

# Yanhua Lu Curriculum Vitae

Ph.D. in Design candidate, Graduate Research & Teaching Assistant

College of Design, North Carolina State University

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Portfolio: [https://issuu.com/yanhualu/docs/yanhua\\_lu\\_portfolio](https://issuu.com/yanhualu/docs/yanhua_lu_portfolio)

## Research Interests

Walkability, Smart City, Immersive technology in urban design, Urban Revitalization, Community Advocate Design, Design for Social and Environmental Justice, Public Health and Well-being

## Education

2019 – present	<b>Ph.D. in Design</b> North Carolina State University
2019 - 2021	<b>Graduate Certificate in Geographic Information Systems</b> NC State Center for Geospatial Analytics
2014 - 2016	<b>Master of Landscape Architecture</b> University of Massachusetts Amherst <b>Thesis:</b> Creating a Successful Wayfinding System: Lessons Learned from Springfield, Massachusetts
2010 - 2014	<b>Bachelor of Landscape Architecture</b> Beijing Forestry University

## Academic Experience

2017/01 – 2019/05	<b>Design Researcher</b> UMass Amherst Design Center <b>Graduate Research Assistant</b>
2020/08 – present	Institute for Transportation Research and Education (ITRE), NC State
2019/08 – present	College of Design (CoD), NC State
2015/09 - 2016/12	Department of Landscape Architecture and Regional Planning (LARP), UMass Amherst <b>Graduate Teaching Assistant</b>
2022/08 - 2022/12	LAR 507 – Graduate Urban Connectivity Studio, NC State CoD
2020/01 - 2020/05	ARC 503/LAR 507 - Graduate City Planning Studio, NC State CoD

- 2016/09 - 2016/12    **RP 675 - Graduate Regional Planning Studio, UMass Amherst LARP**  
**Academic Coordinator**
- 2017/09 – 2018/05    Zube Lecture Series Coordinator, UMass Amherst LARP
- 2016/06 - 2018/05    Make-It Springfield Coordinator, Partnership with MassDevelopment and  
UMass Amherst Design Center
- 2016/09 - present    **Guest Critic of Design Studios**  
ARC 503/LAR 507 City Planning Studio, NC State CoD  
LAR 507 - Landscape Architecture Introduction Design Studio, NC State CoD  
LAR 604 - Urban Design Studio, UMass Amherst LARP  
LAR 297A - Fundamentals: Spaces & Landscape Media Studio, UMass Amherst

## Professional Experience

- 2015/11 - 2019/05    **Urban Designer**  
UMass Amherst Design Center
- 2017/01    **Assistant Landscape Designer**  
With Dr. Jack Ahern, for Resilience Garden project - A Master Garden  
Design for the 11th China (Zhengzhou) Garden Expo
- 2015/06 – 2015/08    **Assistant Landscape Designer Intern**  
Historical and Cultural City Research Center of Tsinghua University  
Planning and Design Institution, Beijing, China
- 2012/06 - 2012/08    **Assistant Landscape Designer Intern**  
Ling Xing Landscape Design Co.,Ltd., Ezhou, China

## Research & Design Projects

### Urban Applications of Innovative Intersection Designs

2020/01 – present

Client: North Carolina Department of Transportation (NCDOT)  
Partnership with NC State University's Institute for Transportation Research and Education (ITRE) and the Metro Analytics, this funded research project aims to examine the strengths and weaknesses of intersection types in helping transition "suburban roads" into livable, functional urban streets that manage the high traffic loads, foster walkable mixed-use development, encourage walking behavior, and benefit public well-being at urban-level densities.

### Downtown Masterplan and Study, Angier, NC

2019/09 – present

Client: Town of Angier, NC  
The project aims to attract more people living in downtown Angier area, especially college students and young professionals. The renovation plan would provide more housing, recreation,

and business options in downtown Angier, respect the history and culture of local communities, and take advantage of the residual spaces.

### **Virtual Community Participation During Pandemic at Durham, NC**

2020/08 – 2021/09

Client: Northgate Park Neighborhood Association (NPNA) Durham, NC

This project develops post-pandemic participatory design tools, that empowers the historic black community in communicating their needs and expectations visually in a more effective way. The process also intends to influence the developer's proposal and reduce gentrification by helping the community develop the alternative plans, which influence the future development and the provision of affordable housing, resident-centered open spaces, pedestrian-oriented configurations, and stormwater management.

### **Pre and Post Installation Evaluation for the Pedestrian Wayfinding Project, Springfield, MA**

2015/11 – 2018/08

Client: City of Springfield Planning Department, MA

The Pedestrian Wayfinding Pilot Initiative is the tactical installation for a later long-term pedestrian wayfinding signage project, in order to improve public health by encouraging people to walk more. The evaluation was based on surveying on random pedestrian in downtown Springfield before and after the installation, to understand what could encourage pedestrian to walk more, and how can they benefit from the wayfinding system.

### **Research on Makerspaces Management and Coordination**

2016/06 – 2018/04

Partnership: MassDevelopment, UMass Amherst Design Center

Make-It Springfield is a maker space implemented for the communities in Springfield, including elderly, children, and teenagers. It provides workshops and activities that allows the community to share and learn skills, and socializing. The space is cooperated and maintained with the help of the community, and it is open to the public. We studied fifty successful makerspaces in United states, of how they run their space, and so on. We also hold several community meetings and community engagement activities with local residents and makers, to get info about what they expect from the space, and what they can do to keep the space working.

### **A New Look of the Underwood Building - Saving a Historic Building from Demolition [Preserved and Promoted]**

2018/03 – 2018/05

Partnership: UMass Amherst Design Center, Springfield Cultural District, MassDevelopment

The "Underwood Building" located in downtown Springfield has over a hundred-year history, and now at a risk of demolition. There are only a handful of building with two excellent ground level facades. We saved the historic Underwood Building from demolition by providing the drawing that demonstrate a vision of how the building suited to a walkable street regarding to historic preservation to the Springfield Historical Commission on the hearing.

## **Fat Cat Restaurant and Outdoor Dining Renovation - A New Vision for Springfield Dining District [Constructed]**

2017/02 – 2017/04

Client: City of Springfield Planning & Economic Development Department, MA

The project is a proposed renovation to an existing building in Springfield's "Dining District", including new streetscape improvement and historic building renovation. The overall plan calls for additional improvements to public spaces and restaurants in the neighborhood.

## **Branding the Marketplace [Constructed]**

2017/02 – 2017/04

Client: City of Springfield Planning & Economic Development Department, MA

The project proposed a signage design to brand the local business and create a landmark in downtown area.

## **The Resilience Garden - A Master Garden Design of 11th China Garden EXPO [Constructed]**

2017/01

Dr. Jack Ahern was invited to design a master garden for the 11th China Garden EXPO. This garden interprets and explains the concept of "resilience" where it can be experienced and understood by visitors through a sequence of four designed landscape spaces. The garden tells the story of resilience by showing, and explaining, how a landscape can sequentially: grow and develop, achieve maturity and stability, experience a change or disturbance and finally to recover to an emergent state - guided and aided by living plants and innovative landscape practices.

## **Moving Wayfinding Tactical Urbanism in Springfield, MA [Implemented]**

2016/03 – 2016/05

Downtown Springfield is nearby the Connecticut River, with a well-designed riverfront park in a walking distance. However, most people choose to drive to the riverfront since the view of the river is blocked by the elevated highway I-91. To encourage more walking, we tried to alternate people's environment perception by implementing a moving wayfinding tactical installation that inform people how close and convenience it was to get to the riverfront by walking.

## **Conference Proceedings & Oral Presentations**

**Lu, Y.** (2023, March 15-18). *A Quantitative Approach of Understanding How Augmented Reality Wayfinding Influence People's Environmental Perception* [Conference presentation]. CELA 2023, San Antonio, TX, United States.

**Lu, Y.** (2022, April 7-8). *Can Augmented Reality (AR) Wayfinding Applications Encourage more Walking Behavior?* [Conference presentation]. ConCave Ph.D. Symposium 2022: Divergence in Architectural Research at Georgia Tech, Atlanta, GA, United States. Accepted, not presented.

**Lu, Y.** (2021, September 24-25). *Engaging Vulnerable Communities During COVID-19: Northgate Mall Redevelopment in Durham, North Carolina* [Conference presentation]. Youth Forum of

“Landscape Architecture and its Frontier Intersecting Fields” & Doctoral Academic Forum of Tianjin University, Tianjin, China.

**Lu, Y.** & Yi, D.J. (2021). *“To begin with words and end up with images was a gift.” Virtual advocate design at Durham, North Carolina.* LED2LEAP online seminar: May 5, 2021.

**Lu, Y.** (2021, June 28-30). *Adapting Augmented Reality in Walkability Research and Practice* [Conference presentation]. AMPS 2021 Urban Assemblage: The City as Architecture, Media, AI and Big Data, London, United Kingdom. Accepted, not presented.

**Lu, Y.** (2021, May 19-23). *Effect of Augmented Reality Pedestrian Wayfinding Applications on Walking Experience* [Conference presentation]. EDRA 52, Detroit, MI, United States.

**Lu, Y.** & Mao, M. (2021, May 19-23). *Walking with Augmented Reality (AR): How AR Wayfinding Applications Influence People’s Perception of Open Spaces?* [Conference presentation]. EDRA 52, Detroit, MI, United States.

**Lu, Y.** & Yi, D.J. (2021, May 19-23). *“To begin with words and end up with images was a gift.” Virtual advocate design at Durham, North Carolina* [Conference presentation]. EDRA 52, Detroit, MI, United States.

Pasalar, C., Boone, K., Yi, D.J., **Lu, Y.**, McNally, M., Hester, R. (2021, May 19-23). *Time is a Mess! Virtual Community Participation During Pandemic* [Conference presentation]. CELA 100+1, Detroit, MI, United States.

**Lu, Y.** (2020, March 18-21). *Can Pedestrian Wayfinding Signage Improve Walkability? A Case Study in Springfield, Massachusetts* [Conference presentation]. CELA 2020, Louisville, KY, United States.

**Lu, Y.** (2020, April 4-7). *Would the Cognition of Relationship between Walking Distance (How Far in Miles) and Time (How Long in Time) Make People Walk More?* [Conference presentation]. EDRA 51, Tempe, AZ, United States.

**Lu, Y.** (2019, November 15-17). *How Pedestrian Wayfinding Contribute to the Smart Growth in Legacy Cities: Lessons Learned from Springfield, MA.* [Conference presentation]. The 4th International Symposium of the PhD Program at IIT in collaboration with the Architectural Research Centers Consortium (ARCC), Chicago, IL, United States.

## **Publications**

Pasalar, C., Hallowell, G. D., & **Lu, Y.** (2020). Smart cars, smart cities, and smart sharing: The changing nature of urban public spaces. *Humanizing cities through car-free city development and transformation* (pp. 72-98) IGI Global. doi:10.4018/978-1-7998-3507-3.ch003

**Lu, Y., & DiPasquale, M.** (2020). How pedestrian wayfinding contribute to the smart growth in legacy cities: Lessons learned from Springfield, MA. *Prometheus Journal*, 4.

**Lu, Y.,** (2016). Creating a Successful Wayfinding System: Lessons Learned from Springfield, Massa- chusetts. *Landscape Architecture & Regional Planning Masters Projects*. 86.

**Lu, Y., Sai, J.,** (2013) “Research on Image of Literati Gardens in Tang and Song Dynasties” [J]. *Urban Construction Theory Research*, 10, 24-25.

## Reviewers

2019 - present      Environmental Design Research Association (EDRA) Conferences  
2019 - present      Council of Educators in Landscape Architecture (CELA) Conferences  
2021                    Architecture, Media, Politics, Society (AMPS) 2021 Urban Assemblage:  
The City as Architecture, Media, AI and Big Data Conference

## Leaderships & Memberships

2020 - 2021            **President** of PhD in Design Student Association  
College of Design, North Carolina State University  
2012 - 2013            **President** of Student Affairs Center  
School of Landscape Architecture, Beijing Forestry University  
2014 - present        Student American Society of Landscape Architects (ASLA) **membership**  
2019 - present        Student Environmental Design Research Association (EDRA) **membership**  
2019 - present        Council of Educators in Landscape Architecture **membership**

## Honors & Awards

2019 - present        NC State University Graduate Research Assistantship  
2021                    Tianjin University Doctoral Symposium Outstanding Paper Awards  
2021                    EDRA Nana Kirk Student Travel Scholarship  
2019 - 2023            NCSU CoD PhD Student Travel Scholarship  
2019 - 2020            NC State University Provost’s Doctoral Fellowship  
2015 - 2016            University of Massachusetts Academic Scholarship  
2013 - 2014            Beijing Forestry University Outstanding Student Leader Award  
2012 - 2013            Beijing Forestry University Outstanding Student Scholarship

## **Technical Skills**

ESRI (ArcGIS Online, ArcMap, ArcGIS Pro, Business Analyst, App Builders), QGIS, Adobe Creative Cloud (Photoshop, Illustrator, InDesign, Lightroom), AutoCAD, SketchUp, Rhino, Lumion, Tableau, Python, SAS, Qualtrics, Microsoft Office (Word, Excel, PowerPoint, Outlook)