

Architecture
Across
Boundaries

2024

Conference Program

Xi'an Jiaotong-Liverpool University
Aug 30 - Sept 1, 2024

Architecture Across Boundaries

2024

Keynote Speakers



Asterios Agkathidis
University of Liverpool



Andong Lu
Nanjing University



Elena Manfredini
Southern California
Institute of Architecture



Farrokh Derakhshani
Aga Khan Award for
Architecture

Themes

Theme 1: Mapping New Typologies of Hybrid Spaces

Theme 2: Architectural Education and Professional Practice Across Contexts

Theme 3: Computational Design and Digital Fabrication Without Boundaries

Theme 4: Systemic Approaches to Architectural Design

Theme 5: Urban Prosthetics Across Technology and Morphology

Friday, August 30th

08:00–09:00 Session 1: Registration

LOCATION: [IA GF Lobby](#)

09:00–09:30 Session 2: Opening remarks

LOCATION: [IA G08](#)

09:30–10:30 Session 3: Keynote 1 – Farrokh Derakhshani

LOCATION: [IA G08](#)

10:30–11:00 Coffee Break

11:00–12:30 Session 4A: Global and Local Practices

Architectural Education and Professional Practice Across Contexts

CHAIR: [Lei Feng](#)

LOCATION: [IA 103](#)

- 11:00–11:30 Francesco Carota and Giulia Montanaro. Navigating the Nexus of Global Design Practices and Local Construction Realities. An Exploration into the Collaborative Architectural Endeavors within the Framework of Belt and Road Initiative (BRI)
- 11:30–12:00 Yizhuo Gao, Gangyi Tan and Qiuli Xue. Building for Cold War Confrontation: Independent Exploration and Knowledge Transfer in the Third Front Construction
- 12:00–12:30 Jiawen Han. Can public space system functions succeed across boundaries? A comparative study of the urban planning practices in Suzhou Industrial Park and Singapore

11:00–12:30 Session 4B: Design Process

Computational Design and Digital Fabrication Without Boundaries

CHAIR: [Mia Tedjosaputro](#)

LOCATION: [IA 107](#)

- 11:00–11:30 Elien Vissers-Similon and Theodoros Dounas. Textual and visual interpretation in a text-to-image accelerated design process
- 11:30–12:00 Zhelun Zhu. Design Process Automation and Enhancement: A Collaborative Framework Based on Generative Design and BPMN
- 12:00–12:30 Mike Louw, Gerhard Bruyns and Daniel Elkin. Hybrid tectonics: The digital, the analogue and the ethics of encounter

11:00–12:30 Session 4C: Design Cybernetics

Systemic Approaches to Architectural Design

CHAIR: [Silvia Albano](#)

LOCATION: [IA 121](#)

- 11:00–11:30 Shucen Liu and Claudia Westermann. Assemblage and anti-communication: Strategies for systemic approaches to spatial design

11:30-12:00 Chitraj Bissoonauth, Thomas Fischer and Christiane M. Herr. Extended Linkography to Scrutinise the Distinction Between Epistemic and Pragmatic Actions in Design

12:00-12:30 Guillermo Sánchez Sotés, Thomas Fischer and Christiane M. Herr. A Method for Examining the Merits of Theory Appropriation in Architecture

12:30-13:30 Lunch Break: Green Bazar (IA Building)

14:00-16:00 Session 5A: Hybrid Data

Mapping New Typologies of Hybrid Spaces

CHAIR: Deborah Middleton

LOCATION: IA 103

14:00-14:30 Rupert Griffiths. Sensing the luminous night: Innovations in capturing and communicating time-based observations of environmental light across urban and rural sites

14:30-15:00 Meng Guo, Qingyi Fan and Li Tan. Night Joggers' Choice: How Do Different Types of Street Artificial Lighting Affect the Comfort of Night Running Spaces?

15:00-15:30 Chengxuan Li and Xingyu Liu. Optimising Urban Morphological Tessellation: Methodological Advancements Using Adaptive Tessellation and Guided Triangulation

15:30-16:00 Li Tan, Meng Guo and Yujia Zhong. Research on Identification, Evaluation and Optimization of Informal Running Environment in High-Density Urban Areas based on Volunteered Geographic Information

14:00-16:00 Session 5B: Mixed Reality

Computational Design and Digital Fabrication Without Boundaries

CHAIR: Mia Tedjosaputro

LOCATION: IA 107

14:00-14:30 Haojie Fan, Huangyan Zheng, Xinyue Xia and Sining Wang. Artificial Intelligence-aided design and robotic fabrication in a non-standard lightweight timber pavilion

14:30-15:00 Anna Vichnevetskaia, Yiwen Wang, Yue Li and Nicholas Webb. Augmented Reality Continuum: Categorising On-Site Digital Heritage Experiences

15:00-15:30 Liang Li and Yue Li. Creating Panorama Virtual Tour Systems for the Built Environment: A Practitioner Perspective

15:30-16:00 Farkhondeh Vahdati, Mia Tedjosaputro, Asterios Agkathidis and Charles K.S. Moy. Exploring the Integration of Holographic Construction in Design for Disassembly

14:00-16:00 Session 5C: City, Territory & Society

Urban Prosthetics Across Technology and Morphology

CHAIR: [Roberto Podda](#)

LOCATION: [IA 121](#)

- 14:00-14:30 Giovanni Santamaria. TechnoScapes and Processes of Metabolic Change.
- 14:30-15:00 Gianluca Cioffi and Noemi Scagliarini. University Living Spaces: Addressing New Student Needs
- 15:00-15:30 Danxue Zhou. The Resilient City: Technological Imagination in Contemporary Chinese Science Fiction
- 15:30-16:00 Juan Carlos Dall'Asta and Lok Hang Cheung. Gardens Unveiled: Urban Landscape's Evolution from Romantic Reverie to Virtual Realities

16:00-16:30 Coffee Break

16:30-17:30 Session 6: Keynote 2 - [Elena Manfredini](#)

LOCATION: [IA G08](#)

Saturday, August 31st

09:00-10:00 Session 7: Keynote 3 – Asterios Agkathidis

LOCATION: [IA G08](#)

10:30-11:00 Coffee Break

10:30-12:30 Session 8A: Teaching Across Boundaries

Architectural Education and Professional Practice Across Contexts

CHAIR: [Lei Feng](#)

LOCATION: [IA 103](#)

- 10:30-11:00 Manlio Michieletto. Out of Africa: Learning from teaching in the cradle of humankind
- 11:00-11:30 Silvia Albano, Lan Luo, Yinyin Zhou and Na Li. Fostering Creativity, Collaboration, and Problem-Solving in Architecture Students through Digital Educational Escape Rooms
- 11:30-12:00 Mia Tedjosaputro. Architecture student profiles across different learning and teaching environment
- 12:00-12:30 Jiesi Wang, Peng Liu, Ziyang Guo, Huanyu Shen, Yun Chen and Dongchen Han. Digital Evaluation of Green Spaces in Elderly Health Residential Areas in Gusu District, Suzhou: A Case Study of Teaching Practice Employed in Green Space Design Course

10:30-12:30 Session 8B: Urban Regeneration

Urban Prosthetics Across Technology and Morphology

CHAIR: [Roberto Podda](#)

LOCATION: [IA 107](#)

- 10:30-11:00 Antonella Contin and Ernesto d'Alfonso. Technology, Historical Foundations, and Sustainability in the Urban Evolution of Tomorrow's Metropolis
- 11:00-11:30 Daniele Fanzini, Nour Zreika, Cecilia Bolognesi and Angelo De Cocinis. "Phygital" reactivation of Minor Cultural Heritage
- 11:30-12:00 Veronica Ching Lee and Gerhard Bruyns. Morphogenesis of Thresholds in Hyperdense Setting: Revealing the Negotiating Techne of a 'Scaleless' Volumetric Tactics Network in Hong Kong

10:30-12:30 Session 8C: Hybrid Methods

Mapping New Typologies of Hybrid Spaces

CHAIR: [Deborah Middleton](#)

LOCATION: [IA 121](#)

- 10:30-11:00 Trevor Patt. Benchmarking Urban Clustering with Spectral Graph Analysis

- 11:00–11:30 Mengling Yan, Xiang Yu, Suyang Shen and Tiantian Zhang. Parametric-generative design research based on the perception rule of “view changes with step movements” in Master of the Nets Garden in Suzhou, China
- 11:30–12:00 Deborah Middleton. A typological survey of Adolphe Alphands' and Jean Peirre Barillet-Deschamps' plans for interstitial spaces at the Bois de Boulogne, Bois de Vincennes and Parc Monceau.
- 12:00–12:30 Jing Yang. Hapticity in Hybrid Space from an Enactive Perspective

12:30–13:30 Lunch Break: Eastern Restaurant (IA Building)

13:30–15:30 Session 9A: Digital Design

Computational Design and Digital Fabrication Without Boundaries

CHAIR: Mia Tedjosaputro

LOCATION: IA 103

- 13:30–14:00 Yu Wu, Yongxin Jiang and Xiaofang Yuan. Research on Human Data-Driven Parametric Design: Personalized Customization of Seating
- 14:00–14:30 Dongchen Han, Wuji Zhao, Peng Liu, Sining Wang and Jiesi Wang. Design Strategies for Permanent Modular Construction (PMC) Oriented to Rapid Construction—A Case Study of Aurora in Solar Decathlon China 2021
- 14:30–15:00 Zhehui Chen, Davide Lombardi and Theodoros Dounas. Application of immersive technologies in architectural design education for timber joint design: a critical review

13:30–15:30 Session 9B: Measuring Urban Development

Urban Prosthetics Across Technology and Morphology

CHAIR: Roberto Podda

LOCATION: IA 107

- 13:30–14:00 Andrea Iacomoni and Chiara Giraldi. Beyond the border of the historic city. Towards Genova smart city
- 14:00–14:30 Nan Yang and Xiaoling Dai. Measurement and Visualization for Walkable Innovation District—Case Study Hangzhou, China
- 14:30–15:00 Zhang Yuzheng, Li Guopeng, Shi Guochong and Zhang Chunjie. Research on the Multidimensional Determination System for External Demand of Historical District Regeneration Based on ArcGIS and Open Source Data —A Case Study of Dalian Liansuo Street Historical District
- 15:00–15:30 Minjoo Baek. Revitalising Suzhou's Water Canal Heritage: A Community-Centred Approach for Cultural Preservation and Social Sustainability

13:30–15:30 Session 9C: Design Thinking

Systemic Approaches to Architectural Design

CHAIR: Silvia Albano

LOCATION: IA 121

- 13:30-14:00 Aaron Paterson, Marian Macken and Sarosh Mulla. Undisciplined: The Afterlife of Speculative Drawings
- 14:00-14:30 Siqi Deng and Claudia Westermann. Reweaving Shiyi: A Case Study of Riverside Passage by Atelier Deshaus
- 14:30-15:00 Giancarlo Di Marco and Juan Carlos Dall'Asta. Micro-landscapes – Material's texture in architecture as memory's imprint
- 15:00-15:30 Isabel Clara Neves. Digital Processes to Conscious Innovation in the Built Environment

15:30-16:00 Coffee Break

16:00-17:30 Session 10A: Bamboo & Education

Architectural Education and Professional Practice Across Contexts

CHAIR: Siti Balkish Roslan

LOCATION: IA 103

- 16:00-16:30 Siti Balkish Roslan, Mia Tedjosaputro and Anastasia Maurina. From Theory to Practice: A Discussion of Bamboo and Tectonic Thinking in Architectural Education
- 16:30-17:00 Anastasia Maurina, Alvin Komar, Mia Tedjosaputro and Siti Balkish Roslan. Bridging Theory and Practice of Advanced Bamboo Structures: A Pedagogical Framework for Teaching, Research, and Service Learning in Architectural Education
- 17:00-17:30 Veronica Ng, Yan Yee Chang and Lok Boon Thian. Impact-driven architectural design curriculum: The Case of My Bamboo Urban Placemaking Project

16:00-17:30 Session 10B: Technology & Ecology

Systemic Approaches to Architectural Design

CHAIR: Silvia Albano

LOCATION: IA 107

- 16:00-16:30 Annan Zuo. Design with Care: An Empathetic Response Towards Wicked Problems – A Case Study of the Satoyama Landscape in Kyoto
- 16:30-17:00 Xiaohan Chen, Yiping Dong and Peta Carlin. New Chinese Socialism and Building Industrialization: Exploring Chinese Socialist Architectural Design Strategies in the Late 1950s through Architectural Journal
- 17:00-17:30 Qixuan Hu. Speculative Inconstancy: Exploring the Architectural Potential of Porosity

16:00-17:30 Session 10C: Hybrid Spaces

Mapping New Typologies of Hybrid Spaces

CHAIR: [Deborah Middleton](#)

LOCATION: IA 121

- 16:00-16:30 Alessia Panepucci. Inhabiting infrastructure through the centuries: two hybrid bridges in Florence
- 16:30-17:00 Vincent Peu Duvalon and Miao Zhang. Spaces of Mass Speculation: Urban Mutations and Controversies in Suburban Villages, China.
- 17:00-17:30 Shengsi Li and Han Wang. Practical Research on Elastic Design Concepts in Mixed Space Transformation of Old Factory Buildings

17:30-18:30 Session 11: Keynote 4 - Andong Lu

LOCATION: [IA G08](#)

19:00-21:30 Networking Dinner

LOCATION: XJTLU INTERNATIONAL CONFERENCE CENTER

Sunday, September 1st

All Day Citywalk in Suzhou (Optional)



Xi'an Jiaotong-Liverpool University
西交利物浦大学



XJTLU | DESIGN
SCHOOL

RIBA

