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## **PROFILE**

Robert is an architecturally trained designer-maker and educator. He operates a multi-disciplinary design practice, Miscellaneous Projects, Ilc, founded in 2012 with Laura Coombs, as a platform for exploring ways of designing and making that blend traditional techniques with computational fabrication technology from multiple disciplines. Miscellaneous Projects strives to discover and provide the unexpected through recombination and crossover of techniques and methods. Robert has experience in architectural design, product design, graphic design, furniture design, CNC fabrication technologies & production workflows, and materials research & development.

Robert is co-director of the d.r.a. (Center for Design Research in Architecture) at Pratt where he leads research projects exploring the intersection of geometry, materials, and fabrication technology. His teaching experience includes architecture design studios, computational design & fabrication seminars, fashion design, architectural representation, and software design & development. He has taught at Pratt Institute, Columbia University GSAPP, Rensselaer Polytechnic Institute, New York College of Technology - Architectural Technologies, City College of NY, and Brooklyn College.

### **EDUCATION**

2004-2007	Masters of Architecture
	Columbia University :: GSAPP :: New York, NY.
2001-2004	Bachelor of Science in Architectural Studies with Highest Honors
	University of Illinois Urbana/Champaign :: School of Architecture :: Champaign, IL.
2002-2003	Study Abroad l'Ecole d'Architecture de Versailles. Versailles, France.

#### ACADEMIC/TEACHING EXPERIENCE

2024-present	Adjucnt Assciate Professor with CCE:: Pratt Institute, School of Architecture, Undergraduate Architecture
2021-2024	Adjunct Associate Professor :: Pratt Institute, School of Architecture, Undergraduate Architecture
2022	Adjunct Associate Professor :: CUNY, Brooklyn College School of Art, Brooklyn, NY
2015-2021	Adjunct Assistant Professor :: Pratt Institute, School of Architecture, Undergraduate Architecture
2013-2015	Instructor :: New York City Code and Design Academy :: New York, NY.
2014	Adjunct. Rensselaer Polytechnic Institute. School of Architecture. Troy, NY.
2014	Instructor :: NYCCT CUNY Architectural Technologies :: Brooklyn, NY.
2013-2014	Adjunct Assistant Professor of Architecture, Planning, and Preservation
2011-2014	Adjunct CLT :: NYCCT CUNY Architectural Technologies. Brooklyn, NY.
2008-2014	Visiting Assistant :: Pratt Institute, School of Architecture, Undergraduate Architecture
2008-2009	Associate of Architecture :: Columbia University GSAPP
2006-2007	Graduate Teaching Assistant :: Columbia University GSAPP

# VISITING JUROR / CRITIC

Pratt Institute Undergraduate Architecture and GUAD, Columbia University GSAPP - Graduate Architecture & Urban Design, UPENN Graduate Architecture, Rensselaer Polytechnic Institute, City College NYC, New York College of Technology - Architectural Technologies, City College, Cooper Union, Boston College of Architecture, SciArc, Parsons

## ACADEMIC HONORS AND AWARDS

2022	2022 Architecture + Design Independent Projects Grant recipients
	Architecture League of New York & New York Council for the Arts
2022	Impact Award, 5th Annual Pratt Research Open House, Pop Up Drop Off, d.r.a.
2007	AIA Medal for Excellence in the Study of Architecture :: Columbia University
2004	Earl Prize for Design Excellence :: University of Illinois
2003	Earl Prize for Design Excellence :: University of Illinois
2002	Earl Prize for Design Excellence :: University of Illinois
2002	Schwenk Traveling Scholarship :: University of Illinois
2001	Gargoyle Honor Society :: University of Illinois :: Inducted as Member

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## RESEARCH STATEMENT

In my career in design and architecture, my research occupies three trajectories that align with my teaching at Pratt. Professionally, I have worked in an overlapping space of design and fabrication, exploring the practice of being a designer-maker. My projects engage techniques of making through design and designs with an understanding of analog and digital making. Academically, I also explore the overlap of design and making from a pedagogical point of view. I believe we cannot design things for the physical world without understanding materials and tectonics, so I strive to incorporate a pedagogy of design-making at the core and advanced levels in the Pratt Undergraduate Architecture curriculum. The third path of my research has been through design pedagogy, which I have primarily explored at Pratt through coordination and as co-director of the d.r.a.lab (Center for Design Research in Architecture).

# SELECTED RESEARCH

Selected Research		
2023-present	Exploring Transdisciplinary Approaches To STEM Teaching and Learning  Participant, NSF grant establishing a Pratt Faculty Learning Community studying transdisciplinary teaching practices. Observe and conduct courses based on transdisciplinary learning practices.	
2022-2023	ALNY + NYCFA - Architecture + Design Independent Projects Grant recipient	
	Co-Recipient with Duks Koschtz (d.r.a.) of the Architecture League of New York Independent Projects Grant for 2022. Research into lightweight inflatable formwork for GFRC fabric 3D mold forms using 2D CNC fabrication.	
2022-2023	Pratt Center for K-12 Fellowship with Duks Koschitz	
	Finding Fun Form - Inflatable Geometry and Fabrication Techniques for Architecture	
2022-2023	Castflatables (Pratt Faculty Development Fund)	
	Funded research into lightweight inflatable formwork for GFRC fabric mold forms.	
2021-2022	Pratt Center for K-12 Fellowship with Olivia Vien	
	Integrating Math and Material in Design :: Hybrid Digital-Analog Geometry Systems	
2020-2022	Inverting Pratt's Design Studios, Pratt Strategic Initiative	
	Pratt Provost Office Strategic Plan funded research into novel teaching techniques for online design studios. Presented during Berlin Design Week 2021 and at AMPS 2022. Self-published online art and design teaching manual.	
2020-2021	Realtime Growth Metrics, Faculty Learning Community (FLC): Ungrading	
	Participation in the Center for Teaching and Learning Faculty Learning Community with support from the d.r.a., focused on developing the scholarship of teaching and learning around the topics of Flux and Ungrading. The research focuses on developing a non-grade-based growth and performance metrics platform to support student development in studio-based learning.	
2010 2020	COMPOSE. Contamolating Prosting and Proting Education	

### 2019-2020 COMPOSE: Contemplative Practices and Positive Education

COMPOSE was a series of faculty development workshops with the goal of establishing a personal practice framed around the concepts of learned optimism, resilience, and meaning-making.

#### 2015-2020 COMICS: Architectural Narratives

Research conducted with Professor Sacha Frey into the comic structure and a medium for hybrid visual and verbal storytelling for architectural design studios. Work published in [TRANS-] Fiction 2020 and exhibited at the University of Oklahoma "Schools of Thought: Rethinking Architectural Pedagogy" conference 2020.

# 2016-2020 First Year Design Pedagogy Manual – with Duks Koschitz, d.r.a.

Development of a pedagogical manual for first-year design faculty to improve teaching consistency and practices across 12 sections of Arch 101 and 102.

# 2014 Green Advanced Manufacturing Collaborative NYCCT, CUNY Career Path Program

New York Department of Labor Grant :: New York, NY

Develop courses for Architecture, design, and fabrication professionals interested in re-tooling or honing their skills in Digital Fabrication. Funded by a U.S. Department of Labor grant to integrate sustainable fabrication processes into a professional workflow.

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# 2011-2014 FUSE LAB :: NYCCT, City University of New York :: Brooklyn, NY

Collaborator for the development of FUSE LAB curriculum through a National Science Foundation Advanced Technology Education grant. The primary focus was on integrating computation and fabrication into architectural technologies and continuing education curriculums.

# 2011–2015 AgSquared LLC :: Washington, DC :: 516 841 5210

2013 USDA SBIR Phase II Grant.

Mobile App design prototypes to facilitate farm management and production workflows with technology.

2012 USDA SBIR Phase I Grant.

Software design prototypes to facilitate farm management and production workflows with technology.

# 2003-2004 Carolyn Dry PhD :: Natural Process Design Inc :: Champaign, IL :: 507 452 9113

Research for Development of a Self-Repairing Durable Concrete <a href="http://www.naturalprocessdesign.com/Tech\_Concrete.htm">http://www.naturalprocessdesign.com/Tech\_Concrete.htm</a>
Research for Self-Repairing Polymer Composites for Airplanes <a href="http://www.naturalprocessdesign.com/tech\_polymer.htm">http://www.naturalprocessdesign.com/tech\_polymer.htm</a>

Conceptual design for applied materials research proposals for USAF, NASA and Illinois Department of Transportation. Laboratory and field research of architectural / engineering materials. Acquisition & handling of research material. Full Scale and model testing of materials.

# 2001-2003 Carolyn Dry PhD :: University of Illinois :: Champaign, IL :: 507 452 9113

Research for Development of a Self-Repairing Durable Concrete <a href="http://www.naturalprocessdesign.com/Tech Concrete.htm">http://www.naturalprocessdesign.com/Tech Concrete.htm</a>

Completed first stage of research into ceramic fly ash building panels for the ICCI.

Laboratory and field research of architectural / engineering materials. Preparation of research proposals and final reports. Acquisition & handling of research material. Full scale and model testing of materials.

#### Symposiums & Lectures

# 2022 AHRA 2022 Convening: Building Ground for Climate Collectivism

Pop Up Drop Off: Design Activism with Self-Forming Pneumatic Structures and Waste Film Plastic

## 2022 AMPS: A Focus On Pedagogy

Inverted Studio: Novel Teaching Techniques for Online Design Studios

### 2022 Faculty Flash Talks, Pratt SOA

Shifting Ground: Design Build Inflatable Architecture

## 2021 Digital Futures + d.r.a: Architecture & Mathematics – How We Collaborate

Ruled Surfaces as Digital/Analog Material Geometry Interfaces <a href="https://www.youtube.com/watch?v=Gs2rREFiDK4">https://www.youtube.com/watch?v=Gs2rREFiDK4</a>

### 2021 Berlin Design Week 2021: Ready to Thrive in a VUCCA World (Panel Co-Coordinator)

Inverted Studios: Making at Home as a Design Pedagogy

Panel Co-Coordinator with Gisela Bauermann for Pratt School of Architecture

#### 2020 Schools of Thought: Pedagogies in Transition

Computation in a Visual Thinking Pedagogy

University of Oklahoma Gibbs College of Architecture :: Norman, OK

https://youtu.be/qLttL907s\_w

# 2015 Digital Design and Fabrication Guest Lecture ARCH3433

University of Texas, Austin School of Architecture :: Austin Texas

# 2014 Digital Design and Fabrication Workshop

Columbia University GSAPP, MSUD :: New York, NY

### 2014 Digital Design and Fabrication Workshop

Rensselaer Polytechnic Institute, School of Architecture :: Troy, NY

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2012 INTERSECTIONS: Building Interdisciplinary Pedagogy |

**Building Integrated Practice.** 

New York City College of Technology CUNY:: Brooklyn, NY

2012 CATALYST: Case Studies in Computational Techniques.

New York City College of Technology CUNY:: Brooklyn, NY

Digital Praxis: Case Studies in Computational Techniques.

New York City College of Technology CUNY:: Brooklyn, NY

#### **EXHIBITIONS**

2011

## Personal Works

2023 Pratt Earth Action Week

Pop Up / Drop Off Installation on Pratt's Campus

2023 Pratt Research Open House, Research Yard, Brooklyn Navy Yard

ALNY Independent Project Grant: Super Lightweight Pneumatic Formwork

2022 AHRA 2022 Convening: Building Ground for Climate Collectivism

Pop Up / Drop Off Installation on Pratt's Campus

2022 LIGHT & FAST: Finding Sustainable Form, Pratt IDC Grant Exhibition

Principal Investigators: Duks Koschitz, Robert Brackett III, [d.r.a. | Center for Design Research in

Architecture]. The selected works from the d.r.a. explore material form-finding topics that include, (a) Folding

along curves, (b) Ribbon surfaces for bending active structures, and (c) Inflatables with 2D to 3D

transformations

2022 Pop Up / Drop Off - Upsate Art Weekend with Lexington Art & Science

Exhibition of the Pop Up / Drop Off at LexArtSci in Lexington New York for Upstate Art Weekend 2022

2022 Pop Up / Drop Off - Collaboration between Miscellaneous Projects and the d.r.a.

NYCxDesign + Design Pavilion. Installation of a pneumatic hypar structure constructed from recycled industrial materials to raise awareness of film plastic waste and recycling. New York, NY. Times Square, May 2022. Project developed at Pratt through the d.r.a. With Duks Koschitz and sponsored by Miscellaneous

Projects, llc (Robert Brackett - Owner).

2022 Hyphae, In The Round, On The Flat, Pratt School of Architecture

Model submission for exhibition in the Pratt SoA gallery. Work published in the Exhibition Catalog

2022 Pratt Research Open House, Impact Award, d.r.a. - Pop Up Drop Off

Research into self-forming inflatable structures based on 2D patterns

2020 COMICS: Architectural Narratives

The University of Oklahoma Gibbs College of Architecture, Norman, OK

Schools of Thought: Rethinking Architectural Pedagogy

2012 INTERSECTIONS: Building Interdisciplinary Pedagogy | Building Integrated Practice.

New York City College of Technology CUNY:: Brooklyn, NY.

# Participation in featured works

2010	Dreams of Freedom, Local Projects LLC at the National Museum of American
2010	Lobby-For-The-Time-Being, Vito Acconci sculpture. Bronx Museum, New York.
2000	

2009 Olympic Athlete Village: Glow-in-the-dark bus shelters. Pedestrian Studio.
 2009 Furniture by Architects, Carl Fredrik Svenstedt's Infinity Bench.

2009 Cirrus, Permanent Collection, Zaha Hadid. Cincinnati Art Museum, Cincinnati.

2008 Form: Contemporary Architects at Play, Zaha Hadid Cirrus Sculpture.
2006 CLOSER: Cmmnwlth Vs. Kenzo Minami :: The Porcupine Syndrome.

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Published Works

## Research Publications - Papers

(Editor Reviewed - electronic publication)

Brackett, Robert L. III, and Duks Koschitz. "Sustainable Form-Active Structures: A Design Research Methodology at Two Scales." Formy.Xyz, no. No. 13/2022,

https://formy.xyz/en/artykul/sustainable-form-active-structures-a-design-research-methodology-at-two-scales/, (2022)

(Peer Reviewed - electronic publication)

Brackett, Robert, Proceedings of "Schools of Thought: Rethinking Architectural Pedagogy" Architecture Revisits Math & Science :: Computation In A Visual Thinking Pedagogy, Norman, OK, USA March 5-7, 2020, The University of Oklahoma Gibbs School of Architecture. (2020)

(Editor Reviewed - print publication)

Brackett, Robert & Frey, Sacha, [TRANS-] Fiction, Volume 6, Comics Beyond Fiction, The University of Arizona, College of Architecture, Planning, and Landscape, (2020)

## **Professional Works**

Designboom.com, "Pop Up/Drop Off: Inflatable Architecture By Pratt Students Is A Quilt Of Recycled Plastic", (2022), https://www.designboom.com/architecture/pop-up-drop-off-inflatable-architecture-dra-lab-pratt-institute-pneuhaus-05-25-2022

Dangerous Beauty: Separated - Separados <a href="https://separated.site/">https://separated.site/</a> (2019)

A Miscellaneous Projects production submitted under Laura Coombs

Sucker Punch Daily, "ARNICA, collection I," (2016),

Jewelry collection design by Robert Brackett and Laura Coombs at Miscellaneous Projects

ArcGuide (2012), Issue 34, "Thema: Architectur als Therapie". <a href="www.arcguide.de">www.arcguide.de</a>. Feature article on ffflourish.com (collaboration with Laura Coombs)

Sucker Punch Daily, "Expressions :: SRS,", (2012)

Design research by Robert Brackett for the NYCCT INTERSECTIONS Symposium in 2012

# **Featured Works**

Pratt Research Open House 2023, "Pop Up Drop Off – Inflatable Hypar Structure", (2023), https://www.pratt.edu/work/pop-up-drop-off-inflatable-hypar-structure/

NYCxDESIGN, "Design Pavilion Presents Pratt Institute School Of Architecture", (2022), https://festival.nycxdesign.org/event/design-pavilion-presents-pratt-institute-school-of-architecture/

Pratt Institute show to explore "bold work and big creative ideas", Pratt Architecture, Pop Up / Drop Off, Dezeen.com (2022, https://www.dezeen.com/2022/05/13/pratt-institute-show/

Pratt's Pop Up/Drop Off, Design Pavilion (2022), https://www.design-pavilion.com/installation/pratts-pop-up-drop-off

Pratt.edu, Pratt News, "Projects Addressing Local & Global Challenges Honored with 2022 Research Open House Awards", (2022),

https://www.pratt.edu/news/projects-addressing-local-global-challenges-honored-with-2022-research-open-house-awards/

Pratt.edu, Pratt News, "Inflatable Structures Visualize the Plastic Waste Crisis", (2022), https://www.pratt.edu/news/inflatable-structures-visualize-the-plastic-waste-crisis/

Architectural Digest (2012), "AD100: List of Top Talents in Interior Design."

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Fabrication of interior renovation at Associated Fabrication with Fox Nahem.

Bernamoff, Noah and Rae (2012), The Mile End Cookbook, NY: Clarkson Potter.

Mile End restaurant interior design and fabrication at Associated Fabrication.

Brownell, Blaine (2008), Transmaterial 2: A Catalog of Materials that Redefine Our Physical Environment, NY: Princeton Architectural Press.

Material design @ 4-Pli / Associated Fabrication.

Dwell's Special NYC Issue (2011), Dwell Magazine, "K\_Residence" (Cover Story), March 2011. Fabrication at Associated Fabrication for interior renovation by SU11.

Gould, Danielle (2013), Forbes, "AgSquared to Bring Interoperability to Agriculture," Web design by Miscellaneous Projects, llc for AgSquared LLC featured.

Iwamoto, Lisa (2009), Digital Fabrications: Architectural and Material Techniques, NY: Princeton Architectural Press. Material design @ 4-Pli / Associated Fabrication.

Lopez, Mario Cordero (2007), Surface Magazine, "Depth Perception," June 2007. Designer, CNC panel system for Closer: Cmmnwlth vs. Kenzo Minami.

Zaha Hadid Cirrus (2009), Vogue Italia no. 701, "Evolution 2009", January 2009. Fabrication design & production of sculpture at Associated Fabrication.

Dry, Carolyn, Final Technical Report, "A Proposal to Commercialize a Sintered Coal Ash/Flux Material for Building Panels", 00-1/3.1B-1 .(2002)

# Featured Academic Publications

Plunz, Richard. Culligan, Patricia (2014), <u>Sustainable Urbanization: New Designs for the Future City</u>, NY: Columbia University School of Continuing Education.

Wigley, Mark (2007), Columbia Architecture, Planning, and Preservation/Abstract 06/07, NY: Graduate School of Architecture, Planning, and Preservation of Columbia University.

Wigley, Mark (2006), Columbia Architecture, Planning, and Preservation / Abstract 05/06, NY: Graduate School of Architecture, Planning and Preservation of Columbia University.

Wigley, Mark (2005), <u>Columbia Architecture</u>, <u>Planning</u>, and <u>Preservation/ Abstract 04/05</u>, NY: Graduate School of Architecture, <u>Planning</u>, and <u>Preservation of Columbia University</u>

# Professional Experience

## 2012-present Miscellaneous Projects, llc - 305 McGuinness, 3F, Brooklyn, NY 11222 :: robert@miscproj.com

#### Co-Founder & Technical Director:

Miscellaneous Projects is a design practice in Brooklyn, NY specializing in making objects, spaces, and experiences using computation design, digital fabrication, and traditional techniques. We learn through the process of making with our hands and our minds as we craft the code, geometry, and materials that bring beauty and wonder into the world.

### 2010-present Digital Nouveau (Robert Lee Brackett III)

https://blog.digitalnouveau.com :: digital.nouveau@gmail.com

Digital design & fabrication consulting work for clients. Personal design work for publication & exhibition. Design and teaching blog at https://blog.digitalnouveau.com.

## 2011-2012 Philip Parker Architect - 77 Hudson St, Apt 2 :: New York, NY 10013 :: 212 693 1956

# Design and Fabrication Consultant:

Design new interior living conditions in Philip Parker's home. Coordinate and consult on digital fabrication technologies for more efficient construction of complex geometries. 3D modeling and details shop drawings for fabrication.

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## 2007-2010 Associated Fabrication LLC - 72 N 15th Street :: Brooklyn, NY 11222 :: 718 387 4530.

# Production Manager & Shop Manager:

Coordinate personnel, materials, and resources to complete multiple-scale fabrication projects.

Design and implement strategies to increase productivity and efficiency. Budgeting and estimating for material and supply orders to maintain an efficient shop environment.

Maintain CNC, thermoforming, and shop equipment in good working order.

Oversee the safety and responsible behavior of shop employees.

#### Designer / Fabricator:

Design and fabrication of prototypes for multiple architectural, furniture, and art projects. Fabrication consulting for architects and artists with an aim to maximize production efficiency while attaining the highest level of design intent. Development of drawing standards and CNC templates. Architecture and furniture design and fabrication.

## 2007-2008 Eiko Ishioka & Yoshiko Sato :: Sato Morris Architects - New York, NY :: 212 228 2832

## Designer & Digital Specialist:

The designed costume scheme was chosen for the Beijing Summer Olympics 2008 opening ceremonies. Extensive research and development of costume designs, materials, and fabrication. I directed design teams for multiple costume schemes. I assisted with a course at Columbia University related to the project.

# 2006 Studio Commonwealth - Zoe Boira Coombes & F. David Boira :: Brooklyn, NY.

### Designer:

Design of CNC canvas form for Closer: Commonwealth vs. Kenzo Minami. (11/2007).

Featured in Surface Magazine: Depth Perception by Mario Lopez.

## 2005 Craig Nealy Architects LLP - Craig Nealy :: New York, NY. 917.342.0060.

#### Intern Architect:

Designed hypothetical projects resulting in large retail design contracts. Participated in the design process of NYC residential projects, including Site Survey, SD, DDt, CD, Bidding, and Construction Administration.

#### 2003 ROLINET et ASSOCIES - Marc Rolinet. Paris, France

## Architectural Designer:

Charrette to advance to final running for the large-scale redevelopment of Chamblais, Switzerland city center.

### References

Duks Koschitz, PhD. Pratt Institute. Director d.r.a. Lab. 310.310.1819. duks@pratt.edu

Laura Coombs. Creative Director. Miscellaneous Projects, llc. 832 623 2443. <u>laura@miscproj.com</u>

Ezra Ardolino, Principal, Timbur LLC. (888) 330-3224. ezra@timburllc.com.

Sacha Frey. Adjunct Associate Professor. Pratt Institute Humanities and Media Studies. 206 484 3122. sfrey@pratt.edu.