Undergraduate Research Award Faculty of Architecture – Available Research Supervisors – Summer 2022

Eduardo Aquino Shawn Bailey Rae St. Clair Bridgman Marcella Eaton Kurt Espersen-Peters Terri Fuglem Mercedes Garcia-Holguera Lisa Landrum Mimi Locher Shauna Mallory-Hill Brian Rex Jason Shields Ralph Stern

DEPARTMENT OF ARCHITECTURE

Dr. Eduardo Aquino

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Eduardo Aquino is a Professor, Acting Chair of the Environmental Design Program, and leads the research-based practice spmb (São Paulo-Manitoba). Eduardo's investigations are connected to Public Space and Contemporary Architecture-this suspended and fluid field, a terrain vague of sorts, a place with no fixed norms, full of potential. Eduardo has an invested interest in "Architecture in the Expanded Field," connecting it with disciplines and practices beyond, looking at the transformations of architecture and public space in a critical moment in the evolution of the contemporary city. As a response, his Ph.D. project at the University of São Paulo was on Beachscapes. Along with ongoing academic investigations. Eduardo has an applied research practice. designing urban spaces and public art as a direct consequence of his academic research. At the present, Eduardo is working on the long-term project "Tapume" (now showing at the WAG), which explores the complex intersections between Art & Architecture, and "Broadway Social", a hybrid urban design/public art project on Broadway that includes a plaza and a large sculpture fabricated with aircraft parts. Other ongoing projects involve a collaboration with Shawn Bailey for a public space in Kenora, and "Hope Alley" on Main Street in Winnipeg, both deeply connected to the homelessness issue. Besides the opportunities to collaborate on these projects, Eduardo works with students with interests in design, design-build, critical issues in Art & Architecture, Contemporary Architecture & Urbanism, and Public Space.

Prof. Shawn Bailey

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Shawn Bailey, OAA, MAA, MRAIC. is a member of the Métis Nation of Ontario. He is also a husband, father, practicing architect and professor. Shawn is an Indigenous Scholar at the University of Manitoba in the Faculty of Architecture and the Price Faculty of Engineering. His research focuses on community-driven design processes and techniques, connecting people to the land by integrating Indigenous ways of knowing. Shawn is currently developing a Land-based education and design lab that will incorporate his research interests. Bailey has a unique opportunity to apply academic investigations to inspire transformations to conventional ways of practicing architecture. Bailey is committed to delivering architecture through storytelling and meaningful community involvement.

Prof. Terri Fuglem

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Terri Fuglem is Associate Professor in the Department of Architecture, and Design Thesis Coordinator & Chair. She teaches graduate and undergraduate courses in the history and theory of architecture as well as Foundation Year studios in architecture. Current activities include the study of hundreds of student drawings dating back to 1915 discovered in the Russell Building tunnels, and their relationship to architectural pedagogy at the University of Manitoba. Research also includes the study of better environmental practices from historical and diversely cultural vantages; this work is motivated by my conviction that the cause of the current climate emergency is ultimately *cultural* in nature, and that only way to mitigate environmental and climatic destruction is to profoundly shift our way of life.

Dr. Mercedes Garcia-Holguera

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Dr. Garcia Holguera is a registered architect (Spain) and LEED AP BD+C with professional experience in Europe, North and South America. She received her PhD from McGill University on the subject of biomimetic design for resource use optimization. Her research bridges across disciplines from science and technology, architecture and environmental design, with a focus on energy efficiency and sustainability. She is currently working on developing mycelium and bacterial cellulose based materials to optimize buildings' hygrothermal performance, and her work also encompasses quantitative assessment of architectural solutions with a focus on BIM and energy simulation tools.

Dr. Lisa Landrum

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Lisa is a registered architect and published scholar. Her work advances social justice, climate justice, ethical understanding and architectural imagination through transdisciplinary research and creative scholarship in history, theory, design. Projects explore architectural agency and representation; myths and metaphors; and the intertwining of architecture, democracy and performing arts. Current work includes publications and exhibitions on "Theatres of Architectural Imagination," extending findings from the recent Frascari V symposium, related Entr'Acte exhibition and series of Archimagination events staged for the 2021 Venice Architecture Biennale. Students may also assist with a national initiative to develop an architecture policy for Canada – building on the successful Canadian Architecture Forums on Education (CAFÉ).

Prof. Mimi Locher

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Mimi Locher is the Dean of the Faculty of Architecture and a registered architect in Manitoba and the U.S. Her research spans the disciplines of interior design, architecture, and landscape architecture with a common theme: connecting contemporary design practices to traditional culture through a deep understanding of nature, place, and time-honored design and construction methods and materials. Her research includes the areas of design practices and processes, community engagement through architectural design, and Japanese architecture, gardens, and design. Her current research looks at traditional construction techniques in Japanese wooden architecture, particularly the techniques, tools, and crafters involved in the restoration and rebuilding of traditional buildings, such as temples and *machiya* shophouses in Kyoto.

Prof. Brian Rex

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Brian is Associate Professor and Head of the Department of Architecture. He is a designer but not a registered architect and has spent his career working alongside professionals and teaching architectural practices. He is obsessed with urban things, especially the spaces between buildings, placemaking, and what they reveal about things like ownership, utility, and the fabric of settlement. Professor Rex models places through traditional graphics and cartographics, GIS, and scanned point clouds. He has won professional design awards for making public spaces in three small prairie towns. He has modelled campgrounds, fairgrounds, parking lots, main streets, cruising strips, monuments, town squares, civic centres—all architectures where the "-Grounds" are where the action is and the thing is in the surroundings.

Prof. Ralph Stern

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Areas of research: 1) Urban history and representation with a focus on Berlin, 2) Urban history and representation in Cinema, 3) Transnational Indigenous history and representation with a focus on the Americas, 4) Aesthetic history and representation with a focus on the Americas, 4) Aesthetic history and representation with a focus on the Americas, 4) Aesthetic history and representation with a focus on the Americas, 4) Aesthetic history and representation with a focus on the Sublime. Professor Stern has published widely in his areas of research. Prior to serving as Dean of the Faculty of Architecture, Professor Stern has taught Design and/or History and Theory at, among other institutions, the *Technical University Berlin*, the *University of the Arts Berlin*, the Cities Program at the London School of Economics, Columbia University and the Massachusetts Institute of Technology (MIT). A Visiting Scholar at Cambridge University and the Bauhaus University Weimar, he has lectured on History and Theory at, among others, the University of Edinburgh, University of Chicago, Charles University (Prague), Yale University and Harvard University.

DEPARTMENT OF CITY PLANNING

Dr. Rae St. Clair Bridgman

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Rae's research focuses on child friendly cities in relation to the invention and marketing of architectural and building toys. Ideas about childhood as a time for learning and education – and a time for play – intersect with ideas about architecture, the design of cities and cultural values. She is presently cataloguing and gathering documentation about her extensive collection of toys, games and books for kids, highlighting themes and identifying gaps in the collection. (Visit <u>www.architoytonic.com</u> for more info!)

DEPARTMENT OF INTERIOR DESIGN

Prof. Kurt Espersen-Peters

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Kurt is an Assistant Professor in the Department of Interior Design of the Faculty of Architecture at the University of Manitoba, co-director of Academic Initiatives with the Canadian Centre for Mindful Habitats (CCMH), and is currently a Ph.D. candidate (English Literature) at Lancaster University in the UK. Kurt's research is centred on the disciplinary and interdisciplinary knowledge generation and dissemination of critical mindfulness strategies applied to design thinking, education, and practice. Students employed under the URA will have the opportunity to work with the CCMH and multiple institutions in the preparation of events, courses, and journal publications. Current projects include: SSHRC-funded Mindful Modernism(s) webinar, Mind the Design studio, and the Aada journal. More information about these initiatives is found here: https://mindfulhabitats.ca/

Dr. Shauna Mallory-Hill

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Dr. Mallory-Hill is an Associate Professor in the Department of Interior Design, Faculty of Architecture and LEED AP BD+C. Her research explores the impact of building design on occupant health, wellness and productivity. Her research is strongly person-centered with a concern for inclusion and stakeholder participation in design. Students employed under the undergraduate research award will have the opportunity to work alongside other graduate research assistants in one of two active research projects. The first explores the development of an ergonomic kitchen design to support aging-in-place. The second involves work alongside Indigenous Communities and scholars seeking to address the current housing crisis through skills-building, sustainable, affordable, and culturally-appropriate design.

Prof. Jason Shields

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Jason's current research examines the role of Virtual Reality (VR) and Augmented Reality (AR) in interior environments and the impacts on archivism in contemporary BIM modelling processes. Students earning undergraduate research awards will have the opportunity to assist in examining pedagogical and communicative frameworks of architectural models using Virtual Reality hardware and software. Analysis of usercontrolled design modifications and Integration of LIDAR scanning are examples of the work being examined. The research is primarily conducted in the Architecture / Engineering VR LAB. A strong understanding of cross-platform architectural software and general technical knowledge would be an asset for this role.

DEPARTMENT OF LANDSCAPE ARCHITECTURE

Dr. Marcella Eaton

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Marcella completed her PhD – *Philosophy and Design in Landscape Architecture*, in 1997 focusing on philosophy, ethics and aesthetics in the education of students of landscape architecture. This work is ongoing with questions of how and what we teach in design studio remains current. Marcella continues extensive site visits and research work on seminal landscape projects globally. She has worked with academic colleagues across Canada to form LandlTerre Design Research Network, sharing ideas and research with academicians and professionals. As Principal Investigator for an SSHRC Connection Grant (2018), Marcella organized a National Colloquium in Winnipeg. She created the website *landterre.com* to publish digitally Canadian landscape architecture research and work. Her current work includes a study of the history of the Department to coincide with its 50th anniversary.