

Intelligent Superblock

Tutor:	Tom Verebes, Visiting Scholar Xiaochao Chen, Assistant Professor
Number of participants:	15 students
Studio Time:	16 SEP to 06 NOV, Wed 13:30-17:05 & Fri 13:30-17:05
Studio Place:	/
First Meeting:	SEP. 16 2026, Wed. at 13:30-17:05

STUDIO OBJECTIVES: Prototypical, Visionary & Fictive Design

This studio investigates the superblock cities of China within the extended urban regions of Jing-Jin-Ji (JJJ), the Yangtze River Delta (YRD), and the Greater Bay Area (GBA). Via a data-driven approach to intelligent design, we will research existing Chinese megacities to discover the seeds which have proliferated their vast urbanism. The superblock will be studied not simply as a configuration of buildings, but as multi-layered urban systems comprising density, massing, section, spatial ratios, land use, green and blue resilient systems, street hierarchy, infrastructural networks, and patterns of movement and flow.

The aim of this studio is to identify the spatial, morphological and infrastructural attributes that distinguish different superblock conditions across China's extended metropolitan regions, documenting urban dataset of spatial patterns that will subsequently become the basis for generative artificial intelligence, parametric modelling, the prototyping of new urban and architectural configurations, and the story telling of their potential experiences. This studio will develop an information-based approach to embedding intelligence into its methods, innovating and experimenting with the superblock as an urban and architectural spatial unit. Although student teams will mine a

multiplicity of existing sites within Chinese cities, this studio will rather focus on prototypical, visionary, and fictive design outcomes, not targeted towards a given specific site for the studio.

Generative Urbanism Workshop, DigitalFUTURES 2026. Dong Zilin, Wang Yingzi (students); Tom Verebes (instructor), Zhang Jiaxi (TA).

THE SUPERBLOCK: A Chinese History & Context

The Chinese superblock has a long genealogy within Chinese urbanism, evolving from the traditional *lifang* (里坊) system of bounded urban territories, through Soviet-influenced large-block planning of the 1950s,

and the *danwei* (单位) work-unit compounds that integrated housing, employment and collective facilities within defined precincts. With the marketization of housing and rapid urbanization from the 1980s onward, these spatial models were transformed into the large-scale residential and mixed-use *xiaoqu* (小区), increasingly organized around arterial road hierarchies and developed as discrete parcels within expanding metropolitan regions. The resulting superblock became not simply an architectural or morphological unit, but a commodified and monetized, traffic-engineered infrastructural and urban unit regulated through zoning. The superblock in contemporary urbanism mediates between metropolitan flows and localized patterns of movement, development and everyday life. Although recent Chinese planning policy has sought to replace large, enclosed superblocks with smaller blocks and denser street networks biasing pedestrian spaces, the superblock remains one of the defining spatial structures of contemporary Chinese urbanization.

PROTOTYPING THE SUPERBLOCK: Methodologies, Work Stages, and Expected Outcomes

This studio introduces skills, resources, and methods with which to engage in design research on the urban and architectural unit of the superblock. Sourced from three urban regions of China, information will be mined and investigated and targeted towards the formation of prototypical, visionary and fictive superblocks.

STAGE 1: Archive & Database

Each team will catalogue nine (9) different superblocks in three (3) cities (in JJJ, YRD, GBA) as the basis for the first exercise in documentation and research to develop an archive and database for each team. These will be documented through figure-ground plans, axonometric drawings, sections, satellite imagery, street-level imagery, and a comparative database of urban and infrastructural metrics, including density, massing, section, green and blue resilient systems, infrastructural hierarchy and flows, etc.

- Archive of nine superblocks in each team: drawings, images, metrics

STAGE 2: Generative AI Patterns & Systems

This stage of work, the various documented drawings, diagrams, and street level images as the database for exercises using generative AI. The aim of the stage of work is to initially distil the attributes of the sampled contexts. During a further development of the stage of work, teams will speculate using prompt engineering inputs and blends with urban, architectural, cultural, and scientific references.

- Using Gen AI, each team will generate hundreds of figure ground patterns

STAGE 3: Modeling & Prototyping

Teams will import two-dimensional spatial information from the graphics generated in Stage 2 into the modeling environment of Rhino/Grasshopper. The goals of this stage of work are the following:

- To develop a set of well-functioning parametric models which can serve as the media with which to output a multiplicity of model states within a solution space.
- A set of drawings documenting the solution space of the parametric models.
- A set of small 3D Print models documenting the solution space of the parametric models.
- Videos documenting the parametric model solution space produced using Grasshopper.

STAGE 4: Urban Design Prototypes

In this design stage, teams will document a comprehensive set of drawings and models describing particular states of the prototypical proposal — non-sited, yet visionary. Teams will focus on a systems-based approach to dense, self-sustaining, pedestrian-focused superblocks, and the communication of experiencing it. Teams will imagineer the programming, use, and experience of their speculative urbanism.

- Plans, sections
- Systems-based exploded axonometric
- 3D Print models
- Large format rendering
- Video

STAGE 5: Architectural Prototypes

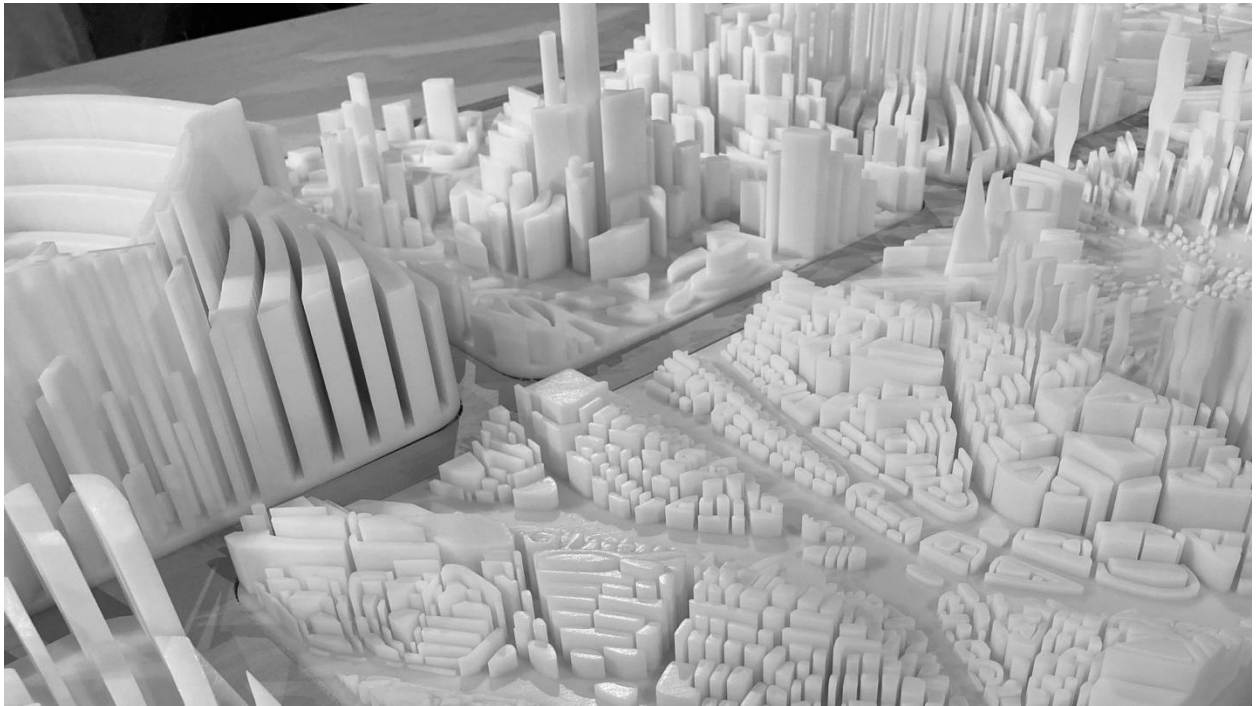
In the final stage of work teams will develop a series of architecture configurations, emphasising variations in systems, such as massing, envelopes, structural systems, interior atrium voids, integration of green and blue systems, etc. The emphasis of communicating this stage of design is on narrating the lived experience of the interior and exterior architectural spaces conceived by each team.

- Plans, sections
- Systems-based exploded axonometric
- Large format sectional 3D Print models
- Large format rendering
- Video

RESOURCES

- **Rhino / Grasshopper Definitions** to be provided
- **Databases**
 - OpenStreetMap
- **Books**
 - Matias del Campo (2022). “How Machines Learn to Plan: A Critical Interrogation of Machine Vision Techniques in Architecture” in *Neural Architecture: Design and Artificial Intelligence*. (Novato, CA: ORO Editions), pp. 132-152.
 - Paul Dobraszczyk (2019). “Introduction: Real and Imagined Future Cities” in *Future Cities: Architecture and the Imagination*. (London: Reaktion Books).

- Vicente Guallart (2014). “Aphorisms” in *The Self-Sufficient City: Internet Has Changed Our Lives but It Hasn’t Changed Our Cities, Yet.* (New York: Actar). pp. 6–21.
- Neil Leach (2022). “Chapter 7: AI and the City of the Future” in *Architecture in the Age of Artificial Intelligence: An Introduction to AI for Architects.* (London: Bloomsbury Visual Arts).
- Tom Verebes (2013). “Chapter 7: The Death of Masterplanning in the Age of Indeterminacy” in *Masterplanning the Adaptive City: Computational Urbanism in the Twenty-first Century.* (New York: Routledge).

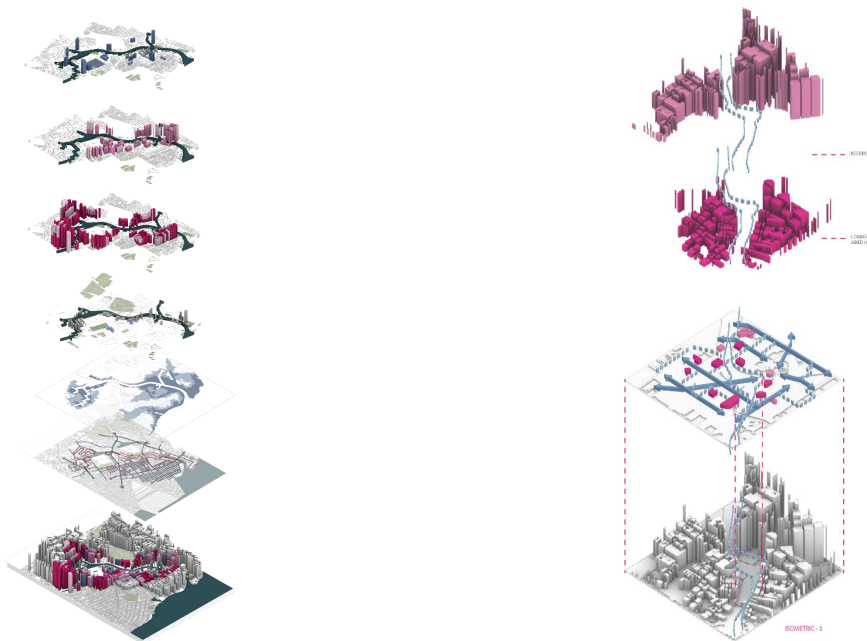


Generative Urbanism Workshop, DigitalFUTURES 2023. Tom Verebes (instructor), Gong Lei (TA).

SCHEDULE

Week	Session 1	Session 2
1	16 Sep (Wed), afternoon 13:30-17:05 Introduction Lecture / Tutorials Stage 1	18 Sep (Fri), afternoon 13:30-17:05 Tutorials Stage 1

2	23 Sep (Wed), afternoon 13:30-17:05 Pin-up Review Stage 1; Intro to Stage 2	25 Sep (Fri), afternoon 13:30-17:05 Tutorials Stage 2
3	30 Sep (Wed), morning 8:00-11:35 Pin-up Review Stage 2	02 Oct (Fri), afternoon (NO CLASS)
	30 Sep (Wed), afternoon 13:30-17:05 Introduction to Stage 3; GH Tutorials	
4	07 Oct (Wed), afternoon (NO CLASS)	09 Oct (Fri), afternoon (NO CLASS)
5	14 Oct (Wed), morning 8:00-11:30 Tutorials	16 Oct (Fri), afternoon 13:30-17:05 Midterm Review: Stages 1, 2, 3 Introduction to Stage 4
	14 Oct (Wed), afternoon 13:30-17:05 Tutorials	
	21 Oct (Wed), afternoon 13:30-17:05 Tutorials	23 Oct (Fri), afternoon 13:30-17:05 Pin-up Review Stage 4 Introduction to Stage 5
7	28 Oct (Wed), afternoon 13:30-17:05 Tutorials	30 Oct (Fri), morning 8:00-11:30 “Mock-Final Review” Pin-up
		30 Oct (Fri), afternoon 13:30-17:05 “Mock-Final Review” Pin-up
8	04 Nov (Wed), afternoon 13:30-17:05 Tutorials	06 Nov (Fri), afternoon 13:30-17:05 Final Review



Reimagining Collective Futures, New York. Shreya Sanghvi & Fariha Salsabeel (students); Tom Verebes (instructor), MS Urban Design program, NYIT-SoAD, 2023

End. Intelligent Superblock Syllabus