Resilient City: Physical, Social, and Economic Perspectives
Virtual Session I May 23, 2022

ARCC-EAAE 2022_ Virtual Session Schedule
11:00am-6:00pm EDT Monday, May 23, 2022

> Monday, May 23, 2022

Time (EDT)	Virtual Room	Event/Session
11:00am-11:15am	Opening	**WELCOME (BACK) + OPENING REMARKS**

Chris Jarrett, *President, Architectural Research Centers Consortium (ARCC)*
Oya Atalay, *President, European Association for Architectural Education (EAAE)*
Marilys Nepomechie and Shahin Vassigh, *Co-Chairs, ARCC-EAAE 2022*

11:15am-11:30am   Break / Transition

11:30am-12:30pm   Workshop   **ARCC-CIB WORKSHOP_ Spatial Equity and Inclusiveness in Research and Practice**
Moderator: Ihab Elzeyadi, *University of Oregon*

Bob Giddings, *Northumbria University*
Silvio Melhado, Universidade de São Paulo */ Ecole de Technologie Superieure, Montreal*
Jennifer Barrett, *University of Central Lancashire*

Invited Discussants
Elisandra Garcia-Gonzalez, *University of Oregon*
James Lapalme, *Ecole de Technologie Superieure, Montreal*
Chiko Makore, *Oxford Brookes University*
Karin Regina de Castro Marins, *Universidade de São Paulo*
Silvia A. Mikami G. Pina, *Universidade Estadual de Campinas*
Noha Saleeb, *Middlesex University London*
Francine van Tonder, *Cold Studio / University of the Witwatersrand*

This workshop will address the multiplicity of methods to harness equity and inclusion in design pedagogies, research, and innovation, carried out across our disciplines and professions, and to empower us to educate a new generation of built environment designers to meet the strategic imperatives of this historical moment.

12:30pm-12:45pm   Break / Transition

12:45pm-2:15pm   1A   **RESILIENT HOUSING, AFFORDABLITY AND HOUSING INSECURITY**
EQUITY_   **Moderator:** Christina Bollo, *University of Illinois at Urbana Champaign*
Inclusive Urban Landscapes

Geohome: Affordable, Resilient Housing Prototype
George Elvin, *North Carolina State University*

Approaches to Affordable Housing Design Using VAE and Space Syntax: Case Studies from Los Angeles
Junyoung Myung, *University of Illinois at Urbana-Champaign*
Jung Yun Choi, *Seoul National University*
Taegyu Lee, *Seoul National University*

Housing Insecurity and Latinx Community Resilience in Small Towns in Mississippi
Silvinia Lopez Barrera, *Mississippi State University*
Diego Thompson, *Mississippi State University*

12:45pm-2:15pm   1B   **CARTOGRAPHY, CLIMATE AND CROSS-CULTURAL CONSIDERATIONS**
CLIMATE_   **Moderator:** Ilaria Valente, *Politecnico di Milano*
Mitigation + Adaptation

Metropolitan Cartography: An Inventive Practice Tool for Caring Metropolitan Landscapes
Antonella Contin, *Politecnico di Milano*
Valentina Galiulo, *Politecnico di Milano and Universidad de Sevilla*
Domingo Sánchez Fuentes, *Universidad de Sevilla*

Nature Based Solutions and Circular Economy: Structuring a Long-Term Project for a Climate Resilient Design
Kevin Santus, *Politecnico di Milano*

Critical Explorations of Architecture Education in a Rapidly Changing World: Cross-Cultural Considerations of the Double-Edged Sword of Professional Competency and Global Citizenship
Brian R. Sinclair, *University of Calgary*
Raffaello Furlan, *Qatar University*

12:45pm-2:15pm IC TECHNOLOGY_ Digital Design + Practices	**SPATIAL PERFORMANCE, ANALYSIS AND MODELING** **Moderator:** Adil Sharag-Eldin, *Kent State University*

Evaluation of Spatial Performance in Vertically Integrated Developments Using a Network Science-Based Approach
Srilalitha Gopalakrishnan, *Singapore University of Technology and Design*
Chirag Hablani, *Singapore University of Technology and Design*
Daniel Wong, *Singapore University of Technology and Design*
Benny Chin, *Singapore University of Technology and Design*
Anjanaa Srikanth, *Singapore University of Technology and Design*
Ajaykumar Manivannan, *University of Ottawa*
Roland Bouffanais, *University of Ottawa*
Thomas Schroepfer, *Singapore University of Technology and Design*

Visual Data-Based Spatial Analysis of Built Environments
Chirag Hablani, *Singapore University of Technology and Design*
Daniel Wong, *Singapore University of Technology and Design*
Thomas Schroepfer, *Singapore University of Technology and Design*

Thermoelectric Facades: Modeling Procedure and Comparative Analysis of Energy Performance in Various Climate Conditions
Ajla Aksamija, *University of Utah*
Mahsa Faird Mohajer, *University of Massachusetts Amherst*

12:45pm-2:15pm   1P

POSTER/PROJECT SESSION A
Moderator: Oya Atalay Franck, *Zurich University of Applied Sciences*

Assessing Architectural Design Factors of Maternity Ward that Influence Quality of Health Care and Patient Outcomes at Queen Elizabeth Central Hospital in Blantyre, Malawi
Chris Harnish, Luis Gadama, Zayithwa Fabiano, Meghan Gannon, Kayla Holston, Stephanie Catrambone, *Thomas Jefferson University*

The Scalability of Urban Agriculture: Chicago Case Studies
Kristin Jones, *Illinois Institute of Technology*

Design for Youth: Research in the Design Studio School of Architecture
Julia W. Robinson, *University of Minnesota*

The Future of Food Production: Urban Farming Towards Food Self-Sufficiency
Camilo Cerro, *American University of Sharjah*

The strange Sources of Brazil's Modern Architecture: The Neocolonial Style in the Centennial Exposition (1922)
Camila Miranda Feltrin and Maria Teresa Dias da Fonseca, *Faculdade de Arquitectura da Universidade do Porto*

Rights, Sagacity + The Devil's Crop: Provocations in an Ethos of Design, Dissolution + Disarray
Brian R. Sinclair, *University of Calgary*

2:15pm-2:30pm   Break / Transition

2:30pm-4:00pm 2A
CLIMATE_
Mitigation + Adaptation

CITIES AND RESILIENCE: STRATEGIES AND EVALUATION
Moderator: Dag Boutsen, *Katholieke Universiteit Leuven*

Mapping and Active Borders as Instruments for Climate-Resilient Waterfront Design Strategies
Elena Verzella, *University of Ferrara*

Understanding Efficient Mitigation Strategies for Los Angeles' Heat Islands Using OLS Regression Analysis
Olivia Vander Poel Lewis, Pablo La Roche, Joey-Michelle Hutchison, Arianne Ponce, *Callison RTKL*

Evaluating the Circadian-Effectiveness of Light through Personal Light Exposure Measurement: An Initial Test Using a Low-Cost and Wearable Spectrometer in Home-Office
Armin Amirazar, *University of North Carolina at Charlotte*
Mona Azarbayjani, *University of North Carolina at Charlotte*
Maziyar Molavi, *University of North Carolina at Charlotte*

2:30pm-4:00pm 2B
PUBLIC HEALTH_
Human-Centered Design

HEALTH, LIGHTING AND HUMAN PERCEPTION
Moderator: Saif Haq, *Texas Tech University*

Exploring the Impacts of Human-Centric Lighting Spatial Patterns on Elderly Residents Mood and Preference – An Architectural Content Analysis
Nasrin Golshany, *University of Oregon*
Ihab Elzeyadi, *University of Oregon*

Exploring the Role of Human Perception: A Comparative Analysis of Human Thermal Comfort and Urban Design Parameters
Naveed Mazhar, *Northern Alberta Institute of Technology*
Enrica Dall'Ara, *University of Calgary*
Brian R. Sinclair, *University of Calgary*

Exploring the Walkability in a Hospital-Anchored Neighborhood: A Case Study of Emory University Hospital Midtown Campus
Xiaowei Li, *Clemson University*
Dina Battisto, *Clemson University*

2:30pm-4:00pm 2C
CLIMATE_
Frameworks for Interconnectivity

URBAN MAPPING: FRAMEWORKS AND TOOLS
Moderator: Ming Hu, *University of Maryland*

Mapping Blindspots in Urban Atmospheric Pollution Assessment in the US-Mexico Borderland
Stephen Mueller, *Texas Tech University*

Connect or Adapt: Analytic Framework for the Planning and Design of Resilient Spatial Networks
Daniel Kin Heng Wong, *Singapore University of Technology and Design*
Wei Chien Benny Chin, *Singapore University of Technology and Design*
Roland Bouffanais, *University of Ottawa*
Thomas Schroepfer, *Singapore University of Technology and Design*

MODE_Bios: A Bioclimatic, Adaptive, Urban Design Tool
Polyxeni Mantzou, *Democritus University of Thrace*
Anastasios Floros, *Democritus University of Thrace*

2:30pm-4:00pm 2D
TECHNOLOGY_
Materials + Fabrication

PEDAGOGICAL TOOLS AND DESIGNING FOR CHANGE
Moderator: Valerian Miranda, *Texas A&M University*

Building with Air: The Internet of Things (IoT) as a Pedagogical Tool for Design-Build Education
Nate Shigeo Imai, *Texas Tech University*

Low-cost Acoustic Panels with Origami Patterns for Classrooms
Julio C. Diarte, *Pennsylvania State University and Universidad Nacional de Asuncion*
Elena M. Vazquez, *Pennsylvania State University*

Design for Change: Climate Centered Pedagogy in the Architecture Studio
Gabriel Kaprielian, *Temple University*

2:30pm-4:00pm   2P

POSTER/PROJECT SESSION B
Moderator: Tadeja Zupančič, *University of Ljubljana*

Considering Health + Wellness Beyond Convention: Spirituality, Space and the Critical Case of Sufism
Nooshin Esmaeili, Brian R. Sinclair, *University of Calgary*

Gestural Modeling to Recapture the Human Body in Design
Sara Codarin, Karl Daubmann, *Lawrence Technological University*

Building in the Digital Transformation: Translations from Design to Technological-enabled Demountable Building.
Sara Codarin, Karl Daubmann, Emily Kutil, Kristen Dean, *Lawrence Technological University*

Urban Design Mitigations: Considering COVID-19's Impact on Public Space
Deirdre Hennebury, Fernando Cirino, *University of Michigan*

Indigeneity, Imagination, Equity + Design: Ethical Space and Complementary Ways of Knowing
Brian R. Sinclair, *University of Calgary*

Complexity Science-based Analysis of Sustainable Integrated Urban Districts
Anjanaa Devi Srikanth, Chirag Hablani, Benny Chin, Thomas Schroepfer
Singapore University of Technology and Design

4:00pm-4:15pm   Break / Transition

4:15pm-5:45pm   3A
EQUITY_
Inclusive Urban Landscapes

RESILIENCE, SOCIAL EQUITY AND ACCESS
Moderator: Alexandra Staub, *Pennsylvania State University*

Neighborhood Design with Community Engagement
Julia Robinson, *University of Minnesota (Architecture)*
Brandon Champeau, *United Properties*
Jamil Ford, *Mobilize Design & Architecture*
Timothy Griffin, *University of Minnesota (Minnesota Design Center)*
Cathy Spann, *Jordan Area Community Council*

The Role of Architecture in Addressing Social Equity in Response to Covid-19
Ebtehal Bahnasy, *University of Minnesota*

Trends and Correlates of Neighborhood Park Access in Philadelphia
Tiara Halstead, *Thomas Jefferson University*
Russell McIntire, *Thomas Jefferson University*

4:15pm-5:45pm   3B
PUBLIC HEALTH_
Public Space

ROLE OF HOUSING IN COMMUNITY RESILIENCE
Moderator: Joao Pedro Xavier, *University of Porto*

Through the Eyes of The Public: The Promotion of Social Rental Housing (SRH) as a Focal Point in Addressing Housing Resilience
Chika Chioma Daniels-Akunekwe, *University of Calgary*
Brian R. Sinclair, *University of Calgary and sinclairstudio, inc.*

The Public Restroom as a Site of Cultural Conflict
Edward Steinfeld, *University at Buffalo, State University of New York*
Adam Thibodeaux, *University at Buffalo, State University of New York*
Shira Gabriel Klaiman, *University at Buffalo, State University of New York*

Adaptive Streets: Increasing Social and Ecological Resilience Along a Cross-city Bicycle Boulevard
Courtney Crosson, *University of Arizona*

4:15pm-5:45pm   3C

PUBLIC HEALTH_
Human-Centered Design

COMFORT AND HEALTH, RESILIENCE AND ASSESSMENT
Moderator: Rahman Azari, *Pennsylvania State University*

Integrating Biophilic, Net-Positive, and Resilient Design: A Framework for Architectural Education
Mary Margaret Guzowski, *University of Minnesota*

The Neighborhood Accessibility Framework: A Methodological Instrument to Assess Neighborhood-Level Determinants That Affect the Health of Urban Residents
Hitakshi Sehgal, *University of Minnesota*

Dwellings in the COVID-2019 Pandemic Times: Perspective of Six Female Architecture Students from the Midwest USA
Mania Tahsina Taher, *University of Wisconsin-Milwaukee*

4:15pm-5:45pm   3D

CLIMATE_
Mitigation + Adaptation

EMERGENT PROCESSES, COMPLEXITY AND GLOBAL WARMING
Moderator: Claus Peder Pedersen, *Arkitektskolen Aarhus*

Rebellion, Robotics, and a Radical Reboot: Emergent Processes in Turbulent Times
Dustin Couzens, *Modern Office of Design + Architecture*
Brian R. Sinclair, *University of Calgary and sinclairstudio, inc.*
Ben Klumper, *Modern Office of Design + Architecture*

Uncertainty, Complexity + Change: A Cohesive Frame to Advance Agility in the Built Environment
Salah Imam, *University of Calgary and Entuitive Corporation*
Brian R. Sinclair, *University of Calgary and sinclairstudio, inc.*

From Cold War to Global Warming: Dilemma's in Retrofitting the Modernist University Campus in Latin America. Case study: Quito, Ecuador
Victor Hugo Molina, *Technical University of Ambato*

4:15pm-5:45pm   3P

POSTER/PROJECT SESSION C
Moderator: Peter Wong, *University of North Carolina at Charlotte*

The Renewal Design of Dong Timber Dwelling Based on Tas Software: The Case Study of Gaobu
Xiaoyun Liu, *Politecnico di Milano*

Amphibian Typologies and The Urban Imaginary
Mona El Khafif, Darcy Engle, *University of Virginia*

Re-Commissioning Land: Spatial and Temporal Urban Strategies for Coastal Territories
Mona El Khafif, Ali Fard, *University of Virginia*

Postcards from the Future: Climate Fiction as Architecture Pedagogy
Gabriel Kaprielian, *Temple University*

Equitable Access to Building Construction Through Advancements in Open and Global Building Machine Technology
Elizabeth Andrzejewski, Marcus Shaffer, Esther Obonyo, *Pennsylvania State University*

RIVERGAN: Fluvial Landforms Generation Based on Physical Simulations and Generative Adversarial Network
Xun Liu, *University of Virginia* and Runjia Tian, *Harvard University*

5:45pm-6:00pm   Closing

CLOSING REMARKS
Chris Jarrett, *President, Architectural Research Centers Consortium (ARCC)*
Claus Peder Pedersen, *Arkitektskolen Aarhus, EAAE-ARCC 2024*

Best Paper and Best Poster Awards
Ming Hu, *Awards Chair, University of Maryland*