# Bo Pang

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## Research/Teaching Specialization

Geospatial Analysis; Geodesign; Climate Change; Coastal resilience; Landscape intervention; Wetland Carbon Dynamic & Ecosystem services.

## Education

PhD, Landscape Architecture, University of Illinois Urbana–Champaign (UIUC), expected 2026

Dissertation: "Evidence to implementation: translating environmental science into actionable design strategies for climate adaptation and mitigation in water-centric landscapes." Advisor: Prof. Brian Deal

Master of Landscape Architecture, UIUC, 2020

B.A., Film & Television Photography/Production (minor: TV Editing & Directing), Communication University of China, 2017

## Academic Appointments

Associate Director, Land Use Evolution & Impact Assessment (LEAM) Lab, UIUC, 2025–present

Teaching Assistant & Lead Instructor, LA 437 Regional Design Studio, UIUC, Fall 2023 &2024

Research Assistant, Smart Energy Design Assistance Center (2020–2024)

## Publications

### Peer Reviewed

Pang, B., & Deal, B. (2025). Integrating Land-Use Modeling with Coastal Landscape Interventions: A Framework for Climate Adaptation Planning in Dalian, China. Sustainability, 18(1), 370.

Pang, B., & Deal, B. (2025). Bridging Design and Climate Realities: A Meta-Synthesis of Coastal Landscape Interventions and Climate Integration. Land, 14(9), 1709.

Pang, B., & Deal, B. (2024). Wetland Carbon Dynamics in Illinois: Implications for Landscape Architectural Practice. Sustainability, 16(24), 11184.

Pang, B., & Deal, B. (2024). A Review on the Use of Geodesign Processes in Managing Flood Vulnerability. Land, 13(6), 723.

### In Progress

Pang, B. (projected 2026). Wetland Habitat Quality Assessment in Illinois: Translating Ecological Science into Design Guidance (manuscript in preparation).

Pang, B. (projected 2026). Teaching the Science-to-Design Translation: Studio Pedagogy for Climate Resilience in Vulnerable Communities.

Pang, B. (2026) From Scenarios to Sections: A Parameter Framework for Sea Level Rise–Responsive Design (CELA conference presentation).

### Conference Presentations

Pang, B. (2026, March). From scenarios to sections: A parameter framework for sea level rise–responsive design. CELA 2026 Annual Conference, Cincinnati, OH.

## Teaching

### Courses Taught

LA 437 in FALL 2024: Evidence-Based Design Toward & Beyond Urban Resilience — Lead Instructor, UIUC
(5-credit senior studio; 18 students)

- Implemented the International Geodesign Collaboration framework as the studio's organizing methodology, guiding 18 students through iterative cycles of regional analysis, scenario evaluation, and design intervention for underserved Chicago neighborhoods
- Facilitated evidence-based design process connecting International Geodesign Collaboration methodologies with community engagement, helping students connect climate vulnerability assessments and stormwater modeling to site-specific resilience strategies grounded in environmental justice priorities

### Courses Assisted

LA 437 in FALL 2023: Regional Design Studio — Teaching Assistant, UIUC
(5-credit senior studio; 17 students)

- Developed and delivered ArcGIS Pro lab modules teaching students spatial analysis techniques for regional-scale environmental assessment, including stormwater flow modeling, heat vulnerability mapping, and canopy coverage analysis
- Supported studio instruction through desk critiques and technical assistance, helping students navigate the iterative process from regional analysis to site design while maintaining focus on evidence-based decision-making and community impact

### Course Contributions

Studio jury service and guest instruction.

- Jury member, LA 537 & LA 437 Regional Planning Studios
- Guest lecturer, LA 537 Regional Planning Studio

### Courses Prepared to Teach

Design Studios (foundations–advanced; urban/regional); Geospatial Methods for Landscape (ArcGIS Pro, R/Python); Geodesign; Planting & Ecological Design; Blue–Green Infrastructure & Climate Adaptation; Urban Planning, Design and Equity; Research Design & Methods.

## Research

**Illinois Natural & Working Lands (NWL+) Plan (2025–present)**
Associate Director / Lab Coordinator, LEAM Lab

- Technical Lead. Illinois landscape carbon dynamics & ecosystem services analyses; coordinate multi-project workflows; support grant development; mentor graduate researchers; co-develop stakeholder survey & preliminary analytics.

**Study from Ph.D. dissertation (2020-present)**

Integrating Land-Use Modeling with Coastal Landscape Interventions: A Framework for Climate Adaptation Planning in Dalian, China. Sustainability, 18(1), 370.(2025)

- Coupled LEAM land-use simulation with sea level rise and flood vulnerability modeling to evaluate coastal landscape intervention typologies; re-simulated to assess flood reduction outcomes and urban development redistribution from protected sites
- Conducted stakeholder interviews with municipal planners and landscape architects in Dalian to assess implementation barriers, regulatory contexts, and local design practices for coastal resilience (manuscript in preparation)

Bridging Design and Climate Realities: A Meta-Synthesis of Coastal Landscape Interventions and Climate Integration (2025)

- Synthesized 123 coastal design projects worldwide to identify how climate science translates into landscape practice, informing the dissertation's modeling-to-design framework

Wetland Carbon Dynamics in Illinois: Implications for Landscape Architectural Practice (2023–2024)

- Analyzed carbon flux rates across 13 wetland types statewide using National Wetlands Inventory data; translated findings into design guidance for Net Zero landscape goals

Geodesign Processes for Flood Vulnerability Management (2023–2024)

- Evaluated geodesign methodologies for developing accessible flood vulnerability indices for landscape and environmental planning practitioners

AI in Stakeholder Surveys (2025)- Studied the use of AI in preparing stakeholder surveys

- Co-developed stakeholder survey using AI tools to refine questions and reduce bias; analyzed responses from 250+ Illinois organizations to identify priority areas for state climate planning

**Research Assistant in Smart Energy Design Assistance Center (2020–2024)**

• Conducted on-site energy assessments and building energy benchmarking for Illinois municipalities; developed online energy code training content; performed GIS-based spatial analysis supporting municipal climate action planning

## Honors & Awards

Conference Travel Scholarship, Landscape Architecture Executive Fund, UIUC (2026)

Sigma Lambda Alpha Honor Society, Psi Chapter (2020)

ASLA National Honor Award: Student Collaboration (2019) — "Before the City, There Was the Sand: Designing Rainwater in Calumet City for a Resilient Calumet TERRAIN"

## Professional Memberships & Service

Ph.D. Student Representative, UIUC Department of Landscape Architecture (2022)

American Society of Landscape Architects (ASLA)

International Geodesign Collaboration (IGC)