

Siobhan Francois Rockcastle

Born 06.14.1985 in Minneapolis, Minnesota, U.S. Citizen
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EDUCATION

- 2013-2017 **Ecole Polytechnique Fédérale de Lausanne, PhD**
Thesis: Perceptual Dynamics of Daylight in Architecture
Director: Marilyne Andersen
School of Architecture, ENAC, Lausanne, Switzerland
- 2009-2011 **Massachusetts Institute of Technology, SMArchS, Building Technology**
Thesis: Daylight Variability and Contrast-Driven Architectural Effect
Advisors: Marilyne Andersen, Terry Knight & Sheila Kennedy
SA+P, Cambridge, MA [SMArchS Thesis Award]
- 2003-2008 **Cornell University, B.Arch**
Thesis: Pig's Eye Park, Reoccupying the Dump
Advisors: Kevin Pratt & Leyre Asensio Villoria
AAP, Ithaca, NY [Alpha Rho Chi Bronze Medal]

ACADEMIC & TEACHING

- December 2017 **University of Oregon, Assistant Professor**
Frederik Charles Baker Chair in Design
I will begin this position on December 16, 2017. My responsibilities will include teaching at the undergraduate and graduate level, research at the Energy Studies in Buildings Lab, and management of the Baker Lighting Lab.
- 2017 - current **Ecole Polytechnique Fédérale de Lausanne, Post Doctoral Assistant**
Position funded by the Velux Stiftung Foundation
Researching the added value of human-centric daylight performance assessments during the architectural design process.
- 2013 – 2016 **Ecole Polytechnique Fédérale de Lausanne, Teaching Assistant**
Courses Taught:
Architecture and Sustainability: Critical Approaches, Doctoral Level
Participated in the planning of lecture content, readings, and projects and lectured on case-study analysis and historical contexts for environmental performance evaluation.
- Solar Decathlon Summer Workshop, Master Level
Led a team of 6 students in the documentation and analysis of case-study projects, supervised the early-stage design of concepts for EPFLs upcoming 2017 competition entry and lectured on daylight integration in architecture.
- Space and Light: the Lighting Project, Master Level
Lectured on daylight performance software and led workshops in geometrical modelling and integration of performance evaluation software.

2011 – 2012

Northeastern University, *Teaching Fellow & Visiting Assistant Professor*

Courses Taught:

Architecture & Energy Systems, Bachelor Level

Independently planned and taught the required course for professional accreditation and lectured on architectural lighting, HVAC, acoustics, passive design, and energy management.

Comprehensive Design Studio, Bachelor Level

Coordinated 6 adjunct faculty (across 6 sections, composed of 70 student in total), led curriculum development for the terminal Bachelor-level studios, and independently taught a section of 13 students. This course integrated technical lecture-based courses and promote the integration of structural, mechanical, constructive, and passive performance strategies.

Daylight Design Seminar, Master Level

Independently taught 12 master students advanced techniques in daylight modelling, simulation, and visualization to encourage a reiterative design process for sustainable lighting design.

2009 - 2010

Massachusetts Institute of Technology, *Teaching Assistant*

Courses Taught:

Comprehensive Design Studio, Master Level

Assisted instruction with Professors Andrew Scott, Sheila Kennedy & Cristina Parreño and introduced the use of environmental simulation software to teach digital modelling and energy/lighting evaluation.

2005 - 2009

Cornell University, *Teaching Associate*

Courses Taught:

Undergraduate Design Studios 101 & 102

Co-taught 65 undergraduate first year architecture students alongside 5 full-time teaching assistants under the supervision of Professors Vincent Mulcahy and Alex Mergold.

Summer College Introduction to Architectural Design Studio

Taught one section of 14 high school seniors in a 6 week intensive summer workshop under the supervision of Professors Vincent Mulcahy and Alex Mergold.

PROFESSIONAL

2014 - current

Independent Daylight Design Consultant, Lausanne, Switzerland

- Campus Expansion, Ecole Hôtelière de Lausanne, Lausanne, Switzerland
- Bugaboo Corporate Headquarters, MSR Architecture, Amsterdam, Netherlands
- Automata Pavilion, TEN x TEN, Chicago, Illinois
- Fribourg Master Plan Competition, DEVspace, Fribourg [Honorable Mention]

2011- 2013

Kennedy & Violich Architecture, Boston, MA

Designer & Project Manager (April 2012 – January 2013)

- Minneapolis Riverfront Development Initiative, Minneapolis, MN
- Sunlight Delivery Fixtures for 3M Architectural Markets, Minneapolis, MN
- Bending Wood Vault for the Beaver Country Day School, Boston, MA

Design Consultant (February 2011 – September 2011)

- Solar-Powered Soft Rockers for MIT's 150th Anniversary, Cambridge, MA
- Sunlight Luminaires for 3M Architectural Markets, Minneapolis, MN
- Tozzer Library Renovation, Cambridge, MA

- 2010 – 2011 **Sekisui House & MIT**, Boston, MA & Tokyo, Japan
Research Assistant (January - February)
- Sustainable Housing Prototypes for future development in 2050, Tama, Japan
- 2010 **Snøhetta**, New York, NY
Intern Architect (May - August)
- Ryerson University Student Learning Center, Toronto **[Award of Excellence]**
 - SFMOMA Competition, San Francisco, CA
- 2009 **Epiphyte Lab**, Ithaca, NY
Intern Architect (January - May)
- HSU Residence Ithaca, NY
- 2004-2008 **MSR Architecture**, Minneapolis, MN & Hyattsville, MD
Intern Architect (Intermittent)
- Urban Outfitters Corporate HQ Philadelphia, PA
 - Farragut Street Row Homes, Hyattsville, MD
- 2005 – 2007 **Cornell Solar Decathlon Team**, Ithaca, NY & Washington D.C.
Architecture Team Co-Leader
- Concept through construction for Cornell's 2007 entry in the U.S. Department of Energy sponsored Solar Decathlon, exhibited (10/2007) on the National Mall in Washington, D.C.
- 2003 **Gensler**, New York, NY
Intern Architect (May - August)
- Thornton Tomasetti Offices, New York, NY

PUBLICATIONS

- Books*
- 2013 First Author, Rockcastle S., Andersen M., *Annual Dynamics of Daylight Variability and Contrast: A Simulation-Based Approach to Quantifying Visual Effects in Architecture*, Springer Brief in Computer Science, London, 2013.
[\[http://infoscience.epfl.ch/record/181819\]](http://infoscience.epfl.ch/record/181819)
- 2011 Research Assistant & Contributor, *re: New Town: Adaptive Urbanism & the Low-Carbon Community*, (Routledge, 2011)
- Peer Reviewed Journal Papers*
- 2016 Co-Author, Ámundadóttir M.L., Rockcastle S., Sarey Khanie M., Andersen M., *A Human-Centric Approach to Assess Daylight for Non-Visual Health Potential, Visual Interest and Gaze Behavior*, Building & Environment (published online first October 1st, 2016). [\[https://infoscience.epfl.ch/record/221590?ln=en\]](https://infoscience.epfl.ch/record/221590?ln=en)
- 2016 First Author, Rockcastle S., Ámundadóttir M.L., Andersen M., *A Comparison of Contrast-Based Measures for Predicting Perceptual Effects of Daylight in Architectural Renderings*, Lighting Research and Technology (published online first, April 15, 2016). [\[https://infoscience.epfl.ch/record/217503\]](https://infoscience.epfl.ch/record/217503)
- 2014 First Author, Rockcastle S., Andersen M., *Measuring the Dynamics of Contrast and Light Variability in Architecture: A Proof of Concept Methodology*, Building and Environment, vol 81, November 2014, 320-333.
[\[http://infoscience.epfl.ch/record/199718\]](http://infoscience.epfl.ch/record/199718)

Peer Reviewed Conference Papers

- 2017 First Author, Rockcastle S., Ámundadóttir M.L., Andersen M., *An Experiment in Virtual Reality to Measure Daylight Driven Interest in Rendered Architectural Scenes*, Proceedings of IBPSA 2017 International Building Performance Simulation Association conference, San Francisco, 2017. (accepted)
- 2017 First Author, Rockcastle S., Chamilothori K., Andersen M., *A Simulation-Based Workflow to Assess Human-Centric Daylight Performance*, IBPSA 2017 - Symposium on Simulation for Architecture and Urban Design, Toronto, May 22-24, 2017.
- 2016 First Author, Rockcastle S., Ámundadóttir M.L., Andersen M., *Predicting Visual Interest in Daylit Architectural Renderings: An Experimental Simulation-Based Approach*, SimAUD 2016 - Symposium on Simulation for Architecture and Urban Design, London, May 14-16, 2016. [<http://infoscience.epfl.ch/record/215977>]
- 2016 Co-Author, Pastore L., Rastogi P., Rockcastle S., Monari H., Rueff G., Andersen M., *Assessing the impact of contemporary urbanization on bioclimatic features of historic architecture through a two-step simulation process*, PLEA 2016 - Symposium on Passive and Low Energy Architecture, Los Angeles, July 11-13, 2016 [<https://infoscience.epfl.ch/record/218598>]
- 2015 First Author, Rockcastle S., Andersen M., *Human Perceptions of Daylight Composition in Architecture: A Preliminary Study to Compare Quantitative contrast Measures with Subjective User Assessments in HDR Renderings*, Proceedings of IBPSA 2015 International Building Performance Simulation Association conference, Hyderabad, India, December 7 – 9, 2015. [<http://infoscience.epfl.ch/record/209191>]
- 2013 Co-Author, Andersen M., Guillemin A., Amundadottir M. & Rockcastle S., *Beyond illumination: An interactive simulation framework for non-visual and perceptual aspects of daylighting performance*, Proceedings of IBPSA 2013 – International Building Performance Simulation Association conference, Chambéry, France, August 26-30, 2013. [<http://infoscience.epfl.ch/record/188744>]
- 2013 First Author, Rockcastle S., Andersen M., *Celebrating Contrast & Daylight Variability in Contemporary Architectural Design: A Typological Approach*, Proceeding to LUX EUROPA, Krakow, September 17-19, 2013. [<http://infoscience.epfl.ch/record/186396>]
- 2012 First Author, Rockcastle S., Andersen M., *Dynamic Annual Metrics for Contrast in Daylit Architecture*, Proceedings of SimAUD 2012 – Symposium on Simulation for Architecture and Urban Design, Orlando, March 26-30, 2012. [<http://infoscience.epfl.ch/record/175191>] [Best Paper Award]

EXHIBITIONS & ANIMATIONS

- 2015 *The Dynamics of Shadow: Architecture of Natural Light in Extreme Latitudes*, Animation for the 'Dynamics of Darkness in the North', Reykjavik, Iceland
- 2012 *Dynamic Daylight*, Department of Archit., Northeastern University, Boston, MA
- 2011 *Cloud Canopy*, Kennedy & Violich Architecture & 3M, Saint Paul, MN
- 2011 *Soft Rockers*, Kennedy & Violich Architecture & MIT, Cambridge, MA

AWARDS, FELLOWSHIPS & GRANTS

- 2017-current *InnoSeed Venture Grant*, 47k for development of Oculight project, EPFL, Lausanne
- 2014-current *Velux Research Fellowship*, 100% PhD & Post Doc funding, Velux Stiftung, Zurich
- 2015 *Honorable Mention*, Fribourg urban design competition, Fribourg

2013	<i>Architizer A+ Finalist</i> , Architecture & Learning Category, Soft Rocker, KVA matX
2013	<i>Architizer A+ Special Mention</i> , Architecture & Fabrication, Beaver Wood Vault, KVA
2012	<i>Best Paper Award</i> , SimAUD conference, Orlando
2011-2012	<i>Teaching Fellowship</i> , full-time visiting assistant prof., School of Arch., Northeastern
2011	<i>SMArchS Thesis Prize</i> , for 'Daylight Variability and Contrast-Driven Arch. Effect,' MIT
2011	<i>Award of Excellence</i> , Ryerson SLC, Snøhetta, Canadian Architect
2010-2011	<i>Samuel A. Marx Fellowship</i> , full tuition award for outstanding scholastic merit, MIT
2010	<i>Holcim Forum Student Poster Selection</i> , for 'channels for learning'
2008	<i>Alpha Rho Chi Bronze Medal</i> , for leadership and professional merit, Cornell
2008-2009	<i>Robert James Eidlitz Traveling Fellowship</i> , energy infrastructure Iceland, Cornell
2007	<i>Lifecycle Building Challenge</i> , Hon. Mention C. Lambur, K. Pratt & D. Cupkova
2007	<i>AIA NYS Student Design Award</i> , for 'growing Gibraltar,' Cornell University
2004	<i>First Place Baird Prize</i> , for 'pop-up cinema' in 1 st year design competition, Cornell

STUDENT ADVISING

	<i>PhD Theses</i>
2016	Katie Heinrich, secondary supervision of PhD project, CITA, Royal Danish Academy of Fine Arts
	<i>Diploma Theses</i>
2015	Odile Alliman & Emilie Revaz, Mise en scène: le théâtre et la ville, Diploma of Architecture, EPFL
2014	Madeleine Deshaies, Feeling Rice: Pavilion de la Chine, Diploma of Architecture, EPFL
	<i>Master Semester Projects</i>
2015	Hélène Monari & Guillaume Rueff, Assessing the Bioclimatic Features of Historic Architecture in Contemporary Cities, Master in Energy Management & Sustainability, EPFL