

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> Marilys 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, Marilys 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

8:30am-9:00am

Courtyard

Event/Session

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. Lanteigne, *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***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***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*

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Equitable Access to Building Construction Through Advancements in Open and Global Building Machine TechnologyElizabeth 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**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 VulnerabilitiesNina 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***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*

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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

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)*

Resilient City: Physical, Social, and Economic Perspectives

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

Austin, Texas: A Study in Gentrification and The Need for Affordable and Resource Efficient HousingMichael 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***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*

Resilient City: Physical, Social, and Economic Perspectives

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

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*

12:30pm-2:00pm Courtyard

Lunch + Closing Plenary > RESILIENT CITYConference 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