

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

> Thursday, March 3, 2022

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

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11:00am-12:30pm PCA 171
 TECHNOLOGY_
 Materials + Digital Fabrication

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*Maziyar 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, <i>Florida International University</i> The Postwar Economy House in 1940s Florida Vandana Baweja and Sarah Gurevitch, <i>University of Florida</i> The ACP Project: Focus Groups, Interviews + Ethnographic Research Andrew Chin, <i>Florida A&M University</i> The Future of Food Production: Urban Farming Towards Food Self-Sufficiency Camilo Cerro, <i>American University of Sharjah</i> Sensitivity Analysis and Multi-Objective Optimization of Skylight Design in the Early Design Stage Yuan Fang, <i>Western Kentucky University</i> Le Fan, <i>China Academy of Building Research Institute</i> Modeling Healthfulness Ulysses Vance, <i>Temple University</i> Design for Youth: Research in the Design Studio Julia W. Robinson, <i>University of Minnesota</i>
2:30pm-4:00pm	PCA 175	HEAT ISLANDS AND LAND-BASED INFRASTRUCTURES
CLIMATE_ Mitigation + Adaptation		Moderator: Understanding Efficient Mitigation Strategies for Los Angeles' Heat Islands using OLS Regression Analysis Olivia Vander Poel Lewis, <i>CallisonRTKL</i> Pablo La Roche, <i>CallisonRTKL</i> Joey-Michelle Hutchison, <i>CallisonRTKL</i> Arianne Ponce, <i>CallisonRTKL</i> Urban Heat Island Phenomena in Dhaka, Bangladesh Tasneem Tariq, <i>Pennsylvania State University</i> Ute Poerschke, <i>Pennsylvania State University</i> Lisa Domenica Iulo, <i>Pennsylvania State University</i> Water, Fire, Land, Air: Investigating Land-based Infrastructures Jessica Rossi-Mastracci, <i>University of Minnesota</i>
2:30pm-4:00pm	PCA 171	SPATIAL PERFORMANCE, VISUAL ANALYSIS AND INDETERMINANCY
TECHNOLOGY_ Materials + Digital Fabrication		Moderator: Evaluation of Spatial Performance in Vertically Integrated Developments Using a Network Science-Based Approach Srilalitha Gopalakrishnan, <i>Singapore University of Technology and Design</i> Chirag Hablani, <i>Singapore University of Technology and Design</i> Daniel Kin Heng Wong, <i>Singapore University of Technology and Design</i> Benny Chin, <i>Singapore University of Technology and Design</i> Srikanth Anjanaa Devi, <i>Singapore University of Technology and Design</i> Ajaykumar Manivannan, <i>University of Ottawa</i> Roland Bouffanais, <i>University of Ottawa</i> Thomas Schroepfer, <i>University of Ottawa</i>

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Visual Data-Based Spatial Analysis of Built EnvironmentsDaniel 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, *Moblilize 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**Couzens, Dustin, *Modern Office of Design + Architecture (MODA)*Sinclair, Brian Robert, *University of Calgary + sinclairstudio inc.*Klumper, Ben, *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*Christopher Meek, *Integrated Design Lab, University of Washington*

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Modernity and Human Health: The Connection to Outdoor AirElizabeth 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 + sinclai studio inc.***Indigeneity, Imagination, Equity + Design: Ethical Space and Complementary Ways of Knowing**Brian R. Sinclair, *University of Calgary + sinclai studio inc.***4:30pm-5:00pm**

PCA 135

Plenary II > EQUITYTopic Chairs: Elisa Silva and Gray Read, *Florida International University***5:00pm-6:00pm**

PCA 135

Keynote Address

SOCIAL JUSTICE URBAN FRAMEWORKSToni 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 > TECHNOLOGYTopic Chairs: Biayna Bogosian and Eric Peterson, *Florida International University***9:30am-10:30am**

PCA 135

Keynote Address

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

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Revisiting Modernist Mass-Housing: Residents as Active Agents of ChangeNadia 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
 Gabriele Ikaprielian, *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 ClassroomsJulio 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 HealthTopic Chairs: Magda Mostafa and Newton D'souza, *Florida International University*

5:00pm-6:00pm

PCA 135

Keynote Address

COASTAL URBANISMSusannah 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*

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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*

Resilient City: Physical, Social, and Economic Perspectives

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

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*Pravin Bhiwapurkar, *University of Cincinnati*

Resilient City: Physical, Social, and Economic Perspectives

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

Co-Design Strategies to Achieve Trust in Urban Living Lab: A Systematic Literature ReviewCarla 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*

Resilient City: Physical, Social, and Economic Perspectives

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

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