

Design Research: *Tools* *& Methods* Workshop

October 27, 2020

Schedule

Design Research: Tools & Methods Workshop

	Planet in Crisis: Territories, Cities + Landscape	Future History: Theory + Culture	Critical Matter: Materials, Computation + Craft
9:00 - 10:30	Between Bots and The Biosphere: On Architectures of Adaptation <i>Speaker: Nashin Mahtani</i>	Writing: Is that a Fact? <i>Speaker: Eric Beck Rubin</i>	
10:30 - 12:00	Community Engagement: Focusing on Indigenous Voices <i>Speaker: Renee Kuehnle</i>		Building Science: An Empirical Approach to Architecture <i>Speaker: Bomani Khemet</i>
12:00 - 1:30		Curation as Provocation & Platform <i>Speakers: Nicky Bruun-Meyer Miriam Ho</i>	
1:30 - 3:00	Three Material Stories <i>Speaker: Lindsey Wikstrom</i>		
3:00 - 4:30	Order of Things <i>Speaker: Sergio Lopez-Pineiro</i>		Responsive Envelopes: Feedback Loops. Sensing, Simulation, Fabrication and Actuation <i>Speaker: Geoff Thun</i>

Note: All times are EST

Between Bots and The Biosphere: On Architectures of Adaptation

9:00 - 10:30am

Speaker: Nashin Mahtani

Focusing on the relationship between software and social behaviours, this presentation will explore how an investigative design methodology that draws upon ethnography, design research, geography, and philosophy could help shape the development of softwares attempting to propel social and environmental justice. Drawing on practical, academic, and activist trajectories, the presentation will convey how a multidisciplinary methodology of thought and design has allowed our work to unfold as a humanitarian software service freely available to over 250 million residents in Indonesia.

NASHIN MAHTANI

Director, <https://info.petabencana.id/> (Disaster Map Foundation), Jakarta



Nashin Mahtani is an architectural researcher and designer, investigating the interplay of software aesthetics, ecological governance, and social behaviours to advocate for environmental justice. She is the director of PetaBencana.id, where she leads a multidisciplinary design research team in developing humanitarian infrastructures for climate adaptation. Nashin is also co-investigator of MERA, a research collective developing speculative proposals for new sovereign layers of governance based on ecological systems. Her work spans from activism to design and scholarship, having been widely published and exhibited. As part of the 2021 Venice Biennale, she is currently working on a new film, *Tidak ada Kapital* [There is No Capital], which documents the processes of accumulation and abandonment at stake in the relocation of Indonesia's capital city from Java to Borneo. Nashin previously worked as a designer and researcher with the Urban Risk Lab at MIT, and completed her Master's of Architecture at the University of Waterloo.

<https://info.petabencana.id/>

Community Engagement: Focusing on Indigenous Voices

10:30am - 12:00pm

Speaker: Renee Kuehnle

This workshop will explore the use of stories as a method of Research. How can you capture information? What are our research ethics responsibilities? (Consultation Fatigue, Informed Consent, Traditional Knowledge Agreements, etc.) How do we demonstrate cultural humility and how can we reduce our impact and better understand? In Community-led design, how do we translate feedback into design? And in an era of COVID- 19, as we try to pursue community engagement, what is our duty to protect communities?

RENEE KUEHNLE

M.Arch, MCIP, Rural Planner, Lightship Strategies, Halifax



Renée Kuehnle is a professional planner that focuses on community-led development work, predominantly with Indigenous Communities. Renee founded Lightship Strategies Inc. in March 2019. Her strength is design, strategy and strategic planning, and communication and she works in a wide variety of areas- from buildings and land to people and policy. She is passionate about building capacity and implementing new ideas within Labrador and has successfully completed many multidisciplinary research, planning, and buildings projects. Renee prides herself on her ability to listen to community, understand their needs, and deliver projects that are designed to work within their context and culture.

<https://www.lightshipstrategies.ca/>

Three Material Stories

1:30pm - 3:00pm

Speaker: Lindsey Wikstrom

Three Material Stories explores the common trajectories of three architectural materials—steel, concrete, and wood—through Plate Carrée projection. Similar to maps of the earth surface, each narrative arc visually connects the entire lifecycle on a single page. In partnership with the lifecycle drawings, site sketches zoom to the interiors spaces of extraction, manufacturing, transportation, and construction where architects can engage in designing embodied energy from the inside out. Three Material Stories was first published in Embodied Energy and Design: Making Architecture Between Metrics and Narratives and was exhibited at XXII Triennale di Milano exhibition Broken Nature: Design Takes on Human Survival.

LINDSEY WIKSTROM

Adjunct Assistant Professor, Columbia GSAPP, NYC, Founder of Lindsey Wikstrom



Lindsey is an architectural designer, researcher, and educator based in New York, her practice explores architecture that exposes the distance between people and material flows, inviting new forms of living, perception and access. As a Project Designer with a number of architecture offices, Lindsey contributed to award-winning large scale urban projects in New York, Toronto, Phoenix, Miami, and Brasilia. She is currently a contributing member of The Living and the non-profit organization Who Builds Your Architecture? She founded a fabrication and product design company in 2012 and received the SOM Prize in 2016 to catalog collective life using immersive reality capture. Lindsey holds a Master of Architecture from Columbia University GSAPP, graduating with the Charles McKim Prize for Excellence in Design.

<http://www.lindseywikstrom.com/>
<http://whobuilds.org/>

Order of Things:

3:00pm - 4:30pm

Speaker: Sergio Lopez-Pineiro

An inventory is a pointed gathering. It is a method for taking stock of what we see (what we are able to see and what we'd like to be able to see). One uses the inventory to construct a sensibility that is or can be developed independently of intellectual positions and technical methods. The inventory (pointed gathering) exists in relation to the genealogy (historical shaping), the atlas (comprehensive documentation), and the cabinet (indulgent accumulation). The workshops will present in detail ideas about the inventory and its use as a trigger, starting point and foundation for work, through the presentation of a book and project.

SERGIO LOPEZ-PINEIRO

Director of Holes of Matter, Lecturer in Landscape Architecture at the Harvard Graduate School of Design, Cambridge



Sergio Lopez-Pineiro is the director of Holes of Matter, a design studio operating at the intersection of architecture and landscape, and exploring voids as socio-spatial phenomena of freedom, diversity, and spontaneity. He is the author of A Glossary of Urban Voids. Lopez-Pineiro is a lecturer in landscape architecture at the Harvard Graduate School of Design, where he teaches design studios and theory seminars on architecture and landscape with a focus on the public nature of the built environment. He has previously held the 2006-07 Reyner Banham Fellowship at the University at Buffalo and the 2014-15 Daniel Urban Kiley Fellowship at Harvard University. Lopez-Pineiro is a licensed architect in Spain. He trained at the Escuela Técnica Superior de Arquitectura de Madrid (ETSAM) and received his Master of Architecture degree from Princeton University, where he was awarded the Suzanne Kolarik Underwood Prize.

<https://holesofmatter.com/>

Writing: Is that a Fact?

9:00am - 10:30am

Speaker: Eric Beck Rubin

The historian says, you get to the truth (or truths) of a thing by relentlessly chasing as many facts as possible about that thing. But what, today, can we count as a fact? What could we ever count as a fact? Has the answer to those two questions changed? (Yes.) How? (Tune in.)

This is a discussion about gathering evidence on a subject, and about what evidence is. It looks at etymologies, philosophies, research sources, the question of authoritativeness, and what to do with an age old problem that has recently become acute – possibly insoluble. Sources include, Arendt, Nietzsche, Plato, Rushdie, Jill Lepore, Peter Gay, Philip Roth and others.

ERIC BECK RUBIN

Author, Toronto



Eric Beck Rubin received a doctorate in comparative literature from Goldsmiths College, University of London and a master of architectural history and theory from McGill University. His areas of academic specialty are disparate – Memorials and Memory, 19th and 20th Century Literature, Fin-de-Siècle Vienna, and South Asian and Post-Colonial Studies. The common interest is in the way works of art transmit memory, and what happens when we use fiction as a means of conveying history. Eric has taught courses on cultural history and design at Waterloo, University of Toronto and Ryerson. He is the author of the novel, *School of Velocity* (2016).

<http://www.ericbeckrubin.com/>

Curation as Provocation and Platform

12:00pm - 1:30pm

Speaker: Nicky Bruun-Meyer, Miriam Ho

Curation is essential to the design and production of a publication. It is a fluid process, both responsive--acting as a platform to critique and reimagine current issues --and elusive--acts of selection, representation and preservation are undeniably slippery. As editors and researchers, roles that entail simultaneously consuming and collecting written and visual media, when is this fluidity an advantage or disadvantage, and how do we find anchors for our work? Founded in 2015, The Site Magazine is a collaborative, dynamic project driven by a shared commitment to fostering debate as a way of progressing community and practice. Drawing from our latest Covid rapid response edition "Provisions," our recent pamphlet series "Devices", as well as from past issues and events, we will discuss our curatorial process as a provocation and a platform. We will talk about our journey to launching a magazine, and share some of the literary and graphic techniques used to create narratives and resonance. We will discuss the challenges of diversity and representation in publishing, the ethical responsibilities of research, editing, and language itself as forms of gatekeeping in the production of meaning.

NICKY BRUUN-MEYER, MIRIAM HO

Editors, Site Magazine, Toronto



Nicky Bruun-Meyer is a founding publisher of The Site Magazine. She is an Architect and photographer based in Toronto. She has been involved in a number of design initiatives related to public space, the temporary nature of spaces, and community engagement.



Miriam Ho is a founding co-editor-in-chief of The Site Magazine. She is a writer, editor, installation artist and architectural designer based in Toronto. She also writes fiction and narrative essays. She previously worked for internationally renowned architects Philip Beesley and Shigeru Ban.

<https://www.thesitemagazine.com/>

Critical Matter: Materials, Computation + Craft

Building Science, an Empirical Approach to Architecture

10:30am - 12:00pm

Speaker: Bomani Khemet

This seminar will provide an brief overview of low-energy building strategies, including massing, windows, as well as the link between the building enclosure, human comfort, and sustainability. The focus will then shift to discussing mathematical modeling and performance assessment of existing buildings using the “blower door” test approach.

BOMANI KHEMET

Assistant Professor, Daniels Faculty of Architecture, Landscape and Design, University of Toronto



Bomani Khemet is an assistant professor at the University of Toronto, and is a registered professional engineer in the province of Ontario. He earned his Bachelors degree in Applied Science in Mechanical Engineering at the University of Ottawa, a Master of Engineering in Mechanical Engineering at Howard University, a Master of Building Science at Ryerson University and a Doctor of Philosophy in Civil Engineering at Ryerson University. Bomani has had several years of experience teaching both Building Science and HVAC courses. Professionally, Bomani has over a decade of national and international engineering experience as a designer or manager on a variety of fascinating construction and transportation projects. Most notably, he has had the opportunity to work on Toronto's Union Station Revitalisation project.. Bomani is specifically interested in the design of comfortable, ultra-low energy, affordable homes, and buildings.

Responsive Envelopes: Feedback Loops. Sensing, Simulation, Fabrication and Actuation

3:00pm - 4:30pm

Speaker: Geoffrey Thun

Thinking an architecture that has the capacity to adaptively mediate environmental and human interface raises unique challenges with respect to research methods that themselves necessarily engage with a variety of feedback loops. This talk will draw upon the work of RVTR to discuss the development of a series of experimental projects across the feedback loops of environmental sensing and data, the integration of sensing data in digital design platforms, material testing and evaluation to inform and develop fidelity within digital simulations, and the physical limits of evaluation through prototype assemblies.

GEOFFREY THUN

Professor University of Michigan, Partner RVTR, Ann Arbor



Geoffrey Thun is a professor of architecture and senior associate dean for research and creative practice at the University of Michigan's Taubman College of Architecture and Urban Planning. Thun also is a founding partner in the research-based practice RVTR. Thun's research and creative practice ranges in scale from the regional territory and the city, to high-performance buildings, to full-scale prototype-based work exploring responsive and kinetic envelopes that mediate energy, atmosphere, and social space. These operational scales are tied together through a methodology that entails a complex systems approach; one that assembles a multiplicity of actors, forces, and contexts and leverages these multivalent and sometimes contradictory agents toward integrated and synthetic design work. His work has received funding from the U.S. Department of Energy's National Renewable Energy Laboratory, National Science Foundation, U.S. Environmental Protection Agency, the National Research Council of Canada, Ford Motor Company, among many others.

<http://www.rvtr.com/>