies Collaboration: Crafting Biocement Structures for Marine Habitat Restoration” Assoc. for Environmental Studies and Sciences Conference: Research and Action.
“Technologies for Living” Radical Ecologies Research Group, NYU, New York NY.
- 2019 “Creative Biofabrication and Collaborative Research in an Art School Context” American Association of Colleges and Universities’ Transforming STEM Higher Education, Chicago IL.
“Design for the More-than-Human World: creating biocement structures for oyster restoration” PARSE Conference: Human, University of Gothenburg, Gothenburg, Sweden.
“Innovations in Community Bio Labs and in Art + Science Collaborations” Acceptance and Resistance to Innovation, Harvard, Cambridge, MA.
“Artist Talk - Technologies of Life” Central South University, Changsha, Hunan, China.
- 2018 “Learning in the Biotech Era: Diversity, Engagement and Participation Priorities” panel, Global Community Bio Summit, MIT Media Lab, Cambridge, MA
“Unravel the Code: Interdisciplinary Learning of Emerging Technology through Intensive International Workshops” European League of Institutes of the Arts, Rotterdam, NL
“Technologies of Life” UMBC, Cantonsville, MD
“Biotechnology Education as Ground for Developing Understanding of Ethics” learn.design.bio conference, U. Penn, Philadelphia, PA
- 2017 “Extreme 3D Printing Applications” panel, 3D DC US Capitol, Washington, DC
“Artist Talk” McDaniel College, Westminster, MD
- 2016 “3D DC – 3D printing and the Environment” panel, US Capitol, Washington, DC
“Creating Space for Innovation” Bangladesh Makeathon, Dhaka, Bangladesh
- 2015 “Bioprinting in Art and Design” Bioprinting Breakout, Baltimore Under Ground Science Space, MD
“Works 2011-2014” Morgan State University, Baltimore, MD
- 2014 “Bioprinting at the Baltimore Under Ground Science Space” Subtle Technologies Festival, Toronto
- 2013 “Integrating the Powerfully Unstable - Digital Fabrication in Art and Design Education” New Paradigms in Teaching and Learning, Association of Independent Colleges of Art and Design, Baltimore, MD

Grants and Fellowships

2024	NSF Convergence Accelerator, Co-PI (Dr. Elizabeth North, UMCES, lead PI)
2020-24	Coral Defense Project, Bailey Wildlife Foundation, Co-PI (Dr. Elizabeth North, UMCES, lead PI)
2017-18	Material Research Grant, Center for Craft Creativity and Design, Co-PI(Walter Zimbeck, co-PI)
2015-17	MICA Research Grants
2008,13	Maryland State Art Council Individual Artist Grant
2010-12	Hamiltonian Artist Fellowship, Washington, DC
2004-06	Mt. Royal Fellowship, MICA
2001	Undergraduate Research Grant, UNCA

Selected Exhibitions

2021	"Faculty Sabbatical Exhibition" MICA Baltimore, MD.
2020	"What a Wonderful World" Phillips Museum of Art, Lancaster, PA.
2019	"40th Anniversary Exhibition" School 33, Baltimore, MD.
2017	"Denatured", DC Arts Center, Washington DC.
2016	"Strange Landscapes", Arlington Art Center, Arlington, VA.
2015	"6", Randall Scott Projects, Baltimore, MD.
2014	"Baltimore Artists + WPA + Mera Rubell = LOVE" Marianne Boesky Gallery, NY, NY. "Landed" Jane Deering Gallery, Santa Barbara CA. "Ambi-Mimetics", Hamiltonian Gallery, Washington DC. (solo)
2013	"Stay In" Free Paarking, Saint Louis, MO. "Speed and Pressure" Hamiltonian Gallery, VisArts Kaplan Gallery, Rockville, MD. "Selfie" Guest Spot, Baltimore, MD.
2012	"Sculpting with Satellites" Hamiltonian Gallery, Washington DC. (solo) "Comfort Zone" Guest Spot, Baltimore MD. "Zeitgeist III: Too Much Information" DC Arts Center, Washington DC. "Sondheim Semi-Finalist Exhibition" MICA, Baltimore, MD. "Fellows Converge" Hamiltonian Gallery, Washington DC.
2011	"2200 Series" Hamiltonian Gallery, Washington DC. (solo) "Keisho 2011" Aichi Prefectural Museum of Art, Tokyo, Japan. "Broadly Thinking" Hamiltonian Gallery, Washington DC. "2011 MICA Faculty Exhibition" MICA Baltimore, MD. "Impact" Maryland Art Place, Baltimore, MD. "In and Out: Reasoning the Borders" Gallery Boda Contemporary, Seoul, S. Korea . "Scope Art Fair" Hamiltonian Gallery, Miami FL. "New Now" Hamiltonian Gallery, Washington DC. "Art Obsessional" UMD, College Park, Maryland. "Alumni Invitational" UNCA, Asheville, NC.
2007	"New Media Lounge" artDC International Art Fair, Washington DC. "2007 MICA Faculty Exhibition" MICA, Baltimore, MD. "Winter Doldrums" Harford Community College, Bel Air, MD.
2006	"Launch" MICA, Baltimore, MD.
2005	"November Reign" MICA, Baltimore, MD. "Biennial Exhibition" The Creative Alliance, Baltimore, MD.
2004	"Royal" MICA, Baltimore, MD.
2002	"Philotimia and the Nameless Mean" Gallery 31, Asheville, NC. (solo) "Mood Division" Wedge Gallery, Asheville, NC.
2001	"Epistemological Intersections" UNCA, Asheville, NC. (solo) "Cast Iron Exhibition" Open Air Museum at Pedvale, Latvia. "International Cast Iron Symposium" Pirkkala Alasali Gallery, Finland. "Fire Land" International Sculpture Park of the Open Air Museum at Pedvale, Pedvale, Latvia.

Bibliography

- Jeremy Cox, "Can bacteria help restore the Chesapeake Bay's oysters?" Chesapeake Bay Journal, October, 2019
- Karuga Koinange, "This form of art blends science and technology to tell stories through biological products" Technic.ly, October, 2019
- Nora Belblidia, "Blurring the Boundary Between Art and Science" BmoreArt, September, 2019
- Quitterie Largeteau, "Printing Life" Make: Magazine, Vol 56 April/May 2017
- Benjamin Andrew and Ian Davis, "Technologically Disposed," bmoreart.com, May 12, 2014.
- Mark Jenkins, "Galleries: 'ambi-mimetics,'" Washington Post, May 2, 2014
- Charles Donelan, "Art in These Parts," Santa Barbara Independent, February 12, 2014.
- Mary Carole McCauley, "Art collector Mera Rubell tours 37 Baltimore art studios in 36 hours," Baltimore Sun, January 5, 2014. A&E 1,7.
- Baynard Woods, "Selfie," Baltimore City Paper, June 19, 2013. 35.
- Cara Ober, "Self-Centered: Selfie at Guest Spot," bmoreart.com, June 16, 2013.
- Michael O'Sullivan "Art review: 'Speed and Pressure' at VisArts' Kaplan Gallery," Washington Post, June 13, 2013. 22-23.
- Cara Ober, "Comfort Zone at Guest Spot," bmoreart.com, September 10 2012.
- Cara Ober, "Testing the Boundaries," Urbanite Magazine, February 28 2012.

Collections

- Phillips Museum
Washington DC Art Bank
Open Air Museum at Pedvale, Latvia
City of Pirkkala, Finland
University of North Carolina at Asheville

Professional Service

- 2021- Biodesign Working Group Co-coordinator, Cumulus Association
- 2018- Biodesign Challenge Judge
- 2014-21 Board of Directors, Baltimore Under Ground Science Space
- 2015-20 Assessment Committee, MICA
- 2014 Bioprinting Breakout Co-organizer, Baltimore Under Ground Science Space
- 2013-15 3D Maryland Expert Users Group, Maryland Center for Entrepreneurship
- 2013-14 Academic Technology Committee, MICA
- 2012-14 Graduate Research Grant Review Committee, MICA
- 2007-14 Academic Services Directors Committee, MICA
- 2013 Fab Slam Mentor, Digital Harbor Foundation
- 2007-09 Environmental Health and Safety Studio Technicians Committee, MICA