

# RCE Summit

SDG 4 Panel: Quality Education

University of Texas Dallas

---

## Brad Bell

Director School of Architecture

Director Digital Architecture Research Consortium

November 9th, 2022





# Presentation Overview

- Institutional context
- Forces of Change
- College of Architecture Planning and Public Affairs Actions



# Institutional Context

## University of Texas Arlington

- 180 UG,GR, PhD degrees, & more than 60,000 students on our campus or online in 2022
- Classified by the Carnegie Foundation as a Research-1 Institution.
- 65% of our 250,000 Alumni are still in the DFW/North Texas Region.
- No. 3 nationally by U.S. News & World Report for the ethnic diversity of its UG students.
- Designated by the (DoEd) as an Hispanic Serving Institution (HSI) and an Asian American and Native American Pacific Islander Serving Institution (AANAPISI).



# Institutional Context

## School of Architecture, CAPPA

- 50% First Generation College Students in the School of Architecture.
- 53% Female students enrolled Fall 2022.
- 45% Hispanic/Latino students. Up 13% over the past decade.
- Enrollment trends put us on track to become one of the largest SoA in the country by 2025.



# Forces of Change

Bringing about greater awareness for SDG importance



- National Architecture Accreditation Board
- Council for Interior Design Accreditation
- American Society of Interior Designers
- American Institute of Architects
- Faculty Research / Teaching
- Professional and Community Partnerships
- Students!



# Forces of Change

Bringing about greater awareness for SDG importance



- **National Architecture Accreditation Board**
- Council for Interior Design Accreditation
- American Society of Interior Designers
- American Institute of Architects
- **Faculty Research / Teaching**
- **Professional and Community Partnerships**
- Students!



# Forces of Change

## Accreditation Standards

### 2014 NAAB Program and Student Criteria

#### 1.1 Program Criteria

- 1.1 History and Mission.
- 1.2 Learning Culture
- 1.3 Social Equity
- 1.4 Defining Perspectives
- 1.5 Long-Range Planning
- 1.6 Assessment

#### 1.2 Student Criteria: Student Performance Criteria (SPC)

- Realm A: Critical Thinking and Representation
- Realm B: Building Practices, Technical Skills, and Knowledge
- Realm C: Integrated Architectural Solutions
- Realm D: Professional Practice

### 2022 NAAB Program and Student Criteria

#### 1.1 Program Criteria

- PC.1 Career Paths
- PC.2 Design
- **PC.3 Ecological Literacy and Responsibility**
- PC.4 History and Theory
- **PC.5 Research and Innovation**
- PC.6 Leadership and Collaboration
- PC.7 Learning and Teaching Culture
- **PC.8 Social Equity and Inclusion**

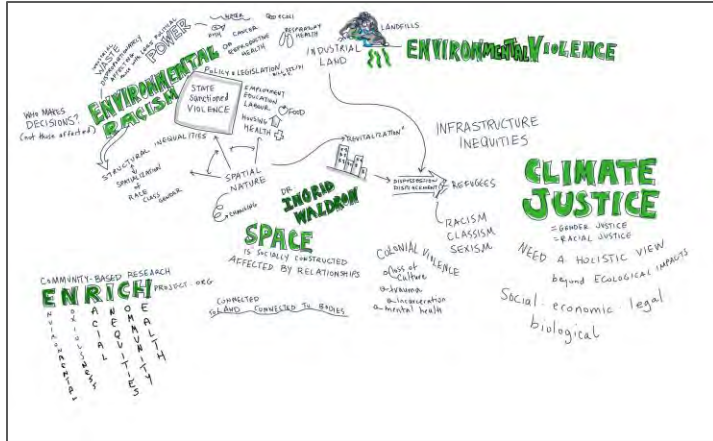
#### 1.2 Student Criteria: Student Learning Objectives and Outcomes

- **SC.1 Health, Safety, and Welfare in the Built Environment**
- SC.2 Professional Practice
- **SC.3 Regulatory Context**
- SC.4 Technical Knowledge
- **SC.5 Design Synthesis**
- SC.6 Building Integration



# UTA CAPPA Actions

Professor Dr. Ariadna Reyes-Sanchez, Planning



Intersection of Climate, Environmental, and Social Justice

## Current Research and Grants

- Confronting Precarity and Environmental Injustice. Lived Stories of Informality and Adaptation in a North Texas Freedmen's Town.
- Mellon Grant for collaborative project, "Climate and Environmental Justice Crossing Latinidades." How low-income Latinx residents in informal subdivisions across Texas endure and adapt to environmental and climate injustices?

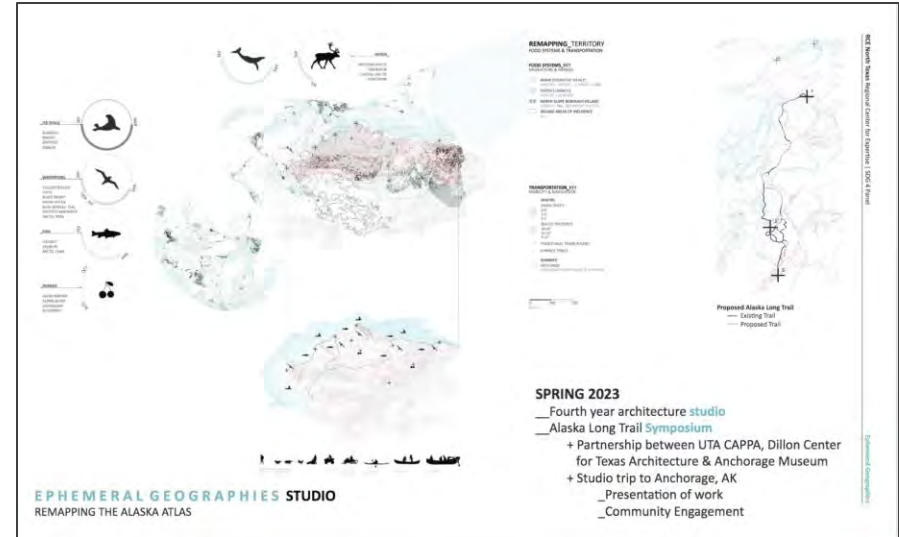
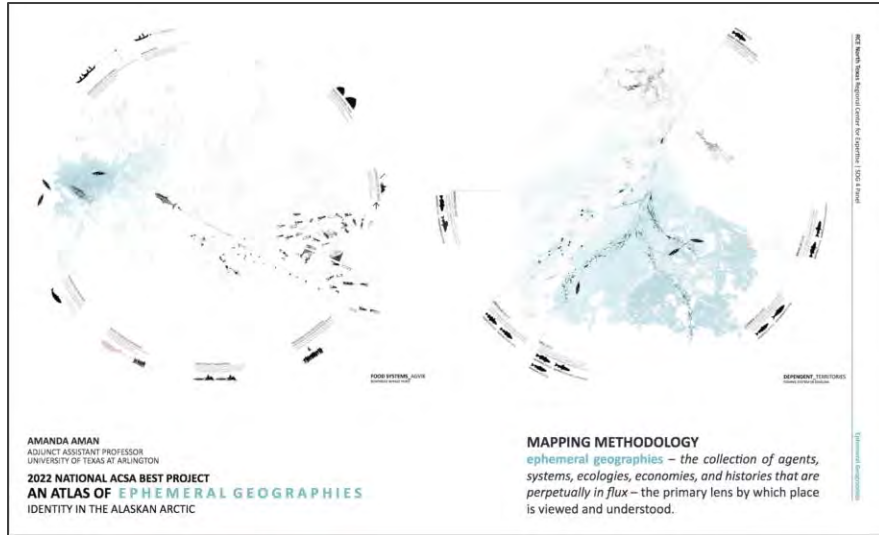
## Selected Publications:

- Revealing the Contribution of Informal Settlements to Climate Change Mitigation in Latin America: A Case Study of Isidro Fabela, Mexico City. (2021). Sustainability.
- How do low-income commuters get to work in US and Mexican cities? A comparative empirical assessment. Urban Studies.
- Housing and Transportation: The Relationship between Residential Location, Local Retail Economies, and Commutes of Low-Income Families in Mexico City. (2020). Journal of Planning Education and Research



# UTA CAPPA Actions

Professor Amanda Aman, Architecture



Climate and social/community engagement in the built environment for at risk ecologies: Alaska, Iceland, Greenland

2022 National Best Project Award ACSA: Ephemeral Geographies



# UTA CAPPA Actions

## Professor Joowon Im, Landscape Architecture

### Community-Based Master Plan with Green Infrastructure System for The Bottom District, Dallas

Landscape architecture design studio 4  
(Funded by NCTCOG & CAPPA Geisel Grant)  
\* Awarded Student National Honor Award from American Society of Landscape Architects

The Bottom District is identified as one of the freedmen's towns along the Trinity River. Like many underserved communities, The Bottom District was historically more susceptible to environmental disasters such as flooding due to degraded infrastructure and underinvestment from the municipality.

The project team consisted of The Golden S.E.E.D.S. Foundation (TGSEF), The University of Texas at Arlington (UTA - College of Architecture, Planning and Public Affairs), DesignJones LLC, and the City of Dallas to ensure the inclusion of interdisciplinary and diverse public and private entities.

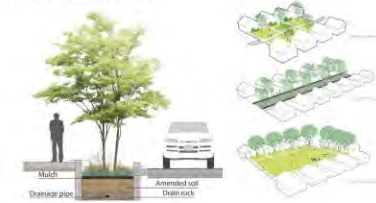
The project team collaborated to develop a sustainable blue and green neighborhood master plan incorporated with green infrastructure and a cultural trail. The final step for the project is to create a blue-green beautification guideline and establish a small-scale pilot GI project at one of the selected locations in The Bottom District.



SECTION D-D' : HILLSIDE PARK & TRINITY RIVER OVERLOOK DECK



STREET RAIN GARDEN SECTION



JOOWON IM, Ph.D., ASLA | Assistant Professor in Landscape Architecture | CAPPA | UT Arlington

Green Infrastructure, Bottom District, Dallas

### GIS Training in Transportation and Environmental Justice for Promoting Student Success in STEAM Education

(Funded by NITC & CTEDD)

Grant Title: NITC (National Institute for Transportation and Communities) Education Grant, CTEDD (center for Transportation, Equity, Decisions and Dollars)

Title: GIS Training in Transportation and Environmental Justice for Promoting Student Success in STEAM Education

Team members: Dr. Joowon Im (PI), Amruta Amol Sakalkar (Co-PI), Alan Klein (Co-PI)

Award: \$25,287

Project period: 2021 – 2022

The research team is focusing on developing GIS training and lectures to address issues concerning transportation and environmental justice for high school students who set their career goals within STEAM education, especially concerning urban planning, architecture, and landscape architecture. We also focus on the student population from mid- and lower-income families with diverse backgrounds who are often to be first-generation students in their families.



GIS Workshop



Embarkment with help from the kayak instructor



Kayaking on the Trinity River assisted by instructors

JOOWON IM, Ph.D., ASLA | Assistant Professor in Landscape Architecture | CAPPA | UT Arlington

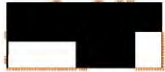
GIS Training in Transportation & Environmental Justice  
Promoting Student Success in STEAM Education



# UTA CAPPA Actions

Hawkins Visiting Professor Ursula Emery McClure, Architecture

BSL2, Gulf Coast, MS



Shutters help to break the harsh winds by acting like gulf barrier islands



Shutters allow light and ventilation in a variety of configurations



Closed shutters protect house from debris and diffuse strong winds

GATOR House, False River, LA



Coastal Resiliency through Architecture

Coastal Caretaker, Coastal Louisiana, 2050

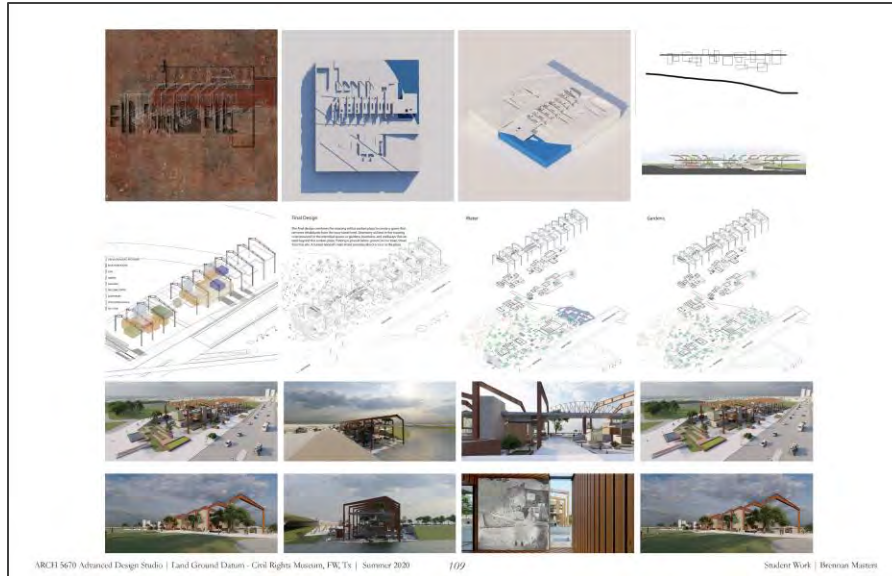


Future environmental resiliency in the built environment

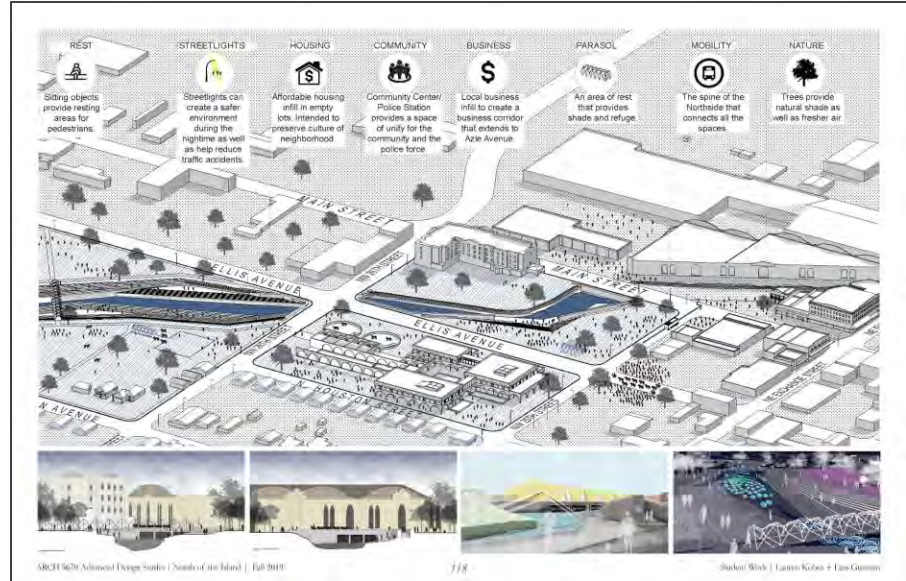


# UTA CAPPA Actions

## Professor Dennis Chiessa, Architecture



Northside Community, Civil Rights Museum



Panther Island – Equitable housing and community development



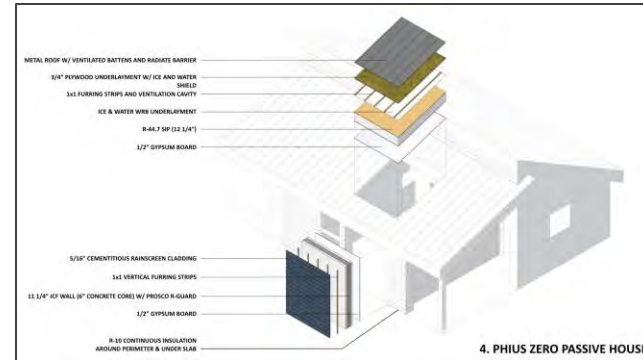
# UTA CAPPA Actions

Professors Chuck MacBride & Brad McCorkle, Architecture

## Design Build

Wynn Terrace Project, Arlington TX  
2023

addressing the housing crisis  
housing inequities  
community engagement  
community partnership  
learning hands-on  
learning first-hand  
building technology & performance





# UTA CAPPA Actions

Professor Dr. Oswald Jenewein, Architecture

## Smart Coast Initiative

Brings communities, faculty, and students together to develop climate adaptation pathways for coastal cities in South Texas.

\$2.7 million in university and federal funding.

<https://smartcoastinitiative.uta.edu/>





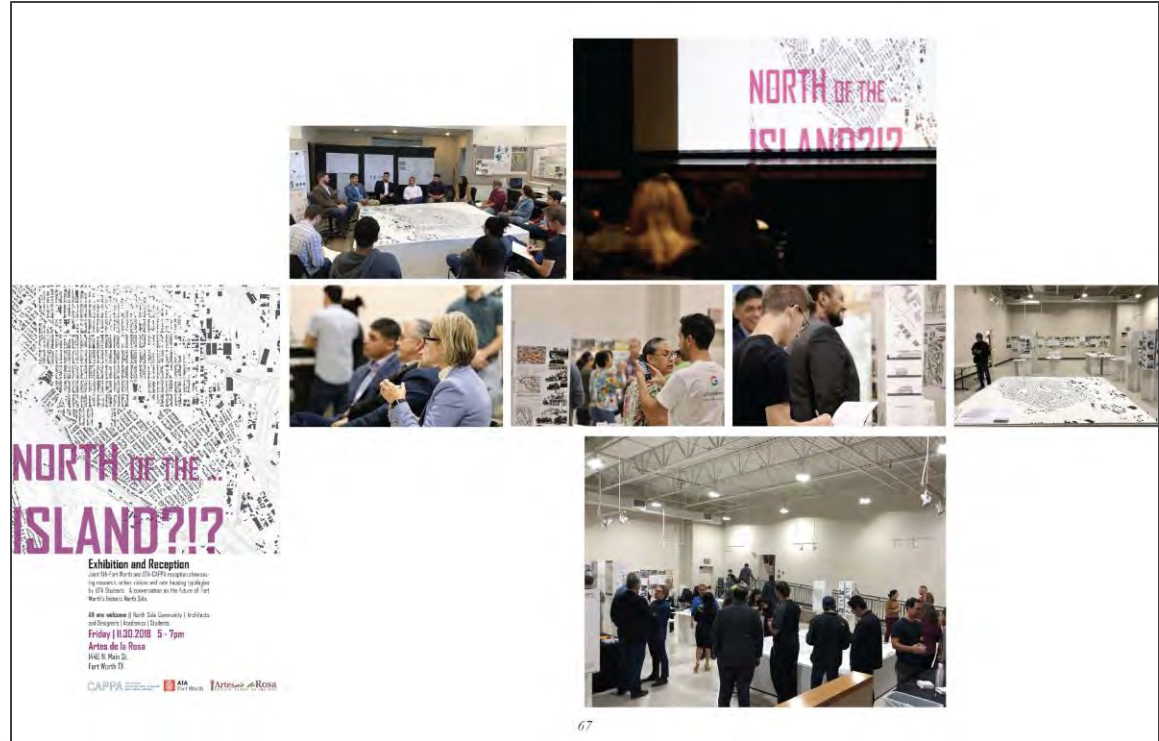
# UTA CAPPA Actions

## Community Exhibitions

### North of the Island Exhibition

Artes De La Rosa  
Main St. Ft Worth, TX  
2018

Housing Equity and Community Activism





# UTA CAPPA Actions

## International & Community Exhibitions

### Watershed Urbanism

Venice Biennale, Italy  
2020

Ft. Worth, TX  
Lewisville, TX  
Arlington, TX  
Dallas, TX  
2021/2022





# UTA CAPPA Actions

## Symposia


**CAPPA Open City Symposium**  
Equity in Planning &  
Design in Neighborhoods  
Under Neglect  
2021

Richard Rothstein

AK Sandoval Strausz

Teddy Cruz+Fonna Forman

Sara Zewde

The poster for the CAPPA Open City Symposium features a background of asphalt with yellow diagonal stripes. Large, bold, black letters spell out 'THE OPEN CITY SYMPOSIUM'. The text 'EQUITY IN PLANNING & DESIGN IN NEIGHBORHOODS UNDER NEGLECT' is centered. The date 'APRIL 9TH' is written vertically. The time '10AM-5PM CT' is in a circle. The schedule is listed on the right, and the speakers are listed on the far right. Logos for CAPPA, LiA, AIA Fort Worth, and Community Design Fort Worth are at the bottom right.

**CAPPA**  
UNIVERSITY OF TEXAS AT ARLINGTON

**EQUITY IN PLANNING & DESIGN IN NEIGHBORHOODS UNDER NEGLECT**

**THE OPEN CITY SYMPOSIUM**

**APRIL 9TH**

**10AM-5PM CT**

**SCHEDULE**

- 10AM-12PM STUDENT PRESENTATIONS
- 12:30PM-1PM WELCOME
- 1PM-4PM SPEAKER PRESENTATIONS
- 4PM-5PM PANEL DISCUSSION

**FEATURING**

- TEDDY CRUZ + FONNA FORMAN**  
ESTUDIO TEDDY CRUZ + FONNA FORMAN
- A.K. SANDOVAL STRAUZ**  
'BARRIO AMERICA'
- RICHARD ROTHSTEIN**  
'THE COLOR OF LAW'
- SARA ZEWEDE**  
STUDIO ZEWEDE

**LiA** **AIA** Fort Worth **COMMUNITY DESIGN** FORT WORTH



# UTA CAPPA Actions

## Symposia



Future Cities/ Livable Futures  
Towards a Sustainable Model for Urban Watershed Systems  
2019



