## Paul Joseph Coseo, PhD, PLA

The Design School . Herberger Institute for Design and the Arts Arizona State University . Tempe, AZ . 85287-1605 Phone: 734 - 678 - 3964 . E-mail: Paul.Coseo@asu.edu

## Education

**Doctor of Philosophy in Urban & Regional Planning (**January 2013), The University of Michigan, Ann Arbor, MI.

Dissertation: Evaluating Neighborhood Environments for Urban Heat Island Analysis and Reduction Committee: Larissa Larsen (Chair), Richard Norton, Scott Campbell, Marie O'Neill

Master of Landscape Architecture (August 2004), The University of Michigan, Ann Arbor, Michigan

Bachelor of Science, Meteorology (April 1996), Central Michigan University, Mt. Pleasant, Michigan

## Academic Appointments

**Head of Landscape Architecture, Urban Design, and Environmental Design (**May 2022 – present), The Design School, Herberger Institute for Design and the Arts, Arizona State University

Associate Professor of Landscape Architecture (August 2020 – present), The Design School, Herberger Institute for Design and the Arts, Arizona State University

Master of Urban Design Program Coordinator (May 2019 – 2021), The Design School, Herberger Institute for Design and the Arts, Arizona State University

Assistant Professor of Landscape Architecture (August 2014 – 2020), The Design School, Herberger Institute for Design and the Arts, Arizona State University

**Global Futures Scientist (**August 2021 - present), Global Futures Laboratory, Arizona State University

Senior Sustainability Scientist (August 2014 – May 2021), The Global Institute of Sustainability, Arizona State University

**Barrett Honors Faculty Advisor (**August 2016 – May 2020), Barrett Honors College at Arizona State University

Affiliated Faculty (August 2017 – present), Center for Biodiversity Outcomes, Arizona State University

Affiliated Faculty (August 2017 – present), The Biomimicry Center, Arizona State University

## **Professional Registration**

Landscape Architect, Licensed by the State of Illinois - No. 157.001267, (August 2007 - present)

## **Professional Experience**

Landscape Architect, Wolff Landscape Architecture, Chicago, Illinois (November 2004 - August 2007)

I gained experience working on 1) seven LEED certification projects including on-site stormwater management calculations and design, 2) three park design projects including Piazza Cosenza in Kenosha, Wisconsin in honor of the area's immigrants, 3) six streetscape projects, 4) three Chicago River walk design projects, 5) one plaza design project in Beijing, China, 6) several restoration projects, and 7) multiple landscapes for low and midrise residential housing projects including affordable and universal accessible housing.

## Scholarly Work – Peer-reviewed Publications

- Olgun, R., Cheng, C., & Coseo, P. (2024). Nature-Based Solutions Scenario Planning for Climate Change Adaptation in Arid and Semi-Arid Regions. *Land*, *13*(9), 1464.
- Crank, P., & Coseo, P. (2024). Cityscapes, Climate, and Mental Health: Designing Cities for Thermal Wellbeing. *Journal of Urban Design and Mental Health*, 9(1).
- Crank, P. J., Middel, A., Coseo, P., & Sailor, D. J. (2023). Microclimate impacts of neighborhood redesign in a desert community using ENVI-met and MaRTy. *Urban Climate*, *52*, 101702.
- Crank, P. J., Middel, A., Coseo, P. J., & Sailor, D. J. (2023). Assessing Microclimate Impacts of Neighborhood Redesign in a Desert Urban Climate Using ENVI-Met and MaRTy. *Available at SSRN 4193423*.
- Lachapelle, J. A., Krayenhoff, E. S., Middel, A., Coseo, P., & Warland, J. (2023). Maximizing the pedestrian radiative cooling benefit per street tree. *Landscape and Urban Planning*, 230, 104608.
- Dzyuban, Y., Hondula, D. M., Vanos, J. K., Middel, A., Coseo, P. J., Kuras, E. R., & Redman, C. L. (2022). Evidence of alliesthesia during a neighborhood thermal walk in a hot and dry city. *Science of the Total Environment*, *834*, 155294.
- Dzyuban, Y., Hondula, D. M., Coseo, P. J., & Redman, C. L. (2021). Public transit infrastructure and heat perceptions in hot and dry climates. *International journal of biometeorology*, 1-12.
- Middel, A., Alkhaled, S., Schneider, F. A., Hagen, B., & Coseo, P. (2021). 50 Grades of Shade. *Bulletin of the American Meteorological Society*, 1-35.
- Hamstead, Z., Coseo, P., AlKhaled, S., Boamah, E. F., Hondula, D. M., Middel, A., & Rajkovich, N. (2020). Thermally resilient communities: creating a socio-technical collaborative response to extreme temperatures. *Buildings and Cities*, 1(1).
- AlKhaled, S., Coseo, P., Brazel, A., Cheng, C., & Sailor, D. (2020). Between aspiration and actuality: A systematic review of morphological heat mitigation strategies in hot urban deserts. *Urban Climate*, *31*, 100570.
- Coseo, P. (2019). An Urban Climate Design Framework for More Thermally-Comfortable and Equitable Communities. *OUTSTANDING PAPER. Landscape Research Record*, 374.
- Coseo, P., & Larsen, L. (2019). Accurate Characterization of Land Cover in Urban Environments: Determining the Importance of Including Obscured Impervious Surfaces in Urban Heat Island Models. *Atmosphere*, 10(6), 347.
- Larson, K. L., Hall, S., Corley, E., York, A., Andrade, R., Coseo, P., Hondula, D., Meerow, S., & Childers, D. (2019). Developing Reliable Survey Scales for Perceived Ecosystem Services and Disservices. *Ecology and Society*, 24(2). https://doi.org/10.5751/ES-10888-240207
- Gibbons, L., Cloutier, S., Coseo, P., & Barakat, A. (2018). Regenerative Development as an Integrative Paradigm and Methodology for Landscape Sustainability. *Sustainability*, 10(6), 1910.
- Kim, G., & Coseo, P. (2018). Urban Park Systems to Support Sustainability: The Role of Urban Park Systems in Hot Arid Urban Climates. *Forests*, 9(7), 439.

- Coseo, P. & Larsen, L. (2015). Cooling the Heat Island in Compact Urban Environments: The Effectiveness of Chicago's Green Alley Program. *Procedia Engineering*, *118*:691-710. doi: 10.1016/j.proeng.2015.08.504
- Coseo, P. & Larsen, L. (2014). How Factors of Land Use/Land Cover, Building Configuration, and Adjacent Heat Sources and Sinks Explain Urban Heat Islands in Chicago. *Landscape and Urban Planning*, doi: 10.1016/j.landurbplan.2014.02.019
- Larsen, L., Sherman, L., Smith, L., Karwat, D., Badiane, K., & Coseo, P. (2014). Social Justice and Sustainability in Poor Neighborhoods: Service Learning in Southwest Detroit *Journal of Planning Education and Research*, 34(1), 5-18. doi: 10.1177/0739456X13516498
- Karwat, D., Sherman, L., Smith, L., Badiane, K., Coseo, P., & Larsen, L. (2013). A Lesson in Service Learning and Community Engagement. *Michigan Journal of Sustainability*, 1: 151 – 159. doi: 10.3998/mjs.12333712.0001.011

### Scholarly Work – Manuscripts in Preparation

- AlKhaled, S., Coseo, P. Brazel, A. & Cheng, C. (2020). *Characterizing Kuwait's Urban Climate: Urban Morphology and Thermal Variations.* Manuscript in preparation.
- AlKhaled, S., Coseo, P. Brazel, A., Cheng, C., & Middel, A. (2020). *Assessing The Cooling Effect Of Rooftop Shading In Hot Urban Deserts.* Manuscript in preparation.
- AlKhaled, S., Coseo, P., Middel, A., & Ruddell, B. (2020). Urban Land Cover Configuration Composition, Configuration, and Patch Size Effect on Neighborhood Heating: A Case of a Single Family Residential Neighborhood in Gilbert, Arizona. Manuscript in preparation.

### **Co-edited Peer-review Special Issues**

Hamstead, Z., & Coseo, P. (2020). Critical Heat Studies: Making Meaning of Heat for Management in the 21st Century—Special Issue of the Journal of Extreme Events Dedicated to Heat-as-Hazard.

## **Book Chapters**

- Coseo, P., & Hamstead, Z. (2023). Just, nature-based solutions as critical urban infrastructure for cooling and cleaning airsheds. *Nature-Based Solutions for Cities*, 106-146.
- Dvorak, B., & Coseo, P. (2021). Green Roofs in Desert Southwest Ecoregions. In *Ecoregional Green Roofs* (pp. 201-256). Springer, Cham.
- Hamstead, Z., & Coseo, P. (2020). Building policies, plans, and cities to manage extreme weather events:
  Perspectives from urban planning and landscape architecture. In *Transforming Global Health* (pp. 261-283). Springer, Cham.

### **B**ook Reviews Published

Coseo, P. (2014). Review: Two Degrees: The Built Environment and Our Changing Climate. *Journal of Planning Education and Research*. 34.3: 365-367.

### **O**ther Published Work

- Coseo, P. (August 23, 2021). Urban Greening + Density for Cooler Arizona Places. *Urban Land Institute, Arizona*. Retrieved from <u>https://arizona.uli.org/urban-greening-density-for-cooler-arizona-places/</u>
- Coseo, P. (2015). Designing Cooler Infrastructure: Integrating Performance for Urban Sustainability. Urbanization and Global Environmental Change (UGEC) Viewpoints. Retrieved from

https://ugecviewpoints.wordpress.com/2015/12/08/designing-cooler-infrastructure-integrating-performance-for-urban-sustainability/

Coseo, P. (2013, November). The New Extremes: Climate science gives landscape architects more precise methods to predict the increasingly volatile ways the elements may behave around the sites they design. *Landscape Architecture Magazine*. 130-137.

## Reports

- Coseo, P., Brundiers, K., Kay, B. (2023). *Galvanizing Practitioner's Wisdom: Co-creating a Cool Region Webtool for Regional Community Resilience and a Regional Cooling Authority.* Final Report to the Healthy Urban Environments at Arizona State University.
- Coseo, P., Brundiers, K., Kay, B., Hondula, D., N., Middel, A., & Vanos, J. (2021). *Heat and Health Maps for Decision Making in Tempe*. Final Report to the Healthy Urban Environments at Arizona State University.
- Kay, B., Coseo, P., Hondula, D., N., Middel, A., & Vanos, J. (2020). *Health Impact Project, Tempe: Resilience to Extreme Heat*. Final Report to the Pew Charitable Trust.
- Coseo, P., Hamstead, Z., Hondula, D., Rajkovich, N., Middel, A., AlKhaled, S., Darcy, L., & Canfield, D. (2019). Building Capacity for Smart and Connected Management of Thermal Extremes. Final Report to the National Science Foundation Smart and Connected Communities Planning Grant.
- Coseo, P., Kay, B., Hondula, D., Middel, and Vanos, J. (2020). Health Impact Project, Tempe: Resilience to Extreme Heat Report. Final Report to the Health Impact Project, Pew Charitable Trusts Grant.

## Academic Awards

#### Award: Educator of the Year

Organization: Arizona Chapter of the American Society of Landscape Architects, Year: 2019

Award: *Recognized for Socially Embedded and Sustainable Values* Organization: The Design School, Arizona State University Year: 2019

#### Project title: North Corktown Design Handbook

Organization: Michigan Association of Planning, Award: Outstanding Student Award for the Masters Project Team members: Jason P. Braidwood, Paul J. Coseo, Chris J. Cox, Jen-Jia Huang, Jessica A. Kenzie, Joanna M. Paine, Derek J. Roberts, Ben R. Smith, Ethan G. Solomon. Year: 2004

#### Project title: North Corktown Design Handbook

Organization: American Society of Landscape Architects Award: First Place in the Research Graduate Team category Team members: Jason P. Braidwood, Paul J. Coseo, Chris J. Cox, Jen-Jia Huang, Jessica A. Kenzie, Joanna M. Paine, Derek J. Roberts, Ben R. Smith, Ethan G. Solomon. Year: 2004

#### Project title: North Corktown Design Handbook

Organization: Michigan Chapter of the American Society of Landscape Architects Award: Honor Award in the Planning and Analysis category Team members: Jason P. Braidwood, Paul J. Coseo, Chris J. Cox, Jen-Jia Huang, Jessica A. Kenzie, Joanna M. Paine, Derek J. Roberts, Ben R. Smith, Ethan G. Solomon. Year: 2004 Award title: The University of Michigan Landscape Architecture Alumni Award Year: 2004

## **G**rants - Internal Funding, Awarded

# Project title: Community Collaboration to Improve a School Shared Use Path: Impact of Environmental Changes on Usage

Funding source: The Design School Seed Grant, Arizona State University, Tempe. Role: Co-PI, Paul Coseo, Allison Poulos (Co-PI), Jennifer Vanos (Co-I), Janna Goebel (Co-I), Kylie Wilson, Peter Price Award: \$10,000, June 2023 – June 2024

Project title: Galvanizing AZ Heat Resilience Workgroup's Wisdom: Co-creation of a HUE Webtool with ASU's Decision Theater for Regional Community Resilience and a Public Cooling Authority Funding source: Healthy Urban Environments (HUE), Arizona State University, Tempe. Role: Co-PI, Paul Coseo, Katja Brundiers (Co-PI), Braden Kay (PI) Award: \$50,000, June 2022 – December 2022

#### Project title: Online Decision-Making Tool for Active Shade Management

Funding source: Healthy Urban Environments (HUE), Arizona State University, Tempe. Role: Co-PI, Ariane Middel (PI), Katja Brundiers (Co-PI), Braden Kay (Co-PI), Bonnie Richardson (Co-PI) Award: \$25,000, June 2021 – June 2022

Project title: Infrastructural Optimism and Next Generation Infrastructure for Belmont Funding source: Belmont Partners through the University City Exchange, Arizona State University, Tempe. Role: PI, Paul Coseo (PI), Linda C. Samuels (PI) Washington University in St. Louis, Allyce Hargrove (faculty participant) Award: \$49,100, November 2021 – June 2022

Project title: **Heat Mapping for Decision Making in Tempe** Funding source: Healthy Urban Environments (HUE), Arizona State University, Tempe. Role: PI, Paul Coseo (PI), Katja Brundiers (PI), Braden Kay (Co-PI), Ariane Middel (Co-PI), Jennifer Vanos (Co-PI), and David Hondula (Co-PI) Award: \$25,000, June 2020 – June 2021

Project title: **Phoenix Zoo Parking Project** Funding source: Healthy Urban Environments (HUE), Arizona State University, Tempe. Role: Co-PI, Ray Quay (PI), Nancy Grimm (Co-PI), David Hondula (Co-PI), Allyce Hargrove (Co-PI), Kristian Kelley (C0-PI), Ariane Middel (Co-PI), Joe Ewan (Co-PI), and Florian Schneider (Co-PI) Award: \$25,000, June 2020 – June 2021

Project title: **Developing and Testing HeatReady Standards for Cities** Funding source: Healthy Urban Environments (HUE), Arizona State University, Tempe. Role: Co-PI, David Hondula (PI), Ray Quay (Co-PI), Sara Meerow (Co-PI), Elizabeth Kurtz (CO-PI) Award: \$25,000, June 2020 – June 2021

Project title: **Re-imagining Outdoor Play and Learning Environments** — **Paideia Academies** Funding source: Healthy Urban Environments (HUE), Arizona State University, Tempe. Role: Co-PI, Jennifer Vanos (PI), Aaron Hess (Co-PI), Scott Cloutier (Co-PI), Chingwen Cheng (Co-PI) Award: \$50,000, May 2019 – May 2020

Project title: **Creativity, Place and Equitable Communities 2019 Faculty Academy**. Funding source: Creative Place Making Institute, HIDA, Arizona State University, Tempe. Role: Faculty participant Award: To be determined, January - May 2020

Project title: **Social-ecological monitoring of green infrastructure sites in Metropolitan Phoenix.** Funding source: Urban Climate Research Center, Arizona State University, Tempe. Role: Co-PI, 20% effort. Sara Meerow (PI), School of Geographical Sciences and Urban Planning, Margaret Garcia (Co-PI) and Rebecca Muench (Co-PI), School of Sustainable Engineering and the Built Environment, and Chingwen

Cheng (Co-PI), The Design School, Arizona State University. ASU Urban Climate Research Center Pilot Funding Program.

Award: \$3,969.98, 2018-19

Project title: Hawai'i Green Growth – Arizona State University Design Studios, Funding source: LightWorks, Arizona State University, Tempe Role: Co-PI with Chingwen Cheng (Co-PI), Scott Cloutier (Co-PI), Celeste Connors (Co-PI), and Darren Petrucci (Co-PI) Award: \$50,000, August 2018 – May 2019

Project title: **Outdoor Thermal Comfort: Assessing the Impact of Perceptual Factors in the Experience of Heat** Funding source: APS Endowment for Sustainable Design Research, Arizona State University, Tempe Role: Co-PI with Chingwen Cheng (Co-PI) Award: \$14,951.30

Project title: **Desert Landscapes Hydro-Performance Lab: Green Infrastructure Baseline,** Funding source: APS Endowment for Sustainable Design Research, Arizona State University, Tempe Role: Co-PI with Chingwen Cheng (PI), Kristian Kelley (Co-PI) Award: \$14,975, December 2017 – January 2019

Project title: **Creating a CAP LTER Co-Production Framework for "Design with Nature" Experiments**. Central Arizona-Phoenix Long-Term Ecological Research Summer Salary, Arizona State University, 06/2017 – 08/2017 Role: Pl

Award: \$4,000.00

Project title: **Hawai'i Green Growth Design Studios**, Funding source: LightWorks, Arizona State University, Tempe Role: Co-PI with Chingwen Cheng (Co-PI) and Darren Petrucci (Co-PI) Award: \$9,991.21, August 2016- June 2017

Project title: **Hawai'i Green Growth Design Studios**, Funding source: Global Institute of Sustainability, Arizona State University, Tempe Role: Co-PI with Chingwen Cheng (Co-PI) and Darren Petrucci (Co-PI) Award: \$3,404.73, August 2016- June 2017

Project title: **Hawai'i Green Growth Design Studios**, Funding source: The Design School, Arizona State University, Tempe Role: Co-PI with Chingwen Cheng (Co-PI) and Darren Petrucci (Co-PI) Award: \$4,999.00, August 2016- June 2017

Project title: **Hawai'i Green Growth Design Studios**, Funding source: The Design School, Arizona State University, Tempe Role: Co-PI with Chingwen Cheng (Co-PI) and Darren Petrucci (Co-PI) Award: \$4,590.00, August 2016- June 2017

Project title: **Cool Roofscapes @ the Solar Lab: Thermal Performance of Cool Roof Strategies in Hot Arid Climates,** Funding source: APS Endowment for Sustainable Design Research, Arizona State University, Tempe Role: PI with Ariane Middel (Arizona State University, Co-PI), Jennifer Vanos (University of California, San Diego, Co-PI), and Valerie Ahyong (practitioner collaborator) Award: \$10,796, December 2016 - August 2018

#### Project title: Regional Green Organics Landfill Diversion System Design,

Funding source: Resource Innovation and Solutions Network within the Walton Sustainability Solutions Initiative, Arizona State University, Tempe Role: Faculty contributor Award: \$2,600, 2015-2016

#### Project title: Desert Green Roofs,

Funding source: APS Endowment for Sustainable Design Research, Arizona State University, Tempe Role: PI Award: \$14,292, 11/2014-06/2016

#### Project title: Desert Green Roofs,

Funding source: Herberger Institute for Design and the Arts, Arizona State University, Tempe Role: PI Award: \$7,408.65, 11/2014-03/2016

#### Project title: Green Alley Assessment

Funding source: Graham Sustainability Institute Doctoral Fellow, Graham Sustainability Institute. Role: PI, the University of Michigan, Ann Arbor. Award: \$50,000 plus tuition and health insurance, September 2010- May 2012

#### Project title: North Corktown Design Handbook Masters Project.

Funding source: The University of Michigan Arts of Citizenship Award. Role: Co-PI with Jason P. Braidwood, Paul J. Coseo, Chris J. Cox, Jen-Jia Huang, Jessica A. Kenzie, Joanna M. Paine, Derek J. Roberts, Ben R. Smith, Ethan G. Solomon the University of Michigan, Ann Arbor. Award: \$10,000, September 2003 – May 2004

### **G**rants – External Funding, Awarded

#### Project title: Greater Phoenix Urban Forestry Accelerator.

Funding source: United States Department of Agriculture (USDA) Forest Service Role: Collaborator, Paul Coseo, Alicia Marseille (Co-PI), Jen Clifton (Co-PI), Jescelle Major (Col), Hannah, Mark (Col), Buch, Rajesh (Col), Long, Elenore (Col) with many others... Award: \$ 5,000,000, March 1, 2024 – February 28, 2027 Allocation: 13%

#### Project title: LTER: CAP V: Investigating how relationships between urban ecological infrastructure and humanenvironment interactions shape the structure and function of urban ecosystems.

Funding source: National Science Foundation

Morris, Vernon (Col)Redman, Charles (Col)Meerow, Sara (Col)Vivoni, Enrique (Col)White, Dave (Col)Suzart de Albuquerque, Fabio (Col)Conroy-Ben, Otakuye (Col)Coseo, Paul (Col)Hale, Michelle (Col)Bateman, Heather (Col)McGraw, Kevin (Col)York, Abigail (Col)Middel, Ariane (Col)Buzinde, Christine (Col)Larson, Kelli (Col)Grimm, Nancy (Col)Lewis, Jesse (Col)Frazier, Amy (Col)Billiot, Shanondora (Col)Chester, Mikhail (Col)Johnson, Chad (Col)Pataki, Diane (Col)Hartnett, Hilairy (Col)Ball, Becky (Col)Vanos, Jennifer (Col)Hall, Sharon (Col)Turner, B.L. (Col)Cheng, Chingwen (Col)Childers, Dan (PI)Aggarwal, Rimjhim (Col) Award: \$7,649,990, March 1, 2023 – February 28, 2029 Allocation: 3%

Project title: APS Evans Churchill Substation Green Roof Performance: Design Consultation Phase 1

Funding source: CVL Consultants Role: PI Award: \$18,353, November 1, 2021 – May 2022

# Project title: Cool Kids, Cool Places, Cool Futures: Community-based, arts-enhanced, and youth focused approach for equitable urban cooling and emergency management

Funding source: Robert Wood Johnson Foundation Global Ideas for U.S. Solutions: Cities Taking Action to Address Health, Equity, and Climate Change

Role: Co-PI with Braden Kay (PI), Katja Bundiers (Co-PI), Maria Rosario Jackson (Co-PI), and Wanda Dalla Costa (Co-PI) and more ASU and community partners

Award: \$584,886, Nov. 1, 2020 – April 2023

Project title: **sunBLOCK** Funding source: National Endowment for the Arts (NEA) Role: Senior Personnel with David Hondula PI, Melissa Guardaro Co-PI, Ariane Middel (Senior Personnel) Jennifer Vanos (Senior Personnel) Award: \$ 35,001.00, August 27, 2020 – June 2021

Project title: **West Mesa River Community Heat Action Project** Funding source: Arizona Department of Forestry and Fire Management Role: Faculty Collaborator, with Melissa McCann (PI), Nikolas Smilovsky (Faculty Collaborator) Award: \$25,000, Jan 1, 2020 through Dec. 31, 2021 ASU In-kind contribution: \$47,500

# Project title: Connecting K-12 Schools and Community Organizations to Create Meaningful Watershed Educational Experience Learning Journeys

Funding source: National Oceanic and Atmospheric Administration Role: Faculty Collaborator, with Jenny Engle (PI), Jessica Welch (Co-PI), Tara O'Neill (Co-PI), Chingwen Cheng (Faculty Collaborator) Award: \$150,000, Oct 1, 2019 through Sept 30, 2021

Project title: **Arterial Walls and Thermal Comfort in the City of Tempe: An Opportunity for Smart Surfaces** Funding source: Urban Sustainability Directors Network (USDN) Role: Co-PI with Middel, A. (PI) Award: \$10,000, 9/6/19 - 7/31/20

Project title: Pew Health Impact Project, Tempe

Funding source: PEW / Robert Wood Johnson Health Impact Projects Role: PI with Barden Kay (Co-PI), Ariane Middel (Co-PI), Jennifer Vanos (Co-PI), David Hondula (Co-PI) Award: \$50,000, June 2019 – January 2020

Project title: Citizen-Centered Smart Cities and Smart Living

Funding source: National Science Foundation Research Traineeship (NRT) Role: Faculty Participant with Sethuraman Panchanathan panch@asu.edu (PI), Ann McKenna (Co-PI), Gail-Joon Ahn (Co-PI), Ram Pendyala (Co-PI), and Cynthia Selin (Co-PI). Award Number: 1828010 Award: \$2,999,997.00, September 1, 2018 – August 31, 2023

# Project title: LTER: CAP IV - Investigating urban and sustainability through the lens of urban ecological infrastructure

Funding source: National Science Foundation

Role: Senior Personnel, Co-leader of the Urban Design Interdisciplinary Research Team (IRT) with Mikhail Chester. Childers, Daniel L (PI), with Abbott, Joshua K, Aggarwal, Rimjhim M, Anderies, John M, Ball, Rebecca, Bateman, Heather Lyn, Boone, Christopher G, Cadillo-Quiroz, Hinsby, Cheng, Chingwen, Chester, Mikhail, Coseo, Paul Joseph, Deviche, Pierre, Earl, Stevan Ross, Fox, Peter, Georgescu, Matei, Grimm, Nancy B, Hall, Sharon, Hartnett, Hilairy, Herckes, Pierre E H, Hondula, David Michael, Iwaniec, David M, Johnson, James Chadwick, Kim, Gunwoo, Larson, Kelli Leigh, Li, Wenwen, Li, Xiaoxiao, Martin, Chris A, Mcgraw, Kevin J, Myint, Soe W, Quay, Raymond G, Redman, Charles L, Sailor, David J, Sampson, David Arthur, Selover, Nancy Joan, Shrestha, Milan, Throop, Heather Lynne, Turner II, Billie Lee, Vivoni, Enrique, Wang, Zhihua, Wentz, Elizabeth Ann, Westerhoff, Paul, White, Dave Douglas, Wutich, Amber Elisabeth Yoder, York, Abigail, Arizona State University. Award Number: 1832016 Award: \$ 4,507,998, December 1, 2018 – November 30, 2022 Allocation: 3%

#### Project title: Building capacity for smart and connected management of thermal extremes,

Funding source: National Science Foundation Smart and Connected Communities Planning Grant, Role: Pl, with Ariane Middel (Arizona State University, Co-Pl), David Hondula (Arizona State University, Co-Pl), Zoé Hamstead (University at Buffalo, Co-Pl), Nicholas B. Rajkovich (University at Buffalo, Co-Pl), Jessica Castner (University at Buffalo, Senior Personnel), Zachary Schlader (University at Buffalo, Senior Personnel), Laura Quebral (University at Buffalo, Senior Personnel), Paul Ray, (University at Buffalo, Senior Personnel), and Bartholomew Roberts, (University at Buffalo, Senior Personnel) Award Number: 1737617

Award: \$100,000, 8/1/17 – 12/31/18. Allocation: 40%

# Project title: Central Arizona-Phoenix Long-Term Ecological Research (CAP LTER) stage four (IV), "Design with Nature"

#### Funding source: National Science Foundation

Role: Senior Personnel, Co-leader of the Urban Design Interdisciplinary Research Team (IRT) with Mikhail Chester. Childers, Daniel L (PI), with Abbott, Joshua K, Aggarwal, Rimjhim M, Anderies, John M, Ball, Rebecca, Bateman, Heather Lyn, Boone, Christopher G, Cadillo-Quiroz, Hinsby, Cheng, Chingwen, Chester, Mikhail, Coseo, Paul Joseph, Deviche, Pierre, Earl, Stevan Ross, Fox, Peter, Georgescu, Matei, Grimm, Nancy B, Hall, Sharon, Hartnett, Hilairy, Herckes, Pierre E H, Hondula, David Michael, Iwaniec, David M, Johnson, James Chadwick, Kim, Gunwoo, Larson, Kelli Leigh, Li, Wenwen, Li, Xiaoxiao, Martin, Chris A, Mcgraw, Kevin J, Myint, Soe W, Quay, Raymond G, Redman, Charles L, Sailor, David J, Sampson, David Arthur, Selover, Nancy Joan, Shrestha, Milan, Throop, Heather Lynne, Turner II, Billie Lee, Vivoni, Enrique, Wang, Zhihua, Wentz, Elizabeth Ann, Westerhoff, Paul, White, Dave Douglas, Wutich, Amber Elisabeth Yoder, York, Abigail, Arizona State University. Award Number: 1637590

Award: for probationary review, \$2,254,000.00, December 1, 2016 – November 30, 2018 Allocation: 3%

# Project title: Arid Region Landscapes: Design, Implementation and Management Instructional Program for Abu Dhabi Municipality

Funding source: Abu Dhabi Municipality, United Arab Emirates Role: Co-PI with Ted Cook (PI), Joseph Ewan (Co-PI), and Kristian Kelley (Co-PI) Award: \$150,000, April 2015 – May 2016

## **G**rants – External Funding, Not Awarded

#### Project title: **Developing and Testing Plans, Policies, and Actions for Cooling Riyadh** Funding source: Kingdom of Saudi Arabia: Royal Commission for Riyadh City (RCRC) Role: Co-PI with David Sailor (PI) and Ariane Middel Co-PI Award: \$1,316,456 Report date: April 19, 2021

#### Project title: Building Heat Resilience in Manufactured and Mobile Home Communities

Funding source: Smart and Connected Communities Program Planning Grant, National Science Foundation Role: Senior Personnel with David Hondula (PI) Award: \$149,689 Report date: February 24, 2021

#### Project title: **Convergent Networks for Thermally-Comfortable and Equitable Communities** Funding source: Smart and Connected Communities Program, National Science Foundation Role: PI with Zoe Hamstead (Co-PI, University of Buffalo), Nicholas Rajkovich (Co-PI, University of Buffalo), and David Hondula (Co-PI, Arizona State University), and Ariane Middel (Co-PI, Arizona State University) Award: \$ 3,861,528 Submission date: September 6, 2019

#### Project title: Playground Redesign to Improve Children's Environment and Health,

Funding source: National Institute of Health

Role: Co-Investigator with Jennifer Vanos (PD/PI, Arizona State University), Todd Coleman (Co-I, University of California-San Diego), Diana Jacobson (Professional-Pediatric Nurse, Arizona State University, Sally Moyce (Co-I, Montana State University), Heather Olsen (Co-I, University of Northern Iowa), and Xin Ming Tu (Professional-Biostatistician, University of California-San Diego). Award: \$3,041,966

#### Project title: Beat the Heat: Evidence-based Gaming for Adaptation to Climate Extremes

Funding source: Global Philanthropy Partnership and the Urban Sustainability Directors Network Role: Co-PI with Lauren Withycombe Keeler (PI, Arizona State University), Kenneth Eklund (Co-PI, Arizona State University), and David Hondula (Co-PI, Arizona State University) Award: \$84,997.00

# Project title: Ecological Infrastructure In Desert Cities: Quantifying Tradeoffs in Integrated Green Infrastructure and Urban Agriculture,

Funding source: National Science Foundation Environmental Sustainability Grant, Role: Co-PI, with Margaret Garcia (PI), Rebecca Muenich (Co-PI), Sara Meerow (Co-PI), Chingwen Cheng (Co-PI). Award: \$299,223, three year grant

#### Project title: **Cool Roofscapes @ the Solar Lab: Thermal Performance of Cool Roof Strategies in Hot Arid Climates,** Funding source: Upjohn Research Initiative, American Institute of Architects (AIA) Role: PI with Ariane Middel (Arizona State University, Co-PI), Jennifer Vanos (University of California, San Diego, Co-PI), and Valerie Ahyong (collaborator). Arizona State University, Tempe. Award: \$30,000 Upjohn award with \$30,000 ASU match (\$60,000 total), submitted 2016

#### Project title: Vacant and Marginal Urban Landscape Design for Sustainable Bioenergy Systems,

Funding source: Department of Energy (DOE), Office of Energy Efficiency and Renewable Energy (EERE), Funding Opportunity Announcement (FOA) Number: DE-FOA-0001179, Landscape Design for Sustainable Bioenergy Systems,

Role: Co-PI. Amy Landis (Arizona State University, PI), Matthew Eckelman (Northeastern University, PI) Award: \$7,500,000.00, submitted 2015

## **P**resentations at Peer-reviewed Conferences

Coseo, Paul; Brundiers, Katja, Cassanova, Carlos, and Kay, Braden. (17-Mar-23) The Hopes and Perils of Cultivating Emergent Youth-City-University Partnerships for Climate Justice. *Council of Educators in Landscape Architecture*, Austin, TX

- Taussig-Rubbo, M., Simon, J., & Hamstead, Z., Coseo, P. & Khan, P. (15-Jul-22). Governing through heat in an era of climate change. *Law and Society*. Lisbon, Portugal.
- Coseo, P. & Hamstead, Z. (August 17, 2022). Just, Nature-based Solutions as Critical Urban Infrastructure for Cooling & Cleaning Airsheds. Ecological Society of America. Montreal, Canada.
- Coseo, P., Kay, B., Brundiers, K., Middel, A., Vanos, J., Hondula, D., & Logan, G. (2021). Heat & Health Maps for Decision-Making: Climate Action for Resilience to Extreme Heat in Tempe, Arizona. *Council of Educators in Landscape Architecture Conference 2021, Virtual.*
- Coseo, P., Kay, B., Middel, A., Vanos, J., Hondula, D., Hamstead, Z., ... & Narayan, D. M. (2020). City-University Partnerships for Thermally-Resilient Communities. *Transform: Socially Embedded Collaborations*.
- AlKhaled, S. R., Coseo, P., Middel, A., Brazel, A., & Cheng, C. (2020). Cooling Potentials of Rooftop Shade: A Promising Strategy for Reducing Urban Induced Heating in Kuwait's Residential Neighborhoods. *Transform: Socially Embedded Collaborations*.
- Crank, P., & Coseo, P. (2020). Designed Landscapes, Urban Climate, and Mental Health: A Commentary on Approaches in Urban Planning and Design for Addressing Urban Mental Wellbeing. *Transform: Socially Embedded Collaborations*.
- Xie, Y., Mauricio Mejia, G., Coseo, P., & Cheng, C. (2020, June). A Participatory Design Case Study in Environmental Design Education. In *Proceedings of the 16th Participatory Design Conference 2020-Participation (s)* Otherwise-Volume 2(pp. 87-94).
- Xie, Y., Cheng, C., Coseo, P., & Mejia, G. M. (2020). Co-Creating with Community: Participatory Design in Environmental Design Education. *Transform: Socially Embedded Collaborations*.
- Dzyuban, Y., Redman, C., Hondula, D., Coseo, P., Middel, A., & Vanos, J. (2020, May). Exploring pedestrian thermal comfort in hot climates. In *EGU General Assembly Conference Abstracts* (p. 8439).
- Dzyuban, Y., Hondula, D. M., Messerschmidt, M., Vanos, J., Middel, A., & Coseo, P. (2020, January). Heat Walk: Perception of Thermal Comfort in Relation to Street Infrastructure. In *100th American Meteorological Society Annual Meeting*. AMS.
- McPhillips, L. E., Coseo, P., Berbés-Blázquez, M., & Grimm, N. B. (2019, August). Urban resilience through transdisciplinary partnerships and socio-eco-technical solutions. In 2019 ESA Annual Meeting (August 11--16). ESA.
- Cheng, C., Trakas, A., Coseo, P., & Kelly, K. (2019). Designing Green Infrastructure for a Desert City: design experiment of hydro-ecological performance evaluation for biodetention details at Flood Control District of Maricopa County, Phoenix, Arizona.
- Schneider, F. Middel, A., AlKhaled, S., Hagen, B., & Coseo, P. (April 8, 2019). 50 Grades of Shade Assessment of Engineered and Natural Shade in Hot Dry Communities. European Geosciences Union. Urban climate, urban biometeorology, and science tools for cities (co-organized)
- Coseo, P. (March 9, 2019). An Urban Climate Design Framework for More Thermally-Comfortable and Equitable Communities. Council of Educators in Landscape Architecture Conference 2019, Sacramento, California.
- AlKhaled, S., Coseo, P. Brazel, A, & Cheng, C. (January 9, 2019). Characterizing the Urban Climate of Kuwait, American Meteorological Society, Phoenix, Arizona.
- Coseo, P., Hamstead, Z., Shandas, V., & Rajkovich, N. (October, 27, 2018). Environmental Planning for Thermal Extremes: Building Capacity for a Smart And Connected Approach to Creating more Comfortable Cities. Roundtable conducted at the annual conference of the Association of Collegiate Schools of Planning (ACSP), Buffalo, NY.
- Hamstead, Z., Clark, S., Coseo, P., Rajkovich, N., Hondula, D., & Middel, A. (June 28, 2018). Resilient Infrastructure Systems for Managing Temperature Extremes. Panel conducted at the International Symposium on Sustainable Systems and Technology (ISSST), Buffalo, NY.
- Coseo, P. (March 22, 2018). "Designed Experiments" to Improve Green Infrastructure Performance: The Design Process. Council of Educators in Landscape Architecture Conference 2018, Blacksburg, Virginia.
- Coseo, P. & Childers, D. (October 14, 2017). A Co-Production Framework for Green Infrastructure Projects: Opportunities and Barriers to Inform "Designed Experiments", Association of Collegiate Schools of Planning, Denver, Colorado.
- Coseo, P. (March 26, 2016). Desert Green Roof Performance: Opportunities and Obstacles to Mitigate Stormwater Flooding and Urban Heat Islands in Arizona. Council of Educators in Landscape Architecture Conference 2016, Salt Lake City, Utah.

- Coseo, P. & Larsen, L. (May 13, 2015). Cooling the Heat Island in Compact Urban Environments: The Effectiveness of Chicago's Green Alley Program. International Conference on Sustainable Design, Engineering and Construction 2015, Chicago, Illinois.
- Coseo, P. (March 29, 2015). Spillover: The Potential for Public Green Infrastructure Programs to Enhance Private Environmental Actions: A Case Study of Chicago's Green Alley Program. Balanced-Unbalanced Conference, 2015. Tempe, Arizona
- Coseo, P. & Larsen, L. (November 1, 2014). How Local Climate Zones Predict Urban Heat Islands in Eight Chicago Neighborhoods, Association of Collegiate Schools of Planning, Philadelphia, Pennsylvania,
- Coseo, P. & Larsen, L. (November 1, 2012). Factors Impacting the Urban Heat Island at the Neighborhood Level: A Case Study of Eight Chicago Neighborhoods, Association of Collegiate Schools of Planning, Cincinnati, Ohio,
- Coseo, P. & Larsen, L. (October 15, 2011). Lessening the Urban Heat Island: Quantifying the Impact of Chicago's Green Alley Program, Association of Collegiate Schools of Planning, Salt Lake City,
- Coseo, P. (October 15, 2010). Green Alley Assessment: Evaluating the Impact of Sustainable Infrastructure on Urban Heat Islands in Chicago Neighborhoods, International Conference on Urbanization and Global Environmental Change (UGEC), Tempe, Arizona,
- Coseo, P. (February 18, 2010). Green Alleys: Mitigating the Urban Heat Island in Chicago Neighborhoods, Initiative for Climate Adaptation Research and Understanding through the Social Sciences (ICARUS), University of Illinois at Urbana-Champaign.

## Posters at Peer-reviewed Conferences

Hagen, B., Middel, A., AlKhaled, S., & Coseo, P. (2018). 50 Grades of Shade: Assessment of Engineered and Natural Shade in Hot Dry Communities. International Conference on Urban Climate, New York City, New York.

## **P**resentations and Posters at Arizona State University Conferences

- AlKhaled, S., Coseo, P., Brazel, A, Cheng, C., & Middel, A. (March 27, 2019). Characterizing Kuwait's Urban Climate: Urban Morphology and Thermal Variations. Urban Climate Research Center Poster Competition. Arizona State University, Tempe Campus. Awarded 2nd place honors.
- Coseo, P., Hargrove, A., Berbés-Blázquez, M., Dzyuban, Y., Kim, Y. (January 11, 2019). Scenario Design Through Interdisciplinary Community-Research-Teaching Collaborations. Central Arizona-Phoenix Long-Term Ecological Research All Scientists Meeting, Arizona State University, Sky Song Campus.
- Coseo, P. (April 20, 2018). Generous, How and For Whom: Reimagining Rio Salado, A Grand Public Urban Park System In The Salt River Valley. Generous Cities Summit at Arizona State University, Tempe, Arizona.
- Sanchez, C. A., Coseo, P., & Cheng, C. (January 5, 2018). Understanding Co-production in Urban Ecological Design: Design processes to support "Designed Experiments. Central Arizona-Phoenix Long-Term Ecological Research All Scientists Meeting, Arizona State University, Sky Song Campus.

## Presentations, Panels, or Workshops at Non-reviewed Conferences

- Coseo, P., Hamstead, Z., & Walker, E. (March 27, 2018). Building Capacity for Smart and Connected Management of Thermal Extremes, Demonstration booth at the US Ignite Application Summit, Kansas City, MO.
- Coseo, P., Boone, C., Maria Cruz-Torres, M. & Chester, M. (January 24, 2018). The Future of Cities and Urban Sustainability (FoCUS) workshop. National Council for Science and the Environment 18th National Conference and Global Forum: The Science, Business, and Education of Sustainable Infrastructure, Washington, District of Columbia.
- Coseo, P. & Hargrove, H. (August 31, 2017). Biophilic Design: Improving the Health & Well Being of the Built Environment. Arizona Nursery Association's Southwest Horticulture Annual Day of Education (SHADE) Conference. Phoenix, Arizona.

## **Invited External Lectures**

- Coseo, P. (October 20, 2021). Ecosystem Services: How Connectivity Impacts Everyone. *What's At Stake: White Tank Mountains, A Sonoran Desert Legacy*. White Tank Mountain Conservancy Zoom Event.
- Coseo, P. (September 14, 2018). Urban Climate Design for Cooler and More Thermally Equitable Neighborhoods. University of Arizona College of Architecture, Planning & Landscape Architecture's Resilience Lecture Series, Tucson, Arizona. See http://capla.arizona.edu/events/lecture-urban-climate-design-cooler-andmore
- Coseo, P. (October 18, 2017). City Heat. Chispa, AZ., Phoenix, Arizona.

### **Invited Internal Course Lectures**

- Coseo, P. (November 5, 2019). Urban Climate Design. Arizona State University, Tempe Campus. For course APH 515 - Current Issues and Topics, The Design School, Arizona State University Tempe Campus.
- Coseo, P. (October 3, 2019). Conducting Doctoral Research in Design. Arizona State University, Tempe Campus. For course EPD 710 Current Research in Design, The Design School, Arizona State University Tempe Campus.
- Coseo, P. (November 19, 2019). Urban Climate Design for Cooler and More Thermally Equitable Neighborhoods. Arizona State University, Tempe Campus. For course ALA 102 - Landscapes and Sustainability, The Design School, Arizona State University Tempe Campus.
- Coseo, P. (November 13, 2018). Urban Climate Design for Cooler and More Thermally Equitable Neighborhoods. Arizona State University, Tempe Campus. For course ALA 102 - Landscapes and Sustainability, The Design School, Arizona State University Tempe Campus.
- Coseo, P. (October 4, 2018). Conducting Doctoral Research in Design. Arizona State University, Tempe Campus. For course EPD 710 Current Research in Design, The Design School, Arizona State University Tempe Campus.
- Coseo, P. (November 16, 2017). Conducting Doctoral Research in Design. Arizona State University, Tempe Campus. For course EPD 710 - Current Research in Design, The Design School, Arizona State University Tempe Campus.
- Coseo, P. (April 12, 2017). Urban Climate Design for Sonoran Desert Cities. Arizona State University, Tempe Campus. For course ALA 102 - Landscapes and Sustainability, The Design School, Arizona State University Tempe Campus.
- Coseo, P. (November 3, 2016). Urban Climate Design for Sonoran Desert Cities. Arizona State University, Tempe Campus. For course ALA 102 - Landscapes and Sustainability, The Design School, Arizona State University Tempe Campus.
- Coseo, P. (November 1, 2016). Resilient Design for a Sustainable Future. Arizona State University, Tempe Campus. For course APH 515 - Current Issues and Topics, The Design School, Arizona State University Tempe Campus.
- Coseo, P. (October 27, 2015). Resilient Design for a Sustainable Future. Arizona State University, Tempe Campus. For course APH 515 - Current Issues and Topics, The Design School, Arizona State University Tempe Campus.
- Coseo, P. (October 9, 2014). Green Urbanism: An ecological approach to the design of urban spaces. Arizona State University, Tempe Campus. For course APH 515 Current Issues and Topics, The Design School, Arizona State University Tempe Campus.
- Coseo, P. (September 4, 2014). Landscape Architecture during the Renaissance. Arizona State University, Tempe Campus. For course LPH 310 History of Landscape Architecture, The Design School, Arizona State University Tempe Campus.

## Media Mentions

Brundiers, K. and Coseo, P. (2023) IPE TIG Week: Keys for Project Success: Evaluating Relationships and Abilities to Build and Nurture Them by Retrieved from

Brundiers, K. and Coseo, P. (2023) Cool Kids, Cool Places, Cool Futures in Tempe Retrieved from

- Reinhart, K. (March 17, 2023) New web tool maps regional heat vulnerability, health data. Retrieved from: https://news.asu.edu/20230317-new-webtool-maps-regional-heat-vulnerability-and-health-data
- Brennan, S. (April 21, 2023) Webtool helps cities mitigate localized heat . *Arizona Capitol Times*. Retrieved from: https://azcapitoltimes.com/news/2023/04/21/webtool-helps-cities-mitigate-localized-heat/
- Fischer, M. (October 21, 2021). <u>Tempe youth council looks to find equitable solutions to climate issues</u>. *The State Press at Arizona State University*. Retrieved from <u>https://www.statepress.com/article/2021/10/tempe-</u> <u>climate-youth-council-equitable-solutions</u>
- Quraishi, Ash-har. (May 10, 2022) Scientists study impact rooftop gardens have on surface temperature. *Arizona 15, ABC.* Retrieved from <a href="https://www.abc15.com/news/national/scientists-study-impact-rooftop-gardens-have-on-surface-temperature?utm">https://www.abc15.com/news/national/scientists-study-impact-rooftop-gardens-have-on-surface-temperature?utm</a> campaign=ASU News News+5-13-<u>22 5372952&utm medium=email&utm source=Media%20Relations%20&%20Strategic%20Communicati</u> <u>ons\_SFMCE&utm\_term=ASU&utm\_content=ABC+15+&ecd42=518002422&ecd73=180831356&ecd37=All</u> %20ASU%20Employees&ecd43=5/13/2022
- Fischer, M. (October 21, 2021) Tempe youth council looks to find equitable solutions to climate issues. *The State Press at Arizona State University*. Retrieved from <u>https://www.statepress.com/article/2021/10/tempe-</u> <u>climate-youth-council-equitable-solutions</u>
- Speakman, Kimberlee (June 6, 2019). Planning begins to improve Old Stadium Park. KHON2. Retrieved from https://www.khon2.com/news/local-news/planning-begins-to-improve-old-stadium-park/2059677647
- Fontanez, E. (April 14, 2019) Design School professor awarded Educator of the Year for landscape architecture. *The State Press at Arizona State University*. Retrieved from https://www.statepress.com/article/2019/04/spartcult-design-school-professor-awarded-educator-ofthe-year-for-landscape-architecture
- Faller, M. B. (July 19, 2018) Projects are investigating urban planning, shade to mitigate heat for pedestrians. ASU Now. Retrieved from https://asunow.asu.edu/20180719-arizona-impact-asu-researchers-helping-tempe-deal-extreme-heat-events
- Schuler, T.A. (March 5, 2018) The Future of Honolulu Depends on Its Parks. *Next City*. Retrieved from https://nextcity.org/features/view/the-future-of-honolulu-depends-on-its-parks
- Scragg, C. (March 2, 2018). ASU researchers to help cities cope with extreme temperatures. *The State Press at Arizona State University*. Retrieved from http://www.statepress.com/article/2018/03/spscience-asu-researchers-to-help-cities-cope-with-extreme-temperatures
- Brodie, M. (January 11, 2018). Studying Extreme Weather's Impact On Cities, From Hot To Cold. *The Show, KJZZ*. Retrieved from https://kjzz.org/content/591457/studying-extreme-weathers-impact-cities-hot-cold
- Hill, D. (December 4, 2017). Climate change and the tale of two cities. *News Center, the University of Buffalo*. Retrieved from http://www.buffalo.edu/news/releases/2017/12/002.html
- Media Production (June 18, 2017) Make the Ala Wai Awesome winners announced. *University of Hawai'i News*. Retrieved from https://www.hawaii.edu/news/2017/06/18/make-the-ala-wai-awesome-winners/
- Suganuma, P. (June 18, 2017). UH announces winning designs of 'Make the Ala Wai Awesome' challenge. HawaiiNewsNow. Retrieved from http://www.hawaiinewsnow.com/story/35692193/uh-announceswinning-designs-of-make-the-ala-wai-awesome-challenge/
- ASU GIOS (June 18, 2017). Vision for rehabilitated watershed lands ASU team with award. ASU LightWorks News and School of Sustainability News. Retrieved from https://sustainability.asu.edu/news/archive/vision-rehabilitated-watershed-lands-asu-team-award/
- ASU SOS (July 25, 2017). ASU Sustainability and Design Team Develop Award-Winning Project in Hawai'i. School of Sustainability News. Retrieved from https://sustainability.asu.edu/news/archive/asu-sustainabilitydesign-team-develop-award-winning-project-hawaii/
- ASU GIOS (June 26, 2017). ASU-Hawai'i Green Growth collaboration receives top awards at 'Make the Ala Wai Awesome' design Competition. Julie Ann Wrigley Global Institute of Sustainability Press Release. Retrieved from https://sustainability.asu.edu/news/archive/asu-hawaii-green-growth-collaboration-receives-topawards-make-ala-wai-awesome-design-competition/
- Marshall, A. (February 1, 2016). A Weather Station With Wheels (authors have me at U of A instead of ASU). *City Lab.* Retrieved from https://www.citylab.com/solutions/2016/02/a-weather-station-with-wheels/433986/
- Seckel, S. (August 5, 2016). ASU researchers working on range of long-term solutions to cool down Phoenix. ASU Now. Retrieved from https://asunow.asu.edu/20160805-solutions-beating-heat-future-takes-more-ac

Brisley, B. (February 19, 2015). Even roofs are going green: ASU to study benefits of gardens atop buildings. *ASU Cronkite News.* Retrieved from http://cronkitenewsonline.com/2015/02/even-roofs-are-going-green-asuto-study-benefits-of-gardens-atop-buildings/index.html

## **T**eaching Experience

- LDE 262 Landscape Architecture Design Fundamentals (spring 2016), co-taught undergraduate studio with Rebecca Fish Ewan. Revised curriculum of this course. Landscape Architecture Program, Arizona State University, Tempe
- LAP 352/ LTC 598 (Fall 2015) Ecosystems and Sustainable Design (fall 2016, 2017, 2018, 2019, 2020), graduate and undergraduate seminar. Developed this course. Landscape Architecture Program, Arizona State University, Tempe
- LDE 461 Landscape Architecture Studio III (fall 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2022, 2023), co-taught undergraduate studio with Kristian Kelley (2014) and Allyce Hargrove (2015, 2016, 2017, 2018, 2019). Engaged scholarship studio with the Central Arizona-Phoenix Long-Term Ecological Research Project and the Urban Resilience to Extremes Sustainability Research Network (2017, 2018, 2019). Landscape Architecture Program, Arizona State University, Tempe
- APH 509 Foundation Seminar Landscape Architecture Focus (summer 2015), graduate seminar. Landscape Architecture Program, Arizona State University, Tempe
- LDE 522 Advanced Landscape Architecture Studio II (spring 2015, 2016, 2017, 2019, 2020, 2021, 2022, 2023), cotaught graduate studio with Darren Petrucci (2015, 2016, 2017). Service-learning with HIDA (2015), the White Tank's Conservancy (2016), Hawai'i Green Growth (2017 & 2019). Landscape Architecture Program, Arizona State University, Tempe
- LAP 598/ CEE 598/ PUP 598: Smart City Sustainability and the Environment (Spring 2020, 2021, 2022, 2023), service-learning graduate course that enable design and non-design majors to collaborate on smart city projects with external partners. This is a core course in the National Science Foundation Research Traineeship (NRT) Citizen-Centered Smart Cities and Smart Living project. The Design School, Arizona State University, Tempe
- LPH 598 Green Urbanism (Spring 2015, 2017, 2019), graduate seminar. Developed this course. Landscape Architecture Program, Arizona State University, Tempe
- The Design Primer (Summer 2015, 2016), Coordinator and instructor for landscape architecture week. Introductory design program for high school students. The Design School. Arizona State University, Tempe
- UP 519 Theories of Urban Design (Fall 2011, Winter 2012 & 2013), graduate seminar. Urban and Regional Planning Department, the University of Michigan Ann Arbor
- UP 524 Land Use Planning and Development Management (Winter 2012 & 2013), graduate seminar. Urban and Regional Planning Department, the University of Michigan Ann Arbor
- UP 502 Environmental Planning (Fall 2011), graduate seminar. Urban and Regional Planning Department, the University of Michigan Ann Arbor

## Teaching Assistantships

- UP 505 Fundamentals of Planning Practice (Winter 2009, 2010, 2011), graduate service-learning professional practice course. Urban and Regional Planning Department, the University of Michigan Ann Arbor
- UP 540 Planning Theory (Fall 2008), graduate seminar. Urban and Regional Planning Department, the University of Michigan Ann Arbor

## **C**ourse Development

LAP 598/ CEE 598/ PUP 598: Smart City Sustainability and the Environment (Spring 2020), service-learning graduate course that enable design and non-design majors to collaborate on smart city projects with external partners. This is a core course in the National Science Foundation Research Traineeship (NRT) Citizen-Centered Smart Cities and Smart Living project. The Design School, Arizona State University, Tempe

- DSC 592: Collaborative Project (Fall 2017), graduate independent study course that enable non-design majors to parallel studio courses. The Design School, Arizona State University, Tempe
- LAP 352 Ecosystems and Sustainable Design (Fall 2016), undergraduate seminar. Landscape Architecture Program, Arizona State University, Tempe
- LDE 262 Landscape Architecture Design Fundamentals (Spring 2016), co-taught undergraduate studio with Rebecca Fish Ewan. Landscape Architecture Program, Arizona State University, Tempe
- LPH 598 Green Urbanism (Spring 2015), graduate seminar. Landscape Architecture Program, Arizona State University, Tempe
- UP 403 Sustainable Neighborhoods: Experiential Learning & Active Engagement in Detroit (Winter 2011), undergraduate service-learning course. Urban and Regional Planning Department, the University of Michigan Ann Arbor

### **Students Mentored Outside of Regular Assigned Courses**

#### 2020 – 2021 Doctoral Students

- Yilei Yu, The Design School, Mentor
- Die Hu, The Design School, Co-chair of Dissertation Committee

#### 2019 – 2020 Doctoral Students

- Peter Crank, School of Geographical Sciences & Urban Planning, Dissertation Committee Member
- Yuliya Dzyuban, School of Sustainability, Dissertation Committee Member
- Mohsen Garshasby Moakhar, The Design School, Dissertation Committee Member

#### 2018 – 2019 Doctoral Students

- Saud AlKhaled, PhD, The Design School, Co-Chair of Dissertation Committee (Dissertation Defense, May 9, 2019)
- Leah Gibbons, School of Sustainability, Co-Chair of Dissertation Committee (Expected Dissertation Defense, June 28, 2019)
- Nicholas Weller, School of Sustainability, Dissertation Committee Member (Expected Dissertation Defense, May 31, 2019)
- Peter Crank, School of Geographical Sciences & Urban Planning, Dissertation Committee Member
- Yuliya Dzyuban, School of Sustainability, Dissertation Committee Member
- Mohsen Garshasby Moakhar, The Design School, Dissertation Committee Member

#### Barrett Honors Students

- Kaylee Antill, The Design School, Barrett Faculty Committee Chair
- Daniel Cava, The Design School, Barrett Faculty Committee Chair
- Katryn Squyes, The Design School, Barrett Faculty Committee Chair

#### 2017 - 2018 Doctoral Students

• Saud AlKhaled, The Design School, Co-Chair of Dissertation Committee

- Leah Gibbons, School of Sustainability, Dissertation Committee Member
- Nicholas Weller, School of Sustainability, Dissertation Committee Member
- Peter Crank, School of Geographical Sciences & Urban Planning, Dissertation Committee Member
- Yuliya Dzyuban, School of Sustainability, Dissertation Committee Member
- Mohsen Garshasby Moakhar, The Design School, Dissertation Committee Member
- Melissa Davidson, School of Sustainability, Independent Study Instructor
- Taraneh Darvish, The Design School, Independent Study Instructor

#### Graduate Student Advising or Applied Project Committee

- Kristin Antkoviak, The Design School, Applied Project Committee Chair
- Nicholas Knoebel, The Design School, Applied Project Committee Chair
- Catherine Ruggiero, The Design School, Applied Project Committee Chair

#### Barrett Honors Students

- Crystal Peralta, The Design School, Barrett Faculty Committee Chair
- Patricia Ronczy, The Design School, Barrett Faculty Committee Chair
- Martha Weber, School of Sustainability, Barrett Faculty Committee Chair

#### 2016 - 2017 Doctoral Students

- Saud AlKhaled, The Design School, Primary Faculty Mentor
- Leah Gibbons, School of Sustainability, Co-Chair of Dissertation Committee
- Nicholas Weller, School of Sustainability, Dissertation Committee Member
- Aysegul Akturk, The Design School, Faculty Mentor
- Jiahuan Zhu, The Design School, Faculty Mentor

#### Graduate Student Advising or Applied Project Committee

- James Roche, The Design School, Applied Project Committee Chair
- Paula Wheeler, The Design School, Applied Project Committee Member
- Katherine Bradford, The Design School, Independent Study Instructor

#### 2015 – 2016 **Doctoral Students**

• Leah Gibbons, School of Sustainability, Co-Chair of Dissertation Committee

#### **Graduate Student Advising or Applied Project Committee**

- Jennifer Robertson, The Design School, Applied Project Committee Chair
- Peter Price, The Design School, Applied Project Committee Chair
- Xin Qu, The Design School, Applied Project Committee Chair
- Zixuan Wang, The Design School, Applied Project Committee Chair
- Christopher Robinson, The School of Sustainability, Applied Project Co-advisor
- Kaylee Colter, Science and Mathematics, College of Integrative Sciences and Arts, Thesis Committee Member

#### 2014 – 2015 Graduate Student Advising or Applied Project Committee

- Alba Rodriquez, The Design School, Applied Project Committee Member
- Xiaohui Lui, The Design School, Thesis Committee Member

### Awards Won by Students Under My Mentorship

- **Oral Presentation Honourable Mention Award,** 10th International Conference on Urban Climate (August 2018), New York City, New York. Saud AlKhaled won the award for his presentation of *A Systematic Review of Urban-Induced Heat Mitigation Strategies in Hot Urban Desert.*
- First Prize in the Make the Ala Wai Awesome, Student Design Competition, the Ala Wai Watershed Partnership (June, 2017). Team members were Kristin Antkoviak (MLA), Olga Bracamontes (MUD), Leah Gibbons (SOS), Nicholas Knoebel (MLA), Chunpeng Li (MUD), Catherine Ruggiero (MLA), Nicholas Weller (SOS) and Chandler Willie (MUD). Instructors for the studio were sustainability scientists Chingwen Cheng, Paul Coseo and Darren Petrucci. Retrieved from http://www.alawaichallenge.org/, https://sustainability.asu.edu/news/archive/asu-hawaii-green-growth-collaboration-receives-top-awardsmake-ala-wai-awesome-design-competition/
- Excellence in Landscape Architecture, Hawai'i Chapter of the American Society of Landscape Architects. Team members were Kristin Antkoviak (MLA), Olga Bracamontes (MUD), Leah Gibbons (SOS), Nicholas Knoebel (MLA), Chunpeng Li (MUD), Catherine Ruggiero (MLA), Nicholas Weller (SOS) and Chandler Willie (MUD). Instructors for the studio were sustainability scientists Chingwen Cheng, Paul Coseo and Darren Petrucci. Retrieved from http://www.alawaichallenge.org/, https://sustainability.asu.edu/news/archive/asuhawaii-green-growth-collaboration-receives-top-awards-make-ala-wai-awesome-design-competition/
- Award of Excellence Student Collaborative, Arizona Chapter of the American Society of Landscape Architects (AZASLA) (April 16, 2016). Anna Chen, Vincent Chung, and Nathaniel Kirby in my co-taught LDE 461 course won an AZASLA Award of Excellence for the Lehi Green Link project. Retrieved from http://azasla.org/award-winners/lehi-green-link/

## **Student Presentations at Professional Meetings**

Arizona Roads and Streets Conference Presentation, Coseo, P., and Hargrove, A., Zubi, A., Deeb, M. A. (March 24, 2016). Bike and Ped, it is all about cooperation presentation. Co-presenting with the City of Mesa, Allyce Hargrove and students of LDE 461. Roads and Streets Conference 2016, Tucson, Arizona. Retrieved from http://www.acecaz.org/files/roads/2016\_roads\_&\_streets\_program\_-\_final\_160329id27.pdf

## Service – Landscape Architecture Program

2022-present	<b>Program Head</b> . The Landscape Architecture, Urban Design, and Environmental Design Program, Arizona State University, Tempe.
2018	Visiting Faculty Search Committee. The Landscape Architecture Program, Arizona State University, Tempe.
2015-present	Social Media Coordinator, The Landscape Architecture Program, Arizona State University, Tempe.
2015	Visiting Faculty Search Committee. The Landscape Architecture Program, Arizona State University, Tempe.
2014	<b>Landscape Architecture Program Recruitment Trips</b> to Colorado State University and University of Colorado Denver, November 2014.

## Service – The Design School

2018-2019 **ReDesign Research Committee**, committee member. The Design School, Arizona State University, Tempe.

2016-present	<b>Urban Land Institute Hines Competition</b> , faculty advisor. National student design competition (http://uli.org/programs/awards-competitions/hines-student-design-competition/) The Design School, Arizona State University, Tempe.
2015-2018	<b>Social Media Committee</b> , Landscape Architecture committee member. The Design School, Arizona State University, Tempe.
2015-2016, 2019-2022	<b>Executive Committee</b> , committee member. The Design School, Arizona State University, Tempe.
2016	<b>Dust Kingdom Exhibition and Lecture</b> , co-host faculty, The Design School, Arizona State University, Tempe.
2015-2016	<b>Resilient Design Speaker Series Committee,</b> Landscape Architecture committee member. The Design School, Arizona State University, Tempe.
2014-2015	<b>Design Details Speaker Series Committee,</b> Landscape Architecture committee member. The Design School, Arizona State University, Tempe.
2014-2015	<b>Sustainability Advisory Committee,</b> Landscape Architecture committee member. The Design School, Arizona State University, Tempe.

# Service – Herberger Institute for Design and the Arts (HIDA)

2019-2020	<b>Creativity, Place and Equitable Communities 2019 Faculty Academy</b> , Faculty participant. Creative Place Making Institute, HIDA, Arizona State University, Tempe. A series of workshops to develop pedagogy and research for the new Creative Place Making Institute. HIDA, Arizona State University, Tempe.
2018-2019	HIDA Undergraduate Curriculum Committee, Faculty participant.
2015	LDE 590 Service-learning for HIDA Creative Campus (the Sandbox) Studio Project, co-taught with Darren Petrucci. HIDA, Arizona State University, Tempe.
2015	<b>Place &amp; Atmosphere Symposium</b> , organizing committee member, co-PI's were Dehlia Hannah and Christopher Roberts. Arts, Media, and Engineering, HIDA, Arizona State University, Tempe.

# Service – Arizona State University

2017-2020	<b>ASU Open Door</b> (formally Night of the Open Door). Faculty contributor for helping organize the event for The Design School and the Landscape Architecture Program. Arizona State University, Tempe.
2017- present	<b>Urban Climate Research Center,</b> Member of the leadership team. Arizona State University, Tempe.
2017- 2019	Urban Climate Research Center Student Group Advisor, Faculty lead for helping organize the student group. Arizona State University, Tempe.
2018- present	Urban Climate Research Center Annual Poster Competition, Member of the poster session organizing team. Arizona State University, Tempe.
2017- 2019	ASU Cities Campaign, member. Arizona State University, Tempe.
2016-2020	<b>Barrett, the Honors College,</b> Faculty Honors Advisor for the Landscape Architecture Program. Arizona State University, Tempe.

2015-present	<b>Green Infrastructure Working Group</b> , member. The Sustainable Cities Network. Arizona State University, Tempe
2015-2016	<b>Regional Green Organics Landfill Diversion System Design</b> , faculty contributor. Resource Innovation and Solutions Network within the Walton Sustainability
	Solutions Initiative. Arizona State University, Tempe

## Service – Phoenix Metropolitan Area

2016	The Desert Botanical Gardens Desert Landscape School, Desert Design Book Chapter, manuscript reviewer
2016	LDE 590 Service-learning for White Tank Conservancy's Braiding the Buckeye Bands Studio Project, co-taught with Darren Petrucci. The Design School, Arizona State University, Tempe.
2015	LDE 461 Service-learning for Mesa's The Landing at Lehi Falls Studio Project, co- taught with Allyce Hargrove. The Design School, Arizona State University, Tempe.

## Service – National

2015 - presentCouncil of Educators in Landscape Architecture (CELA), abstract reviewer for the annual conference.2016 - presentLandscape Research Record, manuscript reviewer2014Advances in Meteorology, manuscript reviewer2014Energy Efficiency, manuscript reviewer2014Landscape and Urban Planning, manuscript reviewer (two article reviews)	2016 - 2022	Council of Educators in Landscape Architecture (CELA), co-chair CELA Design Implementation Track for CELA Conferences
2016 - presentLandscape Research Record, manuscript reviewer2014Advances in Meteorology, manuscript reviewer2014Energy Efficiency, manuscript reviewer2014Landscape and Urban Planning, manuscript reviewer (two article reviews)	2015 - present	<b>Council of Educators in Landscape Architecture (CELA)</b> , abstract reviewer for the annual conference.
2014Advances in Meteorology, manuscript reviewer2014Energy Efficiency, manuscript reviewer2014Landscape and Urban Planning, manuscript reviewer (two article reviews)	2016 - present	Landscape Research Record, manuscript reviewer
2014Energy Efficiency, manuscript reviewer2014Landscape and Urban Planning, manuscript reviewer (two article reviews)	2014	Advances in Meteorology, manuscript reviewer
2014 <i>Landscape and Urban Planning,</i> manuscript reviewer (two article reviews)	2014	Energy Efficiency, manuscript reviewer
	2014	Landscape and Urban Planning, manuscript reviewer (two article reviews)

## Memberships

Arizona Chapter of the American Society of Landscape Architects, member since 2014

Council of Educators in Landscape Architecture, member since 2014

Urban Land Institute, member since 2017

# **P**rofessional Development

2019-2020	<b>The Studio for Creativity, Place and Equitable Communities Leadership Academy.</b> I was nominated and accepted to join the academy. As part of the Leadership Academy, I worked on my leadership skills and develop strategic research areas for ASU and its partners including a successful collaborative proposal to Robert Wood Johnson Foundation.
2019-2020	Arizona State University Peer Leadership Academy. I was nominated and accepted to join PeerLA. As part of the Peer Leadership Academy, I will develop work on my leadership skills and develop strategic research areas for ASU and its partners.

#### Arizona State University Team Leadership Academy, Cities Team (TeamLA,

**Cities).** I was nominated and accepted to join TeamLA, Cities by Christopher Boone. As part of the Leadership Academy, our team developed strategic research areas for ASU and its partners. I am part of an interdisciplinary team that will develop a plan for innovative research in cities and urbanization.