

**Resilient City: Physical, Social, and Economic Perspectives**

March 2-5, 2022 | Miami, FL | Florida International University

**ARCC-EAAE 2022\_Conference Schedule**

March 2-5, 2022

**> Wednesday, March 2, 2022**

| <i>Time (EST)</i>    | <i>Location</i> | <i>Event/Session</i>  |
|----------------------|-----------------|---|
| <b>2:30pm-4:00pm</b> | PCA 175         | <b>PHD DOCTORAL WORKSHOP</b><br><b>Computational Knitting for Performance and Transformation</b><br>Virginia Melnyk, <i>University of Michigan</i><br><br><b>Can Increasing Hand Hygiene Compliance Save Lives in Nursing Homes? Environmental Design's Impact on Compliance</b><br>Hao Huang, <i>Texas A&amp;M University</i><br><br><b>The Role of Architecture in The Therapeutic Environment. The Case of The Maggie's Cancer Care Centre</b><br>Caterina Frisone, <i>Oxford Brookes University</i> |
| <b>4:00pm-4:30pm</b> | PCA 135         | <b>Conference Welcome</b><br>Brian Schriner, <i>Dean, CARTA, Florida International University</i><br>Oya Atalay, <i>EAAE President, Zurich University of Applied Sciences (remote)</i><br>Chris Jarrett, <i>ARCC President, University of North Carolina at Charlotte</i><br>Marilys Nepomechie and Shahin Vassigh, <i>Conference Co-Chairs, Florida International University</i>   |
| <b>4:30pm-5:00pm</b> | PCA 135         | <b>Opening Plenary &gt; RESILIENT CITY</b><br>Conference Co-Chairs, Marilys Nepomechie and Shahin Vassigh, <i>Florida International University</i>  |
| <b>5:00pm-6:00pm</b> | PCA 135         | Keynote Address<br><b>BUILDING RESILIENCE FOR ALL COMMUNITIES</b><br>Daniella Levine Cava, <i>Mayor of Miami-Dade County</i>  |
| <b>6:00pm-7:00pm</b> | Courtyard       | Reception / Hors d'oeuvres<br>(dinner on own)   |

**> Thursday, March 3, 2022**

| <i>Time (EST)</i>      | <i>Location</i> | <i>Event/Session</i>   |
|------------------------|-----------------|--|
| <b>8:30am-9:00am</b>   | Courtyard       | Continental Breakfast  |
| <b>9:00am-9:30am</b>   | PCA 135         | <b>Plenary I &gt; CLIMATE</b><br>Topic Chairs, Jason Chandler and Roberto Rovira, <i>Florida International University</i>  |
| <b>9:30am-10:30am</b>  | PCA 135         | Keynote Address<br><b>ARCHITECTURE AFTER ARCHITECTURE: SPATIAL PRACTICE IN THE FACE OF THE CLIMATE EMERGENCY</b><br>Jeremy Till, <i>Head, Central Saint Martins, Pro-Vice Chancellor, University of the Arts</i>   |
| <b>11:00am-12:30pm</b> | PCA 175         | <b>HOUSING, LIVE/WORK AND THERMAL COMFORT PREDICTION</b><br><b>Moderator:</b><br><br><b>Existing Multifamily Building Stock Energy Use and Building Code Comparison Between the United States and Finland</b><br>Ming Hu, <i>University of Maryland</i><br><br><b>Towards Alternative Live-Work Development: An Integrated Design Approach</b><br>Christina Payenhofer, <i>Southern Illinois University</i><br>Mehdi Ashayeri, <i>Southern Illinois University</i><br><br><b>Machine Learning-Based Automated Thermal Comfort Prediction: Integration of Low-Cost Thermal and Visual Cameras for Higher Accuracy</b><br>Roshanak Ashrafi, <i>University of North Carolina at Charlotte</i><br>Mona Azarbayjani, <i>University of North Carolina at Charlotte</i> |

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**11:00am-12:30pm** PCA 171  
TECHNOLOGY\_  
Materials + Digital Fabrication

Hamed Tabkhi, *University of North Carolina at Charlotte*

**WEARABLE DEVICES, MACHINE LEARNING AND CLIMATE RESILIENCE****Moderator:****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*

Mazyar Molavi, *Raja University*

**Approaches to Affordable Housing Design Using VAE and Space Syntax: Case Studies from Los Angeles**

Junyoung Myung, *University of Illinois at Urbana-Champaign*

Taegyu Lee, *Seoul National University*

Jungyum Choi, *Seoul National University*

**Evaluation of Net Zero Energy Buildings for Climate Resilience in Southeast U.S.**

Manan Singh, *University of Florida*

Ryan Sharston, *University of Florida*

**11:00am-12:30pm** PCA 167  
EQUITY\_  
Inclusive Urban Landscapes

**REIMAGINED GROWTH AND INFORMAL URBANISMS****Moderator:****Reimagining Growth: Cross Analysis of Environmental and Social Data Between Shifting Populations**

Nicole Hall, *School of the Art Institute of Chicago*

Milad Hosseini-Mozari, *University of Utah*

**The Unreachable Rivers and the Informalities of Medellín and Beirut**

Taraneh Meshkani, *Kent State University*

**Viral Resiliency: Reconstructing Extra-Legal Settlements Through Dialogical Practices**

Scott Gerald Shall, *Lawrence Technological University*

**11:00am-12:30pm** PCA 168  
CLIMATE\_  
Coastal Cities + Interconnectivity

**RESILIENT DESIGN AND CLIMATE CENTERED PEDAGOGY****Moderator:****Integrating Biophilic, Net-Positive, and Resilient Design: A Framework for Architectural Education**

Mary Margaret Guzowski, *University of Minnesota*

**Design for Change: Climate Centered Pedagogy in the Architecture Studio**

Gabriel Kaprielian, *Temple University (remote)*

Alex Hirsig, *California Polytechnic State University*

**Creating a Building for the Purpose of Helping Youths: An Instrumental Qualitative Case Study**

Nima Meghdari, *University of Minnesota*

**11:00am-12:30pm** PCA 180  
PUBLIC HEALTH\_  
Public Space

**HEALTH FACTORS, WALKABILITY ASSESSMENT AND ACCESSIBILITY****Moderator:****Trends and Correlates of Neighborhood Park Access in Philadelphia**

Tiara Halstead, *Thomas Jefferson University*

Russell McIntire, *Thomas Jefferson University*

**Built Environment and Walking Behavior: A Systematic Review on Campus Walkability Assessments**

Gisou Salkhi Khasraghi, *Texas Tech University*

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

Hitakshi Sehgal, *University of Minnesota*

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**11:00am-12:30pm** PCA 341**WORKSHOP\_Publishing with Routledge Press**

12:30pm-2:00pm Courtyard

**Lunch / ARCC Annual Business Meeting****2:00pm-2:30pm** Arcade /  
Coffee**POSTER/PROJECT SESSION A****Carbon-Positive, and Synthetic Biological Architecture Imaginations for Miami Greater Islands 2021-2100**Thomas Spiegelhalter, *Florida International University***The Postwar Economy House in 1940s Florida**Vandana Baweja and Sarah Gurevitch, *University of Florida***The ACP Project: Focus Groups, Interviews + Ethnographic Research**Andrew Chin, *Florida A&M University***The Future of Food Production: Urban Farming Towards Food Self-Sufficiency**Camilo Cerro, *American University of Sharjah***Sensitivity Analysis and Multi-Objective Optimization of Skylight Design in the Early Design Stage**Yuan Fang, *Western Kentucky University*Le Fan, *China Academy of Building Research Institute***Modeling Healthfulness**Ulysses Vance, *Temple University***Design for Youth: Research in the Design Studio**Julia W. Robinson, *University of Minnesota***2:30pm-4:00pm** PCA 175  
CLIMATE\_  
Mitigation + Adaptation**HEAT ISLANDS AND LAND-BASED INFRASTRUCTURES****Moderator:****Understanding Efficient Mitigation Strategies for Los Angeles' Heat Islands using OLS Regression Analysis**Olivia Vander Poel Lewis, *CallisonRTKL*Pablo La Roche, *CallisonRTKL*Joey-Michelle Hutchison, *CallisonRTKL*Arianne Ponce, *CallisonRTKL***Urban Heat Island Phenomena in Dhaka, Bangladesh**Tasneem Tariq, *Pennsylvania State University*Ute Poerschke, *Pennsylvania State University*Lisa Domenica Iulo, *Pennsylvania State University***Water, Fire, Land, Air: Investigating Land-based Infrastructures**Jessica Rossi-Mastracci, *University of Minnesota***2:30pm-4:00pm** PCA 171  
TECHNOLOGY\_  
Materials + Digital Fabrication**SPATIAL PERFORMANCE, VISUAL ANALYSIS AND INDETERMINANCY****Moderator:****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 Kin Heng Wong, *Singapore University of Technology and Design*Benny Chin, *Singapore University of Technology and Design*Srikanth Anjana Devi, *Singapore University of Technology and Design*Ajaykumar Manivannan, *University of Ottawa*Roland Bouffanais, *University of Ottawa*Thomas Schroepfer, *University of Ottawa*

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**Visual Data-Based Spatial Analysis of Built Environments**Daniel Kin Heng Wong, *Singapore University of Technology and Design*Chirag Hablani, *Singapore University of Technology and Design*Thomas Schroepfer, *Singapore University of Technology and Design***Indeterminate Space**Peter Wong, *University of North Carolina at Charlotte***2:30pm-4:00pm** PCA 167

EQUITY\_

Inclusive Urban Landscapes

**BICYCLING, WALKING AND COMMUNITY ENGAGEMENT PRACTICES****Moderator:****Adaptive Streets: Increasing Social and Ecological Resilience Along a Cross-City Bicycle Boulevard**Courtney Crosson, *University of Arizona***Walking as Engagement**Sarah Gamble, *University of Florida***Neighborhood Design with Community Engagement**Julia Robinson, *University of Minnesota*Timothy Griffin, *University of Minnesota*Jamil Ford, *Mobilize Design & Architecture*Cathy Spann, *Jordan Area Community Council*Brandon Champeau, *United Properties Developers***2:30pm-4:00pm** PCA 168

TECHNOLOGY\_

Digital Design + Practices

**INFRASTRUCTURE, ROBOTICS AND THE SMART CITY****Moderator:****Strategies for Redesigning High Performance FRP Wind Blades as Future Electrical Infrastructure**Tristan Farris Al-Haddad, *Georgia Institute of Technology*Ammar Alshannaq, *Georgia Institute of Technology*Lawrence Bank, *Georgia Institute of Technology*Mehmet Bermek, *Georgia Institute of Technology*Russell Gentry, *Georgia Institute of Technology*Yulizza Henao-Barragan, *Georgia Institute of Technology*Sean Li, *Georgia Institute of Technology*Alex Poff, *Georgia Institute of Technology*John Respert, *Georgia Institute of Technology*Colin Woodham, *Georgia Institute of Technology***Rebellion, Robotics, and a Radical Reboot: Emergent Processes in Turbulent Times**Dustin Couzens, *Modern Office of Design + Architecture (MODA)*Brian R. Sinclair, *University of Calgary + sinclairstudio inc.*Ben Klumper, *Modern Office of Design + Architecture (MODA)***The Public and the Technocratic Smart City**Taraneh Meshkani, *Kent State University***2:30pm-4:00pm** PCA 180

PUBLIC HEALTH\_

Human-Centered Design

**NATURAL VENTILATION, EXTERNAL SHADING AND HUMAN HEALTH****Moderator:****The Impact of Efficient Natural Ventilation on the Indoor Environmental Air Quality: The Case of a Social Housing in Turkey**Ezgi Bay, *University of Utah*Antonio Martinez-Molina, *University of Texas at San Antonio***Efficacy of External Shading Devices and Natural Ventilation during Extreme Heat for a Seattle Multi-family Apartment Unit**Teresa Fotini Moroseos, *Integrated Design Lab, University of Washington*Heather Burpee, *Integrated Design Lab, University of Washington*

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Christopher Meek, *Integrated Design Lab, University of Washington*  
**Modernity and Human Health: The Connection to Outdoor Air**  
 Elizabeth L. McCormick, *University of North Carolina at Charlotte*  
 Traci Rider, *North Carolina State University*

**2:30pm-4:00pm**

PCA 341

**WORKSHOP\_ Writing for Architectural Journals****4:00pm-4:30pm**Arcade /  
Coffee**POSTER/PROJECT SESSION B**

**RIVERGAN: Fluvial Landforms Generation Based on Physical Simulations and Generative Adversarial Network**

Xun Liu, *University of Virginia* and Runjia Tian, *Harvard University*

**Accessory Carbon Units**

Robert Williams, *University of Massachusetts Amherst*

**The Alternating Dock**

Ana Tricarico Orosco, *Louisiana State University*

**Bio-Cities: Synthetic Biology and Architecture in Coastal Communities**

Alfredo Andia, *Florida International University*

**Deployable Pod: A Case Study of Applied Transformable Design Research**

Rachel Dickey and Noushin Radnia, *University of North Carolina at Charlotte*

**Considering Health + Wellness Beyond Convention: Spirituality, Space and the Critical Case of Sufism**

Nooshin Esmaeili and Brian R. Sinclair, *University of Calgary + sinclairstudio inc.*

**Indigeneity, Imagination, Equity + Design: Ethical Space and Complementary Ways of Knowing**

Brian R. Sinclair, *University of Calgary + sinclairstudio inc.*

**4:30pm-5:00pm**

PCA 135

**Plenary II > EQUITY**

Topic Chairs: Elisa Silva and Gray Read, *Florida International University*

**5:00pm-6:00pm**

PCA 135

Keynote Address

**JUSTICE AS SPACE AND PLACE: TOWARDS A NEW DESIGN VOCABULARY AND PRACTICE**

Toni Griffin, *Harvard University, Founder, urbanAC*

**6:00pm-7:00pm**

Terrace

Reception + Exhibition Opening: Climates of Inequality, Green Library  
(dinner on own)

**> Friday, March 4, 2022***Time (EST)**Location**Event/Session*

8:30am-9:00am

Courtyard

Continental Breakfast

**9:00am-9:30am**

PCA 135

**Plenary III > TECHNOLOGY**

Topic Chairs: Biayna Bogosian and Eric Peterson, *Florida International University*

**9:30am-10:30am**

PCA 135

Keynote Address

**DISRUPTING CONCRETE CONSTRUCTION**

Philippe Block, *Co-Director, Block Research Group, ETH Zurich*

**10:30am-11:00am**Arcade /  
Coffee**POSTER/PROJECT SESSION C**

**Building in the Digital Transformation: Translations from Design to Technological-enabled Demountable Building**

Sara Codarin, Karl Daubmann, Emily Kutil, Kristen Dean, *Lawrence Technological University*

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

**Revisiting Modernist Mass-Housing: Residents as Active Agents of Change**  
 Nadia Shah, *Illinois Institute of Technology*

**Towards a Zero Waste University Campus**  
 Júlia Pokol, *Budapest University of Technology and Economics*

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

**Personalizing Climate Change: Measuring and Adapting Sea Level Rise Perceptions**  
 Leonard Yui, *Roger Williams University*

**11:00am-12:30pm** PCA 175  
 CLIMATE\_  
 Mitigation + Adaptation

**CIRCULAR ECONOMY AND LIFE CYCLE CONSIDERATIONS****Moderator:**

**Mapping of Research Lines on Circular Economy Practices in Cities: From Waste to Infrastructure**

Patricia Njideka Kio, *Texas A&M University*  
 Ahmed Kamal Ali, *Texas A&M University*

**Nature-based Solutions and Circular Economy: Structuring a Long-Term Project for a Climate Resilient Design**

Kevin Santus, *Politecnico of Milan*

**Beyond Operational Energy Efficiency: A Balanced Sustainability Index from a Life Cycle Consideration**

Ming Hu, *University of Maryland*

**11:00am-12:30pm** PCA 171  
 TECHNOLOGY\_  
 Materials + Digital Fabrication

**CNC TECHNOLOGIES, KARAMABA3D AND IOT PEDAGOGICAL TOOLS****Moderator:**

**Building Surface Thermal Modulation: Applying Biomimicry and CNC Technologies for Creating Textured Building Façades**

Eiman Mohammad Graiz, *University of Kansas*  
 Keith Van De Riet, *University of Kansas*

**Enabling Structural Resolution in Architectural Design Studio Using Karamba3D**

Chengde Wu, *Iowa State University*  
 David Thaddeus, *University of North Carolina at Charlotte*  
 Danielle Scaccia, *University of North Carolina at Charlotte*

**Building with Air: The Internet of Things (IoT) as a Pedagogical Tool for Design-Build Education**

Nate Shigeo Imai, *Texas Tech University*

**11:00am-12:30pm** PCA 167  
 EQUITY\_  
 Inclusive Urban Landscapes

**MAPPING, MEMORY, PRECEDENT AND TEACHING METHODOLOGIES****Moderator:**

**Domestic Spaces in the COVID-2019 Pandemic Times: Perspective of Six Female Architecture Students from the Midwest USA**

Mania Tahsina Taher, *University of Wisconsin-Milwaukee*

**Drawing Memories: Mapping as Part of Oral History**

Gray Read, *Florida International University*

**Precedent and Influence: An Urban Design Studio Project**

Dwayne Carver, *University of Idaho*

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**11:00am-12:30pm** PCA 168  
CLIMATE\_  
Coastal Cities + Interconnectivity

**RESILIENCE, MODULARITY AND POST-DISASTER HOUSING****Moderator:**

**Light Timber Construction for Affordable, Sustainable Disaster Resilience**  
George Elvin, *North Carolina State University*

**Advanced Modular Housing Design for Highly Efficient, Affordable, and Resilient Post-Disaster Housing**  
Forough Foroutan Jahromi, *University of Florida*  
Jeffrey Andrew Carney, *University of Florida*

**A Proposed Evaluation Tool for the Resiliency of Post-disaster Housing: A Case Study of a Post-Earthquake and Tsunami Social Housing Development in the Coast of Southern Chile**  
Daniela Scheuermann, *Universidad de Concepción*  
Andrea Soledad Martinez Arias, *Universidad de Concepción*  
María Isabel Rivera, *Researcher, Centre for Sustainable Urban Development (CEDEUS)*

**11:00am-12:30pm** PCA 180  
PUBLIC HEALTH\_  
Public Space

**ANCHORS, PUBLIC SPACE AND RESILIENT SPATIAL NETWORKS****Moderator:**

**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*

**Public Restrooms: A Site of Cultural Conflict**  
Edward Steinfeld, *University at Buffalo, SUNY*  
Adam Thibodeaux, *University at Buffalo, SUNY*  
Shira Gabriel Klaiman, *University at Buffalo, SUNY*

**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, *University of Ottawa*

11:00am-12:30pm PCA 341

**WORKSHOP\_Spatial Equity and Inclusiveness in Research and Practice**

12:30pm-2:00pm Courtyard

**Lunch / ARCC Annual Awards Program**

2:00pm-2:30pm Arcade /  
Coffee

**POSTER/PROJECT SESSION D**

**The Side-Yard House Model: Creating Green and Resilient Communities**  
Craig S. Griffen, *Thomas Jefferson University*

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

**Biomaterials: Explorations around Bacterial Cellulose**  
Mercedes Garcia Holguera, *University of Manitoba*

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

**Web Model Dot Space: Embody the Archive**  
Aaron M. Jones, *Lawrence Technological University*

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

**Postcards from the Future: Climate Fiction as Architecture Pedagogy**  
Gabrie Ikapielian, *Temple University*

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**2:30pm-4:00pm** PCA 175  
 CLIMATE\_  
 Mitigation + Adaptation

**HUMAN PERCEPTION, THERMAL COMFORT AND HYBRID INFRASTRUCTURES****Moderator:**

**Exploring the Role of Human Perception: A Comparative Analysis of Human Thermal Comfort and Urban Design Parameters**

Naveed Mazhar, *Northern Alberta Institute of Technology (NAIT)*Enrica Dall'Ara, *University of Calgary*Brian R. Sinclair, *University of Calgary*

**Observations of Thermal Comfort Conditions in Two Schools in Southern California and Nairobi, Kenya**

David Mwale Ogoli, *California Baptist University*

**Nature-Based and Hybrid Infrastructures to Build Resilient Cities through the Rivers: Two Case Studies in Addis Ababa (Ethiopia)**

Ruben Garcia-Rubio, *Tulane University*Ryan Green, *Tulane University*Sonsoles Vela, *Tulane University*

**2:30pm-4:00pm** PCA 171  
 TECHNOLOGY\_  
 Materials + Digital Fabrication

**PRESERVATION, PERFORMANCE AND PROTOTYPE****Moderator:**

**Configurable Resiliency: Generating Sustainable Designs in Historic Neighborhoods**

Mahyar Hadighi, *Texas Tech University*

**Evaluation of the Bioclimatic Building Performance in Hot Climate**

Abdou Idris, *Université de Djibouti, Faculté d'Ingénieurs, CEALT/LME*Abdoulkader Ibrahim, *Université de Djibouti, Faculté d'Ingénieurs, CEALT/LME*Assabo Mohamed, *Université de Djibouti, Faculté d'Ingénieurs, CEALT/LME*

**Informing Early-Stage Building Energy Retrofit for Prototypical Public Schools in Chile**

Andrea Soledad Martinez, *Universidad de Concepción*María Isabel Rivera, *Universidad de Concepción*Pablo Arriagada, *Researcher, Centre for Sustainable Urban Development (CEDEUS)*

**2:30pm-4:00pm** PCA 167  
 EQUITY\_  
 Inclusive Urban Landscapes

**SOCIAL HEALTH, EQUITY AND ACCESS****Moderator:**

**Social Scorecard: A Comprehensive Social Health Analysis Tool**

Edgar Stach, *Institute for Smart and Healthy Cities, Jefferson University*Summer Koch, *Institute for Smart and Healthy Cities, Jefferson University*

**Exploring Health Equity and the Built Environment through the Social Determinants of Health**

Traci Rose Rider, *North Carolina State University*Victoria A. Lantaigne, *North Carolina State University*Aaron Hipp, *North Carolina State University*Rosa McDonald, *Baker Ingenuity Group*Kia Baker, *North Carolina State University*

**Disparities in Green Space Accessibility and Health Outcomes in Urban Areas for Different Racial and Income Groups: A Case Study of California**

Jiaying Dong, *Clemson University*Dina Battisto, *Clemson University*

**2:30pm-4:00pm** PCA 168  
 TECHNOLOGY\_  
 Digital Design + Practices

**VOC REDUCTION, INSULATION REFRESHED AND WALLBOARD MODULARITY****Moderator:**

**An Air-Depolluting System for Indoor VOC Reduction**

Ketki Bapat, *University of North Carolina at Charlotte*Ok-Kyun Im, *University of North Carolina at Charlotte*Chengde Wu, *Iowa State University*Kyoung-Hee Kim, *University of North Carolina at Charlotte*



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**Exploring Low-cost Acoustic Panels with Origami Patterns for Classrooms**Julio C. Diarte, *Pennsylvania State University*Elena M. Vazquez, *Universidad Nacional de Asuncion***Modular Makeup: Reconsidering Modularity of Gypsum Wallboard**Alyssa Kuhns, *Auburn University*Jeff Kim, *Auburn University***2:30pm-4:00pm**

PCA 180

PUBLIC HEALTH\_

Public Space

**BIOPHILIC PERFORMANCE, HEALTHCARE AND HEALTH RESORTS****Moderator:****Resilient Sites: Mapping K-12 Schools' Context Biophilic and Energy Performance**Ihab Elzeyadi, *University of Oregon***'Configurational' Accessibility of Healthcare Facilities in Dammam, Saudi Arabia: A Space Syntax Study**Ahmed Abdulaziz Alrashed, *Imam Abdulrahman Bin Faisal University*Saif Haq, *Texas Tech University***Miami Solarium (1928) to the Sun Ray Health Resort: From a Hotel-Sanatorium to Hotel-Health-Resort-Spa**Vandana Baweja, *University of Florida*Sonny Russano, *University of Florida***2:30pm-4:00pm**

PCA 341

PUBLIC HEALTH\_

Human-Centered Design

**WELL-BEING, NEIGHBORHOOD ANCHORS AND GLOBAL CITIZENSHIP****Moderator:****Designing for Wellbeing: The Role of Architecture in Addressing Social Equity in Response to COVID-19**Ebtehal Bahnasy, *University of Minnesota***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*Jiayang Dong, *Clemson University***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 and + sinclairstudio inc.*Raffaello Furlan, *Qatar University***2:30pm-4:00pm**

PCA 341

**WORKSHOP\_NSF Grant Success Information****Moderator:** Shahin Vassigh, *Florida International University*Jordan Berg, *Program Director, Division of Civil, Mechanical & Manufacturing Innovation National Science Foundation (NSF)***4:00pm-4:30pm**Arcade /  
Coffee**POSTER/PROJECT SESSION E****Striving for a Common Goal: Coastal Resilience through Interdisciplinary Design**Jori Ann Erdman, *James Madison University*Tiffany Troxler, *Florida International University***Amphibian Typologies and The Urban Imaginary**Mona El Khafif and Darcy Engle, *University of Virginia***Deploy 2.0**Ana Morcillo Pallares and Jonathan Rule, *University of Michigan***Shine A Light: People + Plant Conservatory**Aaron M Jones, *Lawrence Technological University*

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**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, Meghan Gannon, Kayla Holston, Stephanie Catrambone,

*Thomas Jefferson University*Luis Gadama and Zayithwa Fabiano, *Kamuzu University of Health Sciences***Equitable Access to Building Construction Through Advancements in Open and Global Building Machine Technology**Elizabeth Andrzejewski, Marcus Shaffer, Esther Obonyo, *Pennsylvania State University*

4:30pm-5:00pm

PCA 135

**Plenary IV: Public Health**Topic Chairs: Magda Mostafa and Newton D'souza, *Florida International University*

5:00pm-6:00pm

PCA 135

Keynote Address

**COASTAL URBANISM**Susannah Drake, *Founder, DLANDstudio*

6:00pm-9:00pm

Courtyard

Reception / Hors d'oeuvres + Group Dinner

**> Saturday, March 5, 2022***Time (EST)**Location**Event/Session*

8:30am-9:00am

Courtyard

Continental Breakfast

9:00am-10:30am

PCA 175

CLIMATE\_

Mitigation + Adaptation

**RETROFIT, COMMUNITY KNOWLEDGE AND EQUITABLE DESIGN****Moderator:****From Cold War to Global Warming: Dilemma's in Retrofitting the Modernist University Campus in Latin America. Case study: Escuela Politécnica Nacional (EPN) in Quito, Ecuador**Victor Hugo Molina, *Delft University of Technology and Universidad Técnica de Ambato***Data Dissonance: An Exploration of Community Knowledge of Extreme Temperature Vulnerabilities**Nina Spellman, *Northeastern University*Michelle Laboy, *Northeastern University***Impact of Climate Change in Houston TX: Resilient Residential Buildings and Equitable Design**Raffaella Montelli, *University of Houston*Mili Kyropoulou, *University of Houston*

9:00am-10:30am

PCA 171

TECHNOLOGY\_

Digital Design + Practices

**CARTOGRAPHY, BIOCLIMATICS AND URBAN GROWTH****Moderator:****Metropolitan Cartography: An Inventive Practice Tool for Caring Metropolitan Landscapes**Antonella Contin, *Politecnico di Milano*Valentina Galiulo, *Politecnico di Milano*Domingo Sánchez Fuentes, *Escuela Técnica Superior de Arquitectura de Sevilla***MODE\_Bios: A Bioclimatic, Adaptive, Urban Design Tool**Polyxeni Mantzou, *Democritus University of Thrace*Anastasios Floros, *Democritus University of Thrace***Rooftop Additions: An Alternative Model of Urban Growth**Oliver Chamel, *Florida A&M University*Bernd Dahlgren, *Hafen City Universität Hamburg*Laurent Lescop, *Ecole Nationale Supérieure d'Architecture Nantes*

**Resilient City: Physical, Social, and Economic Perspectives**

March 2-5, 2022 | Miami, FL | Florida International University

**9:00am-10:30am** PCA 167  
 EQUITY\_  
 Cities + (Im)migration

**IMMIGRANT LANDSCAPES AND MISSISSIPPI SMALL TOWNS****Moderator:**

**Intercultural Suburbs: The Urban Design Alternatives of International Immigrants in Toronto's Modern Landscapes**

Giacomo Valzania, *McGill University*

**Creating the "Foreign" Place through "Windows": Shifting Urban Forms in Seattle's Chinatown**

Xiao Hu, *University of Idaho*

**Housing Insecurity and Latinx Community Resilience in Small Towns in Mississippi**

Lopez Barrera, Silvina, *Mississippi State University*Thompson, Diego, *Mississippi State University*

**9:00am-10:30am** PCA 168  
 CLIMATE\_  
 Coastal Cities + Interconnectivity

**WATERFRONT RESILIENCE AND CARBON POSITIVE SCENARIOS****Moderator:**

**Water Resilience. Mapping and Active Borders as Instruments for Climate-Resilient Waterfront Design Strategies**

Elena Verzella, *University of Ferrara*

**Resilience at the Water's Edge**

Vera Parlac, *New Jersey Institute of Technology*

**Climate Resilient Urban Nexus Choices for Carbon Positive and SynBio City Scenarios from 2018 to 2100**

Thomas Spiegelhalter, *Florida International University*

**9:00am-10:30am** PCA 180  
 PUBLIC HEALTH\_  
 Public Space

**SPATIAL APPROPRIATION, POLLUTION ASSESSMENT AND EPIDEMIOLOGY****Moderator:**

**Spatial Appropriation During the Pandemic: Analysis of Two Parallel Cases**

Carey Clouse, *University of Massachusetts Amherst*Caryn Brause, *University of Massachusetts Amherst*

**Mapping Blindspots in Urban Atmospheric Pollution Assessment in the US-Mexico Borderland**

Stephen Mueller, *Texas Tech University*

**Architectural Epidemiology: Introducing a Transdisciplinary Field of Study and Practice Using Real Estate as a Mechanism for Epidemiological Interventions on Climate Change & Chronic Disease**

Adele Houghton, *Biositu and T.H. Chan School of Public Health, Harvard University*Carlos Castillo-Salgado, *Bloomberg School of Public Health, Johns Hopkins University*

**9:00am-10:30am** PCA 140  
 DOCTORAL EDUCATION\_  
 Research + Design Doctorates

**RESILIENCE, DAYLIGHT AND THE SPACE OF THE BODY****Moderator:**

**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.*

**Design Principles for Museum Daylight Systems Based on Nine Built Examples from Renzo Piano Building Workshop**

Edgar Stach, *Jefferson University*Esposito, Michael, *Elementa Engineering*

**Spatializing the Body: Feminist Practice as Architectural Research**

Elizabeth Marie Cronin, *University of Florida*

**9:00am-10:30am** PCA 341

**WORKSHOP\_Developing an Architectural Research Agenda****Moderator:** Adil Sharag-Eldin, *Kent State University*

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10:30am-11:00am    Arcade /  
Coffee**POSTER/PROJECT SESSION F****Tensegrity Knit Helix Tower Light Weight Deployable Structure**Virginia Melnyk, *University of Michigan, Tongji University***Re-Commissioning Land. Spatial And Temporal Urban Strategies For Coastal Territories**Mona El Khafif and Ali Fard, *University of Virginia***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, *FAUP (Portugal)***Austin, Texas: A Study in Gentrification and The Need for Affordable and Resource Efficient Housing**Michael Garrison, *The University of Texas at Austin***Experiencing the Vortex**Pari Riahi, Fey Thurber, Erica DeWitt, Cami Quinteors, Pieter Boersma, Adrian Carleton, Ali Sarvghad, Yahya Modarres-Sadeghi, *University of Massachusetts Amherst***Urban Design Mitigations: Considering COVID-19's Impact on Public Space**Deirdre Hennebury, *University of Michigan*Fernando Cirino, *Independent*11:00am-12:30pm    PCA 175  
CLIMATE\_  
Mitigation + Adaptation**GREEN SPACE, WALKABILITY AND AGILITY IN THE BUILT ENVIRONMENT****Moderator:****Whose Heritage, Whose Investment, Whose Sustainability? Multi-actor Dynamics Around Green Space in Late-Modernist Residential Developments (Bordeaux, France)**J. Kent Fitzsimons, *Laboratoire PAVE, École Nationale Supérieure d'Architecture et de Paysage de Bordeaux*Fanny Gerbeaud, *Laboratoire PAVE, École Nationale Supérieure d'Architecture et de Paysage de Bordeaux***Walking Towards a Sustainable Future for Urban Design**Summer Stevens, *University of Florida*Nawari Nawari, *University of Florida*Michael Volk, *University of Florida***Uncertainty, Complexity + Changing Conditions: A Cohesive Frame to Advance Agility in the Built Environment**Salah Imam, *University of Calgary + Entuitive Consulting Engineers*Brian R. Sinclair, *University of Calgary + sinclairstudio inc.*11:00am-12:30pm    PCA 171  
TECHNOLOGY\_  
Materials + Digital Fabrication**MATTER, TOPOLOGY AND FABRICATION****Moderator:****Topology + Timber**Tsz Yan Ng, *University of Michigan*Wes McGee, *University of Michigan***Fabric Formed Poured Earth: Using Urban Site Soils in Fabric to Eliminate Portland Cement**Charlie O'Geen, *Kendall College of Art and Design*Catherine Page Harris, *University of New Mexico***Employing Topology Optimization for Establishing Design Variability in Precast Façade Panels**Niloufar Emami, *University of Illinois at Urbana-Champaign*11:00am-12:30pm    PCA 167  
PUBLIC HEALTH\_  
Human-Centered Design**HUMAN-CENTRIC EXPERIENCE, HELPING YOUTH AND THE ELDERLY****Moderator:****The Multi-level impacts of the Physical Environment on Childbirth Experience: A Critical Literature Review**Rafah Altaweli, *University of Cincinnati*

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Pravin Bhiwapurkar, *University of Cincinnati***Co-Design Strategies to Achieve Trust in Urban Living Lab: A Systematic Literature Review**Carla Brisotto, *Florida Institute for Built Environment Resilience*Jeffrey Andrew Carney, *Florida Institute for Built Environment Resilience***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***11:00am-12:30pm** PCA 168

EQUITY\_

Cities + (Im)migration

**PEDAGOGY, EQUITY AND SOCIAL JUSTICE****Moderator:****Inclusive Pedagogies in Theory Sequence Courses**Larisa Sherbakova, *Florida Agriculture and Mechanical University*Shalya Thomas, *Florida Agriculture and Mechanical University*Amanda Grace, *Florida Agriculture and Mechanical University*Basma Binmahfooz, *Florida Agriculture and Mechanical University***Discrimination and Design: Equity, Justice, and Architectural Education**J. Philip Gruen, *Washington State University***Critical Pedagogy and Public Interest Design: Transforming Architecture Design Education for Social Justice**Erika Zekos, *University of Massachusetts Amherst***11:00am-12:30pm** PCA 180

CLIMATE\_

Mitigation + Adaptation

**MODELING METHODS OF FACADES AND ROOFS****Moderator:****Thermoelectric Facades: Modeling Procedure and Comparative Analysis of Energy Performance in Various Climate Conditions**Aksamija Ajla, *University of Utah (remote)*Mahsa Farid Mohajer, *University of Massachusetts***Building a Workflow to Model a Green Façade in a Graphical User Interface for EnergyPlus**Collin Sydney, *Center for Building Energy Research, Iowa State University*Ulrike Passe, *Department of Architecture, Iowa State University***An Interactive GIS-based Method to Map Feasible Roof Areas for PV Panels**Sedigheh Ghias, *Iowa State University*Ulrike Passe, *Iowa State University*Yuyu Zhou, *Iowa State University***11:00am-12:30pm** PCA 140

DOCTORAL EDUCATION\_

Research + Design Doctorates

**DOCTORAL RESIDENCY, EDUCATION AND DESIGN DISSERTATION****Moderator:****Minimal Residency Doctoral Education**Neil Leach, *Florida International University***A New DDes Program in Architecture at Florida International University focusing on Technology and Sustainability**Gray Read, *Florida International University*Biayna Bogosian, *Florida International University*Shahin Vassigh, *Florida International University***A Systematic Literature Review of Ph.D. in Design Dissertations: A Case Study at North Carolina State University**Jinoh Park, *North Carolina State University*Yeobeom Yoon, *North Carolina State University*Byungsoo Kim, *North Carolina State University*

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**12:30pm-2:00pm**

Courtyard

### **Lunch + Closing Plenary > RESILIENT CITY**

Conference Co-Chairs, Marilys Nepomechie and Shahin Vassigh, *Florida International University*

#### **Conference Closing**

Oya Atalay, *EAAE President, Zurich University of Applied Sciences*

Chris Jarrett, *ARCC President, University of North Carolina at Charlotte*

Ming Hu, *ARCC Awards Committee Chair, University of Maryland*

Best Paper Award Announcement

Best Poster Award Announcement