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FOR IMMEDIATE RELEASE ARCC ANNOUNCES 2022 AWARDS

Awards that recognize and advance architectural research in the design of the built environment.

December 22, 2021 - The Board of Directors of the Architectural Research Centers Consortium (ARCC) announces annual awards in support of recognizing and advancing state-of-the-art research in architecture and related design fields.

> 2022 ARCC James Haecker Award for Distinguished Leadership in Architectural Research

The ARCC James Haecker Award for Distinguished Leadership in Architectural Research recognizes an individual who has made outstanding contributions to the growth of research in architecture and related fields. Named in honor of ARCC's founding Executive Secretary, the recipient of the prestigious James Haecker Award has demonstrated a record of sustained and significant research leadership at the national and international level.

Given the sustained, innovative, and high impact research in community participatory methods and practices spanning more than four decades, the ARCC Board of Directors is pleased to announce the recipient of the 2022 ARCC James Haecker Award for Distinguished Leadership in Architectural Research is Henry Sanoff.



Henry Sanoff

Henry Sanoff, Professor Emeritus in the College of Design at North Carolina State University is especially known for his books—Democratic Design, Community Participation in Design and Planning, Visual Research Methods in Design, and Methods of Architectural Programming. He is the former USA editor of the Journal of Design Studies and principal founder of the Environmental Design Research Association (EDRA). Professor Sanoff has been a visiting lecturer at more than 85 institutions in the USA and abroad. He has held many international fellowships including University Professor, University of London, the Chettle Fellowship, University of Sydney, Nell Norris Fellowship, University of Melbourne, Lecture Fellowship, Institute of South African Architects, and the Distinguished Fulbright Award to Seoul National University, Korea, North Carolina Alumni Association honor as Distinguished Graduate Professor, North Carolina State University, Holladay Medal of Excellence, Phi Kappa Phi Faculty Achievement Award, American Collegiate Schools of Architecture (ACSA) Architecture Distinguished Professor, ACSA Community Design Award, Fulbright Senior Specialists Award to Peru, the EDRA Service Award and the EDRA Career Award.



> 2022 ARCC Book Award

The ARCC Book Award recognizes authors with recently published books that demonstrate excellence in architectural research. The award is intended to acknowledge the contribution of faculty with outstanding performance and rigorous research methods in the publication of a book.

Jeffrey Hogrefe and Scott Ruff, Co-Editors In Search of African-American Space: Redressing Racism Lars Müller Publishing, 2020

Based on the rigorous analytical methods and research in this critical and reflective anthology of the African diaspora and social space in America, with thoroughly illustrative images and documentation, the ARCC Board of Directors is pleased to announce the recipient of the 2022 ARCC Book Award is Jeffrey Hogrefe and Scott Ruff.



Jeffrey Hogrefe

Scott Ruff

Jeffrey Hogrefe is Professor of Humanities and Media Studies, the co-founder of the Architecture Writing Program and In Search of African American and Indigenous Space Research Collaborative, and Affiliate Faculty in the Graduate Program in Performance and Performance Studies, at Pratt Institute. As an Oglala Lakota Sundance person and a transdisciplinary scholar and creative practitioner, he works on a collective pedagogy in aesthetics and politics in emerging, discrete communities at the intersections of history, memory, ethnic and gendered identities, and built, found and imagined environments. His research has been awarded grants from the Graham Foundation for Advanced Studies in the Fine Arts and the U.S. Department of Education, among others. His scholarship has been published by the Modern Language Association and the Association for Study of Art of the Present, among others.

Scott Ruff is an Adjunct Associate Professor of architecture at Pratt Institute. He has previously held appointments at Cornell University School of Architecture as the Baird Visiting Professor, Yale School of Architecture as the Louis I. Kahn Visiting distinguished professor, New York Institute of Technology, Tulane University, Syracuse University, Hampton University and SUNY Buffalo. He is the principal of RuffWorks Studio, a research and design studio specializing in culturally informed projects and community engagement. His work has been supported by the Graham Foundation, the New York State Council of the Arts and the Harlem School of the Arts. Ruff has received awards for diversity inclusion and community outreach from the AIA and ACSA. Ruff received his first professional bachelor of architecture degree from Cornell University and a master's of architecture II from Cornell University.



> 2022 ARCC New Researcher Award

The ARCC New Researcher Award celebrates the activities, accomplishments and promise of scholars in the early stages of their research career. The ARCC New Researcher Award is intended to acknowledge emerging figures in architectural and environmental design research that demonstrate innovation in thinking, dedication in scholarship, contributions to the academy, and leadership.

Based on the important and timely research on critical public health issues, bridging evidence-based design, research and teaching with extraordinary skill and promise in the field, the ARCC Board of Directors is pleased to announce the recipient of the 2022 ARCC New Researcher Award is Farhana Ferdous.



Farhana Ferdous

Farhana Ferdous is an Assistant Professor in the Department of Architecture at Howard University. After receiving her Ph.D. from the University of Sydney, Australia in 2012, she served as a post-doctoral fellow in healthcare architecture, lecturer and global Urbanism Faculty Fellow in the School of Architecture & Design at University of Kansas from 2012 to 2017. She is an educator, designer, and scholar whose teaching and research career spans the continents of Asia, Australia, and North America. She continues to make symbiotic interconnections between design, practice and research especially one which is focused on health, design, and marginalized or aging population. She has published widely on urban and environmental design, environmental psychology for the elderly. Her co-edited volume 'All In: All-Inclusive Engagement in Architecture'; from Routledge Publication (2021) is a critical discourse focusing on the impact of social engagement in architecture. Her scholarship has been supported by a number of research grants including from the American Association of University Women (AAUW) Fellowship (2013), Grantmakers in Aging (GIA) Fellowship (2013), Academy of Architecture for Health Foundation (2017), Toyota Individual Research Grant (2018), Graham Foundation Grant (2021); Alzheimer's Association Research Grant (2021), Innovations in Pedagogy/Teaching Fellowship (2021) and National Endowment for Humanities Fellowship (2021).



> 2022 ARCC Dissertation Award

The ARCC Dissertation Award is offered each year for the best dissertation by a doctoral student from a member school. The award is intended to honor significant new research in architecture and environmental design and to recognize the achievement of an emerging scholar.

Based on the quality and depth of study on reworking and solving the perennial problem of shape recognition (embedding) in CAD modeling, and the promise to shape the future of computer-aided architectural design (CAAD), the ARCC Board of Directors is pleased to announce the recipient of the 2022 ARCC Dissertation Award is Dr. Tzu-Chieh Kurt Hong.

Dissertation Title

Shape Machine: Shape Embedding and Rewriting in Visual Design Dissertation Author: Dr. Tzu-Chieh Kurt Hong, Georgia Institute of Technology Committee Chair: Dr. Athanassios (Thanos) Economou, Georgia Institute of Technology

Hong's dissertation, "Shape Machine: Shape Embedding and Rewriting in Visual Design," focuses on the implementation of a shape grammar interpreter, Shape Machine, which allows designers to visually process shape recognition and shape replacement in computeraided design system (CAD). This dissertation proposes five solutions respectively to five critical problems that have been identified in this discourse for decades, including: 1) a new framework integrating shape computing system and CAD system to avoid fragmented workflow, 2) a maximal line calibration system to mitigate the precision errors in modeling, 3) a pictorial algorithm to reduce the accumulated errors in transformation derivation, 4) a multi-step procedure to resolve the indeterminate shape embedding, and 5) a new data structure, register point signature, to significantly lower the algorithmic complexity in shape embedding.



Tzu-Chieh Kurt Hong

Tzu-Chieh Kurt Hong is a lecturer in the School of Architecture at the Georgia Institute of Technology teaching courses in media modeling, parametric modeling and design scripting. His research focuses on the areas of shape grammars, generative modeling, parametric design, and CAD software development. Kurt is a research scientist at the Shape Computation Lab working with Dr. Athanassios Economou on the Shape Machine, a new shape-rewrite computational technology, designing and implementing its geometry kernel, data representation and system architecture. Before entering the Shape Computation Lab, Kurt was a research assistant at the Digital Building Lab working with Dr. Dennis Shelden, and his main contribution to Digital Building Lab included the implementation of an automatic routing system in architecture and an interactive web-based data visualization platform, Smart 3D Atlanta. Kurt holds a BSEE, MSEE, and an M.Arch from the National Chiao Tung University (Taiwan), an MS.Arch from the University of Michigan, and a PhD in Architecture from Georgia Institute of Technology.



> 2022 ARCC Research Incentive Award

The ARCC Research Incentive Award aims to support and promote high-quality architectural research and scholarship activities in ARCC member schools. The program provides faculty with a one-year \$5,000 grant to support and enhance their research and creative activities, and develop their research agendas.

Following the high caliber of applications, the ARCC Board of Directors is pleased to announce the funding of two proposals for the 2022 ARCC Research Incentive Award.

1) Spatial Contexts and Social Networks: A Follow Up Study Examining the Effects of Pandemic-related Campus Modifications on Student Experience and Wellbeing *Principal Investigator: Caryn Brause, University of Massachusetts Amherst*

In response to the global Covid-19 pandemic, higher education institutions rapidly modified campus spaces during AY 2020-2021 to reduce the potential for viral spread. In this dynamic situation, decisionmakers knew little about how student experience of learning and of community would be impacted when campus environments were radically altered to reduce student interaction. This study draws on student development literature that considers the ways campus environments impact student learning and development, and sociological literature concerning the relationship between social ties and spatial contexts. Employing an ecological systems lens, the study seeks to understand how the pandemic measures affected students' experience of learning and of community, as well as their mental health and wellbeing, which are critical components of effective learning and development.



Caryn Brause

Caryn Brause FAIA is Associate Professor at the University of Massachusetts Amherst. Through her many activities, she connects the academy and the profession, and she works to translate research into practice domains. Her current research projects examine the relationship between higher education built environments and student learning and development. She is author of *The Designer's Field Guide to Collaboration* (First Prize, 2017 BTES Book Award). Her applied professional practice course, *Voices from the Field: From Design Concept to Reality*, was recognized with a 2016 AIA/ACSA Practice + Leadership Award and a 2013 NCARB Award for the Integration of Practice and Education. Professor Brause's leadership and service to the discipline include co-founding and serving as inaugural Design Editor for the journal of *Technology | Architecture + Design*, service on the AIA Higher Education Advisory Team (HEAT) and the National Council of Architectural Registration Boards (NCARB) Education and Awards Committees, as well as on the Board of Directors for her local AIA chapter.



2) Passive and Active Strategies to Reduce Morbidity, Mortality, and Energy Use in Seattle Low-Income, Senior Housing during Excessive Heat Events

Principal Investigator: Christopher Meek, University of Washington Co-Investigators: Teresa Moroseos, Heather Burpee, University of Washington

Excessive heat events can have a serious impact on human health, especially in a historically mild climate like Seattle that is not as prepared for higher temperatures. As our climate warms, we must rethink our residential housing stock to prevent morbidity and mortality in the summer, particularly for our most vulnerable residents that do not have access to air conditioning. This research project uses a simulation-based approach to assess indoor ambient conditions of typical Seattle apartment units with varying building characteristics during current and projected summer weather conditions. Aims of our project include identifying building characteristics that lead to dangerous indoor ambient conditions. We will also explore how the favorable building characteristics could be adopted as mitigation strategies for existing buildings. We also aim to assess building characteristics that reduce peak cooling load and total cooling load.







Christopher Meek

Teresa Moroseos

Heather Burpee

Christopher Meek is Associate Professor of Architecture at the University of Washington and Director of the Center for Integrated Design at the University's College of Built Environments. Professor Meek's areas of research include building energy performance for new construction and retrofits, daylighting, visual comfort, electric lighting, and climate responsive design. His work bridges practice, research, and education with collaboration between practitioners, faculty, and students. Under his leadership, the Center advances its mission through interconnected research, technical assistance, and educational programs. **Teresa Moroseos** is a Post-Doctoral Scholar at the Integrated Design Lab where she conducts building performance research, with a particular interest in using parametric, simulation-based analysis tools for investigating research questions about energy performance, human health, and daylighting. Teresa also works with practitioners, building owners, and municipalities on a variety of consulting and research projects related to building performance. Prior to working at the IDL, she worked as a designer at a Seattle architecture office, where she worked on civic buildings.

Heather Burpee is a nationally recognized scholar in building energy efficiency and highperformance buildings. Her work bridges practice, research, and education. She leads major national research initiatives that develop roadmaps for achieving deep energy goals and has experience working directly with design teams establishing and realizing deep energy reduction and other performance-related goals. As part of her commitment to furthering knowledge in the arena of High-Performance Buildings, she leads the development of professional education curricula including AIA Materials Matter, and AIA Getting to Zero.

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Award recipients were selected by ARCC's Board of Directors and Officers. Review and deliberation were consistent with rigorous peer-review where nominees and proposals were debated on their own merits. Past recipients of ARCC Awards can be reviewed on ARCC's website (arcc-arch.org).

About The Architectural Research Centers Consortium (ARCC)

Founded in 1976, the ARCC is an international association of architectural research centers, academies and organizations committed to the research culture and supporting infrastructure of architecture and related design disciplines. Through conference programming, grant and award programs, workshops and research journal *Enquiry*, ARCC represents a concerted commitment to improve the quality of life in the built environment.